GW - 145

GENERAL CORRESPONDENCE

YEAR(S):
2004 - 1993

GW-145

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☑
Type of action: Registration of a pit or below-grade tank ☑ Closure of a pit or below-grade tank ☐

Operator: Duke Energy Field Services, LP Telephone: (505) 628-0282 e-mail address:
Address: 2010 E. Carlsbad Lane, Carlsbad, NM 88220
Facility or well name: Zia Gas Plant API #: U/L or Qtr/Qtr NE/NE Sec 19 T 19S R 32E
County: Lea Latitude 32.65256 Longitude -103.79728 NAD: 1927 ☐ 1983 ☑ Surface Owner Federal ☑ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☐ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume ____bbl	Volume: 20 bbl Type of fluid: Oil and water Construction material: Fiberglass Double-walled, with leak detection? Yes ☑ If not, explain why not. Open Drain Sump #2	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more ✔	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No ✔	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more ✔	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☑, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**
Date: 9/8/01
Printed Name/Title Johnny Lamb/Field Supervisor Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title_____ Signature_____ Date: _____

GW-145

District I
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1000 Rio Brazos Road, Aztec, NM 87410
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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

Form C-144
June 1, 2004

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For downstream facilities, submit to Santa Fe office

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Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☑
Type of action: Registration of a pit or below-grade tank ☑ Closure of a pit or below-grade tank ☐

Operator: Duke Energy Field Services, LP Telephone: (505) 628-0282 e-mail address:
Address: 2010 E. Carlsbad Lane, Carlsbad, NM 88220
Facility or well name: Zia Gas Plant API #: U/L or Qtr/Qtr NE/NE Sec 19 T 19S R 32E
County: Lea Latitude 32.65256 Longitude -103.79728 NAD: 1927 ☐ 1983 ☑ Surface Owner Federal ☑ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☐ Liner type: Synthetic ☐ Thickness _____mil Clay ☐ Pit Volume _____bbl	Volume: 20 bbl Type of fluid: Oil and water Construction material: Fiberglass Double-walled, with leak detection? Yes ☑ If not, explain why not. Open Drain Sump #3	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more ✔	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No ✔	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more ✔	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☑, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**
Date: 9/28/07
Printed Name/Title Johnny Lamb/Field Supervisor Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title Signature Date:

GW-145

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Energy Minerals and Natural Resources

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Form C-144
June 1, 2004

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Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☑
Type of action: Registration of a pit or below-grade tank ☑ Closure of a pit or below-grade tank ☐

Operator: Duke Energy Field Services, LP Telephone: (505) 628-0282 e-mail address:
Address: 2010 E. Carlsbad Lane, Carlsbad, NM 88220
Facility or well name: Zia Gas Plant API #: U/L or Qtr/Qtr NE/NE Sec 19 T 19S R 32E
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Pit	**Below-grade tank**	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☐ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume ____bbl	Volume: 20 bbl Type of fluid: Oil and water Construction material: Fiberglass Double-walled, with leak detection? Yes ☑ If not, explain why not. Open Drain Sump #1	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more ✔	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No ✔	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more ✔	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☑, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**
Date: 9/28/04
Printed Name/Title Johnny Lamb/Field Supervisor Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title Signature Date:

ConocoPhillips

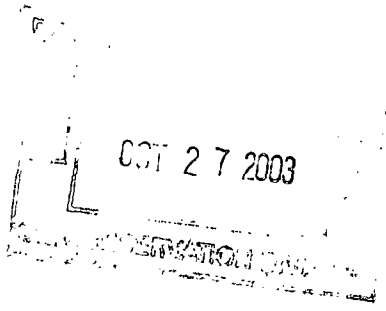
Mark Bishop
Environmental Specialist
Southeast New Mexico Operating Unit
SH&E Services
Gas Gathering & Processing

ConocoPhillips Inc.
921 W. Sanger
Hobbs, NM 88240
Phone 505-391-1956
Cell (505) 390-1406
mark.a.bishop@conocophillips.com

10/23/2003

Return Receipt Requested
Certified Mail No.
7099 3220 0001 4997 3339

State Of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Frances Dr.
Santa Fe, NM 87505



Re: Discharge Plan Renewal GW-145
ConocoPhillips Midstream
Zia Gas Plant and Booster Station
Lea County, New Mexico

Dear Mr. Price:

Attached is a check for the $4000.00 flat fee balance for Discharge Permit renewal for Zia Gas Plant and Booster as submitted in the application dated January 14, 2003. Also included is the permit signed by Mr. Marshall Honeyman our Operations Manager. As discussed by telephone on October 22, I corrected the permit ownership from Raptor Gas Transmission LLC to ConocoPhillips by marking through each reference and writing in ConocoPhillips and initialing each correction. As we have done previously I struck out language in condition 12 of the permit and changed wording of the attachment to read monthly inspections of the facility instead of weekly.

If you have any questions or require more information please contact me at 505-391-1956.

Sincerely,

Mark Bishop

Mark Bishop

CC: Joyce Miley
Jeff Driver
File: Env 1053 Z1

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 10/14/03,

or cash received on _____ in the amount of $ 4,000.00

from Conoco Phillips

for Zia G.P. GW-145

(Facility Name) (OP No.)

Submitted by: _____ Date: 11-21-03

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee ____ New Facility ____ Renewal ____

Modification ____ Other _____

(specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment ____ or Annual Increment ____

THIS IS WATERMARKED PAPER - DO NOT ACCEPT WITHOUT NOTING WATERMARK - HOLD TO LIGHT TO VERIFY WATERMARK

CONOCOPHILLIPS COMPANY
HOUSTON, TX 77079

62-20/311

Check No. [redacted]

To: Citibank Delaware
One Penns Way
New Castle, DE 19720

*** VOID AFTER 90 DAYS ***

OCTOBER 14, 2003

Vendor Code: 117921501

Exactly **********4,000.00**

Pay To the Order Of: OIL CONSERVATION DIVISION
WATER QUALITY MANAGEMENT FUND
1220 S SAINT FRANCIS DRIVE
SANTA FE NM 87505-5472

Authorized Signature

[redacted]

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 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-145) – Flatrock Energy Partners, Mr. Clay Smith, P.E., 15600 San Pedro, Suite 401, San Antonio, Texas 78232, (210) 494-6777, on behalf of Raptor Gas Transportation LLC operated by ConocoPhillips, has submitted a discharge renewal application for the Zia Gas Plant and the Zia Booster Compressor Station located in the NE/4 NE/4 of Section 19 Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 5,900 gallons per month of process wastewater will be collected and stored in above ground steel tanks prior to disposal [illegible] OCD approved

at OCD's web site http://www.emnrd.state.nm.us/ocd/. 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 proposed permit [illegible] information

000082 147684 6

- Vendor Code: 217921R01 ("A" [illegible]any: 001 – CONOCOPHILLIPS COMPANY [illegible]e [illegible]ase Check No.: [redacted]

S H	Voucher Reference	Invoice Date	Invoice Number	1099 CD	Gross Amount	ADJ CD	Adjustment Amount	Discount Amount	Net Amount
	VENDOR NAME: OIL CONSERVATION DIVISION								
	IN CASE OF QUESTIONS ABOUT THE FOLLOWING INVOICES, PLEASE CALL (505) 655-3500								
S	1033162DC286A001	20031013	REQ158706		4,000.00		.00	.00	4,000.00
	* * * INQUIRIES ON ABOVE INVOICES SHOULD BE DIRECTED TO PHONE NO. LISTED ABOVE							TOTAL NET AMOUNT	4,000.00

1099 CODES – R=RENTAL L=ROYALTIES P=PERSONAL SERVICES M=MEDICAL I=INTERSEST F=FOREIGN VDR PYMT N=NET PROFIT D=PERMIT/DAMAGE G=PRIZES/AWARDS C=BWP REFUND/INTEREST B=BWP REFUND/MISC A=NON-REPORTABLE TYPES

ADJ CODES Q=WRONG QUANTITY P=WRONG PRICE C=WRONG CALCULATION M=MULTIPLE ERRORS F=CORRECTED FREIGHT CHARGES D=CORRECTED DISCOUNT T=TAX REMOVAL B=BACKUP WITHHOLDING OF 31% PER IRS REGULATIONS O=OTHER

THE SANTA FE
NEW MEXICAN
Founded 1849

RECEIVED
OCT 0 9 2003
OIL CONSERVATION DIVISION

Ed Martin
NM OIL CONSERVATION D
1220 ST. FRANCIS DR
ATT MARY ANAYA
SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689
AD NUMBER: 00032102 ACCOUNT: 00002212
LEGAL NO: P.O. #: 04.199.050340
194 LINES 1 TIME(S) 0.00
AFFIDAVIT: 0.00
TAX: 0.00
TOTAL: 0.00

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, K. Voorhees, 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 # a copy of which is hereto attached was published in said newspaper 1 day(s) between 10/08/2003 and 10/08/2003 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 8th day of October, 2003 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ K. Voorhees
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 8th day of October, 2003

Notary Laura J. Hardy

Commission Expires: 11/28/03

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of September 3, 2003 and ending with the issue of September 3, 2003.

And that the cost of publishing said notice is the sum of $ 119.24 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 23rd day of September 2003

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2006

LEGAL NOTICE
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 application(s) has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-297) – Chaparral Services, Inc., P.O. Box 1769, Eunice, NM 88231, has submitted a discharge permit renewal application for its facility located in the SW/4 NW/4 of Section 20, Township 25 South, Range 37 East and the SE/4 N/E4 of Section 19, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. Approximately 50 gallons per month of waste oil and solvents are collected in fiberglass storage tanks, then transported offsite for disposal. Groundwater most likely to be affected in the event of an accidental discharge is at an estimated depth of approximately 40 feet with a total dissolved solids concentration ranging from 700 to 1,000 mg/l. The discharge permit addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water.

(BW-025) Paul Prather, P.O. Box 7169, Eunice, New Mexico 88231, has submitted a discharge plan renewal application for the CSI Brine Sales Station located in the NE/4 NE/4 of Section 20, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. Fresh water from the City of Jal is injected into the Salado Formation at an approximate depth of 1,150 feet and brine water is extracted with an average total dissolved solids concentration of 350,000 mg/l. The brine water is stored in four 1,000 barrel above ground closed top tanks. The plan includes a chemical storage dock and a below grade concrete pit for temporary storage of exempt oilfield waste. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 40 feet with a total dissolved solids concentration of approximately 875 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(BW-018) Key Energy Services, Inc., Bob Patterson, (505) 394-2581, P.O. Box 340, Hobbs, New Mexico 88240, has submitted a discharge application for its previously approved discharge plan for the Trucker's #2 Brine Station located in the NE/4 SW/4 of Section 33, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico. Fresh water is injected into the Salado Formation at an approximate depth of 2,000 feet and brine is extracted with an average total dissolved solids concentration of 390,000 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 60 feet with a total dissolved solids concentration of approximately 500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-145) – Flatrock Energy Partners, Mr. Clay Smith, P.E., 15600 San Pedro, Suite 401, San Antonio, Texas 78232, (210) 494-6777, on behalf of Raptor Gas Transportation LLC operated by ConocoPhillips, has submitted a discharge renewal application for the Zia Gas Plant and the Zia Booster Compressor Station located in the NE/4 NE/4 of Section 19 Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 5,900 gallons per month of process wastewater will be collected and stored in above ground steel tanks prior to disposal at an OCD approved offsite commercial disposal facility. The total dissolved solids concentration of the wastewater is approximately 2,000 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 280 feet with a total dissolved solids concentration of approximately 2,400 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-351) – EOTT Energy LLC, Mr. Frank Hernandez, P. O. Box 1660, 5805 East Highway 80, Midland, Texas 79706, has submitted a discharge permit application for the EOTT Lea Station crude pump facility located in the NW/4, Section 28 Township 20 South Range 37 East, NMPM Lea County, New Mexico. Any potential discharge at the facility will be collected prior to transport to an OCD approved off-site disposal facility. Groundwater under the facility is being remediated under an OCD approved abatement plan. 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 permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m. Monday through Friday. The draft discharge permit may also be viewed at OCD's web site http://www.emnrd.state.nm.us/ocd/. 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. Request 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 permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit, and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 26th day of August 2003.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY
Director
SEAL

Published in the Lovington Daily Leader September 3, 2003

Flatrock Energy
PARTNERS

15600 San Pedro, Suite 401
San Antonio, Texas 78232
P: 210.494.6777
F: 210.499.1192

4/10/2003

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

Re: Renewal Application for Discharge Plan GW-145
Zia Gas Plant and Booster Station
Lea County, New Mexico

Dear Sir or Madam:

Flatrock Energy Partners on behalf of Raptor Gas Transmission LLC operated by ConocoPhillips Midstream Operations (ConocoPhillips) hereby submits the attached documentation and application for renewal of Discharge Plan GW-145. ConocoPhillips requests that the Zia Gas Plant and the Zia Booster Compressor Station be considered one station for purposes of the discharge plan. This submittal includes the application filing fee of $100.

In order to maintain consistency with other facilities in this area, ConocoPhillips requests that this discharge plan be rolled in with the "blanket" discharge permit issued on June 16, 1998 (see appendix B for blanket discharge permit documentation and conditions). The blanket discharge permit provides coverage for other facilities in the area that are operated by ConocoPhillips Midstream Operations.

Please contact me at 210 494 6777 or Mark Bishop at 505-391-1956 if you have questions or require additional information.

Sincerely,

Clay Y. Smith, PE

cc: Mark Bishop – Hobbs, NM
Joyce Miley – Houston, TX

Price, Wayne

From: Price, Wayne
Sent: Wednesday, February 06, 2002 9:15 AM
To: 'Bishop, Mark A.'
Subject: RE: Non-exempt waste disposal for Conoco CG&P facilities

Approved!

-----Original Message-----
From: Bishop, Mark A. [mailto:Mark.A.Bishop@conoco.com]
Sent: Tuesday, February 05, 2002 12:43 PM
To: Price, Wayne
Subject: RE: Non-exempt waste disposal for Conoco CG&P facilities

Mr. Price,

Please add Zia Gas Plant, OCD Permit # GW-145 to the list requesting approval adding the Sundance disposal facility as an approved location for disposal of non-exempt waste. Sorry for the oversight.

Mark Bishop

-----Original Message-----
From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Tuesday, February 05, 2002 12:08 PM
To: Bishop, Mark A.
Subject: RE: Non-exempt waste disposal for Conoco CG&P facilities

OCD hereby approves of your request and will place a copy of this approval in each Discharge Plan.
-----Original Message-----
From: Bishop, Mark A. [mailto:Mark.A.Bishop@conoco.com]
Sent: Tuesday, February 05, 2002 11:24 AM
To: WPrice@state.nm.us
Subject: Non-exempt waste disposal for Conoco CG&P facilities
Mr. Price,

A reevaluation of preferred non-exempt waste handling facilities has been completed for southeast New Mexico and a team of Conoco personnel has chosen Sundance waste handling facility at Eunice, NM to be our primary non-exempt waste handling facility. Controlled recovery Inc. will be the secondary facility. We would like to amend the following OCD Groundwater discharge permits to include the Sundance facility for disposal of non-exempt fluids. Thank you for your consideration of our request

Maljamar Gas Plant	GW-020
Maljamar Area Blanket OCD permit	
Antelope Ridge Gas Plant	GW-162
Hobbs Gas Plant	GW-175
Apex compressor Station	GW-163
Bootleg Compressor Station	GW-176
Bright /Yates Compressor Station	GW-160
Cedar Canyon Compressor Station	GW-296
Cal-Mon Compressor Station	GW-143
NE Carlsbad Compressor Station	GW-280
Cotton Draw Compressor Station	GW-311
Hat Mesa Compressor Station	GW-316
Lee Compressor Station	GW-227
Pardue Compressor Station	GW-288

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 4/11/03

or cash received on _____ in the amount of $ 100 --

from FLATROCK ENERGY (CONOCO-PHILLIPS)

for ZIA GAS PLANT GW-145 .
(Facility Name) (OCP No.)

Submitted by: WAYNE PRICE Date: 6/9/03

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee X New Facility ___ Renewal ___

Modification ___ Other _____
(specify)

Organization Code 521.07 Applicable FY 200[redacted]3

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___

FLATROCK ENERGY PARTNERS, LP 05-00
15600 SAN PEDRO, SUITE 100
SAN ANTONIO, TX 78232-3738

COMPASS BANK
SAN ANTONIO TX 78216
35-1054/1130

[redacted]

4/11/2003

PAY TO THE ORDER OF State of New Mexico $ **100.00

One Hundred and 00/100********** DOLLARS

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

MEMO OCD Permit Application Fee for Zia

P. Scott Martin

GW-145

[redacted]

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

February 25, 2003

Via e-mail (Hard Copy to follow)

Ms. Karin Char Kimura
Duke Energy Field Services
370 Seventeenth Street, Suite 900
Denver, Colorado 80202

RE: ZIA GAS PLANT – TRANSFER OF OWNERSHIP
DISCHARGE PERMIT GW-145
LEA COUNTY, NEW MEXICO

Dear Ms. Kimura:

The New Mexico Oil Conservation Division (OCD) is in receipt of your notification of transfer of ownership of the Zia Gas Plant (GW-145) located in the SE/4 SE/4 of Section 23, Township 23 South, Range 31 East, NMPM, Lea County, New Mexico.

Transfer requirements must adhere to WQCC regulation 20 NMAC Section 6.2.3111. Please be advised that Duke Energy Field Services retains all liability for operations at the facility until approval by OCD of the transferee's request for change of responsibility of the discharge permit.

If you have any questions please contact Mr. Jack Ford at (505) 476-3489.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf

cc: OCD Hobbs District Office

Duke Energy. Field Services
A New Kind of Energy™

Duke Energy Field Services
P.O. Box 5493
Denver, Colorado 80217
370 17th Street, Suite 900
Denver, Colorado 80202
303/595-3331

February 19, 2003

CERTIFIED MAIL
RETURN RECEIPT *(7001 1140 0003 5915 6979)*

Mr. Jack Ford
New Mexico Energy, Minerals
& Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

SUBJECT: Zia Gas Plant – Transfer of Ownership
Discharge Plan No. GW-145
Lea County, New Mexico

Dear Mr. Ford:

Effective as of November 6, 2001, Duke Energy Field Services, LP (DEFS) transferred ownership of the Zia Gas Plant to Conoco, Inc., 600 N. Dairy Ashford, Houston, Texas 77079. DEFS no longer owns or operates the facility and therefore, requests the transfer of the discharge plan (GW-145) to ConocoPhillips *(formerly Conoco, Inc.)*.

Please send any correspondence regarding this transfer of ownership to my attention at 370 17th Street, Suite 900, Denver, CO 80202. If you have any questions regarding this transfer of ownership notification, please call me at (303) 605-1717.

Sincerely,
Duke Energy Field Services, LP

Karin Char Kimura
Senior Environmental Specialist

cc: NMOCD District 1 Office *(Certified Mail, Return Receipt 7001 1140 0003 5915 6962)*
1625 N. French Dr.
Hobbs, New Mexico 88240

Mr. Neal Goates *(Certified Mail, Return Receipt7001 1140 0003 5915 6955)*
ConocoPhillips
P.O. Box 2197
Houston, TX 77252-2197

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

November 22, 2002

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 3929 9277

Ms. Karin Char
Duke Energy Field Services
P.O. Box 5493
Denver, Colorado 80217

RE: Discharge Plan Renewal Notice for Duke Energy Field Services Facilities

Dear Ms. Char:

The OCD is providing Duke Energy Field Services a notice that the following discharge plans expire at various dates during the year 2003.

GW-127 expires 2/3/2003 – Burton Flats Gas Plant
GW-139 expires 4/28/2003 – CP-1 Compressor Station
GW-142 expires 5/17/2003 – Sand Dunes Compressor Station
GW-144 expires 8/19/2003 - West Fall (North) Compressor Station
GW-145 expires 7/6/2003 - Zia Gas Plant

WQCC 20.6.2.3106.F. If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

The discharge plan renewal application for each of the above facilities is subject to WQCC Regulation 20.6.2.3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of $100.00 plus a flat fee based upon the horsepower rating or type of facility for gas processing facilities. The $100.00 filing fee for each facility is to be submitted with the discharge plan renewal application and is nonrefundable.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office. Please submit the original discharge plan renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Aztec District Office. **Note that the completed and signed application form must be submitted with your discharge plan renewal request.** A complete copy of the regulations is also available on OCD's website at **www.emnrd.state.nm.us/ocd/**).

If any of the above sited facilities no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If the Duke Energy Field Services has any questions, please do not hesitate to contact Mr. W. Jack Ford at (505) 476-3489.

Sincerely,

Roger C. Anderson
Oil Conservation Division

cc: OCD Artesia District Office
OCD Hobbs District Office

Price, Wayne

From: Price, Wayne
Sent: Monday, February 04, 2002 10:28 AM
To: 'Bishop, Mark A.'
Cc: Kieling, Martyne
Subject: RE: Conoco Inc. Zia Plant OCD permit # GW-145 waste issue

The disposal is approved on a one-time basis with the following conditions:

1. The waste must be RCRA non-hazardous.

2. Testing Records shall be maintained to verify the waste is non-hazardous, and waste manifest retained.

Please be advised that NMOCD approval does not relieve Conoco of liability should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco of responsibility for compliance with any other federal, state, or local laws and/or regulations.

-----Original Message-----
From: Bishop, Mark A. [mailto:Mark.A.Bishop@conoco.com]
Sent: Monday, February 04, 2002 10:10 AM
To: Price, Wayne
Subject: RE: Conoco Inc. Zia Plant OCD permit # GW-145 waste issue

Mr. Price the spent caustic will go to Controlled Recovery Inc. of Hobbs NM.

Mark Bishop

-----Original Message-----
From: Price, Wayne [mailto:WPrice@state.nm.us]
Sent: Monday, February 04, 2002 10:02 AM
To: Bishop, Mark A.
Subject: RE: Conoco Inc. Zia Plant OCD permit # GW-145 waste issue

Which facility are you planning on sending this material too?
-----Original Message-----
From: Bishop, Mark A. [mailto:Mark.A.Bishop@conoco.com]
Sent: Monday, February 04, 2002 9:58 AM
To: WPrice@state.nm.us
Subject: Conoco Inc. Zia Plant OCD permit # GW-145 waste issue
Mr. Price,

We are currently performing a turn around on our Zia Gas Plant. We are using caustic soda to clean internal piping and vessels the product is supplied by Tri-Tech Industrial Services of Odessa Texas. The product is called "Tri-clean DG" and Tri-clean-DGA, which are proprietary blends of caustic to remove build up of exempt materials from piping. After use Tri-Tech plans to pump the spent caustic into a tank and treat with acid to neutralize, then test for hazardous properties and remove to an approved disposal facility when it is proved to be non-hazardous. This fluid and procedure for disposal is not part of our approved waste disposal plan for Zia Plant. Will you please approve our plan for disposal of this waste material and/or make comments as to how you would like for us to change the procedure for disposal. Thank you for your help in this matter.

FULBRIGHT & JAWORSKI L.L.P.
A REGISTERED LIMITED LIABILITY PARTNERSHIP
1301 MCKINNEY, SUITE 5100
HOUSTON, TEXAS 77010-3095

TELEPHONE: 713/651-5151
FACSIMILE: 713/651-5246

WRITER'S INTERNET ADDRESS:
elewis@fulbright.com

WRITER'S DIRECT DIAL NUMBER:
713/651-3760

HOUSTON
WASHINGTON, D.C.
AUSTIN
SAN ANTONIO
DALLAS
NEW YORK
LOS ANGELES
MINNEAPOLIS
LONDON
HONG KONG

January 15, 2001

Re: Notification of Name Change to Duke Energy Field Services, LP

Mr. Roger Anderson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Anderson:

In a February 16, 2000 letter addressed to you from Mel Driver of GPM Gas Company, LLC, Mr. Driver informed you that GPM Gas Company, LLC and Duke Energy Field Services, LLC were planning to undergo an internal corporate reorganization later in the year. As a result of this corporate reorganization, which has now taken place, facilities that were formerly operated under the name of GPM Gas Company, LLC are now being operated under the name of Duke Energy Field Services, LP. A chart that lists facilities with New Mexico Oil Conservation Division permits that are affected by this change is enclosed with this letter. Please update your records to reflect Duke Energy Field Services, LP as the permit holder for the facilities listed on the enclosed chart.

Thank you for your assistance, and please feel free to call me at (713) 651-3760 if you have any questions.

Very truly yours,

Eddie Lewis

Edward C. Lewis

ECL/jnr

cc: Ms. Nelda Morgan
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Ms. Vicki Gunter
Duke Energy Field Services, LP
P. O. Box 50020
Midland, Texas 79710

FACILITY NAME	PERMIT NUMBER	CURRENT NAME	NEAREST CITY
Artesia Plant	GW-168	GPM Gas Company, LLC	Artesia
Avalon Plant	GW-024	GPM Gas Company, LLC	Carlsbad
Eunice Plane	GW-009	GPM Gas Company, LLC	Eunice
Feagen	GW-168	GPM Gas Company, LLC	Artesia
Hat Mesa	GW-128	GPM Gas Company, LLC	Hobbs
Hobbs	GW-044	GPM Gas Company, LLC	Hobbs
Indian Hills	GW-042	GPM Gas Company, LLC	Carlsbad
Lee Plant	GW-002	GPM Gas Company, LLC	Lovington
Linam Ranch Plant	GW-015	GPM Gas Company, LLC	Hobbs
Maljamar	GW-177	GPM Gas Company, LLC	Lovington
Sand Dunes	GW-142	GPM Gas Company, LLC	Loving
Won Ton	GW-178	GPM Gas Company, LLC	Lovington
Zia Plant	GW-145	GPM Gas Company, LLC	Maljamar

GPM GAS CORPORATION

3300 N "A" ST. BLDG 7
MIDLAND, TX 79705-5421

MAILING ADDRESS
P.O. BOX 50020
MIDLAND, TX 79710-0020

February 16, 2000

Mr. Roger Anderson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Subject: Notification of Name Change to **GPM Gas Company, LLC**

Dear Mr. Anderson:

This letter is to notify you that on February 1, 2000, GPM Gas Corporation underwent a **name change**. The name of the company is now **GPM Gas Company, LLC**. This name change relates to a change in corporate status which occurred in anticipation of the expected merger between GPM and a unit of Duke Energy. GPM and Duke currently expect that, if all necessary regulatory approvals are obtained, the merger should be completed in April of this year.

Submitted with this letter is a listing of all environmental permits that are affected by this name change. Please take the actions necessary to reflect this name change on your records.

As a matter of general information, we wanted also to advise you of the possibility of a further name change in the coming months. In connection with the expected merger, it is possible that a further change in name or in corporate status could take place. We will advise you of any future changes that occur.

We appreciate your assistance in this matter.

GPM Gas Company, LLC

Mel P. Driver

Mel P. Driver
Environmental Engineer
New Mexico Region

Attachment

Facility Name	Permit Number	Expiration Date	Issued by	Held by	Nearest City
Artesia Plant	GW-168	7/1/00	NMED OCD	GPM Gas Corporation	Artesia
Avalon Plant	GW-024	9/1/00	NMED OCD	GPM Gas Corporation	Carlsbad
Eunice Plant	GW-009	4/1/04	NMED OCD	GPM Gas Corporation	Eunice
Feagen	GW-168	12/1/99	NMED OCD	GPM Gas Corporation	Artesia
Hat Mesa	GW-128	11/1/02	NMED OCD	GPM Gas Corporation	Hobbs
Hobbs	GW-044	12/1/02	NMED OCD	GPM Gas Corporation	Hobbs
Indian Hills	GW-042	4/1/02	NMED OCD	GPM Gas Corporation	Carlsbad
Lee Plant	GW-002	3/1/01	NMED OCD	GPM Gas Corporation	Lovington
Linam Ranch Plant	GW-015	4/1/04	NMED OCD	GPM Gas Corporation	Hobbs
Maljamar	GW-177	3/1/00	NMED OCD	GPM Gas Corporation	Lovington
Sand Dunes	GW-142	5/1/03	NMED OCD	GPM Gas Corporation	Loving
Won Ton	GW-178	3/1/00	NMED OCD	GPM Gas Corporation	Lovington
Zia Plant	GW-145	7/1/03	NMED OCD	GPM Gas Corporation	Maljamar

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

[redacted]

I hereby acknowledge receipt of check No. [redacted] dated 6/17/98.

or cash received on _____ in the amount of $ 1667.50

from GPM

for Zia G.P (Facility Name) GW-145 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: RC Anderson Date: 8/10/98

Received in ASD by: _____ Date: _____

Filing Fee ___ New Facility ___ Renewal X

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 98

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

THIS IS WATERMARKED PAPER - DO NOT ACCEPT WITHOUT NOTING WATERMARK - HOLD TO LIGHT TO VERIFY WATERMARK

GPM GAS CORPORATION
BARTLESVILLE, OKLAHOMA 74004

86-82/1031

WESTSTAR BANK
BARTLESVILLE OK

B000027604 06/17/98 [redacted] $1,667.50

PAY TO THE ORDER OF EXACTLY *******$1,667DOLLARS AND 50 CENTS

NEW MEXICO ENVIRONMENTAL DEPT
WATER QUALITY MANAGEMENT
2040 S PACHECO
SANTA FE NM 87505

GPM GAS CORPORATION 51

Treasurer

[redacted]

June 19, 1998

GPM GAS CORPORATION

4044 PENBROOK
ODESSA, TEXAS 79762

NEW MEXICO REGION

Mr. Roger Anderson
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Zia Gas Plant
Discharge Plan GW-145
Renewal Fee

Dear Mr. Anderson:

GPM is submitting the required flat fee of $1,667.50 along with a signed copy of the discharge plan approval conditions for the Zia Gas Plant.

If you have any questions or need additional information, please call me at (915) 368-1142.

Sincerely,

Mel P. Driver

Mel P. Driver, P.E.
Environmental Engineer
New Mexico Region

GW-145

THIS IS WATERMARKED PAPER - DO NOT ACCEPT WITHOUT NOTING WATERMARK - HOLD TO LIGHT TO VERIFY WATERMARK

GPM GAS CORPORATION
BARTLESVILLE, OKLAHOMA 74004

86-82/1031

WESTSTAR BANK
BARTLESVILLE OK

B000027604 06/17/98 [redacted] $1,667.50

PAY TO THE ORDER OF EXACTLY *******$1,667DOLLARS AND 50 CENTS

NEW MEXICO ENVIRONMENTAL DEPT
WATER QUALITY MANAGEMENT
2040 S PACHECO
SANTA FE NM 87505

GPM GAS CORPORATION 51

Treasurer

[redacted]

RECEIVED
JUN 22 1998
Environmental Bureau
Oil Conservation Division

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 4/1/98,

or cash received on _____ in the amount of $ 100 00

from GPM

for Sand Dunes CS / Zia GP (Facility Name) GW-142 / GW-145 (GW No.)

Submitted by: _____ Date: _____

Submitted to ASD by: R Chudzen Date: _____

Received in ASD by: _____ Date: _____

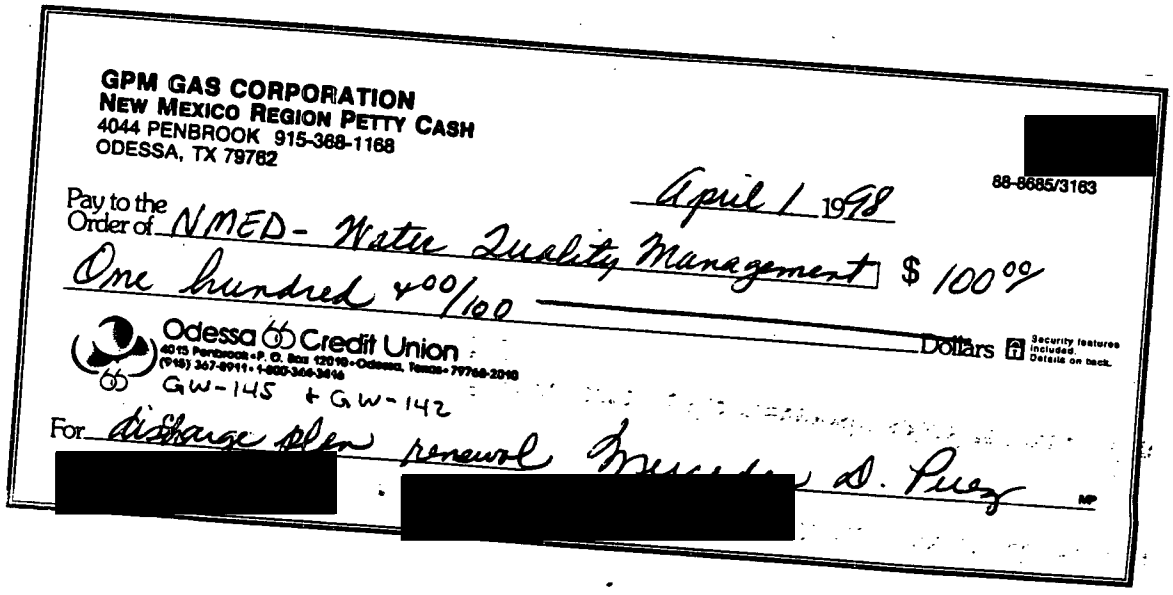
Filing Fee X New Facility ___ Renewal ___

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 98

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___



GPM GAS CORPORATION
NEW MEXICO REGION PETTY CASH
4044 PENBROOK 915-368-1168
ODESSA, TX 79762

[redacted]
88-8685/3163

April 1 1998

Pay to the Order of NMED - Water Quality Management $ 100 00

One hundred + 00/100 Dollars

Odessa Credit Union
4015 Penbrook • P. O. Box 12019 • Odessa, Texas • 79768-2019
(915) 367-8911 • 1-800-346-3414

Security features included. Details on back.

GW-145 + GW-142

For discharge plan renewal [redacted] D. Pruz

[redacted]

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

and numbered ..... was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, for one (1) day consecutive weeks, beginning with the issue of

April 7, 1998

and ending with the issue of

April 7, 1998

And that the cost of publishing said notice is the sum of $65.20

which sum has been (Paid) (Assessed) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 16th day of April, 1998

Jean Hesser

Notary Public, Lea County, New Mexico

My Commission Expires September 28 1998

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

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

(GW-142) - GPM Gas Services Company, Mel D. Driver, (915) 368-1142, 4044 Penbrook Street, Odessa, Texas 79762, has submitted a discharge renewal application for the Sand Dunes Booster Compressor Station located in the SE/4 SE/4 of Section 23, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico. Approximately 2,000 gallons per day of waste water is stored in above ground steel tanks prior to transport to an OCD approved Class II injection well for disposal well. round water most likely to be affected in the event of an accidental discharge is at a depth of approximately 220 feet with a total dissolved solids concentration of approximately 3,500 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-145) - GPM Gas Services Company, Mel D. Driver, (915) 368-1142, 4044 Penbrook Street, Odessa, Texas 79762, has submitted a discharge renewal application for the Zia Plant located in the NE/4 NE/4 of Section 19 Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 4,500 gallons per day of process waste water will be collected and stored in above ground steel tanks prior to disposal at an OCD approved off site commercial disposal facility. The total dissolved solids concentration of the waste water is approximately 2,000 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 2,400 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(s 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 application(s), 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 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(s) based on information available. If a public hearing is held the Director will approve or disapprove the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 2nd day of April, 1998.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director
SEAL

Published in the Lovington Daily Leader April 7, 1998.

[redacted]

GPM GAS CORPORATION
NEW MEXICO REGION PETTY CASH
4044 PENBROOK 915-368-1168
ODESSA, TX 79762

[redacted]
88-8685/3163

April 1 1998

Pay to the Order of NMED - Water Quality Management $ 100.00

One hundred and 00/100 ——— Dollars Security features included. Details on back.

Odessa Credit Union
4015 Penbrook • P. O. Box 12010 • Odessa, Texas • 79768-2010
(915) 367-8911 • 1-800-344-3416

GW-145 + GW-142

GW-145 (1/2)

For discharge plan renewal Mercedes D. Perez MP

[redacted]

S HARLAND

[redacted]

The Santa Fe New Mexican
Since 1849. We Read You.

RECEIVED
APR - 9 1998
OIL CONSERVATION DIVISION

NM OCD
ATTN: SALLY MARTINEZ
2040 S. PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 19429 ACCOUNT: 56689
LEGAL NO: 63296 P.O. #: 98-199-000257

216 LINES TWICE at $ 86.40
Affidavits: 5.25
Tax: 5.73
Total: $ 97.38

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE

I, BETSY PERNER being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily news paper 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 # 63296 a copy of which is hereto attached was published in said newspaper once each WEEK for ONE consecutive week(s) and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 8 day of APRIL 1998 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/ Betsy Perner
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 8 day of APRIL A.D., 1998

Notary B. Mathie
Commission Expires 3-13-2001

OFFICIAL SEAL
B. MATHIE
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 3-13-2001

NOTICE OF PUBLICATION

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

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(GW-145) - GPM Gas Services Company, Mel D. Driver, (915) 368-1142, 4044 Penbrook Street, Odessa, Texas 79762, has submitted a discharge renewal application for the Zia Plant located in the NE/4 NE/4 of Section 19, Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 4,500 gallons per day of process waste water will be collected and stored in above ground steel tanks prior to disposal at an OCD approved offsite commercial disposal facility. The total dissolved solids concentration of the waste water is approximately 2,000 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 2,400 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(s) 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 application(s), 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 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(s) based on information available. If a public hearing is held, the Director will approve the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 2nd day of April 1998.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

Legal #63296
Pub. April 8, 1998

P.O. Box 2048 • Santa Fe, New Mexico 87501
505-983-3303

NOTICE OF PUBLICATION

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

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(GW-145) - GPM Gas Services Company, Mel D. Driver, (915) 368-1142, 4044 Penbrook Street, Odessa, Texas 79762, has submitted a discharge renewal application for the Zia Plant located in the NE/4 NE/4 of Section 19 Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 4,500 gallons per day of process waste water will be collected and stored in above ground steel tanks prior to disposal at an OCD approved offsite commercial disposal facility. The total dissolved solids concentration of the waste water is approximately 2,000 mg/l. Ground water most likely to be affected in the event of an accidental discharge is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 2,400 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(s) 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 application(s), 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 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(s) based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan(s) based on the information in the discharge plan application(s) and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 2nd day of April 1998.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

for LORI WROTENBERY, Director

SEAL

March 23, 1998

GPM GAS CORPORATION
4044 PENBROOK
ODESSA, TX 79762

Zia Gas Plant
Discharge Plan GW-145
Discharge Plan Renewal

Mr. Roger Anderson
State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Dear Mr. Anderson:

Pursuant to Title 20 New Mexico Administrative Code (NMAC) 6.2, Subpart III, Section 3106, Application for Discharge Plan Approvals and Renewals, GPM Gas Services Company (GPM) is herewith submitting the required filing fee of fifty ($50) dollars for its discharge plan renewal.

GPM has operated the Zia Gas Plant in accordance with the terms and conditions of Groundwater Discharge Plan GW-145. GPM has made no major changes to Zia Gas Plant since the original discharge plan went into effect and would like to renew the discharge plan under the present terms of the existing permit.

Please do not hesitate to contact me at (915) 368-1142 should you have any questions or require additional information.

Sincerely,

Mel P. Driver

Mel P. Driver, P.E.
Environmental Engineer
New Mexico Region

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 7/20/93,
or cash received on 8/2/93 in the amount of $ _____
from GPM Gas Services Company
for Zia Gas Plant (Facility Name) GW-145 (DP No.)
Submitted by: _____ Date: _____
Submitted to ASD by: Kathy Brown Date: 8/2/93
Received in ASD by: Angie Allire Date: 8/2/93

Filing Fee ___ New Facility X Renewal ___
Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 94

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

GPM GAS CORPORATION 86-82/1031

DATE	CHECK NO.	AMOUNT
07/20/93	[redacted]	$3,335.00

8000101790

PAY TO THE ORDER OF NMED-WATER QUALITY MANAGEMENT
P O BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE NM 87504

EXACTLY *******$3,335DOLLARS AND 00 CENTS

GPM GAS CORPORATION 51

NW Cashier

[redacted]

July 22, 1993

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

Discharge Plan Fee
(GW-145)
Zia Gas Plant

William J. LeMay, Director
State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, NM 87504

Dear Mr. LeMay:

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulation 3-114 "Fees", GPM Gas Corporation (GPM) submits to the Oil Conservation Division the flat fee for the Zia Gas Plant Discharge Plan (GW-145) as approved by your office in a letter dated July 6, 1993.

Please find enclosed a check made payable to **NMED-Water Quality Management** in the amount of thirty three hundred thirty-five (3335) dollars (gas processing plants). As noted in your July 6th approval letter, the OCD has already received the $50 filing fee.

On behalf of GPM, I wish to thank you and your staff for your timely response to our discharge plan application. Please contact me at (915) 368-1085 should you have any questions.

Sincerely,

Vincent B. Bernard
Safety & Environmental Supervisor
New Mexico Region

/sm

cc: Jerry Sexton, OCD Hobbs Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

June 23, 1993

Permit #GW93017

William J. LeMay, Director
New Mexico Energy, Minerals, and
Natural Resources Department
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. LeMay:

This responds to the notice of publication received by the U.S. Fish and Wildlife Service (Service) on May 27, 1993, regarding effects of Oil Conservation Division discharge plan applications on fish, shellfish, and wildlife resources in New Mexico.

The Service has the following comments on the issuance of the discharge plan applications for:

> Salado Brine Sales for the insitu extraction brine well facility located in NE/4 NE/4, Section 20, T25S, R37E, NMPM, Lea County. The facility proposes to store brine water extracted from the Salado Formation in four 1000-barrel above ground tanks.
>
> GPM Gas Corporation located in NE/4 NE/4, Section 19, T19S, R32E, NMPM, Lea County, proposes to store approximately 4050 gallons per day of process waste water in above ground steel tanks prior to disposal at an OCD approved offsite commercial disposal facility.

The above ground storage tanks identified in the discharge plans should be entirely enclosed and have retention capacities adequate to contain all produced water. The tanks should be constructed of materials that are corrosion resistent to the proposed storage materials. Spills, leaks, or other accidental discharges to the surface should not cause or contribute to the taking of any endangered or threatened species of plant, fish, or wildlife, nor cause harm to migratory birds.

If you have any questions concerning our comments, please contact Joy Winckel or Mary Orms at (505) 883-7877.

Sincerely,

for Jennifer Fowler-Propst
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Regional Administrator, U.S. Environmental Protection Agency, Dallas, Texas

Affidavit of Publication

STATE OF NEW MEXICO)

) ss.

COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Notice Of Publication

and numbered ..... in the

..... Court of Lea

County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, and the same date of the week for one (1) day consecutive weeks, beginning with the issue of

June 2, 19 93

and ending with the issue of

June 2, 19 93

And that the cost of publishing said notice is the sum of $ 38.61

which sum has been (Paid) (Assessed) as Court Costs

Joyce Clemens

Subscribed and sworn to before me this 24th day of June, 19 93

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 94

LEGAL NOTICE
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 renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504,2088, Telephone (505) 827-5800:

(BW-25) - Salado Brine Sales, William H. Brininstool, P.O. Drawer A, Jal, New Mexico, 88252, has submitted a discharge plan application for their proposed insitu extraction brine well facility to be located in the NE/4 NE/4, Section 20, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. Proposed operations are for fresh water from the City of Jal's pipeline to be injected into the Salado Formation at an approximate depth of 1150 feet and brine water to be extracted through tubing. The brine water will have an average total dissolved solids (TDS) concentration of approximately 350,000 mg/1 and will be stored in four 1000 barrel above ground tanks. Groundwater most likely to be affected by an accidental discharge is at a depth of 40 feet with a total dissolved solids concentration of 875 mg/1. The discharge plan addresses injection well construction and operation, and how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-145) - GPM Gas Corporation, Vincent Bernard, 4044 Penbrook, Odessa, Texas, 79762, has submitted a discharge plan application for their proposed Zia Plant located in the NE/4 NE/4, Section 19, Township 19 South, Range 32 East, NMPM, Lea County, New Mexico. Approximately 4050 gallons per day of process waste water will be collected and stored in above ground steel tanks prior to disposal at an OCD approved offsite commercial disposal facility. The total dissolved solids concentration of the waste water will not be known until the plant begins operations. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 2400 mg/1. 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 5:00 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 public hearing may be requested by any interested person. Requests for 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 September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY,
Director
(SEAL)

Published in the Lovington Daily Leader June 2, 1993.

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

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

GIVEN under the Seal of the New Mexico Conservation Commission at Santa Fe, New Mexico, on this 24th day of September, 1993

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. LeMay
Director

Journal: June 3, 1993

OIL CONSERVATION DIVISION
RECEIVED
'93 JUN 7 AM 9 37

STATE OF NEW MEXICO
County of Bernalillo ss

Dianne Berglund being duly sworn declares and says that she is National Advertising Sales Supervisor of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition,

for 1 times, the first publication being on the 3 day of June, 1993, and the subsequent consecutive publications on ,1993

Dianne Berglund

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 3 day of June 1993.

OFFICIAL SEAL
Signature: Bernadette Ortiz
BERNADETTE ORTIZ
NOTARY PUBLIC-NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 12-8-93

PRICE $32.00

Statement to come at end of month.

CLA-22-A (R-1/93) ACCOUNT NUMBER C81184

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 renewal application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

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during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for 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 September, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

WILLIAM J. LEMAY, Director

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 5/18/93,
or cash received on 5/21/93 in the amount of $ 50.00
from GPM Gas Corporation
for Zia Gas Processing Plant (Facility Name) GW-145 (DP No.)
Submitted by: _____ Date: _____
Submitted to ASD by: Kathy Brown Date: 5/21/93
Received in ASD by: A. Allen Date: 5/21/93
Filing Fee X New Facility ___ Renewal ___
Modification ___ Other _____ (specify)
Organization Code 521.07 Applicable FY 93

To be deposited in the Water Quality Management Fund.
Full Payment ___ or Annual Increment ___

FIELD CHECK

GPM GAS CORPORATION
BARTLESVILLE, OKLAHOMA 74004

86-82
1031

GROUP/STAFF	LOCATION	DATE	CHECK NO.	AMOUNT
NMR (JR1786)	Odessa, Texas	May 18, 1993	[redacted]	$50.00

Fifty and no/100---------- DOLLARS

PAY TO ORDER OF NMED - Water Quality Management
P.O. Box 2088; State Land Office Bldg.
Santa fe, NM 87504

VOID IF IN EXCESS OF $1,000.00
GPM GAS CORPORATION D-51

J53 AGENT

WESTSTAR BANK, n.a. BARTLESVILLE, OKLAHOMA
BARTLESVILLE, OK 74003
[redacted]

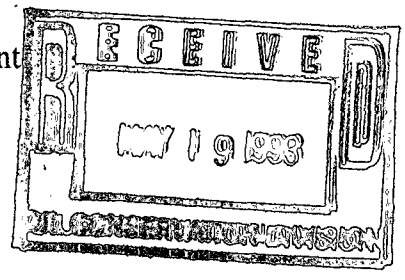
May 18, 1993

GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

Discharge Plan Application Zia Plant

William J. LeMay, Director
State of New Mexico
Energy, Minerals & Natural Resources Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, NM 87504



Dear Mr. LeMay:

Pursuant to Section 3-106 of the New Mexico Water Quality Control Commission (WQCC) Regulation, GPM Gas Corporation submits to the Oil Conservation Division a Discharge Plan Application for Zia Plant. Zia Plant will be a new sweet natural gas treating facility located in Lea County, New Mexico.

Pursuant to WQCC 3-114, Fees, please find enclosed a check in the amount of fifty dollars ($50.00) made payable to **NMED - Water Quality Management** as payment for GPM's Zia Plant Discharge Plan filing fee. Also included is an additional copy of the discharge plan application to be used as a working copy.

Please contact me at (915) 368-1085 if there are any questions regarding the enclosed Discharge Plan Application. Thank you.

Sincerely,

Vincent B. Bernard
Safety & Environmental Supervisor
New Mexico Region

/sm

cc: Jerry Sexton - OCD Hobbs Office (w/o attach)

GPM Gas Corporation
OCD Ground Water Discharge Plan
Zia Plant

GW-145

A. Name, Address, and Telephone of Discharger:

Name: GPM Gas Corporation

Address: 4044 Penbrook
Odessa, TX 79762

Telephone: (915) 368-1085

B. Name, Address, and Telephone of Local Contact:

Name: M. S. Nault

Address: Weststar Route
Box 448
Lovington, NM 88260

Telephone: (505) 397-5701

C. Location of Discharge:

Legal Description: NE/4 NE/4, Section 19, T-19-S, R-32-E,
Lea County, New Mexico

Site Plan: Attachment I
Topographic Map: Attachment VIII

D. Type of Natural Gas Operation:

Operation: Sweet natural gas treating

Description: Natural gas with a low sulfur content enters the plant at 550 psig. It is compressed to 950 psig, dehydrated, and then sent to the demethanizer where most of the ethane and other heavier hydrocarbon fractions are removed . The remaining gas is re-compressed to 600 psig before entering a residue sales line, and the liquified natural gas liquids are pumped into a product sales line. See Attachment II for a block flow diagram of the plant processes.

I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate and complete to the best of my knowledge and belief.

(Signature) (Date) 5-18-93

Vincent B. Bernard May 18, 1993

(Printed Name of Signatory) (Title)

II. Plant Processes

Liquids Produced or Used on Site

* Inlet Natural Gas - 29.9 MMCFD
  Typical Analysis: C1 -- 82%
  C2 -- 8.5%
  C3 -- 4%
  i-C4 -- .5%
  n-C4 -- 1%
  C5+ -- 1.5%
  N2 -- 2.5%

* Residue Natural Gas - 25.5 MMCFD
  Typical Analysis: C1 -- 93%
  C2 -- 3%
  N2 -- 4%

* Natural Gas Liquids - 113,000 gpd
  Typical Analysis: C1 -- 1%
  C2 -- 43%
  C3 -- 31%
  i-C4 -- 5%
  n-C4 -- 11%
  C5+ -- 9%

* Produced water and crude oil - 4500 gpd.
  Typical analysis: H_2O -- 90%
  CO_2 -- .1%
  C1 -- .2%
  C2 -- .1%
  C3 -- .6%
  C4 -- 2%
  C5 -- 1%
  C6+ -- 6%

* Lube oils
  All Purpose PhilGear - ISO VG 220
  55 gallons on site, replenished every 6 months.

  Hector Steam Cylinder Oil - ISO VG 180S
  55 gallons on site, replenished every 6 months.

  Magnus 465 Oil - ISO VG 100
  500 gallons on site, replenished every 3 months.

  Magnus 150 Oil - ISO VG 32
  55 gallons on site, replenished every 6 months.

  Philesco Synthetic Oil - ISO VG 68
  55 gallons on site, replenished every 6 months.

* Methanol - 500 gallons on site, 250 gallons replenished every 6 months.

* Antifreeze (ethylene glycol) - 500 gallons on site, replenished every 12 months.

* Triethylene Glycol - 1000 gallons on site, 500 gallons replenished every 6 months.

* Calibration Gas
  Methane - 2 cylinders on site, 1 cylinder replaced each year.
  Helium - 3 cylinders on site, 1 cylinder replaced each month

* Molecular Sieve - Type 4ADG
  35,000 pounds on site, replaced every 4-5 years.

* Heat Transfer Salt - 2055 gallons on site

* Inlet Gas Treating Solid - 971 cubic feet, replaced every 3-4 years.
  Sulfatreat or KOH. Will depend on market price.

* Sewage - 20 gpd, not commingled with any other effluent.

* Used Filters - Approximately 104 every year.
  The filters will be steam-cleaned if necessary and disposed of at an OCD approved facility.

All volumes and analyses are estimated, based on a 29.9 MMCFD plant.

Appendix A contains the material safety data sheets for the substances listed above.

Cooling System - An ethylene glycol based anti-freeze cooling system is used to cool the inlet and residue engines and compressors at the site. All of the units have individualized, self-contained cooling systems. When a machine is serviced, its anti-freeze charge is drained into the glycol storage tank. After the work is completed the anti-freeze is returned to the unit. This storage tank is also used to provide a glycol make-up stream to the machines.

Lube Oil System - Two different lube oil systems exist at the Plant, one for the inlet and residue compressors, and one for the expander/compressor. Both systems are self-contained and provide recharge and make-up oil from separate tanks to the units they serve.

Methanol System - Methanol is injected into the plant system upstream of the demethanizer. The methanol is stored in a tank and injected into the lines using a pump.

Plant Water System - The Plant stores its potable water on site.

III. Effluent Disposal

Open Drain System - The open drain system is an atmospheric drain system constructed of buried marlex pipe. This drain empties into two environmental sump tanks. This drain system serves the dehydrator coalescor filters, separator/coalescor skid, glycol regeneration skid, glycol regeneration water blowdown, pipeline pumps, process skid, regeneration compressor, inlet compressor, residue compressors and the air compressor skid. Used lube oil and engine coolant is also drained from the engines into the sump tank through the open drain system. This system is shown in **Attachment III** and the sump tanks in **Attachments V & VI**.

Closed Drain System - The closed drain system is an atmospheric drain system constructed of buried marlex pipe. This system is fully contained and empties into an environmental sump tank. This drain system serves the packing on the NGL pipeline pumps, the inlet, and residue compressors. This system is shown in **Attachment IV** and the sump tank in **Attachment V**.

Environmental Sump Tanks - Liquid from all three sump tanks is pumped to the Plant's slop oil storage tank. Diagrams of these tanks are shown in **Attachments V, VI & VII**. Slop oil storage tank liquid is periodically hauled, by I & W Transportation, to a disposal well. This well, owned by I & W Transportation, named the Walter Solt #1, is located in L, Sec. 5, T-18-S, R-28-E, Eddy County, New Mexico. The well is injecting into the Wolfcamp formation under permit order SWD 318.

Underground Pipelines - Piping buried in the plant is a combination of both steel and marlex, in a variety of thicknesses and diameters. All piping is new. Steel pipes are coated, wrapped, and cathodically protected.

Leach Field - A septic tank and leach field are located 45 feet from the plant office building. It is estimated that 20 gpd of sewage will be input into the system. A permit for this system has been obtained from the State of New Mexico. **Attachment I** shows the location and orientation of the leach field.

Storage Tanks - The 500 barrel slop oil tank is contained within a berm. The 500 gallon methanol, 500 gallon Lube oil, 500 antifreeze storage tanks, and the various 55 gallon drums are also located on pads or enclosures. **Attachment I & VII** are diagrams showing the position and containment of these tanks.

Solid Waste - Solid waste will be hauled to our Lee Plant site, and will be disposed of by Waste Management of New Mexico.

IV. Spill/Leak Prevention and Housekeeping Procedure

The Plant's underground vessels and piping are visually inspected and/or pressure tested prior to being put into service. The vessels and lines are externally and/or internally coated to ensure against corrosion. This equipment is checked periodically by operators. Any leaks would be detected by the operators and corrected. Operators are required to notify the Plant Supervisor of any leak. If the leak is significant, the Plant Supervisor will notify the Oil Conservation Division in accordance with Rule 116.

V. Site Characteristics

Topography - **Attachment VIII** is a topographical map of the area surrounding Zia Plant. As it can be seen from this map, there are no bodies of water within a one mile radius of the site.

Flooding Potential - None.

N4+00-0

N3+00-0

N2+00-0

N1+00-0

N0+00-0

S1+00-0

W3+00-0

W2+00-0

W1+00-0

W.2+70'-0"

W0+00-0

E0+00-0

E1+00-0

E2+00-0

E3+00-0

E4+00-0

E2+60-0

FENCE N4+80-0

FENCE S1+55-0

FENCE

FIRE VALVE

FIRE VALVE

TO SOUR PIPELINE

SLOP OIL TANK

CONTAINMENT AREA

INLET RECEIVER N.3+14'-0"

E1+08'-4"

E1+23'-8"

TRUCK LOADING

EXISTING WATER LINE

SALT BATH HEATERS

GLYCOL HEATER

W.0+23'-0"

OPEN DRAIN SUMP #2 N.1+90'-0"

DEMETHANIZER TOWER

CHROMATOGRAPH BUILDING

CONTROL BUILDING

LEACH FIELD

DEHYDRATORS

SEPARATOR/ COALESCER SKID

PROCESS SKIDS

METHANOL STORAGE

AIR FIN COOLER

GLYCOL SCRUBBER

POWER HOUSE AND TRANSFORMERS

SUMP TANK

FIRE VALVES

TO LUSK 5# SYSTEM

RESIDUE

NGL

REGEN. GAS WATER K.O.

INSTR. AIR

GAS/GAS EXCHANGER

OPEN DRAIN SUMP #1 N.0+45'-0"

E.1+55'-0"

AIR COMPRESSORS

(FUTURE)

REGEN. GAS COMPR.

PRODUCTS PIPELINE PUMPS

INLET COMPR. SUCT. SCRUBBER

SULFATREAT

W.1+-8"

CLOSED DRAIN SUMP #3 S.0+22'-0"

INLET COMPRESSORS

RESIDUE COMPRESSORS

LUBE OIL COOLANT STORAGE STORAGE

SECTION LINE

COUNTY ROAD C-126A

NO.	REVISION	BY CHKD	APP'D
1	REVISED ROAD REMOVED CO. RD. ROTATED R.W.K.O ADDED SUMPS SLOP OIL BERM MOVED SEP./COAL. REMOVED PROD. SURGE TANK, MOVED GLY. SCR. REMOVED SSH-1	4-5-93	
2	MOVED SUMP #2 ADDED SUMP #3 MOVED NORTH FIRE VALVES 55' NORTH ADDED AIR COMPRESSOR MOVED WEST FENCE 50' WEST	4-28-93	
2	MOVED SUMP TANK #3		

MAY 14 1993

FOR BIDS
FOR APPR
FOR CONST
DRAWN
CHECKED
APP'D

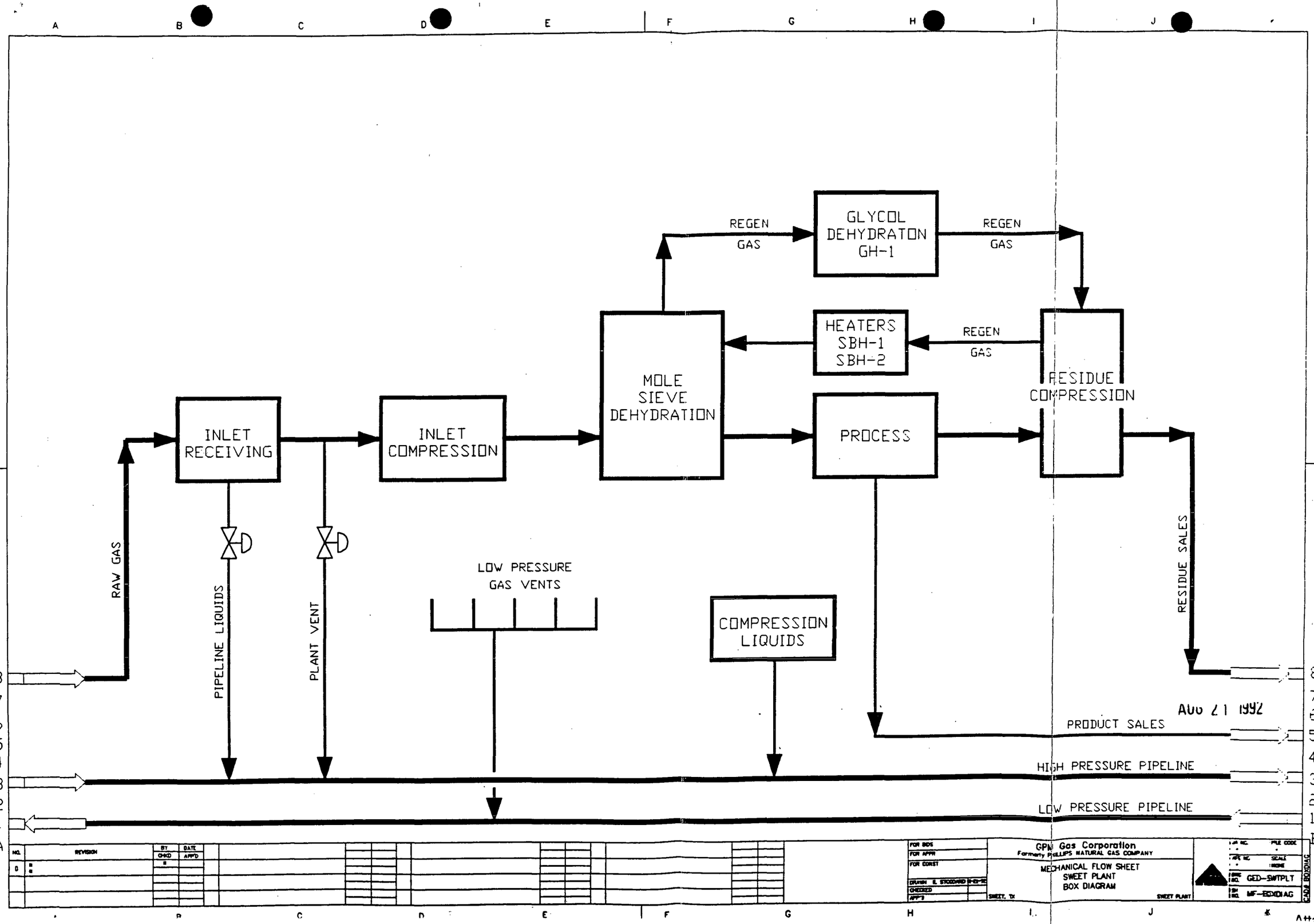
GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY
NEW MEXICO REGION

PLOT PLAN
21A GAS PLANT

JA NO.
FILE CODE
APE NO. NG-PNA60
SCALE 1"=30'
DWG NO. GED-1026
SH NO. MP-1-3

CADD MP-1-3

Attachment I



NO.	REVISION	BY CHKD	DATE APP'D
D			

FOR BIDS
FOR APPR
FOR CONST
DRAWN E. STODDARD 11-03-92
CHECKED
APP'D

GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY

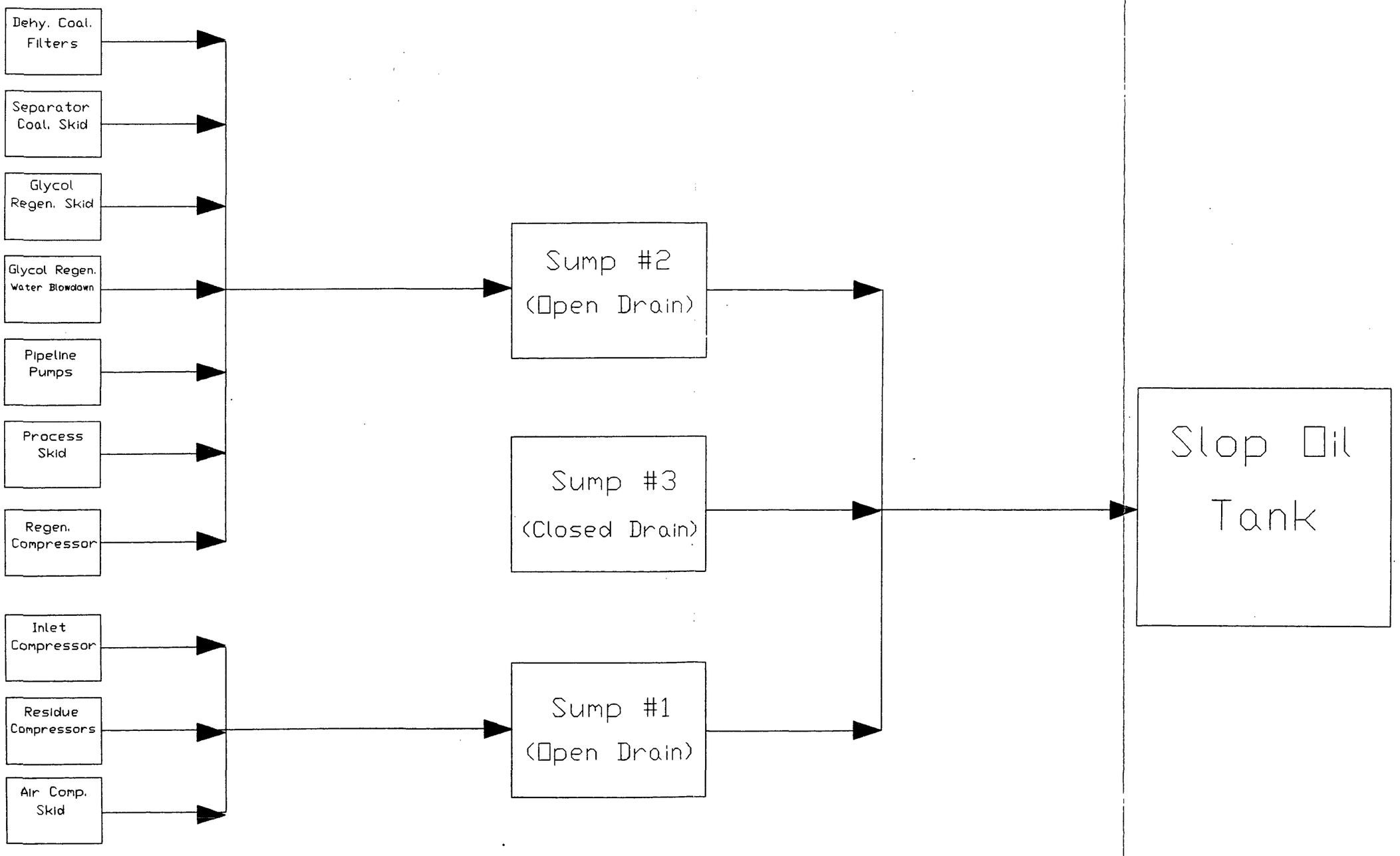
MECHANICAL FLOW SHEET
SWEET PLANT
BOX DIAGRAM

SHEET, IX
SHEET PLANT

JOB NO. | FILE CODE
APE NO. | SCALE
SIZE | DRAWING
D | GED-SWTPLT
SW | MF-BDXDIAG

CADD BOXDIAG

Attachment II



NO.	REVISION	BY CHKD	DATE APP'D

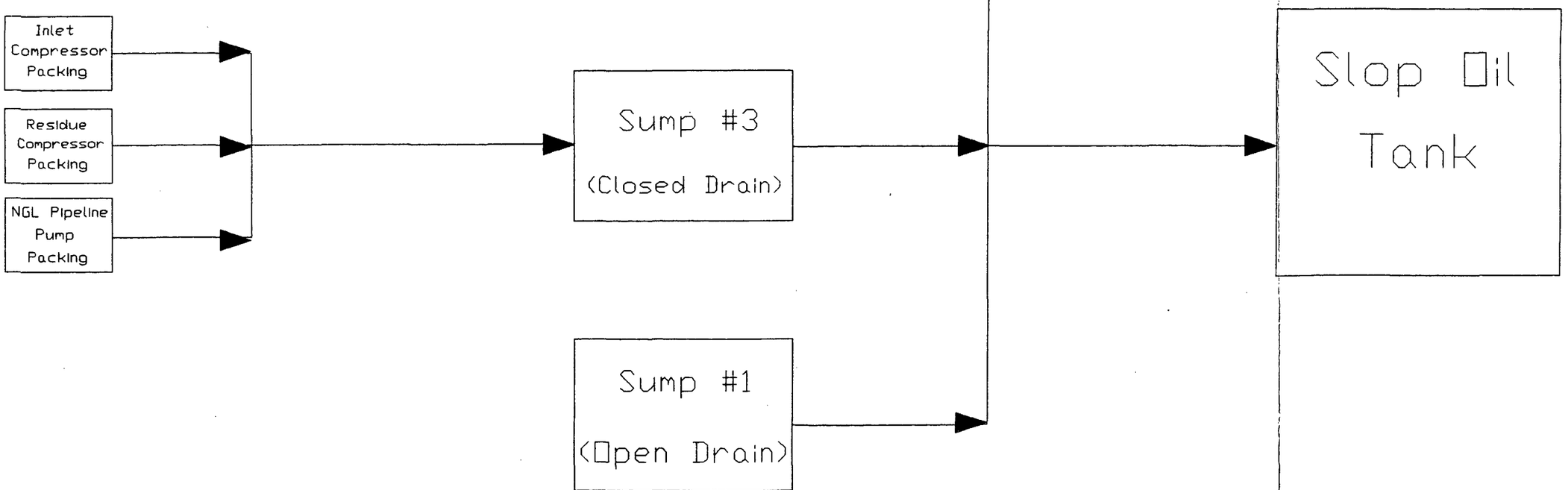
MAY 12 1993

FOR BIDS
AS-BUILT
DRAWN
CHECKED
APP'D

GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY
OPEN DRAIN SYSTEM LAYOUT
LEA CO. NEW MEXICO
ZIA PLANT

JA NO.
AFE NO.
DWG NO.
SH NO.
FILE CODE
SCALE NONE

C-DIM 4-86M9



NO.	REVISION	BY CHKD	DATE APP'D

MAY 12 1993

FOR BIDS
FOR APPR
FOR CONST
DRAWN
CHECKED
APP'D

GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY

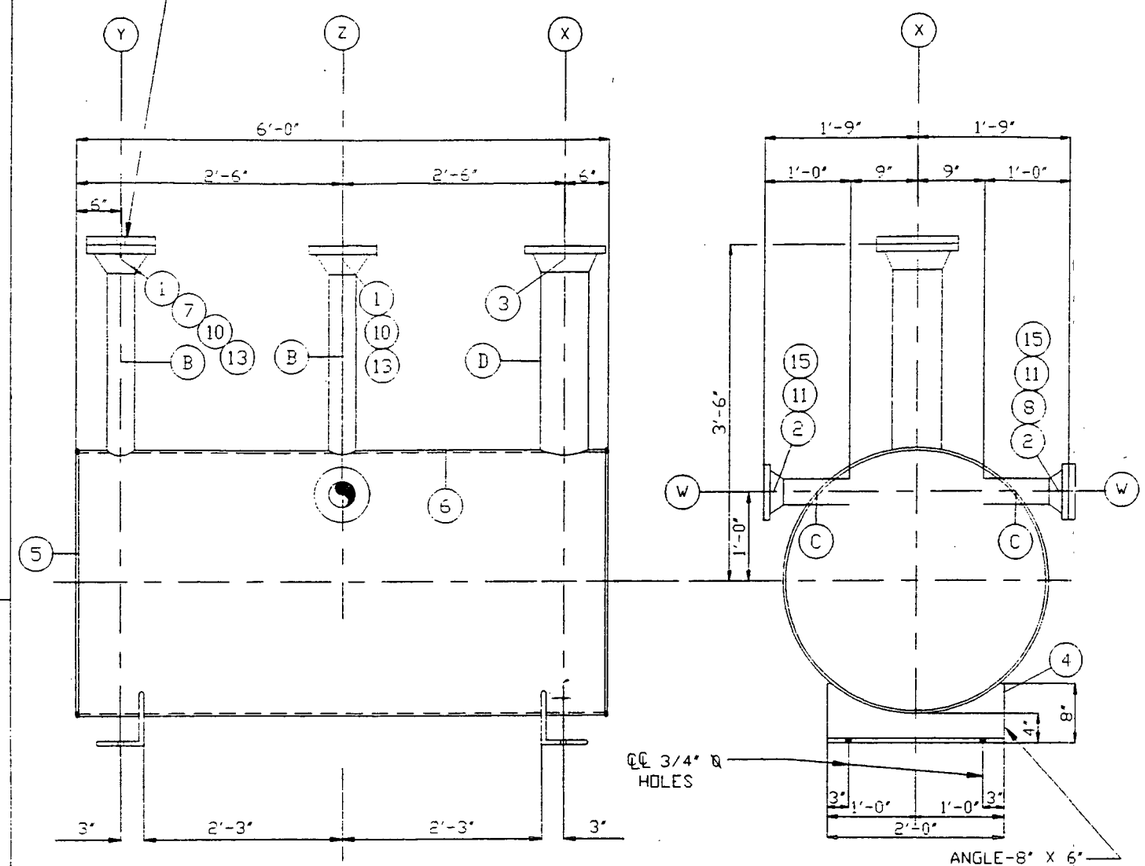
CLOSED DRAIN SYSTEM LAYOUT

LEA CO. NEW MEXICO — ZIA PLANT

GPM

JA NO. —
AFE NO. —
DWG NO.
SH NO.
FILE CODE —
SCALE NONE

CADD 43649



SIDE VIEW

END VIEW

MARK	QTY	SIZE	SCH/RAT	COMPONENT DESCRIPTION	TAG	PIECE MARK
1	2	2"	STD	150LB RAISED FACE WELD NECK FLANGE	-	PCM
2	2	4"	STD	150LB RAISED FACE WELD NECK FLANGE	-	PCM
3	1	6"	STD	150LB RAISED FACE WELD NECK FLANGE	-	PCM
4	1	8" X 6" X 5/8"	5/8"	ANGLE IRON	2' LONG	PCM
5	1	35 1/4" O.D.	STD	FLAT PLATE .375" WALL	35 1/4" O X .37	PCM
6	1	36" O.D. X .37	STD	QUALITY II PIPE	36"O.D X 6' LON	PCM
7	1	2"	STD	150LB RAISED FACE BLIND FLANGE	-	PCM
8	1	4"	-	150LB RAISED FACE BLIND FLANGE	-	PCM
9	-	-	-		-	PCM
10	2	2"	-	150LB GASKET 1/16" THK. ASBESTOS	-	PCM
11	2	4"	-	150LB GASKET 1/16" THK ASBESTOS	-	PCM
12	-	-	-		-	PCM
13	2	2"	-	5/8 X 3 STUD BOLTS - 4 REQD. PER SET	B-7	PCM
14	-	-	-		-	PCM
15	2	4"	-	5/8 X 3 1/2 STUD BOLTS - 8 REQD PER SET	-	PCM
16	-	-	-		-	PCM
A	-	-	-		-	PCM
B	2	2"	STD	PIPE SMLS ASTM-A106 GRADE B	1'-9 1/2"	PCM
C	2	4"	STD	PIPE SMLS ASTM-A106 GRADE B	9 1/4"	PCM
D	1	6"	STD	PIPE SMLS ASTM-A106 GRADE B	1'-8 1/2"	PCM

NOTES

NOZZLE	QUANITY	DESCRIPTION
W	2	INLET AND ROD THRU
X	1	OUTLET
Y	1	LEVEL CONTROL
Z	1	VENT

NOTE:
1. M.W.P. 10 PSIG @ 100°F.

NO.	REVISION	BY	DATE
		CHKD	APP'D
2	REDRAWN AND ADDED BILL OF MATERIAL	LONG	12-27-86
	PLACED ON AUTOCAD - PROPIPE	BLW	

"AUTOCAD" GENERATED DRAWING

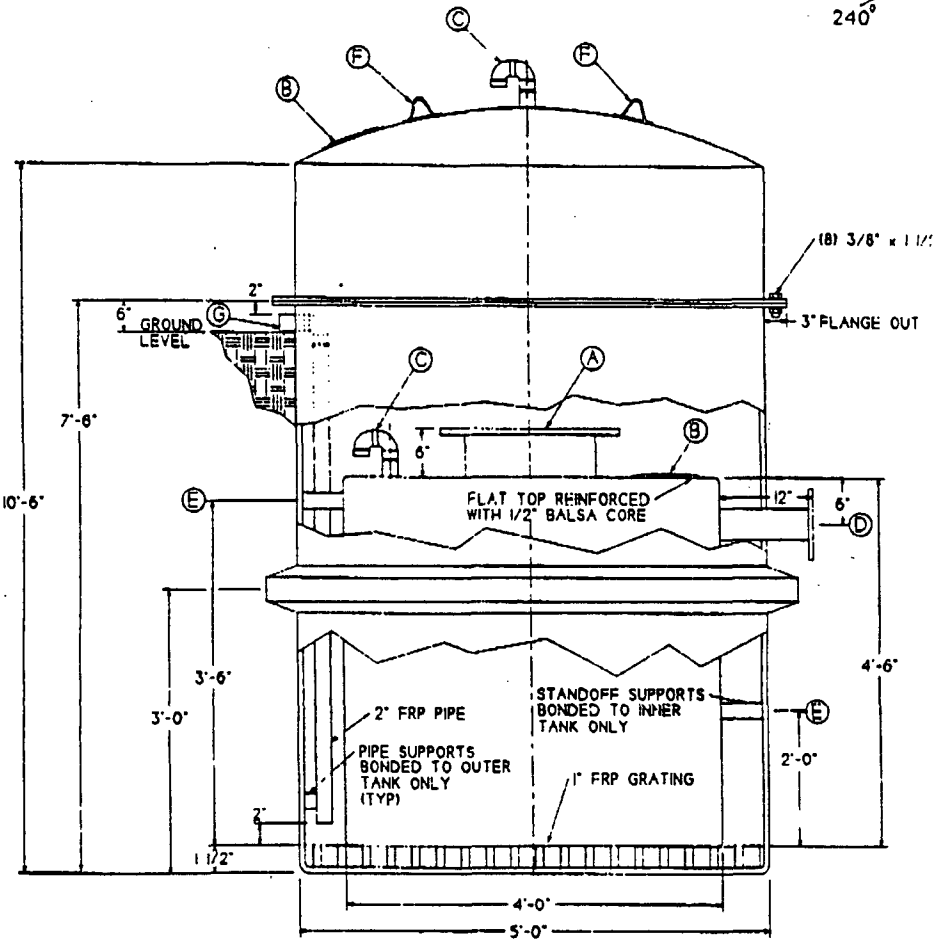
FOR BIDS
FOR APPR
FOR CONST
DRAWN LONG 12/27/86
CHECKED
APP'D

APR 27 1993

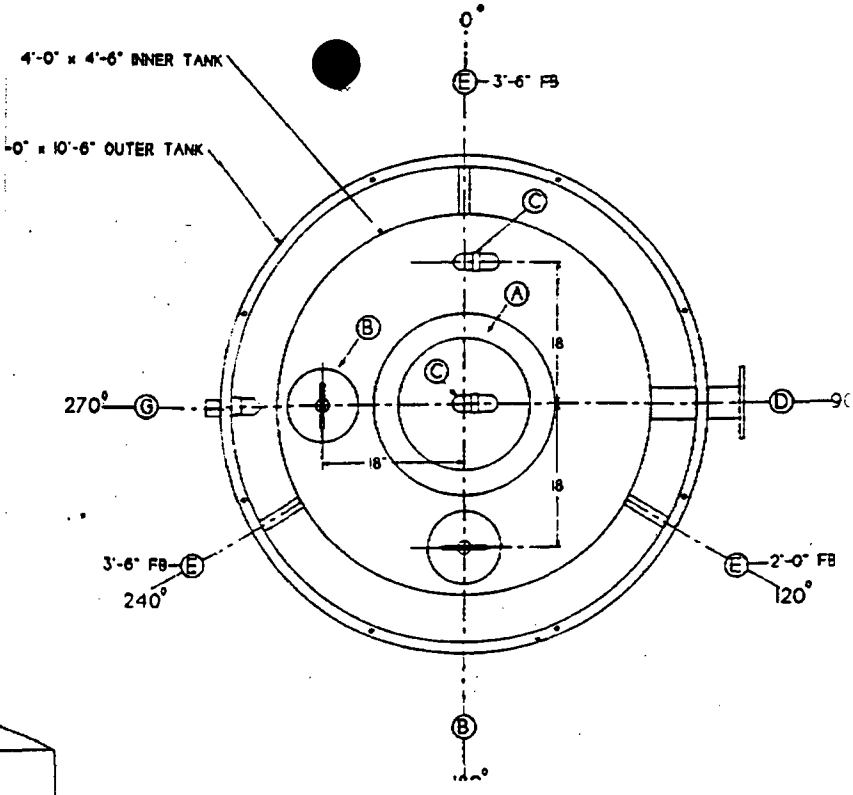
GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY
3'-0" O.D. X 6'-0"
STANDARD OIL DRAIN TANK
NEW MEXICO REGION ZIA GAS PLANT

JA NO. | FILE CODE
AFE NO. | SCALE
DWG NO. GWD-1026
SH NO. V-1-0
CAD# V2A1V-1

Attachment V


(8) 3/8" x 1 1/2
3" FLANGE OUT
2"
6"
GROUND LEVEL
7'-6"
10'-6"
6"
FLAT TOP REINFORCED WITH 1/2" BALSA CORE
12"
6"
3'-6"
3'-0"
2" FRP PIPE
PIPE SUPPORTS BONDED TO OUTER TANK ONLY (TYP)
STANDOFF SUPPORTS BONDED TO INNER TANK ONLY
1" FRP GRATING
4'-6"
2'-0"
2"
1 1/2"
4'-0"
5'-0"

ELEVATION


4'-0" x 4'-6" INNER TANK
-0" x 10'-6" OUTER TANK
0°
3'-6" FB
270°
90
18"
18"
18"
3'-6" FB
240°
2'-0" FB
120°

AREA LIMITS – N.3+25'–0"

MATCH LINE – E.1+68'–0" – SEE DWG. P–3

AREA LIMITS – E.2+48'–0"

E.2+00'–0"

N.3+00'–0"

40–151–2
–151–2
(MIN. 3'–0" COVER)

℄ EL.100'–5"

1'–7 1/4"

1/2"

1'–10"

2" BALL VALVE

4"X2" CONC. SWG.(TLE,BSE)

℄ E. 2+25'–0"

X=225'
Y=300'
Z=0"

℄ SLOP OIL TANK
N. 3+00'–0"

VENT

8'–5"

THIEF HATCH

4" W/PLUG (TYP.)

LADDER

4"–150# THRD. FLG. WITH THRD. NIPPLE

4" BALL VALVE

1'–9 1/4"

℄ EL.101'–3"

Gate

EDGE OF ROAD

℄ G.P. & F.O.F. E. 1+90'–0"

Gate

4" HOSE CONN.

4" BALL VALVE

℄ TRUCK LOADING
N. 2+82'–0"
EL. 102'–6"

39–151–4
(MIN. 3'–0" COVER)

TRUCK LOADING AREA

4"ø GUARD POSTS PER GPM STANDARDS

AREA LIMITS – N.2+75'–0"

"AUTOCAD" GENERATED DRAWING

NO.	REVISION	BY CHKD	DATE APP'D
0	•	•	

MAY 04 1993

FOR BIDS
FOR APPR
FOR CONST

DRAWN JWOOD 03/01/93
CHECKED
APP'D

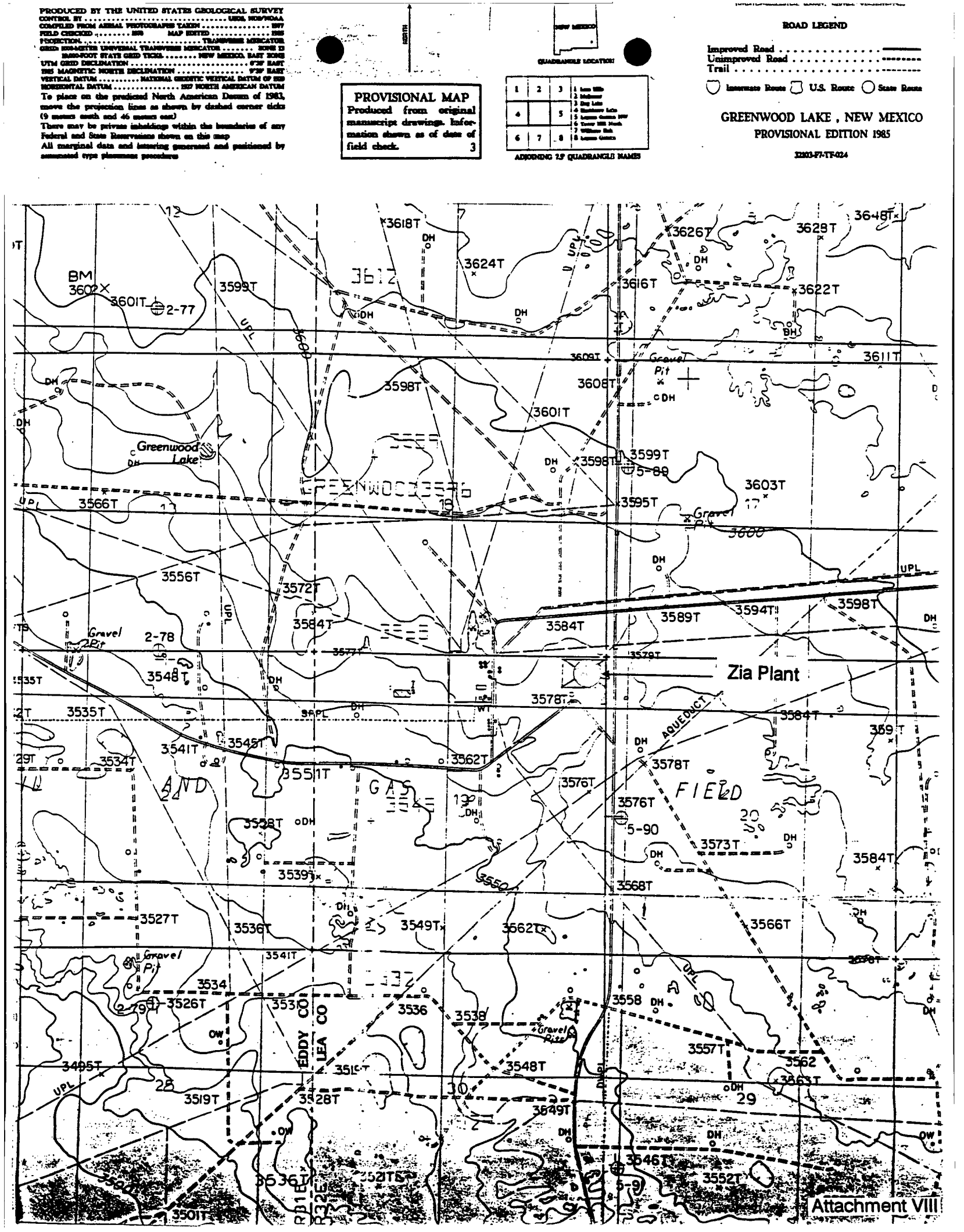
GPM Gas Corporation
Formerly PHILLIPS NATURAL GAS COMPANY

PIPING PLAN
SLOP OIL TANK
•

NEW MEXICO REGION — ZIA GAS PLANT

JA NO. • | FILE CODE
AFE NO. MB305 | SCALE 3/8"=1'–0"
DWG NO. GED–1026
SH NO. P–4
CARD P–4

Attachment VII


PRODUCED BY THE UNITED STATES GEOLOGICAL SURVEY
CONTROL BY ..... USGS, NOS/NOAA
COMPILED FROM AERIAL PHOTOGRAPHS TAKEN 1977
FIELD CHECKED ..... 1978 MAP EDITED 1985
PROJECTION ..... TRANSVERSE MERCATOR
GRID ZONE/100-METER UNIVERSAL TRANSVERSE MERCATOR ..... ZONE 13
10000-FOOT STATE GRID TICKS ..... NEW MEXICO, EAST ZONE
UTM GRID DECLINATION ..... 9°39' EAST
1985 MAGNETIC NORTH DECLINATION ..... 9°39' EAST
VERTICAL DATUM ..... NATIONAL GEODETIC VERTICAL DATUM OF 1929
HORIZONTAL DATUM ..... 1927 NORTH AMERICAN DATUM
To place on the predicted North American Datum of 1983, move the projection lines as shown by dashed corner ticks (9 meters south and 46 meters east)
There may be private inholdings within the boundaries of any Federal and State Reservations shown on this map
All marginal data and lettering generated and positioned by automated type placement procedure
PROVISIONAL MAP
Produced from original manuscript drawings. Information shown as of date of field check.
3
QUADRANGLE LOCATION
ADJOINING 7.5' QUADRANGLE NAMES
ROAD LEGEND
Improved Road
Unimproved Road
Trail
Interstate Route
U.S. Route
State Route
GREENWOOD LAKE , NEW MEXICO
PROVISIONAL EDITION 1985
32103-F7-TF-024
Zia Plant
AQUEDUCT
FIELD
Greenwood Lake
Gravel Pit
EDDY CO
LEA CO
Attachment VIII

Appendix A

Date October, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

NATURAL GAS

PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

USA AND CANADA — WORLDWIDE — OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE
Chemical Name: Natural Gas
Chemical Family: Mixture
Chemical Formula: Mixture
CAS Reg. No: 8006-14-2
Product No: NE
Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients*	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Ethane	74-84-0	2-15	NE	Simple Asphyxiant
Propane	74-98-6	1-10	1000 ppm	Simple Asphyxiant
Nitrogen	7727-37-9	0-15	NE	NE
Methane	74-82-8	60-95	NE	Simple Asphyxiant
Pentane	109-66-0	0-2	1000 ppm	600 ppm
Isopentane	78-78-4	0-2	NE	NE
Hydrogen Sulfide	7783-06-4	0-5	20 ppm (c)	10 ppm
Carbon Dioxide	124-38-9	0-5	5000 ppm	5000 ppm
Hexane	110-54-3	0-2	500 ppm	50 ppm
Isohexane	107-83-5	0-2	NE	500 ppm
Butane	109-97-8	0-4	NE	800 ppm
Isobutane	75-28-5	0-4	NE	NE

*Normal composition ranges are shown. Exceptions may occur which would invalidate data on this form.

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation to control exposure below recommended levels.

Respiratory Protection: Not generally required. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator.

Eye Protection: Use safety glasses with side shields.

Skin Protection: No special garments required. Avoid unnecessary skin contamination with material.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation. When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Protect from sources of inition. Store in a cool, well-ventilated area. Wear protective equipment and/or garments described above if exposure conditions warrant.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing materials.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid:

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned. Sulfur oxides if hydrogen sulfide is present.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: See Hazardous Components Section (Page 1).

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: May cause irritation including pain, blurred vision, redness, tearing and superficial corneal turbidity.

SKIN: May cause slight irritation. Extreme exposure may produce discoloration, muscle weakness, breathing difficulties and other central nervous system effects.

INHALATION: May cause nausea, diarrhea, loss of appetite, dizziness, disorientation, headache, excitation, rapid respiration, drowsiness, labored breathing, anesthesia and other central nervous system effects. May cause lung paralysis and asphyxiation. Extreme overexposure may cause rapid unconsciousness and respiratory arrest.

INGESTION: NA

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
See Page 6.

OTHER HEALTH EFFECTS:

The components isobutane, butane and propane were not found to be mutagenic when tested in the AMES assay. Hexane was also negative in both the AMES and SCE mutagenic assays. A weakly positive response was seen in the Mouse Lymphoma Mutagenic assay for Hexane.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☒	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☒	☒
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify Neurotoxic; Nephrotoxic (animals).

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Immediately flush eyes with running water for at least 15 minutes. If illness or adverse symptoms develop, seek medical attention.

SKIN: Flush skin with water for 15 minutes. If illness or adverse symptoms develop, seek medical attention.

INHALATION: Promptly remove from exposure. If breathing becomes shallow, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek medical attention.

INGESTION: Seek immediate medical attention.

PHYSICAL DATA

Appearance: Colorless gas

Odor: Mild, rotten egg odor if hydrogen sulfide is present.

Boiling Point: NA

Vapor Pressure: NA

Vapor Density (Air = 1): <1

Solubility in Water: Negligible

Specific Gravity (H_2O = 1): Approximately 0.4

Percent Volatile by Volume: NA

Evaporation Rate (_____ = 1): NA

Viscosity: NA

FIRE and EXPLOSION DATA

Flash Point (Method Used): -300°F (Estimated)

Flammable Limits (% By Volume in Air): LEL NE UEL NE

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Stop flow of gas. If possible, let fire burn until flow of gas can be shut off. Evacuate area of all unnecessary personnel. Use NIOSH/MSHA approved self-contained breathing apparatus if exposure conditions warrant. Water fog or spray may be used to cool exposed equipment and containers.

Fire and Explosion Hazards: Very dangerous when exposed to heat or flame. If hydrogen sulfide is present respiratory equipment specified above must be used.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Shut off source. Protect from ignition. Ventilate area. If hydrogen sulfide is present immediately provide NIOSH/MSHA approved self-contained breathing apparatus.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or otherwise manage at a RCA permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: Hydrocarbon Gas, Non-liquefied

Hazard Class: Flammable Gas

ID Number: UN 1964

Marking: Hydrocarbon Gas, Non-liquefied and UN 1964 on cylinders; no bulk transportations allowed.

Label: Flammable Gas

Placard: Flammable Gas

Hazardous Substance/RQ: NA

Shipping Description: Hydrocarbon Gas, Non-liquefied, Flammable Gas, UN 1964

Packaging References: 49 CFR 173.302

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

Ignitable

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Contact immediate supervisor for specific instructions before work is initiated.

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☐ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☒ Flammable Gas	☒ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:

Hexane harms the nervous system producing a lack of feeling in the extremities and more severe nerve damage in humans. Hexane has produced blood changes in laboratory animals and has produced fetotoxicity in animals exposed orally. Two inhalation exposures, however, did not produce fetotoxicity in animals.

Exposure to 1000 ppm Propane for 8 hours a day, 5 days a week, for approximately 2 weeks produced no abnormal reactions, including cardiac, pulmonary and neurologic function in humans.

Human volunteers exposed repeatedly to Isobutane at 500 ppm for various exposure times, 5 days a week for two to four weeks exhibited no cardiac, pulmonary or other functional abnormalities.

Carbon dioxide exposure may cause acidosis and imbalance of electrolytes in the blood. Hydrogen sulfide may cause nerve damage.

Isopentane did not, but Isohexane did, produce kidney damage in a subchronic oral laboratory study. Isopentane did not produce kidney damage in a subchronic inhalation exposure to 4500 ppm and 1000 ppm of a 50/50 mixture of isobutane and isopentane. Rats were the test species in both studies.

Date November, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

NATURAL GASOLINE

PHILLIPS PETROLEUM COMPANY

Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

USA AND CANADA

WORLDWIDE

OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE
Chemical Name: Mixture
Chemical Family: Hydrocarbon
Chemical Formula: Mixture
CAS Reg. No: 8006-61-9
Product No: NE
Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Vol.	OSHA PEL	ACGIH TLV
Benzene	71-43-2	0-2	10 ppm	10 ppm
Hexane	110-54-3	2-13	500 ppm	50 ppm
Isoparaffins	Various	75-95	NE	NE
Cyclohexane	110-82-7	1-5	300 ppm	300 ppm
Butane	106-97-8	2-5	NE	800 ppm

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation to control below recommended exposure levels.

Respiratory Protection: For concentrations exceeding the recommended exposure level, use NIOSH/MSHA approved air purifying respirator. In case of spill or leak resulting in unknown concentrations, use NIOSH/MSHA approved supplied air respirator. If conditions immediately dangerous to life or health (IDLH) exist, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) equipment.

Eye Protection: Use chemical goggles.

Skin Protection: Use full-body, long-sleeved garments. Use polyvinyl alcohol or Buna-N gloves.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wear protective equipment and/or garments described above if exposure conditions warrant. Keep containers closed. Wash hands after handling. Store in a cool, well-ventilated area away from ignition sources. Provide means of controlling leaks and spills. Bond and ground during liquid transfer.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid:

Hazardous Decomposition Products: Carbon oxides formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: See Hazardous Components Section (Page 1).

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: May be mildly irritating.

SKIN: May be mildly irritating.

INHALATION: May cause headache, dizziness, tiredness, sedation and unconsciousness. May be aspirated into lungs if swallowed.

INGESTION: May be mildly irritating to intestines.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:

See Page 6.

OTHER HEALTH EFFECTS:

See Page 6.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☒	☒	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☒	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☒	☒
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify _____

_____

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water for at least 15 minutes. If irritation develops, seek medical attention.

SKIN: Wash with soap and water. If irritation develops, seek medical attention.

INHALATION: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

INGESTION: Do not induce vomiting. Seek immediate medical assistance. A physician may, at his discretion, perform gastric lavage using a cuffed endotracheal tube.

PHYSICAL DATA

Appearance: Colorless liquefied gas

Odor: None

Boiling Point: 96°F (Estimated)

Vapor Pressure: 9.3 psia at 70°F (Estimated)

Vapor Density (Air = 1): >1

Solubility in Water: Negligible

Specific Gravity (H_2O = 1): 0.642 (Estimated)

Percent Volatile by Volume: 100

Evaporation Rate (Butyl Acetate = 1): >1

Viscosity: NE

FIRE and EXPLOSION DATA

Flash Point (Method Used): -50°F to -70°F

Flammable Limits (% By Volume in Air): LEL NE UEL NE

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if conditions warrant. Water fog or spray may be used to cool exposed equipment and containers. Allow fire to burn until gas flow is shut off, if possible.

Fire and Explosion Hazards: Carbon oxides formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along ground away from handling site.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Shut off source, if possible. Protect from ignition. When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Ventilate area thoroughly.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate.

DOT TRANSPORTATION

Shipping Name: Gasoline

Hazard Class: Flammable Liquid

ID Number: UN 1203

Marking: Gasoline and UN 1203 on containers smaller than 110 gallons; 1203 on bulk containers

Label: Flammable Liquid

Placard: Flammable

Hazardous Substance/RQ: NA

Shipping Description: Gasoline, Flammable Liquid, UN 1203

Packaging References: 49 CFR 173.119

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

Ignitable

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Contact immediate supervisor for specific instructions before work is initiated.

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☐ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☐ Flammable Gas	☒ Health Hazard (See Page 3)	☐ Water Reactive
☒ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

Isoparaffins have caused kidney changes in laboratory animals. Hexane has caused nerve damage producing a lack of feeling in extremities and more severe nerve injury. Benzene may produce blood changes which include reduced platelets, reduced red blood cells, reduced white blood cells, aplastic anemia, leukemia, erythroleukemia. Fetal death has been produced in laboratory animals. Benzene has caused chromosome changes in humans and mutation changes in cells of other organisms.

Date October, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

PHILUBE® ALL PURPOSE GEAR OIL

PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

USA AND CANADA

WORLDWIDE

OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE

Chemical Name: Mixture

Chemical Family: Hydrocarbon with Sulfurized-Phosphorus Additive

Chemical Formula: Mixture

CAS Reg. No: Mixture

Product No: NE

Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Paraffinic Oil Plus Sulfurized-Phosphorus Additive	Various	100	NE	NE

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required.

Eye Protection: Use safety glasses with side shields.

Skin Protection: No special garments required. Avoid unnecessary skin contamination with material.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wear protective equipment described above if exposure conditions warrant. Wash hands after handling. Launder contaminated clothing before reuse.

Store in a cool, well-ventilated area away from ignition sources. Keep containers closed.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid:

Hazardous Decomposition Products: Carbon, sulfur, phosphorus oxides and various hydrocarbons formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: None established.

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: Minimal, transient irritation.

SKIN: Practically non-toxic by skin absorption. No skin effects expected.

INHALATION: None expected.

INGESTION: Practically non-toxic.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
No known applicable information.

OTHER HEALTH EFFECTS:
No known applicable information.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☐	☐
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify No known applicable information.

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water for at least 15 minutes.

SKIN: Wash with soap and water.

INHALATION: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

INGESTION: Give 2 glasses of water and induce vomiting. Seek medical attention.

PHYSICAL DATA

Appearance: Dark viscous liquid

Odor: Slight

Boiling Point: NE

Vapor Pressure: NE

Vapor Density (Air = 1): NE

Solubility in Water: Negligible

Specific Gravity (H_2O = 1): 0.88-0.91 at 60/60°F

Percent Volatile by Volume: Negligible

Evaporation Rate (_____ = 1): Negligible

Viscosity: NE

FIRE and EXPLOSION DATA

Flash Point (Method Used): >350°F (>177°C) (COC, ASTM D 92).

Flammable Limits (% By Volume in Air): LEL NE UEL NE

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire — product will float and could be reignited on surface of water.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal drums.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or otherwise manage in a permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: NA
Hazard Class: NA
ID Number: NA
Marking: NA
Label: NA
Placard: NA
Hazardous Substance/RQ: NA
Shipping Description: NA
Packaging References: NA

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

NA

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

NA

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☒ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☐ Flammable Gas	☐ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oil.

Date October, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

HECTOR OILS (All Grades)

PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

PHILLIPS 66 — USA AND CANADA

WORLDWIDE

PHILLIPS PETROLEUM 66 — OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE
Chemical Name: Mixture
Chemical Family: Hydrocarbon
Chemical Formula: Mixture
CAS Reg. No: Mixture
Product No: NE
Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Solvent Refined Heavy Paraffinic Distillate Oil plus Additives	Various	100	5 mg/m³*	5 mg/m³*

*As Oil Mist.

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required.

Eye Protection: Use safety glasses with side shields.

Skin Protection: No special garments required. Avoid unnecessary skin contamination with material.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wear protective equipment and/or garments described above if exposure conditions warrant. Wash hands after handling. Launder contaminated clothing before reuse.

Store in a cool, well-ventilated area away from ignition sources. Keep containers closed.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid:

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: See Hazardous Components Section (Page 1).

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: Minimal, transient irritation.

SKIN: Practically non-toxic by skin absorption. No skin effects expected.

INHALATION: None expected.

INGESTION: Practically non-toxic.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
No known applicable information.

OTHER HEALTH EFFECTS:
No known applicable information.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☐	☐
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify _____

_____

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water for at least 15 minutes.

SKIN: Wash with soap and water.

INHALATION: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

INGESTION: Give 2 glasses of water and induce vomiting. Seek medical attention.

PHYSICAL DATA

Appearance: Dark viscous fluid
Odor: Mild
Boiling Point: NE
Vapor Pressure: <1 mm Hg at 20°C
Vapor Density (Air = 1): 15-20+
Solubility in Water: Negligible
Specific Gravity (H_2O = 1): 0.9 at 60/60°F
Percent Volatile by Volume: Negligible
Evaporation Rate (_____ = 1): Negligible
Viscosity: 2125-3300 SUS at 100°F

FIRE and EXPLOSION DATA

Flash Point (Method Used): >480°F (>249°C) (COC, ASTM D 92)
Flammable Limits (% By Volume in Air): LEL NE UEL NE
Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if exposure conditions warrant. Water fog or spray may be used to cool exposed equipment and containers. Do not spray water directly on fire — product will float and could be reignited on surface of water.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal drums.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or otherwise manage in a permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: NA
Hazard Class: NA
ID Number: NA
Marking: NA
Label: NA
Placard: NA
Hazardous Substance/RQ: NA
Shipping Description: NA
Packaging References: NA

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

NA

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

NA

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☒ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☐ Flammable Gas	☐ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oil.

Date April, 1986

MATERIAL SAFETY DATA SHEET

Product Name:

MAGNUS OILS (All Grades)

PHILLIPS 66 COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004
Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

USA AND CANADA

WORLDWIDE

OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE

Chemical Name: Mixture

Chemical Family: Hydrocarbon

Chemical Formula: Mixture

CAS Reg. No: Mixture

Product No: NE

Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Solvent Refined Heavy Paraffinic Distillate Plus Additives	Various	100	5 mg/m³*	5 mg/m³*

**As oil mist.*

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required.

Eye Protection: Use safety glasses with side shields.

Skin Protection: No special garments required. Avoid unnecessary skin contamination with material.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wear protective equipment described above if exposure conditions warrant. Wash hands after handling. Launder contaminated clothing before reuse.

Store in a cool, well-ventilated area away from ignition sources.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid:

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: See Hazardous Components Section (Page 1).

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: Minimal, transient irritation.

SKIN: Practically non-toxic by skin absorption. No skin effects expected.

INHALATION: None expected.

INGESTION: Practically non-toxic.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
No known applicable information.

OTHER HEALTH EFFECTS:
Pressurized injection of product under the skin can lead to seriously inflammed tissue. If left untreated injury can become gangrenous.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☐	☐
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify _____

_____

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water for at least 15 minutes. For injection injuries, immediate medical treatment is required. Physicians may call (918) 661-4845.

SKIN: Wash with soap and water. For injection injuries, immediate medical treatment is required. Physicians may call (918) 661-4845.

INHALATION: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

INGESTION: Give 2 glasses of water and induce vomiting. Seek medical attention.

PHYSICAL DATA

Appearance: Amber liquid
Odor: Mild
Boiling Point: NE
Vapor Pressure: <1 mm Hg at 20°C
Vapor Density (Air = 1): 12+
Solubility in Water: Negligible
Specific Gravity (H_2O = 1): 0.86-0.89 at 60/60°F
Percent Volatile by Volume: Negligible
Evaporation Rate (_____ = 1): Negligible
Viscosity: 150-970 SUS at 100°F

FIRE and EXPLOSION DATA

Flash Point (Method Used): >365°F (>185°C) (COC, ASTM D 92).
Flammable Limits (% By Volume in Air): LEL NE UEL NE
Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire — product will float and could be reignited on surface of water.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Contain spill Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal drums.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or otherwise manage in a permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: NA
Hazard Class: NA
ID Number: NA
Marking: NA
Label: NA
Placard: NA
Hazardous Substance/RQ: NA
Shipping Description: NA
Packaging References: NA

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

NA

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

NA

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☒ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☐ Flammable Gas	☐ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oils.

DATE September, 1983

MATERIAL SAFETY DATA SHEET

("ESSENTIALLY SIMILAR" TO FORM OSHA-20)

WHERE APPLICABLE, THIS PRODUCT HAS BEEN REPORTED FOR THE EPA'S CHEMICAL SUBSTANCE INVENTORY.

SECTION I - IDENTIFICATION OF PRODUCT

MARKETERS NAME: PHILLIPS PETROLEUM COMPANY	EMERGENCY TELEPHONE NUMBERS: DURING BUSINESS HOURS (918) 661-3865; OUTSIDE BUSINESS HOURS (918) 661-8118
ADDRESS (NUMBER, STREET, CITY, STATE, & ZIP CODE): BARTLESVILLE, OK 74004	PRODUCT NO.: 81750
TRADE NAME: Philesco® 68 (315)	CHEMICAL NAME AND SYNONYMS: Ester & Performance Additive
CHEMICAL FAMILY: Ester	CHEMICAL FORMULA: N.A.

DOT SHIPPING NAME	HAZARD CLASS	ID NUMBER
N.A.	N.A.	N.A.

SECTION II - HAZARDOUS COMPONENTS OF MIXTURES

INGREDIENTS	CAS NUMBER	% BY WT.	THRESHOLD LIMIT VALUE (UNITS)
O-Tricresyl Phosphate	78-30-8	<0.02	0.1mg/m^3

SECTION III - TYPICAL PHYSICAL DATA

BOILING POINT (°F): > 450°(>232°C) @ 760mm Hg	APPEARANCE AND ODOR: Reddish liquid/mild ester odor
VAPOR PRESSURE: 1 mm Hg @ 20°C	SPECIFIC GRAVITY (H_2O = 1): 1.060 (20/20°C)
VAPOR DENSITY (AIR = 1): N.E.	PERCENT VOLATILE BY VOLUME (%): Negligible
SOLUBILITY IN WATER: Negligible	EVAPORATION RATE (butyl acetate = 1): <1

SECTION IV - FIRE AND EXPLOSION - HAZARD DATA

FLASH POINT (METHOD)	FLAMMABLE LIMITS (% BY VOLUME)	Lel	Uel
485°F(252°C)(COC, ASTM D-92)			

FIRE EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals.

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus for large fires or fires in enclosed areas.

UNUSUAL FIRE AND EXPLOSION HAZARDS: When heated to decomposition, toxic fumes, ~~including~~ carbon monoxide, released.

N.E. - NOT ESTABLISHED N.A. - NOT APPLICABLE

72-62-7820-01

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333

MATERIAL SAFETY DATA SHEET

24-HOUR EMERGENCY TELEPHONE (606) 324-1133

Ashland

001618 METHANOL PAGE: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

****

PRODUCT NAME: METHANOL
CAS NUMBER: 67 56 1

PHILLIPS PETROLEUM
P.O. BOX 792
PASADENA TX 77501

ATTN: PLANT MGR./SAFETY DIR.

05 50 028 7060170-
DATA SHEET NO: 0001447-005
LATEST REVISION DATE: 04/85-85092
PRODUCT: 7350000
INVOICE: 747721
INVOICE DATE: 12/13/85
TO: PHILLIPS PETROLEUM
(ADAMS TERMINAL)
1400 JEFFERSON RD.
PASADENA TX 77501

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: ALCOHOL

HAZARD CLASSIFICATION: (03) FLAMMABLE LIQUID (173.115)

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT	% (BY WT)	PEL	TLV	NOTE
METHYL ALCOHOL	100	200	200 PPM - SKIN	(1)

(1): SKIN ASSORPTION MAY POTENTIALLY CONTRIBUTE TO THE OVERALL EXPOSURE TO THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ASSORPTION SO THAT THE TLV IS NOT INVALIDATED.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
INITIAL BOILING POINT	FOR PRODUCT	147.00 DEG F (63.88 DEG C) @ 760.00 MMHG
VAPOR PRESSURE	FOR PRODUCT	97.68 MMHG @ 68.00 DEG F (20.00 DEG C)
VAPOR DENSITY	AIR = 1	1.1
SPECIFIC GRAVITY		.793 @ 68.00 DEG F (20.00 DEG C)
PERCENT VOLATILES		100.00%
EVAPORATION RATE	(N-BUTYL ACETATE = 1)	5.91

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT(TCC) 54.00 DEG F
(12.22 DEG C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 6.0%

EXTINGUISHING MEDIA: WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

UNUSUAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.
ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 3 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 200 PPM - SKIN

THRESHOLD LIMIT VALUE 200 PPM - SKIN

SEE SECTION II

EFFECTS OF OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.

CONTINUED ON PAGE: 2

SECTION V-HEALTH HAZARD DATA (CONTINUED)

BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA, BLINDNESS AND DEATH.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION

SKIN ASSORPTION
SKIN CONTACT

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII-SPILL OR LEAK PROCEDURES

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

SMALL SPILL: ELIMINATE ALL SOURCES OF IGNITION SUCH AS FLARES, FLAMES (INCLUDING PILOT LIGHTS), AND ELECTRICAL SPARKS. ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS. PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NEOPRENE

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED, HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED.SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL

CONTINUED ON PAGE: 3

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS (CONTINUED)

HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

CONTAINS METHANOL.

CANNOT BE MADE NON-POISONOUS.

ALUMINUM MAY FORM AN OXIDE SCALE ON PROLONGED EXPOSURE TO METHANOL.

OVEREXPOSURE TO COMPONENTS HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, LIVER ABNORMALITIES, KIDNEY DAMAGE, EYE DAMAGE, LUNG DAMAGE, SPLEEN DAMAGE, BRAIN DAMAGE, NERVOUS SYSTEM DAMAGE

OVEREXPOSURE TO COMPONENTS HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS:, EYE DAMAGE

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

Date October, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

ANTIFREEZE

PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

PHILLIPS 66 — USA AND CANADA

WORLDWIDE

PHILLIPS PETROLEUM 66 — OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE

Chemical Name: Ethylene Glycol

Chemical Family: Glycol

Chemical Formula: $C_2 H_6 O_2$

CAS Reg. No: 107-21-1

Product No: NE

Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Ethylene Glycol and other Glycols	107-21-1	88-90	NE	50*
Inhibitors and Dye	Various	10-12	NE	NE

* Ceiling Limit

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation to control below recommended exposure levels.

Respiratory Protection: For concentrations exceeding the recommended exposure level, use NIOSH/MSHA approved air purifying respirator. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator. If conditions immediately dangerous to life or health (IDLH) exist, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) equipment.

Eye Protection: Use chemical goggles. For splash protection, use face shield with chemical goggles.

Skin Protection: Use gloves impervious to the material being used. Use full-body, long sleeved garments impervious to the material.

Note: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wash hands after handling. Wear protective equipment and/or garments described above if exposure conditions warrant. Launder contaminated clothing before reuse. Store in a cool, well-ventilated area. Protect from sources of ignition.

REACTIVITY DATA

Stability: Stable ☒ Unstable ☐ Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will not Occur ☒ May Occur ☐ Conditions to Avoid

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: ACGIH TLV 50 ppm (ceiling)

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: May cause moderate irritation. Repeated vapor exposure causes severe eye irritation.

SKIN: May cause moderate irritation. Can be absorbed through skin in dangerous amounts.

INHALATION: Causes nausea, vomiting, increased heart rate, drop in blood pressure, depressed reflexes, seizures, convulsions, changes in the eyes, coma. May be aspirated into lungs if swallowed.

INGESTION: Causes eye changes such as optic atrophy and nystagmus. May cause cyanosis.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
Causes central nervous system depression.

OTHER HEALTH EFFECTS: No known applicable information.

HEALTH HAZARD CATEGORIES: (For Epichlorohydrin)

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☒	☒
Allergic Sensitizer	☐	☐	Specify Causes kidney damage and eye damage.		
Highly Toxic	☐	☐			

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Flush eyes with running water for at least 15 minutes. If irritation develops, seek medical attention.

SKIN: Wash with soap and water. If irritation develops, seek medical attention.

INHALATION: Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

INGESTION: Do not induce vomiting. Seek immediate medical assistance. A physici may, at his discretion, perform gastric lavage using a cuffed endotracheal tube.

PHYSICAL DATA

Appearance: Liquid

Odor: Mild

Boiling Point: 330 (166°C)

Vapor Pressure: NE

Vapor Density (Air = 1): > 1

Solubility in Water: Complete

Specific Gravity (H_2O = 1): 1.11 - 1.14 at 60/60°F

Percent Volatile by Volume: 100

Evaporation Rate (Butyl Acetate = 1): < 1

Viscosity: NE

FIRE and EXPLOSION DATA

Flash Point (Method Used): 250°F (121°C) (COC, ASTM D92)

Flammable Limits (% By Volume in Air): LEL 3.2 UEL NE (For Ethylene Glycol)

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if conditions warrant. Water fog or spray may be used to cool exposed equipment and containers.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, sawdust, etc.). Transfer to disposal containers.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or otherwise manage in a permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: NA
Hazard Class: NA
ID Number: NA
Marking: NA
Label: NA
Placard: NA
Hazardous Substance/RQ: NA
Shipping Description: NA
Packaging References: NA

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

NA

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Use NIOSH/MSHA approved respiratory protection, such as air-supplied mask, in confined spaces or other poorly ventilated areas. See Page 2 for protective clothing requirements. Contact immediate supervisor for specific instructions before work is initiated.

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☐ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☐ Flammable Gas	☒ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS

1 HMIS HEALTH
1 HMIS FLAMMABILITY
0 HMIS REACTIVITY
B HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

ISTRIBUTED BY.....	COASTAL CHEMICAL COMPANY, INC P.O. BOX 820 ABBEVILLE, LA 70511-0820 (318) 893-3862
MERGENCY PHONE NUMBER...	(318) 893-3862 OR CHEMTREC (800) 424-9300
FFECTIVE DATE.....	/ /89
ANUFACTURER'S NAME.....	UNION CARBIDE DOW CHEMICAL TEXACO
RADE NAME.....	TRIETHYLENE GLYCOL
HEMICAL FAMILY.....	POLYETHYLENE GLYCOL
AS NUMBER.....	112-27-6
HEMICAL FORMULA.....	C6H1404

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	%	TLV (Units)	PROD. CAS #
TRIETHYLENE GLYCOL	99	None Established	112-27-6

SECTION III - PHYSICAL DATA

FREEZING POINT (F).....	-7 Deg. C., 19 Deg. F.
VAPOR PRESSURE (mm Hg)...	(1 mm
VAPOR DENSITY (Air=1)....	5.2, air = 1
SOLUBILITY IN H2O.....	Completely soluble in all proportions
APPEARANCE/ODOR.....	Clear, colorless, viscous liquid with slight odor.
SPECIFIC GRAVITY (H2O=1).	1.1 @ 77 Deg. F., 25/25 Deg.C
PH.....	N/D

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT.....	350 Deg. F.
LOWER FLAME LIMIT.....	0.9
HIGHER FLAME LIMIT.....	9.2
EXTINGUISH MEDIA.....	Use water fog or spray, Alcohol Foam, Dry Powder, Carbon Dioxide (CO2).
UNUSUAL FIRE HAZARD.....	Containers may explode from internal pressure if confined to fire. Cool with water. Keep unnecessary people away. Approach fire from upwind side. Avoid breathing smoke, fumes, mist or vapors on the downwind side.

SECTION V - HEALTH HAZARD DATA

FESHOLD LIMIT VALUE.... Recommended 5 MG/M3 based on oil mist.

JTES OF ENTRY	INHALATION?	SKIN?	INGESTION?
	Irritant	Mild irritant	Irritant

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

RCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
	NO	NO	NO

R EXPOSURE EFFECTS.... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.

RST AID PROCEDURES..... In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medica attention. Wash clothing before reuse. If swallowed, do not induce vomiting, get immediate medical attention. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI - REACTIVITY DATA

HEMICAL STABILITY..... Product is stable

NDITIONS TO AVOID..... Heat may cause internal pressure which could rupture container.

NCOMPATIBLE MATERIALS... Oxidizers or Oxidizing Materials.

ECOMPOSITION PRODUCTS... From fire; Smoke, Carbon dioxide, & Carbon Monoxide.

AZARDOUS POLYMERIZATION. Will not occur

OLYMERIZATION AVOID..... None

SECTION VII - SPILL OR LEAK PROCEDURE

R SPILL..... In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations

STE DISPOSAL METHOD.... Industrial Waste. Follow Federal, State and Local laws.

SECTION VIII - SPECIAL PROTECTION

ESPIRATORY PROTECTION... When ventilation is not adequate, use of NIOSH approved organic vapor gas cartridge respirator is recommended.

NTILATION..... Required in closed areas

ECHANICAL EXHAUST..... Required in closed areas

CAL EXHAUST..... Desired

OTECTIVE GLOVES..... Wear impervious gloves

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

THER PROTECTIVE QUIPMENT..... Chemical type apron recommended

SECTION IX - SPECIAL HANDLING

HANDLING AND STORAGE.....	Store away from oxidizers or materials bearing a yellow "DOT" label. Keep out of sun and away from heat. Clean up leaks immediately to prevent soil or water contamination.
PRECAUTIONARY MEASURES...	Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in Section V. Use with adequate ventilation.
HAZARD CLASS.....	NON HAZARDOUS
DOT SHIPPING NAME.....	CHEMICALS, NOS
REPORTABLE QUANTITY (RQ).	None
UN NUMBER.....	None
NA #.....	None
PACKAGING SIZE.....	N/A

SECTION X - REGULATORY

EPA ACUTE.....	YES
EPA CHRONIC.....	NO
EPA IGNITABILITY.....	NO
EPA REACTIVITY.....	NO
EPA SUDDEN RELEASE OF PRESSURE.....	NO
CERCLA RQ VALUE.....	None
SARA TPQ.....	None
SARA RQ.....	None
SECTION 313.....	No
EPA HAZARD WASTE #.....	None
CLEANAIR.....	Yes Section 111
CLEAN WATER.....	No

FOOT NOTES N/A - not applicable N/D - no data available
(- means less than) - means greater than
App. - approximate Est. - estimated

PREPARED BY:..... Glen White, S.I.S., 817-560-4631
REVISED DATE..... / /89

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOM IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. TH INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVEI TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSI CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.

Date August, 1985

MATERIAL SAFETY DATA SHEET

Product Name:

METHANE

(Research, BTU, and Pure Grades)

PHILLIPS CHEMICAL COMPANY
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY
Bartlesville, Oklahoma 74004

Emergency Phone Nos.
918-661-3865 (during business)
918-661-8118 (after hours)

PHILLIPS 66 — USA AND CANADA

PHILLIPS PETROLEUM 66 — WORLDWIDE — OTHER COUNTRIES

PRODUCT IDENTIFICATION

Synonyms: NE

Chemical Name: Methane

Chemical Family: Paraffinic Hydrocarbon

Chemical Formula: CH_4

CAS Reg. No: 74-82-8

Product No: PO1500, PO1946, PO1400

Product and/or Components Entered on EPA's TSCA Inventory: Yes [X] No [ ]

HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Methane	74-82-8	*	NE	Simple Asphyxiant
Ethane	74-84-0		NE	Simple Asphyxiant
Propylene	115-07-1		NE	Simple Asphyxiant
Nitrogen	7727-37-9		NE	NE

*See Additional Comments (Page 6) for exact compositions.

PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required. When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA).

Eye Protection: Use safety glasses with side shields.

Skin Protection: Use safety glasses with side shields.

NOTE: Personal protection information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

HANDLING AND STORAGE PRECAUTIONS

Avoid inhalation and skin and eye contact. Wear protective equipment and/or garments described above if exposure conditions warrant. Wash hands after handling.

Store in a cool, well ventilated area away from ignition sources. Provide means for controlling leaks. Bond and ground during transfer. Keep containers closed.

REACTIVITY DATA

Stability: Stable [X] Unstable [ ] Conditions to Avoid:

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents.

Hazardous Polymerization: Will Not Occur [X] May Occur [ ] Conditions to Avoid

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

HEALTH HAZARD DATA

RECOMMENDED EXPOSURE LIMITS: ACGIH Simple asphyxiant (methane)

ACUTE EFFECTS OF OVEREXPOSURE:

EYE: Gas is not irritating to the eye. Liquefied gas may cause freeze burns upon direct contact.

SKIN: Gas is not irritating to the skin. Liquefied gas may cause freeze burns upon direct contact.

INHALATION: Simple asphyxiant. Extreme exposure may produce anethesia, unconsciousness, and respiratory arrest.

INGESTION: Not a likely exposure route. Liquefied gas may cause freeze burns to the mucous membranes and possible central nervous system depression.

SUBCHRONIC AND CHRONIC EFFECTS OF OVEREXPOSURE:
No known applicable information.

OTHER HEALTH EFFECTS:
No known applicable information.

HEALTH HAZARD CATEGORIES:

	Animal	Human		Animal	Human
Known Carcinogen	☐	☐	Toxic	☐	☐
Suspect Carcinogen	☐	☐	Corrosive	☐	☐
Mutagen	☐	☐	Irritant	☐	☐
Teratogen	☐	☐	Target Organ Toxin	☐	☒
Allergic Sensitizer	☐	☐			
Highly Toxic	☐	☐			

Specify Eye and skin freeze-burns

FIRST AID AND EMERGENCY PROCEDURES:

EYE: Immediately flush eyes with running water for at least 15 minutes. If irritation develops, seek medical attention.

SKIN: Flush skin with water for 15 minutes. If irritation develops, seek medical attention.

INHALATION: Remove from exposure. If breathing ceases, administer artificial respiration followed by oxygen. Seek medical attention.

INGESTION: Obtain prompt medical assistance.

PHYSICAL DATA

Appearance: Colorless

Odor: None

Boiling Point: -259°F (-162°C)

Vapor Pressure: NA

Density: 0.04235 at 60°F and 14.7 psia

Solubility in Water: Negligible

Specific Gravity (Air = 1): 0.55491 -0.5558 at 60°F and 14.7 psia

Percent Volatile by Volume: NA

Evaporation Rate (_____ = 1): NA

Viscosity: NE

FIRE and EXPLOSION DATA

Flash Point (Method Used): -306°F (-187°C) (Literature Value)

Flammable Limits (% By Volume in Air): LEL 5.0 UEL 15.0

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO_2).

Special Fire Fighting: Evacuate area of all unnecessary personnel. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described on Page 2 if conditions warrant. If possible, allow fire to burn with gas flow as shut-off. Water fog or spray may be used to cool exposed containers and equipment.

Fire and Explosion Hazards: Carbon oxides formed when burned.

SPILL, LEAK and DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Protect from ignition. Ventilate area thoroughly.

Waste Disposal (Insure Conformity with All Applicable Disposal Regulations): Incinerate or otherwise manage at RCRA permitted waste management facility.

DOT TRANSPORTATION

Shipping Name: Methane
Hazard Class: Flammable Gas
ID Number: UN1971
Marking: Methane/UN1971
Label: Flammable Gas
Placard: Flammable Gas/1971
Hazardous Substance/RQ: NA
Shipping Description: Methane, Flammable Gas, UN1971
Packaging References: 49 CFR 173.302 and 173.306

RCRA CLASSIFICATION *(FOR UNADULTERATED PRODUCT AS A WASTE)*

Ignitable

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT

Wear protective equipment and/or garments described on Page 2 if exposure conditions warrant. Contact immediate supervisor for specific instructions before work is initiated.

HAZARD CLASSIFICATION

THIS PRODUCT MEETS THE FOLLOWING HAZARD DEFINITION(S) AS DEFINED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (29 CFR PART 1910. 1200):

☐ Not Hazardous	☐ Flammable Solid	☐ Oxidizer
☐ Combustible Liquid	☐ Flammable Aerosol	☐ Pyrophoric
☐ Compressed Gas	☐ Explosive	☐ Unstable
☒ Flammable Gas	☒ Health Hazard (See Page 3)	☐ Water Reactive
☐ Flammable Liquid	☐ Organic Peroxide	

ADDITIONAL COMMENTS (Continued)

	Ingredient	Mole %
Research Grade	Methane	99.98
	Ethane	0.01
	Nitrogen	0.01
BTU Grade	Methane	99.74
	Ethane	0.18
	Propylene	0.05
	Nitrogen	0.03
Pure Grade	Methane	99.7
	Ethane	0.3

A Toxicity Study Summary is available upon request for Methane, Pure Grade.

BIG THREE INDUSTRIES, INC.
P. O. BOX 3047
HOUSTON, TX 77253

M A T E R I A L S A F E T Y D A T A S H E E T

I - G E N E R A L I N F O R M A T I O N

PRODUCT NAME HELIUM

EMERGENCY TELEPHONE NO. 713-868-0202
MANUFACTURERS NAME AVAILABLE FROM SEVERAL SOURCES
TRADE NAME/SYNONYMS HELIUM
CHEMICAL NAME AND SYNONYMS
HELIUM
ISSUE DATE APRIL 1,1984 PRODUCT ID. UN-1046 FORMULA HE
CHEMICAL FAMILY INERT GAS CAS FAMILY 007 440 597

I I - H A Z A R D O U S I N G R E D I E N T S

HAZARDOUS MIXTURES OF LIQUIDS AND GASES	O/O	TL
NONE	0000	000

I I I - P H Y S I C A L D A T A

BOILING POINT -452.0 F (-268.9 C) @ATM
SPECIFIC GRAVITY 0.138 AT 70 F (21.1 C) AND 1 ATM
VAPOR PRESSURE N/A
PERCENT VOLATILE BY VOLUME (O/O) N/A
DENSITY 0.01034 LB/CU FT AT 70 F (21.1 C) AND 1 ATM
EVAPORATION RATE N/A
SOLUBILITY IN WATER 0.94 SCC/100 CC H2O AT 32F (OC)
MATERIAL AT NORMAL CONDITION GAS
EXPANSION RATIO (LIQUID TO GAS) N/A (GAS)

APPEARANCE AND ODOR

COLOR, ODORLESS, TASTELESS GAS

I V - F I R E A N D E X P L O S I O N H A Z A R D D A T A

FLASH POINT (METHOD USED) OPEN CUP
FLAMMABILITY LIMITS IN AIR (O/O BY VOL) LOWER N/A UPPER N/A

EXTINGUISHING MEDIA

NONE. HELIUM NEITHER BURNS OR SUPPORTS COMBUSTION. USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE FIGHTING PROCEDURES

HELIUM WILL ACT AS A SIMPLE ASPHYXIANT IF IT DISPLACES OXYGEN. SELF-CONTAINED BREATHING APPARATUS MAY BE REQUIRED, FOR RESCUE WORKERS.

UNUSUAL FIRE AND EXPLOSION HAZARD

NONE

V - H E A L T H H A Z A R D D A T A

THRESHOLD LIMIT VALUE	NONE ESTABLISHED
UNUSUAL CHRONIC TOXICITY	NONE
CARCINOGENICITY	NOT LISTED BY NTP, IARC, OSHA.

M A T E R I A L S A F E T Y D A T A S H E E T

PRODUCT NAME HELIUM

ROUTES OF EXPOSURE INHALATION

EFFECTS OF OVEREXPOSURE

HELIUM IS NONTOXIC BUT MAY PRODUCE SUFFOCATION BY DISPLACING THE OXYGEN IN THE AIR. EXPOSURE TO OXYGEN-DEFICIENT ATMOSPHERES MAY CAUSE DIZZINESS, NAUSEA, VOMITING, DIMINISHED MENTAL ALERTNESS, LOSS OF CONSCIOUSNESS AND DEATH.

EMERGENCY AND FIRST AID PROCEDURES

PERSONS SUFFERING FROM LACK OF OXYGEN SHOULD BE MOVED INTO FRESH AIR. ASSISTED RESPIRATION AND SUPPLEMENTAL OXYGEN SHOULD BE GIVEN IF THE VICTIM IS NOT BREATHING APPARATUS MAY BE REQUIRED TO PREVENT ASPHYXIATION OF RESCUE WORKERS.

V I - R E A C T I V I T Y D A T A

STABILITY STABLE

CONDITIONS TO AVOID

NONE

INCOMPATABILITY (MATERIALS TO AVOID)

NONE

HAZARDOUS DECOMPOSITION PRODUCTS

NONE

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

CONDITIONS TO AVOID

NONE

V I I - S P I L L O R L E A K P R O C E D U R E S

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

SHUT OFF HELIUM SOURCE IF POSSIBLE. VENTALATE ENCLOSED AREAS TO PREVENT FORMATION OF OXYGEN-DEFICIENT ATMOSPHERES.

WASTE DISPOSAL METHOD

SECURE CYLINDER AND BLOW DOWN SLOWLY TO THE ATMOSPHERE IN A WELL-VENTALILATED AREA OR OUTDOORS.

V I I I - S P E C I A L P R O T E C T I V E I N F O R M A T I O N

RESPIRATORY PROTECTION (SPECIFY TYPE)

USE SELF-CONTAINED BREATHING APPARATUS IN OXYGEN-DEFICIENT ATMOSPHERES.

VENTILATION

NATURAL OR MECHANICAL WHERE GAS IS

M A T E R I A L S A F E T Y D A T A S H E E T

PRODUCT NAME HELIUM

PRESENT.

PROTECTIVE GLOVES

N/A

EYE PROTECTION

SAFETY GLASSES ARE RECOMMENDED WHEN HANDLING HIGH PRESSURE CYLINDERS.

OTHER PROTECTIVE EQUIPMENT

NONE

I X - S P E C I A L P R E C A U T I O N S

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

STORE AND USE CYLINDERS IN WELL VENTILATED AREA. FOLLOW GENERAL SAFETY PROCEDURES FOR HANDLING COMPRESSED GAS CYLINDERS, FOUND IN CGA PAMPLET P-1.

D.O.T. LABELING

GREEN LABEL

VALVE CONNECTION

N/A

IER PRECAUTIONS

SECURE CYLINDERS WHEN IN USE. KEEP VALVE PROTECTION CAP IN PLACE WHEN CYLINDER NOT IN USE.

MATERIAL SAFETY DATA SHEET

An explanation of the terms used herein may be found in OSHA 29 CFR 1910.1200, available from OSHA regional or area offices.
(Essentially similar to U.S. Department of Labor Form OSHA-20 and generally accepted in Canada for information purposes)
Do Not Duplicate This Form. Request an Original.

PRODUCT Molecular Sieve Type 4ADG

CHEMICAL NAME	Sodium Aluminosilicate	**SYNONYMS**	Zeolite
FORMULA	Na_2O, Al_2O_3, SiO_2	**CHEMICAL FAMILY**	Molecular Sieve
		MOLECULAR WEIGHT	Not Applicable

TRADE NAME UNION CARBIDE® Molecular Sieve

A complex of elements and compounds composed of material shown below.
NOTE: In the table below, the symbol "<" means "less than"

MATERIAL (CAS NO.)	Wt (%)	1985-1986 ACGIH TLV-TWA (OSHA-PEL)	
Sodium Oxide (1313-59-3)	<30	None established	(None established)
Silicon Oxide (7631-86-9)	<50	10 mg/m³ Total dust 5 mg/m³ Respirable dust	(20 mppcf) (None currently established)
Aluminum Oxide (1344-28-1)	<40	Nuisance particulate	(Nuisance dust)
		10 mg/m³ Total dust 5 mg/m³ Respirable dust	(15 mg/m³ Total dust) (5 mg/m³ Respirable fraction)

BOILING POINT, 760 mm. Hg	Not Applicable	**FREEZING POINT**	Not Applicable
SPECIFIC GRAVITY (H_2O = 1)	1.1	**VAPOR PRESSURE AT 20°C.**	Not Applicable
VAPOR DENSITY (air = 1)	Not Applicable	**SOLUBILITY IN WATER, % by wt.**	Not Applicable
PERCENT VOLATILES BY VOLUME	Not Applicable	**EVAPORATION RATE (Butyl Acetate = 1)**	Not Applicable

APPEARANCE AND ODOR Product is in the form of tan pellets (cylindrical or trilobe); odorless.

IN CASE OF EMERGENCIES involving this material, further information is available at all times:
In the USA 1-800-UCC-HELP (1-800-822-4357) In Canada 514 — 645-5311
For routine information contact your local supplier

M-4837-A

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

UNION CARBIDE CORPORATION □ MOLECULAR SIEVES DEPARTMENT
UNION CARBIDE CANADA LIMITED □ MOLECULAR SIEVES DEPARTMENT

RESPIRATORY PROTECTION (specify type): Where there is excessive dustiness, wear a respirator selected as per OSHA 29 CFR 1910.134 and approved by NIOSH/MSHA.

VENTILATION	**LOCAL EXHAUST** — As appropriate to minimize dust.
	MECHANICAL (general) — Not Applicable.
	SPECIAL — Not Applicable.
	OTHER — Not Applicable.

PROTECTIVE GLOVES: Use gloves impermeable to dust where prolonged hand contact is possible.

EYE PROTECTION: Safety glasses or goggles selected as per OSHA 29 CFR 1910.133.

OTHER PROTECTIVE EQUIPMENT: Eyewash fountain.

CAUTION: Causes eye irritation. Breathing dust may be harmful. May cause skin irritation. Open container slowly to avoid dust. Do not get in eyes. Avoid breathing dust and prolonged contact with skin. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling. Do not put product in mouth nor pour liquid into product, because burns can occur.

Before using you should know the hazards of the products to be adsorbed on the molecular sieve. The products could be flammable or toxic. You should know and follow all the safety precautions related to the adsorbed products.

OTHER HANDLING AND STORAGE CONDITIONS: pH range if in aqueous slurry 8-11.

UNION CARBIDE MOLECULAR SIEVES

GENERAL OFFICES

IN THE USA:
Union Carbide Corporation
Molecular Sieves Dept.
39 Old Ridgebury Road
Danbury, CT 06817-0001

IN CANADA:
Union Carbide Canada Limited
Molecular Sieves Dept.
123 Eglinton Avenue East
Toronto, Ontario M4P 1J3

Other offices in principal cities all over the world.

Lithographed in U.S.A.

[redacted]

THRESHOLD LIMIT VALUE: 5 mg/m³ (ACGIH 1985-86) for respirable dust.

EFFECTS OF SINGLE (ACUTE) OVEREXPOSURE:

SWALLOWING — No evidence of adverse effects from available information.

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

INHALATION — May cause irritation of the nose and throat, accompanied by cough and chest discomfort.

SKIN CONTACT — May cause irritation seen as local redness.

EYE CONTACT — May cause irritation seen as excess redness of the conjunctiva.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: Prolonged inhalation may cause lung damage.

OTHER EFFECTS OF OVEREXPOSURE: None currently known.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Breathing of dust may aggravate asthma and inflammatory or fibrotic pulmonary disease.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING — If ingested in large quantities, then drink 2 glasses of water. Induce vomiting if the patient is conscious.

SKIN CONTACT — Wash with soap and water.

INHALATION — Remove to fresh air.

EYE CONTACT — Flush eyes with water for 15 minutes.

NOTE TO PHYSICIAN: *This product is a desiccant and generates heat as it adsorbs water. The used product can contain material of a hazardous nature. Identify that material and treat accordingly.*

FLASH POINT (test method)	Does not burn	**AUTOIGNITION TEMPERATURE**	Not Applicable
FLAMMABLE LIMITS IN AIR, % by volume	**LOWER** Not Applicable	**UPPER**	Not Applicable

EXTINGUISHING MEDIA: Unused material will not burn. Use media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Depends on the use of the material. Used material may contain products of a hazardous nature. The user of this product must identify the hazards of the retained material and inform the fire fighters of these hazards.

UNUSUAL FIRE AND EXPLOSION HAZARDS: In their fresh unused state, molecular sieves are not flammable. When exposed to water, however, they can get quite hot. When first wetted they can heat to the boiling point of water. Flooding will reduce the temperature to safe limits.

STABILITY	
UNSTABLE	**STABLE**
	X

CONDITIONS TO AVOID: Moisture (water) can cause rise in temperature which may result in burn.

INCOMPATIBILITY (materials to avoid): Sudden contact with high concentrations of chemicals having high heats of adsorption such as olefins, HCl, etc.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrocarbons and other materials that contact the molecular sieve during normal use can be retained on the sieve. It is reasonable to expect that decomposition products will come from these retained materials of use. The molecular sieve itself does not readily decompose unless subjected to extreme temperature or chemical conditions. If such decomposition did occur the product would include the mix of oxides listed in Section II.

HAZARDOUS POLYMERIZATION	
May Occur	**Will not Occur**
	X

CONDITIONS TO AVOID: None currently known.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Sweep the spill area. Collect and place the spilled material in a waste disposal container. Avoid raising dust.

WASTE DISPOSAL METHOD: Discard any product (including any retained materials of use), disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state and local regulations.

MATERIAL SAFETY DATA SHEET
COASTAL HITEC HEAT TRANSFER SALT

1	HMIS HEALTH
0	HMIS FLAMMABILITY
0	HMIS REACTIVITY
G	HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

DISTRIBUTED BY..... COASTAL CHEMICAL COMPANY, INC.
P.O. BOX 820
ABBEVILLE, LA 70511-0820
(318) 893-3862
EMERGENCY PHONE NUMBER... (318) 893-3862 OR CHEMTREC (800) 424-9300
EFFECTIVE DATE..... 1/ 1/90
MANUFACTURER'S NAME..... COASTAL CHEMICAL COMPANY, INC.
TRADE NAME..... COASTAL HITEC HEAT TRANSFER SALT
CHEMICAL FAMILY..... HEAT TRANSFER SALT MIXTURE
CAS NUMBER..... Blend
CHEMICAL FORMULA..... Proprietary

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	%	TLV (Units)	PROD. CAS #
SODIUM NITRITE	N/A	10 MG/M3	7632-00-0
SODIUM NITRATE	N/A	10 MG/M3	7631-99-4
POTASSIUM NITRATE	N/A	10 MG/M3	7757-79-1

SECTION III - PHYSICAL DATA

MELTING POINT..... 288 deg F
VAPOR PRESSURE (mm Hg)... N/A
VAPOR DENSITY (Air=1).... N/D
SOLUBILITY IN H2O..... SOLUBLE
APPEARANCE/ODOR..... White to yellow crystals, powder.
SPECIFIC GRAVITY (H2O=1). Approx.2.15
PH..... N/D

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... N/A
LOWER FLAME LIMIT..... N/A
HIGHER FLAME LIMIT..... N/A
EXTINGUISH MEDIA..... Use water fog extinguishing medium. Spray water fog when fire is in early state or still small. When large quantities are involved in fires, NITRITES AND NITRATES may fuse or melt in large fires and water may result in scattering of molten material. In case of fire, smother with dry sand, dry graoun limestone, or dry powder-type agents specially designed for metal powder fires. Do not use carbon tetrachloride, CO2 extinguishers, or water.

UNUSUAL FIRE HAZARD..... Noxious fumes may form. This material is an oxidizer and therefore increases the intensity of any fire and the possibility of an explosion. Avoid water on molten salt. Explodes when heated to 538 deg C, upon contact with cyanides.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE.... No values established for this material.

ROUTES OF ENTRY	INHALATION?	SKIN?	INGESTION?
	Irritant	Possible Irritant	Low toxicityf

HEALTH HAZARDS..... ACUTE: Dust may be irritating to skin, eyes, or mucous membranes. Avoid inhalation or skin/eye contact. Ingestion of large quantities may cause nitrate poisoning. AcuteLD 50 unknown.

CARCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
NO	No	No	No

OVER EXPOSURE EFFECTS.... Small amounts:Weakness, general depression, headache and mental impairment. Large amounts:Dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions, and collapse.

FIRST AID PROCEDURES..... If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Ingestion: If swallowed, induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... Stable
CONDITIONS TO AVOID..... Fire conditions.
INCOMPATIBLE MATERIALS... Strong acids, flammable materials, combustible materials, organic materials, cyanides and reducing materials.
DECOMPOSITION PRODUCTS... From Fire- Smoke, Carbon Dioxide, Carbon Monoxide, & Oxides of Nitrogen. Decomposes with heat at 1400 deg F to produce oxygen and toxic nitrogen gases.
HAZARDOUS POLYMERIZATION. Will not occur.
POLYMERIZATION AVOID..... None known.

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL..... Contain material. Pick up material andd store in plastic bags away from combustibles. Do not contaminate streams and water supplies.

WASTE DISPOSAL METHOD.... If disposed of, this material is believed to be non-hazardous. Disposal should be in compliance with Federal, State, and Local laws.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION...	When ventilation is not adequate, use of NIOSH approved organic vapor/acid gas cartridge respirator is recommended.
VENTILATION.....	Desired
MECHANICAL EXHAUST.....	Desired in closed areas.
LOCAL EXHAUST.....	Desired
PROTECTIVE GLOVES.....	Wear impervious gloves
EYE PROTECTION.....	Use chemical goggles or full face shield.
OTHER PROTECTIVE EQUIPMENT.....	Chemical type apron recommended

SECTION IX - SPECIAL HANDLING

HANDLING AND STORAGE.....	Clean up leaks immediately to prevent soil or water contamination. Follow label warnings even after container is emptied.
PRECAUTIONARY MEASURES...	Keep away from heat and flame. Do not breathe dust
HAZARD CLASS.....	Oxidizer
DOT SHIPPING NAME.....	Sodium Nitrite Mixture
RE[illegible]RTABLE QUANTITY (RQ).	100 pounds (sodium nitrite)
[illegible]N NUMBER.....	None
NA #.....	NA 1487
PACKAGING SIZE.....	All

SECTION X - REGULATORY

EPA ACUTE.....	YES
EPA CHRONIC.....	NO
EPA IGNITABILITY.....	YES-oxidizer
EPA REACTIVITY.....	NO
EPA SUDDEN RELEASE OF PRESSURE.....	NO
CERCLA RQ VALUE.....	100 pounds (sodium nitrite)
SARA TPQ.....	None
SARA RQ.....	None
SECTION 313.....	No- not listed
EPA HAZARD WASTE #.....	None
CLEANAIR.....	NO
CLEAN WATER.....	YES-sect. 311 (sodium nitrite)

PL NOTES N/A - not applicable N/D - no data available
< - means less than > - means greater than
App. - approximate Est. - estimated

PREPARED BY:..... Glen White, S.I.S., 817-560-4631

MATERIAL SAFETY DATA SHEET
CORAL HITEC HEAT TRANSFER SALT

REVISED DATE..... 1 /1 /90

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

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
Sulfatreat	

Section I

Manufacturer's Name	Emergency Telephone Number
Gas Sweetener Associates, Inc.	504-836-5986 or 314-532-2211
Address (Number, Street, City, State, and ZIP Code)	**Telephone Number for Information**
900 Roosevelt Pkwy, Suite 610	314-532-2211
Chesterfield, MO 63017	**Date Prepared** August 17, 1990
	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
None				

Section III — Physical/Chemical Characteristics

Boiling Point	NA	Specific Gravity (H_2O = 1)	1.12
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water
Not Soluble

Appearance and Odor
Black granular odorless powder

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NA	NA		

Extinguishing Media
NA

Special Fire Fighting Procedures
None

Unusual Fire and Explosion Hazards
None

C. Characteristics of Reactivity

1. Stability Testing

An aqueous suspension of the reacted SulfaTreat℠ monitored with a potentiometer from pH 1 to pH 12.5. The pH alterations were accomplished using dilute HCL and dilute NaOH. The material was stable and totally unreactive when exposed to these pH extremes without any evolution of gases, including H_2S and SO_2.

2. Classification as an Explosive

Neither the material nor anything similar to this material is listed as a Forbidden, Class A, or Class B explosive in 49 CFR 173.51, 49 CFR 173.53, or 49 CFR 173.88.

D. Characteristics of EP Toxicity

Laboratory evaluations of the EP toxicity required a leaching step prior to analysis. The leaching step was carried out in accordance with the test methods described within the Federal Register, Volume 45, Number 98 on May 19, 1980 (Appendix III). 100 grams of the ground solid sample were placed in a mechanically stirred extractor with 1600 g of deionized water. The pH was maintained at 5 for a period of 24 hours by the addition of 0.5 N acetic acid at 30 minute intervals as needed. This solution was then filtered using a 0.45 millipore filter. The filtrate was analyzed for the presence of contaminants using the following EPA methods:

Contaminant	EPA Method
Mercury	245.1
Arsenic	206.1
Barium	208.1
Cadmium	213.1
Chromium	218.1
Lead	239.2
Selenium	270.3
Silver	272.1
Mercury	245.1
TCLP	1311

The concentration of contaminants in the extract is far below the maximum allowable limits in all cases.

E. Oral and Dermal Toxicity

1. Unreacted SulfaTreat℠ (Oral Toxicity)

The acute oral LD 50 of SulfaTreat℠ when administered as a 67% w/w aqueous suspension to male and female SASCO rats weighing 219 to 345 grams, was found to be greater than 39.91 g/kg of body weight.

As the term is defined in the Federal Hazardous Substances Act (FHSA), the product was found not to be a Toxic Substance.

2. Reacted SulfaTreat℠ (Oral Toxicity)

Undiluted, reacted SulfaTreat℠ (semisolid phase) was administered orally to ten SASCO-SD rats (five male and five females), weighing 198 to 265 grams at a dosage level of 5.00 grams per kilogram of body weight. All of the animals survived dosage and the fourteen-day observation period which followed. As the term is defined in the Federal Hazardous Substance Act (FHSA), the semisolid phase of the test material was found not to be a Toxic Substance.

3. Reacted SulfaTreat℠ (Dermal Toxicity)

Undiluted, reacted SulfaTreat℠ (liquid phase) was applied for twenty-four hours to the abraded skin of five male and five female New Zealand White Rabbits, weighing 2.72 to 3.09 kilograms, at a dosage level of 2.00 grams per kilogram of body weight. All ten animals survived dosage and the fourteen-day observation period which followed. As the term is defined in the Federal Hazardous Substances Act (FHSA), the liquid phase of the test material was found not to be a Toxic Substance.

4. Reacted SulfaTreat (Aquatic Toxicity)

Passed the aquatic 96 hour LC50 which was determined to be more than 500 milligrams per liter when measured in soft water with fathead minnows.

F. Corn Growth Experiments

In concentrations of 5000 lbs per acre reacted SulfaTreat increased the growth rate of corn by 69% in sandy soils and 26% in clayey soils. SulfaTreat did not lower the soil pH. "Reacted SulfaTreat has been very beneficial for plant growth". "Yield responses are tremendous."

A follow-up study reported that 30,000 lbs. per acre of reacted SulfaTreat resulted in a 135 percent increase in the dry grain weight of barley grown in clayey soils.

G. Other

The material is not listed (as a hazardous waste) in Subpart 261.30-261.33 of "Identification and Listing of Hazardous Wastes, " EPA-8700-12(FR), May 29, 1980.

OxyChem®

MATERIAL SAFETY DATA SHEET

MSDS NUMBER : M4777

MSDS DATE : 05-30-89

PRODUCT NAME : CAUSTIC POTASH BRIQUETTES

24 HOUR EMERGENCY PHONE : 1-800-733-3665

I. PRODUCT IDENTIFICATION

HMIS HAZARD RATINGS

HEALTH HAZARD 3 FIRE HAZARD 0 REACTIVITY 2

Based on the National Paint & Coatings Association HMIS rating system.

SARA/TITLE III HAZARD CATEGORIES (See Section X)

Immediate (ACUTE) Health: YES
Delayed (Chronic) Health: NO
Fire Hazard: NO
Reactive Hazard: YES
Sudden Release of Pressure: NO

MANUFACTURER'S NAME AND ADDRESS : Occidental Chemical Corporation, Customer Service, Occidental Tower, P O Box 809050, Dallas, Texas 75380 Telephone (1-800-752-5151)

CHEMICAL NAME: Potassium Hydroxide CAS NUMBER: 1310-58-3

SYNONYMS/COMMON NAMES: Caustic Potash

CHEMICAL FORMULA: KOH

DOT PROPER SHIPPING NAME: Potassium Hydroxide, Dry

DOT HAZARD CLASS: Corrosive material

DOT I.D. NUMBER: UN1813

DOT HAZARDOUS SUBSTANCE: RQ 1000# (Potassium Hydroxide)

II. HEALTH HAZARD INFORMATION

EMERGENCY AND FIRST AID PROCEDURES

EYES:

OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within several seconds is essential to achieve maximum effectiveness. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN:

IMMEDIATELY wash contaminated areas with plenty of water for 15 minutes. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. SEEK MEDICAL ATTENTION IMMEDIATELY.

III. IMPORTANT COMPONENTS

CAS NUMBER / NAME
1310583 Potassium hydroxide (KOH)

EXPOSURE LIMITS
PEL=2 mg/m3. Ceiling
TLV=2 mg/m3. Ceiling

PERCENTAGE
VOL ND
WT 90

COMMON NAMES:
CAUSTIC POTASH
KOH

Listed On(List Legend Below):
13 16 18

7732185 Water

EXPOSURE LIMITS
PEL=Not Established
TLV=Not Established

PERCENTAGE
VOL ND
WT 10

COMMON NAMES:

Listed On(List Legend Below):
19

See Section II
All components of this product that are required to be on the TSCA Inventory are listed on the inventory.
Not listed as carcinogen - IARC, NTP, OSHA

LIST LEGEND
13 PA ENVIROMENTAL HAZ SUBSTANCE
16 NJ WORKPLACE HAZ SUBSTANCE LST
18 NY HAZARDOUS SUBSTANCES
19 PA REQUIREMENT- 3% OR GREATER

IV. FIRE AND EXPLOSION DATA

FLASH POINT: None AUTOIGNITION TEMPERATURE: Nonflammable

FLAMMABLE LIMITS IN AIR, % BY VOLUME- UPPER: NA
LOWER: NA

EXTINGUISHING MEDIA:
This product is not combustible. Water spray, foam, carbon dioxide or dry chemical may be used in areas where this product is stored.

SPECIAL FIRE FIGHTING PROCEDURES:
Avoid direct contact of this product with water since this can cause a violent exothermic reaction.
Protective clothing and pressure demand, self-contained breathing apparatus should be worn by fire-fighters in areas where product is stored.

UNUSUAL FIRE AND EXPLOSION HAZARD:
None. See Reactivity (Section VII).

VII. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:

Under normal conditions, the material is stable.

INCOMPATIBILITY:

See Handling and Storage, (Section VIII). Avoid direct contact with water. This product may be added slowly to water or acids with dilution and agitation to avoid a violent exothermic reaction. When handling this product, avoid contact with aluminum, tin, zinc, and alloys containing these metals. Do not mix strong acids without dilution and agitation to prevent violent or explosive reaction. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro comoounds.

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

Material is not known to polymerize.

VIII. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS:

Do not get into eyes, on skin, on clothing.
Avoid breathing dust, mist, or spray.
Do not take internally.
Use with adequate ventilation and use respiratory protection when exposure to dust, mist or spray is possible.
When handling, wear chemical splash goggles, face shield, rubber gloves and protective clothing.
Wash thoroughly after handling or contact - exposure can cause burns which are not immediately painful or visible.
Keep container closed.
Product can react violently with water, acids, and other substances - read Special Mixing and Handling Instructions below carefully before using.
Product is corrosive to tin, aluminum, zinc and alloys containing these metals, and will react violently with these metals in powder form.
Hazardous carbon monoxide gas can form upon contact with reducing sugars and food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1-1977).

SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product - with constant stirring - slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

X. ADDITIONAL INFORMATION

OSHA Standard 29CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section I. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.

XI. PREPARATION INFORMATION

For additional Non-Emergency health, safety, or environmental information telephone (716) 286-3081, or write to:

Occidental Chemical Corporation
Product Stewardship Department
Suite 400
360 Rainbow Boulevard South
Niagara Falls, NY 14302

For Emergencies: 24 HOUR EMERGENCY PHONE: 1-800-733-3665

This MSDS replaces MSDS Number: M4777 dated 02-27-89.

WARNING LABEL INFORMATION (Continued)

HANDLING AND STORAGE:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product - with constant stirring - slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and scattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

NOTE: 50 pounds of product dissolved in 30 gallons of 90°F water will raise temperature of resulting solution to approximately 180°F. Never add more product than can be absorbed by solution while maintaining temperature below 200°F (@ sea level) to prevent boiling and scattering.

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals - when mixing product with solutions containing such chemicals, follow all of above mixing instructions, and add product very gradually, while stirring constantly.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residual caustic potash should be removed from containers prior to disposal.

DISPOSAL:

The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all clean-up materials and any contaminated equipment in accordance with all applicable federal, state, and local health environmental regulations. Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be performed by competent and properly permitted contractors. Ensure that all responsible federal, state, and local agencies receive proper notification of disposal.

INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS:

This product contains:

CAS#	NAME
1310583	Potassium hydroxide (KOH)
7732185	Water

HMIS RATING SYSTEM: HEALTH 3 FLAMMABILITY 0 REACTIVITY 2

FOR INDUSTRIAL USE ONLY LABEL 059M4777

POTENTIAL HAZARDS

GUIDE 60

HEALTH HAZARDS

Contact causes burns to skin and eyes.
If inhaled, may be harmful.
Fire may produce irritating or poisonous gases.
Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

Some of these materials may burn, but none of them ignites readily.
Flammable/poisonous gases may accumulate in tanks and hopper cars.
Some of these materials may ignite combustibles (wood, paper, oil, etc.).

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry.
Stay upwind; keep out of low areas.
Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.
CALL CHEMTREC AT 1-800-424-9300 FOR EMERGENCY ASSISTANCE.
If water pollution occurs, notify the appropriate authorities.

FIRE

Some of these materials may react violently with water.
Small Fires: Dry chemical, CO_2, water spray or regular foam.
Large Fires: Water spray, fog or regular foam.
Move container from fire area if you can do it without risk.
Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

SPILL OR LEAK

Do not touch or walk through spilled material; stop leak if you can do it without risk.
Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.
Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.
Large Spills: Dike far ahead of liquid spill for later disposal.

FIRST AID

Move victim to fresh air; call emergency medical care.
In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
Remove and isolate contaminated clothing and shoes at the site.
Keep victim quiet and maintain normal body temperature.

New Natural Gas-Processing Plant Being Built

JOURNAL STAFF REPORT

HOUSTON — GPM Gas Corp. has begun construction of a new natural gas-processing plant in southeastern New Mexico.

The company's Zia Plant is designed to initially process 29 million cubic feet of gas per day.

The plant in Lea County is expected to begin operation next fall.

"The new plant will provide GPM with opportunities for capacity growth at the company's processing facilities in the southeastern part of the state," said Jim Bowles, GPM vice president, New Mexico region. "Current exploration and production activity in this area is strong, and we see this trend continuing in the coming year."

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>
> — Jim Bowles
> GPM vice president

Over the past three years, GPM has experienced an increase in the purchased raw gas volumes, which has caused its three existing facilities to operate at near-capacity levels.

"Zia plant will improve our position and commitment in this area and give us greater gathering and processing flexibility," Bowles said.

ABQ Journal Tuesday March 23, 1993

in Lea County

The new plant has been designed to process "sweet" gas that does not contain hydrogen sulfide.

The sweet gas will be separated from the sour gas in GPM's existing systems and delivered to the plant for processing.

GPM's processing capacity in New Mexico will increase by about 15 percent to when the plant is completed.

The plant is designed for high natural gas liquids recoveries and will operate at the highest energy efficiency level of any of GPM's facilities, the company said.

GPM, a subsidiary of Phillips Gas Co., operates 19 facilities in Texas, Oklahoma and New Mexico that process 1.4 billion cubic feet of gas per day.