

GW - 50-5

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

---

2006-1981

AFFIDAVIT OF PUBLICATION  
STATE OF NEW MEXICO

I, Fran Saunders  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with the issue dated

March 31st 2006

and ending with the issue dated

March 31st 2006

-----  
*Fran Saunders*  
-----  
Clerk

Sworn and subscribed to before me

this 31st Day of March 2006

-----  
*Marjlon S. Shipper*  
-----  
Notary Public

My Commission expires  
July 25, 2006

(SEAL)

Publish March 31, 2006

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Quality Control Commission Regulations, the following discharge permit applications have been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-050) Agave Energy Company, Ms. Jennifer Knowlton, Environmental Engineer, 105 South Fourth Street, Artesia, New Mexico 88210, has submitted applications for renewal for the previously approved discharge permits for their Bitter Lake Station (GW 50-1), Red Bluff #1 Station (GW 50-5), Red Bluff #2 Station (GW 50-7), and Red Bluff #3 Station (GW 50-8). All are natural gas compressor stations with arsenic removal systems. The locations of the four stations are:

1. Bitter Lake Station, NE/4 NW/4 of Section 10, Township 9 South, Range 25 East, NMPM, Chaves County, New Mexico.
2. Red Bluff #1 Station, NW/4 SE/4 of Section 2, Township 8 South, Range 22 East, NMPM, Chaves County New Mexico.
3. Red Bluff #2 Station, SW/4 NE/4 of Section 34, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.
4. Red Bluff #3 Station, NW/4 SE/4 of Section 10, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.

A total estimated volume of 2,500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off-site disposal at an OCD-approved facility. Groundwater most likely to be affected by any accidental spill is at a depth greater than 160 feet with a total dissolved solids concentration ranging from 2,400 to 8,200 mg/L. The discharge permit addresses how spills, leaks and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division any may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge permit application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge permit 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the permit based on information available. If a public hearing is held, the director will approve or disapprove the permit based on information in the application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of March 2006.

SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
Mark E. Fesmire, P.E., Director

THE SANTA FE  
**NEW MEXICAN**  
Founded 1849

NM EMNRD OIL CONSERVATION

ATTN: Ed Martin  
1220 S ST FRANCIS DR  
SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689  
AD NUMBER: 00162253 ACCOUNT: 00002212  
LEGAL NO: 78684 P.O. #: 06-199-050125  
264 LINES 1 TIME(S) 147.84  
AFFIDAVIT: 6.00  
TAX: 11.73  
TOTAL: 165.57

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO  
COUNTY OF SANTA FE

I, R, Lara, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 78684 a copy of which is hereto attached was published in said newspaper 1 day(s) between 03/31/2006 and 03/31/2006 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 31st day of March, 2006 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

2006 APR 3 PM 1 22

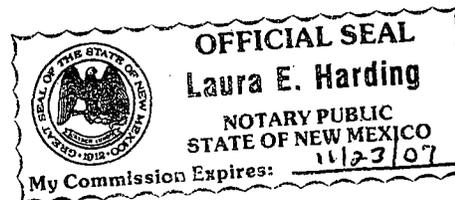
/s/ R. Lara  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 31st day of March, 2006

Notary Laura E. Harding

Commission Expires: 11/23/07

OK To Pay  
Ed Martin  
4-3-06



**NOTICE OF PUBLICATION**

**STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION**

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A total estimated volume of 2,500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off-site disposal at an OCD-approved facility. Groundwater most likely to be affected by any accidental spill is at a depth greater than 160 feet with a total

dissolved solids concentration ranging from 2,400 to 8,200 mg/L. The discharge permit addresses how spills, leaks and other accidental discharges to the surface will be managed.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27th day of March 2006.

**STATE OF NEW MEXICO OIL CONSERVATION DIVISION**

SEAL

Mark E. Fesmire,  
P.E., Director

Legal #78684

Pub. Mar. 31, 2006

## NOTICE OF PUBLICATION

### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge permit applications have been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

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A total estimated volume of 2,500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off-site disposal at an OCD-approved facility. Groundwater most likely to be affected by any accidental spill is at a depth greater than 160 feet with a total dissolved solids concentration ranging from 2,400 to 8,200 mg/L. The discharge permit addresses how spills, leaks and other accidental discharges to the surface will be managed.

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If no public hearing is held, the Director will approve or disapprove the permit based on information available. If a public hearing is held, the director will approve or disapprove the permit based on information in the application and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 27<sup>th</sup> day of March 2006.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

SEAL

Mark E. Fesmire, P.E., Director

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4275

**Via Certified Mail 7005 2570 0000 8325 6914**

March 3, 2006

Ed Martin  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Agave Energy Company  
Discharge Plan Renewal Applications**

Dear Ed:

Enclosed are two copies of the renewal applications for the following facilities:

Red Bluff #1 Compressor Station	GW-050-7
Red Bluff #2 Compressor Station	GW-050-5
Red Bluff #3 Compressor Station	GW-050-8
Bitter Lake Compressor Station	GW-050-1

If you have any questions regarding any of the information in the applications for renewal, please feel free to call me at 505-748-4471 or email me at [jknowlton@ypcnm.com](mailto:jknowlton@ypcnm.com).

Sincerely,

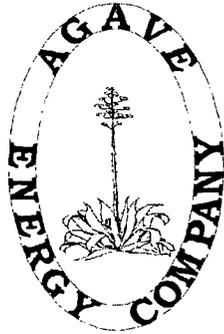


Jennifer Knowlton  
Environmental Engineer

Cc: OCD District II

2006 MAR 6 PM 12:40

**OIL CONSERVATION DIVISION  
DISCHARGE PLAN GW-050-5 RENEWAL  
AGAVE ENERGY COMPANY  
RED BLUFF #2 COMPRESSOR STATION**



March 3, 2006

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  
FACILITIES AND CRUDE OIL PUMP STATIONS**

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

New     Renewal     Modification

1. Type: Compressor Station

2. Operator: Agave Energy Company

Address: 105 South Fourth Street Artesia NM 88210

Contact Person: Jennifer Knowlton Phone: 505-748-4471

3. Location: SE/4 SE/4 Section 34 Township 7S Range 25E  
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: Jennifer Knowlton

Title: Environmental Engineer

Signature: Jennifer Knowlton

Date: 3/2/2006

E-mail Address: jknowlton@ypcnm.com

1. Type: Compressor Station
2. Operator: Agave Energy Company  
Address: 105 South Fourth Street Artesia NM 88210  
Contact Person: Jennifer Knowlton  
Phone: 505-748-4471
3. Location: SE/4 SE/4  
Section 34  
Township 7S  
Range 25E
4. Landowner: Agave Energy Company
5. The Red Bluff # 2 Compressor Station is part of a small localized gas gathering system that gathers sweet gas from multiple wells in the area and compresses this gas for delivery to a main line. The SIC code for the facility is 4922. The facility consists of a Waukesha L7042GSI compressor engines, one MEP 6GT compressor engine, a glycol dehydration unit, several small storage tanks, and various pumps, meters, and ancillary equipment. A plot plan is attached.

6. Materials Stored or Used at Facility:

1. TK 1694: 500 bbl Condensate
2. 915: 50 bbl oily waste water
3. 914: 50 bbl used lube oil
4. Tk-3: 1500 gallon ambitrol
5. Tk-4: 1500 gallon glycol
6. Tk-5: 1500 gallon lube oil
7. 480 pounds of arsenic catalyst

7. Present Sources of Effluent and Waste Solids:

1. Inlet separator – 5 to 50 BPD of produced water and condensate, RCRA exempt
2. Engine cooling water – 100 to 200 gallons per year, RCRA exempt
3. Waste engine oil – 500 gallons per year, RCRA non-Exempt
4. Oily waste water – 500 gallons per year, RCRA non-Exempt
5. Engine filters – 50 per year, RCRA non-Exempt
6. Discharge vessel – 5 to 50 BPD of produced water and condensate, RCRA exempt
7. Arsenic vessel – 5 to 50 BPD of produced water and condensate, RCRA exempt
8. Glycol dehydrator – <2 BPD of wastewater containing hydrocarbons, RCRA exempt
9. Fuel treating vessel – 480 pounds average of arsenic catalyst a year, RCRA exempt

8. Current Liquid and Solid Waste Collection, Treatment and Disposal Procedures:

Oil waste and used engine oil is transported via Jim's Water Well Service to the Yates Pathfinder SWD, or the Federal HJ #1. Oily wastewater and oil/condensate are placed in separation tanks, where oil and water are separated prior to disposal. The water is disposed of in either of the wells mentioned above.

The condensate is reintroduced into the production stream. Both disposal wells are approved and permitted by OCD. Copies of the disposal permits are attached.

In the event of a spill within the containment, the spill is pumped out of the containment with a sump pump and disposed of according to the type of liquid as described above. If the spill occurs on the ground, the soil is removed from site with the proper excavation equipment.

The arsenic catalysts are placed into containers onsite and transferred by Controlled Recovery, Inc to CRI's landfill in Halfway, New Mexico.

9. Proposed Modifications to existing Collection, Treatment and Disposal Systems:

At this time, there are no proposed modifications to the existing collection, treatment, or disposal system.

10. Inspection and Maintenance Plan:

- a. Company personnel make daily inspections of the site during normal business hours. Malfunctions or breakdowns are noted and repaired.
- b. Any repair work that is needed is performed as required.
- c. A regular maintenance program is diligently carried out on all on-site equipment.

11. Plan for reporting and Cleanup of Spills or Releases:

- a. Standard company policy is to immediately secure the area to insure the safety of personnel and the public.
- b. Employees and contract personnel are dispatched to the spill area with necessary equipment and materials necessary to control and contain the spill and initiate clean-up program as soon as practicable.
- c. Notification and any necessary follow-up reports will be made to the appropriate agencies (BLM, OCD, etc) pursuant to regulations.

12. Geologic and Hydrological Information:

The facility is located in the hills northeast of Roswell in red gypsum/clay soil. The station is located within three miles of the Pecos River and is subject to drainage to the east. The area is primarily rangeland consisting of prairie grass and mesquite. Non-potable surface waters are present at depths less than 100 feet and potable Artesia water is present at depths of approximately 300 feet or more.

13. Facility Closure Plan:

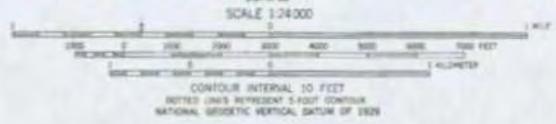
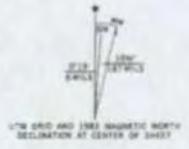
At this time, there are no plans to close the facility. The facility will operate for the foreseeable future. In the event that this changes, notice will be sent to the Oil Conservation Division and closure plans will be formulated.



Red Bluff #2 Compress

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA  
 Topography by photogrammetric methods from aerial photographs taken 1961. Field checked 1963  
 Polyconic projection. 10,000-foot grid ticks based on New Mexico coordinate system, east zone. 1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue. 1927 North American Datum. To place on the projected North American Datum 1983 move the projection lines 6 meters south and 48 meters east as shown by dashed corner ticks  
 Fine red dashed lines indicate selected fence lines  
 There may be private encroachments within the boundaries of the National or State reservations shown on this map



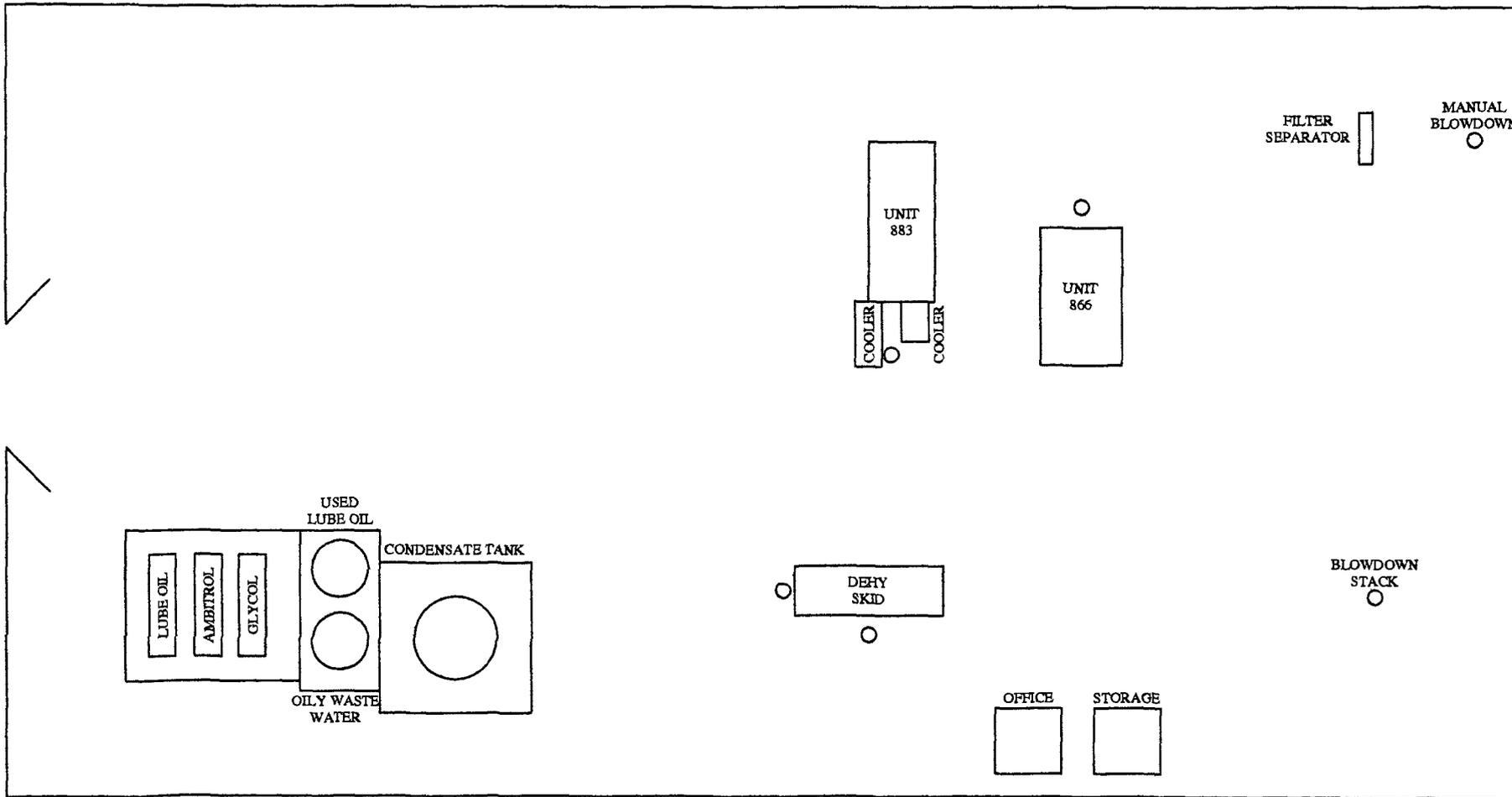
CONTOUR INTERVAL 10 FEET  
 NOTED LINES REPRESENT 5-FOOT CONTOUR  
 NATIONAL GEODESIC VERTICAL DATUM OF 1929



ROAD CLASSIFICATION  
 Light-duty ——— Unimproved dirt - - - - -

THIS MAP COMPLES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

COYOTE DRAW, N. MEX.  
 N3375-W10422 6/7.5  
 1963  
 PHOTOGRAPHIC METHOD  
 DMA 511:10 NW-SERIES 1581



		AGAVE ENERGY COMPANY	
		105 South Fourth Street, Artesia, New Mexico 88210	
		RED BLUFF #2	
		PLOT PLAN	
CHK	COUNTY CHAVES		REV
DRAFTING TWH			
APPROVED:	DATE	SZS ANSIA	
AGAVE MANAGEMENT:	SCALE NA	PRINTED 2/20/06	SHEET 1 OF 1

**Martin, Ed, EMNRD**

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**From:** Jennifer Knowlton [jknowlton@YPCNM.COM]  
**Sent:** Tuesday, January 31, 2006 11:40 AM  
**To:** Martin, Ed, EMNRD  
**Subject:** Agave Discharge Permits  
**Attachments:** Jennifer Knowlton.vcf

Ed,

I went through the files that our aid copied for me and I have a couple of questions and clarifications.

*OK* Red Bluff #~~1~~<sup>2</sup> (GW 50-7) expired on 4/7/05. I will be working on the renewal application in February  
*OK* Red Bluff #~~2~~<sup>1</sup> (GW 50-5) expired on 6/13/04. I will be working on the renewal application in February.  
*FAIL to Jen* Red Bluff #3 (GW 50-8) - there wasn't a copy of the actual discharge permit in the file. Granted, I didn't copy the files, the the aid copied everything else except the maps. Could this have been misfiled? Can I get a copy of the discharge permit for my files? I am assuming that it has expired, but I don't know that for sure.  
Bitter Lake (GW 50-1) expired 6/13/04. I will be working on the renewal application for February.

I will work on formal closure plans for the following facilities: Ned State (GW 50-4), Red Bluff #4, Red Bluff #5, and Red Bluff #6. I haven't found permit numbers for the last three facilities. If you can match these facilities to the permit number, it will make the paper work easier.

I also found a letter from Agave to OCD stating that the following facilities weren't operational: Haystack (GW 50-2), Isler (GW 50-3) and Salt Creek (GW 50-6). These have not been operational since before Agave purchased the facilities from Transwestern. We immediately made system wide changes that permanently shut these facilities down. Are the discharge permits still "open" and if so, do I need to formally close them as with the Ned State etc permit?

I appreciate your help with this. I will be working on the renewals for the four permits that have expired next month so that those are taken care of as quickly as possible. Then I will focus my attention on the modified permit for the Agave Dagger Draw Gas Plant.

If you could get back to me on the closures by Wednesday I would appreciate it. Weather permitting (i.e. not blowing 100 mph), Ivan and I are going to visit those sites and take the pictures that you requested for the closure. If we need to visit additional facilities to formally close the discharge permit, it would be easier to do it that day since they are in the same relative location.

Thanks, Jen

Jennifer Knowlton  
Agave Energy Company  
Environmental Engineer  
105 South Fourth Street  
Artesia, New Mexico 88210  
Office: 505-748-4471  
Fax: 505-748-4275

2/9/2006

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4275

Mr. Ed Martin  
State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

July 22, 2002

**RE: Discharge Plan Modifications**  
**GW-50-01 Bitterlake Compressor Station**  
**GW-50-05 Red Bluff #1 Compressor Station**

Dear Ed,

Agave is requesting modification of the above two discharge plans to incorporate the down hole disposal of spent catalyst. Discharge Plan Application forms, along with a description of the proposed changes, are enclosed.

A check in the amount of \$1900 in payment of filing fees plus one-half permit fee assessed pursuant to 20.6.2.3114 (C) NMAC for modification of Discharge Plans of Gas Compressor Stations > 1001 horsepower is also attached.

If you need additional information or have questions, please call me at 505-748-4185 or Greg Jokela at 505-748-4525.

Sincerely,



Lisa Norton,  
Environmental  
Coordinator

cc: file  
Greg Jokela, Agave

NOTE: CHECK RETURNED  
TO AGAVE 8/7/02.

THIS IS A MINOR  
MODIFICATION.

**Martin, Ed**

---

**From:** Martin, Ed  
**Sent:** Wednesday, August 07, 2002 10:43 AM  
**To:** Lisa Norton (E-mail)  
**Subject:** Discharge Permit Modifications

I received your modification request for Red Bluff (GW-50-05) and Bitter Lakes (GW-50-01) and your check #53856 in the amount of \$1,900. We would consider this a minor modification and there are no fees due for this. Therefore, I am returning your check in snail mail.

Please consider this e-mail as approval for the modifications to both facilities.

Let me know if you have questions.

*Ed Martin*  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 S. St. Francis  
Santa Fe, NM 87505  
Phone: 505-476-3492  
Fax: 505-476-3471

District I  
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District III  
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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 January 24, 2001  
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 FACILITIES  
AND CRUDE OIL PUMP STATIONS**

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

New       Renewal       Modification

1. Type: **Natural Gas Compressor Station**

2. Operator: **Agave Energy Company**

Address: **105 South Fourth St. – Artesia, NM 88210**

Contact Person: **Lisa Norton**      Phone: **505-748-4185**

3. Location: **NW /4 SE /4 Section 2 Township 8S Range 25E**  
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 wastewater 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: **Lisa Norton**

Title: **Environmental Coordinator**

Signature: *Lisa Norton*

Date: **July 19, 2002**

**Agave Energy Company**  
**Red Bluff #1 Discharge Plan GW 50-05**  
***Modification/Addition to Existing Discharge Plans***  
**July 19, 2002**

**Waste Streams**

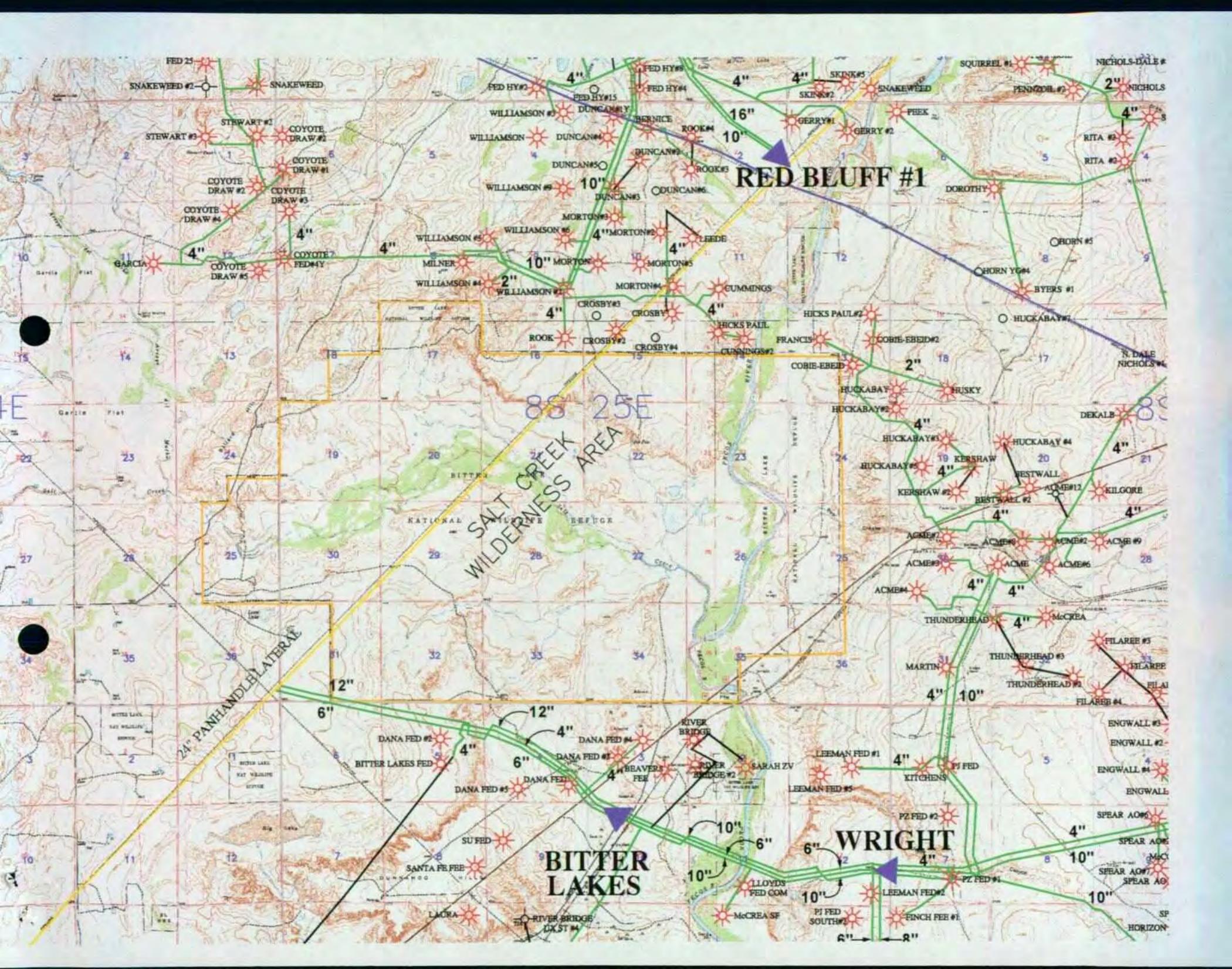
- a. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
- b. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
- c. Waste Engine Oil – 500 gallons per year, RCRA Exempt
- d. Oily Waste Water – 500 gallons per year, RCRA Exempt
- e. Engine Filters – 50 per year, RCRA Exempt
- f. Spent Gas Treating Catalyst – 18,804 lbs per year, RCRA Exempt

**Disposal Plan for Waste Products:**

Oil Waste and used engine oil are transported via Jim's Water Well Service or another available contractor to the Yates Pathfinder SWD, located in Section 21 T10S R27E, or the Yates Mitchell SWD, Located in section 23 T17S R25E, and placed in a separation tank, where oil and water are separated before disposal. Water is disposed of in the well and oil by-products are transferred to tanks and introduced back into the production stream. Both disposal wells are approved and permitted by OCD.

Engine filters have been determined to be non-hazardous based on laboratory tests performed by Assaigai Analytical Laboratories, Inc., Albuquerque, NM. Care is taken in the maintenance of equipment to extend the life of the filters to help minimize waste materials. Used filters are handled in a method to insure that all free liquid is drained and returned to the used oil container, where it is stored prior to disposal as per paragraph 1. Waste Management-Southeast New Mexico, disposes of used filters at a properly permitted facility.

The spent catalyst is a RCRA exempt material. It is containerized in drums until it is transported, in accordance with DOT regulations, for down hole disposal. The spent catalyst material will be disposed of in abandoned wells. The procedure will be to mix the catalyst with drilling mud on the surface and pump the catalyst/mud mixture into the abandoned well bore between cement plugs, using conventional plugging techniques pursuant to NMOCD guidelines. The well will then be properly marked with a "dry hole marker".



**RED BLUFF #1**

88 25E  
SALT CREEK AREA  
WILDERNESS AREA

**BITTER LAKES**

**WRIGHT**

24" PANHANDLE LATERAL

FED 25  
SNAKEWEED #2  
SNAKEWEED

STEWART #2  
COYOTE DRAW #2  
COYOTE DRAW #1

COYOTE DRAW #2  
COYOTE DRAW #3  
COYOTE DRAW #4

COYOTE DRAW #5  
COYOTE DRAW #6  
COYOTE DRAW #7

GARCIA  
COYOTE DRAW #8  
COYOTE DRAW #9

FED HY #3  
WILLIAMSON #3  
WILLIAMSON #4  
WILLIAMSON #5  
WILLIAMSON #6  
WILLIAMSON #7

FED HY #15  
DUNCAN #1  
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## Discharge Plan GW 50-1, 5,

### Waste Streams

1. Bitter Lakes
  1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
  2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
  3. Waste Engine Oil – 500 gallons per year, RCRA Exempt
  4. Oily Waste Water – 500 gallons per year, RCRA Exempt
  5. Engine Filters – 50 per year, RCRA Exempt
  6. Spent Gas Treating Catalyst – 14,222 lbs per year, RCRA Exempt
  
2. Red Bluff #1
  1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
  2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
  3. Waste Engine Oil – 500 gallons per year, RCRA Exempt
  4. Oily Waste Water – 500 gallons per year, RCRA Exempt
  5. Engine Filters – 50 per year, RCRA Exempt
  6. Spent Gas Treating Catalyst – 18,804 lbs per year, RCRA Exempt

### **Disposal Plan for Waste Products:**

Oil Waste and used engine oil are transported via Jim's Water Well Service to the Yates Pathfinder SWD, located in Section 21 T10S R27E, or the Yates Mitchell SWD, Located in section 23 T17S R25E, and placed in a separation tank, where oil and water are separated before disposal. Water is disposed of in the well and oil by-products are transferred to tanks and introduced back into the production stream. Both disposal wells are approved and permitted by OCD.

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The spent catalyst is a RCRA exempt material. It is containerized in drums until it is transported, in accordance with DOT regulations, for down hole disposal. The spent catalyst will be disposed by putting the material in abandoned wells. The procedure will be to mix the catalyst with drilling mud on the surface and pump the catalyst/mud mixture into the abandoned well bore placed between cement plugs, using conventional plugging techniques. The well will be properly marked with a "dry hole marker". The well will be plugged and abandoned with cement plugs as per NMOCD Guidance.

Well Name	Sec	T	R	Comments
Allison CQ Federal #1	22	19S	24E	
Allison CQ Federal #3	15	19S	24E	
Blazer XN State #1	15	7S	23E	
Box Canyon GJ Fed #1	14	21S	21E	
Burton AER Com #1	26	16S	27E	
Caudill RZ #1	8	6S	26E	
Doris RI Fed #3	27	5S	25E	
Eagle Creek BL #2	23	17S	25E	
Federal 33-1	33	20S	26E	
Federal BQ #7	27	17S	25E	
Federal CD #4	29	17S	25E	
Federal CD #8	29	17S	25E	
Harvey JI Federal #1	23	21S	21E	
Hourglass AEG St #1	16	18S	35E	
Joyce HG #1	22	18S	26E	
Lillie M Yates Fed #3	31	8S	37E	
Powell State #1	17	18S	28E	
Sara AHA Com #1	11	20S	24E	
Savanah State #2	32	9S	25E	
Skink SK State #1	32	7S	26E	
Stonewall DS #2	29	20S	28E	
Top Hat AJQ State #1	35	23S	33E	
Vest Ranch RE Fed #1	21	14S	30E	
White BU #1	14	17S	25E	
Wilcox TS #2	19	7S	32E	

#### Loco Hills Area

Ballard A #4	1	18S	29E	
Ballard A #5	1	18S	29E	
Ballard B #2	1	18S	29E	
Brigham #3	31	17S	30E	
Scheurich #3	32	17S	30E	
Scheurich #9	32	17S	30E	
Scheurich A #1	32	17S	30E	
Scheurich A #5	32	17S	30E	
Scheurich B #6	32	17S	30E	
Tallmadge #1	32	17S	30E	
West Loco Hills Unit Tr 13 #10	12	18S	29E	
West Loco Hills Unit Tr 25 #1	1	18S	29E	
West Loco Hills Unit Tr 29 #1	2	18S	29E	
West Loco Hills Unit Tr 31 #3	2	18S	29E	
West Loco Hills Unit Tr 32A #7	11	18S	29E	
West Loco Hills Unit Tr 34 #4	2	18S	29E	
West Loco Hills Unit Tr 34 #5	2	18S	29E	
West Loco Hills Unit Tr 37 #1	11	18S	29E	
West Loco Hills Unit Tr 40 #2	1	18S	29E	
West Loco Hills Unit Tr 6 #2	12	18S	29E	
Yates #1	6	18S	30E	
Yates #6	6	18S	30E	
Yates A #1	6	18S	30E	
Yates A #15	6	18S	30E	
Yates A #3	6	18S	30E	
Yates A #5	6	18S	30E	

Yates A #6	6	18S	30E	
Yates A #8	7	18S	30E	

**Saunders Area**

Chalupa AAD State #1	13	14S	33E	
Chalupa AAD State #3	14	14S	33E	
Dove VK State #1	3	14S	33E	
Dove VK State #2	3	14S	33E	
Dove VK State #3	3	14S	33E	
Dove VK State #4	3	14S	33E	
Woodpecker SY State #1	21	14S	33E	
Woodpecker SY State #2	22	14S	33E	
Woodpecker SY State #5	23	14S	33E	
Woodpecker SY State #6	24	14S	33E	
Woodpecker SY State #7	25	14S	33E	
Woodpecker SY State #8	26	14S	33E	

**ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH**

I hereby acknowledge receipt of check No. [REDACTED] dated 9/20/00  
 or cash received on \_\_\_\_\_ in the amount of \$ 690<sup>00</sup>  
 from AGAVE ENERGY CO.

for RED Bluff #1 COMP. ST. GW50-05

Submitted by: WAYNE PRICE (Family Name) Date: 9/29/00 (DP No.)

Submitted to ASD by: Wayne P Date: 9/29/00

Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_

Filing Fee \_\_\_\_\_ New Facility \_\_\_\_\_ Renewal   
 Modification \_\_\_\_\_ Other \_\_\_\_\_ (Specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment  or Annual Increment \_\_\_\_\_

**AGAVE ENERGY COMPANY**  
 105 South Fourth Street Artesia, New Mexico 88210

CODE	INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	DISCOUNT	NET AMOUNT PAYABLE
1	OCU DIS PL RED BL	104/00	690.00	.00	690.00
			TOTAL FOR CHECK		690.00

**CODES**  
 1 - YOUR INVOICE  
 2 - YOUR CREDIT MEMO

THE ATTACHED CHECK IS IN FULL SETTLEMENT OF INVOICES LISTED ABOVE.  
 PLEASE DETACH THIS VOUCHER BEFORE DEPOSITING CHECK. NO RECEIPT NECESSARY.

# The Santa Fe New Mexican

Since 1849. We Read You.

MAR - 3 2000

NM OIL CONSERVATION DIVISION  
ATTN: DONNA DOMINGUEZ

OIL CONSERVATION DIVISION

AD NUMBER: 135492      ACCOUNT: 56689  
LEGAL NO: 66964      P.O.#: 00199000278  
221 LINES      1 time(s) at \$ 97.42  
AFFIDAVITS:      5.25  
TAX:      6.42  
TOTAL:      109.09

## AFFIDAVIT OF PUBLICATION

### NOTICE OF PUBLICATION

#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-50) - Agave Energy Company, Paul Ragsdale, Vice President, 105 South Fourth Street, Artesia, New Mexico 88210, has submitted discharge plan renewal applications for Bitter Lake Station (GW50-1) and Red Bluff #1 Station (GW50-05); and new discharge plan applications for Red Bluff #2 (GW50-07) and Red Bluff #3 (GW50-08) all being filed natural gas compressor stations with arsenic removal systems. The locates for the four (4) stations are:

1. Bitter Lake Station, NE/4 NW/4, Section 10, Township 9 South, Range 25 East, NMPM, Chaves County, New Mexico.
2. Red Bluff #1 Station, NW/4 SE/4, Section 2, Township 8 South, Range 22 East, NMPM, Chaves County, New Mexico.
3. Red Bluff #2 Station, SW/4, NE/4, Section 34, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.
4. Red Bluff #3 Station, NW/4, SE/4, Section 10, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.

A total estimated volume of 2500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off site disposal at an OCD approved disposal facility. Groundwa-

ter most likely to be affected by any accidental spill is at a depth greater than 160 feet with a total dissolved solids concentration ranging from 2400 to 8200 mg/l. The discharge plan will address how spills, 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 24th day of February, 2000.

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION  
LORI WROTENBERY,  
Director

Legal #66964  
Pub. March 2, 2000

STATE OF NEW MEXICO  
COUNTY OF SANTA FE

I, B. Penner being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #66964 a copy of which is hereto attached was published in said newspaper 1 day(s) between 03/02/2000 and 03/02/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 2 day of March, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ Betty Penner  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this  
1 day of March A.D., 2000

Notary Cardace L. Duroso  
Commission Expires 11/16/2003

OK FOR PAYMENT  
R Penner

P.O. Box 2048 • Santa Fe, New Mexico 87501

505-983-3303

AFFIDAVIT OF PUBLICATION

Publish March 1, 2000

COUNTY OF CHAVES  
STATE OF NEW MEXICO

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

I, Fran Saunders,  
Legal Clerk

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505)827-7131:

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published once a week in the regular and entire issue of said paper and not in a supplement thereof for a period of:

(GW-50) - Agave Energy Company, Paul Ragsdale, Vice President, 105 South Fourth Street, Artesia, New Mexico 88210, has submitted discharge plan renewal applications for Bitter Lake Station (GW50-1) and Red Bluff #1 Station (GW50-05); and new discharge plan applications for Red Bluff #2 (GW50-07) and Red Bluff #3 (GW50-08) all being natural gas compressor stations with arsenic removal systems. The locations for the four (4) stations are:

one time week s  
begining with issue dated March 1st 2000  
and ending with the issue dated March 1st 2000

1. Bitter Lake Station, NE/4NW/4, Section 10, Township 9 South, Range 25 East, NMPM, Chaves County, New Mexico.
2. Red Bluff #1 Station, NW/4SE/4, Section 2, Township 8 South, Range 22 East, NMPM, Chaves County, New Mexico.
3. Red Bluff #2 Station, SW/4, NE/4, Section 34, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.
4. Red Bluff #3 Station, NW/4, SE/4, Section 10, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.

A total estimated volume of 2500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off site disposal at an OCD approved disposal facility. Groundwater most likely to be affected by any accidental spill is at a depth greater than 100 feet with a total dissolved solids concentration ranging from 2400 to 8200 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

*Fran Saunders*  
Clerk

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 through 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 a public hearing may be requested by any interested person. Requests for a public shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

Sworn and subscribed to before me

This 6th day of March 2000

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

*Marylon S. Shipper*  
Notary Public

My Commission expires July 25, 2002

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 24th day of February, 2000.

(SEAL)

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
Roger Anderson  
for LORI WROTENBERY, Director

SEAL

cc MARY

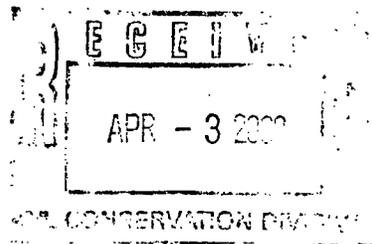
# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576



March 31, 2000

Wayne Price  
Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, NM 87505

Re: Discharge Plan GW-50-1(Bitter Lake), GW-50-5 (Red Bluff #1), GW-50-7 (Red Bluff #2), GW-50-8 (Red Bluff #3)

Dear Mr. Price:

I have included information you request in your letter dated February 24<sup>th</sup> regarding the above stated discharge plans.

If you need further assistance please call me at 505 748-4526.

Sincerely,

  
Paula Haggith  
Engineer

## Discharge Plan GW 50-1,5,7,8

### Waste Streams

#### 1. Bitter Lake

1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
3. Waste Engine Oil – 500 gallons per year, RCRA non-Exempt
4. Oily Waste Water – 500 gallons per year, RCRA non-Exempt
5. Engine Filters – 50 per year, RCRA non-Exempt
3. Spent Gas Treating Catalyst – 14,222 lbs per year, RCRA Exempt

#### 2. Red Bluff #1

1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
4. Waste Engine Oil – 500 gallons per year, RCRA non-Exempt
5. Oily Waste Water – 500 gallons per year, RCRA non-Exempt
6. Engine Filters – 50 per year, RCRA non-Exempt
7. Spent Gas Treating Catalyst – 18,804 lbs per year, RCRA Exempt

#### 3. Red Bluff #2

1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
3. Waste Engine Oil – 500 gallons per year, RCRA non-Exempt
4. Oily Waste Water – 500 gallons per year, RCRA non-Exempt
5. Engine Filters – 50 per year, RCRA non-Exempt

#### 4. Red Bluff #3

1. Inlet Separator – 5 to 50 BPD of produced water and condensate, RCRA Exempt
2. Engine Cooling Water – 100 to 200 gallons per year, RCRA Exempt
3. Waste Engine Oil – 500 gallons per year, RCRA non-Exempt
4. Oily Waste Water – 500 gallons per year, RCRA non-Exempt
5. Engine Filters – 50 per year, RCRA non-Exempt

### **Disposal Plan for Waste Products:**

Oil waste and used engine oil are transported via Jim's Water Well Service to the Yates Pathfinder SWD, located in Section 21 T10S R27E, or the Yates Mitchell SWD, located in Section 23 T17S R25E, and placed in a separation tank, where oil and water are separated before disposal. Water is disposed of in the well and oil by-products are transferred to tanks and introduced back into the production stream. Both disposal wells are approved and permitted by OCD.

Engine Filters have been determined to be non-hazardous based on laboratory tests performed by Assagai Analytical Laboratories, Inc., Albuquerque, NM. Care is taken in the maintenance of equipment to extend the life of the filters to help minimize waste materials. Used filters are handled in a method to insure that all free liquid is drained and returned to the used oil container, where it is stored prior to disposal as per paragraph 1. Waste Management-Southeast New Mexico, disposes of used filters at a properly permitted facility.

The spent catalyst is a RCRA exempt material. It is containerized in drums until it is transported, in accordance with DOT regulations, to an appropriately permitted recycling facility. Care is taken in the maintenance of equipment to extend the life of the catalyst and minimize waste.



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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

February 24, 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z 142 564 956**

Ms. Paula Haggith  
Agave Energy Company  
105 South Fourth Street  
Artesia, New Mexico 88210

Re: Discharge Plans GW-50-1 (Bitter Lake), GW-50-5 (Red Bluff #1), GW-50-7 (Red Bluff #7) and  
GW-50-8 (Red Bluff #8).

Dear Ms. Haggith:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of the Discharge Plan applications referenced in the above caption. After reviewing the applications, the NMOCD requires the following information in order to process the applications:

1. Please identify and classify all waste streams that are generated on site. Each waste stream shall be classified as to EPA RCRA exempt or non-exempt status. It appears that Agave inadvertently left off the gas stream filter waste that contains arsenic and how it is storing this waste on site. Please include in discharge plan.
2. The discharge plan did not indicate where or how the waste streams are being, or planned on being disposed of. Please include name of any off-site disposal company, location and any permit information.

All waste streams listed in Agave's discharge plans that is being disposed of at a site not approved by OCD, including any temporary off-site storage, must receive a case-by-case approval from the OCD. If Agave wishes to have these waste streams approved for the duration of the discharge plan and waive the case-by-case approval then Agave must modify the plans to indicate where the waste is being disposed of.

Please provide this information by March 31, 2000.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price-Pet. Engr. Spec.  
Environmental Bureau

cc: OCD Artesia Office

**NOTICE OF PUBLICATION**

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**(GW-50)** - Agave Energy Company., Paul Ragsdale, Vice President , 105 South Fourth Street, Artesia, New Mexico 88210, has submitted discharge plan renewal applications for Bitter Lake Station (GW50-1) and Red Bluff #1 Station (GW50-05); and new discharge plan applications for Red Bluff #2 (GW50-07) and Red Bluff #3 (GW50-08) all being field natural gas compressor stations with arsenic removal systems. The locations for the four (4) stations are:

1. Bitter Lake Station, NE/4 NW/4, Section 10, Township 9 South, Range 25 East, NMPM, Chaves County, New Mexico.
2. Red Bluff #1 Station, NW/4 SE/4, Section 2, Township 8 South, Range 22 East, NMPM, Chaves County, New Mexico.
3. Red Bluff #2 Station, SW/4,NE/4, Section 34, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.
4. Red Bluff #3 Station, NW/4,SE/4, Section 10, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico.

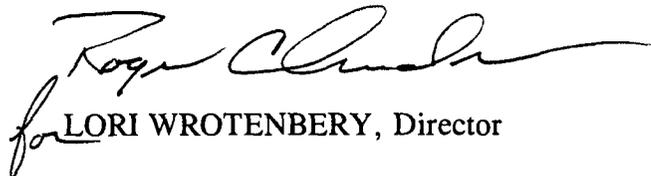
A total estimated volume of 2500 gallons per year of produced water, lube oil and spent glycol is discharged to above ground tanks prior to off site disposal at an OCD approved disposal facility. Groundwater most likely to be affected by any accidental spill is at a depth greater than 160 feet with a total dissolved solids concentration ranging from 2400 to 8200 mg/l. The discharge plan addresses how spills, 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 through 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 a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 24th day of February, 2000.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY, Director

S E A L

**OIL CONSERVATION DIVISION**

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



**(PLEASE DELIVER THIS FAX)**

**To:** PAULA HAGGITH - AGAVE ENERGY

**From:** OCD-

**Date:** 2/24/00

**Number of Pages (Includes Cover Sheet)** 4

**Message:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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







# AGAVE ENERGY COMPANY

105 South Fourth Street Artesia, New Mexico 88210



CODE	INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	DISCOUNT	NET AMOUNT PAYABLE
1	000 RENEWAL RED BLD 108/99		50.00	.00	50.00
			TOTAL FOR CHECK		50.00

EW-50-05

RED ALICE #1

### CODES

- 1 - YOUR INVOICE
- 2 - YOUR CREDIT MEMO

THE ATTACHED CHECK IS IN FULL SETTLEMENT OF INVOICES LISTED ABOVE.  
PLEASE DETACH THIS VOUCHER BEFORE DEPOSITING CHECK. NO RECEIPT NECESSARY.

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576

September 7, 1999

Wayne Price  
N.M.O.C.D.  
2040 S. Pacheco Street  
Santa Fe, NM 87505

RECEIVED

SEP - 9 1999

Re: Renewal of Compressor Discharge Plan for GW-050

Dear Mr. Price,

Enclosed is the application for renewal of the referenced discharge plan and a check for \$50.00. Please let me know if you need additional information.

Sincerely yours,



Paul Ragsdale  
Vice President

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

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

Revised 12/1/95

Submit Original  
Plus 1 Copies  
to Santa Fe  
1 Copy to appropriate  
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,  
GAS PLANTS, REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS  
(Refer to the OCD Guidelines for assistance in completing the application)

New

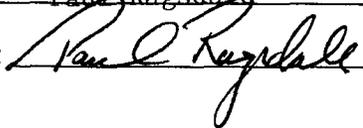
Renewal

Modification

1. Type: Natural Gas Compressor Station
2. Operator: Agave Energy Company  
Address: 105 S. Fourth St., Artesia, NM 88210  
Contact Person: Paul Ragsdale Phone: 505 748-4520
3. Location: NW /4 SE /4 Section 2 Township 8S Range 25E  
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 herby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Paul Ragsdale Title: Vice President

Signature:  Date: 9-1-99

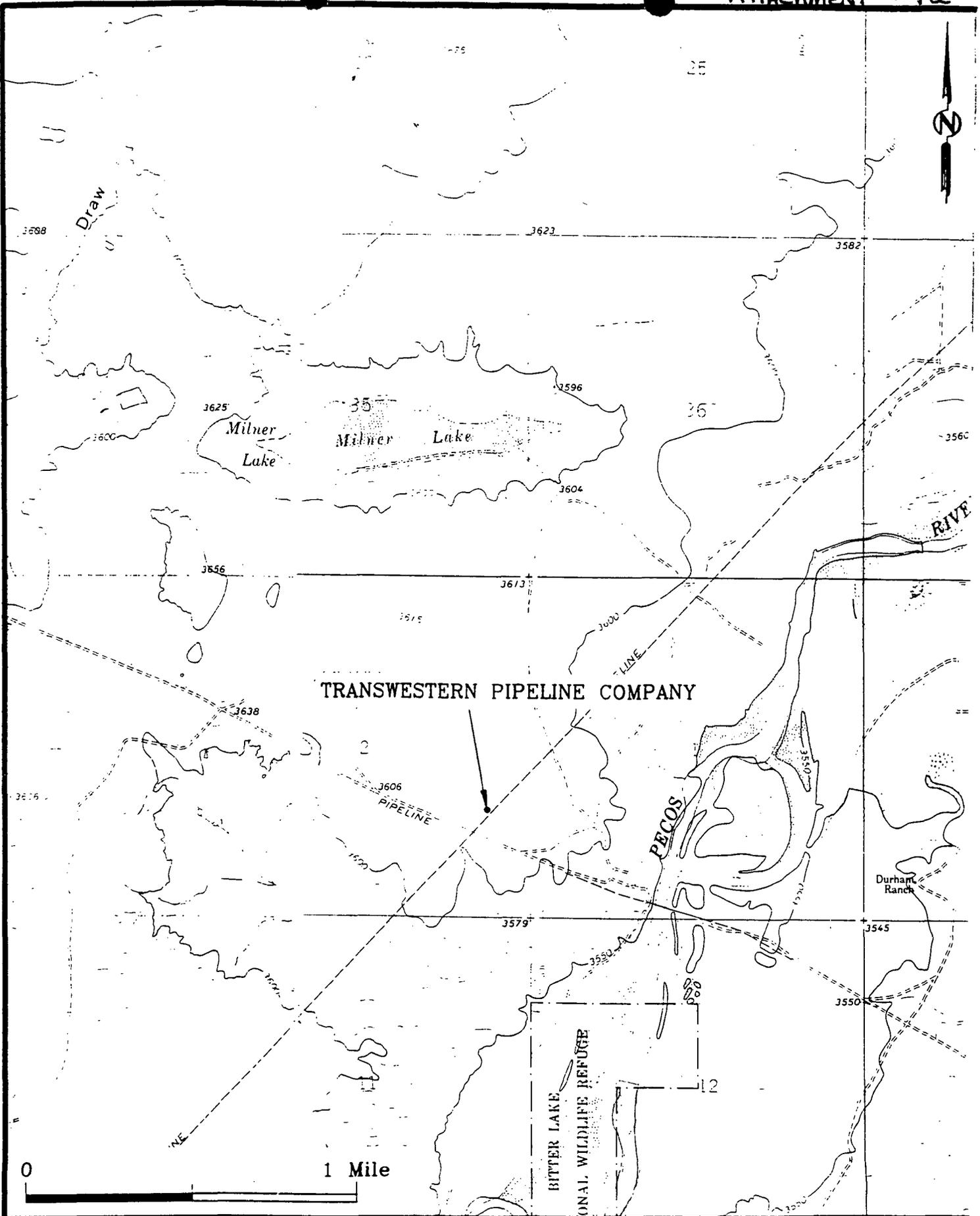
DISCHARGE PLAN RENEWAL GW -50 - 5 ✓

Agave Energy Company

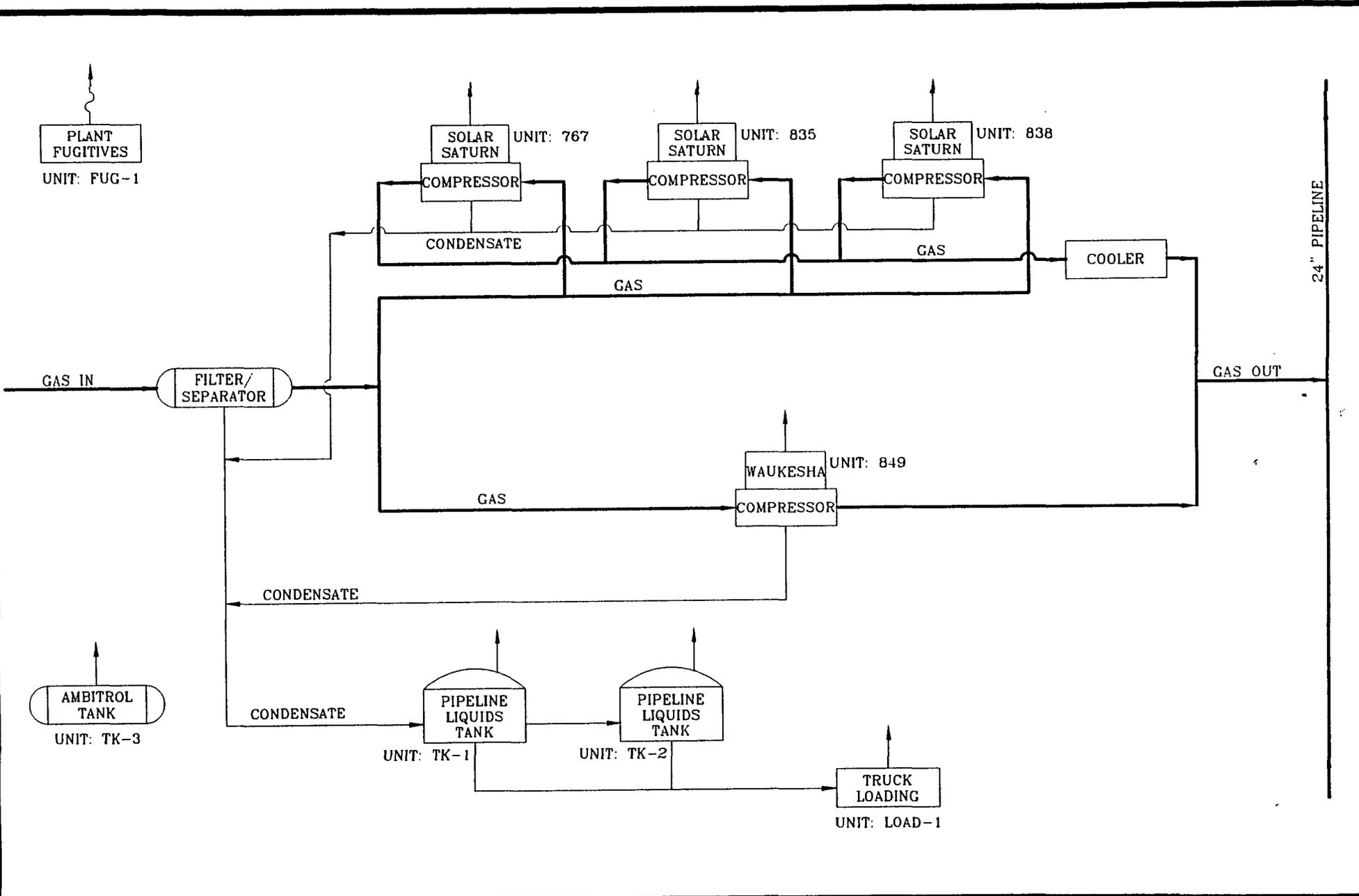
Red Bluff #1 Compressor Station

1. Type:  
Natural Gas Compressor Station
  
2. Operator: Agave Energy Company  
Address: 105 S. Fourth  
Artesia, NM 88210  
Contact: Paul Ragsdale Phone: 505-748-4520
  
3. Location: NW/4 SE/4 Sec 2-T8S-R22E
  
4. Landowner: U.S. Bureau of Land Management  
Phone 505-627-0272  
Address 2909 W. Second  
Roswell, NM 88201
  
5. Description of facility: The station is a natural gas compressor station gathering field gas compressed from the other Red Bluff compressor stations and recompressing the gas into Transwestern Pipeline. There are three Solar Turbines and one Waukesha reciprocating compressor at the station. It also has one inlet scrubber filter, a pig receiver, pipeline liquid tanks, gas treating vessels to remove small amounts of contaminants from the gas and multiple meters.  
See Attachment #1 for site facility diagram.
  
6. Description of materials stored or used at the facility:  
Engine Oil, Hydraulic oil, Degreaser, Soap, Gas treating catalyst consisting of copper and zinc oxides on an alumina core, Antifreeze and multiple types of new filters. There are also produced pipeline liquids, oily waste water, used lube oils and used antifreeze.
  
7. Description of present effluent and waste solids including average quality and daily volumes.  
Inlet separators: 5 to 50 BPD of produced water and condensate.  
Engine Cooling Water: 100 to 200 gallons per year  
Waste Engine Oils: 1000 gallons per year  
Oily Waste Water: 1000 gallons per year  
Engine filters: 100 per year

8. Describe current liquid and solid waste collection/treatment/disposal procedures. All liquid waste goes to above ground storage tanks and is removed by certified waste haulers and either disposed in Class II disposals or recycled. Solid wastes are collected and stored in above ground dumpsters and hauled to approved facilities. All waste facilities are enclosed in concrete containments.
9. NO proposed modifications are planned at this time to the current waste collection/treatment/disposal procedures.
10. Routine inspection and maintenance plan to ensure permit compliance: This is a station that has an operator/mechanic assigned to it and is visited on a daily basis. The operator visually inspects the facilities as a matter of routine maintenance. Semi-annual leak tests are performed on tanks.
11. Attach a contingency plan for reporting and cleanup of spills or releases. See Attachment #2 for Contingency Plan
12. Geologic/Hydrologic Information:  
The facility is located in the hills northeast of Roswell in a red gypsum/clay soil. The station is located within one mile of the Pecos River and is subject to drainage to the east. The area is primarily rangeland consisting of prairie grass and mesquite. Non-potable surface waters are present at depths less than 100 feet and potable Artesian water is present at depths of 300 feet or more.
13. Facility Closure Plan:  
There are no plans at this time to close this facility.



<b>TITLE:</b> TRANSWESTERN PIPELINE COMPANY RED BLUFF #1 COMPRESSOR STATION SITE VICINITY MAP		 <b>TEAM ENVIRONMENTAL SERVICES, INC.</b> SOUTHWESTERN CONSULTING & ENGINEERING	
<b>EXTRACTED FROM:</b> EIGHT MILE DRAW, NEW MEXICO USGS 7.5 MINUTE QUADRANGLE		<b>DATE:</b> 5/16/95	<b>DWG. NUMBER:</b> 9505-12



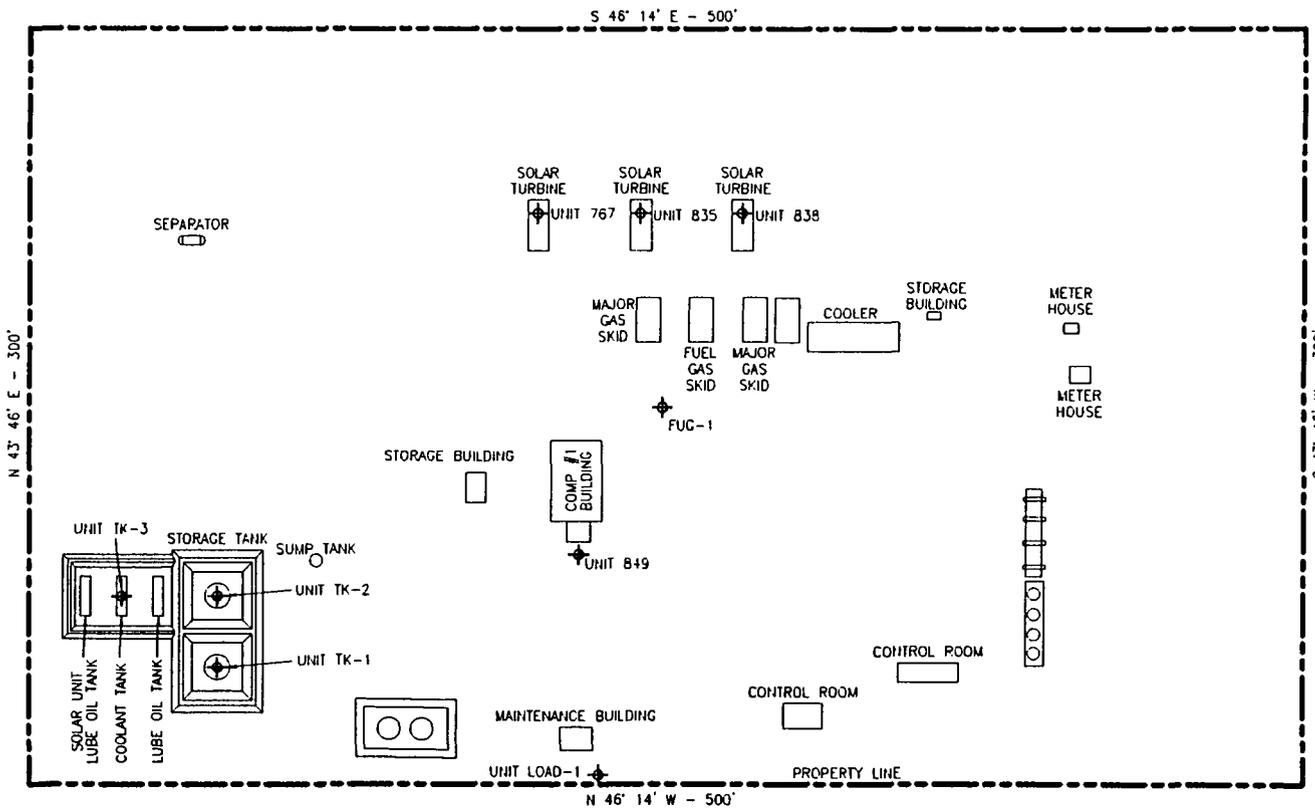
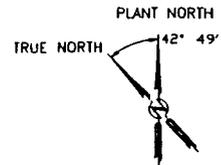
Attachment 1b

**TITLE:** TRANSWESTERN PIPELINE COMPANY  
 RED BLUFF #1 COMPRESSOR STATION  
 CHAVES COUNTY, NEW MEXICO  
 PROCESS FLOW DIAGRAM

**TEAM ENVIRONMENTAL SERVICES, INC.**  
 SOUTHWESTERN CONSULTING & ENGINEERING

**DATE:**  
 5/31/95

**DWG. NUMBER:**  
 9505-35



REFERENCE UTM:  
 (center of property)  
 558889 m E  
 3722953 m N  
 ZONE 13

LAT. 33° 38' 50"  
 LONG. 104° 21' 54"

0 75  
 SCALE IN FEET

**TEAM** ENVIRONMENTAL SERVICES, INC.  
 SOUTHWESTERN CONSULTING & ENGINEERING

TRANSWESTERN PIPELINE COMPANY  
 RED BLUFF #1 COMPRESSOR STATION  
 CHAVES COUNTY, NEW MEXICO  
 PLOT PLAN

DATE: 6/13/95	DWG. NUMBER: 9505-7	DRAWN BY: RICHARD
------------------	------------------------	----------------------

A Attached 1 C

Attachment #2

Plan for Reporting and Clean-Up of Spills or Releases

1. S.O.P. for spill is to immediately call a vacuum truck.
2. Notify OCD pursuant to OCD Rule 116 (Appendix B) and any other federal, state or local agency to be notified.
3. Contain spill as necessary
4. Apply absorbents and/or bio-remediation materials.
5. Send follow-up reports to the agencies as required.

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576

September 7, 1999

Wayne Price  
N.M.O.C.D.  
2040 S. Pacheco Street  
Santa Fe, NM 87505

Re: Renewal of Compressor Discharge Plan for GW-050

Dear Mr. Price,

Enclosed is the application for renewal of the referenced discharge plan and a check for \$50.00. Please let me know if you need additional information.

Sincerely yours,



Paul Ragsdale  
Vice President

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

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

Revised 12/1/95

Submit Original  
Plus 1 Copies  
to Santa Fe  
1 Copy to appropriate  
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES.  
GAS PLANTS, REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS  
(Refer to the OCD Guidelines for assistance in completing the application)

New

Renewal

Modification

1. Type: Natural Gas Compressor Station
2. Operator: Agave Energy Company  
Address: 105 S. Fourth St., Artesia, NM 88210  
Contact Person: Paul Ragsdale Phone: 505 748-4520
3. Location: NW /4 SE /4 Section 2 Township 8S Range 25E  
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.
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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.
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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: Paul Ragsdale Title: Vice President

Signature:  Date: 9-1-99

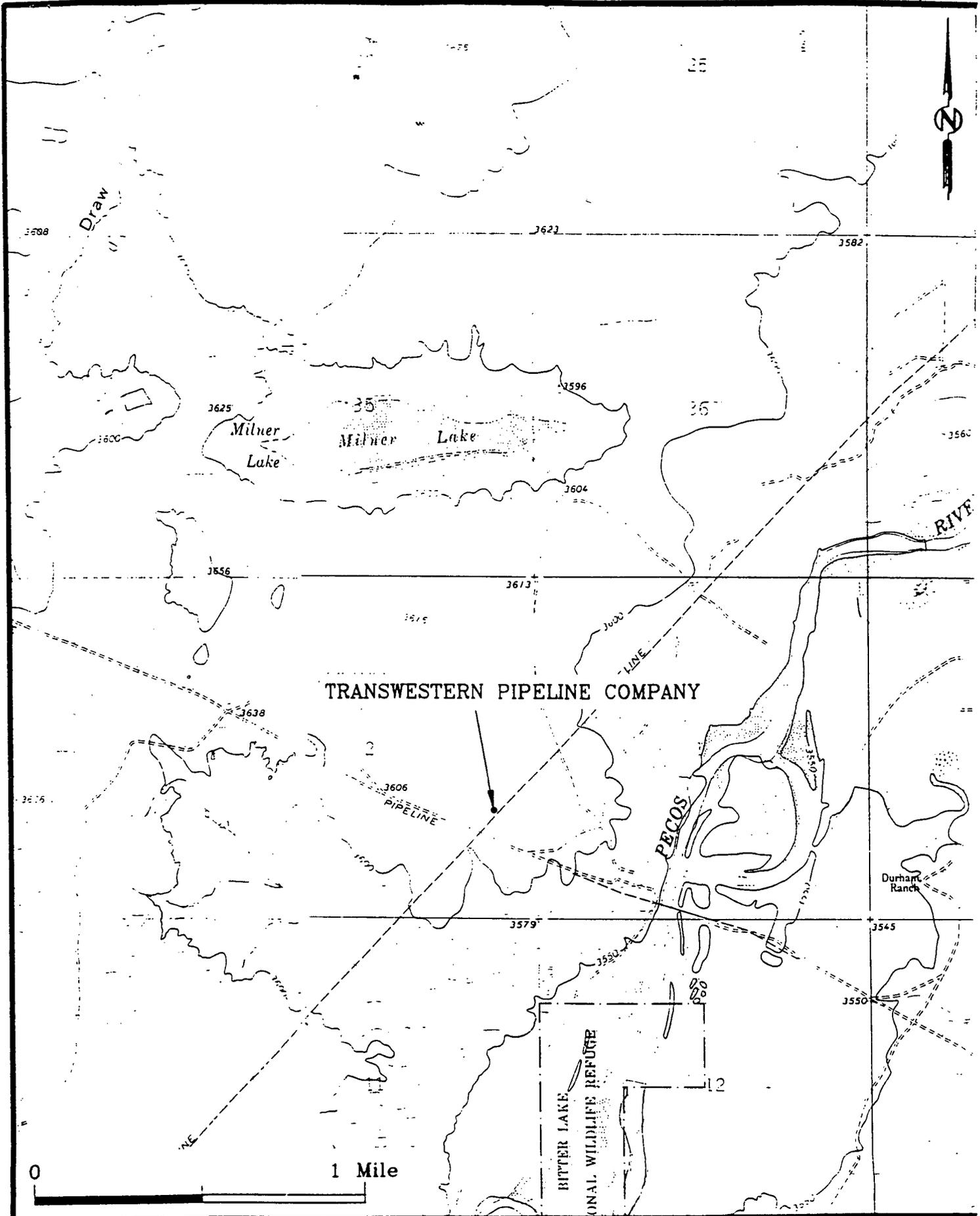
DISCHARGE PLAN RENEWAL GW -50 - 5

Agave Energy Company

Red Bluff #1 Compressor Station

1. Type:  
Natural Gas Compressor Station
  
2. Operator: Agave Energy Company  
Address: 105 S. Fourth  
Artesia, NM 88210  
Contact: Paul Ragsdale Phone: 505-748-4520
  
3. Location: NW/4 SE/4 Sec 2-T8S-R22E
  
4. Landowner: U.S. Bureau of Land Management  
Phone 505-627-0272  
Address 2909 W. Second  
Roswell, NM 88201
  
5. Description of facility: The station is a natural gas compressor station gathering field gas compressed from the other Red Bluff compressor stations and recompressing the gas into Transwestern Pipeline. There are three Solar Turbines and one Waukesha reciprocating compressor at the station. It also has one inlet scrubber filter, a pig receiver, pipeline liquid tanks, gas treating vessels to remove small amounts of contaminants from the gas and multiple meters.  
See Attachment #1 for site facility diagram.
  
6. Description of materials stored or used at the facility:  
Engine Oil, Hydraulic oil, Degreaser, Soap, Gas treating catalyst consisting of copper and zinc oxides on an alumina core, Antifreeze and multiple types of new filters. There are also produced pipeline liquids, oily waste water, used lube oils and used antifreeze.
  
7. Description of present effluent and waste solids including average quality and daily volumes.  
Inlet separators: 5 to 50 BPD of produced water and condensate.  
Engine Cooling Water: 100 to 200 gallons per year  
Waste Engine Oils: 1000 gallons per year  
Oily Waste Water: 1000 gallons per year  
Engine filters: 100 per year

8. Describe current liquid and solid waste collection/treatment/disposal procedures. All liquid waste goes to above ground storage tanks and is removed by certified waste haulers and either disposed in Class II disposals or recycled. Solid wastes are collected and stored in above ground dumpsters and hauled to approved facilities. All waste facilities are enclosed in concrete containments.
9. NO proposed modifications are planned at this time to the current waste collection/treatment/disposal procedures.
10. Routine inspection and maintenance plan to ensure permit compliance: This is a station that has an operator/mechanic assigned to it and is visited on a daily basis. The operator visually inspects the facilities as a matter of routine maintenance. Semi-annual leak tests are performed on tanks.
11. Attach a contingency plan for reporting and cleanup of spills or releases. See Attachment #2 for Contingency Plan
12. Geologic/Hydrologic Information:  
The facility is located in the hills northeast of Roswell in a red gypsum/clay soil. The station is located within one mile of the Pecos River and is subject to drainage to the east. The area is primarily rangeland consisting of prairie grass and mesquite. Non-potable surface waters are present at depths less than 100 feet and potable Artesian water is present at depths of 300 feet or more.
13. Facility Closure Plan:  
There are no plans at this time to close this facility.



TITLE: TRANSWESTERN PIPELINE COMPANY  
 RED BLUFF #1 COMPRESSOR STATION  
 SITE VICINITY MAP

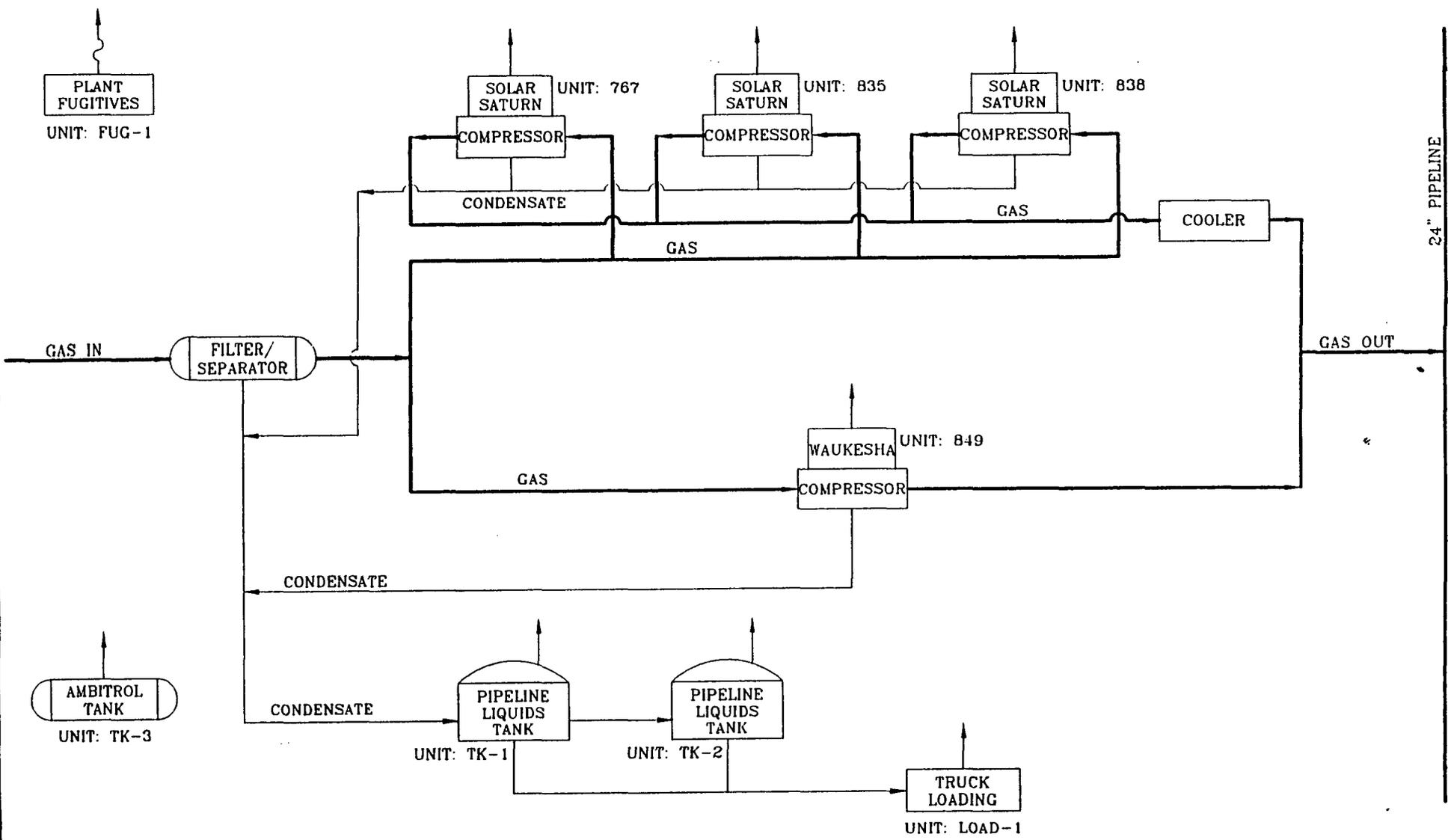


TEAM ENVIRONMENTAL SERVICES, INC.  
 SOUTHWESTERN CONSULTING & ENGINEERING

EXTRACTED FROM: EIGHT MILE DRAW, NEW MEXICO USGS 7.5 MINUTE QUADRANGLE

DATE: 5/16/95

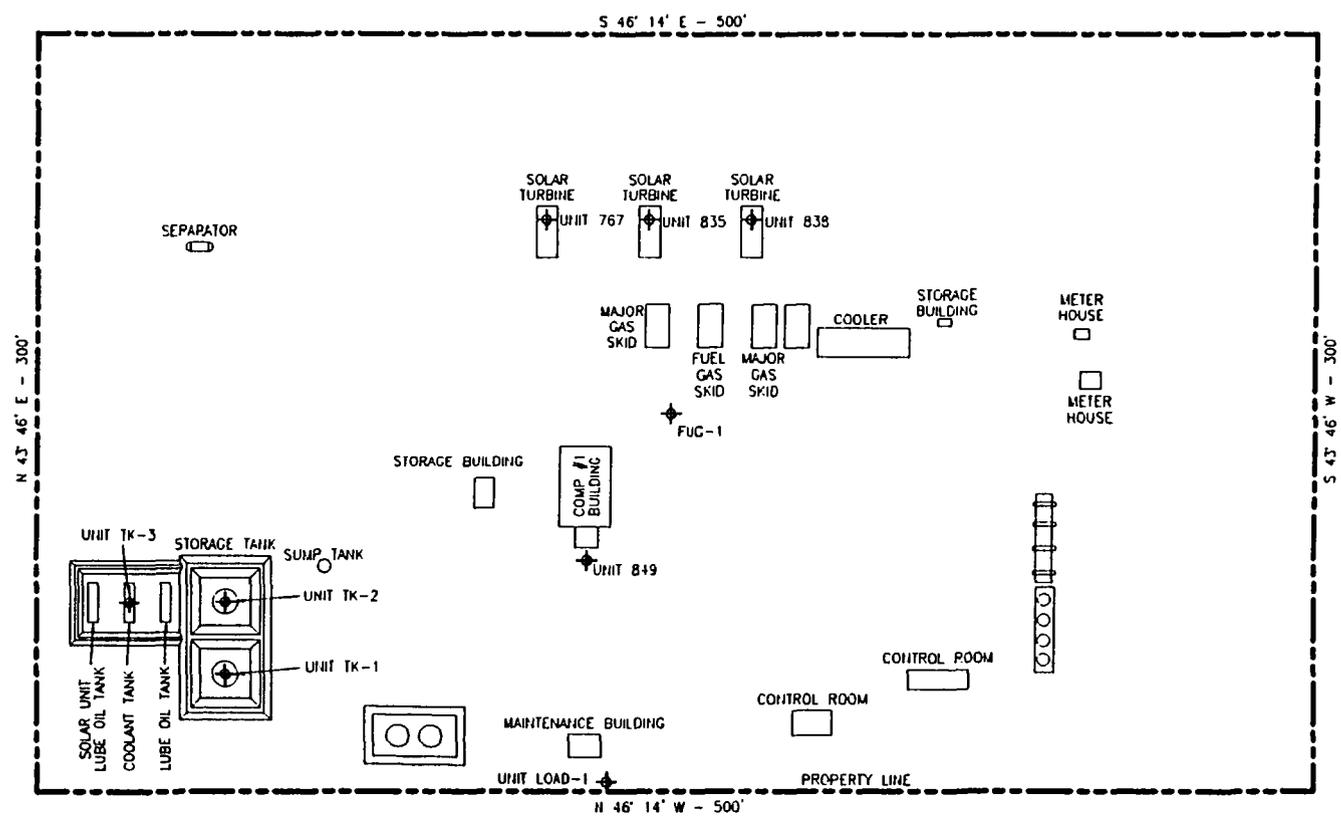
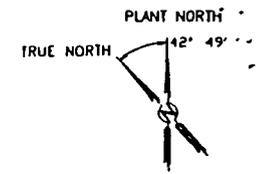
DWG. NUMBER: 9505-12



Attachment 1b

**TITLE:** TRANSWESTERN PIPELINE COMPANY  
 RED BLUFF #1 COMPRESSOR STATION  
 CHAVES COUNTY, NEW MEXICO  
 PROCESS FLOW DIAGRAM

 <b>TEAM ENVIRONMENTAL SERVICES, INC.</b> SOUTHWESTERN CONSULTING & ENGINEERING	
DATE:	DWG. NUMBER:
5/31/95	9505-35



REFERENCE UTM:  
 (center of property)  
 558889 m E  
 3722953 m N  
 ZONE 13  
 LAT. 33° 38' 50"  
 LONG. 104° 21' 54"



	TEAM ENVIRONMENTAL SERVICES, INC.	
	SOUTHWESTERN CONSULTING & ENGINEERING	
TRANSWESTERN PIPELINE COMPANY RED BLUFF #1 COMPRESSOR STATION CHAVES COUNTY, NEW MEXICO PLOT PLAN		
DATE: 6/13/95	DWG. NUMBER: 9505-7	DRAWN BY: RICHARD

Attachment 1c

Attachment #2

Plan for Reporting and Clean-Up of Spills or Releases

1. S.O.P. for spill is to immediately call a vacuum truck.
2. Notify OCD pursuant to OCD Rule 116 (Appendix B) and any other federal, state or local agency to be notified.
3. Contain spill as necessary
4. Apply absorbents and/or bio-remediation materials.
5. Send follow-up reports to the agencies as required.

# AGAVE ENERGY COMPANY

105 South Fourth Street

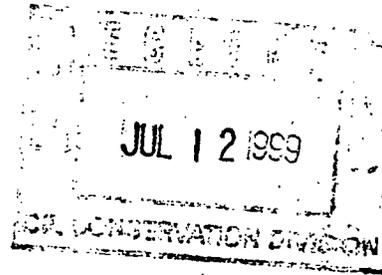
Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576

July 9, 1999

Wayne Price  
N.M.O.C.D.  
2040 S. Pacheco Street  
Santa Fe, NM 87505



Re: Compressor Discharge Plans for GW-050, 050-1,2,3,4,5,6.

Dear Mr. Price,

I have received your letter of June 12th that states that Agave's existing plans will be extended until new plans are approved and the new plans need to be submitted by July 13th. Agave has made extensive changes to these compressor stations and we have been unable to adequately compile all of the supporting documentation necessary to submit these plans.

Therefore, we are requesting a sixty day extension until September 13, 1999 to submit these plans. This extension will enable us to do a more complete description of all of the changes that have been made.

We appreciate your cooperation in this matter and apologize for the inconvenience. If you need further assistance please call me at 505 748-4520.

Sincerely,

Paul Ragsdale  
Vice President

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576

RECEIVED

SEP 15 1999

September 7, 1999

Wayne Price  
N.M.O.C.D.  
2040 S. Pacheco Street  
Santa Fe, NM 87505

Re: Renewal of Compressor Discharge Plan for GW-050

Dear Mr. Price,

Agave Energy Company has submitted applications for renewal of the OCD Discharge Plans for the Red Bluff #1,2,3 and Bitter Lakes Compressor Stations. These are stations that were purchased by Agave Energy from Transwestern Pipeline in 1995.

Since the purchase, Agave has conducted a detailed engineering program to optimize the use of the compression. The net result is that Agave has shut several stations down and are in the process of moving the equipment to other locations. The stations that have been shut down are:

Red Bluff #4	Sec 27-T6S-R25E
Red Bluff #5	Sec 11-T6S-R25E
Red Bluff #6	Sec 24-T5S-R24E
Isler #1	Sec 15-T7S-R26E
Round Top	Sec 9-T7S-R26E

Therefore, we have not submitted a renewal application for these stations and will submit a closure plan once the equipment has been moved. Please let me know if there is additional information you need for these stations.

Sincerely yours,



Paul Ragsdale  
Vice President



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

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

June 12, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z 357 870 136**

Mr. Paul Ragsdale  
Agava Energy Company  
105 South Fourth Street  
Artesia, New Mexico 88210

Re: Compressor Discharge Plans for GW-050, 050-1,2,3,4,5,6.

Dear Mr. Ragsdale:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Agava Energy Company's (AEC) letter dated February 9, 1999 requesting discharge plans be extended until new plans are approved. Pursuant to New Mexico Water Quality (WQCC) Regulation 3106.F AEC's request will be honored if AEC submits discharge plan applications with all supporting documentation and the \$50.00 filing fees for each plan by July 13, 1999.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

A handwritten signature in cursive script, appearing to read "Wayne Price-Pet".

Wayne Price-Pet. Engr. Spec.  
Environmental Bureau

cc: OCD Artesia District office

# AGAVE ENERGY COMPANY

105 South Fourth Street

Artesia, New Mexico 88210

(505) 748-4555

Fax (505) 748-4576

February 9, 1999

Wayne Price  
N.M.O.C.D.  
2040 S. Pacheco  
Santa Fe, NM 87505

RECEIVED  
FEB 11 1999  
WATER CONSERVATION DIVISION

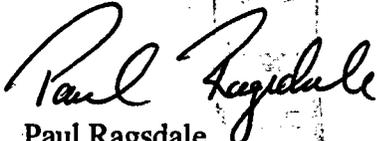
Re: Compressor Discharge Plans

Dear Sir:

Agave Energy Company's Compressor Discharge Plans, GW-050, GW-050-1, GW-050-2, GW-050-3, GW-050-4, GW-050-5, GW-050-6 expire June 13, 1999. Agave requests that these discharge plans be extended until new plans are approved.

We appreciate the O.C.D.'s cooperation in this matter. Please call me at 505-748-4520 for further information.

Sincerely yours,

  
Paul Ragsdale  
Vice President



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR  
  
ANITA LOCKWOOD  
CABINET SECRETARY

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

August 8, 1994

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-176-012-242**

Mr. Larry Campbell  
Transwestern Pipeline Company  
P.O. Box 1717  
Roswell, New Mexico 88202-1717

Re: Disposal Request  
Red Bluff No. 1 Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your request, dated July 27, 1994, for approval to remove and dispose of 52 drums of spent arsenic catalyst generated at the above referenced facility. Based upon the information provided, your disposal request is approved.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface or groundwater or the environment actionable under other laws and/or regulations.

If you have any questions, please do not hesitate to call me at (505) 827-5824.

Sincerely,

Chris Eustice  
Geologist

xc: OCD - Artesia Office



Phone (505) 623-2761  
FAX (505) 625-8060

**Transwestern Pipeline Company**  
TECHNICAL OPERATIONS  
P. O. Box 1717 • Roswell, New Mexico 88202-1717

OIL CONSERVATION DIVISION  
RECEIVED  
94 AUG 1 AM 8 50

July 27, 1994

Mr. Roger Anderson  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Transwestern Pipeline Company requests approval from your agency to remove oil and gas wastes generated from the processing of natural gas at the Red Bluff No. 1 Compressor Station. Specifically, this request addresses removal and disposal of approximately 52-55 gallon drums of spent arsenic catalyst generated from the above referenced facility. The date of this activity was July 6, 1994. Pending contractor notification, the spent catalyst will be properly disposed of in accordance with all state and federal regulations.

If you should require any additional information, contact our Roswell Technical Operations at 625-8022.

Sincerely,

Larry Campbell  
Division Environmental Specialist

xc: Rich Jolly  
Rusty Nasta  
file



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

April 2, 1992

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

**CERTIFIED MAIL**  
**RETURN RECEIPT NO P-670-683-497**

Mr. Larry Campbell  
Transwestern Pipeline Company  
P. O. Box 1717  
Roswell, New Mexico 88202-1717

Re: Landfarm Application  
Red Bluff No 3 Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your application, dated March 31, 1992, to construct and operate a contaminated soils landfarm at the Red Bluff No 3 Compressor Station located in Section 10, Township 7 South, Range 25 East, NMPM, Chaves County, New Mexico. Based on the information provided, your landfarm application is approved.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other laws and/or regulations.

If you have any questions, please do not hesitate to call me at (505) 827-5884.

Sincerely,

Roger C. Anderson  
Environmental Engineer

xc: Mike Williams - OCD Artesia Office  
Chris Eustice - OCD Hobbs Office



Phone (505) 623-2761  
OIL CONSERVATION DIVISION FAX (505) 625-8060  
RECEIVED

**Transwestern Pipeline Company**

TECHNICAL OPERATIONS  
P. O. Box 1717 • Roswell, New Mexico 88202-1717

APR 2 AM 8 44

March 31, 1992

Mr. Roger Anderson  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

On behalf of Enron Corporation, operator for Transwestern Pipeline Company, this letter is to serve as a permit request to construct and operate a landfarm located at the Red Bluff No. 3, a remote Compressor Station. This facility occurs in the exemption area for oil and gas exploration and production and is located at the following coordinates:

Township 7 South, Range 25 East, Section 10.  
Chaves County, New Mexico

This request is addressed to specifically landfarm non-hazardous hydrocarbon contaminated soil generated at field operations owned by Transwestern Pipeline Company in The Roswell District.

This landfarm is to be constructed within the facility proper. A six-foot chain link fence presently surrounds the property. The anticipated dimensions of this remediation area is to be 370'x 80' with the amount of soil to be placed into this landfarm cell to be approximately 175 yards. A review of the groundwater conditions in this general area from information supplied by the State Engineers Office in Roswell, New Mexico, states that the depth to the water table is approximately 275'. As a barrier to vertical migration of liquids, the area is underlain by several feet of consolidated caliche.

As per guidelines set forth by the Oil Conservation Division (OCD), the following site requirements will be adhered:

- 1) A berm of approximately 24 inches will be constructed around the entire landfill area to prevent surface runoff and potential contamination to adjacent areas.

- 2) Soils to be remediated will be initially layed down and limited to 12 inches in depth. Subsequent lifts will only be applied after analyses have been performed of the surface in-place material and submitted to the OCD for approval.
- 3) Disking will be performed bi-monthly to expedite the remediation processes.
- 4) In the event remediation processes are hindered, fertilizer applications may be applied.
- 5) Free standing liquids on the landfarm surface will be removed and transported for proper disposal.

It is the intent of this permit to operate this landfill to eliminate all surface runoff and to reduce fugitive dust emissions to the greatest extent possible.

Under this permit, we are additionally requesting that options be discussed to replace or dispose of the soil once contamination levels are below target values assigned by the OCD. This will allow for long term use of the landfill site and decrease the potential for environmental liability.

We are presently in the process of performing remediation and soil cleanup operations and would appreciate your attention in this matter

If you may require any additional information in this matter, please contact me at 625-8022.

Sincerely,



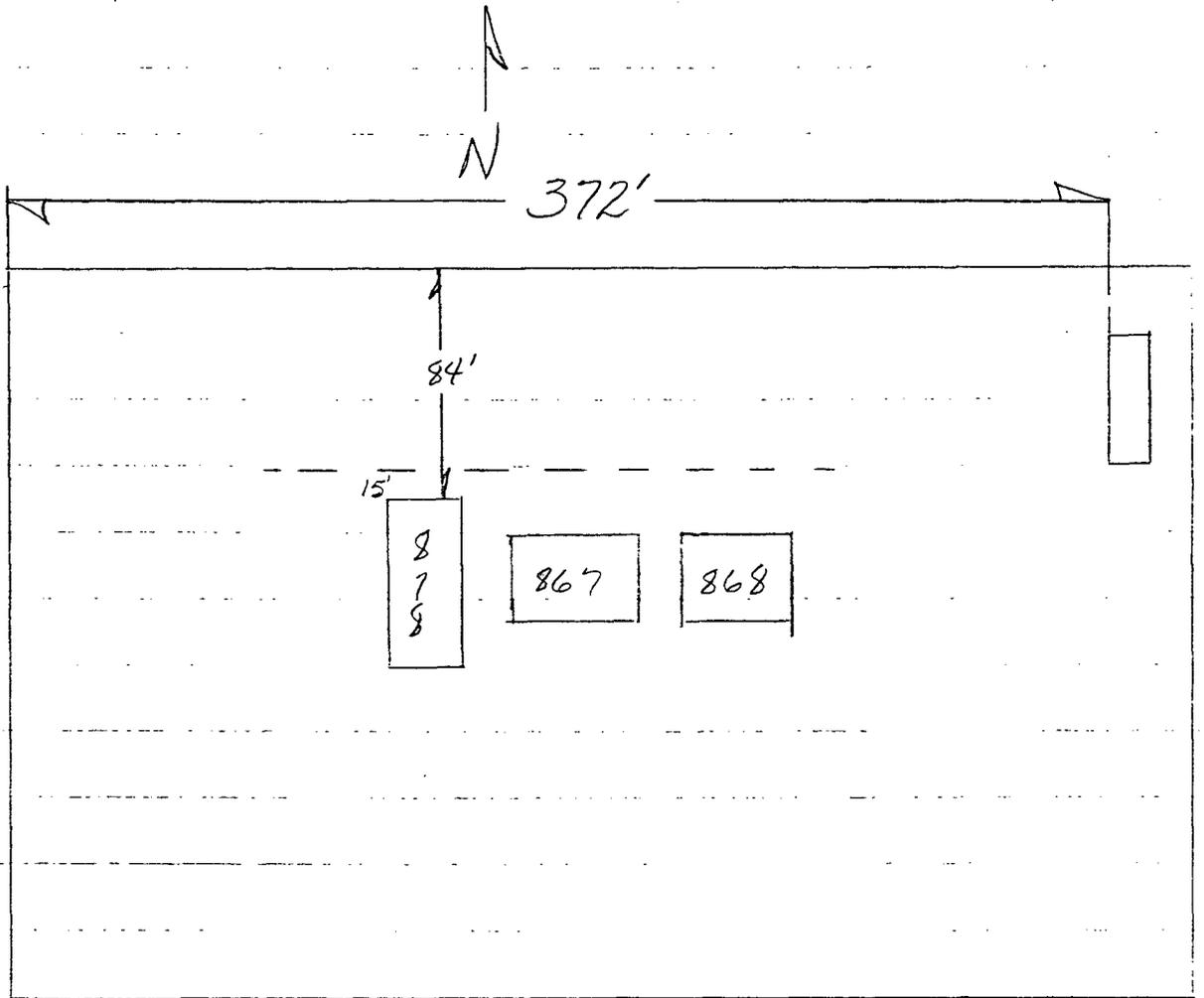
Larry Campbell  
Compliance Environmentalist

xc: Bill Nolan  
Doc Alpers  
Rusty Nasta

SECTION 10 TOWNSHIP 7-S  
RANGE 25-E, CHAYES COUNTY

WATER TABLE DEPTH - 275'

3-11-92 - STATE ENGINEERS OFFICE, ROSWELL, N. MEX. DON ORBURINA

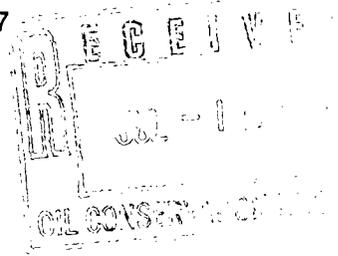


80' x 370' Grand Farm



Phone (505) 623-2761  
FAX (505) 625-8060

**Transwestern Pipeline Company**  
TECHNICAL OPERATIONS  
P. O. Box 1717 • Roswell, New Mexico 88202-1717



June 23, 1992

Mr. Roger Anderson  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Transwestern Pipeline Company request approval from your agency to remove oil and gas wastes generated from the processing of natural gas at the Red Bluff No. 1 Compressor Station.

Specifically, this request addresses removal and disposal of approximately 80 drums of spent arsenic catalyst generated from towers one and three at the above referenced facility. The date of this proposed activity is June 27, 1992. Pending contractor notification, the spent catalyst will be properly disposed of in accordance with all state and federal regulations.

If you should require any additional information, contact me at 625-8022.

Sincerely,

A handwritten signature in cursive script that reads "Larry Campbell". The signature is written in black ink and is positioned above the typed name.

Larry Campbell  
Compliance Environmentalist

xc: Bill Nolan  
Rich Jolly  
Rusty Nasta  
Doc Alpers



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

July 27, 1992

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

**CERTIFIED MAIL**  
**RETURN RECEIPT NO P-667-242-123**

Mr. Larry Campbell  
Transwestern Pipeline Company  
P. O. Box 1717  
Roswell, New Mexico 88202-1717

Re: Disposal Request  
Red Bluff No 1 Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your request, dated June 23, 1992, to remove and dispose of approximately 80 drums of spent arsenic catalyst generated at the above referenced facility. Based on the information provided, your disposal request is approved.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other laws and/or regulations.

If you have any questions, please do not hesitate to call me at (505) 827-5812.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Engineer

xc: Mike Williams - OCD Artesia Office  
Chris Eustice - OCD Hobbs Office



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

August 9, 1993

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-111-334-254**

Mr. Larry Campbell  
Transwestern Pipeline Company  
P.O. Box 1717  
Roswell, New Mexico 88202-1717

Re: Disposal Request  
Red Bluff No.1 Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your request, dated July 30, 1993, for approval to remove and dispose of 103 drums of spent arsenic catalyst generated at the above referenced facility. Based upon the information provided, your disposal request is approved.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface or groundwater or the environment actionable under other laws and/or regulations.

If you have any questions, please do not hesitate to call me at (505) 827-5812.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Bureau Chief

xc: OCD - Artesia Office



OIL CONSERVATION DIVISION  
RECEIVED  
Phone (505) 623-2761  
FAX (505) 625-8060

Transwestern Pipeline Company  
TECHNICAL OPERATIONS

P. O. Box 1717 • Roswell, New Mexico 88202-1717

July 30, 1993

Mr. Roger Anderson  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Transwestern Pipeline Company requests approval from your agency to remove oil and gas wastes generated from the processing of natural gas at the Red Bluff No. 1 Compressor Station.

Specifically, this request addresses removal and disposal of approximately 103 drums of spent arsenic catalyst generated from the above referenced facility. The date of this proposed activity is July 22, 1993. Pending contractor notification, the spent catalyst will be properly disposed of in accordance with all state and federal regulations.

If you should require any additional information, contact me at 625-8022.

Sincerely,

Larry Campbell  
Division Environmental Specialist

xc: Rich Jolly  
Rusty Nasta  
Greg McIlwain  
file



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

ANITA LOCKWOOD  
CABINET SECRETARY

November 22, 1993

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-111-334-179**

Mr. Larry Campbell  
Transwestern Pipeline Company  
P.O. Box 1717  
Roswell, New Mexico 88202-1717

Re: Disposal Request  
Red Bluff No.1 Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell:

The Oil Conservation Division (OCD) has received your request, dated November 18, 1993, for approval to remove and dispose of 168 drums of spent arsenic catalyst generated at the above referenced facility. Based upon the information provided, your disposal request is approved.

Please be advised that this approval does not relieve you of liability should your operation result in actual pollution of surface or groundwater or the environment actionable under other laws and/or regulations.

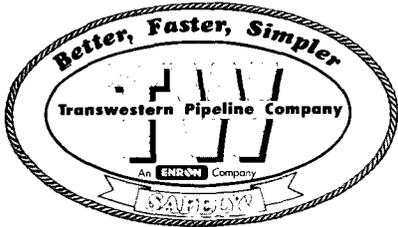
If you have any questions, please do not hesitate to call me at (505) 827-5824.

Sincerely,

A handwritten signature in cursive script that reads "Chris Eustice".

Chris Eustice  
Geologist

xc: OCD - Artesia Office



OIL CONSERVATION DIVISION  
RECEIVED  
Phone (505) 623-2761  
FAX (505) 625-8060

**Transwestern Pipeline Company**  
TECHNICAL OPERATIONS  
P. O. Box 1717 • Roswell, New Mexico 88202-1717

AM 9 36

November 18, 1993

Mr. Roger Anderson  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

Transwestern Pipeline Company requests approval from your agency to remove oil and gas wastes generated from the processing of natural gas at the Red Bluff No. 1 Compressor Station.

Specifically, this request addresses removal and disposal of approximately 168 drums of spent arsenic catalyst generated from the above referenced facility. The date of this proposed activity is November 9-11, 1993. Pending contractor notification, the spent catalyst will be properly disposed of in accordance with all state and federal regulations.

If you should require any additional information, contact me at 625-8022.

Sincerely,

Larry Campbell  
Division Environmental Specialist

xc: Rich Jolly  
Rusty Nasta  
file

RECEIVED

APR 21 1989

OIL CONSERVATION DIV.  
SANTA FE

Red Bluff No. 1

1. There are three Solar turbines and one Waukesha reciprocating engine at this location.

The station has one inlet scrubber filter and seven scrubbers on the gas stream. Also, there are three fuel filters and two pig receivers.

Parker Gas Companies, Inc. has one scrubber and one filter installed at this location. Produced water and condensate levels in these two vessels are controlled by automatic liquid level devices that discharge the liquids into the condensate storage tanks. Produced liquids from Transwestern's scrubber and filters are also discharged into these tanks through use of automatic liquid level devices and by manual valve operation. Liquid from the two pig receivers also goes to the station condensate tanks.

Washdown water, waste oil, and anti-freeze from Unit 849 goes to a sump and is then pumped into a storage tank.

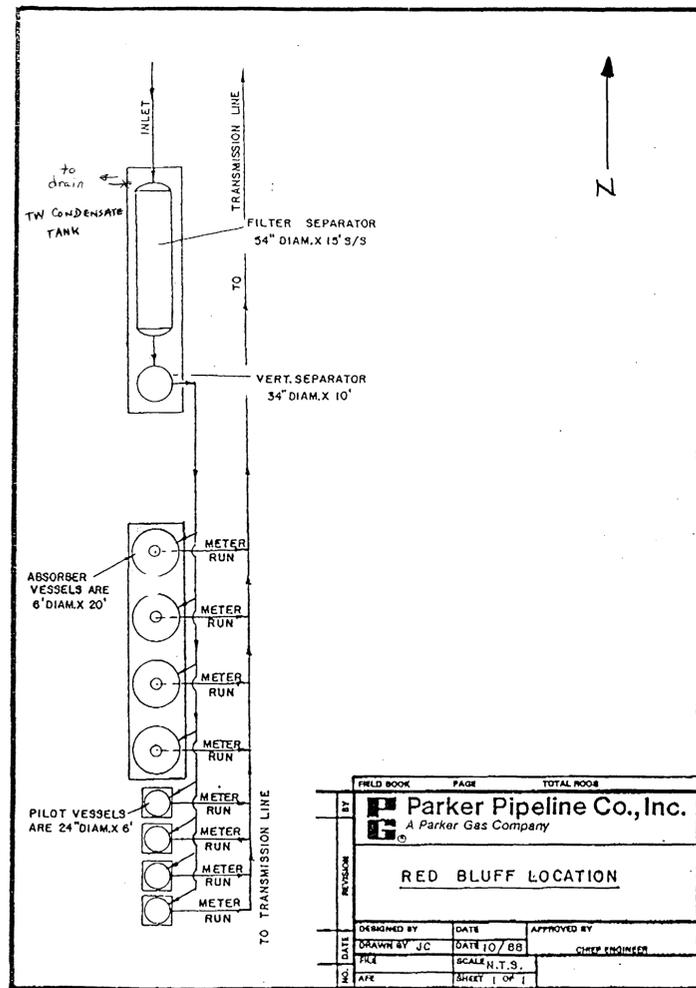
2. Storage tanks at this location are as follows:
  - 1 ea. - 250 bbl liquid storage tank
  - 1 ea. - 436 bbl liquid storage tank
  - 1 ea. - 1500 gal. oil storage tank (Pacemaker 1100 for Unit 849)
  - 1 ea. - 1500 gal. oil storage tank (Pacemaker T-32 for turbines)
  - 4 ea. - 6' x 20' arsenic removal vessels containing zinc oxide, copper oxide, and aluminum oxide plus carbon catalyst absorbent

There are no underground storage tanks at this location and no leak detection system is installed.

3. The following chemicals are used at this location:
  - a. Citgo Pacemaker 100
  - b. Citgo T-32
  - c. Exxon hydraulic oil
  - d. Stoddard solvent
  - e. Alpha Blue Tiger soap
  - f. Crain decreases - Oil Off
  - g. Norkool SL2400 anti-freeze
  - h. Methanol
  - i. Karl Fisher reagent
  - j. Catalyst - zinc oxide, copper oxide, and aluminum oxide
4. All aboveground tanks are bermed.

Red Bluff No. 1 (continued)

5. All liquid waste goes to aboveground storage tanks and is removed by Enron Oil Trading and Transportation Company. The station is visited frequently and the tanks are given visual inspection. Should leakage occur, it would be contained inside the berms following which the contaminated soil would be removed for proper disposal.
6. Filter media, trash, and filter elements are disposed of in a public land fill. Sludge is collected and removed by a hot oil service company.
7. The drum storage has a pad but no containment structure. However, several measures are used to prevent spills. The dispensing valves are kept plugged when not in use. Employees are cautioned to use extra care when drawing out liquids. Should a spill occur, it will be cleaned up immediately and the contaminated soil placed in a container for proper disposal.



**RECEIVED**

APR 21 1989  
OIL CONSERVATION DIV.  
SANTA FE

<b>ENRON</b> Gas Pipeline Operating Company Houston, Texas		<b>ENRON</b> <b>GAS PIPELINE</b> <b>GROUP</b>	
TRANSWESTERN PIPELINE COMPANY RED BLUFF COMPRESSOR STATION NO. 1 ARSENIC REMOVAL PIPING MODS AREA PLAN - REMOVAL CHAVES COUNTY, NEW MEXICO		APPROVED BY	
		CHIEF ENGINEER	
		APPROVED BY	
		VICE PRESIDENT	
APPROVED BY		OPERATING COMPANY	
DRAWING NUMBER		"PARKER"	

FEB. 23, 1989

RECEIVED

APR 21 1989

OIL CONSERVATION DIV.  
SANTA FE

RED BLUFF #1

MATERIAL SAFETY DATA SHEET



Date: 04/10/87

CITGO PETROLEUM CORPORATION  
P. O. Box 3758  
Tulsa, Oklahoma 74102

**MATERIAL SAFETY DATA SHEET**

Trade Name: CITGO Pacemaker Gas Engine Oil 1100

Commodity Code: 32-210

Synonyms: Lubricating Oil

CAS Reg. No.: Mixture  
(Refer to Section I)

Citgo Index No. (CIN): 0209

Technical Contact: (918) 561-5165  
Medical Emergency: (318) 491-6215

---

**MATERIAL HAZARD EVALUATION**  
(Per OSHA's Hazard Communication  
Standard [29 CFR Part 1910.1200])  
"OHCS"

Health: Non-Hazardous. (OHCS)

Precautionary Statement: Avoid prolonged skin contact with used motor oils.

---

**I. GENERIC COMPOSITION/COMPONENTS**

<u>Components</u>	<u>CAS #</u>	<u>%</u>	<u>Hazard Data</u>
Refined Petroleum Oil(s)	64742-65-0 64741-88-4	85-95	Oral: LD50(rat): >15g/kg Eye: Practically Non-Irritating Skin: Practically Non-Irritating Ihln: LC50/4H(rat): >5,000mg/m <sup>3</sup> Comparable material non-carcinogenic in mouse skin assay.
Dispersant, anti-wear, anti-oxidant	Mixture	6-10	Minor eye and skin irritant
VI improver	Mixture	5-7	Eye irritant
Pour Depressant	Mixture	<1	Eye and skin irritant

---

ND = No Data  
NA = Not Applicable

IAS/32-210

II. PHYSICAL DATA

Physical Hazard Classification (Per 29 CFR Part 1910.1200)

<u>No</u> Combustible	<u>No</u> Oxidizer
<u>No</u> Compressed Gas	<u>No</u> Pyrophoric
<u>No</u> Explosive	<u>No</u> Reactivity
<u>No</u> Flammable	<u>Yes</u> Stable
<u>No</u> Organic Peroxide	<u>No</u> Unstable

Boiling Point, 760 mmHg,  
°C(°F): ND

Melting Point, °C(°F): NA

Vapor Pressure, mmHg (25°C): ND

Specific Gravity  
(H<sub>2</sub>O=1): 0.88

Solubility in H<sub>2</sub>O, % By Wt.: Negligible

Vapor Density (Air=1):>1

Evaporation Rate  
(Butyl Acetate=1): <1

% Volatiles By Vol.: Negligible

pH of Undiluted Product: ND

Appearance and Odor: Amber liquid, mild odor.

III. FIRE AND EXPLOSION DATA

Flash Point, COC, °C(°F): 245(473)

NFPA\*

Flash Point, PM, °C(°F): 210(410)

Health: 1

Fire Point, COC, °C(°F): 288(535)

Flammability: 1

Reactivity: 0

Flammable Limits in Air, % Vol.:

Lower: NA Upper: NA

Extinguishing Media: CO<sub>2</sub>, dry chemical, foam or water fog.

Special Fire Fighting Procedure: None.

Unusual Fire or Explosion Hazard: Water may cause frothing.

\*Citgo assignment based on our evaluation per NFPA guidelines.  
Hazard Rating least-0; slight-1; moderate-2; high-3; extreme-4.



IV. REACTIVITY DATA

Stability: Yes Stable      No Unstable

Conditions Contributing to Instability: None.

Incompatibility: Strong oxidants.

Hazardous Decomposition Products (thermal, unless otherwise specified):  
CO, CO<sub>2</sub>.

Conditions Contributing to Hazardous Polymerization: None.

---

V. SPILL OR LEAK PROCEDURES

Procedures if Material is spilled:

Remove sources of heat or ignition, provide adequate ventilation, contain leak. Absorb small spills with suitable material such as rags, straw or sand. Report spills as required to appropriate authorities.  
Chemtrec Emergency Number: 800-424-9300.

Waste Disposal:

It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.  
Check before disposing to be sure you are in compliance with all applicable laws and regulations.

Protective measures during repair and maintenance of contaminated equipment:

Refer to Section VII - Special Protection Information.  
Avoid prolonged contact with used oil, wash skin thoroughly with soap and water.

---

VI. HEALTH HAZARD DATA

Health Hazard Classification (Per 29 CFR Part 1910.1200)

<u>No</u> Carcinogen	<u>No</u> Corrosive
<u>No</u> Animal Carcinogen	<u>No</u> Irritant
<u>No</u> Suspect Carcinogen	<u>No</u> Sensitizer
<u>No</u> Mutagen	<u>No</u> Teratogen
<u>No</u> Highly Toxic	<u>No</u> Target Organ
<u>No</u> Toxic	

Product listed as carcinogen or potential carcinogen by:  
NTP No, IARC No, OSHA No, OTHER No.

Toxicity Summary: Slightly toxic, 1 pt. to 1 qt. is approximate lethal oral dose for 150 lb. human adult.

Major Route of Entry: Inhalation of accidentally produced fumes.

Acute Exposure Symptoms:

Inhalation: Low risk of inhalation. In enclosed spaces or when hot, vapors may reach concentrations sufficient to cause drowsiness, dizziness, headache, nausea, or lung irritation. Mists above TLV may cause chemical pneumonitis.

Dermal Contact: Mild irritant.

Eye Contact: Transient, mildly irritating.

Ingestion: Generally low toxicity. Very large amounts may cause generalized depression, headache, drowsiness, nausea, vomiting or diarrhea. Small doses may produce irritation and diarrhea.

Injection: Irritating.

Chronic Exposure: Prolonged and/or frequent contact may cause drying, cracking (dermatitis) or folliculitis.

Other Special

Effects: None expected.

First Aid and Emergency Procedures for Acute Effect

Inhalation: Remove to fresh air. Respiratory support if necessary. Seek medical aid.

Dermal: Wash with soap and water. Do not wear heavily contaminated clothing before laundering.

Eyes: Flush with large volumes of water. See physician if any complications arise.

Ingestion: Do not induce vomiting. Seek medical aid.

Injection: Subcutaneous injection is a medical emergency . . seek medical aid immediately.

Notes to Physician: On ingestion, an oil viscosity of about 530 SUS (100°F) presents no aspiration hazard. However, for large quantities, lavage may still be advised.



VII. SPECIAL PROTECTION INFORMATION

Ventilation Requirements: Ventilation is required when work place exposures exceed TLV.

Permitted Threshold	Agency:	OSHA	OSHA	ACGIH	ACGIH
Air Concentrations:	Year:	1972	1985	1985-86	1985-86
	Type:	TWA	PEL	TWA	STEL
Mineral Oil	ppm:	-	-	-	-
	mg/m <sup>3</sup> :	5	5	5	10

Specific Personal Protective Equipment:

Respiratory: Normally none required. If high vapor or mist concentrations expected - use respirator approved for organic vapors and mists.

Eyes: Safety goggles, or chemical splash goggles if splashing is anticipated.

Dermal: Oil impervious gloves if frequent or prolonged contact is expected.

Other Clothing or Equipment: Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder soiled work clothes before reuse.

VIII. TRANSPORTATION AND SPECIAL PRECAUTIONS

Hazardous Material Placard/Label:

Caution: Avoid prolonged skin contact with used motor oils. Continuous contact with used oil has caused skin cancer in laboratory animals. After draining oil, wash skin thoroughly with soap and water.

Storage: Store below 120°F. Do not apply high heat or flame to container. Keep separate from strong oxidizing agents.

DOT Information:

DOT/UN Shipping Name:	Petroleum Lubricating Oil.
DOT Hazard Class:	Non-Hazardous.
DOT/UN Hazard Identification Number:	None assigned.
DOT Shipping Container Restrictions:	None.
DOT Placard:	None

Caution: Empty containers may contain product residue which could include flammable or explosive vapors.

Consult appropriate Federal, State and Local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

All statements, information, and data provided in this material safety data sheet are believed to be accurate and reliable, but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied, on our part. Users should make their own investigations to determine the suitability of the information or products for their particular purpose. Nothing contained herein is intended as permission, inducement or recommendation to violate any laws or to practice any invention covered by existing patents.



68

Date: 02/20/87

CITGO PETROLEUM CORPORATION  
P. O. Box 3758  
Tulsa, Oklahoma 74102

**MATERIAL SAFETY DATA SHEET**

Trade Name: CITGO Pacemaker 32

Commodity Code: 33-001

Synonyms: Lubricating Oil

CAS Reg. No.: Mixture. 0230

Citgo Index No. (CIN):

Technical Contact: (918) 561-5165

Medical Emergency: (318) 491-6215

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**MATERIAL HAZARD EVALUATION**  
(Per OSHA's Hazard Communication  
Standard [29 CFR Part 1910.1200])  
(OHCS)

Health: Non-Hazardous. (OHCS)

Precautionary Statement: None.

---

**I. GENERIC COMPOSITION/COMPONENTS**

<u>Components</u>	<u>CAS #</u>	<u>%</u>	<u>Hazard Data</u>
Refined Petroleum Oil(s)	64742-56-9 64741-89-5 64742-65-0 64741-88-4 64742-54-7	>99	Oral: LD50(rat): >5g/kg
Anti-wear, anti-oxidant anti-rust additive	Mixture	<1	Oral: LD50(rat): 5,900mg/kg Dermal:LD50(rabbit): 5,010mg/kg
10% Polydimethylsiloxane foam	Mixture	<0.1	Non-Hazardous inhibitor in light mineral oil

ND = No Data

NA = Not Applicable

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LAS/33-001

IV. REACTIVITY DATA

Stability: Yes Stable    No Unstable

Conditions Contributing to Instability: None.

Incompatibility: Strong oxidants.

Hazardous Decomposition Products (thermal, unless otherwise specified):  
CO, CO<sub>2</sub>.

Conditions Contributing to Hazardous Polymerization: None.

---

V. SPILL OR LEAK PROCEDURES

Procedures if Material is spilled:

Remove sources of heat or ignition, provide adequate ventilation, contain leak. Absorb small spills with suitable material such as rags, straw or sand. Report spills as required to appropriate authorities.

Chemtrec Emergency Number: 800-424-9300.

Waste Disposal:

It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.  
Check before disposing to be sure you are in compliance with all applicable laws and regulations.

Protective measures during repair and maintenance of contaminated equipment:

Refer to Section VII - Special Protection Information.  
Avoid prolonged contact with used oil, wash skin thoroughly with soap and water.

---

ND = No Data

NA = Not Applicable

Ⓢ SUBSIDIARY OF THE SOUTHLAND CORPORATION

LAS/33-001



VII. SPECIAL PROTECTION INFORMATION

Ventilation Requirements: Ventilation is required when work place exposures exceed TLV. Very high mist concentrations can result in a fire and explosion hazard.

Permitted Threshold:	Agency:	OSHA	OSHA	ACGIH	ACGIH
Air Concentrations:	Year:	1972	1979	1985-86	1985-86
	Type:	TWA	PEL	TWA	STEL
Oil mist	ppm:	-	-	-	-
	mg/m <sup>3</sup> :	5	5	5	10

Specific Personal Protective Equipment:

- Respiratory: Normally none required. If high vapor or mist concentrations expected - use respirator approved for organic vapors and mists.
- Eyes: Safety goggles, or chemical splash goggles if splashing is anticipated.
- Dermal: Oil impervious gloves if frequent or prolonged contact is expected.
- Other Clothing or Equipment: Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder soiled work clothes before reuse.

VIII. TRANSPORTATION AND SPECIAL PRECAUTIONS

Hazardous Material Placard/Label: None.

Storage: Store below 120°F. Do not apply high heat or flame to container. Keep separate from strong oxidizing agents.

DOT Information:

- DOT/UN Shipping Name: Petroleum Lubricating Oil.
- DOT Hazard Class: Non-Hazardous.
- DOT/UN Hazard Identification Number: None assigned.
- DOT Shipping Container Restrictions: None.
- DOT Placard: None.

Caution: Empty containers may contain product residue which could include flammable or explosive vapors.

Consult appropriate Federal, State and Local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

All statements, information, and data provided in this material safety data sheet are believed to be accurate and reliable, but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied, on our part. Users should make their own investigations to determine the suitability of the information or products for their particular purpose. Nothing contained herein is intended as permission, inducement or recommendation to violate any laws or to practice any invention covered by existing patents.

ND = No Data

NA = Not Applicable

Ⓢ SUBSIDIARY OF THE SOUTHLAND CORPORATION

LAS/33-001



# MATERIAL SAFETY DATA SHEET



EFFECTIVE DATE: 7-29-85

REVISION NUMBER: 3

QUAKER STATE CORPORATION • P.O. Box 989, Oil City, Pennsylvania 16301.

## I. IDENTIFICATION

PRODUCT NAME: Quaker State Dexron Automatic Transmission Fluid

CHEMICAL NAME: N/A

FORMULA: Complex mixture of Petroleum Hydrocarbons plus Additives

SYNONYMS: Automatic Transmission Fluid

DEPARTMENT OF TRANSPORTATION:

HAZARD CLASSIFICATION: Not hazardous under DOT 172.101

SHIPPING NAME:

PRODUCT CODE: 06519 (bulk)  
06510 (55 gal. drum)  
06509 (16 gal. drum)  
06508 (5 gal. container)  
406548 (1 qt. pl. bottle)

CHEMICAL FAMILY: Petroleum Hydrocarbon

IDENTIFICATION #: None

CAS #: Mixture

CAS NAME: Mixture

## II. TYPICAL COMPOSITION

<u>MATERIAL</u>	<u>CAS #</u>	<u>% wt.</u>	<u>TLV (UNITS) (SOURCE)</u>	<u>HAZARD</u>
Mineral Oils@	Mixture	> 90	5 mg/M <sup>3</sup> TWA ACGIH	
Additive Package*	Mixture	< 10		

\*Additive manufacturers consider their additive package to be proprietary information.

@We consider our blend of mineral oils to be proprietary information.

## III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg: 680°F min.

PHYSICAL STATE: Liquid

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): .94

VAPOR PRESSURE AT 20°C.: N/D

VAPOR DENSITY (AIR = 1): N/D

SOLUBILITY IN WATER, % BY WT.: Nil

PER CENT VOLATILES BY VOLUME: Nil

EVAPORATION RATE ( Butyl Acetate = 1 ) N/D

APPEARANCE AND ODOR:

Red liquid with slight hydrocarbon odor.

This information is, to the best of Quaker State Corporation's knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

FOR FURTHER INFORMATION CALL: (814) 676-7676

## IX. SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Do not store near high heat, open flames or strong oxidizing materials.

Do not transfer this material to unmarked containers.

**PRECAUTIONS DURING USE:** Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material.

## NOTES



# TRIANGLE REFINERIES, Inc.

SPECIALTY PRODUCTS DIVISION

100 ANTON STREET • SUITE 100 • HAVENPORT, LOUISIANA 70058  
TELEPHONE 800/424-9300 225/681-2044

A SUBSIDIARY OF KERR MCGEE REFINING CORPORATION

## MATERIAL SAFETY DATA SHEET

MSDS NUMBER

W-1410

EMERGENCY TELEPHONE

COMPANY

405/270-2526

CHEMTREC

800/424-9300

### I. PRODUCT IDENTIFICATION

PRODUCT <b>KERMAC 100-W</b>		CHEMICAL NAME <b>Stoddard Solvent, White Spirits</b>	
CHEMICAL FAMILY <b>Petroleum Hydrocarbon Naphtha</b>		FORMULA <b>C<sub>8</sub>-C<sub>12</sub></b>	CAS NUMBER <b>64741-48-9</b>
NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATING CODES Least - 0    Slight - 1 Moderate - 2    High - 3    Extreme - 4		HEALTH CODE <b>0</b>	FIRE CODE <b>2</b>
		REACTIVITY CODE <b>0</b>	

### II. HAZARDOUS COMPONENTS

INGREDIENT	%	OSHA LIMIT	TLV
Stoddard Solvent	100	TWA-500 ppm	TWA-100 ppm STEL-200 ppm
Xylene	Up to 1%	TWA-100 ppm	TWA-100 ppm STEL-150 ppm

### III. PHYSICAL AND CHEMICAL PROPERTIES

PERCENT VOLATILE BY VOLUME (%) <b>100</b>	BOILING POINT <b>Approximately 140</b>	STATE AT ROOM TEMPERATURE <b>Clear Liquid</b>
ODOR AND THRESHOLD <b>Petroleum Naphtha/Approx 1 ppm</b>	MELTING POINT <b>Not Available</b>	FLASH POINT <b>4.8</b>



## VI. FIRST AID PROCEDURES

### INHALATION

Move exposed person to fresh air. If breathing has stopped, perform artificial respiration. Get medical attention as soon as possible.

### EYE CONTACT

Immediately flush eyes with water for a minimum of 15 minutes, occasionally lifting the lower and upper lids. Get medical attention as soon as possible.

### SKIN CONTACT

If clothing soaked, immediately remove clothing and wash skin with soap and water. Launder clothing before wearing. Get medical attention promptly.

### INGESTION

Do not induce vomiting. Get medical attention as soon as possible.

## VII. EMPLOYEE PROTECTION

(MANDATORY PROTECTION (UTILIZE NIOSH APPROVED RESPIRATORS. REFER TO MANUFACTURER'S PROTECTION FACTORS AND OSHA STANDARD 1910.134, AS A GUIDELINE))

Up to 500 ppm, half-mask organic vapor respirator.

Up to 1000 ppm, full-face organic vapor respirator or full-face supplied air respirator.

Greater than 1000 ppm, fire fighting, or unknown concentration, self-contained breathing apparatus with positive pressure.

PROTECTIVE CLOTHING	EYE	Chemical goggles, face shield.
	SKIN	Gloves: Nitrile, neoprene or other material resistant to naphtha solvent.

### VENTILATION

Maintain local or dilution ventilation to keep air concentration below 100 ppm. Loading, unloading, tank gauging, etc. remain upwind. Request assistance of safety and industrial hygiene personnel to determine air concentrations.

**VIII. TRANSPORTATION AND STORAGE INFORMATION**

<small>DOT Hazardous Material</small>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<small>DOT HAZARD CLASS</small>
<small>DOT SHIPPING NAME AND NUMBER</small>	Petroleum naphtha UN1255	Combustible liquid
<small>STORAGE</small>		

Do not store with strong oxidizers. Store as OSHA Class II combustible liquid.

**IX. ENVIRONMENTAL PROTECTION**

<b>SPILLS</b>	<p>Notify emergency response personnel. Evacuate area and remove ignition sources. Build dike to contain flow. Remove free liquid, do not flush to sewer or open water. Pick up with inert absorbent and place in closed container for disposal. If flash point of residue is under 140°F, utilize hazardous waste manifest and permitted hazardous waste disposal site. If flash is above 140°F, utilize permitted industrial waste disposal site.</p>		
<b>WASTE DISPOSAL</b>	<small>EPA Hazardous Waste</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<small>EPA WASTE CODE NUMBER</small> D 001	<small>WASTE CHARACTERISTIC OR HAZARD CODE</small> Ignitable
	<p>Utilize licensed waste disposal company. Consider recycling or incineration. Based on flash point, utilize permitted hazardous waste disposal site and manifest or permitted industrial waste disposal site as appropriate.</p>		

MANAGER'S SIGNATURE (PRODUCT SAFETY AND COMPLIANCE)    *C.L. Russell*    DATE PREPARED    5-15-85

Prepared by Kerr-McGee Refining Corporation for Triangle Refineries, Inc.

DISCLAIMER

The information and recommendations contained in this publication have been compiled from sources believed to be reliable and to represent the best current opinion on the subject at the time of publication. Since we cannot anticipate or control the many different conditions under which this information or our products may be used, we make no guarantee that the recommendations will be adequate for all individuals or situations. Each user of the product described herein should determine the suitability of the described product for his particular purpose and should comply with all federal and state rules and regulations concerning the described product.

From: Brewer Oil  
Bob Smith  
1-29-67

HOUSTON  
PHONE (713) 663-4900

H. W. DUDLEY  
VICE-PRESIDENT  
SPECIALTIES MARKETING



POST OFFICE BOX 3367  
HOUSTON, TEXAS  
77253

KERMAC Mineral Spirits (100W)

WYNNEWOOD REFINERY

TYPICAL SPECIFICATIONS

API GRAVITY @ 60 F.	49.0
SPECIFIC GRAVITY	.7839
FLASH POINT TCC	100 F. Min. ✓
COLOR	+30
DISTILLATION	
IBP	314
10%	323
50%	338
90%	368
DP	396
Aniline Point	138.7
Kauri Butanol	35.9
CHEMICAL COMPOSITION VOL %	
Paraffins	45.2
Olefins	Nil.
Aromatics	11.3
Naphthenes	43.5
CORROSION	1-A
SULFUR	NIL
DOCTOR	NEG.

RECEIVED JAN 15 1967

NOTICE JUDGEMENT BASED ON INDIRECT TEST DATA

# MATERIAL SAFETY DATA SHEET

DATE:

(ESSENTIALLY SIMILAR TO FORM OSHA-20)

I-PRODUCT INFORMATION			
MANUFACTURED FOR <b>ALPHA DYN CHEMICAL</b>		EMERGENCY PHONE NUMBER <b>(505) 392-7034</b>	
ADDRESS <b>P.O. BOX F #3 BRAND DRIVE HOBBS, N.M. 88240</b>		OTHER	
FORMULA PROPRIETARY	TRADE NAME <b>BLUE TIGER</b>		
II-HAZARDOUS INGREDIENTS			
	CAS #	%(wt)	TLV(ppm)
III-PHYSICAL DATA			
BOILING POINT (°F)	212	SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	1.035
VAPOR PRESSURE (psig)	18	% VOLATILE BY VOLUME	90.00
VAPOR DENSITY	N/A	EVAPORATION RATE ( WATER = 1)	1.00
SOLUBILITY IN WATER	100%	APPEARANCE AND ODOR	CLEAR, BLUE, MOD. VISCIOUS LIQUID
IV-FIRE & EXPLOSION HAZARD DATA			
FLAMMABILITY AS PER CPSC FLAME EXTENSION TEST NONE		FLAMMABLE LIMITS	Lower Upper
EXTINGUISHING MEDIA NONE			
SPECIAL FIRE FIGHTING PROCEDURES NONE			
UNUSUAL FIRE & EXPLOSION HAZARDS NONE			
V-REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATABILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

**VI-HEALTH HAZARD DATA**

OSHA PERMISSIBLE EXPOSURE LIMIT

EFFECTS OF OVER EXPOSURE

INHALATION NO ADVERSE EFFECTS FROM INHALATION.

SKIN CONTACT / ABSORPTION MAY BE IRRITATING TO SKIN. FLUSH OFF WITH CLEAR WATER.

INGESTION GASTROINTESTINAL IRRITATION IF INGESTED. DO NOT INDUCE VOMITING. DRINK LARGE VOLUMES OF CLEAR WATER AND SEEK PROMPT MEDICAL ATTENTION.

EYES FLUSH WITH CLEAR WATER, THEN APPLY AN ISOTONIC EYEWASH SOLUTION.

EMERGENCY AND FIRST AID PROCEDURES

EYES AND SKIN  
FLUSH OFF WITH CLEAR WATER

INHALATION  
N/A

INGESTION  
DRINK LARGE VOLUMES OF CLEAR WATER AND SEEK PROMPT MEDICAL ATTENTION

**VII-SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED FLUSH ALL EFFECTED SURFACES WITH CLEAR WATER, SQUEEGEE TO FLOOR DRAIN, THEN FLUSH TO STANDARD SEWER WITH LARGE VOLUMES OF CLEAR WATER. WIPE DRY OR ALLOW TO AIR DRY.

WASTE DISPOSAL METHOD DILUTE CONCENTRATION OF WASTE OR SPENT MATERIAL WITH CLEAR WATER, THEN FLUSH TO STANDARD SEWER. EMPTY CONTAINER MAY BE SENT TO A LANDFILL SITE OR OFFERED FOR RECONDITIONING.

**VIII-SPECIAL PROTECTION INFORMATION**

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

EYE GOGGLES  
SKIN RUBBER GLOVES  
OTHER

VENTILATION REQUIREMENTS ADEQUATE

**IX-SPECIAL PRECAUTIONS**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING KEEP OUT OF THE REACH OF CHILDREN. KEEP CONTAINER SEALED WHEN NOT IN USE. PROTECT PRODUCT FROM STORAGE IN AREA EXPOSED TO TEMPERATURE EXTREMES. STORE PRODUCT IN ORIGINAL SHIPPING CONTAINER WITH PRODUCT LABEL INTACT. READ PRODUCT LABEL CAREFULLY BEFORE USING PRODUCT.

OTHER PRECAUTIONS

## HAZARD COMMUNICATION GUIDE

Material Safety  
Data SheetN/D = No Data  
N/A = Not Applicable

Supercedes: 10/20/86		I. General Information Date Revised: 12/12/88	
Chemical Name & Synonyms N/A	Trade Name & Synonyms OIL-OFF	Formula N/A	DOI Hazard Classification Combustible material
Chemical Family Solvent=Surfactant Mixture	Proper DOI Shipping Name Compound, degreasing, liquid	Manufacturer's Phone Number 214/358-3301	Chemtrec Phone Number 1-800-424-9300
Manufacturer Crain Chemical Co., Inc.	Manufacturer's Address P.O. Box 540995, Dallas, TX 75354		
II. Ingredients			
Principal Hazardous Components	Percent	Threshold Limit Value (units)	
Petroleum Hydrocarbon Distillate CAS# 8008-20-6		OSHA	ACGIH
		500ppm	N/D
III. Physical Data			
Boiling Point (°F) 354-525	Specific Gravity (H <sub>2</sub> O = 1) 0.848	Percent Volatile By Volume (%) 75	Evaporation Rate (_____ = 1) Toluene < 0.1
Vapor Pressure (mm Hg.) 0.4 @ 68°F			pH N/A
Vapor Density (Air = 1) 6.6			
Solubility in Water Negligible			
Appearance & Odor Clear, dark blueish green liquid/characteristic odor			
IV. Fire & Explosion Hazard Data			
Flash Point (Test Method) 149°F	Auto Ignition Temperature 410°F	LEL	UEL
Flammable Limits Combustible		1.0	8.0
Extinguishing Media Foam, dry chemical, CO <sub>2</sub>			
Special Fire Fighting Procedures Water stream may spray fire. Use water spray only to keep fire exposed containers cool.			
Unusual Fire & Explosion Hazards Can form combustible mixtures with air when heated to approximately 171°F will not flash spontaneously.			

# HAZARD COMMUNICATION GUIDE

## V. Health Hazard Data

Threshold Limit Value 500ppm Carcinogen - NTP Program N/A	OSHA Threshold Limit Value 500ppm Carcinogen - IARC Program N/A	ACGIH Threshold Limit Value N/D
--	--	------------------------------------

Symptoms of Exposure  
Irritation, possible effects include headache, drowsiness, nausea, fatigue, pneumonitis, pulmonary edema, CNS depression, aspiration hazard.

Medical Conditions Aggravated By Exposure  
Many aggravate existing eye, skin or respiratory conditions.

### Primary Route(s) of Entry

Inhalation, skin  
Emergency First Aid  
Inhalation: Move to fresh air. Resuscitate if necessary. Eyes: Immediately flush with water for 15 minutes, occasionally lifting upper & lower eyelids. Skin: Wash with soap and water. Ingestion: Do NOT induce vomiting. Get medical attention as soon as possible.

## VI. Reactivity Data

Stability	<input checked="" type="checkbox"/> Stable	Conditions to Avoid Heat, sparks, open flames, welding arcs.
Incompatibility		Materials to Avoid Strong oxidizing agents
Hazardous Polymerization	<input checked="" type="checkbox"/> Will Not Occur	Conditions to Avoid Not known to polymerize
Hazardous Decomposition Products Incomplete combustion can yield CO and various hydrocarbons.		

## VII. Environmental Protection Procedures

Spill Response Notify emergency response personnel. Remove ignition sources and evacuate area. Remove free liquid. Do Not Flush to sewer or open water. Pick up with inert absorbent and place in closed container for disposal.

Waste Disposal Method  
Utilize licensed waste disposal company. Consider recycling or incineration. Utilize permitted industrial waste disposal site.

## VIII. Special Protection Information

Eye Protection Chemical goggles Respiratory Protection (Specific Type) face organic respirator or supplied air, or self contained breathing apparatus. NIOSH/MSHA approved Rubber aprons and boots.	Skin Protection Solvent-resistant gloves Ventilation Recommended Maintain adequate ventilation to keep vapor concentrations below TLV.
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## IX. Special Precautions

Hygienic Practices In Handling & Storage  
Maintain good industrial hygienic practices. Store as a Class III A combustible liquid.

Precautions For Repair & Maintenance Of Contaminated Equipment  
Remove all ignition sources.

Other Precautions  
Avoid breathing vapors over extended periods.  
Avoid contact with eyes, skin. Keep out of reach of children.

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 45-R1387

# MATERIAL SAFETY DATA SHEET

Required under USOL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME <b>Norchem</b>		EMERGENCY TELEPHONE NO. <b>(815) 942-7301</b>
ADDRESS (Number, Street, City, State and Zip Code) <b>8805 N. Tabler Road Morris, IL 60450-9988</b>		
CHEMICAL NAME AND SYNONYMS <b>Ethylene Glycol Antifreeze Coolant</b>		TRADE NAME AND SYNONYMS <b>NORKOOL® Concentrate Coolant</b>
CHEMICAL FAMILY <b>Dihydric Alcohol</b>	FORMULA <b>HO-CH<sub>2</sub>-CH<sub>2</sub>-OH</b>	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	0		BASE METAL	0	
CATALYST	0		ALLOYS	0	
VEHICLE	0		METALLIC COATINGS	0	
SOLVENTS	0		FILLER METAL PLUS COATING OR CORE FLUX	0	
ADDITIVES	0		OTHERS	0	
OTHERS	0				
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Ethylene Glycol				90	50 ppm (v)
Other Glycols				5	N.A.
Proprietary inorganic and organic corrosion inhibitors				3	N.A.
Water				2	N.A.

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	325	SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.134
VAPOR PRESSURE (mm Hg.)	N.A.	PERCENT VOLATILE BY VOLUME (%)	N.A.
VAPOR DENSITY (AIR=1)	N.A.	EVAPORATION RATE (_____ = 1)	N.A.
SOLUBILITY IN WATER	100%		
APPEARANCE AND ODOR	Blue liquid, no odor.		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Cup or other test)	250 F., Cleveland Open Cup	FLAMMABLE LIMITS	N.A.	Lel	Uel
EXTINGUISHING MEDIA	Water				
SPECIAL FIRE FIGHTING PROCEDURES	None				
UNUSUAL FIRE AND EXPLOSION HAZARDS	None				

THRESHOLD LIMIT VALUE  
 Unknown, LD50 (Rats) - 8 g/K. It is not a primary skin or eye irritant.  
 EFFECTS OF OVEREXPOSURE  
 Unknown

EMERGENCY AND FIRST AID PROCEDURES  
 Flush well with water

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE		
INCOMPATIBILITY (Materials to avoid) Strong caustic solutions.			
HAZARDOUS DECOMPOSITION PRODUCTS None known			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
 Soak up and/or flush with water to sanitary drain.

WASTE DISPOSAL METHOD  
 Biodegradation.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) None required.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General) Consistent with good manufacturing procedures.	OTHER
PROTECTIVE GLOVES Not required	EYE PROTECTION Safety Goggles.	
OTHER PROTECTIVE EQUIPMENT		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING  
 Keep from freezing. Freeze point is approximately 15°F.

OTHER PRECAUTIONS  
 None

# MATERIAL SAFETY DATA SHEET

METHANOL

MSDS No.  
HCR00142:

Rev. Date  
02/18/86



LYONDELL PETROCHEMICAL COMPANY  
DIVISION OF ATLANTIC RICHFIELD COMPANY  
1221 MCKINNEY AVENUE, SUITE 1600  
P.O. BOX 3646  
HOUSTON, TEXAS 77253-3646

**IMPORTANT:** Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product.  
This product is considered a hazardous substance under the OSHA Hazard Communication Rule.

## I. General

Trade Name <b>METHANOL</b>		Telephone Numbers EMERGENCY 800/424-9300 CHEMTREC 215/353-8300 C.E.R.S. CUSTOMER SERVICE 713/652-7200 INFO ONLY	
Other Names METHYL ALCOHOL, WOOD ALCOHOL			
Chemical Family ALIPHATIC ALCOHOL	DOT Hazardous Materials Proper Shipping Name METHYL ALCOHOL		
Generic Name N/P	DOT Hazard Class FLAMMABLE LIQUID		
CAS No. SEE SECTION IX	Company ID No. E000142300	UN/NA ID No. UN 1230	

## II. DANGER Summary of Hazards SEE SUPPLEMENT BEGINNING ON PAGE 7

<b>PHYSICAL HAZARDS:</b>	<b>EXTREMELY FLAMMABLE-MAY BURN WITH INVISIBLE FLAME</b>
<b>ACUTE HEALTH EFFECTS: (SHORT-TERM)</b>	<b>MODERATE INHALATION HAZARD MODERATE EYE IRRITANT MODERATE SKIN ABSORPTION HAZARD MODERATE INGESTION HAZARD. SEE SUPPLEMENT SLIGHT SKIN IRRITANT</b>
<b>CHRONIC HEALTH EFFECTS: (LONG-TERM)</b>	<b>SWALLOWING AS LITTLE AS ONE TO FOUR OUNCES OF METHANOL HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS IRREVERSIBLE INJURY SUCH AS BLINDNESS. SEE SUPPLEMENT</b>

## III. Fire and Explosion

Flash Point (Method) AP 50° F (CC)	Autoignition Temperature (Method) AP 725° F	Flammable Limits (% Vol. in Air) At Normal Atmospheric Temperature and Pressure Lower AP 6 Upper AP 36
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**Fire and Explosion Hazards** RELEASES FLAMMABLE VAPORS BELOW NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, CAN BURN IN OPEN OR EXPLODE IF CONFINED. MIXTURES WITH WATER AND AS LITTLE AS 21% (BY VOL) METHANOL ARE STILL FLAMMABLE (FLASH PT. <100° F). UNDER SOME CIRCUMSTANCES, MAY CORRODE CERTAIN METALS, INCLUDING ALUMINUM AND ZINC, AND GENERATE HYDROGEN GAS.

**Extinguishing Media** DRY CHEMICAL  
CO2  
WATERSPRAY  
FOAM FOR ALCOHOLS  
*2-12-89 WATER FOG*

**Special Firefighting Procedures** A METHANOL FIRE MAY NOT BE VISIBLE TO THE NAKED EYE. DO NOT ENTER FIRE AREA W/O PROPER PROTECTION. SEE SECTION X - DECOMPOSITION PRODUCTS POSSIBLE. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. HEAT MAY BUILD PRESSURE/RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. APPLY AQUEOUS EXTINGUISHING MEDIA CAREFULLY TO AVOID FROTHING AND LIMIT EXPOSURE OF NEARBY EQUIPMENT. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER/PUBLIC WATERS.

**IV. Health Hazards** SEE SUPPLEMENT BEGINNING ON PAGE 7

**Summary of Acute Hazards** MODERATE HEALTH HAZARD - SEE BELOW FOR ROUTE-SPECIFIC DETAILS.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	Primary Route(s)
Inhalation	OVEREXPOSURE MAY CAUSE COUGHING, SHORTNESS OF BREATH, DIZZINESS, INTOXICATION AND COLLAPSE.	<input checked="" type="checkbox"/>
Eye Contact	MAY CAUSE MODERATE IRRITATION, INCLUDING BURNING SENSATION, TEARING, REDNESS OR SWELLING.	<input checked="" type="checkbox"/>
Skin Absorption	EXPOSURE TO THIS MATERIAL CAN RESULT IN ABSORPTION THROUGH SKIN CAUSING HEALTH HAZARD.	<input checked="" type="checkbox"/>
Skin Irritation	MAY PRODUCE SKIN IRRITATION.	<input type="checkbox"/>
Ingestion	SEE SUPPLEMENT	<input checked="" type="checkbox"/>
<b>Summary of Chronic Hazards and Special Health Effects</b>	SEE SUPPLEMENT	

**V. Protective Equipment and Other Control Measures**

<b>Respiratory</b>	DO NOT USE AIR-PURIFYING RESPIRATOR. ONLY NIOSH/MSHA APPROVED SUPPLIED AIR OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE ARE SATISFACTORY.
<b>Eye</b>	EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.
<b>Skin</b>	WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.
<b>Engineering Controls</b>	GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S).
<b>Other Hygienic and Work Practices</b>	EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

**VI. Occupational Exposure Limits**

Substance	Source	Date	Type	Value/Units	Time
METHYL ALCOHOL - SKIN	ACGIH	1984	TWA	200 PPM	8 HRS
			STEL	250 PPM	15 MIN
	OSHA	1971	TWA	200 PPM	8 HRS



# METHANOL

MSDS No  
HCRO0142  
Rev. Date  
02/18/86

## VII

### Emergency and First Aid

Inhalation	IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
Eye Contact	IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.
Skin Contact	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.
Ingestion	IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. INDUCE VOMITING. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
Emergency Medical Treatment Procedures	METHANOL INGESTION IS LIFE-THREATENING. INDUCE VOMITING WITH SYRUP OF IPECAC. FOLLOW EMESIS WITH MODERATE AMOUNTS OF WATER ORALLY. SYMPTOM ONSET MAY BE DELAYED. ETHANOL THERAPY MAY BE INDICATED.

## VIII

### Spill and Disposal

Precautions if Material is Spilled or Released	EXTREMELY FLAMMABLE LIQUID. RELEASE CAUSES IMMEDIATE FIRE/EXPLOSION HAZARD. LIQUIDS/VAPORS MAY IGNITE. EVACUATE/LIMIT ACCESS. EQUIP RESPONDERS WITH PROPER PROTECTION (SEE SEC. V). KILL ALL IGNITION SOURCES. STOP RELEASE. PREVENT FLOW TO SEWERS/PUBLIC WATERS. RESTRICT WATER USE FOR CLEANUP. NOTIFY FIRE/ENVIRONMENTAL AUTHORITIES. IMPOUND/RECOVER LARGE LAND SPILL. BLANKET WITH FIREFIGHTING FOAM (SEE SEC. III). SOAK UP SMALL SPILL WITH INERT SOLIDS. USE SUITABLE DISPOSAL CONTAINERS. ON WATER, MATERIAL SOLUBLE/MAY FLOAT OR SINK. MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT. DISPERSE RESIDUE TO REDUCE AQUATIC HARM. REPORT PER REGULATORY REQUIREMENTS.
Waste Disposal Methods	CONTAMINATED PRODUCT/SOIL/WATER MAY BE RCRA/OSHA HAZARDOUS WASTE (SEE 40 CFR 261 AND 29 CFR 1910). IF SPENT SOLVENT INTENDED FOR DISPOSAL, MAY BE DESIGNATED FOOS; IF SPILL CLEANUP RESIDUE, U154 UNDER RCRA LISTINGS. LAND-FILL SOLIDS AT PERMITTED SITES. USE REGISTERED TRANSPORTERS. BURN CONCENTRATED LIQUIDS IN SYSTEMS DESIGNED FOR LOW FLASH POINT MATERIAL. AVOID FLAMEOUTS. ASSURE EMISSIONS COMPLY WITH APPLICABLE REGULATIONS. DILUTE AQUEOUS WASTE MAY BIODEGRADE. AVOID OVERLOADING/POISONING PLANT BIOMASS. ASSURE EFFLUENT COMPLIES WITH APPLICABLE REGULATIONS.

## IX

### Components

{ This may not be a complete list of components }

Component Name	CAS No.	Carcinogen#	Composition amount (Wt.) (See Qualification on Page 4)
METHANOL	67-56-1	N/AP GT	99 PERCENT

**X. Physical and Chemical Data**

Boiling Point (At 760.0 mm Hg) AP 147° F	Viscosity Units, Temp. (Method) N/AP	Dry Point N/AP
Freezing Point AP -144° F	Vapor Pressure (MM HG AT 68° F) AP 96	Volatile Characteristics MODERATE
Specific Gravity (H <sub>2</sub> O = 1 at 39.2° F) AP 0.79	Vapor Sp. Gr. (Air = 1.0 at 60° - 90° F) AP 1.1	Solubility in Water pH COMPLETE N/AP
Hazardous Polymerization NOT EXPECTED TO OCCUR	Other Chemical Reactivity N/P	Stability STABLE
Other Physical and Chemical Properties N/P		
Appearance and Odor	CLEAR, COLORLESS LIQUID; FAINT ALCOHOL ODOR; ODOR IS NOT A GOOD INDICATOR OF EXPOSURE LEVEL.	
Conditions to Avoid	HEAT, SPARKS, OPEN FLAME, OXIDIZING CONDITIONS	
Materials to Avoid	STRONG OXIDIZING AGENTS; ALUMINUM; ZINC; ANY REACTIVE METAL WHICH WILL DISPLACE HYDROGEN; CERTAIN FORMS OF PLASTICS, RUBBER AND COATINGS	
Hazardous Decomposition Products	INCOMPLETE COMBUSTION WILL GENERATE HIGHLY POISONOUS CARBON MONOXIDE AND PERHAPS OTHER TOXIC VAPORS SUCH AS FORMALDEHYDE.	

**XI. Additional Precautions**

Handling, Storage and Decontamination Procedures	<p>STORE ONLY IN TIGHTLY CLOSED/ PROPERLY VENTED CONTAINERS AWAY FROM HEAT/ SPARKS/OPEN FLAMES/STRONG OXIDIZING AGENTS. USE ONLY NON-SPARKING TOOLS. BLANKET STORAGE WITH DRY INERT GAS. STORE DRUMS WITH BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. GROUND CONTAINERS BEFORE TRANSFER. WILL ABSORB ATMOSPHERIC MOISTURE. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. CARBON STEEL IS SATISFACTORY MATERIAL OF CONSTRUCTION. DO NOT STORE IN ALUMINUM OR ZINC (GALVANIZED). HANDLE "EMPTY" DRUMS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE/POISONOUS.</p> <p>ISOLATE, VENT, DRAIN, WASH AND PURGE SYSTEMS OR EQUIPMENT BEFORE MAINTENANCE OR REPAIR. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR EXPLOSIVENESS AND OXYGEN DEFICIENCIES. USE ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. OBSERVE PRECAUTIONS PERTAINING TO CONFINED SPACE ENTRY.</p>
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SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE MATERIAL ITSELF.

**General Comments**

--- Note --- Qualifications: EQ = Equal AP = Approximately N/P = No Applicable Information Found  
LT = Less Than UK = Unknown N/AP = Not Applicable  
GT = Greater Than TR = Trace N/DA = No Data Available

**Disclaimer of Liability**

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

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

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



# METHANOL

MSSS  
HCROO  
Rev. D  
02/19

## XIII

## Label Information

<b>Manufacturer:</b>	LYONDELL PETROCHEMICAL COMPANY DIVISION OF ATLANTIC RICHFIELD COMPANY 1221 MCKINNEY AVENUE, SUITE 1600 P.O. BOX 3646 HOUSTON, TEXAS 77253-3646	<b>Telephone Numbers</b> EMERGENCY 800/424-9300 CHEMTREC 215/353-8300 C.E.R.S. CUSTOMER SERVICE 713/652-7200 INFO ONLY
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**Use Statement** FOR INDUSTRIAL USE ONLY  
KEEP OUT OF REACH OF CHILDREN

**Signal Word:** DANGER

**Physical Hazards:**  
EXTREMELY FLAMMABLE

<b>Health Hazards:</b> INHALATION HAZARD SKIN CONTACT HAZARD INGESTION HAZARD	EYE IRRITANT SKIN IRRITANT MAY CAUSE LONG-TERM ADVERSE HEALTH EFFECTS
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**Precautionary Measures:** DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.  
KEEP CONTAINER CLOSED WHEN NOT IN USE.  
DO NOT STORE NEAR COMBUSTIBLE MATERIALS.  
AVOID CONTACT WITH EYES.  
AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.  
AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.  
USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.  
PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.  
WASH THOROUGHLY AFTER HANDLING.  
DO NOT TASTE/SWALLOW.

<b>DOT Information:</b> Hazard Class- Proper Shipping-	UN/NA ID Number- UN 1230 FLAMMABLE LIQUID METHYL ALCOHOL
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<b>Instructions:</b> In case of fire, use-	DRY CHEMICAL CO2 WATERSPRAY	WATER FOG
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<b>First Aid</b>	-Inhalation	IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
	-Eye Contact	IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH CLEAN WATER FOR 20-30 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.
	-Skin Contact	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH SKIN THOROUGHLY WITH MILD SOAP/WATER. FLUSH W/LUKEWARM WATER FOR 15 MINUTES. IF STICKY, USE WATERLESS CLEANER FIRST. SEEK MEDICAL ATTENTION IF ILL EFFECT OR IRRITATION DEVELOPS.
	-Ingestion	IF SWALLOWED, GIVE LUKEWARM WATER (PINT) IF VICTIM COMPLETELY CONSCIOUS/ALERT. INDUCE VOMITING. OBTAIN EMERGENCY MEDICAL ATTENTION. PROMPT ACTION IS ESSENTIAL.
	In case of spill,	EXTREMELY FLAMMABLE LIQUID. RELEASE CAUSES IMMEDIATE FIRE/EXPLOSION HAZARD. EXTINGUISH ALL IGNITION SOURCES. IMPOUND/RECOVER LARGE LAND SPILL: SOAK UP SMALL SPILL. ON WATER, MAY BIODEGRADE. CONTAIN/MINIMIZE DISPERSION/COLLECT. REPORT PER REGULATORY REQUIREMENTS.

<b>Protective Equipment</b>	-Respiratory	USE NIOSH/MSHA APPROVED SUPPLIED AIR OR SELF-CONTAINED BREATHING APPARATUS,
	-Eye	CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD.
	-Skin	PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, AND FULL HEAD/FACE PROTECTION.



METHANOL

MSDS N  
HCRO014  
Rev. Dat  
02/18/8

**XII.**

**Component Health Hazards**

**Component Name**

**Component Health Hazards**

METHANOL

SLIGHT SKIN IRRITANT  
MODERATE HEALTH HAZARD

MODERATE EYE IRRITANT  
CNS DEPRESSANT



# METHANOL

MSDS  
HCROO  
Rev. D  
02/18

XIV.

## Supplement

### ACUTE AND CHRONIC HEALTH EFFECTS

SWALLOWING AS LITTLE AS 1 TO 4 OUNCES OF METHANOL HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS IRREVERSIBLE INJURY SUCH AS BLINDNESS IN HUMANS. STUDIES IN EXPERIMENTAL ANIMALS INDICATE THAT THE METABOLISM OF METHANOL TO FORMIC ACID RESULTS IN METABOLIC ACIDOSIS AND REVERSIBLE OR IRREVERSIBLE DAMAGE TO THE OPTIC NERVE. SEE THE MEDICAL TREATMENT SECTION OF THIS DATA SHEET FOR INFORMATION ON TREATING METHANOL POISONING.

A RECENT ARTICLE HAS REPORTED EFFECTS OF EXPOSURE TO METHANOL VAPORS (AM. IND. HYG. ASSOC. J. 45(1) 57-55, 1984). IN THIS REPORT TEACHERS AIDES EXPOSED TO METHANOL VAPORS (365-3080 PPM) IN DIRECT-PROCESS SPIRIT DUPLICATING OPERATIONS REPORTED SIGNIFICANTLY MORE OF THE FOLLOWING COMPLAINT THAN A COMPARISON GROUP: BLURRED VISION, HEADACHE, DIZZINESS, AND NAUSEA.

### SPECIAL HEALTH EFFECTS

INGESTION OF THIS PRODUCT, EVEN IN SMALL AMOUNTS, CAN CAUSE BLINDNESS AND DEATH. ONSET OF SYMPTOMS MAY BE DELAYED FOR 18-24 HOURS; TREATMENT PRIOR TO ONSET OF OBVIOUS SYMPTOMS MAY BE LIFE-SAVING. METHANOL IS RAPIDLY ABSORBED AND EMESIS SHOULD BE INITIATED EARLY TO BE EFFECTIVE, WITHIN 30 MINUTES OF INGESTION, IF POSSIBLE. ADMINISTER SYRUP OF IPECAC. AFTER THE DOSE IS GIVEN, ENCOURAGE PATIENT TO TAKE 6-8 OUNCES OF CLEAR NON-CARBONATED FLUID. DOSE MAY BE REPEATED ONCE IF EMESIS DOES NOT OCCUR WITHIN 20-30 MINUTES. ADMINISTRATION OF AN AQUEOUS SLURRY OF ACTIVATED CHARCOAL WITH MAGNESIUM CIRTATE OR SORBITOL AS A CATHARTIC HAS BEEN REPORTED HELPFUL.

ETHANOL INHIBITS THE FORMATION OF TOXIC METABOLITES. IF ETHANOL THERAPY IS INDICATED, ADMINISTER A LOADING DOSE OF 7.6-10 ML/KG OF BODY WEIGHT OF 10% ETOH IN D5W OVER 30-60 MINUTES. MAINTENANCE DOSE IS 1.4 ML/KG/HR OF 10% ETOH, TO ACHIEVE A 100-130 MG/DL BLOOD ETOH LEVEL DURING ETHANOL THERAPY. (IF CHARCOAL IS ADMINISTERED, ETHANOL SHOULD BE ADMINISTERED INTRAVENOUSLY AND NOT ORALLY.)

MAINTAIN CONTACT WITH POISON CONTROL CENTER DURING ALL ASPECTS OF DIAGNOSIS AND TREATMENT.

XIV.

Supplement Continued



**MATERIAL SAFETY DATA SHEET**  
**G-132B**

**SECTION I PRODUCT IDENTIFICATION**

Trade Name and Synonyms      G-132B

Chemical Family

Formula

Heterogeneous Catalyst

$CuO+ZnO+Al_2O_3+C$

**SECTION II HAZARDOUS INGREDIENTS**

**Hazardous Components in the Solid Mixture**

<u>COMPONENT</u>	<u>CAS No.</u>	<u>%</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Zinc oxide	1314-13-2	40-50	2.0 mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>
Copper oxide	1317-38-0	35-45	1.0 mg/m <sup>3</sup>	1.0 mg/m <sup>3</sup>
Aluminum oxide	1344-28-1	8-15	15.0 mg/m <sup>3</sup>	10.0 mg/m <sup>3</sup>
Carbon (Syn. graphite)	7782-42-5	1-5	*NIA	10.0 mg/m <sup>3</sup>

**SECTION III PHYSICAL DATA**

**Appearance and Odor:** Dark brown cylindrical tablets. No odor.

**Melting Point:** Greater than 1600°C, greater than 3000°F.

**Solubility in Water:** Insoluble.

**Bulk Density:** 80 lbs./cu. ft.

**Percent Volatile by Weight at 1000°F:** Less than 7%.



**MATERIAL SAFETY DATA SHEET**  
**G-132B**

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**SECTION IV FIRE EXPLOSION DATA**

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**Fire and Explosion Hazard**

Negligible fire and explosion hazard when exposed to heat or flame by reaction with incompatible substances.

**Flash Point**

Non-flammable

**Firefighting Media**

Dry chemical, water spray, or foam.

For larger fires, use water spray fog or foam.

**Firefighting**

Non-flammable solids, liquids or gases: Cool containers that are exposed to flames with water from the side until well after fire is out. For massive fire in enclosed area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of the tank due to fire.

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**SECTION V HEALTH HAZARD DATA**

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Health hazards may arise from inhalation, ingestion, or contact with the skin and eyes.

Excessive repeated inhalation of carbon may cause irritation to the upper respiratory tract and lung damage. Activated carbon may cause irritation of the eyes and mucous membranes, conjunctivitis, epithelial hyperplasia of the cornea, and eczematous inflammation of the eyes. Ingestion of large quantities may cause stomach and alimentary tract irritation. In the form of dust, activated carbon may contain small amounts of irritating and possibly toxic impurities.

Alumina particles deposited in the eye may cause necrosis of the cornea. Ingestion may cause stomach and intestinal distress. Salts of alumina may cause dermatoses, eczema, conjunctivitis, and irritation of the mucous membranes of the upper respiratory tract. Prolonged inhalation of alumina dust may result in pneumoconiosis. Lung damage (Shaver's Disease) may result from inhalation of finely divided aluminum oxide particles; it is complicated by silica and oxides of iron in the inhaled air.



**MATERIAL SAFETY DATA SHEET**  
**G-132B**

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**SECTION VI REACTIVITY DATA**

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**Reactivity**

Is stable under normal temperatures and pressures in sealed containers. Hazardous polymerization will not occur. Finely divided particles can result in fire or explosion. Toxic fumes are produced at elevated temperatures. When heated, can react explosively with magnesium or chlorinated rubber.

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**SECTION VII SPILL OR LEAK PROCEDURES**

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Notify safety personnel of spills or leaks. Clean-up personnel need protection against inhalation of dusts or fumes. Eye protection is required. Vacuuming and/or wet methods of cleanup are preferred. Place in appropriate containers for disposal, keeping airborne particulates at a minimum.

**Disposal**

Consult applicable local, state, and federal regulations to select the method of disposal. Recover metal components by reprocessing when possible.

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**SECTION VIII SPECIAL PROTECTION INFORMATION**

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**Respiratory Protection**

Provide a NIOSH/MSHA jointly approved respirator in the absence of proper environmental control. Contact your safety equipment supplier for proper mask type.

**Ventilation**

Provide general and/or local exhaust ventilation to keep exposures below the TLV. Ventilation used must be designed to prevent spots of dust accumulation or recycling of dusts.

**Protective Clothing**

Wear protective clothing, including long sleeves and gloves, to prevent repeated or prolonged skin contact.

**Eye Protection**

Chemical splash goggles designed in compliance with OSHA regulations are recommended. Consult your safety equipment supplier.



# United Catalysts Inc.

Girdler and CCI Catalysts

## MATERIAL SAFETY DATA SHEET G-132B

Excessive inhalation of copper dusts may produce irritation to the upper respiratory tract and may cause temporary or permanent damage to the lungs. Sublimed copper oxide may be responsible for a form of metal fume fever. Ingestion of large quantities may result in damage to the liver, pancreas, kidney, or nervous system. Prolonged or repeated contact with the skin may result in irritation and possible dermatitis in sensitive individuals. Contact with eye tissue may result in irritation and/or conjunctivitis.

Inhalation of zinc dust, mists, or fumes may irritate the respiratory tract, mucous membranes and skin. At higher levels of exposure "zinc chills" or "zinc fume fever" may occur with symptoms of metallic or sweet taste, marked thirst, coughing, weakness, fatigue, muscular pain, nausea and vomiting, followed by fever, perspiration and chills, dyspnea, rales throughout the chest, and tachycardia. Onset of symptoms usually occur about 4-12 hours after exposure. Workers in zinc refining have been reported to suffer from a variety of nonspecific intestinal, respiratory, and nervous symptoms. Excessive contact may cause perforation of the nasal septum. Prolonged or repeated contact under poor hygienic conditions may produce a papular, pustular eczema or dermatitis called "oxide pox." Contact with the eye tissue may produce irritation and/or conjunctivitis.

### First Aid (Inhalation)

Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

### First Aid (Ingestion)

If large amounts have been ingested, give emetics to cause vomiting. Stomach siphon may be applied as well. Milk and fatty acids should be avoided. Get medical attention immediately.

### First Aid (Eyes)

Wash eyes immediately and carefully for 15 to 20 minutes with running water, lifting upper and lower eyelids occasionally. Get prompt medical attention.

### First Aid (Skin)

To avoid repeated or prolonged contact with this chemical, use good hygienic practices. Wash with soap and a large amount of water. Get medical attention if irritation or inflammation develops.



**United Catalysts Inc.**  
Girdler and CCI Catalysts

**MATERIAL SAFETY DATA SHEET**  
**G-132B**

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**SECTION IX**

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

Please refer to 40 CFR Part 372, Subpart D (372.62 - Specific Toxic Chemical Listings) and Section II - Hazardous Ingredients of this document for the names and percentages of the toxic chemical(s) in this product.

The information presented herein is believed to be accurate but is not warranted. Recipients are advised to confirm in advance that the information is current and applicable to meet their circumstances.

\* No Information Available

Doc. 151

FEB 19 1981

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration

Form Approved  
OMB No. 44-R1387

# MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,  
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

## SECTION I

MANUFACTURER'S NAME <b>MALLINCKRODT, INC.</b>		EMERGENCY TELEPHONE NO. <b>606/987-7000</b>
ADDRESS (Number, Street, City, State, and ZIP Code) <b>P.O. Box M, Paris, Kentucky 40361</b>		
CHEMICAL NAME AND SYNONYMS <b>KARL FISCHER REAGENT</b>		TRADE NAME AND SYNONYMS
CHEMICAL FAMILY <b>Mixture</b>	FORMULA <b>SEE MIXTURE BELOW</b>	

## SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
		Pyridine	w/w	13	5
		Methyl Cellosolve	w/w	57.2	24
		Sulfur Dioxide	w/w	6.8	5
		Iodine	w/w	12.6	0.1
		Diethanolamine	w/w	10.4	---

## SECTION III - PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	about 1.14
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	
SOLUBILITY IN WATER	soluble		
APPEARANCE AND ODOR	Dark brown liquid; odor of pyridine.		

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	114° F. (C.C.)	FLAMMABLE LIMITS	LeI	Uel
EXTINGUISHING MEDIA	Water, carbon dioxide, foam, dry chemical.			
SPECIAL FIRE FIGHTING PROCEDURES	Wear a self-contained breathing apparatus.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	FLAMMABLE LIQUID! Keep away from heat, sparks or open flame.			

### SECTION V - HEALTH HAZARD DATA

**THRESHOLD LIMIT VALUE**

Pyridine 5ppm. Methylcellosolve 25ppm. Sulfur dioxide 5ppm. Iodine 0.1ppm.

**EFFECTS OF OVEREXPOSURE**

Headache, dizziness, nausea, CNS on long or heavy exposures.

Diethanolamine - none listed.

**EMERGENCY AND FIRST AID PROCEDURES**

Contact areas: Wash well for at least 15 minutes with water. Eyes: Get medical attention. Ingestion: Call physician. Give a tablespoon of sodium thiosulfate in water or starch paste. Induce vomiting immediately by giving two glasses of water and sticking the fingers down throat. Give milk or whites of eggs beaten in water.

### SECTION VI - REACTIVITY DATA

<b>STABILITY</b>	UNSTABLE	X	<b>CONDITIONS TO AVOID</b> Avoid moist conditions and heat.
	STABLE		

**INCOMPATIBILITY (Materials to avoid)** Water degenerates the material.

**HAZARDOUS DECOMPOSITION PRODUCTS**  
Iodine vapors, sulfur dioxide vapors, and organic vapors.

<b>HAZARDOUS POLYMERIZATION</b>	MAY OCCUR		<b>CONDITIONS TO AVOID</b>
	WILL NOT OCCUR	X	

### SECTION VII - SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Absorb on paper. Evaporate in an iron pan in a hood. Burn the paper outside in an incinerator or open pit.

**WASTE DISPOSAL METHOD**

Solution may be sprayed into fire box of an incinerator with afterburner and scrubber system.

### SECTION VIII - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION (Specify type)** Acid Gases/Organic Cartridge (NIOSH approved)

<b>VENTILATION</b>	LOCAL EXHAUST	X	SPECIAL
	MECHANICAL (General)		OTHER

**PROTECTIVE GLOVES** Heavy PVC      **EYE PROTECTION** Splash-proof goggles

**OTHER PROTECTIVE EQUIPMENT** Lab coat or coveralls.

### SECTION IX - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Store in a room or cabinet suitable for flammable solvents. Keep containers tightly closed, and protect from moisture.

**OTHER PRECAUTIONS**