GW - 259

PERMITS, RENEWALS, & MODS Application

Lowe, Leonard, EMNRD

From: Lowe, Leonard, EMNRD
Sent: Friday, March 28, 2008 10:57 AM
To: 'Alberto A. Gutierrez, RG'
Cc: 'Savoie, Tony'; 'James C. Hunter, RG'; Price, Wayne, EMNRD
Subject: GW-259, C-1 SUG Compressor Station changes
Attachments: GW-259, changesletter.pdf; C-1_2007Changes.pdf

Mr. Alberto Gutierrez,

This correspondence will be scanned in to our data base system.

If you have any more questions please call me.

llowe

Leonard Lowe
Environmental Engineer
Oil Conservation Division/EMNRD
1220 S. St. Francis Drive
Santa Fe, N.M. 87505
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor
Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

March 28, 2008

Mr. Alberto A. Gutierrez,
Geolex, Inc.
500 Marquette Avenue, NW Suite 1350
Albuquerque, New Mexico, 87102

Re: Note Changes for Discharge Plan Permit GW-259
Southern Union Gas
C-1 Compressor Station
Lea County, New Mexico

Dear Mr. Gutierrez:

The New Mexico Oil Conservation Division (NMOCD) has received the information sent to our office referencing the changes/updates made to the last submitted discharge plan application for the renewal of GW-259, C-1 Compressor Station located in unit H, Section 13, Township 23 South, Range 36 East, NMPM, Lea County on behalf of Southern Union Gas LTD. We have reviewed and acknowledge the differences in information pertaining to this application.

In the interest of all parties involved in the renewal discharge plan process please ensure that all information is current and correct as much as possible upon submittal of the application to our office. Any lacking information shall be addressed during the renewal process.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3492 or leonard.lowe@state.nm.us. On behalf of the staff of the NMOCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Leonard Lowe
Environmental Engineer

xc: Mr. Larry Johnson, OCD District I Office
Mr. Tony Savoie, Southern Union Gas LTD.

Lowe, Leonard, EMNRD

From: Alberto A. Gutierrez, RG [aag@geolex.com]
Sent: Wednesday, March 05, 2008 4:21 PM
To: Lowe, Leonard, EMNRD
Cc: 'James C. Hunter, RG'
Subject: RE: Southern Union Discharge Permits Gw-259,260,261,262 and 270
Attachments: WestEunice2007Changes.doc; C-1_2007Changes.doc; C-2_2007Changes.doc; C-3_2007Changes.doc; C-4_2007Changes.doc

Leonard,
I believe that the attached should provide what you need. In section 1.0 of each document the original DP dates and submission dates for the new ones are detailed. Then the changes for each section are highlighted in red. There may be many changes that merely provide OCD with additional information and don't really affect operations and those you can ignore if you wish. However where there are changes that truly reflect what operational changes (such as new tanks or changes in chemicals used) they are detailed and those would be the main things you are searching. Since we thought that OCD would review the new submissions from scratch, we didn't really do this type of a cross reference; however, since you are trying to make the process smoother, this cross reference should help. I will call you to make sure you got these and that they provide the info that you need.

Let me know.
Alberto

Alberto A. Gutiérrez, RG
Geolex, Inc®
500 Marquette Avenue, NW Suite 1350
Albuquerque, NM 87102
505-842-8000 Ext. 105
505-842-7380 Fax

1.0 TYPE OF OPERATION

No Changes in general operation.

Discharge plan GW-259 was previously renewed by submittal on January 4, 2007 and was approved by NMOCD on January 26, 2007. The following changes were incorporated in the Geolex submittal dated December 6, 2007.

2.0 OPERATOR AND LEGALLY RESPONSIBLE PARTY

The Operator is:

Same

The Responsible Party is amended to reflect:

Southern Union Gas Services, Ltd.
Contact: Mr. Bruce Williams
301 Commerce St. Suite 700
Fort Worth, Texas 76102
Telephone: (817)-302-9421

3.0 LOCATION OF DISCHARGE/FACILITY

Amended to include:

The C-1 Station is located in Unit H (SE ¼ of the NE ¼) of Section 13, Township 23 South, Range 36 East in Lea County, New Mexico (32^0' 18.390' North, 103^0 2.841'West). This location is at an elevation of 3375 feet, approximately 9.5 miles southwest of Eunice, New Mexico (see Figures 1 and 2).

4.0 LANDOWNER

The land is owned by the State of New Mexico and is administered by the New Mexico State Land Office:

Corrected from SUGS to:

Main Office:
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501 Phone: (505) 827-5760 Fax: (505) 827-5766

Hobbs District Office:
2702-D N. Grimes
Hobbs, NM 88240 Phone: (505) 392-8736 Phone: (505) 392-3697

5.0 SITE CHARACTERISTICS

5.1 GEOLOGICAL SETTING

Expanded narrative

5.1.3 Depth to Water, Direction of Groundwater Flow and Quality

Additional information that:

...the flow of groundwater in the Ogallala aquifer in the area of C-1 is southerly at a gradient of 0.005 (approximately 25 feet per mile).

...the nearest well with information regarding depth to water is well # CP-0063 in Section 15, T23S, R36E, where the depth to water is listed as 149 feet. There is only one available water quality analyses for a well within this Township. This well, completed in the Ogallala in Section 31 of T23S, R36E shows a Total Dissolved Solids of approximately 1000 milligrams per liter (Nicholson and Clebsch, 1961, Table 8, p. 95).

5.1.4 Nearest Potential Groundwater Receptors

Update of previous (1996) list of water wells to include:

Water Wells Listed in a One-Mile Radius of SUGS C-1 Compressor Station

File #	Use	Diversion	Owner	Twns.	Rng	Sec.	Q	Q	Q	Start Date	Finish Depth	Depth	Depth to Water
CP-00491	Stock	0	U.R. Cattle Co.	23S	36E	13	4	4		na	na	na	na
CP-00538	Stock	0	U.R. Cattle Co.	23S	36E	13	4	4	1	na	na	na	na
CP-00738	Stock	0	Dinwiddie Cattle Co.	23S	36E	13	3	4		na	na	na	na
CP-00408	Stock	0	Mrs. George Weir	23S	37E	7	4	1		na	na	na	na

Provision of map showing the locations of water wells (Figure 2)

5.2 SURFACE WATER

Provision of map showing directions of surface water flow (Figure 3)

6.0 FACILITY DESCRIPTION

Revisions to include the removal of unused compressors (Figure 4)

7.0 MATERIALS STORED AND USED AT FACILITY

Revised to incorporate new tanks.

Table 7-1: Materials Stored at C-1 Compressor Station

TYPE	ID	MATERIAL	FORM	VOLUME	LOCATION	CONTAINMENT
Subgrade RFG	TK-1	Scrubber Liquids	Liquid	50 bbl	NE Area	None
AGT Steel	TK-2	Scrubber Liquids	Liquid	510 bbl	East Side	None
AGT Steel	TK-3	Engine Oil	Liquid	500 gal	South Area	On Compressor Concrete Pad
AGT Poly	TK-4	Antifreeze	Liquid	250 gal	South Side of Compressor	On Compressor Concrete Pad
AGT Steel	TK-5	Compressor Oil	Liquid	55 gal	South Side of Compressor	100 gal RFG Containment
Poly	TK-6	Pig Receiver Drip	Liquid	225 gal	South of Compressor	25 gal RFG Containment

8.0 SOURCES AND QUANTITIES OF EFFLUENT AND WASTE SOLIDS

Revised to update quantities and regulatory status and to include analytical data on wastewater.

Table 8-1: Waste Sources, Quantities and Regulatory at C-1 Compressor Station

SOURCE	TYPE OF WASTE	VOLUME	REGULATORY STATUS	STATUS DETERMINATION
Compressor	Used Engine Oil	100-200 gal/month	Non-Exempt	Non-Hazardous per 40 CFR 279.11
	Used Filters	4 per month	Non-Exempt	Non-Hazardous per 40 CFR 261.4
	Wash and storm water from Compressor pad	Washdown 75 to 100 gal/month; stormwater varies	Non-Exempt	Chemical Analysis, knowledge of process
	Sorbent/Rags	Varies	Non-Exempt	Non-Hazardous per 40 CFR 279.11
Scrubbers	Gas Liquids	Varies; 50 to 100 bbl/month	Exempt	EPA Subtitle C
Pig Wastes	Pig Solids	Varies; 55 to 110 gal/month	Exempt	EPA Subtitle C
	Hydrocarbon Liquids	Varies; 55 to 110 gal/month	Exempt	NA EPA Subtitle C
Misc. Trash	Solid Wastes	Varies	Non-Exempt	Knowledge of process

Table 8-2: Wastewater Analyses From C-1 Compressor Station

Date Sampled	3/26/2007
location	C-1 Compressor Station
Report #	7C27001
Matrix	Waste water
Destination: unknown	
Volume transported:	
Date:	

Toxicity	Analytical mg/kg	Reg limit (TCLP) mg/kg	Determination
Benzene	0.00176	0.5	Non-hazardous
Mercury	ND	0.2	Non-hazardous
Arsenic	J(0.00900)	5.0	Non-hazardous
Barium	0.0297	100.0	Non-hazardous
Cadmium	J(0.00260)	1.0	Non-hazardous
Chromium	0.0169	5.0	Non-hazardous
Lead	0.0043	5.0	Non-hazardous
Selenium	0.0884	1.0	Non-hazardous
Silver	J(0.000962)	5.0	Non-hazardous
Reactive			
Cyanide	ND	250.0	Non-hazardous
pH	6.30 pH units	<2 or >12.5 pH units	Non-hazardous
Sulfide	ND	500.0	Non-hazardous
Ignitability	>85 deg. C	<60 deg C	Non-hazardous

9.0 LIQUID AND SOLID WASTES COLLECTION, STORAGE AND DISPOSAL

Updated regarding removal and disposal and contractor(s).

Table 9-1: Collection, Storage, Removal and Disposal of Wastes at C-1 Compressor Station

TYPE OF WASTE	COLLECTION	STORAGE	REMOVED BY	DISPOSAL
Scrubber Liquids	Piped to TK-1	TK-1 (210 bbl)	Varies[1]	SUGS Jal #4 for separation and sales.
Used Oils	Drained from Compressor pad or drained from engine sump	Removed during Service, Not stored on site	Quail Petroleum Services	Available Permitted Recycler
Used Filters/Sorbents	Filters drained to container on pad; rags and sorbents to dumpster.	Dumpster	Quail Petroleum Services	Available Permitted Recycler
Wash Water	Held in curbed concrete compressor pad	Removed during Service, Not stored on site	Varies[1]	Nearest Available Permitted Facility
Pig Wastes	Drained into 55 Gallon Temp. Barrels	55 Gallon Temp. Barrels in Pig Trap Steel Drip Pans	Ocotillo Environmental Services LLC	SUGS Permitted Landfarm at Jal #4 Gas Plant
Spent Antifreeze	Disposal Truck	Removed during Service, Not stored on site	Quail Petroleum Services	Available Permitted Recycler
Solid Wastes	Trash Barrel	Trash Barrel	SUGS	Lea County Solid Waste Authority

1: Scrubber liquids are transported by either (depending on availability) Quality Transports, Chaparral Services, Riverside Trucking, FULCO Services, or Rapid Transports.

10.0 INSPECTION, MAINTENCE AND REPORTING

Updated to incorporate analytical schedules.

Current TCLP analyses of wastewaters from the compressor pad indicate that the water is non-hazardous. Compressor pad wastewater will be reanalyzed for TCLP parameters if significantly different materials (e.g., oils, antifreeze, soaps) are used on the pad to reestablish the water's status.

11.0 SPILL AND LEAK PREVENTION AND REPORTING

Amended to cite NMOCD Rules.

As described in Section 11.0 above, the facility is inspected on a daily basis. Any spills will be addressed in accordance with NMOCD Rule 116 and 20.6.2.1203 NMAC.

12.0 CLOSURE PLAN

Amended to include reporting.

A report will be developed documenting the closure, and will be provided to NMOCD upon request.

TABLE OF CONTENTS

LIST OF FIGURES

Revised Figures and site photographs

LIST OF APPENDICES

Additional information on operating procedures, analytical data and proposed notices.

RECEIVED
MAY 11 2007
SOUTHERN UNION
GAS SERVICES, LTD.

ATTACHMENT TO THE DISCHARGE PERMIT

Southern Union Gas Services, LTD, C-1 COMPRESSOR STATION (GW-259)
DISCHARGE PERMIT APPROVAL CONDITIONS
May 8, 2007

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of $100.00, plus a renewal flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required $100.00 filing fee and the $400 permit fee for a gas compressor station less than 1000 horsepower.

2. **Permit Expiration and Renewal:** Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on September 18, 2011** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38.

4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its January 04, 2007 discharge plan renewal application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.

5. **Modifications:** WQCC Regulation 20.6.2.3107.C, and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.

6. **Waste Disposal and Storage:** The owner/operator shall dispose of all wastes at an OCD-approved facility. Only oil field RCRA-exempt wastes may be disposed of by injection in a Class II well. RCRA non-hazardous, non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.

A. **OCD Rule 712 Waste:** Pursuant to OCD Rule 712 (19.15.9.712 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. **Waste Storage:** The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

7. **Drum Storage:** The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

8. **Process, Maintenance and Yard Areas:** The owner/operator shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. **Above Ground Tanks:** The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. **Labeling:** The owner/operator shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. The owner/operator may use a tank code numbering system, which is incorporated into their emergency response plans.

11. **Below-Grade Tanks/Sumps and Pits/Ponds.**

A. All below-grade tanks and sumps must be approved by the OCD prior to installation and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit

renewal. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by the OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. **Class V Wells:** The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).

14. **Housekeeping:** The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. **Spill Reporting:** The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.5.12.1203 NMAC and OCD Rule 116 (19.15.3.116 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. **OCD Inspections:** The OCD may place additional requirements on the facility and modify the permit conditions based on OCD inspections.

17. **Storm Water:** The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. **Unauthorized Discharges:** The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. ***An unauthorized discharge is a violation of this permit.***

19. **Vadose Zone and Water Pollution:** The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions: N/A

21. Transfer of Discharge Permit (WQCC 20.6.2.3111) Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the transfer or shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee. Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

22. Closure: The owner/operator shall notify the OCD when operations of the facility are to be discontinued for a period in excess of six months. Prior to closure of the facility, the operator shall submit a closure plan for approval. Closure and waste disposal shall be in accordance with the statutes, rules and regulations in effect at the time of closure.

23. Certification: Southern Union Gas Services, LTD, (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

Southern Union Gas Services, LTD
Company Name-print name above

Bruce M. Williams
Company Representative- print name

Bruce M. Williams
Company Representative- signature

Title VP Gas Operations

Date: 6/1/07

✓

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 1/11/07

or cash received on _____ in the amount of $ 400.00

from Southern Union Gas Services

for GW-259

Submitted by: Lawrence Romero Date 1/19/07

Submitted to ASD by: Lawrence Romero Date 1/19/07

Received in ASD by: _____ Date _____

Filing Fee _____ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund

Full Payment _____ or Annual Increment _____

Environmental Services, Inc.
8220 Louisiana NE
Suite A
Albuquerque, NM 87113-2121

[redacted]
95-32/1070

Jan 11 20 07

PAY TO THE ORDER OF Water Quality Managment Fund $ 400.00

Four Hundred and 00/100 DOLLARS

Security features are included. Details on back

BANK OF AMERICA
NATIONAL ASSOCIATION
ALBUQUERQUE, NM 87102

MP

FOR GW-259 Permit Fee - SUG 004

[redacted]

Southern Union Gas Services

301 Commerce Street, Ste. 700
Fort Worth, TX 76102

817.302.9400 Fax: 817.302.9350

Via Fedex

Wayne Price
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Signed Copies of Discharge Permits

Dear Mr. Price,

Please find attached signed copies of Discharge Permits for the following facilities:

Facility	Permit Number
Boyd Compressor Station	GW-269
C-1 Compressor Station	GW-259
C-2 Compressor Station	GW-260
C-3 Compressor Station	GW-261
C-4 Compressor Station	GW-262
House Compressor Station	GW-243

If you have any questions or need further information, please contact me at 817-302-9425.

Sincerely,

Herb Harless
0207

Cc: Randall Dunn w/attachments
Tony Savoie w/attachments
Molly Smitherman

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

January 26, 2007

DRAFT
Wayne J. Farley
Southern Union Gas Services, LTD
301 Commerce Street, Suite 700
Forth Worth, Texas 76102

Re: Discharge Permit GW-259
C-1 Compressor Station

Dear Mr. Farley:

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3000 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby approves the discharge permit for the Southern Union Gas Services, LTD (owner/operator) C-1 Compressor Station GW-259 located in the SE/4 NE/4 Section 13-Township 23S-Range 36E, NMPM, Lea County, New Mexico, under the conditions specified in the enclosed **Attachment To The Discharge Permit**. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter including permit fees.**

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, please contact Carl Chavez of my staff at (505-476-3491) or E-mail carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Wayne Price
Environmental Bureau Chief

LWP/cc
Attachments-1
xc: OCD District Office

ATTACHMENT TO THE DISCHARGE PERMIT

Southern Union Gas Services, LTD, C-1 COMPRESSOR STATION (GW-259) DISCHARGE PERMIT APPROVAL CONDITIONS January 26, 2006

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of $100.00, plus a renewal flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required $100.00 filing fee and the $400 permit fee for a gas compressor station less than 1000 horsepower.

2. **Permit Expiration and Renewal:** Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on September 18, 2011** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38.

4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its January 04, 2007 discharge plan renewal application, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.

5. **Modifications:** WQCC Regulation 20.6.2.3107.C, and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.

6. Waste Disposal and Storage: The owner/operator shall dispose of all wastes at an OCD-approved facility. Only oil field RCRA-exempt wastes may be disposed of by injection in a Class II well. RCRA non-hazardous, non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.

A. OCD Rule 712 Waste: Pursuant to OCD Rule 712 (19.15.9.712 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. Waste Storage: The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

7. Drum Storage: The owner/operator must store all drums, including empty drums, containing materials other than fresh water on an impermeable pad with curbing. The owner/operator must store empty drums on their sides with the bungs in place and lined up on a horizontal plane. The owner/operator must store chemicals in other containers, such as tote tanks, sacks, or buckets on an impermeable pad with curbing.

8. Process, Maintenance and Yard Areas: The owner/operator shall either pave and curb or have some type of spill collection device incorporated into the design at all process, maintenance, and yard areas which show evidence that water contaminants from releases, leaks and spills have reached the ground surface.

9. Above Ground Tanks: The owner/operator shall ensure that all aboveground tanks have impermeable secondary containment (e.g., liners and berms), which will contain a volume of at least one-third greater than the total volume of the largest tank or all interconnected tanks. The owner/operator shall retrofit all existing tanks before discharge permit renewal. Tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt from this condition.

10. Labeling: The owner/operator shall clearly label all tanks, drums, and containers to identify their contents and other emergency notification information. The owner/operator may use a tank code numbering system, which is incorporated into their emergency response plans.

11. Below-Grade Tanks/Sumps and Pits/Ponds.

A. All below-grade tanks and sumps must be approved by the OCD prior to installation and must incorporate secondary containment with leak detection into the design. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit

renewal. All existing below-grade tanks and sumps without secondary containment and leak detection must be tested annually or as specified herein. Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by the OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and

approximate location. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. Class V Wells: The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).

14. Housekeeping: The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. Spill Reporting: The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.5.12.1203 NMAC and OCD Rule 116 (19.15.3.116 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. OCD Inspections: The OCD may place additional requirements on the facility and modify the permit conditions based on OCD inspections.

17. Storm Water: The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. Unauthorized Discharges: The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. ***An unauthorized discharge is a violation of this permit.***

19. Vadose Zone and Water Pollution: The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions: N/A

21. Transfer of Discharge Permit (WQCC 20.6.2.3111) Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the transfer or shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee. Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

22. Closure: The owner/operator shall notify the OCD when operations of the facility are to be discontinued for a period in excess of six months. Prior to closure of the facility, the operator shall submit a closure plan for approval. Closure and waste disposal shall be in accordance with the statutes, rules and regulations in effect at the time of closure.

23. Certification: Southern Union Gas Services, LTD, (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

_____
Company Name-print name above

_____
Company Representative- print name

_____
Company Representative- signature

Title_____

Date:_____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITES AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: C-1 Compressor Station AW-259
2. Operator: Southern Union Gas Services, LTD

   Address: 301 Commerce Street, Suite 700, Fort Worth, TX ~~79102~~ 76102

   Contact Person: Wayne Farley Phone: (817) 302-9400
3. Location: SE /4 NE /4 Section 13 Township 23S Range 36E
   Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
14. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Wayne J. Farley Title: Vice President, Gas Operations

Signature: Wayne J. Farley Date: 1-4-07

E-mail Address: wayne.farley@sug.com

C-1 Compressor Station Discharge Plan

Southern Union Gas Services, LTD—C-1 Compressor Station

This document constitutes a renewal application for Groundwater Discharge Plan #259 for the C-1 Compressor Station. The C-1 Compressor Station was constructed in 1992 by Excel Gas Company. Sid Richardson Energy Services, Ltd. purchased the facility in September 1995. In 2006, Sid Richardson Energy Services, Ltd. was sold and renamed Southern Union Gas Services, LTD. This Discharge Plan application has been prepared in accordance with the New Mexico Oil Conservation Division's (OCD) *Guidelines for the Preparation of Discharge Plans at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations* (revised 12-95) and New Mexico Water Quality Control Commission regulations at 20 New Mexico Administrative Code (NMAC) 6.2.

1 TYPE OF OPERATION

The C-1 Compressor Station is operated to meter, remove liquids, and compress natural gas pipelined through natural gas production lines. An inlet gas scrubber is utilized to remove liquids from the inlet gas to the station. The dried gas is sent to one of two natural gas compressors. Total site horsepower is 540 hp. Each compressor is equipped with a suction scrubber that dries the gas further prior to compression. Most of the discharge gas from the compressors is pipelined off-site for further processing. The discharge gas not transported off-site is utilized for engine fuel. The fuel gas is routed to a fuel sweetener that absorbs hydrogen sulfide (H_2S) from the gas. The fuel gas is then passed through a fuel scrubber for additional liquid removal before engine use.

2 OPERATOR/LEGALLY RESPONSIBLE PARTY

Operator
Southern Union Gas Services, LTD.
Attn: Randall Dunn
Box 1226, Jal, NM 88252
(505) 395-2116

Legally Responsible Party
Southern Union Gas Services, LTD
Attn: Wayne J. Farley
301 Commerce Street, Suite 700
Fort Worth, TX 76102
(817) 302-9400

3 LOCATION OF DISCHARGE/FACILITY

Lea County, NM
Section 13, Township 23 South, Range 36 East

4 LANDOWNER

Southern Union Gas Services, LTD
301 Commerce Street, Suite 700
Fort Worth, TX 76102
(817) 302-9400

5 FACILITY DESCRIPTION

Facility and process flow diagrams are located in Appendix 1.

6 MATERIAL STORED AND USED

Table 1 identifies materials and storage containments for substances used and stored at C-1. Material Safety Data Sheets (MSDS) for these substances are in Appendix 5.

Table 1
Material Used and Stored

ID	Material	Composition	Type	Container	Quantity	Location
TK-1	Scrubber liquids	Water w/ hydrocarbon liquids	Liquid	Tank	1270 gal	East of inlet scrubber
TK-2	Lube Oil	See MSDS	Liquid	Tank	300 gal	Between compressors
TK-3	Pipeline liquids	Hydrocarbon liquids and water	Liquid	Tank	21,000 gal	East of fuel sweetener
TK-4	Pipeline liquids (used for transfers	Hydrocarbon liquids and water	Liquid	Tank	8820 gal	East of fuel sweetener
	Coolant	See MSDS	Liquid	Drum	30 gal	Brought in when needed
	SulfaTreat	See MSDS	Solid	Sack	(3) 2000 lb	May be sorted on-site when needed

7 SOURCES AND QUANTITIES OF EFFLUENT AND WASTE SOLIDS

Figure 1 depicts the effluent and solid waste sources at C-1. Figure 2 is a site diagram of C-1. Table 2 summarizes the effluent and solid wastes generated at the facility. The major sources of liquid and solid waste are described in the sections following Table 2.

Table 2
Effluent and Solid Waste Sources, Quantity and Disposition

Source	Waste/Quality	Quantity	Disposition
Scrubbers	Water w/ hydrocarbon liquids	200 gal/month	TK-1
Compressor pad wash down	Water with soap, lube oil, and coolant	200 gal/month	Removed as generated
Engine	Waste oil	36 gal/month	Removed as generated
	Oil filters	6 filters/month	Removed as generated
Fuel sweetener	Waste SulfaTreat	4300 lb/month	Road/driveway
Pig receiver	Hydrocarbon liquids and water	3700 gal/month	TK-3

Separators/Scrubbers and Slug Catchers

Four scrubbers are utilized at C-1: an inlet scrubber, two suction scrubbers, and fuel scrubber. Water with hydrocarbon liquids (drip) is discharged from the scrubbers to the drip tank (TK-1). The tank is located in a tank battery located south of C-1. The amount of liquids accumulated by the scrubbers varies and is dependent upon the moisture content of the inlet gas stream. The maximum amount of drip expected to be removed from the site is 2400 gallons per year.

Pipeline liquids gathered at the pig receiver are accumulated in the 21,000-gallon pipeline liquids tank (TK-3). The effluent is transferred to the 8820-gallon pipeline liquids tank (TK-4) for removal from the site. Pipeline liquids are removed from the site as soon as possible after pigging.

Boilers and Cooling Towers/Fans

There are no boilers or cooling towers at C-1

Process and Storage Equipment Wash Down

The compressor skids are washed down once per month using a portable high-pressure system. Approximately 200 gallons of water is used for each washing. Occasionally, five gallons of soap is added to the wash water for cleaning. Equipment wash water may contain soap, lube oil and coolant. The compressor skids are set on a concrete pad with a four-inch curb around it to contain any effluent

Solvents/Degreasers

A non-chlorinated soap is used to clean the compressor engine. The soap is not stored on-site. Disposal of spent soap is addressed in Process and Storage Equipment Wash Down.

Spent Acids/Caustics
No acids or caustics are utilized at C-1

Used Engine Coolants
Ambitrol, comprised of 50 percent water and 50 percent ethylene glycol, is utilized as coolant in the compressor engine. Coolant is brought on-site in a 30-gallon drum when needed. Coolant is immediately added to the engine and is not stored at C-1. No waste coolant is generated.

Waste Lubrication and Motor Oils
Waste oil is generated by maintenance of the compressor engines. Each engine uses 18 gallons per month of oil. Oil is supplied to the compressor engine by an on-site lube oil tank (TK-2). Waste oil, approximately 18 gallons/month, is drained from each of the compressor engines into drums for removal from the facility.

Used Filters
Each of the compressor engines operates with three oil filters. These filters are replaced once per month. After removal from the engines, the filters are placed in a 55-gallon drum with drain rack. Once the filters have drained, they are taken to a central dumpster located at Southern Union Gas Services, LTD's West Eunice Tank Battery.

Solids and Sludges
No solids or sludges are generated at C-1.

Painting Wastes
If any equipment at C-1 requires painting, painting supplies will be brought on-site at the time of painting. Wastes will be removed immediately upon completion of the painting.

Sewage
No sewage is generated at C-1.

Lab Wastes
C-1 is not equipped with a lab.

Other Liquids and Solid Wastes
The fuel sweetener removes H_2S from the fuel gas. Seven thousand pounds of SulfaTreat is used in the fuel sweetener to absorb the H_2S. The SulfaTreat utilized in the sweetener is replaced approximately every three months. The spent SulfaTreat is spread on the driveway and road along C-1.

8 LIQUID AND SOLID WASTE COLLECTION/STORAGE/DISPOSAL
This section provides a general description of the collection, storage, and disposal systems used for effluents and solid wastes generated at C-1. Section 7 identifies the specific collection, storage, and disposal method utilized for each of the effluents generated at the site.

Collection
All effluent dumped to TK-1 is transported via aboveground pipelines.

Storage
TK-1 is a partially buried fiberglass tank. TK-2 is located inside the containment of the compressor pad. TK-4 is located on a saddle rack that provides a full view of tank surfaces.

On-Site Disposal
Spent SulfaTreat removed from the fuel sweetener is spread on the driveway and road to C-1. This disposal method was approved by the NMOCD on September 9, 1995. Copies of correspondence from Sid Richardson Energy Services, Ltd. and the NMOCD approval letter are in Appendix 4.

Off-site Disposal

All remaining effluent and waste is removed and disposed of elsewhere as identified on Table 3.

Table 3

Off-Site Disposal Contractors and Disposal Facilities

Material	Disposal Pathway	Contractor Details
Scrubber liquids	Transported by Chaparral Trucking to West Eunice Tank Battery. Oil Portion taken by Petrosource to its oil recycling facility.	*Chaparral Trucking* PO Drawer 1769 Eunice, NM 88231 (505) 394-2545 *PetroSource Partners Limited* 129 S. Grimes Hobbs, NM 88240 (505) 397-7212
Washwater	Transported by Sid Richardson to Jal #3 Gas Plant (GW-010)	
Waste oil	Transported by Sid Richardson to Jal #3 Gas Plant (GW-010)	
Filters	Transported by Sid Richardson to West Eunice Tank Battery. Removed by Quell Petroleum Services to their incinerator.	*Quell Petroleum Services Incinerator* PO Box 1552 Monohans, TX 79756 (915) 943-8400
Pigging liquids	Transported by Chaparral Trucking to Clayton Williams Energy injection well.	*Clayton Williams Energy* State A Account 1-101SWD (505) 394-2574

9 PROPOSED MODIFICATIONS

Southern Union Gas Services, LTD does not propose any modifications at this time.

10 INSPECTION, MAINTENANCE, AND REPORTING

C-1 is unmanned but inspected at least once per day Monday through Friday. The station is equipped with an alarm system that notifies operators in Jal of an emergency or malfunction.

11 SPILL/LEAK PREVENTION AND REPORTING (CONTINGENCY PLANS)

The process area of the plant is graveled to allow for early leak detection and quick response by facility personnel in the event of a leak of process fluids. Southern Union Gas Services, LTD. will handle all spills as required by the spill procedures in Appendix 3 and report all spills and leaks according to the requirements of the state of New Mexico found in 19.5.3.106 NMAC. A copy of this regulation is in Appendix 2.

12 SITE CHARACTERISTICS

The C-1 Compressor Station is located on dune sands of the Eunice Plain in the Capitan Basin. The structural setting is on the Permian shelf of the Central Basin Platform, east of the Capitan Reef Complex. The site bedrock is the poorly consolidated sand of the Tertiary Ogallala Formation [Dane and Bachman, Geologic Map of New Mexico, 1965].

There are no groundwater discharge sites, intermittent streams, water bodies, or arroyos within one mile of the perimeter of the facility on the 1969 Rattlesnake Canyon, NM, USGS 7.5' quadrangle. The compressor station is located at the east terminus of an unnamed, one-mile-long intermittent stream that runs east-southeast. One intermittent pond is located 4300 feet northwest of the facility and is on a drainage that runs toward the facility. The slightly undulating topography is in a large area of poorly defined surface drainage with a 1% grade dipping to the southeast.

Pyote and Maljamar is the soil type at the site. This soil is well-drained sand over a sandy loam developed to about 5 feet in depth [Soil Conservation Survey, 1974, Soil Survey, Lea County, New Mexico, USDA]. The soil is developed on eolian dune deposits underlain by a caliche layer. This type of soil has a moderately rapid permeability with a slow runoff.

As of January 1996, no wells were recorded within one-quarter mile of the perimeter of the facility with either the New Mexico State Engineer Office or with the National Water Information System, Version I, Groundwater Site Information, USGS. Of two wells recorded with the State Engineer Office, 3800 and 4600 feet northeast of the facility, one is used for stock. Two stock wells, 3700 ft and 4200 ft south of the facility, are also recorded with the State Engineer Office. Water wells around the facility would also be used for oil field industrial purposes.

The stock well northeast of the facility has a reported water table depth of 100 feet. The other stock well northeast of the facility has a total depth of 200 feet, so the depth to the water table there is probably less than 200 feet. The two wells recorded south of the facility have no water table records. One well is 300 feet deep, and the other is 200 feet deep. The water table is probably less than 200 feet deep in this area. The next closest well recorded to the facility is 7600 feet southwest, with a recorded water table depth of 132 feet in the Ogallala [National Water Information System, Version I, Groundwater Site Information, USGS]. This well is at about the same elevation as the compressor station, and assuming the water table generally follows the topography, an estimated depth to groundwater at the compressor station would be 132 feet.

A piezometric map of the water table shows the elevation of the water table at the site to be about 3230 feet in elevation [Nicholson and Clebsch, *Ground-Water Report 6: Geology and Ground-Water Conditions in Southern Lea County, New Mexico,* New Mexico Bureau of Mines & Mineral Resources, 1961]. This water table elevation would place the water table at the facility at a depth of 182 feet. Therefore, the depth to groundwater at the facility could be from 132 feet to 182 feet in the Ogallala Formation.

The aquifers below the facility are the poorly consolidated sands of the Ogallala Formation, the deeper, Triassic Dockum Group of hematite-cemented clay and sandstones, and the deeper Paleozoic dolomitic limestones [Nicholson and Clebsch].

Water in the Ogallala Formation is high in silica (49 to 73 ppm), moderately high in calcium and magnesium, low in sulfates and chlorides, very high in fluoride, and has total dissolved solids of less than 110 ppm [Nicholson and Clebsch].

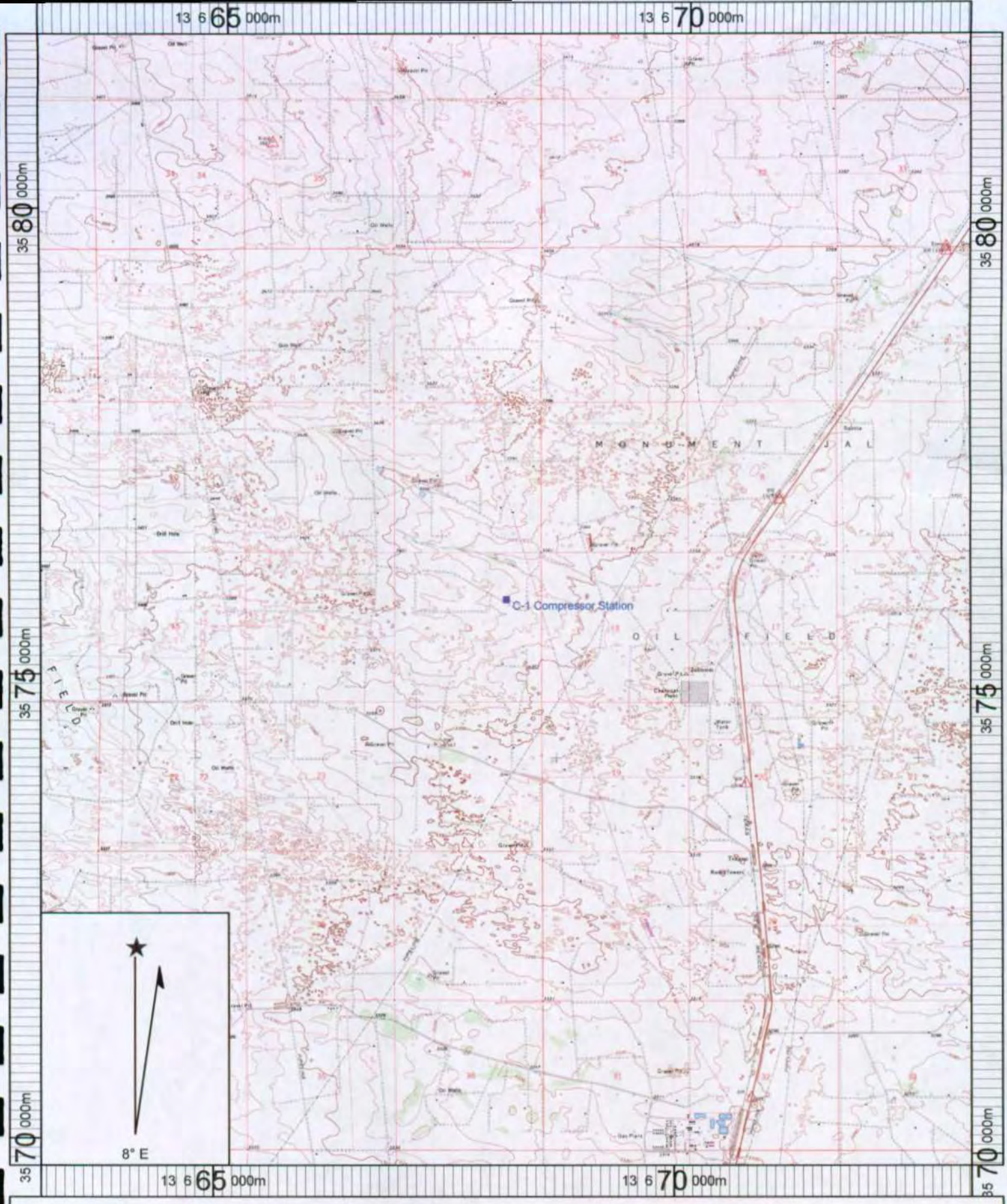
The lower Dockum Group is low in silica (9 to 41 ppm), very high in fluoride, high in sodium, and has a wide range of concentrations of chlorides, sulfates, calcium, and magnesium. The total dissolved solids in the Dockum Group are higher than that of the Ogallala [Nicholson and Clebsch]. The deeper Paleozoic aquifers do not contain usable water and are brine-injected [Nicholson and Clebsch].

The flood potential at the facility is moderate, as the facility is at the downslope terminus of an intermittent stream and is also downslope of another drainage channel from the intermittent lake. A period of heavy precipitation could fill the intermittent stream and the other channel to the north and flood the facility before the water soaked into the ground. Sheetwash at the facility would run downslope to the southeast.

13 ADDITIONAL INFORMATION

Closure Plan

Should Southern Union Gas Services, LTD choose to permanently close the C-1 Compressor Station, all reasonable and necessary measures will be taken to prevent the exceedance of 20 NMAC 6.2.3103 quality standards. Closure measures will include removal or closure in place of all underground piping and equipment. All tanks will be emptied. No potentially toxic materials or effluents will remain on the site. All potential sources of toxic pollutants will be inspected. Should contaminated soil be discovered, any necessary reporting under NMOCD Rule 113 and 20 NMAC 3.2.1203 will be make, and clean-up activities will commence. Post-closure maintenance and monitoring plans would not be necessary unless contamination is encountered.



Name: RATTLESNAKE CANYON
Date: 1/10/2007
Scale: 1 inch equals 4444 feet

Location: 13 0668082 E 3575876 N
Caption: Appendix 1
Site Location

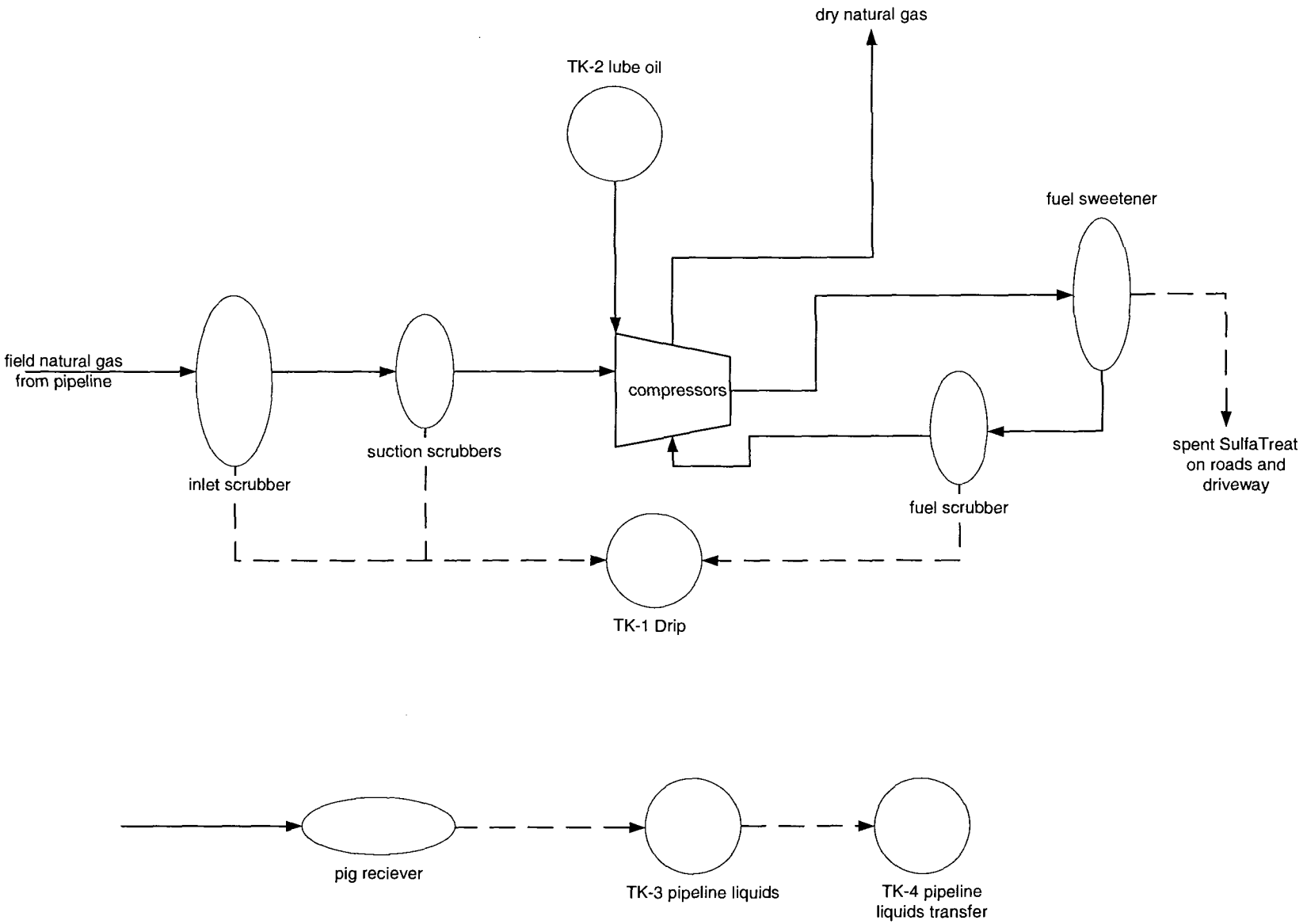
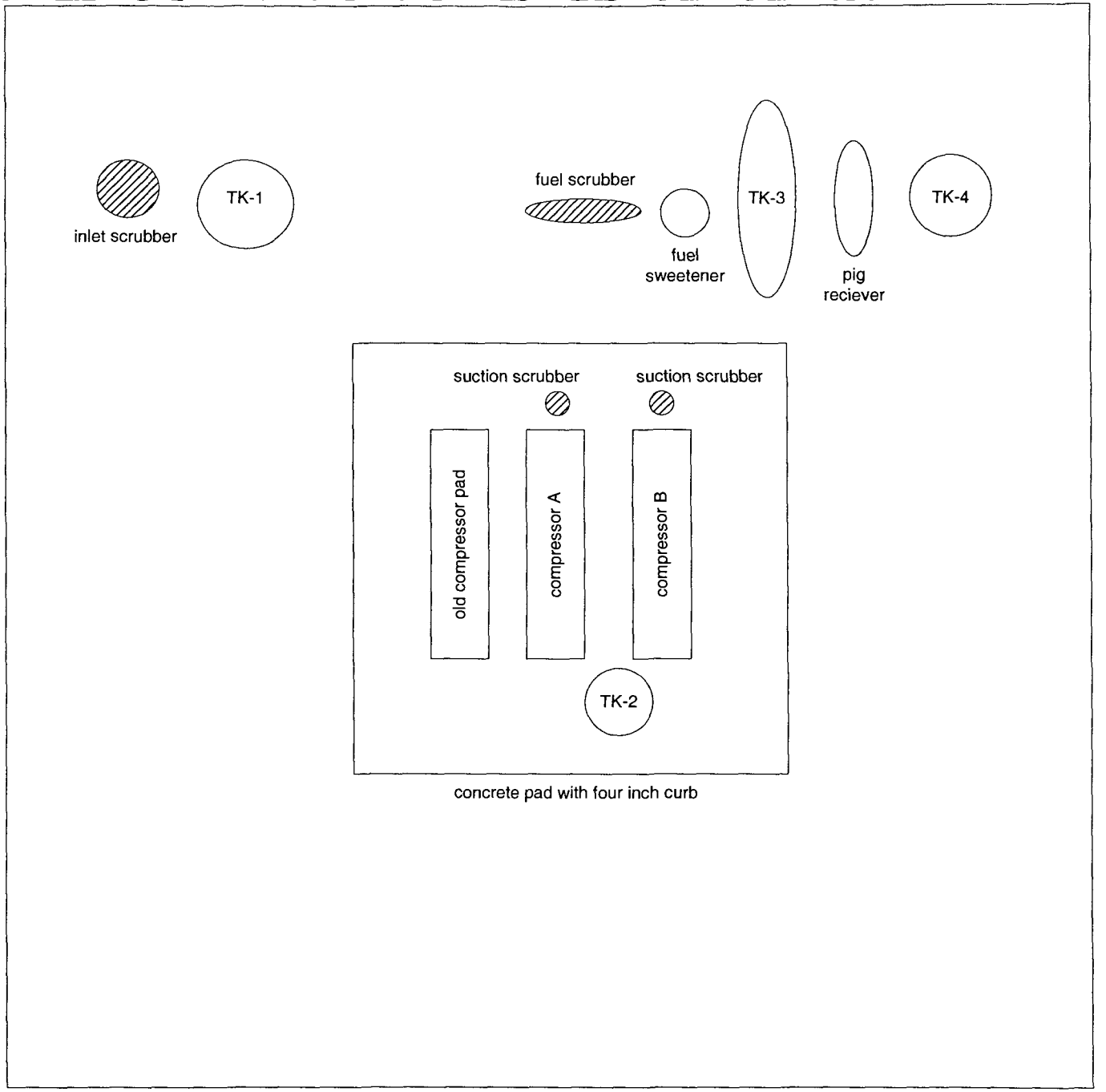


Figure 1
Block Flow Diagram
Southern Union Gas Services, LTD - C-1 Compressor Station



N Not to scale

Figure 2
Site Diagram
Southern Union Gas Services, LTD - C-1 Compressor Station

TITLE 19 NATURAL RESOURCES & WILDLIFE
CHAPTER 15 OIL AND GAS
PART 3 DRILLING

19.15.3.1 ISSUING AGENCY: Energy, Minerals and Natural Resources Department, Oil Conservation Division, 2040 S. Pacheco, Santa Fe, New Mexico 87505. (505) 827-7131.
[2-1-96; 19.15.3.1 NMAC - Rn, 19 NMAC 15.C.1, 11-15-01]

19.15.3.2 SCOPE: All persons/entities engaged in oil and gas development and production within New Mexico.
[2-1-96; 19.15.3.2 NMAC - Rn, 19 NMAC 15.C.2, 11-15-01]

19.15.3.3 STATUTORY AUTHORITY: Sections 70-2-1 through 70-2-38 NMSA 1978 sets forth the Oil and Gas Act which grants the Oil Conservation Division jurisdiction and authority over all matters relating to the conservation of oil and gas, the prevention of waste of oil and gas and of potash as a result of oil and gas operations, the protection of correlative rights, and the disposition of wastes resulting from oil and gas operations.
[2-1-96; 19.15.3.3 NMAC - Rn, 19 NMAC 15.C.3, 11-15-01]

19.15.3.4 DURATION: Permanent.
[2-1-96; 19.15.3.4 NMAC - Rn, 19 NMAC 15.C.4, 11-15-01]

19.15.3.5 EFFECTIVE DATE: February 1, 1996.
[2-1-96; 19.15.3.5 NMAC - Rn, 19 NMAC 15.C.5, 11-15-01]

19.15.3.6 OBJECTIVE: To regulate the drilling of oil and gas wells within the State of New Mexico to enable the Oil Conservation Division to fulfill its statutory mandates under the Oil & Gas Act.
[2-1-96; 19.15.3.6 NMAC - Rn, 19 NMAC 15.C.6, 11-15-01]

19.15.3.7 DEFINITIONS: [Reserved].

19.15.3.8-99 [RESERVED]

19.15.3.100 OPERATOR REGISTRATION; CHANGE OF OPERATOR; CHANGE OF NAME:

A. Prior to commencing operations, every operator of a well or wells in New Mexico shall register with the division as an operator. Applicants shall provide the following to the financial assurance administrator in the division's Santa Fe office:

(1) an oil and gas registration identification (OGRID) number obtained from the division, the state land office or the taxation and revenue department;

(2) a current address of record to be used for notice, and a current emergency contact name and telephone number for each district in which the operator operates wells; and

(3) the financial assurance required by 19.15.3.101 NMAC.

B. The division may deny registration as a well operator if:

(1) the applicant is not in compliance with Subsection A of 19.15.1.40 NMAC;

(2) an officer, director, partner in the applicant or person with an interest in the applicant exceeding 25 percent, is or was within the past five years an officer, director, partner or person with an interest exceeding 25 percent in another entity that is not currently in compliance with Subsection A of 19.15.1.40 NMAC;

(3) the applicant is or was within the past five years an officer, director, partner or person with an interest exceeding 25 percent in another entity that is not currently in compliance with Subsection A of 19.15.1.40 NMAC;

(4) the applicant is a corporation or limited liability company, and is not registered with the public regulation commission to do business in New Mexico; or

(5) the applicant is a limited partnership, and is not registered with the New Mexico secretary of state to do business in New Mexico.

C. Operators shall keep the division informed of their current address of record and emergency contact names and telephone numbers by submitting changes in writing to the division's financial assurance

administrator in the division's Santa Fe office within 30 days of the change.

D. The division may require an operator or applicant to identify its current and past officers, directors and partners, and its current and past ownership interest in other operators.

E. Change of operator.

(1) A change of operator occurs when the entity responsible for a well or a group of wells changes. A change of operator may result from a sale, assignment by a court, a change in operating agreement or other transaction. Under a change of operator, wells are moved from the OGRID number of the operator of record with the division to the new operator's OGRID number.

(2) The operator of record with the division and the new operator shall apply for a change of operator by jointly filing a form C-145 using the division's web-based online application. If the operator of record with the division is unavailable, the new operator shall apply to the division for approval of change of operator without a joint application. The operator shall make such application in writing, and provide documentary evidence of the applicant's right to assume operations. The new operator may not commence operations until the division approves the application for change of operator.

(3) The division director or his designee may deny a change of operator if:

(a) the new operator is not in compliance with Subsection A of 19.15.1.40 NMAC; or

(b) the new operator is acquiring wells, facilities or sites subject to a compliance order requiring remediation or abatement of contamination, or compliance with 19.15.3.201 NMAC, and the new operator has not entered into an agreed compliance order setting a schedule for compliance with the existing order.

(4) In determining whether to grant or deny a change of operator when the new operator is not in compliance with Subsection A of 19.15.1.40 NMAC, the division director or his designee shall consider such factors as whether the non-compliance with Subsection A of 19.15.1.40 NMAC is caused by the operator not meeting the financial assurance requirements of 19.15.3.101 NMAC, being subject to a division or commission order finding the operator to be in violation of an order requiring corrective action, having a penalty assessment that has been unpaid for more than 70 days since the issuance of the order assessing the penalty or having more than the allowed number of wells out of compliance with 19.15.4.201 NMAC. If the non-compliance is caused by the operator having more than the allowed number of wells not in compliance with 19.15.4.201 NMAC, the division director or his designee shall consider the number of wells not in compliance, the length of time the wells have been out of compliance and the operator's efforts to bring the wells into compliance.

F. Change of name.

(1) A change of operator name occurs when the name of the entity responsible for a well or wells changes but the entity does not change. For a change of name, the OGRID number remains the same but division records are changed to reflect the new operator name.

(2) An operator shall apply for a change of name by filing a form C-146 using the division's web-based online application and supplying documentary proof that the change is a name change and not a change of operator. If the operator is a corporation, limited liability company or limited partnership, the name must be registered with the public regulation commission or the New Mexico secretary of state, as applicable. The division shall not approve a change of name until the state land office and the taxation and revenue department have cleared the change of name on the OGRID.

G. Examples of change of operator and change of name.

(1) Mr. Smith, a sole proprietor, operates five wells under the name "Smith oil company". Mr. Smith changes the name of his company to "Smith production company". The name of the entity operating the wells has changed, but the entity has not changed. Mr. Smith should apply for a change of name.

(2) Mr. Smith incorporates his business, changing from the sole proprietorship, "Smith production company", to a corporation: "Smith production company, inc.". The entity responsible for the wells has changed, and Mr. Smith and "Smith production company, inc." should apply for a change of operator.

(3) Smith production company, inc., a New Mexico operator, merges with XYZ, inc., which does not operate in New Mexico. At the surviving entity's election, this transaction may be treated as a change of name from Smith production company, to XYZ, inc., maintaining the existing OGRID, or as a change of operator, with a new OGRID.

(4) Two New Mexico operators, Smith production company, inc. and Jones production company, inc., merge. The surviving corporation is Jones production company, inc. A different entity now operates the wells Smith production company, formerly operated, and the wells must be placed under that entity's OGRID. Jones production company, inc. and Smith production company, inc. should apply for a change of operator as to the wells Smith production company, inc. operated.

[19.15.3.100 NMAC - N, 12/15/05]

19.15.3.101 FINANCIAL ASSURANCE FOR WELL PLUGGING:

A. Any person, firm, corporation or association who has drilled or acquired, is drilling or proposes to drill or acquire any oil, gas or injection or other service well on privately owned or state owned lands within this state shall furnish a financial assurance acceptable to the division in the form of an irrevocable letter of credit or cash or surety bond running to the state of New Mexico conditioned that the well be plugged and abandoned and the location restored and remediated in compliance with division rules.

B. The division accepts two forms of financial assurance: a one-well financial assurance that covers a single well and a blanket financial assurance that covers multiple wells. Any well that has been in temporary abandonment for more than two years must be covered by a one-well financial assurance, except that the division may waive the requirement of a one-well financial assurance for a well that is shut-in because of the lack of a pipeline connection. The division may release the one-well financial assurance upon the operator's or surety's written request after the well is returned to production if a blanket financial assurance covers the well.

C. Amounts.

(1) A blanket financial assurance shall be in the amount of $50,000 covering all oil, gas or service wells drilled, acquired or operated in this state by the principal on the bond.

(2) A one-well financial assurance shall be in the amounts stated below in accordance with the well's depth and location.

(a) Chaves, Eddy, Lea, McKinley, Rio Arriba, Roosevelt, Sandoval and San Juan counties, New Mexico: $5000 plus $1 per foot of projected depth of proposed well or measured depth of existing well.

(b) All other counties in the state: $10,000 plus $1 per foot of projected depth of proposed well or measured depth of existing well.

(3) The appropriate division district office may approve revised plans for an actively drilling well for drilling as much as 500 feet deeper than the depth stated on the well's financial assurance. Any well to be drilled more than 500 feet deeper than the depth stated on the well's financial assurance shall be covered by a new financial assurance in the amount prescribed for the new projected depth.

(4) The amount of the one-well financial assurance required for any intentionally deviated well shall be determined by the well's measured depth, and not its true vertical depth.

D. General requirements for financial assurance.

(1) The operator shall file financial assurance documents with the division's Santa Fe office, and obtain approvals and releases of financial assurance from that office.

(2) All financial assurance documents shall be on forms prescribed by or otherwise acceptable to the division.

(3) A financial assurance shall be conditioned for well plugging and abandonment and location restoration and remediation only, and not to secure payment for damages to livestock, range, crops or tangible improvements or any other purpose.

(4) The division may require proof that the individual signing for an entity on a financial assurance document or an amendment to a financial assurance document has the authority to obligate that entity.

E. Additional requirements for cash and surety bonds.

(1) Surety bonds shall be issued by a reputable corporate surety authorized to do business in the state of New Mexico.

(2) The operator shall deposit cash representing the full amount of the bond in an account in a federally-insured financial institution located within the state of New Mexico, such account to be held in trust for the division. Authorized representatives of the operator and the depository institution shall execute a document evidencing the cash bond's terms and conditions. The operator shall file the document with the division prior to the bond's effective date. If the operator's financial status or reliability is unknown to the division director he or she may require the filing of a financial statement or such other information as may be necessary to evaluate the operator's ability to fulfill the bond's conditions. From time to time any accrued interest over and above the bond's face amount may be paid to the operator.

F. Additional requirements for letters of credit.

(1) The division may accept irrevocable letters of credit issued by national or state-chartered banking associations.

(2) Letters of credit shall be irrevocable for a term of not less than five years, unless the applicant shows good cause for a shorter time period.

(3) Letters of credit shall provide for automatic renewal for successive, like terms upon expiration, unless the issuer has notified the division in writing of non-renewal at least 30 days prior to expiration.

(4) The division may forfeit and collect a letter of credit if not replaced by an approved financial assurance at least 30 days before the expiration date.

G. Release of financial assurance.

(1) The division shall release a financial assurance document upon the operator's or surety's written request if all wells drilled or acquired under that financial assurance have been plugged and abandoned and the location restored and remediated and released pursuant to 19.15.4.202 NMAC, or have been covered by another financial assurance the division has approved.

(2) Transfer of a property or a change of operator does not of itself release a financial assurance. The division shall not approve a request for change of operator for a well until the new operator has the required financial assurance in place.

H. Forfeiture of financial assurance.

(1) Upon the operator's failure to properly plug and abandon and restore and remediate the location of any well or wells a financial assurance covers, the division shall give notice to the operator and surety, if applicable, and hold a hearing as to whether the well or wells should be plugged and abandoned and the location restored and remediated in accordance with a division-approved plugging program. If it is determined at the hearing that the operator has failed to plug and abandon the well and restore and remediate the location as provided for in the financial assurance or division rules, the division director shall issue an order directing the well to be plugged or abandoned and the location restored and remediated in a time certain. Such an order may also direct the forfeiture of the financial assurance upon the failure or refusal of the operator, surety or other responsible party to properly plug and abandon the well and restore and remediate the location.

(2) If the financial assurance's proceeds exceed the costs the division incurred plugging and abandoning the well and restoring and remediating the location the financial assurance covers, the division shall return the excess to the surety or the operator, as appropriate.

(3) If the financial assurance's proceeds are not sufficient to cover all the costs the division incurred in plugging and abandoning the well and restoring and remediating the location, the division may seek indemnification from the operator as provided in NMSA 1978, Section 70-2-14(E).

(4) The division shall deposit all forfeitures and all funds collected pursuant to a judgment in a suit for indemnification in the oil and gas reclamation fund.

I. Effective dates.

(1) 19.15.3.101 NMAC is effective immediately as to all wells drilled or acquired after its effective date.

(2) As to all other wells, 19.15.3.101 NMAC is effective January 1, 2008.

[1-1-50, 6-17-77, 6-5-86, 2-1-96; 19.15.3.101 NMAC - Rn, 19 NMAC 15.C.101, 11-15-01; A, 12/15/05]

19.15.3.102 PERMIT TO DRILL, DEEPEN OR PLUG BACK:

A. The operator shall obtain a permit prior to commencing drilling, deepening or re-entry operations, or before plugging a well back to a different pool or completing or re-completing a well in an additional pool.

B. Applicants shall file a complete form C-101, application for permit to drill, deepen or plug back, and complete form C-102, well location and acreage dedication plat, and meet the following requirements, if applicable:

(1) an applicant for a permit to drill any well within the corporate limits of any city, town or village of this state shall give notice to the duly constituted governing body of such city, town or village or its duly authorized agent and certify on form C-101 that it gave such notice;

(2) an applicant for a permit to drill in any quarter-quarter section containing an existing well or wells operated by another operator shall concurrently file a plat or other acceptable document locating and identifying such well or wells, furnish a copy of the application to the other operator or operators in the quarter-quarter section and certify on form C-101 that it furnished such copies;

(3) an applicant for a permit to operate a well in a spacing or proration unit containing an existing well or wells operated by another operator shall also comply with Paragraph (2) of Subsection E of 19.15.3.104 NMAC.

C. The division director or his designee may deny a permit to drill, deepen or plug back if the applicant is not in compliance with Subsection A of 19.15.1.40 NMAC. In determining whether to grant or deny the permit, the division director or his designee shall consider such factors as whether the non-compliance with

Subsection A of 19.15.1.40 NMAC is caused by the operator not meeting the financial assurance requirements of 19.15.3.101 NMAC, being subject to a division or commission order finding the operator to be in violation of an order requiring corrective action, having a penalty assessment that has been unpaid for more than 70 days since the issuance of the order assessing the penalty or having more than the allowed number of wells out of compliance with 19.15.4.201 NMAC. If the non-compliance is caused by the operator having more than the allowed number of wells not in compliance with 19.15.4.201 NMAC, the division director or his designee shall consider the number of wells not in compliance, the length of time the wells have been out of compliance and the operator's efforts to bring the wells into compliance.

D. The division may impose conditions on an approved permit to drill, deepen or plug back.

E. The operator shall keep a copy of the approved form C-101 at the well site during drilling operations.

[1-1-50, 5-22-73...2-1-96; 19.15.3.102 NMAC - Rn, 19 NMAC 15.C.102, 11-15-01; A, 12/15/05]

19.15.3.103 SIGN ON WELLS:

A. All wells and related facilities regulated by the division shall be identified by a sign, which sign shall remain in place until the well is plugged and abandoned and the related facilities are closed.

B. For drilling wells, the sign shall be posted on the derrick or not more than 20 feet from the well.

C. The sign shall be of durable construction and the lettering shall be legible and large enough to be read under normal conditions at a distance of 50 feet.

D. The wells on each lease or property shall be numbered in non-repetitive, logical and distinctive sequence.

E. An operator will have 90 days from the effective date of an operator name change to change the operator name on the well sign unless an extension of time, for good cause shown along with a schedule for making the changes, is granted.

F. Each sign shall show the:

(1) number of well;

(2) name of property;

(3) name of operator;

(4) location by footage, quarter-quarter section, township and range (or Unit Letter can be substituted for the quarter-quarter section); and

(5) API number.

[1-1-50, 2-1-96, 6-30-97, 3-31-00; 19.15.3.103 NMAC - Rn, 19 NMAC 15.C.103, 11-15-01; A, 01-31-03]

19.15.3.104 WELL SPACING AND LOCATION:

A. Classification Of Wells: Wildcat And Development Wells

(1) Wildcat Well

(a) In San Juan, Rio Arriba, Sandoval, and McKinley counties a wildcat well is any well to be drilled the spacing unit of which is a distance of two miles or more from:

(i) the outer boundary of any defined pool that has produced oil or gas from the formation to which the well is projected to be drilled; and

(ii) any well that has produced oil or gas from the formation to which the proposed well is projected to be drilled.

(b) In all counties except San Juan, Rio Arriba, Sandoval, and McKinley, a wildcat well is any well to be drilled the spacing unit of which is a distance of one mile or more from:

(i) the outer boundary of any defined pool that has produced oil or gas from the formation to which the well is projected to be drilled; and

(ii) any well that has produced oil or gas from the formation to which the proposed well is projected.

(2) Development Well

(a) Any well that is not a wildcat well shall be classified as a development well for the nearest pool that has produced oil or gas from the formation to which the well is projected to be drilled. Such development well shall be spaced, drilled, operated, and produced in accordance with the rules in effect for that pool, provided the well is completed in that pool.

(b) Any well classified as a development well for a pool but completed in a producing formation not included in the vertical limits of that pool shall be operated and produced in accordance with the rules

in effect for the nearest pool that is producing from that formation within the two miles in San Juan, Rio Arriba, Sandoval, and McKinley counties or within one mile everywhere else. If there is no designated pool for that producing formation within the two miles in San Juan, Rio Arriba, Sandoval, and McKinley counties or within one mile everywhere else, the well shall be re-classified as a wildcat well.

B. Oil Well Acreage And Well Location Requirements

(1) Any wildcat well that is projected to be drilled as an oil well to a formation and in an area that in the opinion of the division may reasonably be presumed to be productive of oil rather than gas and each development well for a defined oil pool, unless otherwise provided in special pool orders, shall be located on a spacing unit consisting of approximately 40 contiguous surface acres substantially in the form of a square which is a legal subdivision of the U.S. public land surveys, which is a governmental quarter-quarter section or lot, and shall be located no closer than 330 feet to any boundary of such unit. Only those 40-acre spacing units committed to active secondary recovery projects shall be permitted more than four wells.

(2) If a well drilled as an oil well is completed as a gas well but does not conform to the applicable gas well location rules, the operator must apply for administrative approval for a non-standard location before the well can produce. The director may set any such application for hearing.

C. Gas Wells Acreage And Well Location Requirements. Any wildcat well that is projected to be drilled as a gas well to a formation and in an area that in the opinion of the division may reasonably be presumed to be productive of gas rather than oil and each development well for a defined gas pool, unless otherwise provided in special pool orders, shall be spaced and located as follows:

(1) 640-acre spacing applies to any deep gas well in Rio Arriba, San Juan, Sandoval or McKinley county that is projected to be drilled to a gas producing formation older than the Dakota formation or is a development well within a gas pool created and defined by the division after June 1, 1997 in a formation older than the Dakota formation, which formation or pool is located within the surface outcrop of the Pictured Cliffs formation (i.e., the San Juan Basin). Such well shall be located on a spacing unit consisting of 640 contiguous surface acres, more or less, substantially in the form of a square which is a section and legal subdivision of the U.S. public land surveys and shall be located no closer than: 1200 feet to any outer boundary of the spacing unit, 130 feet to any quarter section line, and 10 feet to any quarter-quarter section line or subdivision inner boundary.

(2) 320-acre spacing applies to any deep gas well in Lea, Chaves, Eddy or Roosevelt county, defined as a well that is projected to be drilled to a gas producing formation or is within a defined gas pool in the Wolfcamp or an older formation. Such well shall be located on a spacing unit consisting of 320 surface contiguous acres, more or less, comprising any two contiguous quarter sections of a single section that is a legal subdivision of the U.S. public land surveys provided that:

(a) the initial well on a 320-acre unit is located no closer than 660 feet to the outer boundary of the quarter section on which the well is located and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary; and

(b) only one infill well on a 320-acre unit shall be allowed provided that the well is located in the quarter section of the 320-acre unit not containing the initial well and is no closer than 660 feet to the outer boundary of the quarter section and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

(3) 160-acre spacing applies to any other gas well not covered above. Such well shall be located in a spacing unit consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section and a legal subdivision of the U.S. public land surveys and shall be located no closer than 660 feet to any outer boundary of such unit and no closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

D. Acreage Assignment

(1) Well Tests and Classification. It is the responsibility of the operator of any wildcat or development gas well to which more than 40 acres has been dedicated to conduct a potential test within 30 days following completion of the well and to file the test with the division within 10 days following completion of the test. (See Rule 401)

(a) The date of completion for a gas well is the date of the conclusion of active completion work on the well.

(b) If the division determines that a well should not be classified as a gas well, the division will reduce the acreage dedicated to the well to the standard acreage for an oil well.

(c) Failure of the operator to file the test within the specified time will also subject the well to such acreage reduction.

(2) Non-Standard Spacing Units. Any well that does not have the required amount of acreage dedicated to it for the pool or formation in which it is completed may not be produced until a standard spacing unit for the well has been formed and dedicated or until a non-standard spacing unit has been approved.

(a) Division district offices have the authority to approve non-standard spacing units without notice when the unorthodox size or shape is necessitated by a variation in the legal subdivision of the U. S. public land surveys and/or consists of an entire governmental section and the non-standard spacing unit is not less than 70% or more than 130% of a standard spacing unit. The operator must obtain division approval of division Form C-102 showing the proposed non-standard spacing unit and the acreage contained therein.

(b) The director may grant administrative approval to non-standard spacing units after notice and opportunity for hearing when an application has been filed and the unorthodox size or shape is necessitated by a variation in the legal subdivision of the U.S. public land surveys or the following facts exist:

(i) the non-standard spacing unit consists of: (A) a single quarter-quarter section or lot or (B) quarter-quarter sections or lots joined by a common side; and

(ii) the non-standard spacing unit lies wholly within: a single quarter section if the well is completed in a pool or formation for which 40, 80, or 160 acres is the standard spacing unit size; a single half section if the well is completed in a pool or formation for which 320 acres is the standard spacing unit size; or a single section if the well is completed in a pool or formation for which 640 acres is the standard spacing unit size.

(c) Applications for administrative approval of non-standard spacing units pursuant to Subsection D, Paragraph (2), Subparagraph (b) of 19.15.3.104 NMAC shall be submitted to the division's Santa Fe office and accompanied by: (i) a plat showing the spacing unit and an applicable standard spacing unit for that pool or formation, the proposed well dedications and all adjoining spacing units; (ii) a list of affected persons as defined in Rule 1207.A(2); and (iii) a statement discussing the reasons for the formation of the non-standard spacing unit.

(d) The applicant shall submit a statement attesting that the applicant, on or before the date the application was submitted to the division, sent notification to the affected persons by submitting a copy of the application, including a copy of the plat described in Subparagraph (c) above, by certified mail, return receipt requested, advising them that if they have an objection it must be filed in writing within 20 days from the date the division receives the application. The director may approve the application upon receipt of waivers from all the notified persons or if no person has filed an objection within the 20-day period.

(e) The director may set for hearing any application for administrative approval.

(3) Number of wells per spacing unit. Exceptions to the provisions of statewide rules or special pool orders concerning the number of wells allowed per spacing unit may be permitted by the director only after notice and opportunity for hearing. Notice shall be given to those affected persons defined in Rule 1207.A.(2).

E. Special rules for multiple operators within a spacing unit

(1) Allowable production. If an operator completes a well in an oil pool or prorated gas pool, located within a proration unit containing an existing well or wells producing from that pool and operated by a different operator, unless otherwise agreed by all operators of wells producing from that proration unit, the allowable production from such newly completed well shall not exceed the difference between the allowable production for such proration unit and the actual production from such pool of the existing well or wells within such proration unit. The division may authorize exceptions to this provision after hearing following appropriate notice.

(2) Notice requirements. Any operator who intends to operate a well in a spacing or proration unit containing an existing well or wells operated by another operator shall, prior to filing the application for permit to drill, deepen or plug back for such well, furnish written notification of its intent to the operator of each such existing well, and, if the unit includes state or federal minerals, to the state land office or United States bureau of land management, as applicable; provided that separate notification to the bureau of land management shall not be required if the application will be filed with that agency pursuant to 19.15.1.14 NMAC. Such notices shall be sent by certified mail, return receipt requested, and shall specify the location and depth of the proposed well. The applicant shall submit with its application for permit to drill, deepen or plug back either (a) a statement attesting that, at least twenty days before the date that the application was submitted to the division, it sent notices to the designated parties, by certified mail, return receipt requested, advising them that if they have an objection a written statement thereof must be delivered to the proposing operator within twenty days of the date such notice was mailed, and that it has received no such objection, or (b) written waivers from all persons required to be notified (approval of the application by the United States bureau of land management being deemed equivalent to waiver by that agency). In event of objection, the application may be approved only after hearing.

(3) Transfer of wells. If an operator transfers operation of less than all of its well located within a spacing or proration unit to another operator, and such spacing unit includes any state or federal minerals, the

operator shall, prior to filing form C-104A to effectuate such transfer, provide written notification to the state land office or United States bureau of land management, as applicable, of such transfer.

(4) Compulsory pooled units. No provision of 19.15.3.104 NMAC shall authorize the operation of any producing well within a unit described in an existing compulsory pooling order by any operator other than the operator designated in such order.

(5) Federal or state exploratory units. No provision of 19.15.3.104 NMAC shall authorize the operation of any producing well within any federal exploratory unit or state exploratory unit by an operator other than the designated operator of such unit except as provided in the rules of the United States bureau of land management or state land office applicable to such unit.

F. Unorthodox Locations

(1) Well locations for producing wells and/or injection wells that are unorthodox based on the requirements of Subsection B above and are necessary for an efficient production and injection pattern within a secondary recovery, tertiary recovery, or pressure maintenance project are hereby authorized, provided that the unorthodox location within the project is no closer than the required minimum distance to the outer boundary of the lease or unitized area, and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary. These locations shall only require such prior approvals as are necessary for an unorthodox location.

(2) The director may grant an exception to the well location requirements of Subsections B and C above or special pool orders after notice and opportunity for hearing when the exception is necessary to prevent waste or protect correlative rights.

(3) Applications for administrative approval pursuant to Subsection F, Paragraph (2) above shall be submitted to the division's Santa Fe office accompanied by (a) a plat showing the spacing unit, the proposed unorthodox well location and the adjoining spacing units and wells; (b) a list of affected persons as defined in Rule 1207.A(2); and (c) information evidencing the need for the exception. Notice shall be given as required in Rule 1207.A(2).

(4) The applicant shall submit a statement attesting that applicant, on or before the date that the application was submitted to the division, sent notification to the affected persons by submitting a copy of the application, including a copy of the plat described in Subsection F, Paragraph (3) above, by certified mail, return receipt requested, advising them that if they have an objection it must be filed in writing within 20 days from the date the division receives the application. The director may approve the unorthodox location upon receipt of waivers from all the affected persons or if no affected person has filed an objection within the 20-day period.

(5) The director may set for hearing any application for administrative approval of an unorthodox location.

(6) Whenever an unorthodox location is approved, the division may order any action necessary to offset any advantage of the unorthodox location.

G. Effect On Allowables

(1) If the drilling tract is within a prorated/allocated oil pool or is subsequently placed within such pool and the drilling tract consists of less than 39½ acres or more than 40½ acres, the top unit allowable for the well shall be increased or decreased in the proportion that the number of acres in the drilling tract bears to 40.

(2) If the drilling tract is within a prorated/allocated gas pool or is subsequently placed within such pool and the drilling tract consists of less than 158 acres or more than 162 acres in 160-acre pools, or less than 316 acres or more than 324 acres in 320-acre pools, or less than 632 acres or more than 648 acres in 640-acre pools, the top allowable for the well shall be decreased or increased in the proportion that the number of acres in the drilling tract bears to a standard spacing unit for the pool.

(3) In computing acreage under Paragraphs (1) and (2) above, less than ½ acre shall not be counted but ½ acre or more shall count as one acre.

(4) The provisions of Paragraphs (1) and (2) above shall apply only to wells completed after January 1, 1950.

H. Division-Initiated Exceptions - In order to prevent waste, the division may, after hearing, set different spacing requirements and require different acreage for drilling tracts in any defined oil or gas pool.

I. Pooling Or Communitization Of Small Oil Lots

(1) The division may approve the pooling or communitization of fractional oil lots of 20.49 acres or less with a contiguous oil spacing unit when the ownership is common and the tracts are part of the same lease with the same royalty interests if the following requirements are satisfied:

(a) applications for administrative approval shall be submitted to the division's Santa Fe office and accompanied by: (i) a plat showing the dimensions and acreage involved, the ownership of such acreage, the

location of all existing and proposed wells and all adjoining spacing units; (ii) a list of affected persons as defined in Rule 1207.A(2); and (iii) a statement discussing the reasons for the pooling or communitization;

(b) the applicant shall submit a statement attesting that the applicant, on or before the date the application was submitted to the division, sent notification to the affected persons by submitting a copy of the application, including a copy of the plat described in (a) above, by certified mail, return receipt requested, advising them that if they have an objection it must be filed in writing within 20 days from the date the division receives the application; the director may approve the application upon receipt of waivers from all the notified persons or if no person has filed an objection within the 20-day period;

(c) the director may set for hearing any application for administrative approval.

(2) The division may consider the common ownership and common lease requirements met if the applicant furnishes with the application a copy of an executed pooling agreement communitizing the tracts involved.
[1-1-50...2-1-96; A, 6-30-97; A, 8-31-99; 19.15.3.104 NMAC - Rn, 19 NMAC 15.C.104, 11-15-01; A, 05/31/05]

19.15.3.105 [RESERVED].
[1-1-50, 9-1-89...2-1-96; 19.15.3.105 NMAC - Rn, 19 NMAC 15.C.105, 11-15-01; Repealed, 5-28-04]

19.15.3.106 SEALING OFF STRATA:

A. During the drilling of any oil well, injection well or any other service well, all oil, gas, and water strata above the producing and/or injection horizon shall be sealed or separated in order to prevent their contents from passing into other strata.

B. All fresh waters and waters of present or probable value for domestic, commercial, or stock purposes shall be confined to their respective strata and shall be adequately protected by methods approved by the division. Special precautions by methods satisfactory to the division shall be taken in drilling and abandoning wells to guard against any loss of artesian water from the strata in which it occurs, and the contamination of artesian water by objectionable water, oil, or gas.

C. All water shall be shut off and excluded from the various oil- and gas-bearing strata which are penetrated. Water shut-offs shall ordinarily be made by cementing casing.
[1-1-50, 3-1-91...2-1-96; 19.15.3.106 NMAC - Rn, 19 NMAC 15.C.106, 11-15-01]

19.15.3.107 CASING AND TUBING REQUIREMENTS:

A. Any well drilled for oil or natural gas shall be equipped with such surface and intermediate casing strings and cement as may be necessary to effectively seal off and isolate all water-, oil-, and gas-bearing strata and other strata encountered in the well down to the casing point. In addition thereto, any well completed for the production of oil or natural gas shall be equipped with a string of properly cemented production casing at sufficient depth to ensure protection of oil- and gas-bearing strata encountered in the well, including the one(s) to be produced.

B. Sufficient cement shall be used on surface casing to fill the annular space behind the casing to the top of the hole, provided however, that authorized field personnel of the division may, at their discretion, allow exceptions to the foregoing requirement when known conditions in a given area render compliance impracticable.

C. All cementing shall be by pump and plug method unless some other method is expressly authorized by the division.

D. All cementing shall be with conventional-type hard-setting cements to which such additives (lighteners, densifiers, extenders, accelerators, retarders, etc.) have been added to suit conditions in the well.

E. Authorized field personnel of the division may, when conditions warrant, allow exceptions to the above paragraph and permit the use of oil-base casing packing material in lieu of hard-setting cements on intermediate and production casing strings; provided however, that when such materials are used on the intermediate casing string, conventional-type hard-setting cements shall be placed throughout all oil- and gas-bearing zones and throughout at least the lowermost 300 feet of the intermediate casing string. When such materials are used on the production casing string, conventional-type hard-setting cements shall be placed throughout all oil- and gas-bearing zones and shall extend upward a minimum of 500 feet above the uppermost perforation or, in the case of an open-hole completion, 500 feet above the production casing shoe.

F. All casing strings shall be tested and proved satisfactory as provided in Subsection I. below.

G. After cementing, but before commencing tests required in Subsection I. below, all casing strings shall stand cemented in accordance with Option 1 **or** 2 below. Regardless of which option is taken, the casing shall remain stationary and under pressure for at least eight hours after the cement has been placed. Casing shall be "under pressure" if some acceptable means of holding pressure is used or if one or more float valves are employed to

hold the cement in place.

(1) **Option 1** Allow all casing strings to stand cemented a minimum of eighteen (18) hours prior to commencing tests. Operators using this option shall report on Form C-103 the actual time the cement was in place before initiating tests.

(2) **Option 2** (May be used in the counties of San Juan, Rio Arriba, McKinley, Sandoval, Lea, Eddy, Chaves, and Roosevelt only.) Allow all casing strings to stand cemented until the cement has reached a compressive strength of at least 500 pounds per square inch in the "zone of interest" before commencing tests, provided however, that no tests shall be commenced until the cement has been in place for at least eight (8) hours.

(a) The "zone of interest" for surface and intermediate casing strings shall be the bottom 20 percent of the casing string, but shall be no more than 1000 feet nor less than 300 feet of the bottom-part of the casing unless the casing is set at less than 300 feet. The "zone of interest" for production casing strings shall include the interval or intervals where immediate completion is contemplated.

(b) To determine that a minimum compressive strength of 500 pounds per square inch has been attained, operators shall use the typical performance data for the particular cement mix used in the well, at the minimum temperature indicated for the zone of interest by Figure 107-A, Temperature Gradient Curves. Typical performance data used shall be that data furnished by the cement manufacturer or by a competent materials testing agency, as determined in accordance with the latest edition of API Code RP 10 B "Recommended Practice for Testing Oil-Well Cements."

(See Temperature Gradient - Page 17A)

H. Operators using the compressive strength criterion (Option 2) shall report the following information on Form C-103:

(1) Volume of cement slurry (cubic feet) and brand name of cement and additives, percent additives used, and sequence of placement if more than one type cement slurry is used.

(2) Approximate temperature of cement slurry when mixed.

(3) Estimated minimum formation temperature in zone of interest.

(4) Estimate of cement strength at time of casing test.

(5) Actual time cement in place prior to starting test.

I. All casing strings except conductor pipe shall be tested after cementing and before commencing any other operations on the well. Form C-103 shall be filed for each casing string reporting the grade and weight of pipe used. In the case of combination strings utilizing pipe of varied grades or weights, the footage of each grade and weight used shall be reported. The results of the casing test, including actual pressure held on pipe and the pressure drop observed shall also be reported on the same Form C-103.

(1) Casing strings in wells drilled with rotary tools shall be pressure tested. Minimum casing test pressure shall be approximately one-third of the manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 pounds per square inch and need not be greater than 1500 pounds per square inch. In cases where combination strings are involved, the above test pressure shall apply to the lowest pressure rated casing used. Test pressures shall be applied for a period of 30 minutes. If a drop of more than 10 percent of the test pressure should occur, the casing shall be considered defective and corrective measures shall be applied.

(2) Casing strings in wells drilled with cable tools may be tested as outlined in Subsection I, Paragraph (1) above, or by bailing the well dry in which case the hole must remain satisfactorily dry for a period of at least one (1) hour before commencing any further operations on the well.

J. Well Tubing Requirements

(1) All flowing oil wells equipped with casing larger in size than 2 7/8-inch OD shall be tubed.

(2) All gas wells equipped with casing larger in size than 3 ½-inch OD shall be tubed.

(3) Tubing shall be set as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone.

(4) The supervisor of the appropriate division district office, upon application, may grant exceptions to these requirements, provided waste will not be caused.

(5) The supervisor may request that an application be reviewed by the Director. The operator shall submit information and give notice as requested by the Director. Unprotested applications may be approved after 20 days of receipt of the application and supporting information. If the application is protested, or the Director so decides, the application shall be set for hearing.

K. Repealed.

[1-1-50, 5-5-58, 6-26-59, 2-29-64, 2-1-96, 2-26-99; 19.15.3.107 NMAC - Rn, 19 NMAC 15.C.107, 11-15-01]

19.15.3.108 DEFECTIVE CASING OR CEMENTING: If any well appears to have a defective casing program or faultily cemented or corroded casing which will permit or may create underground waste or contamination of fresh waters, the operator shall give written notice to the division within five (5) working days and proceed with diligence to use the appropriate method and means to eliminate such hazard. If such hazard of waste or contamination of fresh water cannot be eliminated, the well shall be properly plugged and abandoned. [1-1-50...2-1-96; 19.15.3.108 NMAC - Rn, 19 NMAC 15.C.108, 11-15-01]

19.15.3.109 BLOWOUT PREVENTION: (See Section 114, Subsection B of 19.15.3 NMAC also)

A. Blowout preventers shall be installed and maintained in good working order on all drilling rigs operating in areas of known high pressures at or above the projected depth of the well and in all areas where pressures which will be encountered are unknown, and on all workover rigs working on wells in which high pressures are known to exist.

B. Blowout preventers shall be installed and maintained in good working order on all drilling rigs and workover rigs operating within the corporate limits of any city, town, or village, or within 1320 feet of habitation, school, or church, wherever located.

C. All operators, when filing Form C-101, Application for Permit to Drill, Deepen, or Plug Back, or Form C-103, Sundry Notices, for any operation requiring blowout prevention equipment in accordance with Subsections A and B above, shall submit a proposed blowout prevention program for the well. The program as submitted may be modified by the district supervisor if, in his judgement, such modification is necessary. [10-22-74...2-1-96; 19.15.3.109 NMAC - Rn, 19 NMAC 15.C.109, 11-15-01]

19.15.3.110 PULLING OUTSIDE STRINGS OF CASING: In pulling outside strings of casing from any oil or gas well, the space outside the casing left in the hole shall be kept and left full of mud-laden fluid or cement of adequate specific gravity to seal off all fresh and salt water strata and any strata bearing oil or gas not producing. [1-1-50...2-1-96; 19.15.3.110 NMAC - Rn, 19 NMAC 15.C.110, 11-15-01]

19.15.3.111 DEVIATION TESTS AND DIRECTIONAL WELLS:

A. Definitions - the following definitions shall apply to Section 111 of 19.15.3 NMAC only:

(1) Azimuth - the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.

(2) Deviated Well - any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Section 111, Subsection B of 19.15.3 NMAC.

(3) Directional Well - a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Section 111, Subsection C of 19.15.3 NMAC.

(4) Kick-off Point - the point at which the wellbore is intentionally deviated from vertical.

(5) Lateral - any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(6) Penetration Point - the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(7) Producing Area - the area that lies within a window formed by plotting the measured distance from the North, South, East and West boundaries of a project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing unit for the applicable pool(s).

(8) Producing Interval - that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(9) Project Area - an area designated on Form C-102 that is enclosed by the outer boundaries of a spacing unit, a combination of complete spacing units, or an approved secondary, secondary, tertiary or pressure maintenance project.

(10) Project Well - any well drilled, completed, produced or injected into as either a vertical well, deviated well or directional well.

(11) Spacing Unit - the acreage that is dedicated or a well in accordance with Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the division and all non-standard such units previously approved by the division.

(12) Terminus - the farthest point attained along the wellbore.

(13) Unorthodox - any part of the producing interval which is located outside of the producing area.

(14) Vertical Well - a well that does not have an intentional departure or course deviation from the vertical.

(15) Wellbore - the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

B. Deviated Wellbores

(1) Deviation Tests Required. Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas.

(2) Excessive Deviation. When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest outer boundary line of the appropriate unit, the operator shall run a directional survey to establish the location of the producing interval(s).

(3) Unorthodox Locations. If the results of the directional survey indicate that the producing interval is more than 50 feet from the approved surface location and closer than the minimum setback requirements to the outer boundaries of the applicable unit, then the well shall be considered unorthodox. To obtain authority to produce such well, the operator shall file an application with the Division director, copy to the appropriate division district office, and shall otherwise follow the normal process outlined in Section 104, Subsection F, Paragraph (3) of 19.15.3 NMAC to obtain approval of the unorthodox location.

(4) Directional Survey Requirements. Upon request from the Division director, any vertical or deviated well shall be directionally surveyed. The appropriate division district office shall be notified of the approximate time any directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the division upon completion of the well. The division shall not assign an allowable to the well until all such directional surveys have been filed.

C. Directional Wellbores

(1) Directional Drilling Within a Project Area. A permit to directionally drill a wellbore may be granted by the appropriate division district office if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the division. Additionally, if the project area consists of a combination of drilling units and includes any State or Federal acreage, a copy of the OCD Form C-102 shall be sent to the State Land Office or the Bureau of Land Management.

(2) Unorthodox Wellbores. If all or part of the producing interval of any directional wellbore is projected to be outside of the producing area, the wellbore shall be considered unorthodox. To obtain approval for such wellbore, the applicant shall file a written application in duplicate with the Division director, copy to the appropriate division district office, and shall otherwise follow the normal process outlined in Section 104, Subsection F, Paragraph (3) of 19.15.3 NMAC.

(3) Allowables for Project Areas With Multiple Proration Units. The maximum allowable assigned to the project area within a prorated pool shall be based upon the number of standard spacing units (or approved non-standard spacing units) that are developed or traversed by the producing interval of the directional wellbore or wellbores. Such maximum allowable shall be applicable to all production from the project area, including any vertical wellbores on standard spacing units inside the project area.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The appropriate division district office shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the division upon completion of the well. The division shall not assign an allowable to the well until all such directional surveys have been filed. If the directional survey indicates that any part of the producing interval is outside of the producing area, or, in the case of an approved unorthodox location, less than the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file an application with the Division director, copy to the appropriate division district office, and shall otherwise follow the normal process outlined in Section 104, Subsection F, Paragraph (3) of 19.15.3 NMAC to obtain approval of the unorthodox location.

(5) Re-entry of Vertical or Deviated Wellbores for Directional Drilling Projects. These wellbores shall be considered orthodox provided the surface location is orthodox and the location of producing interval is within the tolerance allowed for deviated wellbores under Section 111, Subsection B, Paragraph (3) of 19.15.3 NMAC.

D. Additional Matters

(1) Directional surveys required under the provisions of Section 111 of 19.15.3 NMAC shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the Division director. Exceptions to the minimum shot point spacing will be allowed provided the accuracy of the survey is still within acceptable limits.

(2) The Division director, may, at his discretion, set any application for administrative approval whereby the operator shall submit appropriate information and give notice as requested by the Division director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting information. If the application is protested, or the Division director decides that a public hearing is appropriate, the application may be set for public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in Section 111 of 19.15.3 NMAC shall be granted only after notice and opportunity for hearing.

E. Reserved.

(1) Reserved.

(2) Reserved.

F. Reserved.

(1) Reserved.

(2) Reserved.

(3) Reserved.

[1-1-50; 8-28-62; 3-2-84; 7-26-95; 2-1-96; A, 7-31-97; 19.15.3.111 NMAC - Rn, 19 NMAC 15.C.111, 11-15-01]

19.15.3.112 [MULTIPLE COMPLETIONS; BRADENHEAD GAS WELLS]

A. Multiple Completions

(1) Filing. Operators intending to multiple complete must file Form C-101 and/or C-103 for approval before completing and C-104 after completing along with any information required by the form instructions.

(2) Operation and Testing

(a) Wells shall be completed and produced so that no commingling of hydrocarbons from separate pools occurs.

(b) The operator shall commence a segregation and/or packer leakage test within 20 days after the multiple completion. Segregation tests and/or packer leakage tests shall also be made any time the packer is disturbed. The operator shall also conduct any other tests and determinations required by the division. The appropriate district office shall be notified 48 hours in advance of tests so the district office may schedule personnel to witness the tests. Offset operators may witness such tests and shall advise the operator in writing if they desire to be notified of the tests. Test results shall be filed with the division within 20 days of test completion. In the event a segregation and/or packer leakage test indicates communication between separate pools, the operator shall immediately notify the division and commence corrective action on the well.

(c) Wells shall be equipped so that (i) reservoir pressure may be determined for each of the separate pools, and (ii) meters may be installed so that the gas and/or oil produced from each of the separate pools may be accurately measured.

(d) No multiple completion shall produce in a manner unnecessarily wasting reservoir energy.

(e) The division may require the proper plugging of any zone of a multiple-completed well if the plugging appears necessary to prevent waste, protect correlative rights or protect groundwater, public health or the environment.

B. Bradenhead Gas Wells

(1) The production of gas from a bradenhead gas well may be permitted only by order of the division upon hearing, except as noted by the provisions of Subsection C of 19.15.3.112 NMAC.

(2) The application for such hearings shall be submitted in triplicate and shall include an exhibit showing the location of all wells on applicant's lease and all offset wells on offset leases, together with a diagrammatic sketch showing the casing program, formation tops, estimated top of cement on each casing string run and any other pertinent data, including drill stem tests.

(3) The Division director shall have authority to grant an exception to the requirements of paragraph A. above without notice and hearing where application has been filed in due form, and when the lowermost producing zone involved in the completion is an oil or gas producing zone within the defined limits of an oil or gas pool and the producing zone to be produced through the bradenhead connection is a gas producing zone within the defined limits of a gas pool.

(4) Applicants shall furnish all operators who offset the lease upon which the subject well is located a copy of the application to the division, and applicant shall include with his application a written stipulation that all offset operators have been properly notified. The Division director shall wait at least 10 days before approving the production of gas from the bradenhead gas well, and shall approve such production only in the absence of objection from any offset operator. In the event an operator objects to the completion the Division director shall consider the matter only after proper notice and hearing.

(5) The division may waive the 10-day waiting period requirement if the applicant furnishes the division with the written consent to the production of gas from the bradenhead connection by all offset operators involved.

(6) Section 112-2 of 19.15.3 NMAC shall apply only to wells hereinafter completed as bradenhead gas wells.

(7) (1), (2), (3), (4) Repealed.

(8) (1); (1).(a); (1).(b); (2) Repealed.

(9) (1), (2) Repealed.

(10) (1).(a), (b), (c), (d), (e), (f), (g) Reserved.

[4-3-53; 7-3-58...2-1-82; 2-1-96; 19.15.3.112 NMAC - Rn, 19 NMAC 15.C.112-A and 112-B, 11-15-01]

19.15.3.113 SHOOTING AND CHEMICAL TREATMENT OF WELLS: If injury results to the producing formation, injection interval, casing or casing seat from shooting, fracturing, or treating a well and which injury may create underground waste or contamination of fresh water, the operator shall give written notice to the division within five (5) working days and proceed with diligence to use the appropriate method and means for rectifying such damage. If shooting, fracturing, or chemical treating results in irreparable injury to the well the division may require the operator to properly plug and abandon the well.

[1-1-50...2-1-96; 19.15.3.113 NMAC - Rn, 19 NMAC 15.C.113, 11-15-01]

19.15.3.114 SAFETY REGULATIONS:

A. All oil wells shall be cleaned into a pit or tank, not less than 40 feet from the derrick floor and 150 feet from any fire hazard. All flowing oil wells must be produced through an oil and gas separator of ample capacity and in good working order. No boiler or portable electric lighting generator shall be placed or remain nearer than 150 feet to any producing well or oil tank. Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least 150 feet from the vicinity of wells and tanks. All waste shall be burned or disposed of in such manner as to avoid creating a fire hazard.

B. When coming out of the hole with drill pipe, drilling fluid shall be circulated until equalized and subsequently drilling fluid level shall be maintained at a height sufficient to control subsurface pressures. During course of drilling blowout preventers shall be tested at least once each 24-hour period.

[1-1-50...2-1-96; 19.15.3.114 NMAC - Rn, 19 NMAC 15.C.114, 11-15-01]

19.15.3.115 WELL AND LEASE EQUIPMENT:

A. Christmas tree fittings or wellhead connections shall be installed and maintained in first class condition so that all necessary pressure tests may easily be made on flowing wells. On oil wells the Christmas tree fittings shall have a test pressure rating at least equivalent to the calculated or known pressure in the reservoir from which production is expected. On gas wells the Christmas tree fittings shall have a test pressure equivalent to at least 150 percent of the calculated or known pressure in the reservoir from which production is expected.

B. Valves shall be installed and maintained in good working order to permit pressures to be obtained on both casing and tubing. Each flowing well shall be equipped to control properly the flowing of each well, and in case of an oil well, shall be produced into an oil and gas separator of a type generally used in the industry.

[1-1-50...2-1-96; 19.15.3.115 NMAC - Rn, 19 NMAC 15.C.115, 11-15-01]

19.15.3.116 RELEASE NOTIFICATION AND CORRECTIVE ACTION:

A. Notification

(1) The division shall be notified of any unauthorized release occurring during the drilling, producing, storing, disposing, injecting, transporting, servicing or processing of crude oil, natural gases, produced water, condensate or oil field waste including Regulated NORM, or other oil field related chemicals, contaminants or mixture thereof, in the State of New Mexico in accordance with the requirements of Section 116 of 19.15.3 NMAC.

(2) The division shall be notified in accordance with Section 116 of 19.15.3 NMAC with respect to

any release from any facility of oil or other water contaminant, in such quantity as may with reasonable probability be detrimental to water or cause an exceedance of the standards in Section 19, Subsection B, Paragraphs (1) and (2) or (3) of 19.15.1 NMAC.

B. Reporting Requirements. Notification of the above releases shall be made by the person operating or controlling either the release or the location of the release in accordance with the following requirements:

(1) A Major Release shall be reported by giving both immediate verbal notice and timely written notice pursuant to Subsection C, Paragraphs (1) and (2) of 19.15.3.116 NMAC. A Major Release is:

(a) an unauthorized release of a volume, excluding natural gases, in excess of 25 barrels;

(b) an unauthorized release of any volume which:

(i) results in a fire;

(ii) will reach a water course;

(iii) may with reasonable probability endanger public health; or

(iv) results in substantial damage to property or the environment;

(c) an unauthorized release of natural gases in excess of 500 mcf; or

(d) a release of any volume which may with reasonable probability be detrimental to water or cause an exceedance of the standards in Section 19, Subsection B, Paragraphs (1) and (2) or (3) of 19.15.1 NMAC.

(2) A Minor Release shall be reported by giving timely written notice pursuant to Subsection C, Paragraph (2) of 19.15.3.116 NMAC. A Minor Release is an unauthorized release of a volume, greater than 5 barrels but not more than 25 barrels; or greater than 50 mcf but less than 500 mcf of natural gases.

C. Contents Of Notification

(1) Immediate verbal notification required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery to the division district office for the area within which the release takes place. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief. This notification shall provide the information required on division Form C-141.

(2) Timely written notification is required to be reported pursuant to Subsection B of 19.15.3.116 NMAC within fifteen (15) days to the division district office for the area within which the release takes place by completing and filing division Form C-141. In addition, timely written notification required pursuant to Subsection B, Paragraph (1), Subparagraph (d) of 19.15.3.116 NMAC shall also be reported to the division's Environmental Bureau Chief within fifteen (15) days after the release is discovered. The written notification shall verify the prior verbal notification and provide any appropriate additions or corrections to the information contained in the prior verbal notification.

D. Corrective Action. The responsible person must complete division approved corrective action for releases which endanger public health or the environment. Releases will be addressed in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with Section 19 of 19.15.1 NMAC.

[1-1-50...5-22-73...2-1-96; A, 3-15-97; 19.15.3.116 NMAC - Rn, 19 NMAC 15.C.116, 11-15-01]

19.15.3.117 WELL LOG, COMPLETION AND WORKOVER REPORTS: Within 20 days after the completion of a well drilled for oil or gas, or the recompletion of a well into a different common source of supply, a completion report shall be filed with the division on Form C-105. For the purpose of Section 117 of 19.15.3 NMAC, any hole drilled or cored below fresh water or which penetrates oil- or gas-bearing formations or which is drilled by an "owner" as defined herein shall be presumed to be a well drilled for oil or gas.

[1-1-50...2-1-96; 19.15.3.117 NMAC - Rn, 19 NMAC 15.C.117, 11-15-01]

19.15.3.118 HYDROGEN SULFIDE GAS (HYDROGEN SULFIDE):

A. Applicability. This section applies to any person, operator or facility subject to the jurisdiction of the division, including, but not limited to, any person, operator or facility engaged in drilling, stimulating, injecting into, completing, working over or producing any oil, natural gas or carbon dioxide well or any person, operator or facility engaged in gathering, transporting, storing, processing or refining of crude oil, natural gas or carbon dioxide (referred to herein as "person, operator or facility" or "well, facility or operation"). This section shall not act to exempt or otherwise excuse surface waste management facilities permitted by the division pursuant to 19.15.9.711 NMAC from more stringent conditions on the handling of hydrogen sulfide required of such facilities by 19.15.9.711 NMAC or more stringent conditions in permits issued thereunder, nor shall such facilities be exempt or otherwise excused from the requirements set forth in this section by virtue of permitting under 19.15.9.711 NMAC.

B. Definitions (specific to this section).

(1) ANSI. The acronym "ANSI" means the American national standards institute.

(2) API. The acronym "API" means the American petroleum institute.

(3) Area of Exposure. The phrase "area of exposure" means the area within a circle constructed with a point of escape at its center and the radius of exposure as its radius.

(4) ASTM. The acronym "ASTM" means the American society for testing and materials.

(5) Dispersion Technique. A "dispersion technique" is a mathematical representation of the physical and chemical transportation characteristics, dilution characteristics and transformation characteristics of hydrogen sulfide gas in the atmosphere.

(6) Escape Rate. The "escape rate" is the maximum volume (Q) that is used to designate the possible rate of escape of a gaseous mixture containing hydrogen sulfide, as set forth herein.

(a) For existing gas facilities or operations, the escape rate shall be calculated using the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof. For an existing gas well, the escape rate shall be calculated using the current daily absolute open flow rate against atmospheric pressure or the best estimate of that rate.

(b) For new gas operations or facilities, the escape rate shall be calculated as the maximum anticipated flow rate through the system. For a new gas well, the escape rate shall be calculated using the maximum open-flow rate of offset wells in the pool or reservoir, or the pool or reservoir average of maximum open-flow rates.

(c) For existing oil wells, the escape rate shall be calculated by multiplying the producing gas/oil ratio by the maximum daily production rate or the best estimate thereof.

(d) For new oil wells, the escape rate shall be calculated by multiplying the producing gas/oil ratio by the maximum daily production rate of offset wells in the pool or reservoir, or the pool or reservoir average of the producing gas/oil ratio multiplied by the maximum daily production rate.

(e) For facilities or operations not mentioned, the escape rate shall be calculated using the actual flow of the gaseous mixture through the system or the best estimate thereof.

(7) GPA. The acronym "GPA" means the gas processors association.

(8) LEPC. The acronym "LEPC" means the local emergency planning committee established pursuant to the emergency planning and community right-to-know act, 42 U.S.C. Section 11001.

(9) NACE. The acronym "NACE" refers to the national association of corrosion engineers.

(10) PPM. The acronym "ppm" means "parts per million" by volume.

(11) Potentially Hazardous Volume means the volume of hydrogen sulfide gas of such concentration that:

(a) the 100-ppm radius of exposure includes any public area;

(b) the 500-ppm radius of exposure includes any public road; or

(c) the 100-ppm radius of exposure exceeds 3,000 feet.

(12) Public Area. A "public area" is any building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital, or government building, or any portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present.

(13) Public Road. A "public road" is any federal, state, municipal or county road or highway.

(14) Radius of Exposure. The radius of exposure is that radius constructed with the point of escape as its starting point and its length calculated using the following Pasquill-Gifford derived equation, or by such other method as may be approved by the division:

(a) For determining the 100-ppm radius of exposure: $X= [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

(b) For determining the 500-ppm radius of exposure: $X=[(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$, where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

(c) For a well being drilled, completed, recompleted, worked over or serviced in an area where insufficient data exists to calculate a radius of exposure but where hydrogen sulfide could reasonably be expected to be present in concentrations in excess of 100 ppm in the gaseous mixture, a 100-ppm radius of exposure equal to

3,000 feet shall be assumed.

C. Regulatory Threshold.

(1) Determination of Hydrogen Sulfide Concentration.

(a) Each person, operator or facility shall determine the hydrogen sulfide concentration in the gaseous mixture within each of its wells, facilities or operations either by testing (using a sample from each well, facility or operation), testing a representative sample, or using process knowledge in lieu of testing. If a representative sample or process knowledge is used, the concentration derived from the representative sample or process knowledge must be reasonably representative of the hydrogen sulfide concentration within the well, facility or operation.

(b) The tests used to make the determination referred to in the previous subparagraph shall be conducted in accordance with applicable ASTM or GPA standards or by another method approved by the division.

(c) If a test was conducted prior to the effective date of this section that otherwise meets the requirements of the previous subparagraphs, new testing shall not be required.

(d) If any change or alteration may materially increase the concentration of hydrogen sulfide in a well, facility or operation, a new determination shall be required in accordance with this section.

(2) Concentrations Determined to be Below 100 ppm. If the concentration of hydrogen sulfide in a given well, facility or operation is less than 100 ppm, no further actions shall be required pursuant to this section.

(3) Concentrations Determined to be Above 100 ppm.

(a) If the concentration of hydrogen sulfide in a given well, facility or operation is determined to be 100 ppm or greater, then the person, operator or facility must calculate the radius of exposure and comply with applicable requirements of this section.

(b) If calculation of the radius of exposure reveals that a potentially hazardous volume is present, the results of the determination of the hydrogen sulfide concentration and the calculation of the radius of exposure shall be provided to the division. For a well, facility or operation existing on the effective date of this section, the determination, calculation and submission required herein shall be accomplished within 180 days of the effective date of this section; for any well, facility or operation that commences operations after the effective date of this section, the determination, calculation and submission required herein shall be accomplished before operations begin.

(4) Recalculation. The person, operator or facility shall calculate the radius of exposure if the hydrogen sulfide concentration in a well, facility or operation increases to 100 ppm or greater. The person, operator or facility shall also recalculate the radius of exposure if the actual volume fraction of hydrogen sulfide increases by a factor of twenty-five percent in a well, facility or operation that previously had a hydrogen sulfide concentration of 100 ppm or greater. If calculation or recalculation of the radius of exposure reveals that a potentially hazardous volume is present, the results shall be provided to the division within sixty (60) days.

D. Hydrogen Sulfide Contingency Plan.

(1) When Required. If a well, facility or operation involves a potentially hazardous volume of hydrogen sulfide, a hydrogen sulfide contingency plan that will be used to alert and protect the public must be developed in accordance with the following paragraphs.

(2) Plan Contents.

(a) API Guidelines. The hydrogen sulfide contingency plan shall be developed with due consideration of paragraph 7.6 of the guidelines published by the API in its publication entitled "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP-55, most recent edition, or with due consideration to another standard approved by the division.

(b) Required Contents. The hydrogen sulfide contingency plan shall contain, but shall not be limited to, information on the following subjects, as appropriate to the well, facility or operation to which it applies:

(i) Emergency procedures. The hydrogen sulfide contingency plan shall contain information on emergency procedures to be followed in the event of a release and shall include, at a minimum, information concerning the responsibilities and duties of personnel during the emergency, an immediate action plan as described in the API document referenced in the previous subsubparagraph, and telephone numbers of emergency responders, public agencies, local government and other appropriate public authorities. The plan shall also include the locations of potentially affected public areas and public roads and shall describe proposed evacuation routes, locations of any road blocks and procedures for notifying the public, either through direct telephone notification using telephone number lists or by means of mass notification and reaction plans. The plan shall include information on the availability and location of necessary safety equipment and supplies.

(ii) Characteristics of hydrogen sulfide and sulfur dioxide. The hydrogen sulfide

contingency plan shall include a discussion of the characteristics of hydrogen sulfide and sulfur dioxide.

(iii) Maps and drawings. The hydrogen sulfide contingency plan shall include maps and drawings that depict the area of exposure and public areas and public roads within the area of exposure.

(iv) Training and Drills. The hydrogen sulfide contingency plan shall provide for training and drills, including training in the responsibilities and duties of essential personnel and periodic on-site or classroom drills or exercises that simulate a release, and shall describe how the training, drills and attendance will be documented. The hydrogen sulfide contingency plan shall also provide for training of residents as appropriate on the proper protective measures to be taken in the event of a release, and shall provide for briefing of public officials on issues such as evacuation or shelter-in-place plans.

(v) Coordination with State Emergency Plans. The hydrogen sulfide contingency plan shall describe how emergency response actions under the plan will be coordinated with the division and with the New Mexico state police consistent with the New Mexico hazardous materials emergency response plan (HMER).

(vi) Activation Levels. The hydrogen sulfide contingency plan shall include the activation level and a description of events that could lead to a release of hydrogen sulfide sufficient to create a concentration in excess of the activation level.

(3) Plan Activation. The hydrogen sulfide contingency plan shall be activated when a release creates a concentration of hydrogen sulfide greater than the activation level set forth in the hydrogen sulfide contingency plan. At a minimum, the plan must be activated whenever a release may create a concentration of hydrogen sulfide of more than 100 ppm in any public area, 500 ppm at any public road or 100 ppm 3,000 feet from the site of release.

(4) Submission.

(a) Where Submitted. The hydrogen sulfide contingency plan shall be submitted to the division.

(b) When Submitted. A hydrogen sulfide contingency plan for a well, facility or operation existing on the effective date of this section shall be submitted within one year of the effective date of this section. A hydrogen sulfide contingency plan for a new well, facility or operation shall be submitted before operations commence. The hydrogen sulfide contingency plan for a drilling, completion, workover or well servicing operation must be on file with the division before operations commence and may be submitted separately or along with the application for permit to drill (APD) or may be on file from a previous submission. A hydrogen sulfide contingency plan shall also be submitted within 180 days after the person, operator or facility becomes aware or should have become aware that a public area or public road is established that creates a potentially hazardous volume where none previously existed.

(c) Electronic Submission. Any filer who operates more than one hundred wells or who operates a crude oil pump station, compressor station, refinery or gas plant must submit each hydrogen sulfide contingency plan in electronic format. The hydrogen sulfide contingency plan may be submitted through electronic mail, through an Internet filing or by delivering electronic media to the division, so long as the electronic submission is compatible with the division's systems.

(5) Failure to Submit Plan. Failure to submit a hydrogen sulfide contingency plan when required may result in denial of an application for permit to drill, cancellation of an allowable for the subject well or other enforcement action appropriate to the well, facility or operation.

(6) Review, Amendment. The person, operator or facility shall review the hydrogen sulfide contingency plan any time a subject addressed in the plan materially changes and make appropriate amendments. If the division determines that a hydrogen sulfide contingency plan is inadequate to protect public safety, the division may require the person, operator or facility to add provisions to the plan or amend the plan as necessary to protect public safety.

(7) Retention and Inspection. The hydrogen sulfide contingency plan shall be reasonably accessible in the event of a release, maintained on file at all times, and available for inspection by the division.

(8) Annual Inventory of Contingency Plans. On an annual basis, each person, operator or facility required to prepare one or more hydrogen sulfide contingency plans pursuant to this section shall file with the appropriate local emergency planning committee and the state emergency response commission an inventory of the wells, facilities and operations for which plans are on file with the division and the name, address and telephone number of a point of contact.

(9) Plans Required by Other Jurisdictions. A hydrogen sulfide contingency plan required by the Bureau of Land Management or other jurisdiction that meets the requirements of this subsection may be submitted to the division in satisfaction of this subsection.

E. Signage, Markers. For each well, facility or operation involving a concentration of hydrogen

sulfide of 100 ppm or greater, signs and/or markers shall be installed and maintained. Each sign or marker shall conform with the current ANSI standard Z535.1-2002 ("Safety Color Code"), or some other standard approved by the division, shall be readily readable, and shall contain the words "poison gas" and other information sufficient to warn the public that a potential danger exists. Signs or markers shall be prominently posted at locations, including but not limited to entrance points and road crossings, sufficient to alert the public that a potential danger exists. Signs and/or markers that conform with this subsection shall be installed no later than one year from the effective date of this section.

F. Protection from Hydrogen Sulfide During Drilling, Completion, Workover, and Well Servicing Operations.

(1) API Standards. All drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater shall be conducted with due consideration to the guidelines published by the API entitled "Recommended Practice for Oil and Gas Well Servicing and Workover Operations Involving Hydrogen Sulfide," RP-68, and "Recommended Practices for Drilling and Well Servicing Operations Involving Wells Containing Hydrogen Sulfide," RP-49, most recent editions, or some other standard approved by the division.

(2) Detection and Monitoring Equipment. Drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater shall include hydrogen sulfide detection and monitoring equipment as follows:

(a) Each drilling and completion site shall have an accurate and precise hydrogen sulfide detection and monitoring system that will automatically activate visible and audible alarms when the ambient air concentration of hydrogen sulfide reaches a predetermined value set by the operator, not to exceed 20 ppm. There shall be a sensing point located at the shale shaker, rig floor and bell nipple for a drilling site and the cellar, rig floor and circulating tanks or shale shaker for a completion site.

(b) For workover and well servicing operations, one operational sensing point shall be located as close to the well bore as practical. Additional sensing points may be necessary for large or long-term operations.

(c) Hydrogen sulfide detection and monitoring equipment must be provided and must be made operational during drilling when drilling is within 500 feet of a zone anticipated to contain hydrogen sulfide and continuously thereafter through all subsequent drilling.

(3) Wind Indicators. All drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater shall include wind indicators. Equipment to indicate wind direction shall be present and visible at all times. At least two devices to indicate wind direction shall be installed at separate elevations and visible from all principal working areas at all times. When a sustained concentration of hydrogen sulfide is detected in excess of 20 ppm at any detection point, red flags shall be displayed.

(4) Flare System. For drilling and completion operations in an area where it is reasonably expected that a potentially hazardous volume of hydrogen sulfide will be encountered, the person, operator or facility shall install a flare system to safely gather and burn hydrogen-sulfide-bearing gas. Flare outlets shall be located at least 150 feet from the well bore. Flare lines shall be as straight as practical. The flare system shall be equipped with a suitable and safe means of ignition. Where noncombustible gas is to be flared, the system shall provide supplemental fuel to maintain ignition.

(5) Well Control Equipment. When the 100 ppm radius of exposure includes a public area, the following well control equipment shall be required:

(a) Drilling. A remote-controlled well control system shall be installed and operational at all times beginning when drilling is within 500 feet of the formation believed to contain hydrogen sulfide and continuously thereafter during drilling. The well control system must include, at a minimum, a pressure and hydrogen-sulfide-rated well control choke and kill system including manifold and blowout preventer that meets or exceeds the specifications API-16C and API-RP 53 or other specifications approved by the division. Mud-gas separators shall be used. These systems shall be tested and maintained pursuant to the specifications referenced, according to the requirements of this part, or otherwise as approved by the division.

(b) Completion, Workover and Well Servicing. A remote controlled pressure and hydrogen-sulfide-rated well control system that meets or exceeds API specifications or other specifications approved by the division shall be installed and shall be operational at all times during completion, workover and servicing of a well.

(6) Mud Program. All drilling, completion, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater shall use a hydrogen sulfide mud program capable of handling hydrogen sulfide conditions and well control, including de-gassing.

(7) Well Testing. Except with prior approval of the division, drill-stem testing of a zone that contains

hydrogen sulfide in a concentration of 100 ppm or greater shall be conducted only during daylight hours and formation fluids shall not be permitted to flow to the surface.

(8) If Hydrogen Sulfide Encountered During Operations. If hydrogen sulfide was not anticipated at the time the division issued a permit to drill but is encountered during drilling in a concentration of 100 ppm or greater, the operator must satisfy the requirements of this section before continuing drilling operations. The operator shall notify the division of the event and the mitigating steps that have been or are being taken as soon as possible, but no later than 24 hours following discovery. The division may grant verbal approval to continue drilling operations pending preparation of any required hydrogen sulfide contingency plan.

G. Protection from Hydrogen Sulfide at Crude Oil Pump Stations, Producing Wells, Tank Batteries and Associated Production Facilities, Pipelines, Refineries, Gas Plants and Compressor Stations.

(1) API Standards. Operations at crude oil pump stations and producing wells, tank batteries and associated production facilities, refineries, gas plants and compressor stations involving a concentration of hydrogen sulfide of 100 ppm or greater shall be conducted with due consideration to the guidelines published by the API in its publication entitled "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP-55, latest edition or some other standard approved by the division.

(2) Security. Well sites and other unattended, fixed surface facilities involving a concentration of hydrogen sulfide of 100 ppm or greater shall be protected from public access by fencing with locking gates when the location is within 1/4 mile of a public area. A surface pipeline shall not be considered a fixed surface facility for purposes of this paragraph.

(3) Wind Direction Indicators. All crude oil pump stations, producing wells, tank batteries and associated production facilities, pipelines, refineries, gas plants and compressor stations involving a concentration of hydrogen sulfide of 100 ppm or greater shall have equipment to indicate wind direction. The wind direction equipment shall be installed and visible from all principal working areas at all times.

(4) Control Equipment. When the 100 ppm radius of exposure includes a public area, the following additional measures are required:

(a) Safety devices, such as automatic shut-down devices, shall be installed and maintained in good operating condition to prevent the escape of hydrogen sulfide. Alternatively, safety procedures shall be established to achieve the same purpose.

(b) Any well shall possess a secondary means of immediate well control through the use of an appropriate christmas tree or downhole completion equipment. Such equipment shall allow downhole accessibility (reentry) under pressure for permanent well control.

(5) Tanks or vessels. Each stair or ladder leading to the top of any tank or vessel containing 300 ppm or more of hydrogen sulfide in the gaseous mixture shall be chained or marked to restrict entry.

(6) Compliance Schedule. Each existing crude oil pump station, producing well, tank battery and associated production facility, pipeline, refinery, gas plant and compressor station not currently meeting the requirements of this subsection shall be brought into compliance within one year of the effective date of this section.

H. Personnel Protection and Training. All persons responsible for the implementation of any hydrogen sulfide contingency plan shall be provided training in hydrogen sulfide hazards, detection, personal protection and contingency procedures.

I. Standards for Equipment That May Be Exposed to Hydrogen Sulfide. Whenever a well, facility or operation involves a potentially hazardous volume of hydrogen sulfide, equipment shall be selected with consideration for both the hydrogen sulfide working environment and anticipated stresses and NACE Standard MR0175 (latest edition) or some other standard approved by the division shall be used for selection of metallic equipment or, if applicable, adequate protection by chemical inhibition or other methods that control or limit the corrosive effects of hydrogen sulfide shall be used.

J. Exemptions. Any person, operator or facility may petition the director or the director's designee for an exemption to any requirement of this section. Any such petition shall provide specific information as to the circumstances that warrant approval of the exemption requested and how the public safety will be protected. The director or the director's designee, after considering all relevant factors, may approve an exemption if the circumstances warrant and so long as the public safety will be protected.

K. Notification of the Division. The person, operator or facility shall notify the division upon a release of hydrogen sulfide requiring activation of the hydrogen sulfide contingency plan as soon as possible, but no more than four hours after plan activation, recognizing that a prompt response should supercede notification. The person, operator or facility shall submit a full report of the incident to the division on Form C-141 no later than fifteen (15) days following the release.

[5-22-73...1-1-87...2-1-96; A 3-15-97; 19.15.3.118 NMAC - Rn, 19 NMAC 15.C.118, 11-15-2001; A, 01-31-03]

History of 19.15.3 NMAC:
Pre-NMAC History:
Material in this part was derived from that previously filed with the commission of public records - state records center and archives as:
Rule 101, Plugging Bond, filed 06-04-86;
Rule 101, Plugging Bond, filed 01-06-88;
Rule 101, Plugging Bond, filed 02-05-91;
Rule 102, Notice of Intention to Drill, filed 01-08-82;
Rule 102, Notice of Intention to Drill, filed 11-25-85;
Rule 102, Notice of Intention to Drill, filed 02-05-91;
Rule 103, Sign on Wells, filed 01-08-82;
Rule 103, Sign on Wells, filed 02-05-91;
Rule 104, Well Spacing: Acreage Requirements for Drilling Tracts, filed 01-08-82;
Rule 104, Well Spacing: Acreage Requirements for Drilling Tracts, filed 02-05-91;
Rule 105, Pit for Clay, Shale, and Drill Cutting, filed 01-08-82;
Rule 105, Pit for Clay, Shale, and Drill Cutting, filed 08-17-89;
Rule 105, Pit for Clay, Shale, and Drill Cutting, filed 02-05-91;
Rule 106, Sealing Off Strata, filed 01-08-82;
Rule 106, Sealing Off Strata, filed 10-11-89;
Rule 106, Sealing Off Strata, filed 02-05-91;
Rule 107, Casing and Tubing Requirements, filed 01-08-82;
Rule 107, Casing and Tubing Requirements, filed 02-05-91;
Rule 108, Defective Casing or Cementing, filed 01-08-82;
Rule 108, Defective Casing or Cementing, filed 09-16-85;
Rule 108, Defective Casing or Cementing, filed 02-05-91;
Rule 109, Blowout Prevention, filed 01-27-82;
Rule 109, Blowout Prevention, filed 02-05-91;
Rule 110, Pulling Outside Strings of Casing, filed 01-27-82;
Rule 110, Pulling Outside Strings of Casing, filed 02-05-91;
Rule 111, Deviation Tests and Directional Drilling, filed 01-08-82;
Rule 111, Deviation Tests and Directional Drilling, filed 09-16-85;
Rule 111, Deviation Tests and Directional Drilling, filed 10-11-89;
Rule 111, Deviation Tests and Directional Drilling, filed 02-05-91;
Rule 111, Deviation Tests/Deviated Wells and Directional Drilling, filed 07-27-95;
Rule 112-A, Multiple Completions, filed 01-08-82;
Rule 112-A, Multiple Completions, filed 02-05-91;
Rule 112-B, Brandenhead Gas Wells, filed 01-08-82;
Rule 112-B, Brandenhead Gas Wells, filed 02-05-91;
Rule 113, Shooting and Chemical Treatment of Wells, filed 01-08-82;
Rule 113, Shooting and Chemical Treatment of Wells, filed 09-16-85.
Rule 113, Shooting and Chemical Treatment of Wells, filed 02-05-91.
Rule 114, Safety Regulations, filed 01-08-82;
Rule 114, Safety Regulations, filed 02-05-91.
Rule 115, Well and Lease Equipment, filed 01-08-82;
Rule 115, Well and Lease Equipment, filed 02-05-91.
Rule 116, Notification of Fire, Breaks, Leaks, Spills, and Blowouts, filed 01-08-82;
Rule 116, Notification of Fire, Breaks, Leaks, Spills, and Blowouts, filed 02-05-91;
Rule 117, Well Log, Completion and Workover Reports, filed 01-08-82;
Rule 117, Well Log, Completion and Workover Reports, filed 10-11-89;
Rule 117, Well Log, Completion and Workover Reports, filed 02-05-91;
Rule 118, Hydrogen Sulfide Gas - Public Safety, filed 12-30-86;
Rule 118, Hydrogen Sulfide Gas - Public Safety, filed 10-11-89;
Rule 118, Hydrogen Sulfide Gas - Public Safety, filed 02-05-91.

History of Repealed Material: [Reserved]

Other History:
Rule 101, filed 02-05-91; Rule 102, filed 02-05-91; Rule 103, filed 02-05-91; Rule 104, filed 02-05-91; Rule 105, filed 02-05-91; Rule 106, filed 02-05-91; Rule 107, filed 02-05-91; Rule 108, filed 02-05-91; Rule 109, filed 02-05-91; Rule 110, filed 02-05-91; Rule 111, filed 07-27-95; Rule 112-A, filed 02-05-91; Rule 112-B, filed 02-05-91; Rule 113, filed 02-05-91; Rule 114, filed 02-05-91; Rule 115, filed 02-05-91; Rule 116, filed 02-05-91; Rule 117, filed 02-05-91; Rule 118, filed 02-05-91; all renumbered, reformatted to and replaced by 19 NMAC 15.C, Drilling, filed 01-18-96.
19 NMAC 15.C, Drilling, filed 01-18-96; renumbered, reformatted and replaced by 19.15.3 NMAC, effective 11-15-01.

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

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SCOPE

This procedure provides the guidelines necessary to properly notify the State of New Mexico in the event of a Spill, Leak or Release of Hydrocarbon Liquids, Produced Water or Natural Gas.

RESPONSIBILITY

Each employee involved in field and plant operations and his/her supervisor are responsible for the requirements of this procedure.

DEFINITIONS

Immediate notification - Notification to the State District office by phone or in person as soon as possible but no later than 24 hours of initial discovery. Followed by a written notification within 15 days of initial discovery

Subsequent notification - Notification to the appropriate State District office by written report within 15 days of discovery. The State of New Mexico **Form C-141** (attached) must be used for all written notifications.

Major Release - Requires verbal notification within 24 hours of discovery, followed by a written notification within 15 days of initial discovery.

Minor Release - Requires written notification only within 15 days of initial discovery.

Spill, leak or release - An incident where crude oil, produced water or natural gas is discharged and contaminates either a water, soil, or air.

Hydrocarbon Liquid - Crude oil associated with the exploration and production, including transportation, of oil or gas.

Watercourse - Any lake bed or gully, draw, stream bed, wash, arroyo, or natural or manmade channel through which water flows or has flowed.

Reporting Requirements - The notification of releases shall be made by the person operating or controlling either the release or the location of the release.

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

INITIAL RESPONSE TO A SPILL, LEAK OR RELEASE

STEP 1: Evaluate the potential hazard to the general public. Take appropriate action.

STEP 2: Eliminate or restrict the source of the spill, leak or release by whatever safe and reasonable means available.

STEP 3: Contain the spill, leak or release to minimize the area of exposure. This may be accomplished by the use of dikes, berms or absorbent materials such as tubes, pads, hay, etc..

STEP 4: Remove as much standing liquid (free oil) as possible by any reasonable method.

INTER-COMPANY REPORTING REQUIREMENTS

Any spill, leak or release of hydrocarbon liquid, produced water or natural gas that requires State notification or effects any watercourse will be reported to the Area Manager and/or the Area EH&S Coordinator immediately.

NEW MEXICO REPORTING REQUIREMENTS

Immediate Notification (Major release)

Any amount of hydrocarbon liquid into a watercourse.
>25 bbls. of hydrocarbon liquid on the ground.
>25 bbls. of produced water into a watercourse.
>25 bbls. of produced water on the ground.
>500 mcf of natural gas
or an unauthorized release of any volume (oil, water or gas) that :
1) results in a fire;
2) will reach a watercourse;
3) may (w/ reasonable probability) endanger public health
4) results in substantial damage to property or the environment.

Subsequent Notification (Minor release)

>5 bbls. but <25 bbls. of hydrocarbon liquid on the ground.
>5 bbls. but <25 bbls. of produced water on the ground or in a watercourse.
>50 mcf but <500 mcf of natural gas.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

NEW MEXICO REMEDIATION REQUIREMENTS

Soil must be remediated if :

TPH	>5000 ppm
BTEX	>50 ppm
Benzene	>10 ppm

In circumstances where the contaminated soil is :

<100 ft. above the water table
<1000 ft. from a water well
<1000 ft. from a surface water body

Remediation levels may be lower in these cases and the Area EH&S Coordinator should be consulted as to the extent of remediation required.

REMEDIATION PROCEDURES

STEP 1: Where the spill, leak or release is from a gathering pipeline the pipe should be excavated in a manner that allows for some blending with uncontaminated soil upon backfilling.

STEP 2: Sample the contaminated soil for the required components using a representative composite sample. Depending on the size contaminated area, a typical composite sample would be one with equal parts of soil from the four "corners" and one part from the center of the contaminated area.

STEP 3: Determine the type of remediation to be used i.e., natural remediation, soil blending, land farming, enhanced bio-remediation, thermal disorbtion etc.. For significant spills, leaks or releases contact Area EH&S Coordinator for recommendations or assistance in making this determination.

STEP 4: Monitor the remediation process to see that it is progressing. This could entail further sampling, watering, aerating or tilling.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

PREVENTIVE MEASURES

Certain steps should be taken to prevent the occurrence of a spill, leak or release:

(1) The integrity of equipment should be monitored and maintained.

(2) Containment's, that would prevent any contact with the soil of liquids that cause contamination, should be used when possible.

(3) Gathering systems should be kept free of liquids where possible at pigging facilities, drips and siphons.

(4) Equipment near watercourses should be of particular concern.

(5) Past experience should be used in determining the need for other preventive measures.

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

Attachment A

Contaminated Soils Ranking Criteria

- Depth to Ground Water

< 50 feet	20
50-99 feet	10
>100 feet	0

- Wellhead Protection Area
  <1000 feet from a water source, or
  <200 feet from a private domestic water source

YES	20
NO	0

- Distance to Surface Water

<200 horizontal feet	20
200-1000 horizontal feet	10
>1000 horizontal feet	0

A = _____
B = _____
C = _____
Total = _____

Total Ranking is as follows:

	Level I >19	Level II 10-19	Level II 0-9
Benzene (PPM)	10	10	10
BTEX (PPB)	50	50	50
TPH (PPM)	100	1000	5000

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

Attachment B

Leak, Spill or Release Report

Facility_____ Person Filing Report _____
Report Date ____/____/_____ Time of Filing ___:_____ AM / PM

Responsible Party: Southern Union Gas Services
Facility address: _____
City: _____ State: NM ☐ TX ☐ Zip Code: _____
Telephone: ____-_____-_____ Fax: ____-_____-_____

Discharge Date: ___/___/_____ Time: __:____ AM / PM
Duration of Discharge: ___ Hr. ____ Min. Quantity Discharged: _____ Gal. / Lbs.
Source and/or Cause of Discharge: _____
Type of Discharge: ☐ Gas ☐Crude Oil ☐Condensate ☐Saltwater ☐ Other
If other, explain by noting the chemical composition and physical characteristics on the reverse side of this page or attach the MSDS.

Location: ¼ ___ ¼ ___ Section____Township____Range ____Survey____Block ____

Distance from the nearest town, community or landmark: _____

Site characteristics are as follows:

- Precipitation during the release prior to remediation: _____
- Wind Conditions and Direction: _____
- Temperature:_____
- Soil Type: _____
- Depth of Penetration: _____
- Area of Delineation: _____
- Nearest Residence: _____
- Nearest *Fresh Water: _____

*Any water well or watercourse, i.e., river, lake, stream, playa, arroyo, draw, wash, gully, natural or man-made channel.

Attach a copy of the chronological record of all federal, state and local agencies notified in reference to this report. Always indicate the name of the person who receives the call and the time the call was made for each agency.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

ATTACHMENT C

DEFINITIONS

Unsaturated/Contaminated Soil
Soils, which are not highly contaminated/saturated, but contain Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Total Petroleum Hydrocarbons (TPH) or other potential fresh water contaminants.

Saturated/Highly Contaminated
Those soils that contain a free liquid phase or exhibit gross staining.

Watercourse
Any lakebed or gully, draw, streambed, wash, arroyos, or natural or man-made channel through which water flows or has flowed.

Immediate Notification
Shall be as soon as possible after discovery and shall be in person or by telephone to the district office of the Division in which the incident occurred. If incident occurs after normal business hours, notify the District Supervisor, the Oil & Gas Inspector, or the Deputy Oil & Gas Inspector. Follow up with a completed written report within ten (10) days of the incident.

Subsequent Notification
A complete written report of the incident within ten (10) days of the discovery of the incident.

Written Report
Complete written reports will be submitted in DUPLICATE to the district office of the OCD in the district in which the incident occurred within ten (10) days after discovery of the incident.

Content of Notification
Refer to Attachment B.

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

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SCOPE

This procedure provides the guidelines necessary to properly notify the State of New Mexico in the event of a Spill, Leak or Release of Hydrocarbon Liquids, Produced Water or Natural Gas.

RESPONSIBILITY

Each employee involved in field and plant operations and his/her supervisor are responsible for the requirements of this procedure.

DEFINITIONS

Immediate notification - Notification to the State District office by phone or in person as soon as possible but no later than 24 hours of initial discovery. Followed by a written notification within 15 days of initial discovery

Subsequent notification - Notification to the appropriate State District office by written report within 15 days of discovery. The State of New Mexico **Form C-141** (attached) must be used for all written notifications.

Major Release - Requires verbal notification within 24 hours of discovery, followed by a written notification within 15 days of initial discovery.

Minor Release - Requires written notification only within 15 days of initial discovery.

Spill, leak or release - An incident where crude oil, produced water or natural gas is discharged and contaminates either a water, soil, or air.

Hydrocarbon Liquid - Crude oil associated with the exploration and production, including transportation, of oil or gas.

Watercourse - Any lake bed or gully, draw, stream bed, wash, arroyo, or natural or manmade channel through which water flows or has flowed.

Reporting Requirements - The notification of releases shall be made by the person operating or controlling either the release or the location of the release.

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

INITIAL RESPONSE TO A SPILL, LEAK OR RELEASE

STEP 1: Evaluate the potential hazard to the general public. Take appropriate action.

STEP 2: Eliminate or restrict the source of the spill, leak or release by whatever safe and reasonable means available.

STEP 3: Contain the spill, leak or release to minimize the area of exposure. This may be accomplished by the use of dikes, berms or absorbent materials such as tubes, pads, hay, etc..

STEP 4: Remove as much standing liquid (free oil) as possible by any reasonable method.

INTER-COMPANY REPORTING REQUIREMENTS

Any spill, leak or release of hydrocarbon liquid, produced water or natural gas that requires State notification or effects any watercourse will be reported to the Area Manager and/or the Area EH&S Coordinator immediately.

NEW MEXICO REPORTING REQUIREMENTS

Immediate Notification (Major release)

Any amount of hydrocarbon liquid into a watercourse.
>25 bbls. of hydrocarbon liquid on the ground.
>25 bbls. of produced water into a watercourse.
>25 bbls. of produced water on the ground.
>500 mcf of natural gas
or an unauthorized release of any volume (oil, water or gas) that :
1) results in a fire;
2) will reach a watercourse;
3) may (w/ reasonable probability) endanger public health
4) results in substantial damage to property or the environment.

Subsequent Notification (Minor release)

>5 bbls. but <25 bbls. of hydrocarbon liquid on the ground.
>5 bbls. but <25 bbls. of produced water on the ground or in a watercourse.
>50 mcf but <500 mcf of natural gas.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

NEW MEXICO REMEDIATION REQUIREMENTS

Soil must be remediated if :

TPH	>5000 ppm
BTEX	>50 ppm
Benzene	>10 ppm

In circumstances where the contaminated soil is :

<100 ft. above the water table
<1000 ft. from a water well
<1000 ft. from a surface water body

Remediation levels may be lower in these cases and the Area EH&S Coordinator should be consulted as to the extent of remediation required.

REMEDIATION PROCEDURES

STEP 1: Where the spill, leak or release is from a gathering pipeline the pipe should be excavated in a manner that allows for some blending with uncontaminated soil upon backfilling.

STEP 2: Sample the contaminated soil for the required components using a representative composite sample. Depending on the size contaminated area, a typical composite sample would be one with equal parts of soil from the four "corners" and one part from the center of the contaminated area.

STEP 3: Determine the type of remediation to be used i.e., natural remediation, soil blending, land farming, enhanced bio-remediation, thermal disorbtion etc.. For significant spills, leaks or releases contact Area EH&S Coordinator for recommendations or assistance in making this determination.

STEP 4: Monitor the remediation process to see that it is progressing. This could entail further sampling, watering, aerating or tilling.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

PREVENTIVE MEASURES

Certain steps should be taken to prevent the occurrence of a spill, leak or release:

(1) The integrity of equipment should be monitored and maintained.

(2) Containment's, that would prevent any contact with the soil of liquids that cause contamination, should be used when possible.

(3) Gathering systems should be kept free of liquids where possible at pigging facilities, drips and siphons.

(4) Equipment near watercourses should be of particular concern.

(5) Past experience should be used in determining the need for other preventive measures.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

Attachment A

Contaminated Soils Ranking Criteria

- Depth to Ground Water

< 50 feet	20
50-99 feet	10
>100 feet	0

- Wellhead Protection Area
  <1000 feet from a water source, or
  <200 feet from a private domestic water source

YES	20
NO	0

- Distance to Surface Water

<200 horizontal feet	20
200-1000 horizontal feet	10
>1000 horizontal feet	0

A = _____
B = _____
C = _____
Total = _____

Total Ranking is as follows:

	Level I >19	Level II 10-19	Level II 0-9
Benzene (PPM)	10	10	10
BTEX (PPB)	50	50	50
TPH (PPM)	100	1000	5000

SOUTHERN UNION GAS SERVICES, LTD.
STANDARD OPERATING PROCEDURE

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

Attachment B

Leak, Spill or Release Report

Facility_____ Person Filing Report _____
Report Date ____/____/_____ Time of Filing ___:_____ AM / PM

Responsible Party: Southern Union Gas Services
Facility address: _____
City: _____ State: NM ☐ TX ☐ Zip Code: _____
Telephone: ____-_____-_____ Fax: ____-_____-_____

Discharge Date: ___/___/_____ Time: __:____ AM / PM
Duration of Discharge: ___ Hr. ____ Min. Quantity Discharged: _____ Gal. / Lbs.
Source and/or Cause of Discharge: _____
Type of Discharge: ☐ Gas ☐ Crude Oil ☐ Condensate ☐ Saltwater ☐ Other
If other, explain by noting the chemical composition and physical characteristics on the reverse side of this page or attach the MSDS.

Location: ¼ ___ ¼ ___ Section____Township____Range ____Survey____Block ____

Distance from the nearest town, community or landmark: _____

Site characteristics are as follows:

- Precipitation during the release prior to remediation: _____
- Wind Conditions and Direction: _____
- Temperature:_____
- Soil Type: _____
- Depth of Penetration: _____
- Area of Delineation: _____
- Nearest Residence: _____
- Nearest *Fresh Water: _____

*Any water well or watercourse, i.e., river, lake, stream, playa, arroyo, draw, wash, gully, natural or man-made channel.

Attach a copy of the chronological record of all federal, state and local agencies notified in reference to this report. Always indicate the name of the person who receives the call and the time the call was made for each agency.

Subject: Guidelines for Notification of Spills, Leaks, Releases of Hydrocarbon Liquids, Produced Water or Natural Gas

ATTACHMENT C

DEFINITIONS

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Subsequent Notification
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Written Report
Complete written reports will be submitted in DUPLICATE to the district office of the OCD in the district in which the incident occurred within ten (10) days after discovery of the incident.

Content of Notification
Refer to Attachment B.

SID RICHARDSON GASOLINE CO.

WEST TEXAS AREA OFFICE
5030 E. UNIVERSITY
SUITE C-104
ODESSA, TEXAS 79762
TELEPHONE: (915) 367-2867
FAX: (915) 367-2862

September 22, 1995

Mr. Roger Anderson
State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Mr. Anderson:

Recently Sid Richardson Gasoline Co. purchased the Xcel Gas Company (Clayton Williams Companies) gas gathering system in southeastern Lea County. This system includes five (5) compressor sites located between Jal and Eunice New Mexico.

Each compressor is natural gas driven and each utilizes a fuel scrubber to make the field gas usable for the operation of these engines. Each scrubber contains approximately 4-7 cu. yds. of a product called Sulfa Treat (MSDS attached). Sulfa Treat contains no hazardous materials as listed by the ACGIH, is non-toxic and stable. Also there are no special procedures for spills or disposal. This material is a solid waste.

Sid Richardson Gasoline Co. request permission to dispose of our Sulfa Treat material on site and on top of the ground. For your convenience, I have also included a copy of your approval letter to Xcel Gas Company (2-5-93).

If there are any further questions or if more information is needed, do not hesitate to call myself or Harold Hicks, Field Mgr. for Sid Richardson Gasoline Co. Lea County gas gathering system at (505)395-2116. Your help and prompt attention to this matter is greatly appreciated.

Sincerely,

Robert Lee Gawlik
WTA Safety Mgr.

Enclosures

cc: Curtis Clark
Harold Hicks
Herb Harless

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME (as labeled)
SulfaTreat

MANUFACTURER'S NAME & ADDRESS
The SulfaTreat Company
900 Roosevelt Pkwy, Suite 610
Chesterfield, Missouri 63017

Phone number for additional information: 1-800-726-7687 (314-532-2189)

Date prepared or revised: 6/21/94

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent	Exposure Limits in Air (units) ACGIH TLV	OSHA PEL	Other (specify)
None					
NA					

SulfaTreat contains no hazardous materials as listed by ACGIH (American Conference of Governmental Hygenists).

III. PHYSICAL PROPERTIES

Vapor density (air=1)	NA	Melting point or range, °F	NA
Specific gravity	2.4	Boiling point or range, °F	NA
Solubility in water	0	Evaporation rate (butyl acetate=1)	NA
Vapor pressure, mmHg at 20°C	0		

Appearance and odor: Black, Granular, Odorless

How to detect this substance (warning properties of substance as a gas, vapor, dust, or mist): NA

IV. FIRE AND EXPLOSION

Flash Point, °F (give method) NA Auto ignition temperature, °F NA

Flammable limits in air, volume %: NA lower (LEL)___ upper (UEL)___

Fire extinguishing materials: NA water spray; NA foam; NA carbon dioxide; NA dry chemical; NA other:

Special firefighting procedures: None

Unusual fire and explosion hazards: None

V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE (for each potential route of exposure)

Inhaled: Over exposure to dust may irritate nasal passage.

Contact with skin or eyes: Contact with skin has no affect; could cause eye irritation similar to dust.

Absorbed through skin: None. Swallowed: None

HEALTH EFFECTS OR RISKS FROM EXPOSURE: Explain in lay terms. Attach extra page if more space is needed.

Acute: No acute effects to health are known. LD50 greater than 3990 mg/kg (highest practical test level). Not toxic.

Chronic: No chronic effects to health are known.

FIRST AID: EMERGENCY PROCEDURES

Eye Contact: Flush with water. Skin Contact: None. Swallowed: None.

Inhaled: Remove to fresh air.

SUSPECTED CANCER AGENT? __X__NO - This product's ingredients are not found in the lists below.

___Federal OSHA ___NTP ___IARC

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: **None known.**

VI. REACTIVITY DATA

Stability: __X__Stable ___Unstable

Conditions to avoid: NA Incompatibility (materials to avoid): NA

Hazardous decomposition products (including combustion products): None

Hazardous polymerization: ___May occur __X__Will not occur

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill response procedures (include employee protection measures): No special procedures required.

Preparing wastes for disposal (container types, neutralization, etc.): No special procedures required.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: No special requirements.

Respiratory protection (type): NIOSH/MSHA approved dust mask (TC-21C-132)

Eye protection (type): None required. Gloves (specify material): None required.

Other clothing and equipment: No special requirements.

Work practices, hygienic practices: No special requirements.

Other handling and storage requirements: No special requirements.

EVALUATION OF THE ENVIRONMENTAL CHARACTERISTICS OF SulfaTreat® AND ITS REACTION PRODUCTS USING EPA GUIDELINES FOR THE "IDENTIFICATION AND LISTING OF HAZARDOUS WASTE" MARCH, 1992

I. SUMMARY

SulfaTreat® is used in a patented process which consists of the use of a proprietary iron compound to remove hydrogen sulfide from natural gas. As a result of the process, a solid residue is produced.

Laboratory evaluations were performed on SulfaTreat® and its air dried reaction products according to U.S. Environmental Protection Agency (EPA) test protocol cited in 40 CFR Subpart C (Section 261.20 through 261.24) of Section 3001 of the Resource Conservation and Recovery Act in the Federal Register, Volume 45, Number 98, on May 19, 1980, revised July 1,1989 and the Toxicity Characteristics Leaching Procedure (TCLP) effective September 2, 1990. Reacted SulfaTreat® was also analyzed according to extractable California title 22 methods using the calwet extraction procedure.

Evaluations included testing of the ignitability, corrosivity, reactivity, and the determination of the presence of heavy metals and pesticides as prescribed in the regulations.

Also the oral and dermal toxicity and the aquatic 96 hour LC50 was determined and the agricultural characteristics were studied. All results showed SulfaTreat® and its reaction products to be safe for personnel and non-hazardous to the environment and effective for plant growth.

The work summarized herein was performed for Gas Sweetener Associates dba The SulfaTreat Company by the following companies and individuals:

EPA:

Gulf South Research Institute (GSRI)
Shilstone Testing Laboratories
Tim Sloan, Scientific Consultant
Dr. R. P. Wendt, Professor of Chemistry, Loyola University
Thermo Analytical Inc.
SPL, Inc.

ORAL AND DERMAL TOXICITY:

Scientific Associates, Inc.

CORN GROWTH EXPERIMENTS:

Terry L. Smith, Ph.D., California Polytechnic State University, Soil Science Deparent.

II. EXPERIMENTAL RESULTS

A. Characteristics of Ignitability

The residue is not a liquid. Flash point of wet sludge - Does not flash below 100°C. Flash point of dry sludge - 137°C.

1. Friction Testing

Friction testing was conducted by grinding the sample under standard temperature and pressure in a mortar and pestle and monitoring the temperature. There was neither ignition nor any variation in the temperature or cause of fire during the course of the evaluation.

2. Flame Testing

Flame testing was conducted by 1) directly heating the sample with a Fischer burner flame and 2) indirectly heating the sample in a porcelain crucible. In both cases, the sample did not ignite but merely glowed with red color due to high temperature.

3. Exposure to Moisture Testing

Exposure to moisture testing was conducted by placing small amounts of the sample in water. The sample remained unchanged.

4. Oxidizer

By the definition stated in 49 CFR 173.141, the sample is not an oxidizer.

B. Characteristics of Corrosivity

1. pH Determination

The pH determination was made on a slurried sample in accordance with EPA 600/4.79-020. The initial pH reading was approximately 9.

2. Corrosion Rate Determination

The corrosion rate of the sample on 1020 steel was determined using a potentiodynamic polarization technique (ASTM G-5 specification). The studies were conducted using a Princeton Applied Research computerized Model 350 corrosion measurement system.

The results of the potentiodynamic polarization experiment with SAE 1020 steel showed that the general corrosion rate a 455C (130°F) of 5.8 mils (.15 mm) per year is substantially below the maximum 0.250 inches (6.25 mm) per year specified in the regulation.

DETACH AND DESTROY THE ADDRESS STUB BEFORE DEPOSITING THE CHECK
(Provided vendor a valid Texas Direct Pay Certificate in lieu of getting billed sales tax)

NEW MEXICO OIL CONSERVATION DIVISIO
1220 SOUTH ST FRANCIS DR
SANTA FE, NM 87505

Southern Union Gas Services, Ltd.
301 Commerce Street Suite 700
Fort Worth, TX 76102
817-302-9400

Check No: [redacted]

INVOICE NUMBER DESCRIPTION	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
C1 Compressor Permit Fee	12/05/2007	$400.00		$400.00

Page 1 of 1 *Check Amount:* **$400.00**

THE ORIGINAL DOCUMENT HAS A WHITE REFLECTIVE WATERMARK ON THE BACK. HOLD AT AN ANGLE TO VIEW. DO NOT CASH IF NOT PRESENT.

Southern Union Gas Services, Ltd.
301 Commerce Street Suite 700
Fort Worth, TX 76102
817-302-9400

JPMORGAN CHASE BANK, N.A.
San Angelo
88-88/1113

Check No: [redacted]
Date: **12/05/07**

$400.00 CTS:CTS
FOUR ZERO ZERO

PAY EXACTLY
Four Hundred Dollars Only*******

****$400.00

PAY TO THE ORDER OF
NEW MEXICO OIL CONSERVATION DIVISIO
1220 SOUTH ST FRANCIS DR
SANTA FE, NM 87505

AUTHORIZED SIGNATURE

Details on back.
Security Features Included

[redacted]

DETACH AND DESTROY THE ADDRESS STUB BEFORE DEPOSITING THE CHECK
(Provided vendor a valid Texas Direct Pay Certificate in lieu of getting billed sales tax)

NEW MEXICO OIL CONSERVATION DIVISIO
1220 SOUTH ST FRANCIS DR
SANTA FE, NM 87505

Southern Union Gas Services, Ltd.
301 Commerce Street Suite 700
Fort Worth, TX 76102
817-302-9400

Check No: [redacted]

INVOICE NUMBER DESCRIPTION	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
C-1 Compressor Filing Fee	12/05/2007	$100.00		$100.00

Page 1 of 1

Check Amount: **$100.00**

THE ORIGINAL DOCUMENT HAS A WHITE REFLECTIVE WATERMARK ON THE BACK. HOLD AT AN ANGLE TO VIEW. DO NOT CASH IF NOT PRESENT.

Southern Union Gas Services, Ltd.
301 Commerce Street Suite 700
Fort Worth, TX 76102
817-302-9400

JPMORGAN CHASE BANK, N.A.
San Angelo

88-88/1113

Check No: [redacted]

Date: **12/05/07**

$100 00 ONE ZERO ZERO CTS/CTS

PAY EXACTLY
One Hundred Dollars Only*******

****$100.00

PAY TO THE ORDER OF

NEW MEXICO OIL CONSERVATION DIVISIO
1220 SOUTH ST FRANCIS DR
SANTA FE, NM 87505

AUTHORIZED SIGNATURE

Details on back.

Security Features Included

[redacted]

Southern Union Gas Services

301 Commerce St., Ste. 700
Fort Worth, TX 76102

817.302.9426 Fax: 817.302.9351

December 6, 2007

Mr. Carl Chavez
Environmental Engineer
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: APPLICATION FOR APPROVAL OF A DISCHARGE PLAN FOR C-1 COMPRESSOR STATION (GW-259)

Dear Mr. Chavez:

Southern Union Gas Services, Ltd. (SUGS), hereby submits the enclosed Discharge Plan Application for the C-1 Compressor Station (GW-259), located in Unit H (SE ¼ of the NE ¼) of Section 13, Township 23 South, Range 36 East in Lea County, New Mexico (32^{0} 18.390' North, 103^{0} 2.841'West). This location is at an elevation of 3375 feet, approximately 9.5 miles southwest of Eunice, New Mexico.

Enclosed are two checks in the amount of $400.00 for the permit fee and the filing fee of $100.00, as listed in Section 20.6.2.3144 of the NMWQCC regulations.

Also included for your review is a draft of the public notice required in NMWQCC section 20.6.2.3108. Following NMOCD review and acceptance, we propose to post this notice using a 2'x3' sign, in English and Spanish, at the gate of the above-named facility. Identified adjacent land owners will by provided with copies of this notice by mail, and any owners of any lands the proposed discharge site not owned by SUGS will be notified by certified, receipt-requested mailing. The notice will also be advertised, in English and Spanish, in a 3" by 4" display advertisement in the Hobbs Sun.

If you have any questions or require additional information regarding this submittal please contact our consultant, Mr. James Hunter, RG with Geolex, Inc. at (505) 842-8000.

Sincerely,

Robert L. Gawlik, EH&S Manager

Cc: Randall Dunn / Tony Savoie
James Hunter, RG w/ Geolex, Inc.
FW File

Public Notice

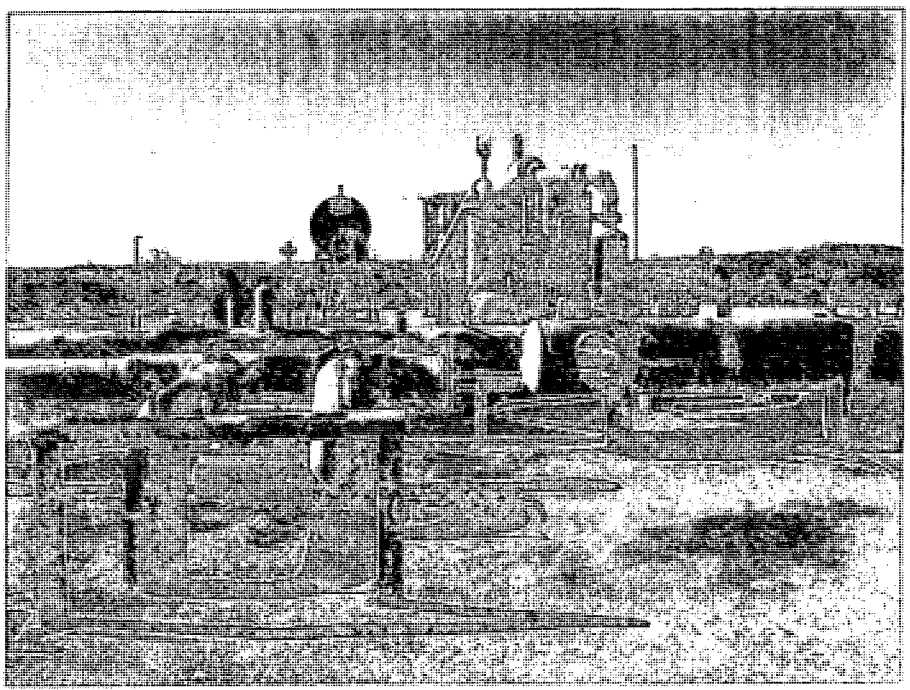
Notice of Application by Southern Union Gas Services for Approval of a Discharge Plan for the C-1 Compressor Station: Southern Union Gas Services, whose offices are located at 301 N. Commerce St., Suite 700, Fort Worth, Texas (76102) seeks approval from the New Mexico Oil Conservation for a Discharge Plan for the C-1 Compressor Station, located in the Unit H (SE ¼ of the NE ¼) of Section 13, Township 23 South, Range 36 East in Lea County, New Mexico (32^{0}' 18.390' North, 103^{0} 2.841'West). This location is at an elevation of 3375 feet, approximately 9.5 miles southwest of Eunice, New Mexico. This compressor station is designed to have no intentional liquid discharges. The shallowest groundwater potentially impacted by this facility is at a depth of approximately 200 feet and has total dissolved solids of approximately 1000 milligrams per liter. Additional information, comments or statements should be addressed Mr. James C. Hunter, R.G. of Geolex, Inc., 500 Marquette NW, Suite 1350, Albuquerque, NM 87102, Tel. (505-842-8000).

Southern Union Gas Services

Application for New Mexico Oil Conservation Division Discharge Plan

C-1 COMPRESSOR STATION

(Section 13, Township 23 South, Range 36 East)



Prepared For:

New Mexico Oil Conservation Division
1200 South Saint Francis Drive
Santa Fe, New Mexico 87505

On Behalf of:
Southern Union Gas Services, Ltd.
301 Commerce Street, Suite 700
Fort Worth, Texas 76102
Telephone: (817)-302-9400

Prepared By:
Geolex, Inc.®
500 Marquette Avenue, NE, Suite 1350
Albuquerque, New Mexico 87102
Telephone: (505) 842-8000

GEOLEX
INCORPORATED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised June 10, 2003

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITES AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: C-1 Compressor Station (GW-259)
2. Operator: Southern Union Gas Services, Ltd.

   Address: P.O. Box 1226, Jal, New Mexico 88252

   Contact Person: Mr. Randall Dunn Phone: (505)-395-2116
3. Location: SE 1/4 NE 1/4 Section 13 Township 23S Range 36E
   Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.
14. CERTIFICATION: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Mr. James E. wade Title: VP, Gas Supply/NGL Mkt.

Signature: James E Wade Date: 12-6-07

E-mail Address: jim.wade@sug.com

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1.0 TYPE OF OPERATION

This is a renewal for Discharge Plan GW-259. The C-1 Compressor Station (C-1 Station) is a natural gas compressor station with 540 horsepower. It compresses field gas, removes excess liquids, measures gas volumes, and transports the gas to pipelines. The facility uses a single compressor with a capacity of approximately 10,000,000 standard cubic feet of gas per day.

2.0 OPERATOR AND LEGALLY RESPONSIBLE PARTY

The Operator is:

Southern Union Gas Services, Ltd. (SUGS)
Contact: Mr. Randall Dunn
P.O. Box 1226
Jal, New Mexico 88252
Telephone: (505)-395-2116

The Responsible Party is:

Southern Union Gas Services, Ltd.
Contact: Mr. Bruce Williams
301 Commerce St. Suite 700
Fort Worth, Texas 76102
Telephone: (817)-302-9421

3.0 LOCATION OF DISCHARGE/FACILITY

The C-1 Station is located in Unit H (SE ¼ of the NE ¼) of Section 13, Township 23 South, Range 36 East in Lea County, New Mexico (32^0' 18.390' North, 103^0 2.841'West). This location is at an elevation of 3375 feet, approximately 9.5 miles southwest of Eunice, New Mexico (see Figures 1 and 2).

4.0 LANDOWNER

The land is owned by the State of New Mexico and is administered by the New Mexico State Land Office:

Main Office:
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501 Phone: (505) 827-5760 Fax: (505) 827-5766

Hobbs District Office:
2702-D N. Grimes
Hobbs, NM 88240 Phone: (505) 392-8736 Phone: (505) 392-3697

5.0 SITE CHARACTERISTICS

5.1 GEOLOGICAL SETTING

The site lies in the Delaware Basin region of the Permian Basin, a thick and complex sequence of primarily marine carbonates which extends from southeastern New Mexico into west Texas. The stratigraphy of the Delaware Basin includes the basal Leonard series (Bone Springs Formation), the overlying Guadalupe series (Brushy Canyon, Cherry Canyon and Bell Canyon formations), and the uppermost Ochoan series, including the Castile and Salado evaporites and the clastic Rustler Formation.

The most recent Quaternary deposits are primarily stabilized sand dunes, known as the Pyote-Maljamar sands. These dunes range locally from zero to 40 feet, and are stabilized by vegetation such as mesquite bushes. This unit does not typically host groundwater in this area. The Pyote-Maljamar soils exhibit severe potential for blowing erosion, but good properties for road fill and foundations for lower structures (United States Department of Agriculture: *Soil Survey – Lea County, New Mexico*, January 1974, Plate 147, Tables 6, 7 and 8).

5.1.1 Site Area Geology

The C-1 Compressor site is situated on an irregular ridge. Surficial deposits consist of sandy aeolian material overlying the eroded beds of the Triassic Dockum Group and the Dewey Lake redbeds of the Permian Rustler Formation (Nicholson and Clebsch, 1961, Plate 1). These units are underlain by the Salado and Castile evaporites, containing salt (halite), potash, gypsum and anhydrite.

5.1.2 Uppermost Aquifer

The two sources of potentially potable drinking water in this area are the sandy to silty Dockum and Dewey Lake beds, which overly the relatively impermeable evaporites of the Salado Formation, and the local outcrops of the Tertiary Ogallala Formation. Within the Dockum and Dewey Lake units, groundwater occurs in water-table conditions, interspersed with local perched and semi-confined hydrogeological units. These units may lie from 200 to 300 feet below the surface, although there are no well records from this unit in this Township.

The deposits of the Ogallala Formation irregularly crop out in this area, and the contact between the Ogallala and the Triassic beds are commonly obscured by the Quaternary aeolian deposits. According to Plate 2 in Nicholson and Clebsch, 1961, the C-1 Station lies in the outcrops of the Ogallala.

5.1.3 Depth to Water, Direction of Groundwater Flow and Quality

Depth to water in the area of C-1 Station is from approximately 150 to 200 feet. According to maps published by Nicholson and Clebsch, (1961), the flow of groundwater in the Ogallala aquifer in the area of C-1 is southerly at a gradient of 0.005 (approximately 25 feet per mile).

Available information on groundwater quality is limited in the immediate area of C-1 Station. According to the New Mexico State Engineer's files, the nearest well with information regarding depth to water is well # CP-0063 in Section 15, T23S, R36E, where the depth to water is listed as 149 feet. There is only one available water quality analyses for a well within this Township. This well, completed in the Ogallala in Section 31 of T23S, R36E shows a Total Dissolved Solids of approximately 1000 milligrams per liter (Nicholson and Clebsch, 1961, Table 8, p. 95).

5.1.4 Nearest Potential Groundwater Receptors

According to the New Mexico State Engineer's Office, there are 4 water wells within approximately one mile of the C-1Compressor Station (Figure 2). The available information on these wells is listed in the Table below.

Water Wells Listed in a One-Mile Radius of SUGS C-1 Compressor Station

File #	Use	Diversion	Owner	Twns.	Rng	Sec.	Q	Q	Q	Start Date	Finish Depth	Depth	Depth to Water
CP-00491	Stock	0	U.R. Cattle Co.	23S	36E	13	4	4		na	na	na	na
CP-00538	Stock	0	U.R. Cattle Co.	23S	36E	13	4	4	1	na	na	na	na
CP-00738	Stock	0	Dinwiddie Cattle Co.	23S	36E	13	3	4		na	na	na	na
CP-00408	Stock	0	Mrs. George Weir	23S	37E	7	4	1		na	na	na	na

5.2 SURFACE WATER

There are no permanent bodies of surface water within one mile of the C-1 Station (Figures 1 and 3). Local drainage is into unnamed, ephemeral arroyos, primarily to the southeast.

6.0 FACILITY DESCRIPTION

The C-1 Station is a self-contained facility. All wastes, including stormwater which may come in contact with the units, are properly contained for off-site recycling or disposal. The design and operation of the facility was developed to ensure that that no solid or liquid industrial wastes or discharges are released to the water of the State of New Mexico. The site is in open range, and is not fenced.

A schematic map of the facility is included as Figure 4. Field gas entering the site is first routed through a Pig Trap, used to remove "pigs", a plug passed through the pipeline to remove waste solids and fluids which accumulate in the lines (Figure 3). The Pig Trap recovers the "pig" and the wastes (see Section 7.0). This cleaning process is used at irregular intervals, depending on the conditions of the field gas and the pipelines.

Field gas then passes through the Inlet Scrubber, a tank which allows liquids (hydrocarbon liquids and produced water) to settle and accumulate. These liquids are carried to storage tanks (tanks TK-1 and TK-2) by internal piping. These liquids are separated by gravity in the tanks, after which the petroleum liquids are removed by tank truck for recycling and the produced water is removed by tank truck for permitted disposal facilities (see Section 7).

From the Inlet Scrubber, the gas is directed by piping to a second separator, the Suction Scrubber, attached to the inlet of the compressor. The Suction Scrubber is employed to remove any liquids which might have passed through the Inlet Scrubber. The liquids from the Suction Scrubber are piped to the same storage tanks as the liquids from the Inlet Scrubber.

After the final scrubbing, the gas is introduced into the compressor to raise its pressure and transport the gas to transmission pipes, which carry the gas either directly to natural gas process plants, or to additional compressor stations.

The compressor is powered by a natural-gas fueled reciprocating engine, attached directly to the compressor. The engine and compressor are placed on a concrete pad with a curb which contains any leaks and incidental storm water. The natural gas (in the case at the C-1 Station) is obtained from commercial gas pipelines, which supply processed, "sweet" gas from natural gas process plants.

The compressor engine is cooled by a liquid-cycle radiator, filled with a mixture of ethylene glycol antifreeze and water, and is sump-lubricated by conventional motor oil. Supplemental tanks of these fluids, which are automatically replenished as needed, are stored on site.

7.0 MATERIALS STORED AND USED AT FACILITY

The materials used at the facility are listed in Table 7-1 below. Photographs of the tanks are shown in Figures 5 through 9 on the following pages. Although not regularly or permanently stored on the site, other miscellaneous materials are used at the facility for maintenance and pipeline service. These include detergents for equipment cleaning, similar detergents for pipeline cleaning during pigging, and methanol for antifreeze operations in the pipelines during the winter months. Applicable Material Safety Data Sheets (MSDS)are included in Appendix A.

Table 7-1: Materials Stored at C-1 Compressor Station

TYPE	ID	MATERIAL	FORM	VOLUME	LOCATION	CONTAINMENT
Subgrade RFG	TK-1	Scrubber Liquids	Liquid	50 bbl	NE Area	None
AGT Steel	TK-2	Scrubber Liquids	Liquid	510 bbl	East Side	None
AGT Steel	TK-3	Engine Oil	Liquid	500 gal	South Area	On Compressor Concrete Pad
AGT Poly	TK-4	Antifreeze	Liquid	250 gal	South Side of Compressor	On Compressor Concrete Pad
AGT Steel	TK-5	Compressor Oil	Liquid	55 gal	South Side of Compressor	100 gal RFG Containment
Poly	TK-6	Pig Receiver Drip	Liquid	225 gal	South of Compressor	25 gal RFG Containment

8.0 SOURCES AND QUANTITIES OF EFFLUENT AND WASTE SOLIDS

The sources and quantities of effluents and solid wastes generated from processes at the C-1 Compressor Station are summarized in Table 8-1 below.

Exempt wastes are generated from the production and processing of petroleum hydrocarbons and gasses and are exempted from hazardous waste regulations under Subtitle C. Non-exempt wastes must be characterized, either by chemical analysis or knowledge of process, to determine their status under all applicable and appropriate hazardous waste regulations. The C-1 Compressor Station facility's waste management system is designed to prevent the commingling of exempt and non-exempt wastes.

Table 8-1: Waste Sources, Quantities and Regulatory at C-1 Compressor Station

SOURCE	TYPE OF WASTE	VOLUME	REGULATORY STATUS	STATUS DETERMINATION
Compressor	Used Engine Oil	100-200 gal/month	Non-Exempt	Non-Hazardous per 40 CFR 279.11
	Used Filters	4 per month	Non-Exempt	Non-Hazardous per 40 CFR 261.4
	Wash and storm water from Compressor pad	Washdown 75 to 100 gal/month; stormwater varies	Non-Exempt	Chemical Analysis, knowledge of process
	Sorbent/Rags	Varies	Non-Exempt	Non-Hazardous per 40 CFR 279.11
Scrubbers	Gas Liquids	Varies; 50 to 100 bbl/month	Exempt	EPA Subtitle C
Pig Wastes	Pig Solids	Varies; 55 to 110 gal/month	Exempt	EPA Subtitle C
	Hydrocarbon Liquids	Varies; 55 to 110 gal/month	Exempt	NA EPA Subtitle C
Misc. Trash	Solid Wastes	Varies	Non-Exempt	Knowledge of process

The quality and constituents of the washwater and stormwater from the compressor pad may vary if the types or brands of materials used on the pad (lube oil, antifreeze, and soaps) are changed. For this reason, an initial TCLP analysis of the wastewater has been performed, as a grab sample from the pad sump. The Sampling and Analysis Standard Operating Procedures are included in Appendix B.

The most recent analysis (May 26, 2007) is summarized below in Table 8-2. The complete laboratory analytical report for the May 27, 2006 sample analysis is included in Appendix C. If there are any significant changes in the materials used on the pad, an additional analysis will be performed; using the same collection and analytical methods, prior to the disposal of the wastewater, and the method(s) of disposal will be modified as necessary.

Table 8-2: Wastewater Analyses From C-1 Compressor Station

Date Sampled	3/26/2007
location	C-1 Compressor Station
Report #	7C27001
Matrix	Waste water
Destination: unknown	
Volume transported:	
Date:	

Toxicity	Analytical mg/kg	Reg limit (TCLP) mg/kg	Determination
Benzene	0.00176	0.5	Non-hazardous
Mercury	ND	0.2	Non-hazardous
Arsenic	J(0.00900)	5.0	Non-hazardous
Barium	0.0297	100.0	Non-hazardous
Cadmium	J(0.00260)	1.0	Non-hazardous
Chromium	0.0169	5.0	Non-hazardous
Lead	0.0043	5.0	Non-hazardous
Selenium	0.0884	1.0	Non-hazardous
Silver	J(0.000962)	5.0	Non-hazardous
Reactive			
Cyanide	ND	250.0	Non-hazardous
pH	6.30 pH units	<2 or >12.5 pH units	Non-hazardous
Sulfide	ND	500.0	Non-hazardous
Ignitability	>85 deg. C	<60 deg C	Non-hazardous

9.0 LIQUID AND SOLID WASTES COLLECTION, STORAGE AND DISPOSAL

The collection, storage, removal and disposal of wastes generated at the C-1 Station are summarized in Table 9-1 below. As determined in Section 8.0 above, the facility does not generate any RCRA hazardous wastes; therefore all wastes are ultimately recycled or by disposed of, in licensed, permitted non-hazardous waste disposal or recycling facilities.

Table 9-1: Collection, Storage, Removal and Disposal of Wastes at C-1 Compressor Station

TYPE OF WASTE	COLLECTION	STORAGE	REMOVED BY	DISPOSAL
Scrubber Liquids	Piped to TK-1	TK-1 (210 bbl)	Varies[1]	SUGS Jal #4 for separation and sales.
Used Oils	Drained from Compressor pad or drained from engine sump	Removed during Service, Not stored on site	Quail Petroleum Services	Available Permitted Recycler
Used Filters/Sorbents	Filters drained to container on pad; rags and sorbents to dumpster.	Dumpster	Quail Petroleum Services	Available Permitted Recycler
Wash Water	Held in curbed concrete compressor pad	Removed during Service, Not stored on site	Varies[1]	Nearest Available Permitted Facility
Pig Wastes	Drained into 55 Gallon Temp. Barrels	55 Gallon Temp. Barrels in Pig Trap Steel Drip Pans	Ocotillo Environmental Services LLC	SUGS Permitted Landfarm at Jal #4 Gas Plant
Spent Antifreeze	Disposal Truck	Removed during Service, Not stored on site	Quail Petroleum Services	Available Permitted Recycler
Solid Wastes	Trash Barrel	Trash Barrel	SUGS	Lea County Solid Waste Authority

1: Scrubber liquids are transported by either (depending on availability) Quality Transports, Chaparral Services, Riverside Trucking, FULCO Services, or Rapid Transports.

10.0 INSPECTION, MAINTENCE AND REPORTING

In accordance with SUGS policy, the C-1 Station and all other active compressor stations are inspected each working day (Monday-Friday) by an appropriately trained technician. This individual visually inspects the waste management systems, including the levels in all tanks and the presence of any liquids in any containment structures.

Based on the knowledge of the operations at the C-1 Station, regular visits are scheduled for removal of wastes. Any apparent problems noted in daily inspections are notified immediately to the SUGS environmental director, who then dispatches the necessary employees, equipment and contractors to address the problem.

The compressor station is also monitored by telemetry (powered by solar batteries) to the SUGS control facility. This telemetry transmits operating parameters including system pressure, temperature, inlet and outlet flows, and other information. This provides an early warning in the event that any equipment is out of its operating parameters, allowing an immediate inspection if warranted.

Due to the non-discharge design of the system, no groundwater monitoring is required or employed at the C-1 Station.

Current TCLP analyses of wastewaters from the compressor pad indicate that the water is non-hazardous. Compressor pad wastewater will be reanalyzed for TCLP parameters if significantly different materials (e.g., oils, antifreeze, soaps) are used on the pad to reestablish the water's status.

11.0 SPILL AND LEAK PREVENTION AND REPORTING

As described in Section 11.0 above, the facility is inspected on a daily basis. Any spills will be addressed in accordance with NMOCD Rule 116 and 20.6.2.1203 NMAC.

12.0 CLOSURE PLAN

Upon removal from service, the C-1 Station facility will be closed by:

- Disconnect and close all pipelines, gas, electrical and other utilities,
- Dismantle and remove all equipment,
- Collect and analyze an appropriate number of soil samples to verify that no contaminated soils exist,
- Regrade and revegetate the site in accordance with any applicable bonds and/or other regulations.

A report will be developed documenting the closure, and will be provided to NMOCD upon request.

FIGURES

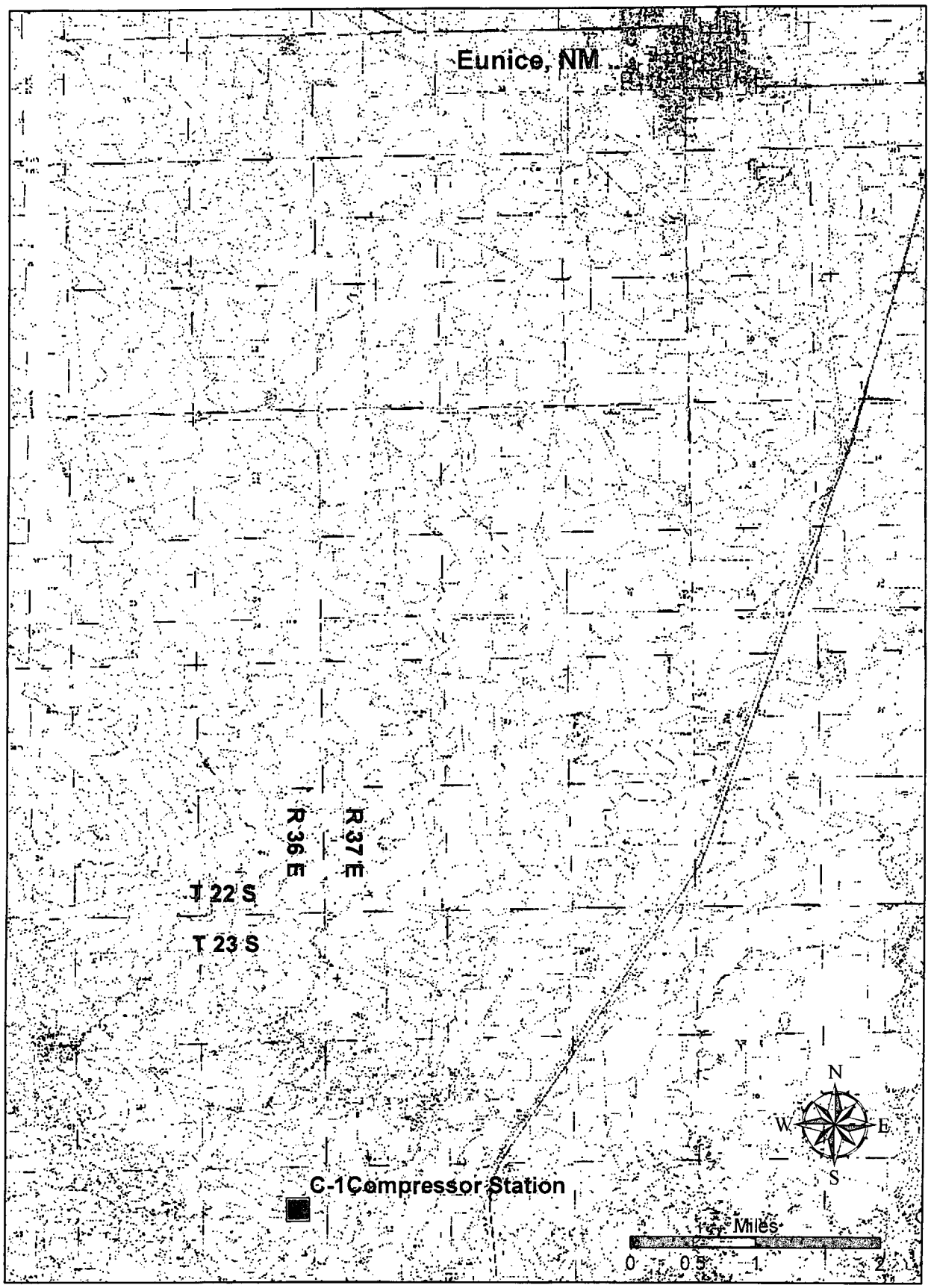


Figure 1: Location of Southern Union Gas Services C-1 Compressor Station

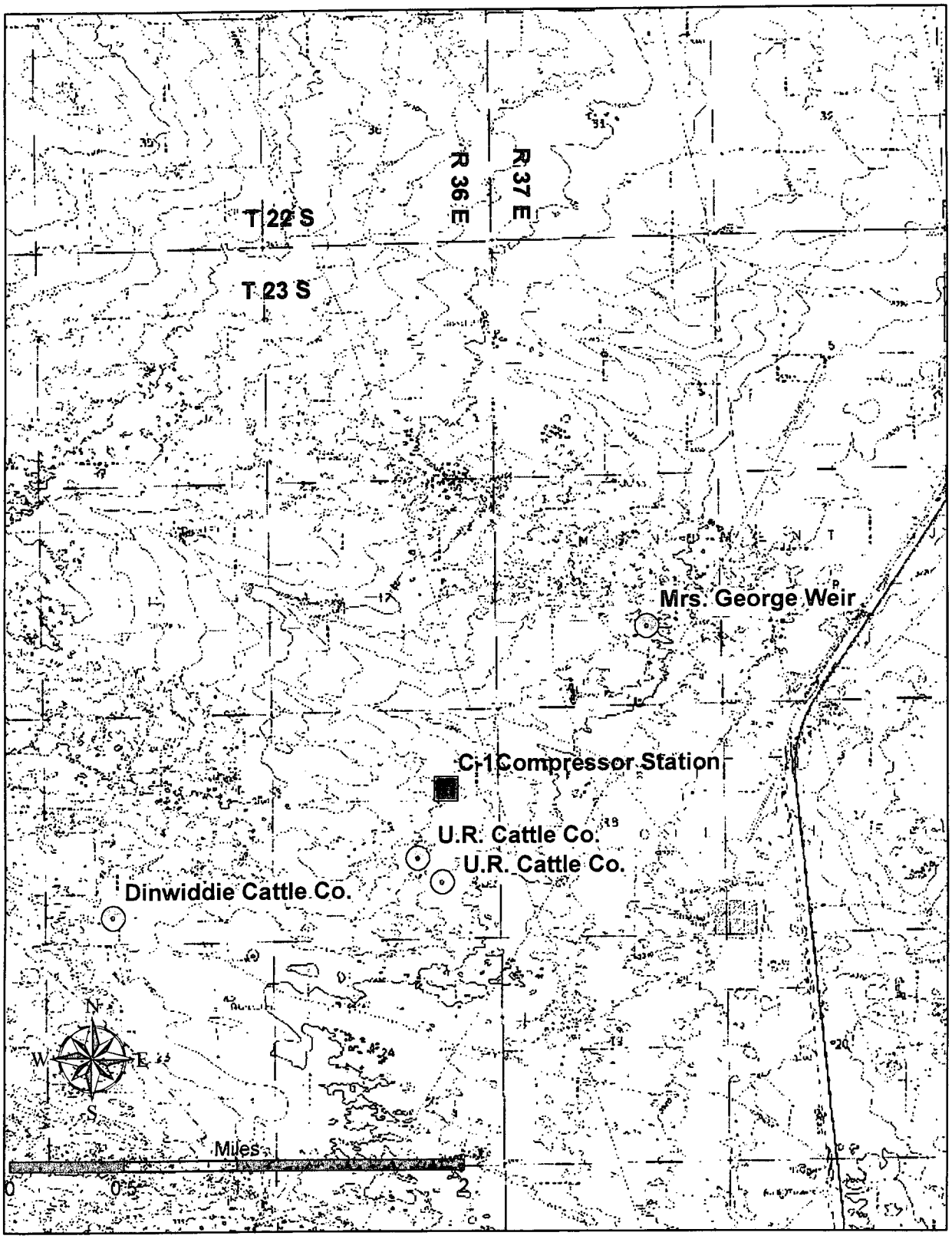


Figure 2: Water Wells Within One Mile of C-1 Compressor Station

⊙ **Water Well**

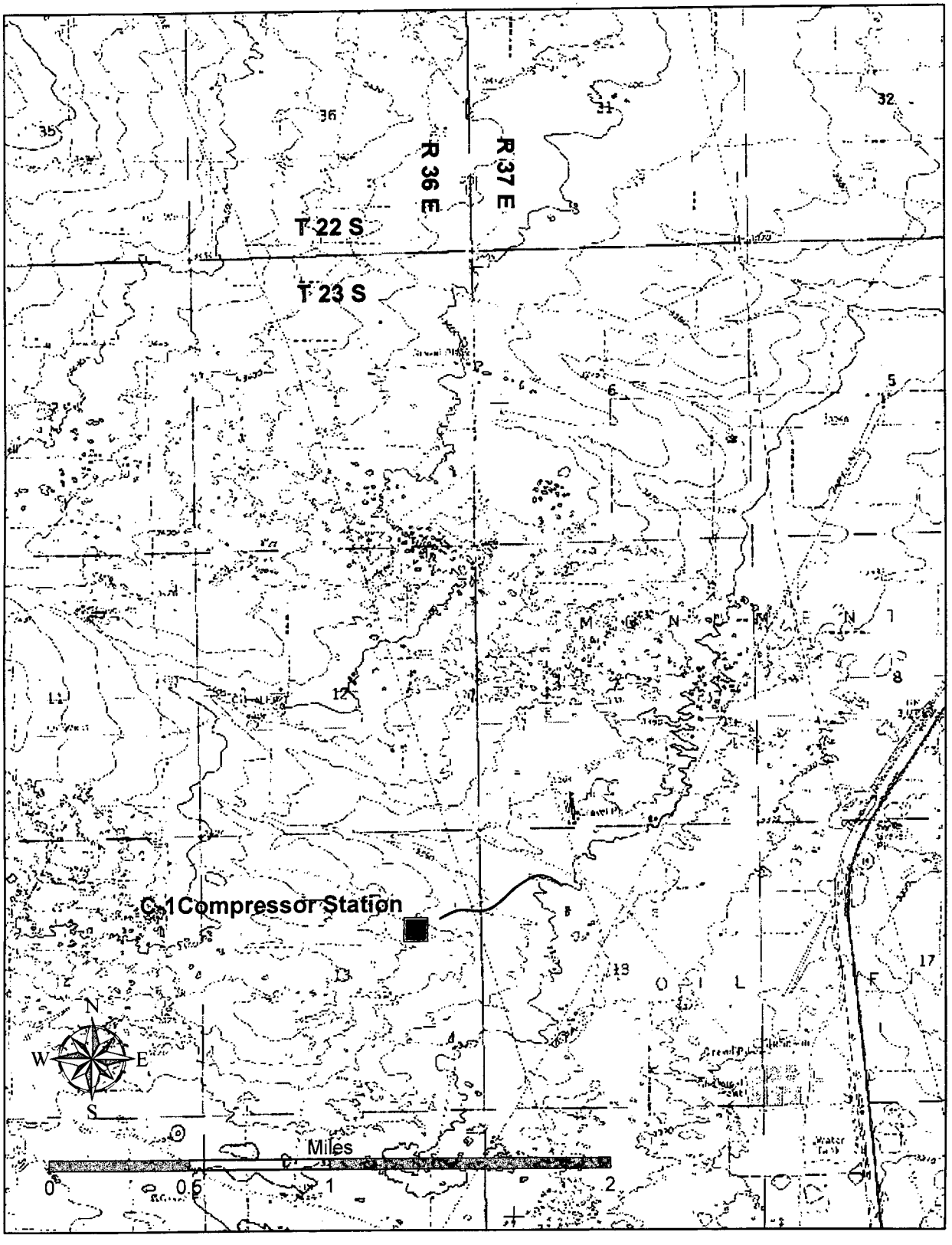


Figure 3: Drainage Pathways From C-1 Compressor Station

Drainage Path

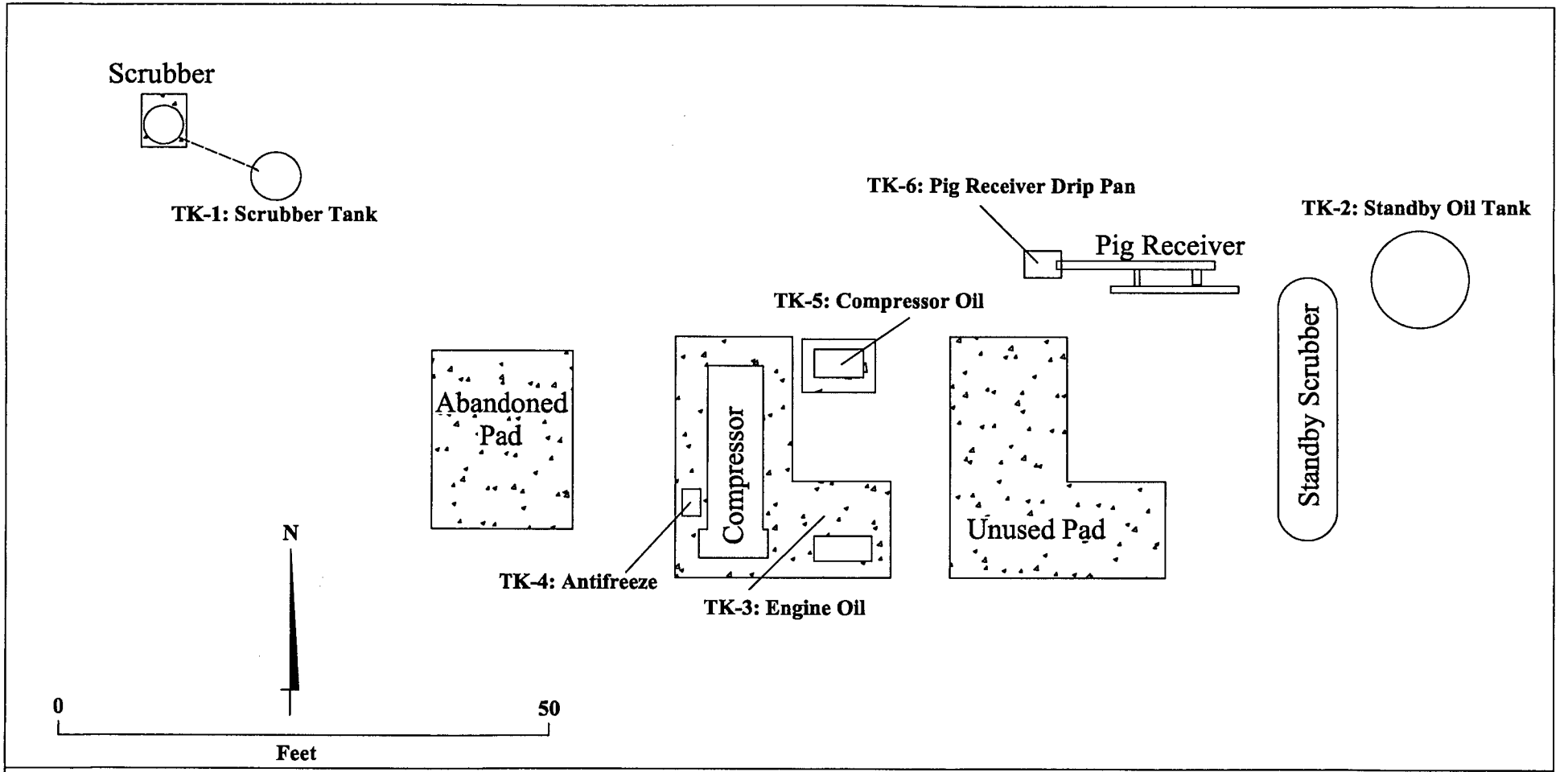


Figure 4: Schematic Map, Southern Union Gas Services
C-1 Compressor Station

Location: Unit H, Section 13, T23S, R36E, Lea County, New Mexico

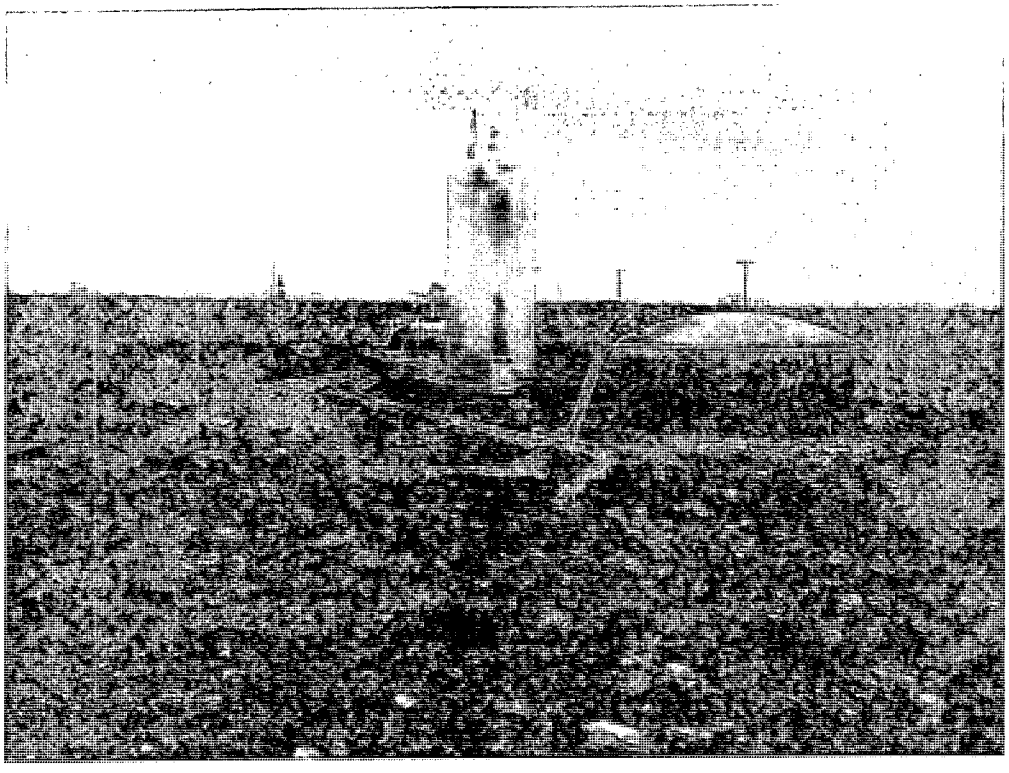


Figure 5: TK-1 Scrubber Condensate Tank and Scrubber

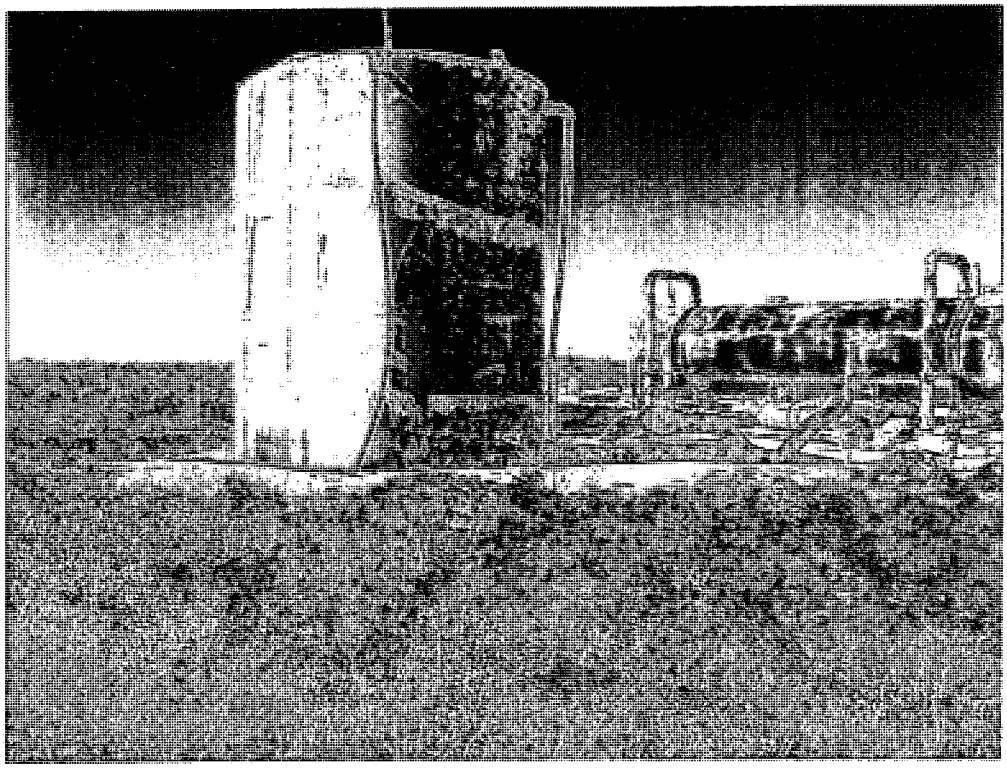


Figure 6: TK-2 Standby Condensate Tank

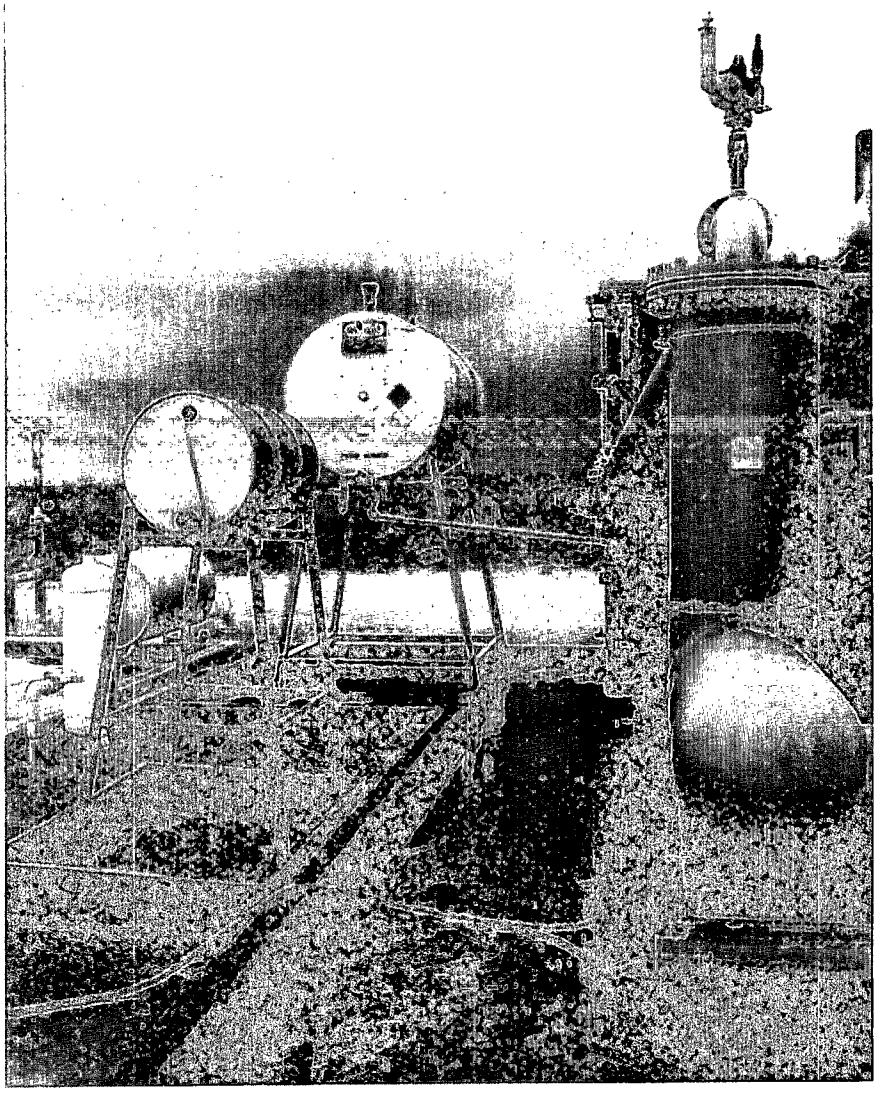


Figure 7: TK-3 Engine Oil and TK-5 Compressor Oil (Note recent storm water in contained pad. SUG contractors have recently removed the oily water.)

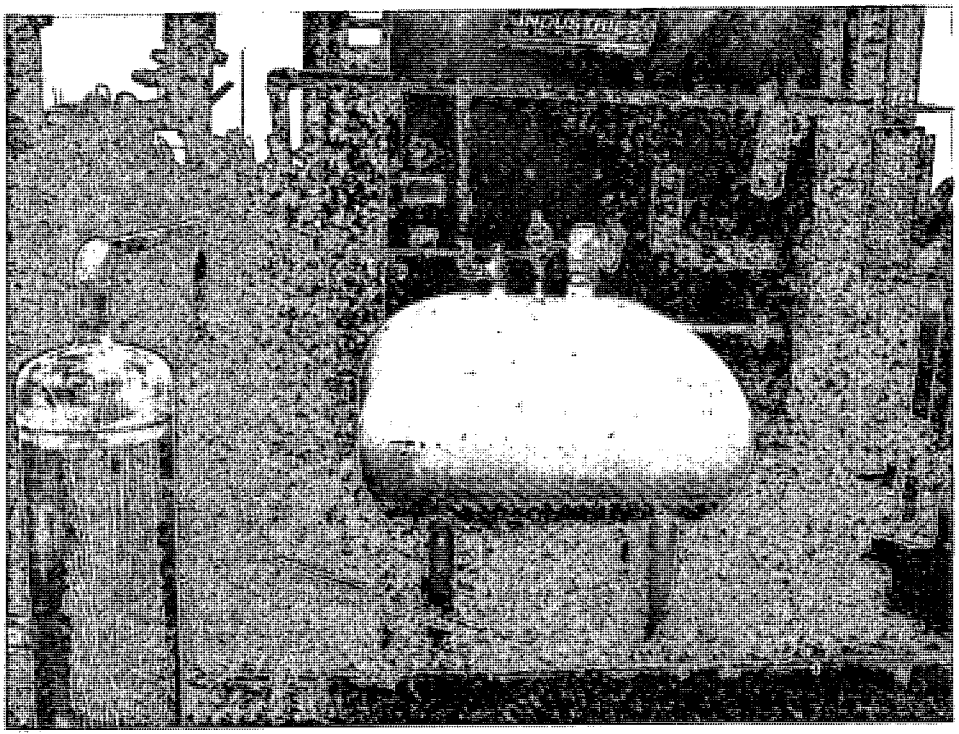


Figure 8: TK-4 Antifreeze Tank
(Note recent storm water in contained pad. SUG contractors have recently removed the oily water.)

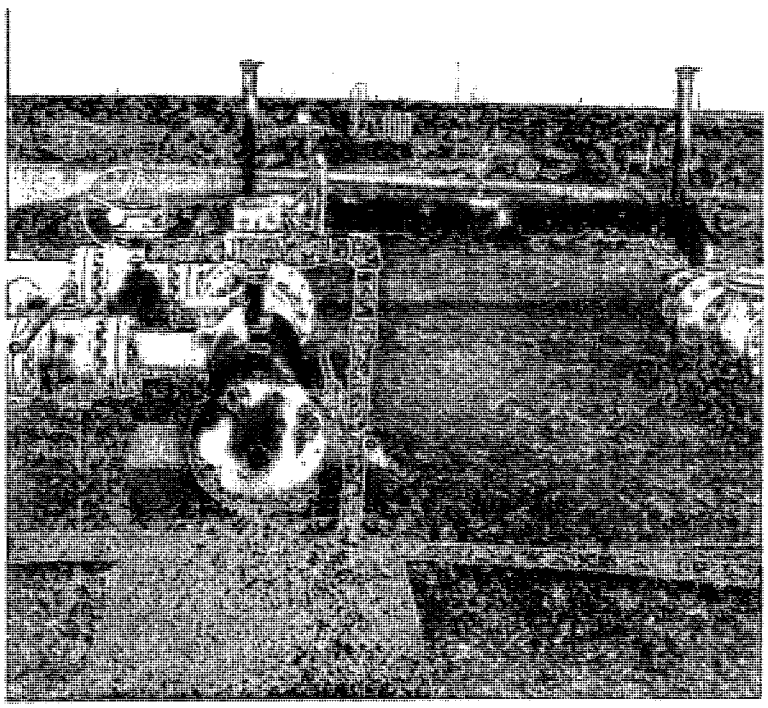


Figure 9: TK-6 Pig Receiver and Drip Pan

APPENDIX A:

MATERIAL SAFETY DATA SHEETS

Praxair Material Safety Data Sheet

1. Chemical Product and Company Identification

Product Name:	Natural gas	**Trade Name:**	Natural gas
Product Use:	Heating fuel.		
Chemical Name:	Natural Gas, compressed	**Synonym:**	Methane natural gas
Chemical Formula:	Mixture of CH4, C2H6, C3H8, & C4H10	**Chemical Family:**	Hydrocarbons
Telephone:	**Emergencies:** * 1-800-363-0042	**Supplier /Manufacture:**	Praxair Canada Inc. 1 City Centre Drive Suite 1200 Mississauga, ON L5B 1M2
		Phone:	905-803-1600
		Fax:	905-803-1682

**Call emergency numbers 24 hours a day only for spills, leaks, fire, exposure, or accidents involving this product. For routine information, contact your supplier or Praxair sales representative.*

2. Composition and Information on Ingredients

INGREDIENTS	% (VOL)	CAS NUMBER	LD_{50} (Species & Routes)	LC_{50} (Rat, 4 hrs.)	TLV-TWA (ACGIH)
Natural gas (predominantly methane)	100	8006-14-2	Not applicable.	Not available.	None established.

3. Hazards Identification

Emergency Overview

DANGER! **Flammable, high-pressure gas. May form explosive mixture with air. Can cause rapid suffocation. May cause dizziness and drowsiness. Self-contained breathing apparatus may be required by rescue workers.**

ROUTES OF EXPOSURE: Inhalation. Eye contact.

THRESHOLD LIMIT VALUE: TLV-TWA Data from 2004 Guide to Occupational Exposure Values (ACGIH). TLV-TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations.

EFFECTS OF A SINGLE (ACUTE) OVEREXPOSURE:

INHALATION: Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause headaches, drowsiness, dizziness, excitation, excess salivation, vomiting and unconciousness. Lack of oxygen can kill.

SKIN CONTACT: No harmful effects expected from vapour..

SKIN ABSORPTION: No evidence of adverse effects from available information.

SWALLOWING: An unlikely route of exposure. This product is a gas at normal temperature and pressure.

EYE CONTACT:
Vapour may cause irritation.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE:
None.

OTHER EFFECTS OF OVEREXPOSURE:
None known.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
None known.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION:
None.

CARCINOGENICITY:
Not listed as carcinogen by OSHA, NTP or IARC.

4. First Aid Measures

INHALATION:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SKIN CONTACT:
Abrasions: clean with soap and water then bandage.
Burns: seek medical attention.

SWALLOWING:
Not applicable (gas).

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

NOTES TO PHYSICIAN:
There is no specific antidote. Treatment of over-exposure should be directed at the control of symptoms and the clinical condition.

5. Fire Fighting Measures

FLAMMABLE :	Yes.	IF YES, UNDER WHAT CONDITIONS?	Forms explosive mixtures with air and oxidizing agents.

FLASH POINT (test method)	Not applicable.	AUTOIGNITION TEMPERATURE	482°C (899.6°F)

FLAMMABLE LIMITS IN AIR, % by volume:	LOWER: 3.8	UPPER: 17

EXTINGUISHING MEDIA:
CO2, dry chemical, water spray or fog.

SPECIAL FIRE FIGHTING PROCEDURES:
DANGER! Evacuate all personnel from danger area. Immediately cool cylinders with water spray from maximum distance taking care not to extinguish flames. Remove ignition source if without risk. If flames are accidentally extinguished. Explosive re-ignition may occur; therefore, appropriate measures should be taken; e.g., total evacuation. Re-approach with extreme caution. Use self-contained breathing apparatus. Stop flow of gas if without risk while continuing cooling water spray. Remove all containers from area if without risk. Allow fire to burn out.

UNUSUAL FIRE AND EXPLOSION HAZARD:
Extremely flammable gas in presence of open flame and sparks. Slightly flammable in presence of heat.

HAZARDOUS COMBUSTION PRODUCTS:

These products are carbon oxides (CO, CO2).

SENSITIVITY TO IMPACT:

Avoid impact against container.

SENSITIVITY TO STATIC DISCHARGE:

Possible.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

DANGER! Flammable, high-pressure gas. Forms explosive mixtures with air. Immediately evacaute all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if without risk. Reduce gas with fog or fine water spary. Shut off flow if without risk. Ventilate area or move cylinder to a well-ventilated area. Flammable gas may spread from leak. Before entering area, especially confied areas, check atmosphere with an appropriate device.

WASTE DISPOSAL METHOD:

Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard and product, residue, disposable container, or liner in an environmentally acceptable manner, infull compliance with federal, provincial, and local regulations. If necessary, call your local supplier for assistance.

7. Handling and Storage

PRECAUTIONS TO BE TAKEN IN STORAGE:

Store and use with adequate ventilation. Separate flammable cylinders from oxygen, chlorine, and other oxidizers by at least 6 m or use a barricade of non-combustible material. This barricade should be at least 1.5 m high and have a fire resistance rating of at least ½ hour. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Post "No Smoking or Open Flames" signs in storage and use areas. There must be no sources of ignition. All electrical equipment in storage areas must be explosion-proof. Storage areas must meet national electric codes for Class 1 hazardous areas. Store only where temperature will not exceed 52 C. Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

PRECAUTIONS TO BE TAKEN IN HANDLING:

Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier. For other precautions, see Section 16.

For additional information on stroage and handling, refer to Compressed Gas Association (CGA) pamphlet P-1, *Safe Handling of Compressed Gases in Containers*, available from the CGA. Refer to Section 16 for the address and phone number along with a list of other available publications.

OTHER HAZARDOUS CONDITIONS OF HANDLING, STORAGE, AND USE:

Flammable high-pressure gas. Use only in a closed system. Use piping and equipment adequately designed to withstand pressures to be encountered. Use only spark-proof tools and explosion-proof equipment. Keep away from heat, sparks, and open flame. ***May form explosive mixtures with air.*** Ground all equipment. ***Gas can cause rapid suffocation due to oxygen deficiency.*** Store and use with adequate ventilation. Close valve after each use; keep closed even when empty. ***Prevent reverse flow.*** Reverse flow into cylinder may cause rupture. Use a check valve or other protective device in any line or piping from the cylinder. ***When returning cylinder to supplier,*** be sure valve is closed, then install valve outlet plug tightly. ***Never work on a pressurized system.*** If there is a leak, close the cylinder valve. Vent the system down in a safe and environmentally sound manner in compliance with all federal, provincial, and local laws; then repair the leak. ***Never place a compressed gas cylinder where it may become part of an electrical circuit.***

8. Exposure Controls/Personal Protection

VENTILATION/ENGINEERING CONTROLS:

LOCAL EXHAUST: An explosion-proof local exhaust system is acceptable. See SPECIAL.

MECHANICAL (general): Inadequate. See SPECIAL.

SPECIAL: Use only in a closed system.

OTHER: None.

PERSONAL PROTECTION:

RESPIRATORY PROTECTION: Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select in accordance with the provincial regulations or guidelines. Selection should also be based on the current CSA standards Z94.4, "Selection, care and use of respirators". Respirators should be approved by NIOSH and MSHA.

SKIN PROTECTION: Wear work gloves when handling cylinders.

EYE PROTECTION: Wear safety glasses when handling cylinders.

Select in accordance with the current CSA standard Z94.3, "Industrial Eye and Face Protection", and any provincial regulations, local bylaws or guidelines.

OTHER PROTECTIVE EQUIPMENT: Metatarsal shoes for cylinder handling. Protective clothing where needed. Cuffless trousers should be worn outside the shoes. Select in accordance with the current CSA standard Z195, "Protective Foot Wear", and any provincial regulations, local bylaws or guidelines.

9. Physical and Chemical Properties

PHYSICAL STATE:	Gas. (Compressed Gas.)	**FREEZING POINT:**	Not available.	**pH:**	Not applicable.
BOILING POINT	-164°C (-263.2°F)	**VAPOUR PRESSURE**	Not applicable.	**MOLECULAR WEIGHT:**	17.66 g/mole
SPECIFIC GRAVITY: LIQUID (Water = 1)	Not applicable.	**SOLUBILITY IN WATER,**	Very slightly soluble in cold water.		
SPECIFIC GRAVITY: VAPOUR (air = 1)	0.55	**EVAPORATION RATE** (Butyl Acetate=1):	Not available.	**COEFFICIENT OF WATER/OIL DISTRIBUTION:**	Not applicable.
VAPOUR DENSITY:	0.615	**% VOLATILES BY VOLUME:**	100% (v/v).	**ODOUR THRESHOLD:**	0.001 ppm

APPEARANCE & ODOUR: Colourless. Odour: Faint, disagreeable. (Slight.)

10. Stability and Reactivity

STABILITY:	The product is stable.
CONDITIONS OF CHEMICAL INSTABILITY:	Not available.
INCOMPATIBILITY (materials to avoid):	Oxidizing agents in the presence of ignition source.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition or burning may produce carbon monoxide/carbon dioxide and possible trace amounts of sulphur dioxide and oxides of nitrogen.
HAZARDOUS POLYMERIZATION:	Will not occur.
CONDITIONS OF REACTIVITY:	None known.

11. Toxicological Information

See section 3.

12. Ecological Information

No adverse ecological effects expected. This product does not contain any Class I or Class II ozone-depleting chemicals. The components of this mixture are not listed as marine pollutants by TDG Regulations.

13. Disposal Considerations

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.

14. Transport Information

TDG/IMO SHIPPING NAME: Natural Gas, Compressed

HAZARD CLASS:	IDENTIFICATION #:	PRODUCT RQ:
CLASS 2.1: Flammable gas.	1971	100 L

SHIPPING LABEL(s): Flammable gas

PLACARD (when required): Flammable gas

SPECIAL SHIPPING INFORMATION:

Cylinders should be transported in a secure position, in a well-ventilated vehicle. Cylinders transported in an enclosed, nonventilated compartment of vehicle can present serious safety hazards.

15. Regulatory Information

The following selected regulatory requirements may apply to this product. Not all such requirements are identified. Users of this product are solely responsible for compliance with all applicable federal, provincial, and local regulations.

WHMIS (Canada) CLASS A: Compressed gas.
CLASS B-1: Flammable gas.

International Regulations

EINECS Not available.

DSCL (EEC) This product is not classified according to the EU regulations.

International Lists No products were found.

16. Other Information

MIXTURES:

When two or more gases, or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an Industrial Hygienist, or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

HAZARD RATING SYSTEM:

HMIS RATINGS:

HEALTH	0
FLAMMABILITY	4
PHYSICAL HAZARD	0

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED:	0 - 3000 psig: CGA-350
PIN-INDEXED YOKE:	Not applicable.
ULTRA-HIGH-INTEGRITY CONNECTION:	Not applicable.

Use the proper CGA connections. **DO NOT USE ADAPTERS.** Additional limited-standard connections may apply. See CGA pamphlets V-1 and V-7 listed below.

Ask your supplier about free Praxair safety literature as referred to in this MSDS and on the label for this product. Further information about this product can be found in the following pamphlets published by the Compressed Gas Association, Inc. (CGA), 4221 Walney Road, 5th Floor, Chantilly, VA 20151-2923, Telephone (703) 788-2700, Fax (703) 961-1831, website: www.cganet.com.

AV-1	Safe Handling and Storage of Compressed Gas
P-1	Safe Handling of Compressed Gases in Containers
P-14	Accident Prevention in Oxygen-Rich, Oxygen-Deficient Atmospheres
SB-2	Oxygen-Deficient Atmospheres
V-1	Compressed Gas Cylinder Valve Inlet and Outlet Connections
V-7	Standard Method of Determining Cylinder Valve Outlet Connections for Industrial Gas Mixtures
---	Handbook of Compressed Gases, Fourth Edition

PREPARATION INFORMATION:

DATE: 10/15/2004

DEPARTMENT: Safety and Environmental Services

TELEPHONE: 905-803-1600

The opinions expressed herein are those of qualified experts within Praxair Canada Inc. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Praxair Canada Inc., it is the user's obligation to determine the conditions of safe use of the product.

Praxair Canada Inc. requests the users of this product to study this Material Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety nformation, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

Praxair Canada Inc.
1 City Centre Drive
Suite 1200
Mississauga, ON L5B 1M2

Material Safety Data Sheet

NATURAL GAS CONDENSATE

April 28, 1995

PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

PHONE NUMBERS
Emergency: (918) 661-8118
General MSDS Information: (918) 661-8327
For Additional MSDSs: (918) 661-5952

A. Product Identification

Synonyms: Drip; Hydrocarbon gas drip; Gas drip
Chemical Name: Natural gas condensate
Chemical Family: Mixture
Chemical Formula: Mixture
CAS Reg. No.: 68919-39-1
Product No.: Not Established

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Hydrogen sulfide	7783-06-4	0-20	10 ppm	10 ppm
C2 Hydrocarbons (As ethane) Asphyxiant	Various	0-5	NE	Simple
C3 Hydrocarbons (As propane) Asphyxiant	Various	0-15	1000 ppm	Simple
C4 Hydrocarbons (As butane)	Various	0-45	800 ppm	800 ppm
C5 Hydrocarbons (As pentane)	Various	5-70	600 ppm	600 ppm
C6 Hydrocarbons (As n-hexane)	Various	25-95	50 ppm(1)	50 ppm(1)
may include: Cyclohexane	110-82-7	NE	300 ppm	300 ppm
C7 Hydrocarbons (As heptane)	Various	25-95	400 ppm	400 ppm
C8 Hydrocarbons (As octane)	Various	25-95	300 ppm	300 ppm
Aromatic Hydrocarbons	Various	0-10	NE	NE
may include: Benzene	71-43-2	NE	1 ppm(2)	10 ppm
Toluene	108-88-3	NE	100 ppm	100 ppm
Mixed xylene	1330-20-7	NE	100 ppm	100 ppm
Ethylbenzene	100-41-4	NE	100 ppm	100 ppm

(1) As n-Hexane. As Hexane isomers 500 ppm.
(2) Areas exempted by the Benzene Standard, 29 CFR 1910.1028, will have a 10 ppm 8 hour TWA.

C. Personal Protection Information

Ventilation:	Use adequate ventilation to control exposure below recommended levels.
Respiratory Protection:	For concentrations exceeding the recommended exposure level, use NIOSH/MSHA approved air supplied respirator. In case of spill or leak resulting in unknown concentrations, use NIOSH/MSHA approved supplied air respirator.
Eye Protection:	Use chemical goggles.
Skin Protection:	Use full-body, long-sleeved garments. Use polyvinyl alcohol or Buna-N gloves.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Do not breathe vapor, mist, fume or dust. May be harmful. Proper personal protective equipment must be used when handling this chemical. Launder contaminated clothing before reuse. Wash thoroughly after handling. Use only with adequate ventilation. Do not swallow. May be aspirated into lungs.

Store in a well-ventilated area. Store in tightly closed container. Keep away from heat, sparks, and flames. Bond and ground during transfer.

E. Reactivity Data

Stability:	Stable
Conditions to Avoid:	Not Applicable
Incompatibility (Materials to Avoid):	Oxygen and strong oxidizing materials
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid:	Not Applicable
Hazardous Decomposition Products:	Carbon oxides and various hydrocarbons formed when burned. Sulfur oxides may be formed if hydrogen sulfide is present.

F. Health Hazard Data

Recommended Exposure Limits:

See Section B.

Acute Effects of Overexposure:

Eye: May cause irritation including pain, blurred vision,

redness, tearing and superficial corneal turbidity.

Skin: May cause slight irritation. Extreme exposure may produce discoloration, muscle weakness, breathing difficulties and other central nervous system effects.

Inhalation: Toxic by this route of exposure. May cause nausea, diarrhea, loss of appetite, dizziness, disorientation, headache, excitation, rapid respiration, drowsiness, labored breathing, anesthesia and other central nervous system effects. Hydrogen sulfide may cause lung paralysis and asphyxiation. Extreme overexposure may cause rapid unconsciousness and respiratory arrest.

Ingestion: May be mildly irritating to intestines. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs.

Subchronic and Chronic Effects of Overexposure:

Benzene has been designated as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), and the Occupational Safety and Health Administration (OSHA). Benzene may produce blood changes which include reduced platelets, reduced red blood cells, reduced white blood cells, aplastic anemia, and acute nonlymphocytic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms.

Chronic high level n-hexane exposure damages the nervous system initially producing a lack of feeling in the extremities and possibly progressing to a more severe nerve damage.

Inhalation of high levels (1000 and 5000 ppm) of n-hexane has produced testicular damage in rats. Mice exposed to the same dose levels showed no testicular effects.

Other Health Effects:

The odor of hydrogen sulfide may not be recognized after prolonged inhalation due to paralysis of the sense of smell. Effects from inhaling the fume may lead to chronic bronchitis, respiratory irritation, increased loss of pulmonary function, and tearing of the eyes.

Some isoparaffins have produced kidney damage in male rats only. No comparable kidney disease is known to occur in humans.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	_X_	_X_	Toxic	_X_	___
Suspect Carcinogen	___	___	Corrosive	___	___
Mutagen	_X_	___	Irritant	___	___
Teratogen	___	___	Target Organ Toxin	_X_	_X_
Allergic Sensitizer	___	___	Specify - Nerve Toxin; Liver and Kidney Toxin; Lung-Aspiration Hazard		
Highly Toxic	___	___			

First Aid and Emergency Procedures:

Eye:	Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.
Skin:	Wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.
Inhalation:	Immediately remove from exposure. If breathing is difficult, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.
Ingestion:	Do not induce vomiting. Seek immediate medical attention.
Note to Physician:	Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

G. Physical Data

Appearance:	Colorless to dark liquid
Odor:	Rotten egg odor if hydrogen sulfide is present.
Boiling Point:	Not Established
Vapor Pressure:	< 40 psia @ 70F (21C) (Estimated)
Vapor Density (Air = 1):	>1
Solubility in Water:	Negligible
Specific Gravity (H2O = 1):	0.5-0.7 (Estimated)
Percent Volatile by Volume:	100
Evaporation Rate (Butyl Acetate = 1):	>1
Viscosity:	< 40 SUS @ 68F (20C)

H. Fire and Explosion Data

Flash Point (Method Used):	<-100F (<-73C)(Estimated)
Flammable Limits (% by Volume in Air):	LEL - Not Established UEL - Not Established
Fire Extinguishing Media:	Dry chemical, foam or carbon dioxide (CO2)
Special Fire Fighting Procedures:	Evacuate area of all unnecessary personnel. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if conditions warrant. Shut off source, if possible. Water fog or spray may be used to cool exposed equipment and containers Allow fire to burn until gas flow is shut off, if possible.
Fire and Explosion Hazards:	Carbon oxides and possibly sulfur oxides formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along ground away from handling site.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible. Protect from ignition. Ventilate area thoroughly.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or otherwise manage at a RCRA permitted waste management facility.

J. DOT Transportation

For Natural Gas Condensate with an IBP < 68F

Shipping Name:	Hydrocarbon gases mixtures, liquefied, n.o.s. (contains Propanes and Butanes)
Hazard Class:	2.1 (Flammable gas)
ID Number:	UN 1965
Packing Group:	Not applicable
Marking:	Hydrocarbon gases mixtures, liquefied,, n.o.s. (contains Propanes and Butanes), UN 1965, RQ*
Label:	Flammable gas
Placard:	Flammable gas/1965
Hazardous Substance/RQ:	Benzene/10#; Toluene/1000#; Cyclohexane/1000#; Xylene/1000#; Ethylbenzene/1000#
Shipping Description:	Hydrocarbon gases mixtures, liquefied, n.o.s. (contains Propanes and Butanes), 2.1 (Flammable gas), UN 1965, RQ*
Packaging References:	49 CFR 173.304, 173.306, 173.314, 173.315

*Enter the letters "RQ" and the name of the hazardous substance as shown only if the hazardous substance is present in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) shown for the hazardous substance.

For Natural Gas Condensate with an IBP > 68F

Shipping Name:	Natural gasoline
Hazard Class:	3 (Flammable liquid)
ID Number:	UN 1257
Packing Group:	I (if IBP < 95F) or II (if IBP > 95F)
Marking:	Natural gasoline, Un 1257, RQ*
Label:	Flammable liquid
Placard:	Flammable liquid/1257
Hazardous Substance/RQ:	Benzene/10#; Toluene/1000#; Cyclohexane/1000#; Xylene/1000#; Ethylbenzene/1000#
Shipping Description:	Natural gasoline, 3 (Flammable liquid), UN 1257, PG I or II, RQ*
Packaging References:	49 CFR 173.150, 173.201, 173.202, 173.242, 173.243

*Enter the letters "RQ" and the name of the hazardous substance as shown only if the hazardous substance is present in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) shown for the hazardous substance.

K. RCRA Classification - Unadulterated Product as a Waste

Ignitable (D001)

Prior to disposal, consult your environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

_X_ This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

___ Combustible Liquid	___ Flammable Aerosol	___ Oxidizer
___ Compressed Gas	___ Explosive	___ Pyrophoric
___ Flammable Gas	_X_ Health Hazard (Section F)	___ Unstable
_X_ Flammable Liquid	___ Organic Peroxide	___ Water Reactive
___ Flammable Solid		

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

N. Additional Comments

SARA 313

This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. (See Section B).

Hexane
Benzene
Toluene
Mixed xylene
Ethylbenzene
Cyclohexane

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: **ESSOLUBE XDI 5W-30 PROPANE/CNG ENGINE OIL**
Product Description: Base Oil and Additives
Product Code: 15036
Intended Use: Engine oil

COMPANY IDENTIFICATION

Supplier: **Canada Imperial Oil Limited, An Affliate of Exxon Mobil Corporation**
P.O. Box 4029, Station A
Calgary, ALBERTA. T2P 3M9 Canada

24 Hour Health Emergency	519-339-2145
Transportation Emergency Phone	519-339-2145
Supplier General Contact	1-800-567-3776

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

No Reportable Hazardous Substance(s) or Complex Substance(s).

SECTION 3 HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

Low order of toxicity. Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

NFPA Hazard ID:	Health:	0	Flammability:	1	Reactivity: 0
HMIS Hazard ID:	Health:	0	Flammability:	1	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Sulfur oxides, Incomplete combustion products, Oxides of carbon, Aldehydes, Smoke, Fume

FLAMMABILITY PROPERTIES

Flash Point [Method]: 200C (392F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: 315°C (599°F)

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other

shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard.

Static Accumulator: This material is a static accumulator.

STORAGE

Do not store in open or unlabelled containers.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists / aerosols can occur, the following are recommended: 5 mg/m³ - ACGIH TLV, 10 mg/m³ - ACGIH STEL, 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability; inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:
No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS
See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION
Physical State: Liquid
Form: Clear
Color: Amber
Odor: Characteristic
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION
Relative Density (at 15 C): 0.86
Flash Point [Method]: 200C (392F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: 315°C (599°F)
Boiling Point / Range: 340C (644F) - 600C (1112F)
Vapor Density (Air = 1): > 2 at 101 kPa
Vapor Pressure: [N/D at 20 °C] | < 1 kPa (7.5 mm Hg) at 38C
Evaporation Rate (n-butyl acetate = 1): < 0.1
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: >20 cSt (20 mm2/sec) at 40 C | 10.7 cSt (10.7 mm2/sec) at 100C
Oxidizing Properties: See Sections 3, 15, 16.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -30°C (-22°F)
DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity (Rat): LC50 > 5000 mg/m3	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: No end point data.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
Ingestion	
Toxicity (Rat): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Diesel engine oils: Not carcinogenic in animals tests. Used and unused diesel engine oils did not produce any carcinogenic effects in chronic mouse skin painting studies.
Oils that are used in gasoline engines may become hazardous and display the following properties: Carcinogenic in animal tests. Caused mutations in vitro. Possible allergen and photoallergen. Contains polycyclic aromatic compounds (PAC) from combustion products of gasoline and/or thermal degradation products.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC	3 = IARC 1	5 = IARC 2B
2 = NTP SUS	4 = IARC 2A	6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Dispose of waste at an appropriate treatment & disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous

waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrositivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning PRECAUTIONARY LABEL TEXT: Empty containers may retain residue and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14 TRANSPORT INFORMATION

LAND (DOT) : Not Regulated for Land Transport

LAND (TDG) : Not Regulated for Land Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) : Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

NATIONAL CHEMICAL INVENTORY LISTING: DSL, TSCA

EPCRA: This material contains no extremely hazardous substances.

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

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
DIPHENYLAMINE	122-39-4	5, 9, 18
ZINC ALKYLDITHIOPHOSPHATE	68649-42-3	15

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK

4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
No revision information is available.

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

Internal Use Only
MHC: 0, 0, 0, 0, 0, 0 PPEC: A

DGN: 5013285 (1002629)

USED OIL

MATERIAL SAFETY INFORMATION SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **USED OIL**

SYNONYMS: Waste oil; Used lubricating oil; Oil and water mixture

PRODUCT PART NUMBER(S): Not applicable.

PRODUCT USE: Oil or water mixture for re-refining or reprocessing.
If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

	24-HOUR EMERGENCY PHONE NUMBERS	
These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.	**MEDICAL:**	**TRANSPORTATION (SPILL):**
	1-800-752-7869	**1-800-468-1760**

MANUFACTURER/ SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Extension 7500

MSDS FORM NUMBER: 81451 **ISSUE:** May 12, 2004

ORIGINAL ISSUE: January 15, 1990 **SUPERSEDES:** February 6, 2003

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

				OSHA PEL		ACGIH TLV®			
WT%	NAME	SYNONYM	CAS NO.	TWA	STEL	TWA	STEL	LD[a]	LC[b]
80 to 100	Lubricating oils, used	Used oil	70514-12-4	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 20*	Water/solids	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 10*	Hydrocarbon solvents. May include gasoline, diesel fuel, jet fuel, mineral spirits, etc.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.5*	Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel, and others: each below 1.0 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.0*	Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 0.5*	Chlorinated solvents.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

N.Av. = Not Available *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.

[a] Oral-Rat LD_{50} (mg/kg)

[b] Inhalation-Rat LC_{50}

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, black and viscous (thick), petroleum odor.

WARNING!
PHYSICAL HAZARDS
Combustible liquid.

HEALTH HAZARDS
May be harmful if inhaled.
May be harmful if absorbed through skin.
May be harmful or fatal if swallowed.
May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
Suspect cancer hazard. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.
Contains material which can cause birth defects.
Contains material which can cause lung, liver, kidney, skin, and/or central nervous system damage.

ENVIRONMENTAL HAZARDS
Product may be toxic to fish, plants, wildlife, and/or domestic animals.

POTENTIAL HEALTH EFFECTS

Effects may vary depending on material composition. Typical effects may include:

INHALATION (BREATHING): High concentrations of vapor or mist 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, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Product may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.

INGESTION (SWALLOWING): May be harmful or fatal if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause oil pneumonia, lung tissue inflammation, fibrous tissue formation, and/or toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: This product contains mineral oils, untreated or mildly treated, which can cause cancer. This product may contain hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics which can cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product may be toxic to fish, plants, wildlife, and/or domestic animals.
Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

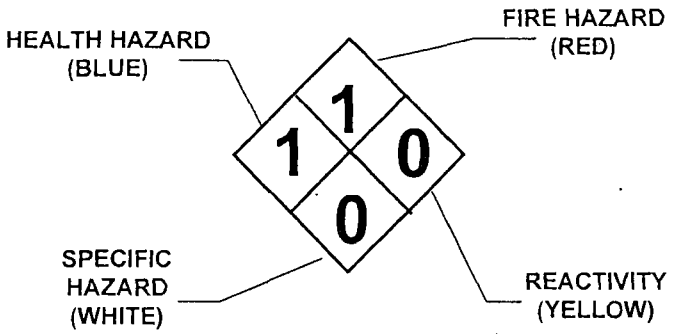
INHALATION: (BREATHING)	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
EYES:	If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
SKIN:	Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.
INGESTION: (SWALLOWING)	Do NOT induce vomiting. Immediately get medical attention. Call 1-800-752-7869 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.
NOTE TO PHYSICIANS:	Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	>200°F (93°C) (minimum) Pensky-Martens Closed Cup
FLAMMABLE LIMITS IN AIR:	Not available.
AUTOIGNITION TEMPERATURE:	Not available.
HAZARDOUS COMBUSTION PRODUCTS:	Decomposition and combustion materials may be toxic. Burning may produce phosgene gas, nitrogen oxides, carbon monoxide, and unidentified organic compounds.
CONDITIONS OF FLAMMABILITY:	Heat, sparks, or flame. Product may burn but does not ignite readily.
EXTINGUISHING MEDIA:	Use carbon dioxide, regular 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. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION.**

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, storage tanks, tanker trucks, and rail tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general ventilation, process enclosures, local exhaust ventilation, or other engineering controls to control air-borne levels. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

EYE PROTECTION: Wearing chemical goggles is recommended. Contact lens may be worn with eye protection.

SKIN PROTECTION: Where prolonged or repeated skin contact is likely, wear neoprene, nitrile (4 mil minimum), PVC (polyvinyl chloride), or equivalent protective gloves; wearing natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

PERSONAL HYGIENE:	Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product.
OTHER PROTECTIVE EQUIPMENT:	Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, black and viscous (thick), petroleum odor.
ODOR THRESHOLD:	Not available.
MOLECULAR WEIGHT:	Not applicable.
SPECIFIC GRAVITY:	0.8 to 1.0 at 60°F (15.6°C) (water = 1)
DENSITY:	6.7 to 8.3 LB/US gal (800 to 1000 g/l) (approximately)
VAPOR DENSITY:	greater than 1 (air = 1) (based on kerosene)
VAPOR PRESSURE:	Not available.
BOILING POINT:	Not available.
FREEZING/MELTING POINT:	Not available.
pH:	Not applicable.
EVAPORATION RATE:	less than 1 (butyl acetate = 1)
SOLUBILITY IN WATER:	Slight.
FLASH POINT:	>200°F (93°C) (minimum) Pensky-Martens Closed Cup
FLAMMABLE LIMITS IN AIR:	Not available.
AUTOIGNITION TEMPERATURE:	Not available.

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, reactive halogens, or reactive metals.

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. Also see **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there may be known human sensitization associated with this product.

MUTAGENICITY: Based on best current information, there may be mutagenicity associated with this product.

CARCINOGENICITY: Mineral oils, untreated or mildly treated are listed by IARC as a known carcinogen. Mineral oils, untreated or mildly treated are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by OSHA as known carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by IARC as known, probable, or possible carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are classified by NTP as known carcinogens or as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are recognized by ACGIH as confirmed or suspected human carcinogens.

Also see **SECTION 3: CANCER INFORMATION.**

REPRODUCTIVE TOXICITY: Based on best current information, there may be reproductive toxicity associated with this product.

TERATOGENICITY: Based on best current information, there may be teratogenicity associated with this product.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there may be toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: Not available.
As per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

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 proper recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated.

TDG: Not regulated.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable.
Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS This product poses the following physical and health hazards as

311 AND 312:	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 (SARA): Immediate (Acute) Health Hazard Delayed (Chronic) Health Hazard
SARA SECTION 313:	This product may contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.
CERCLA:	This product may contain "hazardous substances" listed pursuant to Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.
TSCA:	Not available.
CALIFORNIA:	This product is not for sale or use in the State of California.

CANADIAN REGULATIONS

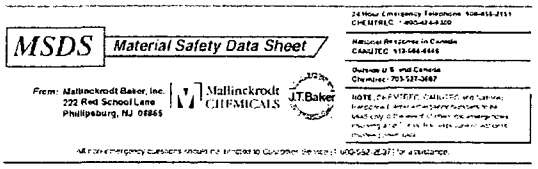
WHMIS:	Not regulated
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):	Not available.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: Update to Section 2.

LABEL/OTHER INFORMATION: Not available.

MSDS Number: E5125 * * * * * *Effective Date: 11/09/06* * * * * *Supercedes: 03/15/04*



ETHYLENE GLYCOL

1. Product Identification

Synonyms: 1,2-Ethanediol; glycol; 1,2-Dihydroxyethane; Ethylene Alcohol; Ethulene Dihydrate
CAS No.: 107-21-1
Molecular Weight: 62.07
Chemical Formula: CH2OHCH2OH
Product Codes:
J.T. Baker: 5387, 5845, 9140, 9298, 9300, 9346, 9356, L715
Mallinckrodt: 5001, 5037

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Ethylene Glycol	107-21-1	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate (Life)
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 3 - Severe (Life)
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
Vapor inhalation is generally not a problem unless heated or misted. Exposure to vapors over an extended time period has caused throat irritation and headache. May cause nausea, vomiting, dizziness and drowsiness. Pulmonary edema and central nervous system depression may also develop. When heated or misted, has produced rapid, involuntary eye movement and coma.
Ingestion:
Initial symptoms in massive dosage parallel alcohol intoxication, progressing to CNS depression, vomiting, headache, rapid respiratory and heart rate, lowered blood pressure, stupor, collapse, and unconsciousness with convulsions. Death from respiratory arrest or cardiovascular collapse may follow. Lethal dose in humans: 100 ml (3-4 ounces).
Skin Contact:
Minor skin irritation and penetration may occur.
Eye Contact:
Splashes may cause irritation, pain, eye damage.
Chronic Exposure:
Repeated small exposures by any route can cause severe kidney problems. Brain damage may also occur. Skin allergy can develop. May damage the developing fetus.
Aggravation of Pre-existing Conditions:
Persons with pre-existing skin disorders, eye problems, or impaired liver, kidney, or respiratory function may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact:
Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.
Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician:

Give sodium bicarbonate intravenously to treat acidosis. Urinalysis may show low specific gravity, proteinuria, pyuria, cylindruria, hematuria, calcium oxide, and hippuric acid crystals. Ethanol can be used in antidotal treatment but monitor blood glucose when administering ethanol because it can cause hypoglycemia. Consider infusion of a diuretic such as mannitol to help prevent or control brain edema and hemodialysis to remove ethylene glycol from circulation.

5. Fire Fighting Measures

Fire:
Flash point: 111C (232F) CC
Autoignition temperature: 398C (748F)
Flammable limits in air % by volume:
lel: 3.2; uel: 15.3
Slight to moderate fire hazard when exposed to heat or flame.
Explosion:
Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Containers may explode when involved in a fire.
Fire Extinguishing Media:
Dry chemical, foam or carbon dioxide. Water or foam may cause frothing. Water spray may be used to extinguish surrounding fire and cool exposed containers. Water spray will also reduce fume and irritant gases.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Toxic gases and vapors may be released if involved in a fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from acids and oxidizing materials. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
50 ppm Ceiling

-ACGIH Threshold Limit Value (TLV):
50 ppm Ceiling (vapor)
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear protective gloves and clean body-covering clothing.
Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:
Clear oily liquid.
Odor:
Odorless.
Solubility:
Miscible in water.
Specific Gravity:
1.1 @20C/4C
pH:
No information found.
% Volatiles by volume @ 21C (70F):
100
Boiling Point:
197.6C (388F)
Melting Point:
-13C (9F)
Vapor Density (Air=1):
2.14
Vapor Pressure (mm Hg):
0.06 @ 20C (68F)
Evaporation Rate (BuAc=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition. May produce acrid smoke and irritating fumes when heated to decomposition.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Strong oxidizing agents. Reacts violently with chlorosulfonic acid, oleum, sulfuric acid, perchloric acid. Causes ignition at room temperature with chromium trioxide, potassium permanganate and sodium peroxide; causes ignition at 212F(100C) with ammonium dichromate, silver chlorate, sodium chloride and uranyl nitrate.
Conditions to Avoid:
Heat, flames, ignition sources, water (absorbs readily) and incompatibles.

11. Toxicological Information

Toxicological Data:
Oral rat LD50: 4700 mg/kg; skin rabbit LD50: 9530 mg/kg.
Irritation - skin rabbit: 555mg(open), mild; eye rabbit: 500mg/24H, mild.
Investigated as a tumorigen, mutagen, reproductive effector.
Reproductive Toxicity:
Has shown teratogenic effects in laboratory animals.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Ethylene Glycol (107-21-1)	No	No	None

12. Ecological Information

Environmental Fate:
When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is not expected to evaporate significantly. When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days. This material is not expected to significantly bioaccumulate. This material has a log octanol-water partition coefficient of less than 3.0. When released into water, this material is not expected to evaporate significantly. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.
Environmental Toxicity:
The LC50/96-hour values for fish are over 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

--------\Chemical Inventory Status - Part 1\----------

Ingredient	TSCA	EC	Japan	Australia
Ethylene Glycol (107-21-1)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\----------

Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
Ethylene Glycol (107-21-1)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------

Ingredient	-SARA 302- RQ	TPQ	------SARA 313------ List	Chemical Catg.
Ethylene Glycol (107-21-1)	No	No	Yes	No

--------\Federal, State & International Regulations - Part 2\----------

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Ethylene Glycol (107-21-1)	5000	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Liquid)

Australian Hazchem Code: None allocated.
Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 1 Reactivity: 0
Label Hazard Warning:
WARNING! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.
Label Precautions:
Do not breathe vapor or mist.
Use only with adequate ventilation.
Keep container closed.
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.
Label First Aid:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. Call a physician if irritation develops or persists. If swallowed, give water or milk to drink and induce vomiting. Never give anything by mouth to an unconscious person. In all cases call a physician.
Product Use:
Laboratory Reagent.
Revision Information:
No Information Found.
Disclaimer:
****

****

Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)

USED ANTIFREEZE
MATERIAL SAFETY INFORMATION SHEET FOR USA AND CANADA

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: USED ANTIFREEZE

SYNONYMS: 1,2-Ethanediol; 1,2-Ethylene glycol; 2-Hydroxyethanol; Ethylene alcohol

PRODUCT CODE: Prefix 95P

PRODUCT USE: Used automotive coolant.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

	24-HOUR EMERGENCY PHONE NUMBERS	
These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.	**MEDICAL:**	**TRANSPORTATION (SPILL):**
	1-800-752-7869	**1-800-468-1760**

SUPPLIER: Safety-Kleen
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then Enter 7500

MSDS FORM NUMBER: 82912 **ISSUE:** February 20, 2003

ORIGINAL ISSUE: February 20, 2003 **SUPERSEDES:** Not applicable.

PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

				OSHA PEL**		ACGIH TLV®			
WT%	NAME	SYNONYM	CAS NO.	TWA	STEL	TWA	STEL	LD[a]	LC[b]
30-87	Water	N.Av.	7732-18-5	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.
2-68	Ethylene glycol	1,2-Ethanediol; 1,2-Dihydroxyethane	107-21-1	N.Av.	N.Av.	N.Av.	N.Av.	4700 mg/kg (9530 uL/kg)[c]	10876 mg/kg
4-44	1,2-Propylene glycol	N.Av.	57-55-6	N.Av.[d]	N.Av.	N.Av.	N.Av.	20 gm/kg (20800 mg/kg)[c]	N.Av.
1-2	Diethylene glycol	2,2'-oxybis-ethanol	111-46-6	N.Av.[e]	N.Av.	N.Av.	N.Av.	12565 mg/kg (11890 mg/kg)[c]	N.Av.

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.
N.Av. = Not Available
[a]Oral-Rat LD_{50}
[b]Inhalation-Rat LC_{50}
[c]Skin-Rabbit LD_{50}
[d]AIHA recommended TWA 50 ppm
[e]AIHA recommended TWA 10mg/m^3

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, green, sweet odor. Syrupy.

DANGER!

HEALTH HAZARDS
May be harmful if inhaled.
May be fatal if swallowed.
May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. Contains material which may cause birth defects. Contains material which may cause lung, kidney, liver, central nervous system, and eye damage.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may cause liver, lung, and kidney damage. High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation. May cause inflammation of the iris, ciliary body, and the membrane lining the eyelids and covering the eyeball (conjunctivitis). May cause corneal damage.

SKIN: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

INGESTION (SWALLOWING): May be fatal if swallowed. The estimated lethal dose is 100 ml (3.4 ounces). May damage lung, liver, and kidneys. May cause throat irritation, nausea, vomiting, central nervous system effects as noted under **INHALATION (BREATHING)**, unconsciousness, coma, and death. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause blindness. Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Prolonged or repeated exposure may have reproductive toxicity, teratogenic, or mutagenic effects.

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS
Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-752-7869 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel.
Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869 for additional information.
Ethylene glycol is metabolized by alcohol dehydrogenase to various metabolites including glycoaldehyde, glycolic acid, and oxalic acid. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, central nervous system depression, and kidney damage. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis, and prevention of kidney injury. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal when given in the early stages of intoxication because it blocks the formation of nephrotoxic metabolites. A more effective intravenous antidote is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenase, which effectively blocks the formation of toxic metabolites. Pulmonary edema with hypoxia has been described in a number of patients following ethylene glycol poisoning. Respiratory support with mechanical ventilation and positive end expiratory pressure may be required. There may be cranial nerve involvement in the later stages of toxicity from swallowing ethylene glycol. Effects have been reported presenting bilateral facial paralysis, diminished hearing, and dysphagia.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: >200°F (>93.3°C)

FLAMMABLE LIMITS IN AIR: **LOWER:** 3.2 VOL% (ethylene glycol) **UPPER:** 15.3 VOL% (ethylene glycol)

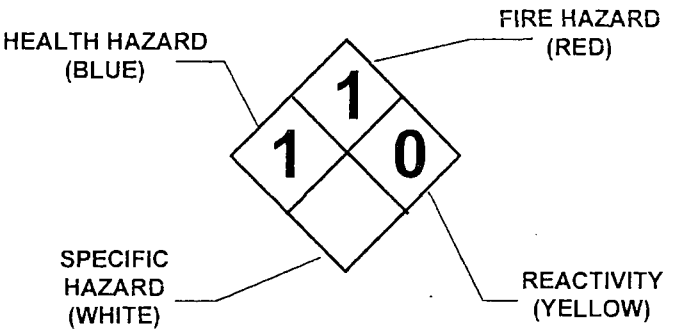
AUTOIGNITION TEMPERATURE: 748°F (398°C) (ethylene glycol)

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame. Products may burn, but do not ignite readily.

EXTINGUISHING MEDIA: Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

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. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS: Vapors will spread along the ground and collect in low or confined areas. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources or ignition. Empty product containers may retain product residue and can be

dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH-certified, full-face, air-purifying respirators with P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1920.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

SKIN PROTECTION: Where skin contact is likely, wear Polyvinyl Chloride (PVC), neoprene, butyl rubber, nitrile, or equivalent protective gloves; use of polyvinyl alcohol (PVA) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, green, sweet odor. Syrupy.
ODOR THRESHOLD:	Not available.
MOLECULAR WEIGHT:	106.
SPECIFIC GRAVITY:	>1 (water = 1)
DENSITY:	Not available.
VAPOR DENSITY:	>1 (air = 1)
VAPOR PRESSURE:	<0.1 mmHg at 68°F (20°C)
BOILING POINT:	>300°F (148.9°C)
FREEZING/MELTING POINT:	Not available.
pH:	6-10
EVAPORATION RATE:	Not available.
SOLUBILITY IN WATER:	Complete
FLASH POINT:	>200°F (>93.3°C)
FLAMMABLE LIMITS IN AIR:	**LOWER:** 3.2 VOL% (ethylene glycol) **UPPER:** 15.3 VOL% (ethylene glycol)
AUTOIGNITION TEMPERATURE:	748°F (398°C) (ethylene glycol)

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY:	Avoid acids, alkalies, oxidizing agents, or reactive metals.
REACTIVITY:	Polymerization is not known to occur under normal temperature 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: Ethylene glycol has demonstrated human effects of skin sensitization.

Based on best current information, the other components listed in **SECTION 2** are not sensitizers.

MUTAGENICITY: Ethylene glycol and diethylene glycol have demonstrated human effects of mutagenicity.

CARCINOGENICITY: Based on best current information, there is no known carcinogenicity as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

REPRODUCTIVE TOXICITY: Ethylene glycol and diethylene glycol have demonstrated animal effects of reproductive toxicity.

TERATOGENICITY: Ethylene glycol and diethylene glycol have demonstrated animal effects of teratogenicity.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:

Ethylene glycol (107-21-1)

Test & Species		Conditions
96 Hr LC50 rainbow trout	41000 mg/L	
96 Hr LC50 bluegill	27500 mg/L	
96 Hr LC50 goldfish	27500 mg/L	

1,2-Propylene glycol (57-55-6)

24 Hr LC50 goldfish	5000 mg/L	
48 Hr LC50 guppy	10000 mg/L	

Diethylene glycol (111-46-6)

96 Hr LC50 fathead minnow	75200 mg/L	flow-through

OCTANOL/WATER PARTITION COEFFICIENT:	Not available.
VOLATILE ORGANIC COMPOUNDS:	Not available.

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 proper recycling or disposal.

USEPA WASTE CODES(S): This product, if discarded, is not expected to be a characteristic or listed hazardous waste. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: **Shipping Name:** Not regulated as a hazardous material for transportation.

TDG: **Shipping Name:** Not regulated as a dangerous good for transportation.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable.
Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazard(s) 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 (SARA):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

SARA SECTION 313: The following component is subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Ethylene glycol (107-21-1) 1.0 percent de minimis concentration

CERCLA: Based on the ingredient(s) listed in SECTION 2, this product contains the following "hazardous substance(s)" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):
Ethylene glycol (107-21-1) 5000 lb final RQ; 2270 kg final RQ

TSCA: All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product does not contain detectable amounts of any chemical known to the State of California to cause cancer.

This product does not contain detectable amounts of any chemical known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

WHMIS: Class D2A - Contains component that may cause cancer.
Class D2B - Irritating to eyes and skin.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: New product.

LABEL/OTHER INFORMATION: Not available.

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Chevron HDAX® NG Screw Compressor Oil

Product Number(s): CPS255204, CPS255205, CPS259135
Synonyms: Chevron HDAX® NG Screw Compressor Oil ISO 100, Chevron HDAX® NG Screw Compressor Oil ISO 150, Chevron HDAX® NG Screw Compressor Oil ISO 68
Company Identification
ChevronTexaco Global Lubricants
A Division of Texaco Products Inc.
6975-A Pacific Circle
Mississauga, ONT L5T 2H3
Canada
www.chevronlubricants.com

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (703) 527-3887
Health Emergency
Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
Product Information
email : lubemsds@Chevron.com
Product Information: (800) LUBE TEK
MSDS Requests: (800) 414-6737

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	80 - 100 %weight

Information on ingredients that are considered Controlled Products and/or that appear on the WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, are also listed. See Section 15 for additional regulatory information.

SECTION 3 HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Ingestion: Not expected to be harmful if swallowed.
Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.
Note to Physicians: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

SECTION 5 FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

FLAMMABLE PROPERTIES:
Flashpoint: (Cleveland Open Cup) 210 °C (410 °F) (Min)
Autoignition: No Data Available
Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of

Static, Lightning, and Stray Currents'.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.
Special note: Do not use in breathing air apparatus or medical equipment.

ENGINEERING CONTROLS:
Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT
Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.
Respiratory Protection: No respiratory protection is normally required.
If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.
Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.
Occupational Exposure Limits:

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Amber
Physical State: Liquid
Odor: Petroleum odor
pH: Not Applicable
Vapor Pressure: <0.01 mmHg @ 37.8 °C (100 °F)
Vapor Density (Air = 1): >1
Boiling Point: >315°C (599°F)
Solubility: Soluble in hydrocarbons; insoluble in water
Freezing Point: Not Applicable
Specific Gravity: 0.87 - 0.88 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
Viscosity: 61.2 cSt @ 40°C (104°F) (Min)
Odor Threshold: No Data Available
Coefficient of Water/Oil Distribution: No Data Available

TC Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER TDG REGULATIONS

IMO/IMDG Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

DOT Shipping Description: PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR
Additional Information: NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1
01-2A=IARC Group 2A
01-2B=IARC Group 2B
35=WHMIS IDL

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:
All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: PICCS (Philippines).

WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. (See Hazardous Products Act (HPA), R.S.C. 1985, c.H-3,s.2).

MSDS PREPARATION:

This Material Safety Data Sheet has been prepared by the Toxicology and Health Risk Assessment Unit, ERTC, P.O. Box 1627, Richmond, CA 94804, (888)676-6183.

Revision Date: 03/08/2006

SECTION 16 OTHER INFORMATION

HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0

LABEL RECOMMENDATION:
Label Category : INDUSTRIAL OIL 1

REVISION STATEMENT: This revision updates the following sections of this Material Safety Data Sheet:
2,8,14,15,16

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: None known (None expected)
Hazardous Polymerization: Hazardous polymerization will not occur.
Sensitivity to Mechanical Impact: No.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.
Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.
Skin Sensitization: No product toxicology data available.
Acute Dermal Toxicity: LD50: >5g/kg (rabbit). The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Oral Toxicity: LD50: >5 g/kg (rat) The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.For additional information on the acute toxicity of the components, call the technical information center.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Management Act; R.R.O. 1990, Reg. 347 General-Waste Management; C.C.SM.c. W40 The Waste Reduction and Prevention Act; N.S. Reg. 51/95 and N.S. Reg. 179/96 for examples of Provincial legislation.)

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Material Safety Data Sheet
Methyl Alcohol, Reagent ACS, 99.8% (GC)

ACC# 95294

Section 1 - Chemical Product and Company Identification

MSDS Name: Methyl Alcohol, Reagent ACS, 99.8% (GC)
Catalog Numbers: AC423950000, AC423950010, AC423950020, AC423955000, AC9541632, AC423952
Synonyms: Carbinol; Methanol; Methyl hydroxide; Monohydroxymethane; Pyroxylic spirit; Wood alcohol; Wood naptha; Wood spirit; Monohydroxymethane; Methyl hydrate.
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
67-56-1	Methyl alcohol	99+	200-659-6

Hazard Symbols: T F
Risk Phrases: 11 23/24/25 39/23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless. Flash Point: 11 deg C. Poison! Cannot be made non-poisonous. Causes eye and skin irritation. May be absorbed through intact skin. This substance has caused adverse reproductive and fetal effects in animals.
Danger! Flammable liquid and vapor. Harmful if inhaled. May be fatal or cause blindness if swallowed. May cause central nervous system depression. May cause digestive tract irritation with nausea, vomiting, and diarrhea. Causes respiratory tract irritation. May cause liver, kidney and heart damage.
Target Organs: Kidneys, heart, central nervous system, liver, eyes.

Potential Health Effects
Eye: Produces irritation, characterized by a burning sensation, redness, tearing,

inflammation, and possible corneal injury. May cause painful sensitization to light.
Skin: Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.
Ingestion: May be fatal or cause blindness if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause cardiopulmonary system effects.
Inhalation: Harmful if inhaled. May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent blindness. Causes irritation of the mucous membrane.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause liver, kidney, and heart damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Effects may be delayed. Ethanol may inhibit methanol metabolism.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly

toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Scoop up with a nonsparking tool, then place into a suitable container for disposal. Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as saw dust. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed. Do not store in aluminum or lead containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities

storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Methyl alcohol	200 ppm TWA; 250 ppm STEL; skin - potential for cutaneous absorption	200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH	200 ppm TWA; 260 mg/m3 TWA

OSHA Vacated PELs: Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA; 250 ppm STEL; 325 mg/m3 STEL

Personal Protective Equipment

Eyes: Wear chemical goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR □1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear, colorless

Odor: alcohol-like - weak odor

pH: Not available.

Vapor Pressure: 128 mm Hg @ 20 deg C

Vapor Density: 1.11 (Air=1)

Evaporation Rate:5.2 (Ether=1)

Viscosity: 0.55 cP 20 deg C

Boiling Point: 64.7 deg C @ 760.00mm Hg

Freezing/Melting Point:-98 deg C

Autoignition Temperature: 464 deg C (867.20 deg F)

Flash Point: 11 deg C (51.80 deg F)

Decomposition Temperature: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 3; Reactivity: 0

Explosion Limits, Lower:6.0 vol %

Upper: 36.00 vol %

Solubility: miscible

Specific Gravity/Density:.7910g/cm3

Molecular Formula:CH4O

Molecular Weight:32.04

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, incompatible materials, ignition sources, oxidizers.
Incompatibilities with Other Materials: Acids (mineral, non-oxidizing, e.g. hydrochloric acid, hydrofluoric acid, muriatic acid, phosphoric acid), acids (mineral, oxidizing, e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic, e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), azo, diazo, and hydrazines (e.g. dimethyl hydrazine, hydrazine, methyl hydrazine), isocyanates (e.g. methyl isocyanate), nitrides (e.g. potassium nitride, sodium nitride), peroxides and hydroperoxides (organic, e.g. acetyl peroxide, benzoyl peroxide, butyl peroxide, methyl ethyl ketone peroxide), epoxides (e.g. butyl glycidyl ether), Oxidants (such as barium perchlorate, bromine, chlorine, hydrogen peroxide, lead perchlorate, perchloric acid, sodium hypochlorite)., Active metals (such as potassium and magnesium)., acetyl bromide, alkyl aluminum salts, beryllium dihydride, carbontetrachloride, carbon tetrachloride + metals, chloroform + heat, chloroform + sodium hydroxide, cyanuric chloride, diethyl zinc, nitric acid, potassium-tert-butoxide, chloroform + hydroxide, water reactive substances (e.g. acetic anyhdride, alkyl aluminum chloride, calcium carbide, ethyl dichlorosilane).
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, formaldehyde.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 67-56-1: PC1400000
LD50/LC50:
CAS# 67-56-1:
Draize test, rabbit, eye: 40 mg Moderate;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, rat: LC50 = 64000 ppm/4H;
Oral, mouse: LD50 = 7300 mg/kg;
Oral, rabbit: LD50 = 14200 mg/kg;
Oral, rat: LD50 = 5628 mg/kg;
Skin, rabbit: LD50 = 15800 mg/kg;
Carcinogenicity:
CAS# 67-56-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: Methanol has been shown to produce fetotoxicity in the embr yo or fetus of laboratory animals. Specific developmenta l abnormalities include cardiovascular, musculoskeletal, and urogenital systems.

Teratogenicity: Effects on Newborn: Behaviorial, Oral, rat: TDLo=7500 mg/kg (female 17-19 days after conception). Effects on Embryo or Fetus: Fetotoxicity, Inhalation, rat: TCLo=10000 ppm/7H (female 7-15 days after conception). Specific Developmental Abnormalities: Cardiovascular, Musculoskeletal, Urogenital, Inhalation, rat: TCLo=20000 ppm/7H (7-14 days after conception).
Reproductive Effects: Paternal Effects: Spermatogenesis: Intraperitoneal, mouse TDLo=5 g/kg (male 5 days pre-mating). Fertility: Oral, rat: TDLo = 35295 mg/kg (female 1-15 days after conception). Paternal Effects: Testes, Epididymis, Sperm duct: Oral, rat: TDLo = 200 ppm/20H (male 78 weeks pre-mating).
Neurotoxicity: No information available.
Mutagenicity: DNA inhibition: Human Lymphocyte = 300 mmol/L. DNA damage: Oral, rat = 10 umol/kg. Mutation in microorganisms: Mouse Lymphocyte = 7900 mg/L. Cytogenetic analysis: Oral, mouse = 1 gm/kg.
Other Studies: Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate) S tandard Draize Test: Administration into the eye (rabbit) = 40 mg (Moderate). Standard Draize test: Administration int o the eye (rabbit) = 100 mg/24H (Moderate).

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: 29.4 g/L; 96 Hr; LC50 (unspecified) Goldfish: 250 ppm; 11 Hr; resulted in death Rainbow trout: 8000 mg/L; 48 Hr; LC50 (unspecified) Rainbow trout: LC50 = 13-68 mg/L; 96 Hr.; 12 degrees C Fathead Minnow: LC50 = 29400 mg/L; 96 Hr.; 25 degrees C, pH 7.63 Rainbow trout: LC50 = 8000 mg/L; 48 Hr.; Unspecified ria: Phytobacterium phosphoreum: EC50 = 51,000-320,000 mg/L; 30 minutes; Microtox test No data available.
Environmental: Dangerous to aquatic life in high concentrations. Aquatic toxicity rating: TLm 96>1000 ppm. May be dangerous if it enters water intakes. Methyl alcohol is expected to biodegrade in soil and water very rapidly. This product will show high soil mobility and will be degraded from the ambient atmosphere by the reaction with photochemically produced hyroxyl radicals with an estimated half-life of 17.8 days. Bioconcentration factor for fish (golden ide) < 10. Based on a log Kow of -0.77, the BCF value for methanol can be estimated to be 0.2.
Physical: No information available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.

RCRA U-Series: CAS# 67-56-1: waste number U154; (Ignitable waste).

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	METHANOL				METHANOL
Hazard Class:	3				3(6.1)
UN Number:	UN1230				UN1230
Packing Group:	II				II
Additional Info:					FLASHPOINT 11 C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 67-56-1 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
CAS# 67-56-1: final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 67-56-1: acute, flammable.
Section 313
This material contains Methyl alcohol (CAS# 67-56-1, 99%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 67-56-1 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants

under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 67-56-1 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T F

Risk Phrases:

R 11 Highly flammable.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 39/23/24/25 Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 36/37 Wear suitable protective clothing and gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 7 Keep container tightly closed.

WGK (Water Danger/Protection)

CAS# 67-56-1: 1

Canada

CAS# 67-56-1 is listed on Canada's DSL List. CAS# 67-56-1 is listed on Canada's DSL List.

This product has a WHMIS classification of B2, D1A, D2B.

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m3);Ski n OEL-AUSTRALIA:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-BELGIU M:TWA 200 ppm (262 mg/m3);STEL 250 ppm;Skin OEL-CZECHOSLOVAKIA:TWA 10
0 mg/m3;STEL 500 mg/m3 OEL-DENMARK:TWA 200 ppm (260 mg/m3);Skin OEL-FINLAND:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-FRANCE:TWA 200 ppm (260 mg/m3);STEL 1000 ppm (1300 mg/m3) OEL-GERMANY:TWA 200 ppm (2

60 mg/m3);Skin OEL-HUNGARY:TWA 50 mg/m3;STEL 100 mg/m3;Skin JAN9 OEL -JAPAN:TWA 200 ppm (260 mg/m3);Skin OEL-THE NETHERLANDS:TWA 200 ppm (
260 mg/m3);Skin OEL-THE PHILIPPINES:TWA 200 ppm (260 mg/m3) OEL-POLA ND:TWA 100 mg/m3 OEL-RUSSIA:TWA 200 ppm;STEL 5 mg/m3;Skin OEL-SWEDEN
:TWA 200 ppm (250 mg/m3);STEL 250 ppm (350 mg/m3);Skin OEL-SWITZERLAN D:TWA 200 ppm (260 mg/m3);STEL 400 ppm;Skin OEL-THAILAND:TWA 200 ppm (260 mg/m3) OEL-TURKEY:TWA 200 ppm (260 mg/m3) OEL-UNITED KINGDOM:TW
A 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL IN BULGARIA, COLOMBIA, JO RDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM ch eck ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 7/21/1999
Revision #4 Date: 3/14/2001

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

APPENDIX B:

STANDARD OPERATING PROCEDURES FOR WASTEWATER SAMPLING AT COMPRESSOR STATIONS

APPENDIX B

SOUTHERN UNION GAS SERVICES
STANDARD OPERATING PROCEDURE

WASTEWATER SAMPLING AND ANALYSIS FOR SE NM GAS COMPRESSOR STATIONS

1.0 Scope

This procedure is designed to direct the sampling and analytical methods used to determine the applicable RCRA characteristics of wastewater (wash water and/or storm water) collected at Southern Union Gas Services (SUGS) compressor stations located in SE New Mexico. These procedures are to be used when changes in materials and/or processes at compressor stations are modified to any degree which might significantly alter the chemical or physical characteristics of wastewaters generated at the facility.

2.0 Equipment

Sampling of wastewater will require:

1. Sample containers (prepreserved, from laboratory)
2. Chain of Custody forms
3. Shipping Cooler
4. Shipping labels
5. Packing Tape
6. Ice or "blue ice"
7. Poly or latex gloves
8. Small plastic sheet or tarp
9. Site-specific safety equipment (e.g., hard hat, coveralls, safety glasses)
10. Paper towels
11. Ziplock bags
12. Hand washer or towelettes
13. Trash bags
14. Notebook
15. Camera

3.0 Laboratory

The selected laboratory is:

Environmental Laboratory of Texas
12600 W. I-20 E
Odessa, Texas 79765
(432) 563-1800

Contact the laboratory at least 24 hours before the sampling date and arrange to have shipped the appropriate sample containers (pre-preserved), chain of custody forms, sample labels, and shipping labels shipped to the appropriate location.

4.0 Analytes, Containers and Preservatives

The analytes and their containers, preservatives, and handling are summarized in Table 1 below.

Toxicity	Regulatory Limit (TCLP) mg/kg	Analytical Method	Container	Preservation	Holding Time
Benzene	0.5	8240A (GC/MS)	2x 40 ml VOA	Cool to 4^0 C.	14 Days
Mercury	0.2	7471 (Cold Vapor)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Arsenic	5.0	7060 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Barium	100.0	7080 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Cadmium	1.0	7130 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Chromium	5.0	7190 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Lead	5.0	7420 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Selenium	1.0	7740 (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Silver	5.0	7760A (AA)	1 L HDPE	Nitric Acid to pH < 2, Cool to 4^0 C.	6 Months
Reactive					
Cyanide	250.0	9010A	1 L HDPE	Cool to 4^0 C.	14 Days
pH	<2 or >12.5 pH units	9040	250 ml HDPE	Cool to 4^0 C.	24 Hours
Sulfide	500.0	9031	250 ml HDPE	Cool to 4^0 C.	6 Months
Ignitability	<60 deg C	1010	250 ml Glass	Cool to 4^0 C.	6 Months

VOA - Volatile Organic Analysis vial
HDPE – High Density Polyethylene

Two identical samples are collected for Benzene in the two 40 milliliter VOAs. One 1-liter HDPE container is used for all of the metals (mercury, arsenic, barium, cadmium, chromium, lead, selenium and silver). Individual containers are used for cyanide, pH and sulfide.

5.0 Methods

After obtaining the sample materials from the laboratory and the field equipment listed in Section 2.0, schedule the site visit and proceed to the facility.

Upon reaching the site, document the location, date, time, personnel involved and the purpose of the sampling visit. Also note any environmental conditions (weather, condition of equipment, adjacent activities) which might influence the sampling. Photograph the site and areas where samples will be taken.

Unpack and review the completeness and condition of the sampling equipment.

After selecting the points for sample collection, proceed as follows:

1. Put on a clean pair of gloves
2. Spread the plastic sheet on a flat, level surface near the sampling point and lay out the cooler and containers
3. Fill out the appropriate labels, and place then in a location secure from weather
4. If two phases (e.g., oil and water) are present, collect separate containers (VOAs) of each phase for each organic analysis sample.
5. Begin by filling the VOAs, making sure that the vials are completely full and that no air bubbles are present.
6. Then collect the other parameters, filling them to within ¼" of the top and securely closing the containers.
7. Clean the containers with paper towels and apply the labels
8. Place the labeled containers in zipped bags and place in the cooler with bagged ice or "blue ice"
9. Clean up the area to remove paper trash and towels, etc.
10. Remove your gloves, wash your hands, and put the gloves in the trash bag
11. Complete the information required on the Chain of Custody form, sign the form, and remove the sampler's copy.
12. Place the Chain of Custody form in a sealed plastic bag and place it in the cooler
13. Fill and attach the shipping label, and secure the cooler with packing tape
14. Keep the cooler in your custody until it is shipped to the laboratory
15. Contact the laboratory to notify them that the samples are en route, and request that you be notified when the samples are received. Arrange for e-mail notification directly from the shipper (i.e., Federal Express) to the laboratory contact and the sampler.
16. After returning from the sampling site, appropriately file your notes, photographs and Chain of Custody forms.
17. Copy all notes, photographs and chain of custody forms and attach to results when received and forward to:

    Mr. Tony Savoie
    Southern Union Gas Services, Ltd.
    610 Commerce Street
    Jal NM 88252

APENDIX C:

ANALYTICAL DATA AND DOCUMENTATION

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

Analytical Report

Prepared for:

Tony Savoie

Southern Union Gas Services- Jal

P.O. Box 1226

Jal, NM 88252

Project: C-1 Compressor

Project Number: None Given

Location: North of Jal, NM

Lab Order Number: 7C27001

Report Date: 04/05/07

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-1	7C27001-01	Water	03/26/07 07:38	03-27-2007 10:30

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-1 (7C27001-01) Water									
Ignitability by Flashpoint	[>85.0]		°C	1	ED70303	04/02/07	04/02/07	EPA 1010A / ASTM D93-80	
pH	**6.30**		pH Units	"	EC72904	03/28/07	03/28/07	EPA 150.1	O-04

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Metals 1311 by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Extracted	Prepared	Analyzed	Method	Notes
C-1 (7C27001-01) Water										
Mercury	ND	0.000250	mg/L	1	EC73019	tclp 3-28-07	03/29/07	03/30/07	EPA 7470A	
Chromium	**0.0169**	0.00975	"	10	EC73020	"	03/29/07	03/30/07	EPA 6020A	
Arsenic	**J [0.00900]**	0.0170	"	"	"	"	"	"	"	J
Selenium	**0.0884**	0.0300	"	"	"	"	"	"	"	
Silver	**J [0.000962]**	0.00405	"	"	"	"	"	"	"	J
Cadmium	**J [0.00260]**	0.00692	"	"	"	"	"	"	"	J
Barium	**0.0297**	0.00489	"	"	"	"	"	"	"	
Lead	**0.00432**	0.00296	"	"	"	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Volatile Halocarbons by EPA Method 1311/8021B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Extracted	Prepared	Analyzed	Method	Notes
C-1 (7C27001-01) Water										
Benzene	**0.00176**	0.00100	mg/L	1	EC73101	03/28/07 TCLP	03/31/07	03/31/07	EPA 8021B	
Toluene	**0.129**	0.00100	"	"	"	"	"	"	"	
Ethylbenzene	**0.0231**	0.00100	"	"	"	"	"	"	"	
Xylene (p/m)	**0.176**	0.00100	"	"	"	"	"	"	"	
Xylene (o)	**0.155**	0.00100	"	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.4 %*		*80-120*	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.4 %*		*80-120*	"	"	"	"	"	

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC72904 - General Preparation (WetChem)										
Calibration Check (EC72904-CCV1)				Prepared & Analyzed: 03/28/07						
pH	9.96		pH Units	10.00		99.6	97.5-102.5			
Calibration Check (EC72904-CCV2)				Prepared & Analyzed: 03/28/07						
pH	6.98		pH Units	7.00		99.7	97.5-102.5			
Duplicate (EC72904-DUP1)		**Source: 7C26010-01**		Prepared & Analyzed: 03/28/07						
pH	8.12		pH Units		8.08			0.494	20	
Duplicate (EC72904-DUP2)		**Source: 7C27011-01**		Prepared & Analyzed: 03/28/07						
pH	7.59		pH Units		7.58			0.132	20	
Batch ED70303 - General Preparation (WetChem)										
LCS (ED70303-BS1)				Prepared & Analyzed: 04/02/07						
Ignitability by Flashpoint	29.0		°C				96-104			
Duplicate (ED70303-DUP1)		**Source: 7C27001-01**		Prepared & Analyzed: 04/02/07						
Ignitability by Flashpoint	[>85.0]		°C		0.00				20	

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Metals 1311 by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC73019 - EPA 1311/7470A										
Blank (EC73019-BLK1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Mercury	ND	0.000250	mg/L							
LCS (EC73019-BS1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Mercury	0.000850	0.000250	mg/L	0.00100		85.0	85-115			
LCS Dup (EC73019-BSD1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Mercury	0.000980	0.000250	mg/L	0.00100		98.0	85-115	14.2	20	
Calibration Check (EC73019-CCV1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Mercury	0.000900		mg/L	0.00100		90.0	90-110			
Matrix Spike (EC73019-MS1)		**Source: 7C22001-02**		Prepared: 03/29/07 Analyzed: 03/30/07						
Mercury	0.00106	0.000250	mg/L	0.00100	ND	106	75-125			
Batch EC73020 - EPA 1311/3005										
Blank (EC73020-BLK1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	ND	0.000975	mg/L							
Arsenic	ND	0.00170	"							
Selenium	ND	0.00300	"							
Silver	ND	0.000405	"							
Cadmium	ND	0.000692	"							
Barium	ND	0.000489	"							
Lead	ND	0.000296	"							
LCS (EC73020-BS1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	0.190	0.000975	mg/L	0.200		95.0	85-115			
Arsenic	0.737	0.00170	"	0.800		92.1	85-115			
Selenium	0.396	0.00300	"	0.400		99.0	85-115			
Silver	0.104	0.000405	"	0.100		104	85-115			
Cadmium	0.198	0.000692	"	0.200		99.0	85-115			
Barium	0.200	0.000489	"	0.200		100	85-115			
Lead	1.05	0.000296	"	1.10		95.5	85-115			

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Metals 1311 by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC73020 - EPA 1311/3005										
LCS Dup (EC73020-BSD1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	0.189	0.000975	mg/L	0.200		94.5	85-115	0.528	20	
Arsenic	0.732	0.00170	"	0.800		91.5	85-115	0.681	20	
Selenium	0.394	0.00300	"	0.400		98.5	85-115	0.506	20	
Silver	0.103	0.000405	"	0.100		103	85-115	0.966	20	
Cadmium	0.200	0.000692	"	0.200		100	85-115	1.01	20	
Barium	0.207	0.000489	"	0.200		104	85-115	3.44	20	
Lead	1.06	0.000296	"	1.10		96.4	85-115	0.948	20	
Calibration Check (EC73020-CCV1)				Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	0.0498		mg/L	0.0500		99.6	90-110			
Arsenic	0.0491		"	0.0500		98.2	90-110			
Selenium	0.0489		"	0.0500		97.8	90-110			
Silver	0.0495		"	0.0500		99.0	90-110			
Cadmium	0.0509		"	0.0500		102	90-110			
Barium	0.0488		"	0.0500		97.6	90-110			
Lead	0.0480		"	0.0500		96.0	90-110			
Matrix Spike (EC73020-MS1)		**Source: 7C22001-02**		Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	0.176	0.00975	mg/L	0.200	ND	88.0	75-125			
Arsenic	0.748	0.0170	"	0.800	ND	93.5	75-125			
Selenium	0.368	0.0300	"	0.400	0.0282	85.0	75-125			
Silver	0.0979	0.00405	"	0.100	0.00110	96.8	75-125			
Cadmium	0.190	0.00692	"	0.200	ND	95.0	75-125			
Barium	0.253	0.00489	"	0.200	0.0804	86.3	75-125			
Lead	0.830	0.00296	"	1.10	ND	75.5	75-125			
Matrix Spike Dup (EC73020-MSD1)		**Source: 7C22001-02**		Prepared: 03/29/07 Analyzed: 03/30/07						
Chromium	0.177	0.00975	mg/L	0.200	ND	88.5	75-125	0.567	20	
Arsenic	0.743	0.0170	"	0.800	ND	92.9	75-125	0.671	20	
Selenium	0.375	0.0300	"	0.400	0.0282	86.7	75-125	1.88	20	
Silver	0.0802	0.00405	"	0.100	0.00110	79.1	75-125	19.9	20	
Cadmium	0.191	0.00692	"	0.200	ND	95.5	75-125	0.525	20	
Barium	0.253	0.00489	"	0.200	0.0804	86.3	75-125	0.00	20	
Lead	0.835	0.00296	"	1.10	ND	75.9	75-125	0.601	20	

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Volatile Halocarbons by EPA Method 1311/8021B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC73101 - EPA GC 1311										
Blank (EC73101-BLK1)				Prepared & Analyzed: 03/31/07						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*43.1*		*ug/l*	*50.0*		*86.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.2*		*"*	*50.0*		*86.4*	*80-120*			
LCS (EC73101-BS1)				Prepared & Analyzed: 03/31/07						
Benzene	0.0452	0.00100	mg/L	0.0500		90.4	80-120			
Toluene	0.0435	0.00100	"	0.0500		87.0	80-120			
Ethylbenzene	0.0452	0.00100	"	0.0500		90.4	80-120			
Xylene (p/m)	0.0861	0.00100	"	0.100		86.1	80-120			
Xylene (o)	0.0458	0.00100	"	0.0500		91.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*45.1*		*ug/l*	*50.0*		*90.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.2*		*"*	*50.0*		*82.4*	*80-120*			
Calibration Check (EC73101-CCV1)				Prepared: 03/31/07 Analyzed: 04/02/07						
Benzene	50.6		ug/l	50.0		101	80-120			
Toluene	47.8		"	50.0		95.6	80-120			
Ethylbenzene	48.0		"	50.0		96.0	80-120			
Xylene (p/m)	91.0		"	100		91.0	80-120			
Xylene (o)	49.0		"	50.0		98.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*52.0*		*"*	*50.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.0*		*"*	*50.0*		*90.0*	*80-120*			
Duplicate (EC73101-DUP1)	**Source: 7C26001-01**			Prepared: 03/31/07 Analyzed: 04/02/07						
Benzene	0.000631	0.00100	mg/L		0.000608			3.71	20	J
Toluene	ND	0.00100	"		ND				20	
Ethylbenzene	ND	0.00100	"		ND				20	
Xylene (p/m)	0.00138	0.00100	"		0.00143			3.56	20	
Xylene (o)	ND	0.00100	"		ND				20	
Surrogate: a,a,a-Trifluorotoluene	*59.2*		*ug/l*	*50.0*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.8*		*"*	*50.0*		*85.6*	*80-120*			

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

TCLP Volatile Halocarbons by EPA Method 1311/8021B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC73101 - EPA GC 1311										
Matrix Spike (EC73101-MS1)	**Source: 7C26001-01**			Prepared: 03/31/07 Analyzed: 04/02/07						
Benzene	0.0509	0.00100	mg/L	0.0500	0.000608	101	80-120			
Toluene	0.0490	0.00100	"	0.0500	ND	98.0	80-120			
Ethylbenzene	0.0495	0.00100	"	0.0500	ND	99.0	80-120			
Xylene (p/m)	0.0957	0.00100	"	0.100	0.00143	94.3	80-120			
Xylene (o)	0.0514	0.00100	"	0.0500	ND	103	80-120			
Surrogate: a,a,a-Trifluorotoluene	*63.0*		*ug/l*	*50.0*		*126*	*80-120*			*S-04*
Surrogate: 4-Bromofluorobenzene	*47.5*		"	*50.0*		*95.0*	*80-120*			

Southern Union Gas Services- Jal	Project: C-1 Compressor	Fax: 505-395-2326
P.O. Box 1226	Project Number: None Given	
Jal NM, 88252	Project Manager: Tony Savoie	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
O-04	This sample was analyzed outside the EPA recommended holding time.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 4/5/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Analytical Report 279734

for

Southern Union Gas Services-Jal

Project Manager: Tony Savoie

C-1 Compressor

03-APR-07

12600 West I-20 East Odessa, Texas 79765

NELAC certification numbers:
Houston, TX E87603 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

03-APR-07

Project Manager: **Tony Savoie**
Southern Union Gas Services-Jal
610 Commerce
Jal, NM 88252

Reference: XENCO Report No: **279734**
C-1 Compressor
Project Address: North of Jal, NM

Tony Savoie:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 279734. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 279734 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 279734

Southern Union Gas Services-Jal, Jal, NM

Project Name: C-1 Compressor

Project Id:

Contact: Tony Savoie

Project Location: North of Jal, NM

Date Received in Lab: Tue Mar-27-07 10:30 am

Report Date: 03-APR-07

Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	279734-001					
	Field Id:	C-1					
	Depth:						
	Matrix:	WATER					
	Sampled:	Mar-26-07 07:38					
Reactive Cyanide by EPA 9010	***Extracted:***						
	Analyzed:	Mar-29-07 17:08					
	Units/RL:	mg/L	RL				
Cyanide		ND	0.200				
Reactive Sulfide by SW 9030B	***Extracted:***						
	Analyzed:	Mar-27-07 17:15					
	Units/RL:	mg/L	RL				
Sulfide		ND	50.0				

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Brent Barron
Odessa Laboratory Director

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Blank Spike Recovery

Project Name: C-1 Compressor

Work Order #: 279734 **Project ID:**

Lab Batch #: 694179 **Sample:** 694179-1-BKS **Matrix:** Water

Date Analyzed: 03/29/2007 **Date Prepared:** 03/29/2007 **Analyst:** MAB

Reporting Units: mg/L **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Reactive Cyanide by EPA 9010 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Cyanide	ND	0.400	0.342	86	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: C-1 Compressor

Work Order #: 279734 **Project ID:**

Analyst: MAB **Date Prepared:** 03/27/2007 **Date Analyzed:** 03/27/2007

Lab Batch ID: 694181 **Sample:** 694181-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

Reactive Sulfide by SW 9030B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Sulfide	ND	7910	7770	98	7910.0	7370	93	5	60-120	20	

Relative Percent Difference RPD = 200*|(D-F)/(D+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Sample Duplicate Recovery

Project Name: C-1 Compressor

Work Order # 279734

Lab Batch #: 694179 **Project ID:**
Date Analyzed: 03/29/2007 **Date Prepared:** 03/29/2007 **Analyst:** MAB
QC- Sample ID: 279744-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Reactive Cyanide by EPA 9010	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Cyanide	ND	ND	NC	20	

Lab Batch #: 694181
Date Analyzed: 03/27/2007 **Date Prepared:** 03/27/2007 **Analyst:** MAB
QC- Sample ID: 279744-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Reactive Sulfide by SW 9030B	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Sulfide	56.0	ND	NC	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Tony Savoie
Company Name: Southern Union Gas Services
Company Address: 610 Commerce, PO Box 1226
City/State/Zip: Jal, New Mexico 88252
Telephone No: 505-631-9376
Fax No:
Sampler Signature: Tony Savoie
e-mail: tony.savoie@sug.com

Project Name: C-1 Compressor
Project #:
Project Loc: North of Jal NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 7C27001

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Preservation & # of Containers: Ice	HNO3	HCl (2) 40mL glass	H2SO4	NaOH	Na2S2O3	NaHSO4 (COOL) HDPE	Other (Specify)	Matrix: Drk=Drinking Water Sl=Sludge; GW=Groundwater SeSol=Solid; NPW=Non-Potable Specify Other	Analyze For: TCLP ✓ / TOTAL: TPH 418.1 / 8015M / 1005 / 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	C-1 RCI			3/26/07	0738	1	✓								WW/GW/DW								✓				✓
~~02~~	C-1 metals			"	"	1	✓								"				✓								✓
~~03~~	C-1 VOA's			"	"	2	✓		✓						"								✓				✓

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Tony Savoie	3/27/07	1030			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Jane McMurry	Date 032707	Time 1030

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Custody seals on container(s)	Y	(N)
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered by Sampler/Client Rep. ?	(Y)	N
by Courier? UPS DHL FedEx Lone Star	Y	N

Temperature Upon Receipt: -3.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Southern Union Gas

Date/ Time: 05-27-07 @ 1030

Lab ID #: 71270\

Initials: JMM

Sample Receipt Checklist

				not frozen	Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-3.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	(ID written on Cont / Lid)	
#9	Container label(s) legible and intact?	Yes	No	(Not Applicable)	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	Yes	No	* See Below	
#13	Samples properly preserved?	Yes	No	* See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: Tony Savoie Contacted by: Jeanne McMurrey Date/ Time: 03-27-07

Regarding: TCLP BTEX preservation (should be neat and not w/HCl)

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☒ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

APENDIX D:

NOTICE OF APPLICATION

APPENDIX D

PROPOSED NOTICE OF APPLICATION, AND LOCATIONS & NEWSPAPERS FOR PUBLICATION

Notice of Application by Southern Union Gas Services for Approval of a Discharge Plan for the C-1 Natural Gas Compressor Station: Southern Union Gas Services, whose offices are located at 301 N. Commerce St., Suite 700, Fort Worth, Texas (76102) seeks approval from the New Mexico Oil Conservation for a Discharge Plan for the C-1 Compressor Station, located in the Unit H (SE ¼ of the NE ¼) of Section 13, Township 23 South, Range 36 East in Lea County, New Mexico (32^{0}, 18.390' North, 103^{0} 2.841'West). This location is at an elevation of 3375 feet, approximately 9.5 miles southwest of Eunice, New Mexico. This compressor station is designed to have no intentional liquid discharges. The shallowest groundwater potentially impacted by this facility is at a depth of approximately 200 feet and has a total dissolved solids of approximately 1000 milligrams per liter. Additional information, comments or statements should be addressed Mr. James C. Hunter, R.G. of Geolex, Inc., 500 Marquette NW, Suite 1350, Albuquerque, NM 87102, Tel. (505-842-8000).

PROPOSED POSTINGS, NOTIFICATIONS, AND PUBLICATION

Following NMOCD review and acceptance, we propose to post this notice using a 2'x3' sign, in English and Spanish, at the gate of the above-named facility and to post the 2nd sign outside the SUGS office in Jal.

Identified owners of all properties within a 1/3-mile distance from the boundary of the property where the discharge site is located will be provided with copies of this notice by mail. If there are no properties other than properties owned by SUGS within a 1/3-mile distance from the boundary of property where the discharge site is located, notice will be provided to owners of record of the next nearest adjacent properties not owned by the discharger.

Any owners of the lands upon which the proposed discharge site is located not owned by SUGS will be notified by certified, receipt-requested mailing.

The notice will also be advertised, in English and Spanish, in a 3" by 4" display advertisement in the local newspaper, the Hobbs Sun.

C. Characteristics of Reactivity

1. Stability Testing
An aqueous suspension of the reacted SulfaTreat® monitored with a potentiometer from pH 1 to pH 12.5. The pH alterations were accomplished using dilute HCL and dilute NaOH. The material was stable and totally unreactive when exposed to these pH extremes without any evolution of gases, including H_2S and SO_2.

2. Classification as an Explosive
Neither the material nor anything similar to this material is listed as a Forbidden, Class A, or Class B explosive in 49 CFR 173.51, 49 CFR 173.53, or 49 CFR 173.88.

D. Characteristics of EP Toxicity

Laboratory evaluations of the EP toxicity required a leaching step prior to analysis. The leaching step was carried out in accordance with the test methods described within the Federal Register, Volume 45, Number 98 on May 19, 1980 (Appendix III). 100 grams of the ground solid sample were placed in a mechanically stirred extractor with 1600 g of deionized water. The pH was maintained at 5 for a period of 24 hours by the addition of 0.5 N acetic acid at 30 minute intervals as needed. This solution was then filtered using a 0.45 millipore filter. The filtrate was analyzed for the presence of contaminants using the following EPA methods:

Contaminant	EPA Method
Mercury	245.1
Arsenic	206.1
Barium	208.1
Cadmium	213.1
Chromium	218.1
Lead	239.2
Selenium	270.3
Silver	272.1
Mercury	245.1
TCLP	1311

The concentration of contaminants in the extract is far below the maximum allowable limits in all cases.

E. Oral and Dermal Toxicity

1. Unreacted SulfaTreat® (Oral Toxicity)
The acute oral LD50 of SulfaTreat® when administered as a 67% w/w aqueous suspension to male and female SASCO rats weighing 219 to 345 grams, was found to be greater than 39.91 g/kg of body weight.

As the term is defined in the Federal Hazardous Substances Act (FHSA), the product was found not to be a Toxic Substance.

2. Reacted SulfaTreat® (Oral Toxicity)
Undiluted, reacted SulfaTreat® (semisolid phase) was administered orally to ten SASCO-SD rats (five male and five females), weighing 198 to 265 grams at a dosage level of 5.00 grams per kilogram of body weight. All of the animals survived dosage and the fourteen-day observation period which followed. As the term is defined in the Federal Hazardous Substance Act (FHSA), the semisolid phase of the test material was found not to be a Toxic Substance.

3. Reacted SulfaTreat® (Dermal Toxicity)
Undiluted, reacted SulfaTreat® (liquid phase) was applied for twenty-four hours to the abraded skin of five male and five female New Zealand White Rabbits, weighing 2.72 to 3.09 kilograms, at a dosage level of 2.00 grams per kilogram of body weight. All ten animals survived dosage and the fourteen-day observation period which followed. As the term is defined in the Federal Hazardous Substances Act (FHSA), the liquid phase of the test material was found not to be a Toxic Substance.

4. Reacted SulfaTreat® (Aquatic Toxicity)
Passed the aquatic 96 hour LC50 which was determined to be more than 500 milligrams per liter when measured in soft water with fathead minnows.

F. Other

The material is not listed (as a hazardous waste) in Subpart 261.30-261.33 of "Identification and Listing of Hazardous Wastes, "EPA-8700-12(FR), May 29, 1980.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

February 5, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Mr. Rick Boring 684-3849
Xcel Gas Company
6 Desta Drive
Suite 5800
Midland, Texas 79705

Re: Sulfa Treat Waste

Dear Mr. Boring

Based on the Sulfa Treat Material Safety Data Sheet and supplemental information provided, the solid waste generated from the use of Sulfa Treat does not exhibit hazardous waste characteristics and may be disposed of on site pursuant to OCD solid waste disposal requirements or offsite at an OCD approved disposal facility.

If you have any questions, please do not hesitate to call me at (505) 827-5812.

Sincerely:

Roger C. Anderson
Environmental Bureau Chief

xc: Jerry Sexton- OCD Hobbs

OIL CONSERVATION DIVISION

September 25, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-963-060

Mr. Robert Gawlik
Sid Richardson Gasoline Co.
5030 East University, Suite C-104
Odessa, TX 79762

Re: Disposal Request - Sulfa Treat Waste

Dear Mr. Gawlik:

The Oil Conservation Division (OCD) has received your request letter dated September 22, 1995, for approval to remove and dispose of spent Sulfa Treat from 5 compressor stations located in Lea county, with approximately 7 cubic yards per station. **Based on the information provided, your disposal request is approved.** The spent Sulfa Treat may be disposed of in a the same manner as the February 5, 1993 approval from Mr. Roger Anderson with the NMOCD. (see attached letter)

Please be advised that this approval does not relieve you of liability should your operation result in pollution of surface or groundwater or the environment.

If there are any questions on this matter, please contact me at (505) 827-7156.

Sincerely,

Patricio W. Sanchez,
Petroleum Engineer

Name of Sacks Comp?
Legal locations

XC: Mr. Wayne Price and Mr. Jerry Sexton

RECEIVED
SEP 27 1995
WTA Odessa

Material Safety Data Sheet

Chevron HDAX LFG Gas Engine Oil

MSDS: 7046 Revision #: 2 Revision Date: 06/06/00

Click Product Test Data to search database.

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON HDAX Low Ash Gas Engine Oil and HDAX LFG

PRODUCT NUMBER(S): CPS232325 CPS232327 CPS232328 CPS232331
SYNONYM: CHEVRON HDAX Low Ash Gas Engine Oil SAE 15W-40
CHEVRON HDAX Low Ash Gas Engine Oil SAE 30
CHEVRON HDAX Low Ash Gas Engine Oil SAE 40
CHEVRON HDAX LFG Gas Engine Oil SAE 40

COMPANY IDENTIFICATION

Chevron Products Company
Lubricants and Specialty Products
6001 Bollinger Canyon Rd., T3325/B10
San Ramon, CA 94583
www.chevron-lubricants.com

EMERGENCY TELEPHONE NUMBERS

HEALTH (24 hr): (800)231-0623 or
(510)231-0623 (International)
TRANSPORTATION (24 hr): CHEMTREC
(800)424-9300 or (703)527-3887
Emergency Information Centers
are located in U.S.A.
Int'l collect calls accepted

PRODUCT INFORMATION: MSDS Request:(800)414-6737 email:lubemsds@chevron.com
Environmental, Safety, & Health Info: (925) 842-5535
Product Information: (800) 582-3835

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2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % CHEVRON HDAX Low Ash Gas Engine Oil and HDAX LFG

CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
LUBRICATING BASE OIL SEVERELY REFINED PETROLEUM DISTILLATE	> 80.00%	5 mg/m3 (mist)	ACGIH TWA
		10 mg/m3 (mist)	ACGIH STEL
		5 mg/m3 (mist)	OSHA PEL

The BASE OIL may be a mixture of any of the following: CAS 64741884, CAS 64741895, CAS 64741964, CAS 64741975, CAS 64742014, CAS 64742525, CAS 64742536, CAS 64742547, CAS 64742627, CAS 64742650, or CAS 72623837.

ADDITIVES INCLUDING THE FOLLOWING < 20.00%

ZINC ALKARYL DITHIOPHOSPHATE
Chemical Name: ZINC ALKARYL DITHIOPHOSPHATE
CAS54261675 < 0.50% NONE NA

COMPOSITION COMMENT:
All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

3. HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
EYE:
Not expected to cause prolonged or significant eye irritation.
SKIN:
Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.
INGESTION:
Not expected to be harmful if swallowed.
INHALATION:
Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit.

4. FIRST AID MEASURES

EYE:
No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water.
SKIN:
No specific first aid measures are required because this material is not expected to be harmful if it contacts the skin. As a precaution, remove clothing and shoes if contaminated. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove the material. Then wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.
INGESTION:
No specific first aid measures are required because this material is not expected to be harmful if swallowed. Do not induce vomiting. As a precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.
INHALATION:
If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

FLAMMABLE PROPERTIES:
FLASH POINT: (COC) 399F (204C) min.
AUTOIGNITION: NDA
FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA
EXTINGUISHING MEDIA:
CO2, Dry Chemical, Foam, Water Fog
NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.
FIRE FIGHTING INSTRUCTIONS:
This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
COMBUSTION PRODUCTS:
Normal combustion forms carbon dioxide and water vapor and may produce oxides of Ca, P, N, S, Mo, Zn. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (703)527-3887
International Collect Calls Accepted
ACCIDENTAL RELEASE MEASURES:
Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Exposure Controls/Personal Protection. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS

Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
SKIN PROTECTION:
No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances. Suggested materials for protective gloves include: <Viton> <Nitrile> <Silver Shield> <4H>
RESPIRATORY PROTECTION:
No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the recommended mineral oil mist exposure limits. If not wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: particulate.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Dark amber liquid.

pH:	NDA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1):	NA
BOILING POINT:	NDA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.87 - 0.88 @ 15.6/15.6C
EVAPORATION RATE:	NA
VISCOSITY:	11.0 - 14.4 cSt @ 100C (min.)
PERCENT VOLATILE (VOL):	NA

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10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
H_2S may be released at high temperatures.
CHEMICAL STABILITY:
Stable.
CONDITIONS TO AVOID:
No data available.
INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

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11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

The eye irritation hazard is based on an evaluation of the data for the components.
SKIN EFFECTS:
The skin irritation hazard is based on an evaluation of the data for the components.
ACUTE ORAL EFFECTS:
The acute oral toxicity is based on an evaluation of the data for the components.
ACUTE INHALATION EFFECTS:
The acute respiratory toxicity is based on an evaluation of the data for the components.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

This product contains zinc alkaryl dithiophosphate which is similar in toxicity to zinc alkyl dithiophosphate (ZDDP). Several (ZDDPs) have been reported to have weak mutagenic activity in cultured mammalian cells but only at concentrations that were toxic to the test cells. We do not believe that there is any mutagenic risk to workers exposed to ZDDPs.

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water. See Chevron Material Safety Data Sheet No. 1793 for additional information on used motor oil.

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12. ECOLOGICAL INFORMATION

ECOTOXICITY:
The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.
ENVIRONMENTAL FATE:
This material is not expected to be readily biodegradable.

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13. DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

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14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations.

Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NONE
DOT HAZARD CLASS: NONE
DOT IDENTIFICATION NUMBER: NONE
DOT PACKING GROUP: N/A
ADDITIONAL INFO: Petroleum Lubricating Oil - Not Hazardous by U.S. DOT.
ADR/RID Hazard class - Not applicable.

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15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	22=TSCA Sect 5(a)(2)
02=MASS RTK	12=CERCLA 302.4	23=TSCA Sect 6
03=NTP Carcinogen	13=MN RTK	24=TSCA Sect 12(b)
04=CA Prop 65-Carcin	14=ACGIH TWA	25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	26=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	27=TSCA Sect 4(a)
07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	29=OSHA CEILING
09=SARA 302/304	19=Chevron TWA	30=Chevron STEL
10=PA RTK	20=EPA Carcinogen	

The following components of this material are found on the regulatory lists indicated.

ZINC ALKARYL DITHIOPHOSPHATE
is found on lists: 01,11,
SEVERELY REFINED PETROLEUM DISTILLATE
is found on lists: 14,15,17,

EU RISK AND SAFETY LABEL PHRASES:
R53: May cause long-term adverse effects in the aquatic environment.
NEW JERSEY RTK CLASSIFICATION:
Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34;5A-1 et. seq., the product is to be identified as follows:
PETROLEUM OIL
New Jersey Right-To-Know trade secret registry number 01154100-5031P
New Jersey Right-To-Know trade secret registry number 01154100-5063P
WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

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16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or

published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
This revision updates Sections 1, 2, 5, 9, 12, and 15.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
A1-5 - Appendix A Categories	() - Change Has Been Proposed
NDA - No Data Available	NA - Not Applicable

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology and Health Risk Assessment Unit, CRTC, P.O. Box 1627, Richmond, CA 94804

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The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

****
THIS IS THE LAST PAGE OF THIS MSDS
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Material Safety Data Sheet

Chevron HDAX NG Screw Compressor Oil

MSDS: 6852 Revision #: 2 Revision Date: 10/17/00

Click Product Test Data to search database.

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON HDAX NG Screw Compressor Oil

PRODUCT NUMBER(S): CPS255204 CPS255205
SYNONYM: CHEVRON HDAX NG Screw Compressor Oil ISO 150
CHEVRON HDAX NG Screw Compressor Oil ISO 68

COMPANY IDENTIFICATION	EMERGENCY TELEPHONE NUMBERS
Chevron Products Company Lubricants and Specialty Products 6001 Bollinger Canyon Rd., T3325/B10 San Ramon, CA 94583 www.chevron-lubricants.com	HEALTH (24 hr): (800)231-0623 or (510)231-0623 (International) TRANSPORTATION (24 hr): CHEMTREC (800)424-9300 or (703)527-3887 Emergency Information Centers are located in U.S.A. Int'l collect calls accepted

PRODUCT INFORMATION: MSDS Request:(800)414-6737 email:lubemsds@chevron.com
Environmental, Safety, & Health Info: (925) 842-5535
Product Information: (800) 582-3835

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2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % CHEVRON HDAX NG Screw Compressor Oil

CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
HYDROTREATED DIST., HVY PARA Chemical Name: DISTILLATES, HYDROTREATED HEAVY PARAFFINIC CAS64742547	> 80.00%	5 mg/m3 (mist) 10 mg/m3 (mist) 5 mg/m3 (mist)	ACGIH TWA ACGIH STEL OSHA PEL
ADDITIVES	< 20.00%		

COMPOSITION COMMENT:
All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

3. HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
EYE:
Not expected to cause prolonged or significant eye irritation.
SKIN:
Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.
INGESTION:
Not expected to be harmful if swallowed.
INHALATION:
Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit.

4. FIRST AID MEASURES

EYE:
No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water.
SKIN:
No specific first aid measures are required because this material is not expected to be harmful if it contacts the skin. As a precaution, remove clothing and shoes if contaminated. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove the material. Then wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.
INGESTION:
No specific first aid measures are required because this material is not expected to be harmful if swallowed. Do not induce vomiting. As a precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.
INHALATION:
If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.
FLAMMABLE PROPERTIES:
FLASH POINT: (COC) 419F (215C) Min.
AUTOIGNITION: NDA
FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA
EXTINGUISHING MEDIA:
CO2, Dry Chemical, Foam, Water Fog
NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.
FIRE FIGHTING INSTRUCTIONS:
This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space

without proper protective equipment, including self-contained breathing apparatus.
COMBUSTION PRODUCTS:
Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (703)527-3887
International Collect Calls Accepted
ACCIDENTAL RELEASE MEASURES:
Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS
Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
SKIN PROTECTION:
No special protective clothing is normally required. Where splashing is

possible, select protective clothing depending on operations conducted, physical requirements and other substances. Suggested materials for protective gloves include: <Viton> <Nitrile> <Silver Shield> <4H>
RESPIRATORY PROTECTION:
No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the recommended mineral oil mist exposure limits. If not wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: particulate.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Liquid.

pH:	NA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1):	NA
BOILING POINT:	NDA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.87 - 0.88 @ 15.6/15.6/C
EVAPORATION RATE:	NA
VISCOSITY:	61.2 - 135 cSt @ 40C (Min.)
PERCENT VOLATILE (VOL):	NA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.
CHEMICAL STABILITY:
Stable.
CONDITIONS TO AVOID:
No data available.
INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
The eye irritation hazard is based on data for a similar material.
SKIN EFFECTS:
The skin irritation hazard is based on data for a similar material.
ACUTE ORAL EFFECTS:
The acute oral toxicity is based on data for a similar material.
ACUTE INHALATION EFFECTS:
The acute respiratory toxicity is based on data for a similar material.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under

the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.
ENVIRONMENTAL FATE:
This material is not expected to be readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NONE
DOT HAZARD CLASS: NONE
DOT IDENTIFICATION NUMBER: NONE
DOT PACKING GROUP: N/A
ADDITIONAL INFO: Petroleum Lubricating Oil - Not Hazardous by U.S. DOT.
ADR/RID Hazard class - Not applicable.

15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	22=TSCA Sect 5(a)(2)
02=MASS RTK	12=CERCLA 302.4	23=TSCA Sect 6
03=NTP Carcinogen	13=MN RTK	24=TSCA Sect 12(b)
04=CA Prop 65-Carcin	14=ACGIH TWA	25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	26=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	27=TSCA Sect 4(a)

07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	29=OSHA CEILING
09=SARA 302/304	19=Chevron TWA	30=Chevron STEL
10=PA RTK	20=EPA Carcinogen	

The following components of this material are found on the regulatory lists indicated.

DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
is found on lists: 14,15,17,

EU RISK AND SAFETY LABEL PHRASES:
R53: May cause long-term adverse effects in the aquatic environment.
NEW JERSEY RTK CLASSIFICATION:
Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows:
PETROLEUM OIL
WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

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16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
This revision updates Sections 1, 5, 8, 9, 12, and 15.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
A1-5 - Appendix A Categories	() - Change Has Been Proposed
NDA - No Data Available	NA - Not Applicable

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology and Health Risk Assessment Unit, CRTC, P.O. Box 1627, Richmond, CA 94804

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The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON HDAX NG Screw Compressor Oil

PRODUCT NUMBER(S): CPS255204 CPS255205 CPS259135
SYNONYM: CHEVRON HDAX NG Screw Compressor Oil ISO 100
CHEVRON HDAX NG Screw Compressor Oil ISO 150
CHEVRON HDAX NG Screw Compressor Oil ISO 68

COMPANY IDENTIFICATION	EMERGENCY TELEPHONE NUMBERS
Chevron Products Company Lubricants and Specialty Products 6001 Bollinger Canyon Rd., T3325/B10 San Ramon, CA 94583 www.chevron-lubricants.com	HEALTH (24 hr): (800)231-0623 or (510)231-0623 (International) TRANSPORTATION (24 hr): CHEMTREC (800)424-9300 or (703)527-3887 Emergency Information Centers are located in U.S.A. Int'l collect calls accepted

PRODUCT INFORMATION: MSDS Request:(800)414-6737 email:lubemsds@chevron.com
Environmental, Safety, & Health Info: (925) 842-5535
Product Information: (800) 582-3835

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % CHEVRON HDAX NG Screw Compressor Oil

CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
HYDROTREATED DIST., HVY PARA Chemical Name: DISTILLATES, HYDROTREATED HEAVY PARAFFINIC			
CAS64742547	> 80.00%	5 mg/m3 (mist)	ACGIH TWA
		10 mg/m3 (mist)	ACGIH STEL
		5 mg/m3 (mist)	OSHA PEL
ADDITIVES	< 20.00%		

COMPOSITION COMMENT:
All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

3. HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
EYE:
Not expected to cause prolonged or significant eye irritation.
SKIN:

Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.
INGESTION:
Not expected to be harmful if swallowed.
INHALATION:
Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit.

4. FIRST AID MEASURES

EYE:
No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water.
SKIN:
No specific first aid measures are required because this material is not expected to be harmful if it contacts the skin. As a precaution, remove clothing and shoes if contaminated. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove the material. Then wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.
INGESTION:
No specific first aid measures are required because this material is not expected to be harmful if swallowed. Do not induce vomiting. As a precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.
INHALATION:
If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.
FLAMMABLE PROPERTIES:
FLASH POINT: (COC) 419F (215C) Min.
AUTOIGNITION: NDA
FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA
EXTINGUISHING MEDIA:
CO2, Dry Chemical, Foam, Water Fog
NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.
FIRE FIGHTING INSTRUCTIONS:
This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
COMBUSTION PRODUCTS:
Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (703)527-3887
International Collect Calls Accepted
ACCIDENTAL RELEASE MEASURES:
Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

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7. HANDLING AND STORAGE

Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS
Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
SKIN PROTECTION:
No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances. Suggested materials for protective gloves include: <Viton> <Nitrile> <Silver Shield> <4H>
RESPIRATORY PROTECTION:
No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the recommended mineral oil mist exposure limits. If not wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: particulate.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Liquid.

pH:	NA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1):	NA
BOILING POINT:	NDA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.87 - 0.88 @ 15.6/15.6/C
EVAPORATION RATE:	NA
VISCOSITY:	61.2 - 135 cSt @ 40C (Min.)
PERCENT VOLATILE (VOL):	NA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.
CHEMICAL STABILITY:
Stable.
CONDITIONS TO AVOID:
No data available.
INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
The eye irritation hazard is based on data for a similar material.
SKIN EFFECTS:
The skin irritation hazard is based on data for a similar material.
ACUTE ORAL EFFECTS:
The acute oral toxicity is based on data for a similar material.
ACUTE INHALATION EFFECTS:
The acute respiratory toxicity is based on data for a similar material.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.
ENVIRONMENTAL FATE:
This material is not expected to be readily biodegradable.

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13. DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

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14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NONE
DOT HAZARD CLASS: NONE
DOT IDENTIFICATION NUMBER: NONE
DOT PACKING GROUP: N/A
ADDITIONAL INFO: Petroleum Lubricating Oil - Not Hazardous by U.S. DOT.
ADR/RID Hazard class - Not applicable.

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15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	22=TSCA Sect 5(a)(2)
02=MASS RTK	12=CERCLA 302.4	23=TSCA Sect 6
03=NTP Carcinogen	13=MN RTK	24=TSCA Sect 12(b)
04=CA Prop 65-Carcin	14=ACGIH TWA	25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	26=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	27=TSCA Sect 4(a)
07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	29=OSHA CEILING
09=SARA 302/304	19=Chevron TWA	30=Chevron STEL
10=PA RTK	20=EPA Carcinogen	

The following components of this material are found on the regulatory lists indicated.

DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
is found on lists: 14,15,17,

EU RISK AND SAFETY LABEL PHRASES:
R53: May cause long-term adverse effects in the aquatic environment.
NEW JERSEY RTK CLASSIFICATION:
Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows:
PETROLEUM OIL
WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

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16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
Changes have been made in Section 1 (Chemical Product and Company Id.).

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	- Threshold Limit Value	TWA	- Time Weighted Average
STEL	- Short-term Exposure Limit	TPQ	- Threshold Planning Quantity
RQ	- Reportable Quantity	PEL	- Permissible Exposure Limit
C	- Ceiling Limit	CAS	- Chemical Abstract Service Number
A1-5	- Appendix A Categories	()	- Change Has Been Proposed
NDA	- No Data Available	NA	- Not Applicable

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology and Health Risk Assessment Unit, CRTC, P.O. Box 1627, Richmond, CA 94804

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The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

mon Name	Coastalguard 50%
ıpplier	COASTAL CHEMICAL CO.,L.L.C. 3520 Veterans Memorial Drive ABBEVILLE, LA 70510 318-893-3862
/nonym	Not available.
de name	Not available.
laterial Uses	Industrial applications: Coolant and antifreeze.
ufacturer	Coastal Chemical Co., Inc. 3520 Veterans Memorial Drive Abbeville, La.

Code	37172
MSDS#	Not available.
Validation Date	1/9/97
Print Date	7/13/99

In case of Emergency	Transportation Emergency Call CHEMTREC 800-424-9300 Other Information Call Joe Hudman 713-477-6675

ection 2. Composition and Information on Ingredients

ame	CAS #	% by Weight	TLV/PEL	LC_{50}/LD_{50}
lene Glycol	107-21-1	50	CEIL: 39.4 (ppm) CEIL: 100 (mg/m^3)	ORAL (LD50): Acute: 4700 mg/kg [Rat]. DERMAL (LD50): Acute: 9530 mg/kg [Rabbit.].

ection 3. Hazards Identification

rgency Overview

CAUTION!

HARMFUL IF INHALED. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. Repeated or prolonged exposure to the substance can produce kidney damage.

es of Entry

Ingestion.

tential Acute Health Effects

Very dangerous in case of ingestion. Very slightly to slightly dangerous in case of skin contact (irritant, sensitizer, permeator), of eye contact (irritant), of inhalation. This product may irritate eyes and skin upon contact.

ential Chronic Health ffects

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS : Not available. The substance is toxic to kidneys, the nervous system, the reproductive system, liver. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4. First Aid Measures

Contact

IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used.

n Contact

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

ardous Skin Contact

No additional information.

nhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

ardous Inhalation

No additional information.

estion

DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. Seek immediate medical attention.

Continued on Next Page

Hazardous Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Section 5. Fire and Explosion Data

Flammability of the Product	Combustible.
Auto-Ignition Temperature	The lowest known value is 398°C (748.4°F) (Ethylene Glycol).
Flash Points	The lowest known value is CLOSED CUP: 116°C (240.8°F) OPEN CUP: 232°C (240.8°F) (Cleveland) (Ethylene Glycol)
Flammable Limits	The greatest known range is LOWER: 3.2% UPPER: 15.3% (Ethylene Glycol)
Products of Combustion	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances	Very slightly to slightly flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO2, water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Special Remarks on Fire Hazards	When heated to decomposition, it emits acrid smoke and irritating fumes. (Ethylene Glycol)
Special Remarks on Explosion Hazards	No additional remark.

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Handling	Not available.
Storage	Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engeneering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Safety glasses. Lab coat. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Chemical Name or Product Name	CAS #	Exposure Limits
1,2-Ethanediol	107-21-1	CEIL: 39.4 (ppm) CEIL: 100 (mg/m³)

Continued on Next Page

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.
Molecular Weight	Not applicable.
pH (1% soln/water)	Neutral.
Boiling Point	The lowest known value is 198°C (388.4°F) (Ethylene Glycol).
Melting Point/Pour Point	May start to solidify at -13.5°C (7.7°F) based on data for: Ethylene Glycol.
Critical Temperature	Not available.
Specific Gravity	1.06 (Water = 1)
Vapor Pressure	The highest known value is 0.05 mm of Hg (@ 20°C) (Ethylene Glycol).
Vapor Density	The highest known value is 2.1 (Air = 1) (Ethylene Glycol).
Volatility	Not available.
Odor Threshold	Not available.
Evaporation rate	Not available.
Viscosity	Not available.
Water/Oil Dist. Coeff.	The product is much more soluble in water.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, methanol, diethyl ether.
Solubility	Easily soluble in cold water, hot water, methanol, diethyl ether. Very slightly soluble in n-octanol.
Physical Chemical Comments	Not available.

Odor	Not available.
Taste	Not available.
Color	Not available.

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with various substances	Slightly reactive to reactive with oxidizing agents, alkalis.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 4700 mg/kg (Rat) Acute dermal toxicity (LD50): > 5000 mg/kg (Rabbit.)
Chronic Effects on Humans	The substance is toxic to kidneys, the nervous system, the reproductive system, liver.
Other Toxic Effects on Humans	Very dangerous in case of ingestion. Very slightly to slightly dangerous in case of skin contact (irritant, sensitizer, permeator), of eye contact (irritant), of inhalation.
Special Remarks on Toxicity to Animals	Toxic for humans or animal life. (Ethylene Glycol)
Special Remarks on Chronic Effects on Humans	No additional remark.
Special Remarks on other Toxic Effects on Humans	Exposure can cause nausea, headache and vomiting. (Ethylene Glycol)

Continued on Next Page

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Disposal

Section 14. Transport Information

Proper Shipping Name	Drums - Not Regulated Bulk (> 1000 gals.) - Regulated Other Regulated Substances, liquid, n.o.s. (Ethylene Glycol)
DOT Classification	DOT CLASS 9: Miscellaneous hazardous material.
DOT Identification Number	NA3082
Packing Group	III
Hazardous Substances Reportable Quantity (kg)	4535.9
Special Provisions for Transport	No additional remark.

Section 15. Regulatory Information

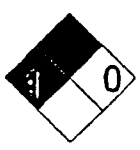
Federal and State Regulations	The following product(s) is (are) listed on SARA 313: , Ethylene Glycol The following product(s) is (are) listed by the State of Massachusetts: Ethylene Glycol The following product(s) is (are) listed on TSCA: Ethylene Glycol	
Other Classifications	WHMIS (Canada)	WHMIS CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
	DSCL (EEC)	Not controlled under DSCL (Europe).

Section 16. Other Information

HMIS (U.S.A.)

Health Hazard *	2
Fire Hazard	1
Reactivity	0
Personal Protection	B

National Fire Protection Association (U.S.A.)



References Not available.

Other Special Considerations No additional remark.

Validated by Joe Hudman on 1/9/97.

Verified by Joe Hudman.

Printed 7/13/99.

Continued on Next Page

Transportation Emergency Call
CHEMTREC 800-424-9300
ner Information Call
: Hudman
13-477-6675

tice to Reader

c best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained in. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that are the only hazards that exist.

SID RICHARDSON
ENERGY SERVICES CO.

201 MAIN STREET, SUITE 3000
FORT WORTH, TEXAS 76102-3131
817 / 390-8685
FAX 817/339-7394
EMAIL: rlgawlik@sidrich.com

ROBERT L. GAWLIK
Manager, Environmental
Health & Safety

November 12, 2001

CERTIFIED MAIL 7000 0520 0024 3419 6425
RETURN RECEIPT

Mr. Roger Anderson
Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Subject: Groundwater Discharge Plan Renewal Approval

- C-1 Compressor GW-259
- C-2 Compressor GW-260
- C-3 Compressor GW-261
- C-4 Compressor GW-262

Dear Mr. Anderson,
Please find attached one signed copy of the Discharge Plan Approval Conditions for the C-1 through C-4 Compressor Stations located in Lea County, New Mexico. The filling fee, as indicated in you letter, has been received by the OCD in Santa Fe. A copy of the same information has also been sent to Mr. Chris Williams in the OCD Hobbs District office..

If there are any questions, please do not hesitate to give me a call at the number indicated above.

Sincerely,

Robert L. Gawlik
Manager, Environmental Health and Safety

C: OCD Hobbs District office
RLD – Lea County office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-259
SID RICHARDSON ENERGY SERVICES, LTD.
C-1 COMPRESSOR STATION
DISCHARGE PLAN APPROVAL CONDITIONS
(October 29, 2001)

1. Payment of Discharge Plan Fees: The $100.00 filing fee has been received by the OCD. There is a flat fee assessed for natural gas compressor stations with horsepower rating less than 1000 horsepower equal to $400.00. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

2. Sid Richardson Energy Services, Ltd. Commitments: Sid Richardson Energy Services, Ltd. will abide by all commitments submitted in the discharge plan renewal application dated September 14, 2001 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected by a Sid Richardson Energy Services, Ltd.'s representative on a regular basis and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: The facility will have an approved storm water run-off plan.

16. Closure: The OCD will be notified when operations of the C-1 Compressor Station are discontinued for a period in excess of six months. Prior to closure of the C-1 Compressor Station a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: Sid Richardson Energy Services, Ltd., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Sid Richardson Energy Services, Ltd. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

SID RICHARDSON ENERGY SERVICES, LTD.

by Wayne G. Farley
Title

GAS OPERATIONS
RECEIVED
NOV 0 2 2001

MHC
WJF
SAG
SFL
CFL
GCM
JW
HDM
KCP
MRR
DCT
BMW
WHW

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

October 29, 2001

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 0883

Mr. Wayne J. Farley
Sid Richardson Energy Services, Ltd.
201 North Main St.
Fort Worth, Texas 76102

RE: Discharge Plan Renewal Approval GW-259
Sid Richardson Energy Services, Ltd.
C-1 Compressor Station
Lea County, New Mexico

Dear Mr. Farley:

The ground water discharge plan renewal GW-259 for the Sid Richardson Energy Services, Ltd. C-1 Compressor Station located in the SE/4 NE/4 of Section 13, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter.**

The original discharge plan application was submitted on July 23, 1996 and approved September 18, 1996. The discharge plan renewal application, dated September 14, 2001, was submitted pursuant to Sections 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations. The discharge plan is renewed pursuant to Sections 5101.A. and 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Sid Richardson Energy Services, Ltd. of liability should operations result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., Sid Richardson Energy Services, Ltd. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this discharge plan is for a period of five years. This plan will expire on **September 18, 2006**, and Sid Richardson Energy Services, Ltd. should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

Sid Richardson Energy Services, Ltd. will submit a storm water run-off plan for approval by the OCD within six (6) months of the date of this approval letter for the C-1 Compressor Station.

The discharge plan application for the Sid Richardson Energy Services, Ltd. C-1 Compressor Station is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a non-refundable fee equal to the filing fee of $100. There is a flat fee assessed for natural gas compressor stations with horsepower rating less than 1000 horsepower equal to $400.00. The OCD has received the filing fee.

Please make all checks payable to: Water Management Quality Management Fund
C/o: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505.

If you have any questions please contact Mr. W. Jack Ford at (505) 476-3489. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Hobbs Office

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

7099 3220 0000 5051 0883

Name (Please Print Clearly) (To be completed by mailer) W. Farley
Street, Apt. No.; or PO Box No. S. Richardson
City, State, ZIP+ 4 GW-259

PS Form 3800, July 1999 See Reverse for Instructions

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-259
SID RICHARDSON ENERGY SERVICES, LTD.
C-1 COMPRESSOR STATION
DISCHARGE PLAN APPROVAL CONDITIONS
(October 29, 2001)

1. Payment of Discharge Plan Fees: The $100.00 filing fee has been received by the OCD. There is a flat fee assessed for natural gas compressor stations with horsepower rating less than 1000 horsepower equal to $400.00. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

2. Sid Richardson Energy Services, Ltd. Commitments: Sid Richardson Energy Services, Ltd. will abide by all commitments submitted in the discharge plan renewal application dated September 14, 2001 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected by a Sid Richardson Energy Services, Ltd.'s representative on a regular basis and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: The facility will have an approved storm water run-off plan.

16. Closure: The OCD will be notified when operations of the C-1 Compressor Station are discontinued for a period in excess of six months. Prior to closure of the C-1 Compressor Station a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: Sid Richardson Energy Services, Ltd., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Sid Richardson Energy Services, Ltd. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

SID RICHARDSON ENERGY SERVICES, LTD.

by_____
Title

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-259) – Sid Richardson Gasoline Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their C-1 Compressor Station located in the SE/4 NE/4, Section 13, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 3 gallons per day of waste water will be stored on site in closed top bermed tanks. Fluids will be processed and hydrocarbons will be separated prior to waste water being transported to an OCD approved off-site disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 132 feet with a total dissolved solids concentrations of approximately 1100 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.

(GW-260) – Sid Richardson Gasoline Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their C-2 Compressor Station located in the NW/4 NE/4, Section 11, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 2 gallons per day of waste water will be stored on site in closed top bermed tanks. Fluids will be processed and hydrocarbons will be separated prior to waste water being transported to an OCD approved off-site disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 70 feet with a total dissolved solids concentrations of approximately 1100 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.

(GW-261) – Sid Richardson Gasoline Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their C-3 Compressor Station located in the NE/4 SW/4, Section 3, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 2 gallons per day of waste water will be stored on site in closed top bermed tanks. Fluids will be processed and hydrocarbons will be separated prior to waste water being transported to an OCD approved off-site disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 140 feet with a total dissolved solids concentrations of approximately 1100 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.

(GW-262) – Sid Richardson Gasoline Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their C-4 Compressor Station located in the SW/4 SE/4, Section 9, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 2 gallons per day of waste water will be stored on site in closed top bermed tanks. Fluids will be processed and hydrocarbons will be separated prior to waste water being transported to an OCD approved off-site disposal facility. Groundwater most likely to be affected by an accidental discharge is at a depth of 171 feet with a total dissolved solids concentrations of approximately 1100 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 20th day of September, 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

RECEIVED
SEP 3 0 1996
Environmental Bureau
Oil Conservation Division

ATTACHMENT TO DISCHARGE PLAN GW-259
Sid Richarson Gasoline Co. C-1 Compressor Station
DISCHARGE PLAN REQUIREMENTS
(September 18, 1996)

1. **Sid Richardson Gasoline Co. Commitments:** Sid Richardson Gasoline Co. will abide by all commitments submitted in the Application dated July 23, 1996, and this Discharge Plan Approval from OCD dated September 18, 1996.

2. **Drum Storage**: All drums containing materials other than fresh water must be stored on an impermeable pad and curb type containment. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

3. **Process Areas**: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

4. **Above Ground Tanks**: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad.

5. **Above Ground Saddle Tanks**: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

6. **Tank Labeling**: All tanks should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.

7. **Below Grade Tanks/Sumps**: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks that do not have secondary containment and leak detection must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks /or sumps.

8. **Underground Process/Wastewater Lines**: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after. Companies may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD.

9. **Housekeeping**: All systems designed for spill collection/prevention should be inspected to ensure proper operation and to prevent overtopping or system failure.

Any contaminated soils that are collected at the facility will be tested for hazardous constituents, and after receiving OCD approval, will be disposed of at an OCD approved site.

10. **Spill Reporting**: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the Hobbs OCD District Office at (505)-393-6161.

11. **Transfer of Discharge Plan:** The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

12. **Closure:** The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

13. **New Mexico Oil Conservation Division Inspections:** Additional requirements may be placed on the facility based upon results from New Mexico Oil Conservation Division inspections.

14. **Conditions accepted by:** Wayne J. Farley 9-27-96
Company Representative Date

MANAGER, GAS OPERATIONS
Title

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

P 288 258 623

September 18, 1996

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to Sid Rich. - Gawlik	
Street & Number GW-259 APR	
Post Office, State, & ZIP Code	
Postage	$
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Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-288-258-623

Mr. Robert L. Gawlik
Environmental Health & Safety Associate
Sid Richardson Gasoline Co.
201 Main Street, Suite 3000
Fort Worth, TX 76102

RE: Approval of Discharge Plan GW-259
C-1 Compressor Station
Lea County, New Mexico

Dear Mr. Gawlik:

The **discharge plan GW-259 for the Sid Richardson Gasoline Co. C-1 Compressor Station** located in SE/4 NE/4, Section 13, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the application dated July 23, 1996, and this approval letter with conditions of approval from OCD dated September 18, 1996. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within five working days of receipt of this letter.**

The discharge plan application was submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission Regulations. Please note Sections 3109.E and 3109.F which provide for possible future amendments or modifications of the plan. Please be advised that the approval of this plan does not relieve **Sid Richardson Gasoline Co.** of liability should the operations associated with this facility result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open top tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

ATTACHMENT TO DISCHARGE PLAN GW-259
Sid Richarson Gasoline Co. C-1 Compressor Station
DISCHARGE PLAN REQUIREMENTS
(September 18, 1996)

1. **Sid Richardson Gasoline Co. Commitments:** Sid Richardson Gasoline Co. will abide by all commitments submitted in the Application dated July 23, 1996, and this Discharge Plan Approval from OCD dated September 18, 1996.

2. **Drum Storage**: All drums containing materials other than fresh water must be stored on an impermeable pad and curb type containment. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

3. **Process Areas**: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

4. **Above Ground Tanks**: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad.

5. **Above Ground Saddle Tanks**: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

6. **Tank Labeling**: All tanks should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.

7. **Below Grade Tanks/Sumps**: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks that do not have secondary containment and leak detection must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks /or sumps.

8. **Underground Process/Wastewater Lines**: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after. Companies may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD.

9. **Housekeeping**: All systems designed for spill collection/prevention should be inspected to ensure proper operation and to prevent overtopping or system failure.

Any contaminated soils that are collected at the facility will be tested for hazardous constituents, and after receiving OCD approval, will be disposed of at an OCD approved site.

10. **Spill Reporting**: All spills/releases shall be reported pursuant to OCD Rule 116 and WQCC 1203 to the Hobbs OCD District Office at (505)-393-6161.

11. **Transfer of Discharge Plan:** The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

12. **Closure:** The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

13. **New Mexico Oil Conservation Division Inspections:** Additional requirements may be placed on the facility based upon results from New Mexico Oil Conservation Division inspections.

14. **Conditions accepted by**: _____ _____

Company Representative Date

_____

Title

Please note that Section 3104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C Sid Richardson Gasoline Co. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.G.4, this plan is for a period of five (5) years. This approval will expire September 18, 2001, and an application for renewal should be submitted in ample time before that date. It should be noted that all discharge plan facilities will be required to submit plans for, or the results of, an underground drainage testing program as a requirement for discharge plan approval.

The discharge plan for the Sid Richardson Gasoline Co. C-1 Compressor Station GW-259 is subject to the WQCC Regulation 3114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty dollars ($50). As stated in WQCC 3114 compressor stations below 1,000 horsepower do not require a flat fee.

The $50 filing fee has been received by the OCD.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/pws
Attachment

xc: Mr. Wayne Price