GW - 175

GENERAL CORRESPONDENCE

YEAR(S):

2007-1994

OCD DCP Midstream LP. Sites Discussion Meeting
(Stephen Weathers, Daniel Dick, et. al) February 1, 2007

GPM Artesia GP (GW-23)

On 5/26/2006, Stephen Weathers PG 303-605-1718 (swweathers@duke-energy.com) submitted a Flare Pit Soil Remediation & Closure Work plan by Conestoga-Rovers & Assoc. to Mike Bratcher. Upon your approval, DEFS will move forward w/ the closure activities. One hard copy of the work plan will also be mailed next week (OCD Santa Fe never received it).

Stephen Weathers, et al. will present the info. during the 1/31/2007 meeting in Santa Fe.

Lee Compressor Station (GW-227) (Also known as the Gillespie/Feagan)
A-24-T17 S 35 E

Closure work plan dated 9/5/2006 mailed to Ben Stone to complete a site closure.

The work plan was develop. Based on DEFS decision to cancel the discharge plan GW-227 and close the site. The closure plan is submitted to the OCD for approval.

Closure Activities: DEFS will remove all remaining equip. from site. The site will be visually inspected to determine if hydrocarb. impacted soil is present at the site. If no HC impacted soils are encountered, the site will be leveled and reseeded with native grass. If HC impacted soils are encountered, the impact soil will be remediated following NMOCD Guidelines for Remed. of Leaks, Spills, & Releases, 8/1993 and using: Benz (10 ppm), BTEX (50 ppm), and TPH (100 ppm). A PID might be used to screen potential HC impacted soil. If headspace is <= 100 ppm, the PID reading will be used as a substitute to lab analysis for benz./BTEX. If the PID is not used for screening confirm. soil samples will be analyzed for BTEX using EPA 8021B.

HC impact soils that are found to be greater than cleanup criteria will be excavated and properly disposed at an NMOCD approved facility. Confirmation soil samples will then be collected within the base and sidewalls of the excavation to confirm that the HC impacted soils have been removed to below the NMOCD cleanup stds. for this site.

After confirmation soil samples confirm the impacted soils has been removed to below the NMOCD cleanup Stds., the excavation will be backfilled with clean fill mtl. and the area reseeded w/ native grass. A closure report will be completed summarizing all field activities and analytical results. The closure report will also request that no further action will be needed at this site. Upon approval of this work plan, field activities will be scheduled. A 48 hr. notice will be given to the NMOCD Hobbs DO informing them of the start up of the field activities.

LEE GP (GW-2)

Dick Daniel (DIDick@dcpmidstream.com)

Received Q4 2006 GW Monitor Rpt. On 1/30/07 w/ recommendations for certain activities, i.e., free-product recovery in MWs 5 and 15 w/ restart analysis on MW-8 recommended.

Expired DP and OCD msg. to Ruth Lang on 12/21/06: the Lee Compressor Station (GW-227) correspondence dated 12/28/06 indicates that the facility will remain inactive and follow the closure plan to permanently close the facility. Upon receipt of the closure plan info. and verification that contamination exists at the facility with some photos to display what the site currently looks like, the OCD may close the DP?

DUKE LINAM RANCH GP (GW-15)

Third Qtr. 2006 GW Monitoring Report dated January 30, 2007.

GW conditions remain stable. Next monitor event is scheduled for first qtr. 2007. Next annual report for site will be prepared following completion of first qtr. 2007 monitor activities.

On 11/1/2006 Dick Daniel (didick@duke-energy.com) submitted the Annual GW Rpt. 2005-2006. The summary rpt. for Q3 2005 and Q1 2006 GW sampling event. The data indicate that GW conditions remain stable. The next monitor event was performed in 9/2006. The next annual rpt. for the site will be prepared following the completion of the Q1 2007 monitor activities & review & validation of the analytical results. The water tables rose substantially more in MW-1 and 2 than in MW-3, 7 & 9. MW-1 & 2 are located in or adjacent to a natural drainage swale that has been blocked in the S part of site to produce an internally drained condition. The other 3 wells are outside of this area. Unusually high precip in 2004-2005 resulted in more GW mounding beneath the closed drain swale than the rest of the site. The water table in MWs 1 & 2 began to recede after the precip. patterns returned to normal. Water tables in the other 3 wells continue to rise suggesting a more dampened relationship between the precipitation and resulting chgs. in the water table elevations.

MW-7 was not included in the piezometer maps. The level in MW-7 was not included in these maps. Including this well results in a water-table configuration that suggests radial flow from the center of the property. MW-7 has never contained measurable BTEX. This suggests the relatively higher water table in the central part of site is localized so contours should not be carried to the NW. FPH thick measurements for 9/29/2005 (MW-4=0.68 in & MW-6=4.23 in.) and 3/22/2006 (MW-4=0.76 & MW-6=3.69 in.). Only MWs 10 & 10D exceeded BTEX Stds. Any dissolved phase BTEX that emanate from FPH at MW-4 & MW-6 attenuate to below the method reporting limits before migrating to the vicinity of MW-1 (cross gradient) or MW-8 (down gradient). BTEX measured at MW-10 and 10D attenuate to concentrations that are slightly above MW-9 or below the reporting limits (MW-12 & 13) at the interior down gradient wells. The above have remained constant since ~ 6/2001. This indicates that BTEX distribution and attenuating mechanism that controls it are equilibrated.

The affected areas are min. of 1,000 ft. from the nearest down gradient property boundary. Wells containing FPH are in an active gas processing area so the safety risks inherent to restarting FPH collection more than offsets the environmental benefits that would be associated with the activity. The data establishes that dissolved phase releases from the FPH that is present in this area are attenuated approx. 1,000 ft. from the nearest down-gradient property boundary. The next semi-annual GW monitor event is scheduled for the Q3 2006. Contact Michael Stewart PE 303-948-7733 if you have questions.

HOBBS BOOSTER CS (GW-44)

Project Summary: Hobbs Booster Station, (Discharge Plan GW-044)
(Units C and D, Section 4, Township 19 South, Range 38 East)

Summary date: October 10, 2006

Project history:

DEFS inherited Hobbs Booster Station (Former Gas Plant) when it acquired the assets of GPM. Site investigation activities began in July 1999. Plume delineation was completed in June 2003.

Two remediation systems are present at the site. An air sparge system was installed in January 2004 to control cross-gradient off site migration of dissolved phase hydrocarbons. It has operated on a near continual basis except for a couple of periods when it was under repair, and the groundwater data verifies that it is controlling off-site migration.

A free phase hydrocarbon (FPH) collection system became operational in January 2005 in the center of the site. It has operated on a regular schedule except for a couple of brief periods when it was down for repairs. The system has effectively remove FPH since it was started. The system is inspected and maintained on a regular basis DEFS is currently evaluating the potential of adding vacuum to the system to increase the production rate and capture zone of each well.

Current Project Status:

The hydrocarbon plume has been delineated to below the method detection limits. There is no evidence of plume expansion. Operation of the air sparge system is necessary to control dissolved-phase hydrocarbon releases to the south. FPH collection will continue indefinitely.

Detection level Groundwater monitoring continues at the site on a quarterly basis. Operation of the air sparge and the FPH collection system will continue indefinitely.

On 12/17/06 Michael Stewart & Steve Weathers notified OCD that Trident Environmental will conduct quarterly monitor well gauging & GW sampling and the following: SWLs in MW, RW and temp. wells using an oil/water interface problem; Collect GW samples for BTEX w/ QA/QC; Purge water disposed at NMOCD approved facility. Project site location: 1625 W. Marland, Hobbs (C&D 4-19S-36E). Sampling will begin on 12/20/06.

On 10/30/06, Stephen Weathers 303-605-1718 (swweathers@duke-energy.com) submitted additional vacuum enhancement testing for the free phase hydrocarbon extraction system located at C&D 4-19S-38E. DEFS would like to complete this test early next week. Upon completion of the field activities DEFS will complete an assessment report summarizing the results of the test.

The AEC 10/30/06 summary of initial assessment activities & recom. for further evaluation of adding vacuum enhancement to the free phase hydrocarbon extraction system. Depth (BTOC) is about 50 feet. The above SWL indicate that recent heavy rains have not affected the water table in a fashion similar to 2004 precip. This fact is important because the WT historically declined at a rate of about 1 ft/yr. this trend should continue to expose more of the screened interval in these wells to make them available to vacuum effects.

FPH thickness ranges from about 0.43 in. to 10.63 in. in TW-C, OW-25W & 50W, OW-100W, OW-25S, OW-50S, OW-25 E & OW-25 N. There is a gravel interval at about 34 to 64 feet BGL.

On 10/23/2006, Stephen Weathers 4-303-605-1718 (swweathers@duke-energy.com) submitted an electronic copy of the 2005-2006 Annual GW Monitor Rpt. along w/ a cover letter.

The report is missing & OCD should request another copy.

DUKE APEX CS (GW-163)

old conoco

Trisha Elizondo (ARCADIS) (Trisha.elizondo@arcadis-us.com)

On 1/17/07, notification that ARCADIS will be conducting mo. Product recovery and PCA Junction on 1/22-23/07. Routine product recovery is on-going at site through hand-bailing. MWs at 2 locations will be surveyed to help w/ GW flow & potentiometric surface.

DUKE HOBBS GP (GW-175)

old conoco
Stephen Weathers (SWWeathers@dcpmidstream.com)

Project Summary: Hobbs Gas Plant
Unit G, Section 36 Township 18 South, Range 36 East

Summary date: October 10, 2006

Project history:

DEFS acquired the Hobbs Gas Plant in March of 2004. Ground water monitoring wells (6 wells) were installed at the site during the due diligence phase of the acquisition. Benzene was identified above the WQCC standards in one of the groundwater monitoring wells.

Current Project Status:

Groundwater monitoring continues at the site on a quarterly basis.

On 1/29/07, 4Q 2006 GW monitor rpt. submitted. Two MWs exhibit elevated benzene levels. SE and E-central portions of site adjacent to process equip. Qtly sampling continues. Results of Q1 2007 sampling will be reported in A1 2007 GW monitor report. Potentiometric surface maps for site in future reports can be expected.

Remediation Sites

C-line Release Site (1RP-401-0)

Project Summary: C-line Release site (1RP-401-0)
(Unit O, Section 31, Township 19 South, Range 37 East)

Summary date: October 10, 2006

Project history: Pipeline Release

Duke Energy Field Services C-Line Pipeline Release occurred in May of 2002. The release occurred on New Mexico State Land. Environmental Plus, Inc. was contracted to complete the soil remediation. Approximately 3,868 cubic yards of impacted soil was excavated. 2,707 cubic yards of impacted soils was properly disposed and the remaining impacted soil was blended/shredded until below cleanup standards and placed back into the excavation. During the soil remediation, groundwater was determined to be impacted with hydrocarbons. The groundwater characterization activities began in fourth quarter 2002. A total of 9 groundwater monitor wells were installed. Active free phase hydrocarbon (FPH) removal initiated in November 2003. A soil vapor extraction system was installed in October 2004. The system was expanded to include a second well in June 2005. No FPH has been measured since March 2006 even after the SVE system was turned off (but remains at the site) in June 2006.

Current Project Status:

All FPH has been removed as discussed above. The hydrocarbon plume has been delineated. There is no evidence of plume expansion, and, in fact, the plume may actually be contracting.

Groundwater monitoring continues at the site on a quarterly basis. Site monitoring could be decreased to semi-annual.

Received Q3 2006 GW monitor rpt. from Stephen Weathers on 12/18/06.

Eldridge Ranch (AP-33)

Stephen Weathers (SWWeathers@dcpmidstream.com)

Project Summary: Eldridge Ranch, (Abatement Plan AP-33)
(Unit P, Section 21, Township 19 South, Range 37 East)

Summary date: October 10, 2006

Project history: Pipeline Release

DEFS initiated investigative activities in June 2002 following notification by NMOCD. Site characterization activities were largely completed by the fourth quarter of 2003. The boundaries of detectable hydrocarbons have been delineated.

DEFS submitted the Stage 1 Abatement Site Investigation Report (ASIR) on February 11, 2004 to the New Mexico Oil Conservation Division (OCD). In the ASIR, DEFS committed to continuing two activities (groundwater monitoring and free phase hydrocarbon (FPH) removal) independent of the ASIR review timeframe. The OCD has not commented on the ASIR. Groundwater monitoring and FPH removal activities continue on a regular basis.

Current Project Status:

FPH recovery has been attempted at the site with limited results. The FPH at the site is generally limited in thickness to less than one foot. In addition, the FPH appears to be relatively immobile based upon the inability of the automatic collection systems to collect the liquids.

The hydrocarbon plume has been delineated to below the method detection limits. There is no evidence of plume expansion; however, concentrations the interior of the plume appears to exhibit nominal increases and decrease in response to seasonal precipitation.

Groundwater monitoring continues at the site on a quarterly basis. Site monitoring could be decreased to semi-annual without jeopardizing environmental impacts. FPH removal continues as site conditions warrant.

On 1/26/07, received Q4 2006 GW monitor rpt. for AP-33 near Monument NM. Some conclusions: FPH mobility appears to be limited based on historic bail down/recovery tests and failure to reappear; FPH thick is less than 0.8 ft. in six wells and less than 0.1 ft in 2 of 6 wells. FPH is relatively immobile at thick less than 1 ft. FH continues to decline in MW-EE from max. thick. of 0.83 ft. in 9/2005. FPH thick in other wells (excepting MW-CC) also exhibit decreasing trends. Benzene horiz. distrib. remain unchanged over duration of project. The benz level in the former house well continues to remain below NM WQCC GW std. Summer 2006 rains did not create a spike in levels at MWs like the heavy 2004-2005 rains. No evidence of plume expansion exists ; thus, natural attenuation stabilizes and removes hydrocarbs as they migrate away from area.

AEC recommends that Q1 2007 monitoring be completed and data reviewed to evaluate changes in GW flow patterns in S-central part of study area.

On 12/22/06, received Q3 2006 GW monitor report conclusions: FPH remains in 4 wells in W-central part of study area. FPH thick decrease in 3 of 4 wells. FPH present to N in MW-EE at 0.35 ft. FPH continues to decline from max thick of 0.83 ft. in 9/2005. FPH was not measured anywhwere else within study area. FPH mobility appears to be limited based on historic bail down/recovery tests and its failure to reappear in previously affected wells to S. Benz distrib. unchg. over duration of project. Temporal benz distrib. - see charts.

On 10/24/06, Stephen Weathers 303-605-1718 (swweathers@duke-energy.com) submitted GW monitor rpt. for Q2 2006. The former NMG-148C Study Area was combined with the Eldridge Ranch Study Area beginning w/ the Q1 2006. The areas were combined after estab. that hydrocarb plume orig. from NMG-148C had migrated into the Eldridge Ranch Study Area before it attenuated. The combined sites will be treated as a single entity in all subsequent sample events. Activities are governed under AP-33. DEFS submitted the Stage 1 Abatement Site Investigation Rpt. (ASIR) on 2/11/2004 to the OCD. In that rpt., DEFS is committed to continuing 2 activities independ. of the ASIR review timeframe. The activities include GW monitor. & free phase hydrocarb. (FPH) removal when practicable.

GW Monitor activities were completed on 6/19 and 20, 2006 abiding by the OCD approved SAP. SWLs, FPH tick measurements, and GW sampling were completed (see report). The conclusions were: The interpretations are grouped accord. to GW flow, product thick and GW chemistry. 6/2006: data from newly installed MW-28-31 continues to indicate that GW flow beneath the northern part of the Huston property is southward rather than toward the SE.

The WT continues to decline at a uniform rate across the site from a high in 12/2004. The vertical gradient measured between MWs 1s & 1d has not varied substantially over the duration of the project.

Conclusions are: FPH is present in 5 MWs in the w-central part of the study area. The FPH mobility appears to be limited based upon historic bail down/recovery tests & its failure to reappear in previously affected wells to the S. FPH was also present to the N in MW-EE at 0.35 ft. FPH has now declined from a max. thick of 0.83 ft. in 9/2005. FPH was not measured anywhere else within the study area. The Benz distribution has remained essentially unchg. over the duration of the project. MWs 28, 30 & 31 installed in 3/2006 did not contain detectable concentrations of BTEX constituents when they were sampled a second time. MW-29 has detected BTEX. The northernmost NMG-148C plume and moves south. The pattern indicates that the areal extent of the dissolved phase plume assoc. w/ NMG release is not expanding.

The concern. in MW-e & MW-1 located in the S part of this area continue to decline. Samples from the other 4 wells (MW-M, O, Q & M) produced concentrations that were at or slightly higher than the 3/2006 values. This indicates that the S part of the dissolved phase plume in this area appears to be contracting to the N while the remainder of the plume in this area remains constant. None of the data indicates that the plume is expanding.

Benz time concent. for the wells located immed. adjacent to MW-1 or on the Eldridge property (irrigation wells, house well) are shown in Fig. 9. The concentrations in MW-1 and the irrig. well leveled out after an apprec. 1-yr decline. The concent. in the house well has remained consistent over the past 3 sample events. The pattern does not indicate that the dissolved phase plume is expanding in this area. Wells MW-A, 4 & 5 located N of the Huston-Eldridge boundary, remained relatively consistent.

All of the above relationships indicate that natural attenuation is stabilizing & removing hydrocarbs as they migrate away form the src. areas. There is no evidence of plume expansion.

Recommendations:

AEC recommends that a Q3 monitoring be completed and evaluated. The monitor freq. should then be decreased from qtly. to semi-annual if the data results do not vary appreciably. The potential for FPH removal will be evaluated based upon info. gathered during the Q3 monitor event. Recommendations on FPH will be provided as necessary separate from the monitor report. Michael Stewart PE (303-948-7733).

J-4-2 Release Site

Project Summary: J-4-2 Release Site
Unit C, Section 27 Township 19 South, Range 35 East

Summary date: October 10, 2006

Project history: Pipeline Leak

The release at this site was discovered in August 2005. EPI completed a limited soil cleanup and preliminary groundwater investigations between August 2005 and the first quarter of 2006.

A work plan proposing additional site characterization activities was submitted to the NMOCD. The site activities were completed in September 2006 and a report is currently being generated.

Current Project Status:

Preliminary evaluation of the data indicates that the groundwater plume has been defined beyond the limit of detectable concentrations. Additional activities will be proposed as necessary in the pending investigative report.

On 12/28/06, Stephen Weathers e-mailed a AEC Consultants site investigation rpt. (12/26/07). Water table elevations rose by 0.45 to 1 ft. FPH thickness in MW-2 declined from 0.57 to 0.15 between 2/06 and 9/06. Probably due to high precip. summer 2006. I~ 0.006 toward SE. Head at MW-2 slightly higher than at other wells. K~ 90 ft/day based on pump test. n! 0.15. Estimated GW velocity !3.6 ft/day or 1,310 ft/yr. All develop. and purge water was disposed of at the Linam Ranch facility by EPI. All cuttings generated during the drilling process will be stockpiled

and sampled and then disposed of in an appropriate fashion. Unaffected cuttings will be spread thin.

Final field activity completed was to measure physical properties of saturated mtls. Slug tests were completed on all wells that don't contain FPH to estim. saturated K.

Following recommendations from AEC (Michael Stewart 303-948-7733):

A passive bailer should be installed in MW-2 to attempt to remove mobile FPH. GW monitoring should be completed 3 more times on a qtly. basis to compile a data base based upon 4 seasons of measurements; Qtly repts should be generated based upon the results of the 4th qtr. 2006 and Q1 2007 monitor events; A comprehensive report will be compiled follow. completion of Q2 2007 monitor episode. This report. include recom. of both long-term monitor and , if necessary, implementation of active remediation; Additional charact. activities & active remediation activities will not be completed during this time interval unless data indicates hydrocarb. plume is expanding; the next GW monitor event is scheduled fro the Q4 2006.

On 12/20/06, John Furgerson (jmfergerson@grandecom.net) sent msg. that Trident Environ. a subcontractor of Duke's will be conducting monitor well gauging & GW sampling at 1300 MST Thursday, Dec. 21, 2006. They will measure SWLs in all MWs using an oil/water interface probe; purge non-product MW/RWs. Collect GW samples for BTEX; ship samples using COC protocol; and purge water will be disposed at a NMOCD approved facility.

X-line Site (1RP-400)

Project Summary: X line Release Site (1RP-400)
Unit B, Section 7 Township 15 South, Range 34 East

Summary date: October 10, 2006

Project history: Pipeline Release

The release at this site was discovered in January 2002. EPI completed soil cleanup and preliminary groundwater investigations the first quarter of 2002. A preliminary groundwater investigation was completed in May 2002.

The following remediation components were installed at the site:

· A free phase hydrocarbon (FPH) removal system was installed in MW-8 in July 2003. The system continued to function until the mobile FPH was removed.

· An air sparge (AS) system became operational in June 2003. The system was operated until hydrocarbon concentrations in the wells (except for the FPH collection well) were all measured below the method detection limits.

· A soil vapor extraction (SVE) system was also installed in June 2003. The SVE system operated regularly until August 2006. No FPH was present in the extraction well in September 2006.

Quarterly monitoring is completed at the site. The last monitoring episode was conducted in September 2006.

Current Project Status:

A report detailing the September 2006 activities at this site will be prepared when the analytical data is received and verified.

DEFS will evaluate the feasibility of initiating air sparge in the FPH recovery well to complete source recovery provided no additional FPH is measured in the well.

Received 4th qtr 2006 GW monitor report for pipeline release on January 30, 2007.

Received Q3 2006 GW monitor report from Stephen Weathers 303-605-1718)) for pipeline release on 12/18/06. X-Line pipeline release on the Etcheverry Ranch at 33 deg 02 min 11 sec, 103 deg 32 min 48 sec. MWs 1 through 8 sampled. SWLs reassured. Unfiltered samples were collected for BTEX. MW-8 is not included in hydrograph because casing elev. has not been established (see report for conclusions, etc.).

On 9/8/2006, Stephen Weathers (swweathers@duke-energy.com) sent Ben Stone the Q2 2006 GW monitor report located on the Etcheverry Ranch near Lovington, NM.

The report is missing and OCD needs another copy.

RR Ext, (AP-55)

Project Summary: RR Ext, (Abatement Plan AP-55)
Unit C, Section 19 Township 20 South, Range 37 East

Summary date: October 10, 2006

Project history:

DEFS initiated cleanup activities after a December 13, 2005 release. The spill was remediated, and a temporary well was drilled to groundwater during the first quarter of 2006. A sample from the well contained dissolved-phase hydrocarbons.

The NMOCD assigned the site an abatement plan number based upon the groundwater sample. A Stage 1 Abatement Plan Proposal was submitted to the NMOCD on or about May 26, 2006.

Current Project Status:

DEFS is waiting for approval for the Stage 1 Abatement Plan Proposal. DEFS will initiate the required activities following receipt of that approval

PCA Junction

Trisha Elizondo (ARCADIS) (Trisha.elizondo@arcadis-us.com)

On 1/17/07, notification that ARCADIS will be conducting mo. Product recovery and PCA Junction on 1/22-23/07. Routine product recovery is on going at site through hand bailing. MWs at 2 locations will be surveyed to help w/ GW flow & potentiometric surface.

Monument Booster Station (Gas Compression Facility)

Q3 2006 GW Monitor activities completed on 9/20/06 & submitted 1/30/07. Next monitor event Q1 2007. Next annual rpt. Prepared following completion of Q1 2007.
No measurable free-product was detected in any MWs. However, in the submittal is shows MWs 1 and 5 have free product at 1.6 and 0.55 inches? No BTEX detected in down-gradient boundary wells MW-3 and 4. No BTEX in up gradient MWs 1D and 2. MW-6 showed anomalously high levels of BEX. Will keep in mind next sample event for continuing trend.

On 11/1/2006, Daniel Dick 303-605-1893 (didick@duke-energy.com) submitted Annual GW Monitor Rpt. 2005-2006. A copy of the summary report for Q3 2005 and Q1 2006 GW sampling effort. Data indicates that the GW conditions remain stable. The next monitor episode was performed 9/2006. The next annual report for the site will be prepared following the completion of the Q1 2007 monitor activities & review & validation of he analytical results. FPH thick measurements on 3/16/06 for period since passive FPH collectors were removed at MW-1 (0.37 in.) and MW-5 (0.39). FPH thick may be declining in MW-1 and is stable at MW-5. None of the BTEX constituents were detected in downgrade boundary wells MW-3 and MW-4. BTEX was also not detected in upgrade wells MW-1D & 2. Hydrocarbs were detected in MW-7, but benz was only constituent above WQCC Stds. No sample has exceeded the WQCC Stds for TEX. Only MW-7 samples have exceeded for benz. Since 2/2000. Benz detection sporadic in all wells except MW-7 since 2/2000. BTX concentrations in MW-7 continue to fluctuate.

Further src. control activities should be postponed given the decreasing product thick in MW-1. The Next semi-annual gw monitor event is scheduled for Q3 2006. Reporting will continue on an annual basis unless unusual conditions warrant notification after the Q3 sampling event.

Attachment: DCP Midstream LP Related Facilities

Application No.	Application Type	Order No. (ex. GW-##)	Applicant	Facility	Environmental Permit Status	Rcvd	Order	Exp	legal	County	Reviewer	District	IssuingOff	Notes	Cleanup Status
pENV000GW00154	Discharge Plan Permit	143	DCP MIDSTREAM L.P.	DUKE CAL-MON CS	A	03/29/1993	05/14/1993	05/14/2008	J-35-23 S-31 E	Eddy	Chavez	Artesia	Santa Fe		
pENV000GW00242	Discharge Plan Permit	227	DCP MIDSTREAM L.P.	LG&E HADSON GILLESPIE/F EAGAN CS	I		12/28/1995	12/28/2005	A-24-17 S-35 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW00331	Discharge Plan Permit	316	DCP MIDSTREAM L.P.	DUKE PAIGE CS	A	08/17/1999	01/06/2000	01/06/2005	O-4-21 S-32 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW00326	Discharge Plan Permit	311	DCP MIDSTREAM L.P.	RAPTOR COTTON DRAW	A	01/15/1999	01/06/2000	01/06/2005	C-18-25 S-32 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW00187	Discharge Plan Permit	176	DCP MIDSTREAM L.P.	DUKE BOOTLEG CS	A	10/27/1994	01/20/1995	01/20/2005	J-18-22 S-33 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW00163	Discharge Plan Permit	152	DCP MIDSTREAM L.P.	DUKE WHITE CITY C.S.	C		12/13/1993		-10-24 S-26 E	Eddy	Chavez	Artesia	Santa Fe	Site is shut down-Llano to submit closure	
pENV000GW00228	Discharge Plan Permit	213	DCP MIDSTREAM L.P.	DUKE STRATA CS	A	07/18/1995	08/30/1995	08/30/2000	A-22-23 S-34 E	Lea	Chavez	Hobbs	Santa Fe	closure requested need picture and TPH analysis	
pENV000GW00156	Discharge Plan Permit	145	DCP MIDSTREAM L.P.	DUKE ZIA GAS PLANT & ZIA BOOSTER STATION	A		07/06/1993	07/06/2008	A-19-19 S-32 E	Lea	Chavez	Hobbs	Santa Fe	3 below grade tanks registered	
pENV000GW00303	Discharge Plan Permit	288	DCP MIDSTREAM L.P.	DUKE PARDUE CS	A	10/06/1997	11/24/1997	11/24/2007	J-10-23 S-28 E	Eddy	Chavez	Artesia	Santa Fe	need $400 fee + sign-off	
pENV000GW00178	Discharge Plan Permit	167	DCP MIDSTREAM L.P.	DUKE P & P Malaga CS	A	05/19/1994	07/25/1994	07/25/2004	G-3-24 S-28 E	Eddy	Chavez	Artesia	Santa Fe	need sign-offs	
pENV000GW00173	Discharge Plan Permit	162	DCP MIDSTREAM L.P.	DUKE ANTELOPE RIDGE GP	A	01/21/1994	04/04/1994	03/23/2004	O-15-23 S-34 E	Lea	Chavez	Hobbs	Santa Fe	rec DP App + $100 issued PN and Draft DP 1/23/04	
pENV000GW00171	Discharge Plan Permit	160	DCP MIDSTREAM L.P.	DUKE BRIGHTM FED CS	C	11/29/1993	01/14/1994		C-21-19 S-33 E	Lea	Chavez	Hobbs	Santa Fe	DP terminated 1/22/04	
pENV000GW00161	Discharge Plan Permit	150	DCP MIDSTREAM L.P.	DUKE PURE GOLD "28" CS	A		11/22/1993	11/22/2003	D-28-23 S-31 E	Lea	Chavez	Hobbs	Santa Fe	Rec DP application + $100 issued PN 1/23/04 & Draft DP	
pENV000GW00311	Discharge Plan Permit	296	DCP MIDSTREAM L.P.	DUKE CEDAR CANYON CS	A	03/23/1998	07/15/1998	07/15/2008	P-9-24 S-29 E	Eddy	Chavez	Artesia	Santa Fe		
pENV000GW00252	Discharge Plan Permit	237	DCP MIDSTREAM L.P.	DUKE PECOS DIAMOND GP	A	02/05/1996	03/29/1996	03/29/2011	G-3-18 S-27 E	Eddy	Chavez	Artesia	Santa Fe		1 below grade tank registered

pENV000GW0 0254	Discharge Plan Permit	239	DCP MIDSTREAM L.P.	Duke QUINN CS	A	03/08/1996	08/09/1996	08/09/2011	L-16-31 N-8 W	San Juan	Chavez	Aztec	Santa Fe	DP w/ filing fee process, renewed, issued with letter mailed out 10/23/2006. Received $1700 fee 10/26/06. Signed DP received 1-11-07 Ok.	
pENV000GW0 0088	Discharge Plan Permit	77	DCP MIDSTREAM L.P.	Duke MIDDLE MESA CS	A	04/10/1991	11/14/1991	11/14/2006	M-10-31 N-7 W	San Juan	Chavez	Aztec	Santa Fe		
pENV000GW0 0002	Discharge Plan Permit	2	DCP MIDSTREAM L.P.	LEE GP	A	11/13/1995	03/16/1981	03/16/2011	N-30-17 S-35 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW0 0009	Discharge Plan Permit	9	DCP MIDSTREAM L.P.	EUNICE CS	C	10/06/1988	10/11/1983		-5-21 S-36 E	Lea	Chavez	Hobbs	Santa Fe	GW-009 vacated and merged into GW-16 OCT 8, 1993	
pENV000GW0 0016	Discharge Plan Permit	15	DCP MIDSTREAM L.P.	DUKE LINAM RANCH GP	A	05/17/1989	04/25/1984	04/25/2009	-6-19 S-37 E	Lea	Chavez	Hobbs	Santa Fe	1 below grade concrete tank registered	
pENV000GW0 0017	Discharge Plan Permit	16	DCP MIDSTREAM L.P.	DUKE EUNICE GP	A	04/13/1989	04/25/1984	04/25/2009	H-5-21 S-36 E	Lea	Chavez	Hobbs	Santa Fe	10 below grade tanks + 1 sulphur pit registered	
pENV000GW0 0024	Discharge Plan Permit	23	DCP MIDSTREAM L.P.	GPM ARTESIA GP	A	01/17/1995	07/01/1985	07/01/2010	-7-18 S-28 E	Eddy	Chavez	Artesia	Santa Fe	call&E-mail 1/07/2000 120 day notice. Late flat fee notice sent 1/11/02. Flat fee received 1/29/02.	1 classifier, 5 sumps, 1 sulphur pit, 2 below grade tanks registered (Flare Pit Soil Remediation & Closure Workplan)
pENV000GW0 0025	Discharge Plan Permit	24	DCP MIDSTREAM L.P.	DUKE AVALON GP	I	06/15/1990	09/18/1985	09/18/2005	J-9-21 S-27 E	Eddy	Chavez	Artesia	Santa Fe	Notice of late flat fee sent 1/11/2002.	
pENV000GW0 0044	Discharge Plan Permit	42	DCP MIDSTREAM L.P.	GPM INDIAN HILLS GP	I		07/20/1987		L-13-21 S-25 E	Eddy	Chavez	Artesia	Santa Fe	Letter from Duke, dated 12/10/01, notifying site is inactive.	
pENV000GW0 0149	Discharge Plan Permit	138	DCP MIDSTREAM L.P.	DUKE TRACHTA CS	C		04/30/1993		-14-23 S-28 E	Eddy	Chavez	Artesia	Santa Fe	Facility is inactive	

pENV000GW0 0079	Discharge Plan Permit	69	DCP MIDSTREAM L.P.	DUKE CARLSBAD GP	A	12/28/2006	04/29/1992	04/29/2012	G-10-23 S-28 E	Eddy	Chavez	Artesia	Santa Fe	Public Notice prepared 1/15/02. Request for additional information sent 1/2/02. Received $100 filing fee & renewal on 12/28/06.	4 sumps registered
pENV000GW0 0189	Discharge Plan Permit	178	DCP MIDSTREAM L.P.	DUKE WON TON CS	C		03/21/1995	03/21/2005	I-10-17 S-37 E	Lea	Chavez	Hobbs	Santa Fe	1 below grade tank registered	
pENV000GW0 0138	Discharge Plan Permit	127	DCP MIDSTREAM L.P.	DUKE MAGNUM C.S.(BURTO N FLATS GP)	A	08/10/1992	02/03/1993	02/03/2008	G-9-20 S-29 E	Eddy	Chavez	Artesia	Santa Fe	1 below grade tank registered as sump	
pENV000GW0 0139	Discharge Plan Permit	128	DCP MIDSTREAM L.P.	DUKE PAIGE CS	A	08/11/1992	11/19/1992	11/20/2007	O-4-21 S-32 E	Lea	Chavez	Hobbs	Santa Fe	6 mo. Renewal notice sent 7/10/02; renewal application received	
pENV000GW0 0148	Discharge Plan Permit	137	DCP MIDSTREAM L.P.	DUKE CARRASCO CS	A		04/28/1993	04/28/2008	F-14-23 S-28 E	Eddy	Chavez	Artesia	Santa Fe	1 skid sump registered	
pENV000GW0 0150	Discharge Plan Permit	139	DCP MIDSTREAM L.P.	DUKE CP-1 CS	C		04/28/1993		I-15-23 S-28 E	Eddy	Chavez	Artesia	Santa Fe	Site Inactive, requested closure workplan 1/10/03, WP approved, Closure Approved 10/15/2003	
pENV000GW0 0153	Discharge Plan Permit	142	DCP MIDSTREAM L.P.	DUKE SAND DUNES CS	A	03/26/1993	05/17/1993	05/17/2008	P-23-23 S-31 E	Eddy	Chavez	Artesia	Santa Fe	1 below grade tank registered	
pENV000GW0 0155	Discharge Plan Permit	144	DCP MIDSTREAM L.P.	DUKE NORTH (WESTALL) CS	A	05/05/1993	08/19/1993	08/19/2008	E-35-22 S-28 E	Eddy	Chavez	Artesia	Santa Fe	Renewal application dated 4/3/03 - renewal on hold pending legal determination	1 below grade tank registered
pENV000GW0 0179	Discharge Plan Permit	168	DCP MIDSTREAM L.P.	DUKE SOUTH FEAGAN CS	C	07/06/1994	12/28/1994	12/27/2004	N-31-19 S-25 E	Eddy	Chavez	Artesia	Santa Fe	Late filing fee and flat fee notice sent 1/11/02. Flat fee received 1/29/02.	
pENV000GW0 0188	Discharge Plan Permit	177	DCP MIDSTREAM L.P.	DUKE MALJAMAR CS	C		03/21/1995	03/21/2005	I-20-17 S-33 E	Lea	Chavez	Hobbs	Santa Fe		
pENV000GW0 0046	Discharge Plan Permit	44	DCP MIDSTREAM L.P.	HOBBS BOOSTER CS	A		12/23/1987	12/23/2007	-4-19 S-38 E	Lea	Chavez	Hobbs	Santa Fe	renewal notice sent 7/10/02	

pENV000GW0 0270	Discharge Plan Permit	255	DCP MIDSTREAM L.P.	Duke BUENA VISTA CS	A	07/15/1996	09/05/1996	09/05/2011	B-13-30 N-9 W	San Juan	Chavez	Aztec	Santa Fe	DP renewed, issued with letter mailed out 10/23/2006. Received $1700 on 10/26/2006. Signed DP received on 1/11/2007. Ok.	
pENV000GW0 0273	Discharge Plan Permit	258	DCP MIDSTREAM L.P.	Duke CEDAR HILL CS	A	07/30/1996	09/30/1996	09/30/2011	-29-32 N-10 W	San Juan	Chavez	Aztec	Santa Fe	DP renewed, issued with letter mailed out 10/23/2006. Permit fee of $1700 received on 10/26/2006. Signed DP received on 1/11/07. Ok.	
pENV000GW0 0292	Discharge Plan Permit	277	DCP MIDSTREAM L.P.	CSI - BIG EDDY LATERAL#1 CS	A		02/17/1997	02/17/2007	A-19-21 S-28 E	Eddy	Chavez	Artesia	Santa Fe	Taken over by Duke Energy. Received DP renewal letter dated 10/19/2006 w/ $100 filing fee. Mailed out final permit 9/16/06. Awaiting $1700 Compressor Station fee.	1 below grade tank registered
pENV000GW0 0174	Discharge Plan Permit	163	DCP MIDSTREAM L.P.	DUKE APEX CS	A		04/29/1999	04/29/2004	C-36-18 S-36 E	Lea	Chavez	Hobbs	Santa Fe	request GW info and DP renewal by 12/01/04	
pENV000GW0 0186	Discharge Plan Permit	175	DCP MIDSTREAM L.P.	DUKE HOBBS GP	A		01/09/1995	01/09/2005	G-36-18 S-36 E	Lea	Chavez	Hobbs	Santa Fe	Request DP renewal and GW info BY 12/01/04	
	1RP-401-0		DCP MIDSTREAM L.P.	C-line Release Site (1RP-401-0)					O-31-19 S-37 E	Lea	?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	
	AP-33		DCP MIDSTREAM L.P.	Eldridge Ranch					P-21-19 S-37 E	Lea	?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	
			DCP MIDSTREAM L.P.	J-4-2 Pipeline Release Site					C-27-19 S-35 E		?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	
	1RP-400		DCP MIDSTREAM L.P.	X-line Pipeline Site (1RP-400)					B-7-15 S-34 E		?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	

	AP-55		DCP MIDSTREAM L.P.	RR Ext, (AP-55)				C-19-20 S-37 E		?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	
	2R-043		DCP MIDSTREAM L.P.	PCA Junction				11-20 S-30 E		?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	
	1R-156		DCP MIDSTREAM L.P.	Monument Booster Station				B-33-19 S-37 E (32.6238 -103.2550)		?	Hobbs	Santa Fe	Meeting w/ company 2/1/07	

Chavez, Carl J, EMNRD

From: Weathers, Stephen W [SWWeathers@dcpmidstream.com]
Sent: Monday, January 29, 2007 9:18 AM
To: Chavez, Carl J, EMNRD
Cc: Ward, Lynn C
Subject: DCP Midstream, LP Hobbs Gas Plant

Mr. Chavez

Attached you will find the 4th Quarter 2006 groundwater monitoring report for the DCP Hobbs Gas Plant located in Lea, New Mexico (Unit G, Section 36, Township 18 South, Range 36 East).

I will be sending a CD of this report to Larry Johnson at the Hobbs District Office.

If you have any questions, please give me a call at 303-605-1718.

Thanks

Stephen Weathers
Sr. Environmental Specialist
DCP Midstream
303-605-1718 (Office)
303-619-3042 (Cell)

Effective 1/1/07 my email address has changed to swweathers@dcpmidstream.com

DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 *FAX*

January 29, 2007

Mr. Carl Chavez
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 4th Quarter 2006 Groundwater Monitoring Results
DCP Hobbs Gas Plant
Unit G, Section 36, Township 18 South, Range 36 East
Lea County, New Mexico

Dear Mr. Chavez:

DCP Midstream, LP (DCP) formerly Duke Energy Field Services, LP is pleased to submit for your review, an electronic copy of the 4th Quarter 2006 Groundwater Monitoring Results for the DCP Hobbs Gas Plant located in Lea County, New Mexico (Unit G, Section 36, Township 18 South, Range 36 East).

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me swweathers@dcpmidstream.com .

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Sr. Environmental Specialist

cc: Larry Johnson, OCD Hobbs District Office (Copy on CD)
Lynn Ward, DCP Midland Office
Environmental Files

dcp Midstream SM

Q4 2006 GROUNDWATER MONITORING REPORT

Hobbs Gas Plant
Lea County, New Mexico

January 2007

ARCADIS
Infrastructure, environment, facilities

ARCADIS

Q4 2006 Groundwater Monitoring Report

Hobbs Gas Plant

Paul A. Schwarzweller
Environmental Scientist

Trisha Elizondo
Task Manager

Prepared for:
DCP Midstream

Prepared by:
ARCADIS U.S., Inc.
630 Plaza Drive
Suite 100
Highlands Ranch
Colorado 80129
Tel 720 344 3500
Fax 720 344 3535

Our Ref.:
CO001041

Date:
24 January 2007

Table of Contents

1. Site Location and Background

ARCADIS is submitting to DCP Midstream (DCP), formerly Duke Energy Field Services (DEFS), the results of groundwater monitoring activities that were performed during the fourth quarter of 2006 (Q4 2006) at the Hobbs Gas Plant (Site) in Lea County, New Mexico (Figures 1 and 2). The Site occupies approximately 2.6 acres of land in the northeast quadrant of Section 36, Township 18 South, Range 36 East of the New Mexico Meridian.

Currently, the Site is configured as a cryogenic processing plant with a laboratory, an amine unit, compressors, sumps, mol sieve dehydration, and tank batteries. The plant also has an on-site water production well that is used for non-potable water. The Site is generally surrounded by undeveloped land. The Apex Compressor Station is located approximately 750 feet north of the Hobbs Gas Plant.

The ownership of the Hobbs Gas Plant was transferred from ConocoPhilips (COP) to DEFS on March 10, 2004. DEFS changed its name to DCP in January 2006.

2. Groundwater Monitoring

ARCADIS conducted quarterly groundwater monitoring activities at the Site on November 14, 2006. Monitoring consisted of the measurement of water levels from six groundwater monitoring wells. The field data collection logs are included in Appendix A. Groundwater samples were collected from these six wells for water quality analysis. Water quality samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260.

2.1 Water Level Gauging

ARCADIS collected water level measurements prior to disturbance of the water column (Table 1). Depth to water ranged from 60.81 feet to 62.46 feet below ground surface. Monitoring wells at the Site have not been surveyed; therefore, groundwater flow could not be calculated.

2.2 Groundwater Quality Monitoring

Prior to sampling, wells were purged a minimum of three well casing volumes to ensure the collection of a representative groundwater sample. Groundwater samples were collected using dedicated disposable polyethylene bailers, placed in laboratory-supplied containers, and packed and shipped in accordance with accepted practices to Environmental Science Corporation in Mt. Juliet, Tennessee for analyses.

Table 2 summarizes BTEX concentrations in the groundwater collected during the Q4 2006 sampling event and the laboratory analytical reports are included in Appendix B. The groundwater sample results are also posted on Figure 3, which illustrates the distribution of petroleum hydrocarbon in groundwater. The Q4 2006 analytical results can be summarized as follows:

- Benzene was detected above the regulatory standard of 10 micrograms per liter (ug/L) in two monitoring wells. Monitoring well MWB yielded a benzene concentration of 200 ug/L, and monitoring well MWC yielded a benzene concentration of 30 ug/L. Toluene, ethylbenzene, and xylenes were not detected above the regulatory standards.

3. Closing Remarks

Two monitoring wells exhibited elevated benzene concentrations. These wells are located in the southeast and east-central portions of the Site adjacent to process equipment. ARCADIS will continue to perform quarterly sampling at the Site. Results of Q1 2007 sampling will be reported in the Q1 2007 Groundwater Monitoring Report. ARCADIS anticipates completing a survey of the existing wells during Q1 2007, and therefore will be able to construct potentiometric surface maps for the Site in future monitoring reports.

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Tables

Table 1. Summary of Groundwater Elevations
Hobbs Gas Plant
DCP Midstream

Well ID	Survey Data (feet)				Depth to Water Data (feet)					
	Easting	Northing	Top of Casing Elevation	Well Depth	Sample Date	Depth to Water	Depth to PSH	PSH Thickness	Corrected Groundwater Elevation	Comments
MWA	-	-	-	-	11/14/2006	60.81	-	-	-	
MWA	-	-	-	-	8/14/2006	60.71	-	-	-	
MWA	-	-	-	-	6/14/2006	60.71	-	-	-	
MWA	-	-	-	-	3/23/2006	60.54	-	-	-	
MWB	-	-	-	-	11/14/2006	62.16	-	-	-	
MWB	-	-	-	-	8/14/2006	62.34	-	-	-	
MWB	-	-	-	-	6/15/2006	61.58	-	-	-	
MWB	-	-	-	-	3/23/2006	62.08	-	-	-	
MWC	-	-	-	-	11/14/2006	61.70	-	-	-	
MWC	-	-	-	-	8/14/2006	61.88	-	-	-	
MWC	-	-	-	-	6/14/2006	61.86	-	-	-	
MWC	-	-	-	-	3/23/2006	61.69	-	-	-	
MWD	-	-	-	-	11/14/2006	61.22	-	-	-	
MWD	-	-	-	-	8/14/2006	61.36	-	-	-	
MWD	-	-	-	-	6/14/2006	61.32	-	-	-	
MWD	-	-	-	-	3/23/2006	61.09	-	-	-	
MWE	-	-	-	-	11/14/2006	61.27	-	-	-	
MWE	-	-	-	-	8/14/2006	61.41	-	-	-	
MWE	-	-	-	-	6/15/2006	61.32	-	-	-	
MWE	-	-	-	-	3/23/2006	61.09	-	-	-	
MWF	-	-	-	-	11/14/2006	62.46	-	-	-	
MWF	-	-	-	-	8/14/2006	62.68	-	-	-	
MWF	-	-	-	-	6/14/2006	62.72	-	-	-	
MWF	-	-	-	-	3/23/2006	62.53	-	-	-	

PSH: Phase Separated Hydrocarbon
-: Not analyzed for.

Table 2. Summary of BTEX Concentrations in Groundwater
Hobbs Gas Plant
DCP Midstream

Well ID	Sample Date	Benzene	Toluene	Ethyl benzene	Xylenes	TPH
		ug/L				mg/L
MWA	11/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	-
	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-
	6/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
DUP	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
MWB	11/14/2006	200	74	82	440	-
	8/14/2006	29	6.2	< 0.5	48	-
	6/15/2006	150	110	40	270	1.7
DUP	6/15/2006	110	50	27	160	0.86
	3/23/2006	200	370	43	750	3.4
MWC	11/14/2006	30	19	11	83	-
	8/14/2006	31	8.7	2.9	58	-
	6/14/2006	80	37	22	180	2.1
	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	0.72
MWD	11/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	-
	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-
	6/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
MWE	11/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	-
	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-
	6/15/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
MWF	11/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	-
DUP	11/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	-
	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-
DUP	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-
	6/14/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
	3/23/2006	< 1.0	< 5.0	< 1.0	< 3.0	< 0.1
Water Supply Well	8/14/2006	< 0.5	< 5.0	< 0.5	< 1.5	-

Notes:
MW: Monitoring well
TPH: Total Petroleum Hydrocarbons
ug/L: Micrograms per liter
mg/L: Milligrams per liter
-: Not analyzed.

Table 3. Summary of Field Parameters in Groundwater
Hobbs Gas Plant
DCP Midstream

Well ID	Sample Date	pH	Conductivity	Temperature	Dissolved Oxygen	ORP
		(s.u.)	(uS/cm)	(°C)	(g/L)	(mV)
MWA	11/14/2006	7.10	433	18.92	7.60	44.4
	8/14/2006	5.70	578	22.42	5.70	68.7
	6/14/2006	7.38	532	20.10	8.67	-
	3/23/2006	7.37	373	17.00	6.19	-
MWB	11/14/2006	6.69	609	18.95	7.83	-198.5
	8/14/2006	6.63	753	19.85	1.41	-140.6
	6/15/2006	7.02	809	19.20	3.68	-
	3/23/2006	6.96	440	19.10	1.71	-
MWC	11/14/2006	6.71	483	18.49	4.31	-138.6
	8/14/2006	6.71	644	22.01	2.08	-147.4
	6/14/2006	7.03	618	20.10	4.17	-
	3/23/2006	7.12	350	19.20	4.21	-
MWD	11/14/2006	6.73	464	19.04	6.53	79.2
	8/14/2006	7.08	602	20.02	7.38	109.6
	6/14/2006	6.08	722	20.10	5.36	-
	3/23/2006	6.86	426	18.50	3.88	-
MWE	11/14/2006	6.83	413	18.99	6.69	54.1
	8/14/2006	6.75	541	20.34	7.24	101.4
	6/15/2006	7.13	543	19.42	6.43	-
	3/23/2006	7.21	347	19.70	5.04	-
MWF	11/14/2006	6.52	544	18.16	4.50	178.2
	8/14/2006	6.65	846	19.95	2.45	123.7
	6/14/2006	6.81	855	21.70	5.52	-
	3/23/2006	6.82	517	19.40	2.12	-
SupplyWell	8/14/2006	7.47	0.473	20.91	4.61	31.7

Notes:
ORP: Oxidation reduction potential
s.u.: Standard unit
uS/cm: microSiemens per centimeter
°C: Degree Celsius
g/L: Grams per liter
mV: Millivolts

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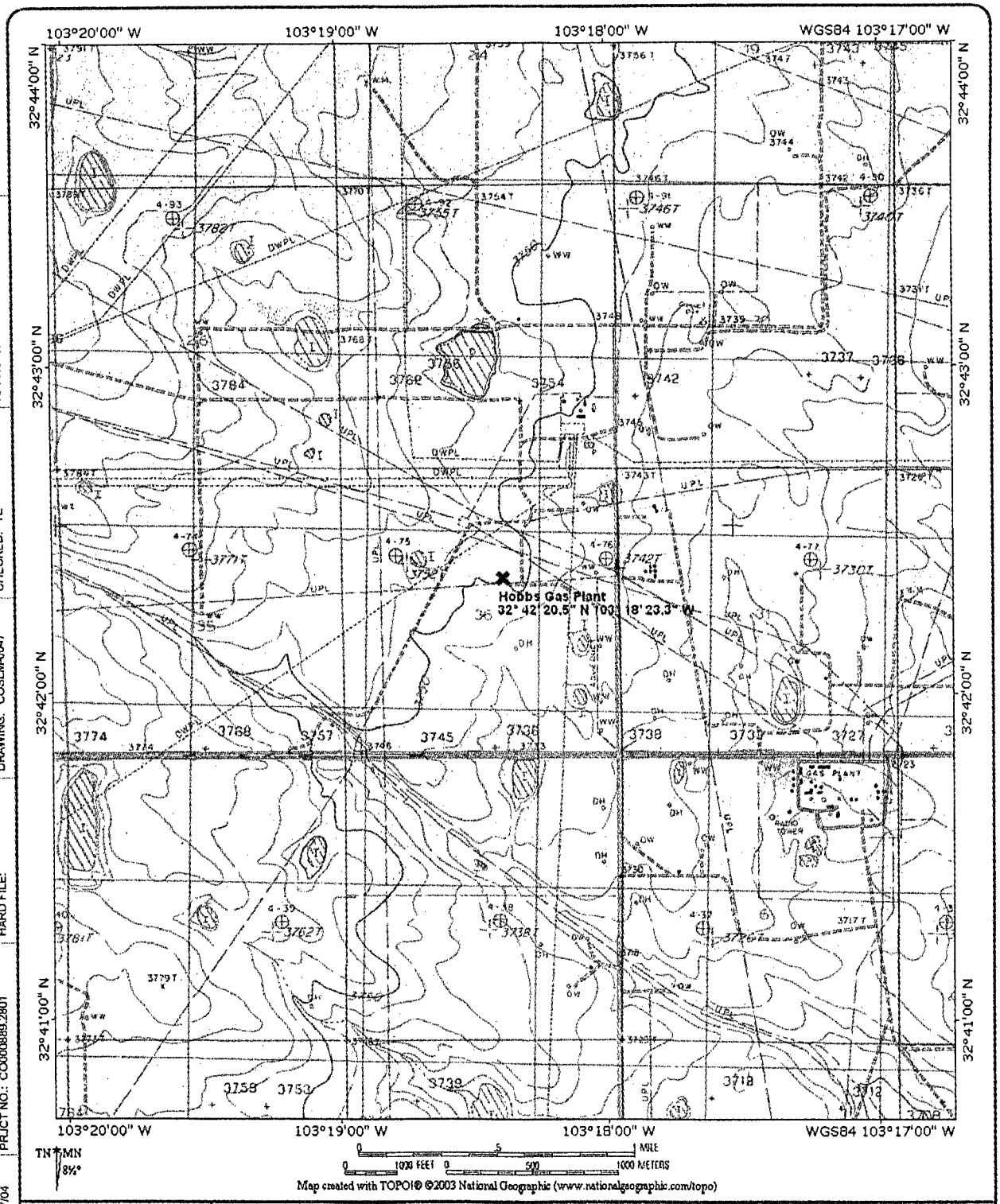
Figures



DRAFTER: PMW | APPROVED: GN | CHECKED: TE | DRAWING: COSLM-0047 | HARD FILE: | PRJCT NO.: CO000893.2801 | DWG DATE: 11/17/04

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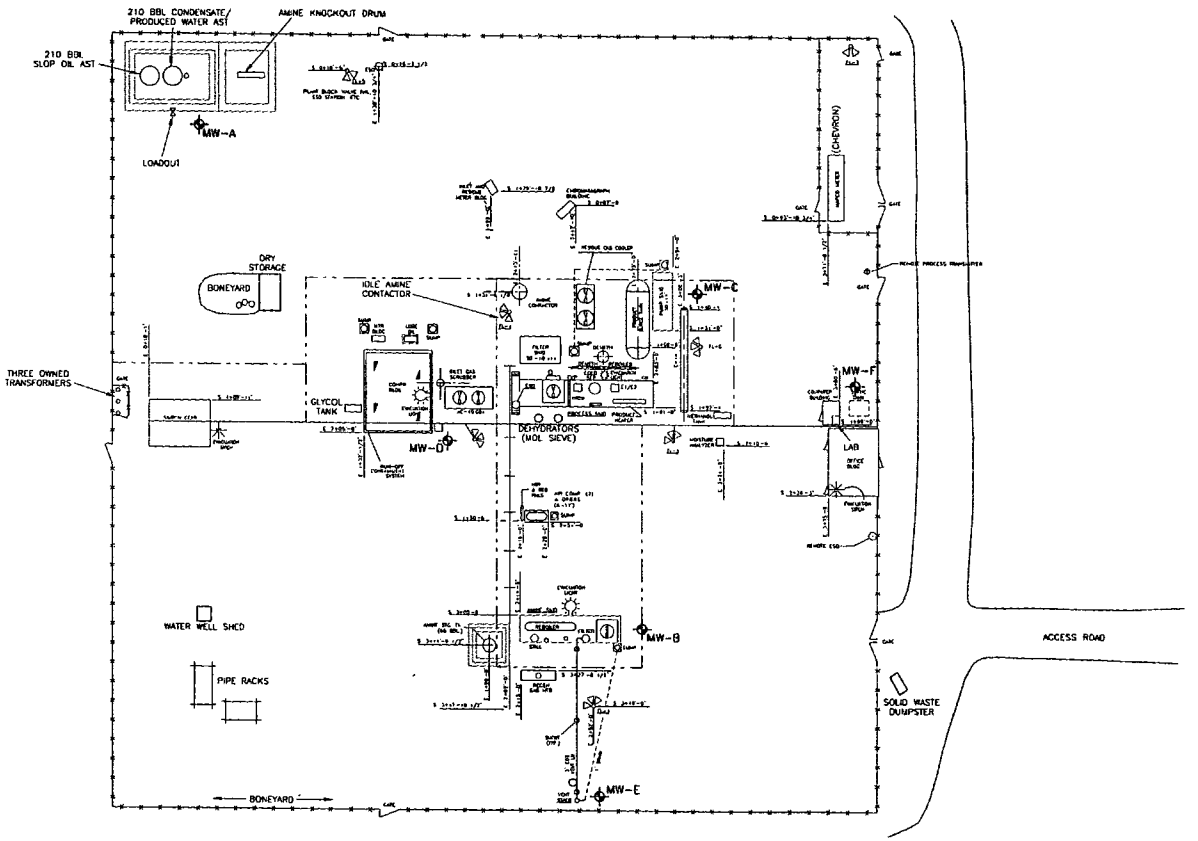
Site Location Map

HOBBS GAS PLANT
Lea County, New Mexico

FIGURE

1



LEGEND:

- FENCE
- SECONDARY CONTAINMENT
- GROUNDWATER MONITORING WELL

N
W E
S

0 60

Approximate Scale in Feet

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dcp Midstream

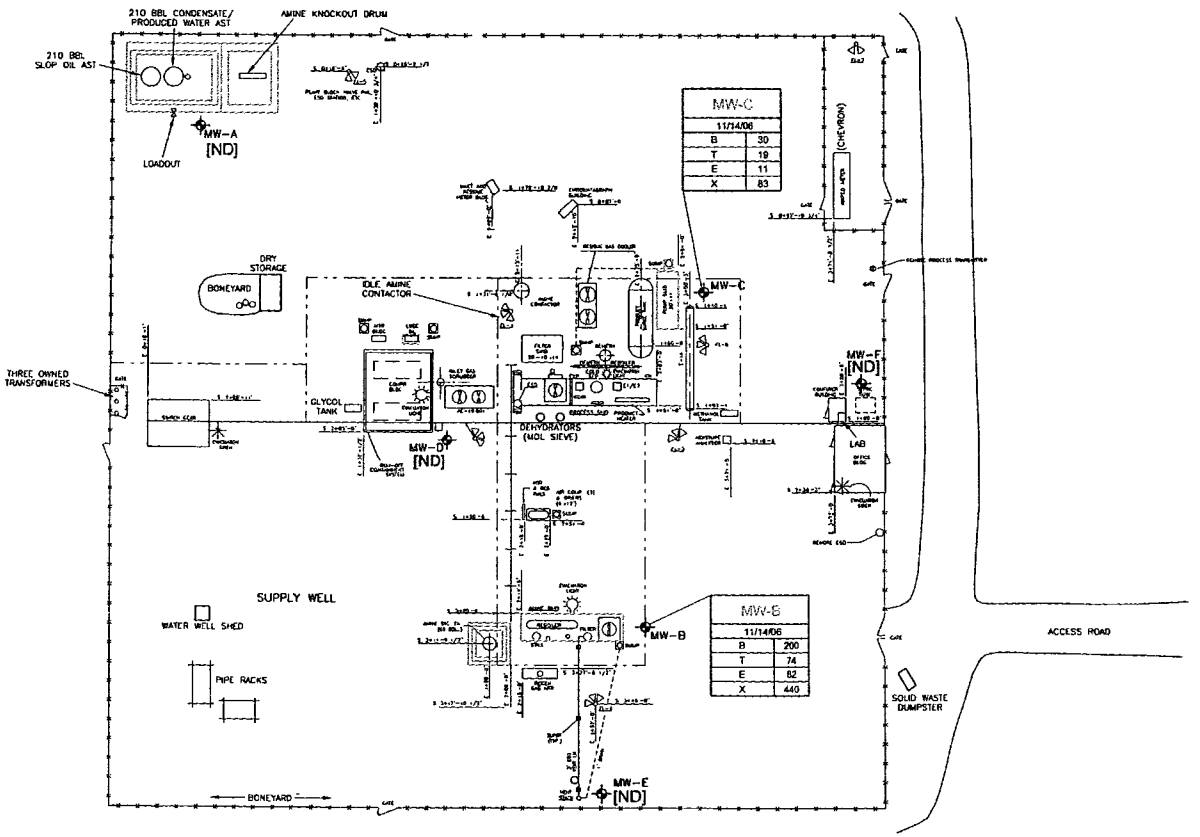
Site Map

HOBBS GAS PLANT
Leo County, New Mexico

FIGURE
2

DWG DATE: 6/21/06 | PRJCT NO.: C0000889.2801 | DRAWING: COBAS--0965 | CHECKED: PS | APPROVED: GN | DRAFTER: PMW

DRAFTER: MTH | APPROVED: GN | CHECKED: TC | DRAWING: COWOF-0593 | PROJECT NO.: CO001041.0002 | DWG DATE: 12/14/06



LEGEND:

—x—	FENCE
	SECONDARY CONTAINMENT
⌖	GROUNDWATER MONITORING WELL
[ND]	NOT DETECTED FOR ALL CONSTITUENTS OF CONCERN AT THE LABORATORY DETECTION LIMITS
(NS)	NOT SAMPLED

MW-B		
11/14/06		SAMPLE NAME / SAMPLE DATE
B	200	BENZENE, ug/L
T	74	TOLUENE, ug/L
E	82	ETHYLBENZENE, ug/L
X	440	XYLENES, ug/L

ug/L MICROGRAMS PER LITER

N W E S

0 60

Approximate Scale in Feet

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dcp Midstream

Groundwater Sample Results November 2006

HOBBS GAS PLANT
Lea County, New Mexico

FIGURE 3

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Appendix A

Field Forms

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Micropurge Sampling Log

Project: Hobbs Plant Project No. 60000041.02.03 Page 1 of 1

Site Location: New Mexico Date 11-9-06

Site/Well No. MW-A Replicate No. — Code No. _____

Weather: P.Cloudy / Breezy SW / 70° Sampling Time: Begin 1031 End _____

Evacuation Data

Sounded Well Depth (ft bmp): 70.98

Depth to Water (ft bmp): 60.81

Gallons Pumped/Baled Prior to Sampling: 10.17 x .16 = 1.62 x 3 = 4.89 / 4.90

Sample Pump Intake Depth (ft bmp): —

Sample Pump controller Settings (cpm/psi): —

Purge Time: Begin 1021 End 1031

Pumping Rate (gpm): —

Evacuation Method: 1½" Disp Bailer

Field Parameters

Color: Lgt. Red

Odor: None

Appearance: Silty

*IRON, ferrous: —

*SULFIDES: —

Data Frame: —

Remarks: _____

Sampling Personnel: JSL

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp ©	COND (mS/cm)	Turbidity (NTU)		
1021		—	7.82	19.8	7.17	18.85	0.372			
1024		1.5	7.95	28.0	7.12	18.89	0.417			
1028		3.0	7.76	37.9	7.10	18.94	0.431			
1031		5.0	7.60	44.4	7.10	18.92	0.433			
		/								
		/								
		/								
		/								

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: Hobbs Plant Project No. 60001041.02.03 Page 1 of 1

Site Location: New Mexico Date 11-19-06

Site/Well No. MW-3 Replicate No. — Code No. —

Weather: Clear/Breezy W/ 75° Sampling Time: Begin 1159 End —

Evacuation Data

Sounded Well Depth (ft bmp): 68.71

Depth to Water (ft bmp): 62.16

Gallons Pumped/Bailed Prior to Sampling: 765 x 4.0 = 1.22 x 3 = 3.67 / 4.0

Sample Pump Intake Depth (ft bmp): —

Sample Pump controller Settings (cpm/psi): —

Purge Time: Begin 1149 End 1158

Pumping Rate (gpm): —

Evacuation Method: 1¼" Disp Bailer

Field Parameters

Color: Grey

Odor: Strong

Appearance: Silty

*IRON, ferrous: —

*SULFIDES: —

Data Frame: —

Remarks: —

Sampling Personnel: JSC

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp ©	COND (mS/cm)	Turbidity (NTU)		
1149		—	2.34	-202.9	6.71	18.00	0.709			
1154		2.0	2.80	-204.2	6.66	18.95	0.661			
1159		4.0	2.83	-198.5	6.69	18.95	0.609			

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: Hobbs Plant Project No. 60001041.02.03 Page 1 of 1

Site Location: New Mexico Date 11-14-06

Site/Well No. MW-C Replicate No. ——— Code No. ———

Weather: P.Cloudy / Very Breezy 50's / 60's Sampling Time: Begin 1004 End ———

Evacuation Data

Sounded Well Depth (ft bmp): 79.35

Depth to Water (ft bmp): 61.70

Gallons Pumped/Bailed Prior to Sampling: 17.58 x 0.16 = 2.81 x 3 = 6.07 ——— 6.0

Sample Pump Intake Depth (ft bmp): ———

Sample Pump controller Settings (cpm/psi): ———

Purge Time: Begin 0951 End 1004

Pumping Rate (gpm): ———

Evacuation Method: 1¼" Disp Bailer

Field Parameters

Color: Lgt Red

Odor: Slight

Appearance: Slightly Silty

*IRON, ferrous: ———

*SULFIDES: ———

Data Frame: ———

Remarks: ———

Sampling Personnel: JSL

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp ©	COND (mS/cm)	Turbidity (NTU)		
0951		———	4.81	18.0	7.01	18.37	0.469			
0955		2	3.91	-116.9	6.77	18.50	0.494			
0959		4	4.08	-132.3	6.71	18.50	0.490			
1004		6	4.31	-138.6	6.71	18.49	0.483			

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: Hobbs Plant Project No. 60001081.08.03 Page 1 of 1

Site Location: New Mexico Date 11-14-06

Site/Well No. MW-2 Replicate No. — Code No. —

Weather: Clear/Breezy W/ 73° Sampling Time: Begin 1109 End —

Evacuation Data

Sounded Well Depth (ft bmp): 69.80

Depth to Water (ft bmp): 61.82

Gallons Pumped/Bailed Prior to Sampling: 8.68 x .16 = 1.39 x 3 = 4.16 / 4.5

Sample Pump Intake Depth (ft bmp): —

Sample Pump controller Settings (cpm/psi): —

Purge Time: Begin 1053 End 1109

Pumping Rate (gpm): —

Evacuation Method: 1½" Disp Bailer

Field Parameters

Color: Lgt. Red

Odor: None

Appearance: Silty

*IRON, ferrous: —

*SULFIDES: —

Data Frame: —

Remarks: —

Sampling Personnel: JBC

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp ©	COND (mS/cm)	Turbidity (NTU)		
1053		—	6.46	68.9	6.89	18.87	0.466			
1058		1.5	6.35	74.7	6.75	18.02	0.0868			
1102		3.0	6.61	79.8	6.72	18.03	0.463			
1109		4.5	6.53	79.2	6.73	18.09	0.464			

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: Hobbs Plant Project No. 30021041.0003 Page 1 of 1

Site Location: New Mexico Date 11-14-06

Site/Well No. MW-E Replicate No. — Code No. ____

Weather: Clear / Breezy 0/ 78° Sampling Time: Begin 1132 End ____

Evacuation Data

Sounded Well Depth (ft bmp): 71.55

Depth to Water (ft bmp): 61.27

Gallons Pumped/Bailed Prior to Sampling: 10.20 x .16 = 1.63 x 3 = 4.93 / 5.0

Sample Pump Intake Depth (ft bmp): —

Sample Pump controller Settings (cpm/psi): —

Purge Time: Begin 1122 End 1132

Pumping Rate (gpm): —

Evacuation Method: 1¼" Disp Bailer

Field Parameters

Color: Lt. Red

Odor: None

Appearance: Silty

*IRON, ferrous: —

*SULFIDES: —

Data Frame: —

Remarks: ____

Sampling Personnel: JBC

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp @	COND (mS/cm)	Turbidity (NTU)		
1122		—	6.70	96.1	7.05	18.98	0.518			
1125		1.5	6.82	89.1	6.92	18.95	0.432			
1129		3.0	6.65	48.5	6.85	18.97	0.416			
1132		5.0	6.69	54.1	6.83	18.99	0.413			

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

ARCADIS

Micropurge Sampling Log

Project: [redacted] Plant Project No. 10001041.02.02 Page 1 of 1

Site Location: New Mexico Date 11-14-06

Site/Well No. MW-F Replicate No. DUP Code No.

Weather: P.Cloudy / Very Breezy SW / 67° Sampling Time: Begin 0925 End

Evacuation Data

Sounded Well Depth (ft bmp): 72.31

Depth to Water (ft bmp): 62.06

Gallons Pumped/Bailed Prior to Sampling: 11.85 x .66 = 1.89 x 3 = 5.68; 6.0

Sample Pump Intake Depth (ft bmp):

Sample Pump controller Settings (cpm/psi):

Purge Time: Begin 0918 End 0925

Pumping Rate (gpm):

Evacuation Method: 1½ Disp Bailer

Field Parameters

Color: Lgt Red.

Odor: None

Appearance: Slightly Silty

*IRON, ferrous:

*SULFIDES:

Data Frame:

Remarks:

Sampling Personnel: JSL

Time (min)	Water Level (feet)	Volume Purged	DO (mg/L)	ORP (mv)	pH (su)	Temp ©	COND (mS/cm)	Turbidity (NTU)		
0918		—	4.73	200.9	6.53	18.06	0.587			
0921		2.0	4.62	188.1	6.53	18.13	0.554			
0923		4.0	4.59	183.9	6.52	18.16	0.553			
0925		6.0	4.50	179.2	6.52	18.16	0.547			

Constituents Sampled	Container Description	Number	Preservative

bmp	below measuring point	ml	milliliter	s.u.	standard units
°C	degrees Celsius	mS/cm	millisiemens per centimeter	mv	millivolts
ft	feet	mS	microsiemens	NTU	Nephelometric Turbidity Units
ml/min	milliliters per minute	N/A	not applicable	umhos/cm	Micromhos per centimeter
mg/L	milligrams per liter	NR	not recorded	VOC	Volatile Organic Compounds

Location PCA, etc. DEFS Date 11-13-06 JL

Project / Client C0001042.0002 MT003

J. D. [signature] Cloudy, Breezy N, 60°

MW-2	1729	Yes
MW-3	1743	Yes

1830 Finished Dumping all purge water from one drum to the ones in the containment. Left the site * Dark.

1950 Arrived @ the hotel.

JL

Location [redacted] DEFS Date 11-14-06 JL

Project / Client C0001041.0002 MT0003

J. D. [signature] Cloudy Very Windy S/W 65°

0630 Drove to the Hobbs plant. Plant operator is not on site yet.

0651 Steve J. called wanting me to send any Tailgate Safety Briefing sheets to Trishe E.

0700 Drove to get paper work faxed to Trishe E.

0811 Back on site signed in @ the field office, then drove to set up to purge and sample wells.

* Well Gauging *

I.D.:	Time:	PSH:	W.L.:	Decon:
MW-F	0822	—	62.46	Yes
MW-C	0829	—	61.70	Yes
MW-A	0833	—	60.81	Yes
MW-D	0838	—	61.22	Yes
MW-E	0841	—	61.27	Yes
MW-B	0843	—	62.16	Yes

*MW-F (Water Storm) in man hole *

*MW-C (Storm water) in man hole *

*MW-D (Storm water) in man hole *

*MW-B (Storm water) in man hole *

92

Location Hobbs Plant DEFS Date 11-14-06

Project / Client C0001041.0002 . MT003

J. D. [signature]   P. Cloudy Very Windy 65°

* YSI 556 Calibration *

ID/SN	4.00 pH:	7.00 pH:	10.00 pH:	1413 uS/cm Cond:	mV ORP:	% DO:
	3.98	7.01	10.01	1411	240.2	100.39

0852 Time of Calibration of YSI 556

* Well Depths *

ID:	Time:	Depth:	Decon:
MW-F	0905	74.31	Yes
MW-C	0946	74.35	Yes
MW-A	1016	70.98	Yes
MW-D	1047	69.90	Yes
MW-E	1114	71.55	Yes
MW-B	1145	69.81	Yes

* Sample Time *

ID:	Time:	Method:	Decon:
MW-F	0926	3 vessing	Yes
DUP	" — "	" "	Yes
MW-C	1004	3 vessing	Yes
MW-A	1031	3 vessing	Yes
MW-D	1104	3 vessing	Yes
MW-E	1132	3 vessing	Yes
MW-B	1154	3 vessing	Yes

* Total Vol. Purged *

ID:	Time:	Vol:
MW-F	0926	6.0

93

Location Hobbs Plant DEFS Date 11-14-06

Project / Client C0 001041. 0002 . MT003

J. D. [signature]   P. Cloudy Very Windy 70°

MW-C	1004	6.0
MW-A	1031	5.0
MW-D	1104	4.5
MW-E	1132	5.0
MW-B	1158	4.0

* Final Parameters *

ID:	DO:	ORP:	pH:	Temp:	Cond:
MW-F	4.50	178.2	6.52	18.16	0.548
MW-C	4.31	-138.6	6.71	18.49	0.483
MW-A	7.60	44.4	7.10	18.92	0.433
MW-D	6.53	79.2	6.73	19.04	0.464
MW-E	6.69	54.1	6.93	18.49	0.413
MW-B	7.83	-199.5	6.69	18.85	0.609

1205 A Wallach Concrete truck #49 lic. plate 63823 NM. hit a box w/ cables coming from conduit to the box knocking the box off of the mounting brackets.

1217 Called John Zembas after the truck left the site. John asked if I would leave the truck info @ the signin sheet and he would come out to look at it soon.

ARCADIS

Appendix B

Laboratory Analytical Reports

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ranch CO
630 Plaza Dr Ste 200

Highlands Ranch, CO 80129-2379

Report Summary

Tuesday November 21, 2006

Report Number: L269664
Samples Received: 11/17/06
Client Project: CO 01041.

Description: Hobbs Gas Plant

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Reviewed By: Cheli Boucher
Cheli Boucher, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 09227, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, WA - C1915

ENVIRONMENTAL
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-01

Site ID :

Project # : CO 01041.

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Sample ID : HOBBGP-MW-A

Collected By : Jerry S. Longwell
Collection Date : 11/14/06 10:31

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/19/06 1624	1
Toluene	BDL	0.0050	mg/l		8260B	11/19/06 1624	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/19/06 1624	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/19/06 1624	1
Surrogate Recovery							
Toluene-d8	87.8		% Rec.		8260B	11/19/06 1624	1
Dibromofluoromethane	82.8		% Rec.		8260B	11/19/06 1624	1
4-Bromofluorobenzene	82.4		% Rec.		8260B	11/19/06 1624	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

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REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-02

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Site ID :

Sample ID : HOBBGP-MW-B

Project # : CO 01041.

Collected By :
Collection Date : 11/14/06 11:54

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	0.20	0.0050	mg/l		8260B	11/20/06 0551	5
Toluene	0.074	0.025	mg/l		8260B	11/20/06 0551	5
Ethylbenzene	0.082	0.0050	mg/l		8260B	11/20/06 0551	5
Total Xylenes	0.44	0.015	mg/l		8260B	11/20/06 0551	5
Surrogate Recovery							
Toluene-d8	87.3		% Rec.		8260B	11/20/06 0551	5
Dibromofluoromethane	79.6		% Rec.		8260B	11/20/06 0551	5
4-Bromofluorobenzene	82.0		% Rec.		8260B	11/20/06 0551	5

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

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REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Sample ID : HOBBGP-MW-C

Collected By : Jerry S. Longwell
Collection Date : 11/14/06 10:04

ESC Sample # : L269664-03

Site ID :

Project # : CO 01041.

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	0.030	0.0010	mg/l		8260B	11/20/06 0059	1
Toluene	0.019	0.0050	mg/l		8260B	11/20/06 0059	1
Ethylbenzene	0.011	0.0010	mg/l		8260B	11/20/06 0059	1
Total Xylenes	0.083	0.0030	mg/l		8260B	11/20/06 0059	1
Surrogate Recovery							
Toluene-d8	88.1		% Rec.		8260B	11/20/06 0059	1
Dibromofluoromethane	83.1		% Rec.		8260B	11/20/06 0059	1
4-Bromofluorobenzene	79.3		% Rec.		8260B	11/20/06 0059	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

ENVIRONMENTAL
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REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-04

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Site ID :

Sample ID : HOBBGP-MW-D

Project # : CO 01041.

Collected By :
Collection Date : 11/14/06 11:04

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/20/06 0121	1
Toluene	BDL	0.0050	mg/l		8260B	11/20/06 0121	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/20/06 0121	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/20/06 0121	1
Surrogate Recovery							
Toluene-d8	88.4		% Rec.		8260B	11/20/06 0121	1
Dibromofluoromethane	81.3		% Rec.		8260B	11/20/06 0121	1
4-Bromofluorobenzene	79.5		% Rec.		8260B	11/20/06 0121	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-05

Site ID :

Project # : CO 01041.

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Sample ID : HOBBGP-MW-E

Collected By :
Collection Date : 11/14/06 11:32

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/20/06 0144	1
Toluene	BDL	0.0050	mg/l		8260B	11/20/06 0144	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/20/06 0144	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/20/06 0144	1
Surrogate Recovery							
Toluene-d8	86.8		% Rec.		8260B	11/20/06 0144	1
Dibromofluoromethane	84.7		% Rec.		8260B	11/20/06 0144	1
4-Bromofluorobenzene	79.4		% Rec.		8260B	11/20/06 0144	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Sample ID : HOBBGP-MW-F

Collected By :
Collection Date : 11/14/06 09:26

ESC Sample # : L269664-06

Site ID :

Project # : CO 01041.

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/20/06 0206	1
Toluene	BDL	0.0050	mg/l		8260B	11/20/06 0206	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/20/06 0206	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/20/06 0206	1
Surrogate Recovery							
Toluene-d8	85.9		% Rec.		8260B	11/20/06 0206	1
Dibromofluoromethane	81.9		% Rec.		8260B	11/20/06 0206	1
4-Bromofluorobenzene	76.8		% Rec.	J2	8260B	11/20/06 0206	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

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Est. 1970

REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-07

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Site ID :

Sample ID : HOBBGP-DUP

Project # : CO 01041.

Collected By :
Collection Date : 11/14/06 00:00

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/20/06 0229	1
Toluene	BDL	0.0050	mg/l		8260B	11/20/06 0229	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/20/06 0229	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/20/06 0229	1
Surrogate Recovery							
Toluene-d8	86.2		% Rec.		8260B	11/20/06 0229	1
Dibromofluoromethane	83.3		% Rec.		8260B	11/20/06 0229	1
4-Bromofluorobenzene	78.1		% Rec.	J2	8260B	11/20/06 0229	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Ms. Trisha Elizondo
Arcadis G & M, Inc. - Highlands Ran
630 Plaza Dr Ste 200
Highlands Ranch, CO 80129-2379

November 21, 2006

ESC Sample # : L269664-08

Date Received : November 17, 2006
Description : Hobbs Gas Plant

Site ID :

Sample ID : HOBBGP-TRIP BLANK

Project # : CO 01041.

Collected By :
Collection Date : 11/14/06 00:00

Parameter	Result	Det. Limit	Units	Qual	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l		8260B	11/20/06 0014	1
Toluene	BDL	0.0050	mg/l		8260B	11/20/06 0014	1
Ethylbenzene	BDL	0.0010	mg/l		8260B	11/20/06 0014	1
Total Xylenes	BDL	0.0030	mg/l		8260B	11/20/06 0014	1
Surrogate Recovery							
Toluene-d8	87.6		% Rec.		8260B	11/20/06 0014	1
Dibromofluoromethane	81.6		% Rec.		8260B	11/20/06 0014	1
4-Bromofluorobenzene	79.9		% Rec.		8260B	11/20/06 0014	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)

Laboratory Certification Numbers:
AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ -0612, MN - 047-999-395, NY - 11742, NJ - TN002, WI - 998093910

Note:
The reported analytical results relate only to the sample submitted.

Reported: 11/20/06 15:03 Revised: 11/21/06 00:21

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L269664-06	4-Bromofluorobenzene	J2
L269664-07	4-Bromofluorobenzene	J2

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

	Control Limits				(AQ)	(SS)
2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	68-128	64-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	76-115	69-118
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	79-127	61-134

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
11/21/06 at 00:21:16

TSR Signing Reports: 070
R5 - Desired TAT

No E Qual - Use only TSR created projects Quals on report - design=DEFAULT4; ARCADIS EDD and QC2 on all; Prefix sample IDs with HOBBS-

Sample: L269664-01 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-02 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-03 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-04 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-05 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-06 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-07 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Sample: L269664-08 Account: DUKARCAD Received: 11/17/06 09:00 Due Date: 11/27/06 00:00 RPT Date: 11/20/06 15:03

Arcadis G & M, Inc. - Highlands Ranch CO

630 Plaza Dr Ste 200
Highlands Ranch,CO 80129-2379

Alternate billing information:

Chain of Custody
Page ___ of ___

Prepared by:

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: **Ms. Trisha Elizondo**

Email: telizondo@arcadis-us.com, m

Project Description: **Hobbs Gas Plant**

City/State Collected: Hobbs New Mexico

Phone: (720) 344-3500
FAX: (720) 344-3535

Client Project #: CO 01041.

Lab Project #: DUKARCAD-HOBBS

Collected by (print): Terry S. Longwell

Site/Facility ID#:

P.O.#:

Collected by (signature): [signature]

Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? __No __Yes
FAX? __No __Yes

Acctnum: DUKARCAD (lab use only)
Template/Prelogin T34818/ P192856
Cooler #: 11/7/06 GS
Shipped Via: FedEX Saver

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260BTEX 40mlAmb-HCl	V8260BTEX 40mlAmb-HCl-Blk							Remarks/Contaminant	Sample # (lab only)
HOBBGP-MW-A	✓	GW		11-14-06	1031	3	X									126966-01
HOBBGP-MW-B	✓	GW		11-14-06	1154	3	X									-02
HOBBGP-MW-C	✓	GW		11-14-06	1004	3	X									-03
HOBBGP-MW-D	✓	GW		11-14-06	1104	3	X									-04
HOBBGP-MW-E	✓	GW		11-14-06	1132	3	X									-05
HOBBGP-MW-F	✓	GW		11-14-06	0926	3	X									-06
HOBBGP-DUP	✓	GW		11-14-06	—	3	X									-07
HOBBGP-TRIP BLANK		GW		11-14-06	—	1		X								-08

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other________

pH ____________ Temp ____________

Flow ____________ Other ____________

Remarks:

8577 7552 1397

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
[signature]	11-14-06	1530			Custody Seal intact
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.7°C Bottles Received: 21+TB	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 11-17-06 Time: 0950	pH Checked: NCF:

Chavez, Carl J, EMNRD

From: Weathers, Stephen W [SWWeathers@dcpmidstream.com]
Sent: Monday, January 15, 2007 9:36 AM
To: Chavez, Carl J, EMNRD
Subject: DCP Midstream Remediation Projects

Carl

I would like to set up a meeting with you to go over DCP Midstream Remediation Projects. What would your availability be for next week possibly on Thursday (January 25) or Mid Week the following week to meet and discuss the projects?

Daniel Dick and myself would attend as well as Mike Stewart the Environmental Consultant that does most of our groundwater remediation projects in NM.

Thanks

Stephen Weathers
Sr. Environmental Specialist
DCP Midstream
303-605-1718 (Office)
303-619-3042 (Cell)

Effective 1/1/07 my email address has changed to swweathers@dcpmidstream.com

Chavez, Carl J, EMNRD

To: Chavez, Carl J, EMNRD

Cc: Price, Wayne, EMNRD

Subject: Duke Energy Field Services- Note to File

On January 5, 2007, Wayne Price and Carl Chavez of the Oil Conservation Division (OCD) contacted Ruth Lang of Duke Energy Field Service at (303) 605-1713 and left a phone message regarding the large number of expired facilities (see attachment) where the discharge plan was not renewed within 120 or in advance of their expiration. Wayne Price referred to Ms. Lang's December 21, 2006 e-mail message regarding "Duke Energy Field Services Expired Discharge Plan Facilities."

Mr. Price informed Ms. Lang that all discharge plan renewal applications need to be submitted to the OCD for review by March 1, 2007. In addition, she was informed that the OCD will be issuing an Notice of Violation for neglecting to renew its discharge plan permits with the OCD.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJChavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/
(Pollution Prevention Guidance is under "Publications")

Permit ID	Facility	Company	Status	Expired	Contact	phone	e-mail	Comments
150	Pure Gold "28" CS	Duke	A	11/22/03	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
162	Antelope Ridge Gas Plant	Duke	A	3/23/04	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
167	Malaga CS	Duke	A	7/25/04	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
311	Cotton Draw CS	Duke	A	1/6/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
316	Hat Mesa CS	Duke	A	1/6/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
176	Boot Leg CS	Duke	A	1/20/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
227	Lee CS	Duke	I	12/28/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Submitted correspondence to Ben Stone during meeting in Sept. 2006
168	Feagen Booster Station	Duke	I	12/27/04	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Closed 2/1/05
177	Maljamar CS	Duke	A	3/21/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
178	Wonton CS	Duke	A	3/21/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
24	Avalon Gas Plant	Duke	A	9/18/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
163	Apex CS	Duke	A	4/29/04	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
175	Hobbs Gas Process Plant	Duke	A	1/9/05	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
16	Eunice Gas Plant	Duke	A	4/25/09	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Request 120 day extension to 4/1/07
139	CP-1 CS	Duke	A	3/23/04	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Closed 10/15/03
42	Indian Hills Gas Plant	Duke	I	4/6/2002	Lisabeth Klein	303-605-1778	eaklein@duke-energy.com	Dismantled

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

September 30, 2005

CERTIFIED MAIL
RETURN RECEIPT NO. 7001 1940 0004 7923 4788

Karin Kimura
Duke Energy Field Service
370 17th Street
Denver, Colorado 80202

Subject Matter: Compliance Orders

Dear Ms. Kimura:

Please find enclosed Compliance Orders for the following facilities:

NM-OCD 2006-002	Val Verde Plant	GW-051
NM-OCD 2006-003	Arch Rock Compressor St.	GW-183
NM-OCD 2006-004	Sandstone Compressor St.	GW-193
NM-OCD 2006-005	Hobbs Gas Processing Plant	GW-175
NM-OCD 2006-006	Apex Compressor St.	GW-163

Sincerely,

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

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

September 16, 2005

CERTIFIED MAIL
RETURN RECEIPT NO. 7001 1940 0004 7923 4764

Karin Kimura
Duke Energy Field Service
P.O. Box 5493
Denver, Colorado 80202

Subject Matter: Compliance Orders

Dear Ms. Kimura:

Please find enclosed Compliance Orders for the following facilities:

NM-OCD 2006-002	Val Verde Plant	GW-051
NM-OCD 2006-003	Arch Rock Compressor St.	GW-183
NM-OCD 2006-004	Sandstone Compressor St.	GW-193
NM-OCD 2006-005	Hobbs Gas Processing Plant	GW-175
NM-OCD 2006-006	Apex Compressor St.	GW-163

Sincerely,

J. Daniel Sanchez
Enforcement and Compliance Manager
Oil Conservation Division

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

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

September 15, 2005

This is a directive to notify that I, Mark Fesmire, will be out of the office from September 16 through 23, 2005.

During my absence, Daniel Sanchez is hereby given authority to sign all OCD documents requiring my signature.

Mark E. Fesmire, PE
Director

Price, Wayne

From: Price, Wayne
Sent: Wednesday, October 20, 2004 11:35 AM
To: Sharon Hall (E-mail)
Cc: Williams, Chris
Subject: Duke conference call Oct 20, 2004

Thank you for the up-date please CC other parties.

Hobbs Gas Plant is currently permitted GW-175 and will expire Jan 09, 2005. You have missed the 120 day pre-submittal. Therefore permit will expire on that date.
Apex Compressor St is currently permitted GW-163, permit expired 4/29/2004.
CPA Junction permit # 2R0043. active remediation.

Pursuant to our telephone conference Duke shall submit the following information by December 01, 2004.

1. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer. (for GW-163 and GW-175)

2. All up-dated information pertaining to groundwater contamination with conclusions and recommendations for the three sites.

3. Submit a discharge plan renewal application with a $100 filing fee for each site, GW-163 and GW-175. Guidelines and Application attached. Please include the GW number on the application. I also included our new public notice regs with flowchart.


ofsguid.doc


dp_apps.rtf


Public Notice Reg's..doc


PN Flow Chart.doc

Good luck and look forward to working with everybody.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

Duke Energy®
Field Services

DUKE ENERGY FIELD SERVICES
370 17th Street
Suite 2500
Denver, CO 80202

303 595 3331

Changed RBDMS
11-9-04

October 20, 2004

UPS Next Day Air *(Tracking No. 1Z F46 915 22 1003 178 4)*

Mr. Roger Anderson, Chief, Environmental Bureau
New Mexico Energy, Minerals
& Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

SUBJECT: Notification of Change of Ownership

Dear Mr. Anderson:

Duke Energy Field Services, LP (DEFS) is submitting notification of a change of ownership for facilities in Eddy and Lea Counties, New Mexico. Effective April 30,2004, DEFS is the new owner of the facilities identified in the attached list. The attachment lists the facility name, county, legal location, operating status, and, if applicable, discharge permit number.

DEFS will comply with the terms and conditions of the previously approved discharge permits issued to ConocoPhillips or its predecessors. However, by agreeing to comply with those permits, DEFS does not waive its objection to the applicability of the Water Quality Control Commission regulations for facilities that do not have and do not intend to have any discharges that may move directly or indirectly into groundwater, nor does it waive its position that the Oil and Gas Act regulations, not the WQCC regulations, apply to gathering system facilities.

If you have any questions regarding this transfer of ownership and/or the discharge permits, please call me at (303) 605-1717.

Sincerely,
Duke Energy Field Services, LP

Karin Kimura
Senior Environmental Specialist

Attachment

Duke Energy Field Services, LP
Notification of Change in Ownership
Southeast New Mexico
Effective April 30, 2004

OPERATING STATUS	FACILITY NAME	COUNTY	LEGAL DESCRIPTION	DISCHARGE PERMIT NO.
Active	Antelope Ridge Gas Plant	Lea	SE 15, T23S, R34E	GW-162 (expired)
Active	Apex CS	Lea	NENW 36, T18S, R36E	GW-163 (expired)
Active	Bootleg CS	Lea	SWSE 18, T22S, R33E	GW-176
Active	Cabin Lake CS	Eddy	SESE 34, T21S, R30E	None
Active	Cal-Mon CS (aka Llano-Cal-Mon CS)	Eddy	SENW 35, T23S, R31E	GW-143
Active	Cal-Mon VRU (aka CVRU)	Lea	NESE 16, T24S, R32E	None
Active	Carlsbad (aka CB, South CB) Master	Eddy	SWSE 31, T22S, R27E	None
Active	Catclaw Pig	Lea	Center NW 30, T18S, R36E	None
Active	Cedar Canyon CS (aka Buckstate CS)	Eddy	SESE 9, T24S, R29E	GW-296
Active	Cotton Draw CS	Lea	NENW & NWNE 18, T25S, R32E	GW-311
Active	Cotton Draw Drip (dismantled)	Lea	NWNW25, T23S, R32E	None
Active	Craft Drip (former Dehy)	Eddy	NWNW 19, T24S, R29E	None
Active	Cunningham First Cut	Lea	NWSW 27, T18S, R36E	None
Active	Exxon DA CS (AKA - "DA CS")	Lea	SESW 31, T21S, R35E	None
Active	Gas Co. North Meter	Lea	S 27, T18S, R36E	None
Active	Grama Ridge #1	Lea	SWNW3, T22S, R34E	None
Active	Grama Ridge Launcher	Lea	NESE 29, T21S, R34E	None
Will be reactivated as Paige CS	Hat Mesa (aka #2) CS	Lea	SWNE 11, T21S, R32E	GW-316
Active	Hobbs Gas Plant	Lea	SWNE 36, T18S, R36E	GW-175

OPERATING STATUS	FACILITY NAME	COUNTY	LEGAL DESCRIPTION	DISCHARGE PERMIT NO.
Active	IMC Pig Receiver (former drip)	Eddy	SWSW 1, T22S, R29E	None
Inactive	Lee CS (inactive) (aka Gillespie/Feagan CS)	Lea	NENE 24, T17S, R35E	GW-227
Active	Livingston Ridge CS	Eddy	SWNE 24, T22S, R31E	None
Active	Maddox First Cut (aka CS or Scrubber)	Lea	SWSE 25, T18S, R36E	None
Active	NEC (aka Northeast Carlsbad) CS	Eddy	Lot 9, Sec 6, T21S, R28E	GW-280
Active	P&P Malaga (aka Titan/Malaga, Low Pressure Gathering Compressor Station) CS	Eddy	SWNE 3, T24S, R28E	GW-167 (expired)
Active	Pardue CS (aka Oxy/Oryx Pardue CS)	Eddy	SENW 10, T23S, R28E	GW-288
Active	PCA Dehy	Eddy	NWSE 27, T25S, R29E	None
Active	PCA Junction (former Drip, pigs active)	Eddy	NWSE 11, T20S, R30E	None
Active	Pure Gold 28 CS	Eddy	NWNW 28, T23S, R31E	GW-150
Active	Turkey Track CS	Eddy	NWSW 27, T18S, R31E	None
Active	West Turkey Track CS	Eddy	SW 6, T19S, R30E	None
Active	Zia Booster (aka CS)	Lea	SESE 18, T19S, R32E	GW-145
Active	Zia Gas Plant	Lea	NENE 19, T19S, R32E	GW-145
Dismantled	Navaho Dehy (dismantled)	Eddy	NWSE 20, T17S, R27E	None
Inactive	Barnaval Draw CS	Eddy	SWNW3, T17S, R29E	None
Inactive	Concarb East Dehy (dismantled)	Lea	SWNE 4, T21S, R36E	None

OPERATING STATUS	FACILITY NAME	COUNTY	LEGAL DESCRIPTION	DISCHARGE PERMIT NO.
Inactive	Concarb West Drip	Lea	SENW 13, T21S, R34E	None
Inactive	Delhi Connect (aka Delhi Drip, dismantled)	Lea	NESW 28, T19S, R36E	None
Inactive	Fasken Dehy	Lea	NWSE 25, T19S, R33E	None
Inactive	Gas Co. South Meter	Lea	SW 34, T18S, R36E	None
Inactive	Hobbs Office	Lea	NENE 33, T18S, R38E	None
Inactive	Kerr Mac Station (former JT Plant)	Eddy	NWSW 4, T21S, R31E	None
Inactive	Rattlesnake CS	Lea	SE 33, T26S, R33E	None
Inactive	Rattlesnake Flats Delivery (inactive)	Lea	NENE 8, T26S, R34E	None
Inactive	Read & Stevens (aka R&S/Norlea) CS	Lea	SWSW 10, T20S, R34E	None
Inactive	Red Lake CS (dismantled)	Eddy	NESW 10, T17S, R28E	None
Inactive	White City (former Dehy)	Eddy	NESE 10, T24S, R26E	None
Closed	Yates Bright (aka Bright/Federal) CS	Lea	NENW 21, T19S, R33E	None
Inactive	Bass Turkey Track (Dehy)	Eddy	SENE 2, T19S, R28E	None
Inactive	Enron 6 " (aka HNG 6", one idle AST)	Eddy	NESE 22, T24S, R27E	None
Inactive	FNM (aka P&M) Delivery	Lea	SESE 10, T19S, R36E	None
Inactive	Getty (aka Texaco) 2 State Dehy	Lea	SWNW 3, T22S, R34E	None
Inactive	Getty 36 (aka 36) Dehy	Lea	SENW 36, T21S, R34E	None

OPERATING STATUS	FACILITY NAME	COUNTY	LEGAL DESCRIPTION	DISCHARGE PERMIT NO.
Inactive	Inexco Nauman (aka Nauman) Dehy	Eddy	NESE 12, T21S, R26E	None
Inactive	Lovelace Dehy	Eddy	SWSW 27, T22S, R27E	None
Inactive	Neeley (aka Sante Fe Neely) Dehy	Eddy	NENE28, T22S, R27E	None
Inactive	NEL (Northeast Loving)	Eddy	NESE9, T23S, R28E	None
Inactive	NGPL Dehy	Eddy	SESW31, T22S, R27E	None
Inactive	North Maduro Dehy	Lea	SENE 20, T19S, R33E	None
Inactive	Queen Lake (aka QL 36) Dehy	Eddy	NESE 36, T24S, R28E	None
Inactive	Read & Stevens TT	Eddy	NESE 25, T18S, R28E	None
Closed	Strata CS (1 idle separator)	Lea	NA	None
Inactive	Swearinger	Eddy	NWSE4, T23S, R28E	None
Inactive	Topaz Dehy	Lea	SWNW 30, T20S, R34E	None
Inactive	TW Atoka Scrubber (one idle scrubber)	Eddy	SESE 3, T18S, R27E	None
Inactive	TWS Carlsbad Dehy (dismantled)	Eddy	SWNE18, T23S, R27E	None
Inactive	Weems (aka Sante Fe Weems) Dehy	Eddy	NWNW 27, T22S, R27E	None

Rudy Quiroz
Process Foreman
Natural Gas & Gas Products

Conoco Inc.
921 W. Sanger
Hobbs, NM 88240
505-391-1950

CERTIFIED MAIL 7000 1670 0009 8293 1094
Return Receipt Requested

May 30, 2002

Mr. Wayne Price
Oil Conservation Division
Energy and Minerals Department
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: GW-175 Discharge Plan Below Grade Sumps Inspection

Dear Mr. Price:

In accordance with New Mexico Water Quality Control Commission Regulations the following actions were performed. The Oil Conservation Division in Santa Fe and Hobbs, New Mexico was verbally contacted on May 20, 2002. The Conoco Hobbs Plant gave 72-hour notice that it would be inspecting all below grade sumps. On May 24, 2002 the plants below grade sumps were inspected. The result of the underground sump inspection is enclosed in this report.

If you have any questions or require additional information, please call me at (505) 391-1950. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Joyce Miley
Mark Bishop
File: 215-5-1

Conoco Hobbs Plant
Discharge Plan GW-175
Annual Report

Below Grade Sump Pits

The Hobbs Plant has six underground sumps, which are open to the atmosphere and cannot be pressured tested. Each sump is constructed with double containment. The primary containment is made of steel and the secondary containment is constructed with concrete. These sumps were cleaned and visually inspected for integrity. The sumps showed no signs of deterioration or leakage. The sumps will be inspected annually.

The nonexempt waste was taken from a tank that contains used oil from maintenance activities, washwater and drips from process units, and rainwater. The contents of the tank were sampled in July 2001. Sampling results completed by Cardinal Laboratories in Hobbs indicated that the waste sample contained 13.5 mg/l benzene.

Conoco will notify CRI about the shipments and the potential of a regulatory violation. However, the type of material sent to CRI was substantially similar to the wastes that CRI is permitted to accept and burn for energy recovery. For example, CRI is permitted to handle E&P exempt wastes. The benzene level in E&P exempt waste such as crude oil and wastes associated with crude are generally higher than the levels contained in the Conoco shipments. Any violations of the respective facility Discharge Plans therefore appear to be regulatory in nature, rather than violations that result in adverse environmental impacts. As such, Conoco seeks your concurrence that no further remedial action is warranted at this time.

Conoco is currently developing formal procedures to prevent recurrence of this type of event. In the interim, Conoco has implemented temporary procedures that prohibit non-exempt waste shipments from these sites without sample results and the concurrence of environmental personnel.

Conoco is also, through a similar letter, addressing this matter with David Cobrain in the NMED - Waste Bureau. If you would like to discuss these matters in more detail, please feel free to call me.

Sincerely,

Joyce Miley

Joyce Miley

cc: Ken Marsh - CRI (via Fax 505-393-3615)
Paula Kochman - Conoco Legal
Marshall Honeyman - Hobbs Office
ENV File: 216-4-21

Price, Wayne

From: Anderson, Roger
Sent: Monday, November 05, 2001 4:44 PM
To: Kieling, Martyne; Price, Wayne
Subject: FW: Conoco Southeast New Mexico Waste Disposal


Hobbswaste.doc

Interesting??

Roger C. Anderson
Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division

-----Original Message-----
From: Miley, Joyce M. [mailto:Joyce.M.Miley@conoco.com]
Sent: Monday, November 05, 2001 3:13 PM
To: 'rcanderson@state.nm.us'
Subject: Conoco Southeast New Mexico Waste Disposal

Mr. Anderson attached is a letter explaining an item which appeared during an environmental audit at the Conoco Hobbs Gas Plant. We are sending it to you for information purposes as we are continuing our investigation. We will be sending this letter to David Cobrain with NMED and copy the letters to Ken Marsh - Control Recovery, Inc.

Thanks

joyce miley

<<Hobbswaste.doc>>

Joyce M. Miley
Environmental Director
Natural Gas & Gas Products

Conoco Inc
Humber 3036
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-4498
Fax: (281) 293-1214

January 25, 2002

Certified Mail No.: 7000 1670 0005 2358 8367
Return Receipt Requested

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

RE: Discharge Plan GW-175
Raptor Gas Transmission LLC
Hobbs Gas Plant
Lea County, New Mexico

Discharge Plan GW-162
Raptor Gas Transmission LLC
Antelope Ridge Gas Plant
Lea County, New Mexico

Dear Mr. Anderson:

Conoco alerted you via letter dated November 5, 2001 that it was investigating a potential violation of Discharge Plan Approval Condition #3 at the Hobbs Gas Plant. The potential violation was discovered during an internal audit. Since that time, Conoco has determined that a violation may have occurred when Conoco sent nonexempt waste from the Hobbs Gas Plant to the Class II disposal site in Hobbs operated by Control Recovery Inc (CRI) in August 2001. Conoco has further determined during additional audit activities that a similar potential violation occurred at the Antelope Ridge Gas Plant, Discharge Plan GW-162.

Hobbs Gas Plant: The Discharge Plan specifies that the facility may dispose of exempt and nonhazardous wastes at an OCD-approved Class II facility, such as CRI. However, Conoco sent 130 barrels of nonexempt waste to CRI for disposal in August 2001. The nonexempt waste was taken from a tank that contains used oil from maintenance activities, washwater and drips from process units, and rainwater. The contents of the tank were sampled in July 2001 and analyzed at Cardinal Laboratories in Hobbs, NM. Results indicated that the sample contained 8.59 mg/l benzene and the EPA hazardous waste limit for benzene is 0.5 mg/l.

Antelope Ridge: Conoco made two shipments of nonexempt waste to CRI on August 16 and September 17, 2001. The first shipment contained 120 barrels of mixed nonexempt waste and produced water; the second shipment was 120 barrels of nonexempt waste.

Joyce M. Miley
Director, Environmental
Conoco Gas & Power

Conoco Inc.
600 N. Dairy Ashford (77079) HU 3036
P.O. Box 2197
Houston, TX 77252-2197
(281) 293-4498
Fax: (281) 293-1214

Via Email

November 5, 2001

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

281-293-4600 0420

RE: Discharge Plan GW-175
Raptor Gas Transmission LLC
Hobbs Gas Plant
Lea County, New Mexico

Dear Mr. Anderson:

The above-referenced facility operates pursuant to a Discharge Plan approved on February 4, 2000. Raptor assumed ownership of the facility in December 2000; Conoco operates the facility on behalf of Raptor. Conoco recently completed an environmental audit, in which it discovered a potential violation of Discharge Plan Approval Condition #3. Conoco is seeking to promptly disclose the potential violation in order to assure that it complies with the guidance set out in New Mexico's Voluntary Environmental Self Evaluation Policy.

It appears from documents in the file that a shipment of 130 barrels of wastewater was sent to CRI, an OCD approved Class II facility, on August 10, 2001. The Conoco manifest is ambiguous in that it classified the shipment as produced water and rainwater, even though these two water streams are maintained separately at the facility. As a result, it is unclear at this time as to whether exempt or nonexempt oilfield wastes was shipped to CRI. However, sampling results completed in July 2001 indicated that one of the wastewater streams contained 8.59 ppm benzene. If Conoco shipped nonexempt waste to CRI in August, and if the sample was drawn from the nonexempt stream, Conoco violated Condition #3.

Conoco will continue to investigate the situation.

Sincerely,

Joyce Miley

cc: Ken Marsh - CRI (via Fax 505-393-3615)
Paula Kochman - Conoco Legal

Mark Bishop
Environmental Specialist
SH&E Services
Natural Gas & Gas Products

OIL CONSERVATION DIV.
01 APR 16 PM 3:21

Conoco Inc.
P.O. Box 90
Maljamar NM 88264
Phone 505-676-3519
Cell (281) 380-0018
E-mail mark.a.bishop@usa.conoco.com

04/06/2001

Return Receipt Requested
Certified Mail No.
7099 3220 0001 4997 4114

Mr. Wayne Price
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Re: Discharge Plan GW – 175, Hobbs Gas Plant
Storm water Runoff Plan

Dear Mr. Price:

Please find the attached Precipitation/Storm water Runoff Control Plan as required in the above referenced OCD Groundwater Discharge Permit.

Conoco, Inc. also requests that the inspection frequency required in Discharge Plan Approval Condition 12 (Housekeeping) be changed to monthly. This will allow us to maintain consistency with other facility Discharge Plans.

If you have any questions or require more information please contact me at 505-676-3519.

Sincerely,

Mark Bishop

Mark Bishop

CC:
Joyce Miley
File: Env xxxxx

Conoco, Inc.
Hobbs Gas Plant,
Discharge Plan GW – 175, Approval Condition 15
Storm Water Runoff Control Plan

The Hobbs Gas Plant will minimize precipitation/storm water runoff at the facility through exposure minimization practices. These practices lessen the potential for storm water to come in contact with process and waste streams. Precipitation that comes in contact with process equipment is contained in bermed or containment areas and allowed to evaporate. The facility process and waste stream containment structures are maintained to minimize erosion and prevent surface accumulations. Storage tanks are inspected periodically to monitor fluid levels.

A storm water plan at this facility is not a requirement of the EPA (40 CFR 122.26(b)(14). This regulation specifies that oil and gas operations that discharge contaminated storm water at any time between November 16, 1987 and October 1, 1992, and that are currently not authorized by an NPDES permit, must apply for a permit. Operators of oil and gas exploration, production, processing, or treatment operations or transmission facilities, that are not required to submit a permit application as of October1, 1992 in accordance with 40 CFR 122.26(c)(1)(iii), but that after October1, 1992 have a discharge of a reportable quantity of oil or a hazardous substance (in a storm water discharge) for which notification is required pursuant to either 40 CFR 110.6, 117.21, or 302.6, must apply for a permit.

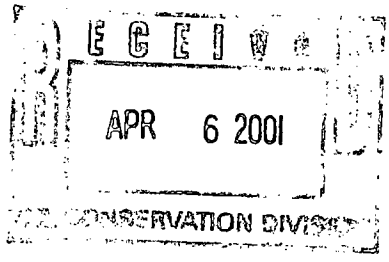
Since Conoco, Inc. has not had a discharge at this facility of a reportable quantity of oil or a hazardous substance (in a storm water discharge) for which notification is required pursuant to either 40 CFR 110.6, 117.21, or 302.6, a storm water discharge permit is not required for the Hobbs Gas Plant.

Rudy Quiroz
Process Foreman
Natural Gas & Gas Products

Conoco Inc.
921 W. Sanger
Hobbs, NM 88240
505-393-2153

CERTIFIED MAIL Z 260 103 323
Return Receipt Requested

April 3, 2001



Mr. Wayne Price
Oil Conservation Division
Energy and Minerals Department
1220 South St. Francis Dr.
Santa Fe, NM 87505

RE: GW-175 Discharge Plan Underground Water Discharge Lines Testing And Below Grade Sumps Inspection

Dear Mr. Price:

In accordance with New Mexico Water Quality Control Commission Regulations the following actions were performed. The Oil Conservation Division in Santa Fe and Hobbs, New Mexico was verbally contacted on March 9, 2001. The Conoco Hobbs Plant gave 72 hour notice that it would be testing the underground discharge line and inspecting all below grade sumps. On March 15,2001 the plant underground wastewater line was tested and the below grade sumps inspected. The result of the pressure test and underground sump inspection is enclosed in this report.

If you have any questions or require additional information, please call me at (505) 393-2153. Thank you for your assistance.

Sincerely,

Rudy Quiroz

CC: Joyce Woodfin
Mark Bishop
File: 215-5-1

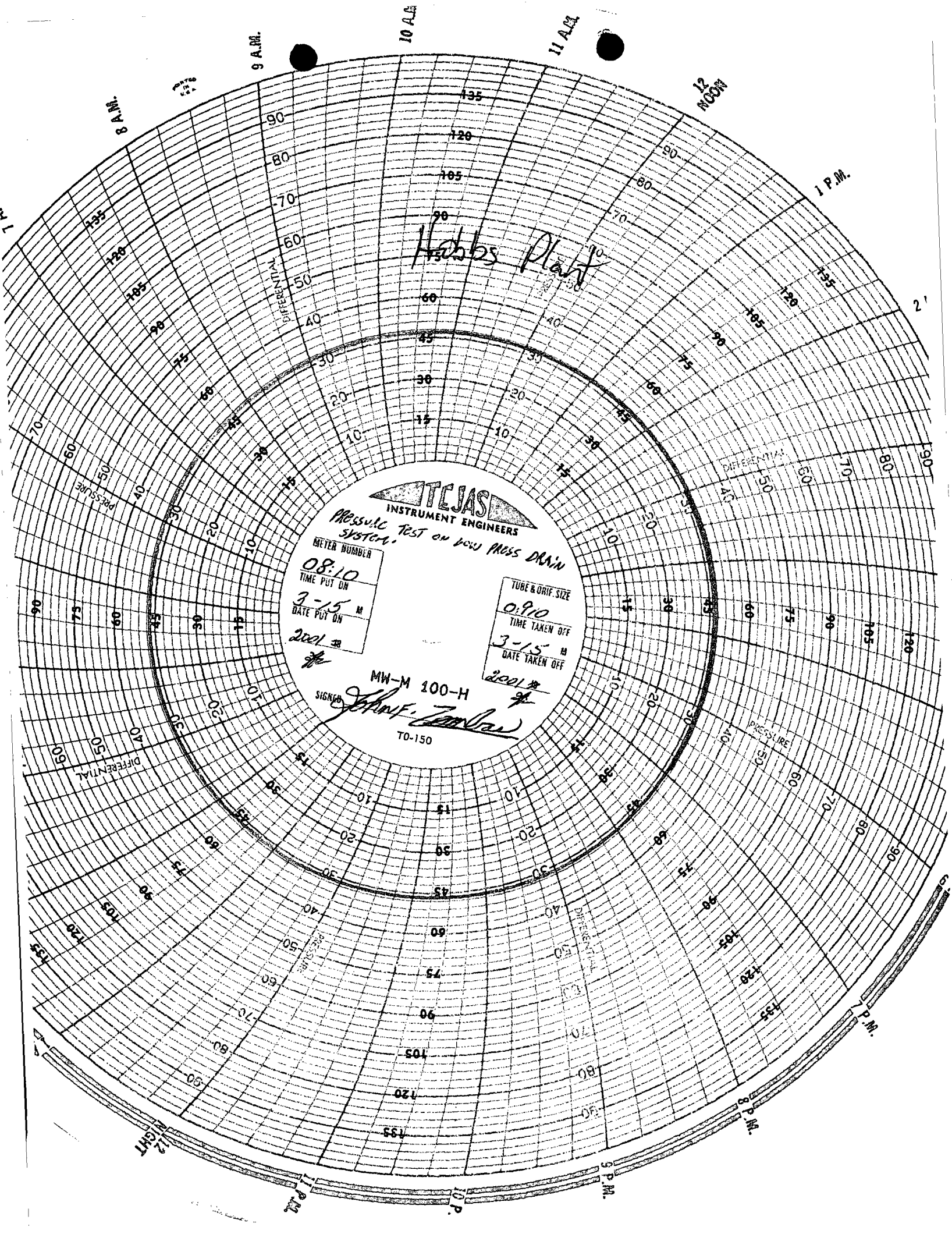
Conoco Hobbs Plant
Discharge Plan GW-175
Annual Report

Underground Water Discharge Line

The underground water discharge line was tested to demonstrate mechanical integrity. The method of test was hydro pressure test. The discharge line was pressure tested to 31 pounds per square inch gauge, which is 25 pounds above operating pressure. The result of this test was recorded on a chart recorder. The pressure was held for one hour with no detection of any pressure loss. A copy of the pressure chart is included with this report.

Below Grade Sump Pits

The Hobbs Plant has six underground sumps, which are open to the atmosphere and can not be pressured tested. Each sump is constructed with double containment. The primary containment is made of steel and the secondary containment is constructed with concrete. These sumps were cleaned and visually inspected for integrity. The sumps showed no signs of deterioration or leakage. The sumps will be inspected annually.


Hobbs Plant
TEJAS
INSTRUMENT ENGINEERS
PRESSURE TEST ON LOW PRESS DRAIN SYSTEM.
METER NUMBER
08:10
TIME PUT ON
3-15
DATE PUT ON
2001
TUBE & ORIF. SIZE
0:910
TIME TAKEN OFF
3-15
DATE TAKEN OFF
2001
MW-M 100-H
SIGNED
TO-150
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
DIFFERENTIAL
PRESSURE

Joyce M. Miley
Environmental Consultant
Engineering and Compliance
Natural Gas & Gas Products Department

Conoco Inc.
600 N. Dairy Ashford Rd.
P.O. Box 2197, HU3036
Houston, TX 77252
Telephone: (281) 293-4498
Facsimile: (281) 293-1214

November 30, 2000

Certified Mail No. 7099 3220 0003 1150 1803
Return Receipt Requested

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

Re: Change of Ownership
Conoco Inc., Natural Gas & Gas Products Department

Dear Mr. Anderson:

Effective December 1, 2000, Conoco Inc., Natural Gas & Gas Products Department (NG&GP) assumed ownership of LG&E Natural Gathering & Processing LLC,: and LG&E Natural Pipeline LLC (LG&E). These LG&E entities, in turn, own certain natural gas facilities in SE New Mexico. These facilities and their OCD Groundwater Discharge numbers are listed in the table below.

Facility Name	OCD Groundwater Discharge Permit
Antelope Ridge Gas Plant	GW-162
Hobbs Gas Plant	GW-175
Apex Compressor Station	GW-163
Bootleg (aka. NBR) 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 (aka. Lea and/or Fagan/Gillespie) Compressor Station	GW-227
Pardue Farms Compressor Station	GW-288
Pure Gold 28 Compressor Station	GW-150
Parker & Parsley (aka. Malaga) Compressor Station	GW-167

Several of these locations have conditions in their permits that require the new owner to supply a written commitment to comply with the terms and conditions of the previously approved discharge plans. LG&E has informed Conoco that all above locations are in compliance with the discharge plans. Conoco has copies of all of the approval letters and LG&E signed conditions of approval for these locations. We agree to continue to operate the locations in conformance with the groundwater permits, the approval conditions and the OCD regulations.

In addition, pursuant to certain requirements of the transaction in which Conoco acquired the entities, the names of certain entities have been changed to the following: Raptor Natural Gathering & Processing LLC and Raptor Natural Pipeline LLC (in each case replacing LG&E with Raptor).

Conoco Inc. requests that all future correspondence concerning these facilities be forwarded to me at the address above. If you have any questions or require additional information, please do not hesitate to contact Mr. Mark Bishop at (505) 623-5659 or myself at (281) 293-4498.

Sincerely,

Joyce M. Miley

cc.:

Ms. Patricia Merrill
LG&E Energy Corp.
220 West Main Street
PO Box 32030
Louisville, KY 40232-2030

Certified Mail No. 7099 3220 0003 1150 1797
Return Receipt Requested

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 4, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. Z-142-564-965

Mr. John Delaney
LG&E Natural Gathering and Processing Co.
921 West Sanger
Hobbs, New Mexico 88240

RE: Discharge Plan Renewal GW-175
LG&E Natural Gathering and Processing Co.
Hobbs Gas Plant
Lea County, New Mexico

Dear Mr. Delaney:

The ground water discharge plan renewal application GW-175 for the LG&E Natural Gathering and Processing Co. Hobbs Gas Plant located in the SW/4 NE/4 of Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The original discharge plan application was submitted on September 6, 1994 and approved January 9, 1995. The discharge plan renewal application, dated October 18, 1999, submitted pursuant to Sections 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Sections 5101.A. and 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve LG&E Natural Gathering and Processing Co. of liability should operations result in pollution of surface water, ground water, or the environment.

Please be advised that all exposed pits, including lined pits and open tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., LG&E Natural Gathering and Processing Co. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-175
LG&E NATURAL GATHERING AND PROCESSING CO.
HOBBS GAS PLANT
DISCHARGE PLAN APPROVAL CONDITIONS
(February 4, 2000)

1. Payment of Discharge Plan Fees: The $50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for natural gas plants. The renewal flat fee required for this facility is $1,667.50 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval.

2. LG&E Natural Gathering and Processing Co. Commitments: LG&E Natural Gathering and Processing Co. will abide by all commitments submitted in the discharge plan renewal application dated October 18, 1999 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Hobbs District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Plan: The facility will have an approved storm water run-off plan.

16. Closure: The OCD will be notified when operations of the Hobbs Gas Plant are discontinued for a period in excess of six months. Prior to closure of the Hobbs Gas Plant a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: LG&E Natural Gathering and Processing Co., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. LG&E Natural Gathering and Processing Co. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

LG&E NATURAL GATHERING AND PROCESSING CO.

by_____
Title

Pursuant to Section 3109.G.4., this renewal plan is for a period of five years. This renewal will expire on **January 9, 2005**, and LG&E Natural Gathering and Processing Co. should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

LG&E Natural Gathering and Processing Co. will submit a storm water run-off plan for approval by the OCD within six (6) months of the date of this approval letter for the Hobbs Gas Plant facility.

The discharge plan renewal application for the LG&E Natural Gathering and Processing Co. Hobbs Gas Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of $50. There is a renewal flat fee assessed for gas plant facilities equal to one-half of the original flat fee or $1,667.50. The OCD has received the filing fee.

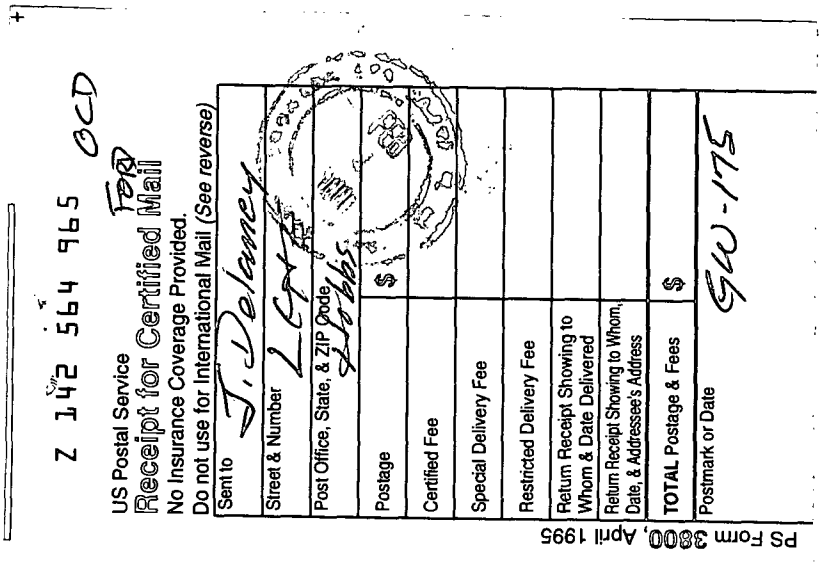
On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Artesia Office



THE SANTA FE NEW MEXICAN
150 Years 1849-1999
Everybody Reads It.

NM ENERGY, MINERALS &
NATURAL RESOURCES DEPT.
OIL CONSERVATION DIVISION
2040 SOUTH PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 124311 ACCOUNT: 56659
LEGAL NO: 66618 P.O.#: 00-199-0002
177 LINES 1 time(s) at $ 77.93
AFFIDAVITS: 5.25
TAX: 5.20
TOTAL: 88.38

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application(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-175) - LG&E Natural Gathering and Processing Co., John R. Delaney, (505) 393-2153, 912 West Sanger, Hobbs, NM 88240, has submitted a discharge renewal application for the Hobbs Gas Plant located in the SW/4 NE/4 of Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 210 gallons per day of process waste water with a total dissolved solids concentration of 1420 mg/l is collected in an above ground steel closed top storage tank prior to transport offsite to an OCD approved disposal facility. Ground water most likely to be affected in the event of an accidental discharge at a depth of approximately 61 feet with a total dissolved solids concentration of approximately 675 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 8:00a.m. and 4:00p.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 an 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 this 10th day of December, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION

LORI WROTENBERY,
Director
Legal #66618
Pub. December 17, 1999

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, B Perner 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 #66618 a copy of which is hereto attached was published in said newspaper 1 day(s) between 12/17/1999 and 12/17/1999 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 17 day of December, 1999 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/_____
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this
17 day of December A.D., 1999

Notary _____

Commission Expires _____

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

Notice of Publication NO. GW-175

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 December 17, 1999 and ending with the issue of December 17, 1999.

And that the cost of publishing said notice is the sum of $ 54.12 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this day of December 17, 1999.

Debbie Schilling

Debbie Schilling
Notary Public, Lea County, New Mexico
My Commission Expires June 22, 2002

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 10th day of December 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
LORI WROTENBERY, Director

SEAL

Published in the Lovington Daily Leader December 17, 1999.

Z 549 495 023

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

OCD / T. Ford
GW-175

Sent to Lovington Daily Leader	
Street & Number Drawer 1717	
Post Office, State, & ZIP Code Lovington, NM 88260	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form 3800, April 1995

SANTA FE

US POSTAGE

THE SANTA FE NEW MEXICAN
150 Years 1849–1999
Everybody Reads It.

NM ENERGY, MINERALS &
NATURAL RESOURCES DEPT.
OIL CONSERVATION DIVISION
2040 SOUTH PACHECO ST.
SANTA FE, NM 87505

AD NUMBER: 124311 ACCOUNT: 56659
LEGAL NO: 66618 P.O.#: 00-199-0002
177 LINES 1 time(s) at $ 77.93
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ENERGY, MINERALS
AND NATURAL
RESOURCES
DEPARTMENT
OIL CONSERVATION
DIVISION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico this 10th day of December, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION

LORI WROTENBERY,
Director
Legal #66618
Pub. December 17, 1999

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO
COUNTY OF SANTA FE
I, B Perner 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 #66618 a copy of which is hereto attached was published in said newspaper 1 day(s) between 12/17/1999 and 12/17/1999 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 17 day of December, 1999 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
17 day of December A.D., 1999

Notary P Mathie

Commission Expires 3-13-2001

OFFICIAL SEAL
P MATHIE
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

NOTICE OF PUBLICATION

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

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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 10th day of December, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 10-18-99,

or cash received on _____ in the amount of $ 50.00

from Llano, Inc.

for Hobbs Gas Plant (Facility Name) GW-175 (OCD No.)

Submitted by: _____ Date: 11-19-99

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility ___ Renewal ✓

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

LLANO, INC.
BOX 1320
HOBBS, NEW MEXICO 88240

SUNWEST BANK OF HOBBS, N.A.
HOBBS, NEW MEXICO 88240

[redacted] 95-321 / 1122

CHECK DATE	CHECK NO
10/18/99	[redacted]

PAY TO THE ORDER OF

THE SUNSET DOLLARS

LLANO INC

Water Quality Management Fund/
Energy, Minerals and Natural Resources

CHECK AMOUNT
$ 50.00

LLANO, INC. - GENERAL ACCOUNT

VOID AFTER 90 DAYS

[redacted]

LLANO, INC.

[redacted]

INVOICE NO.	INVOICE DATE	DESCRIPTION	GROSS AMOUNT	DISCOUNT	NET AMOUNT
CR 10/19/99	10/18/99	Renewal of Discharge Plan	$50.00	0.00	$50.00
CHECK NUMBER		TOTALS	$50.00	0.00	$50.00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

September 14, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-531

Mr. J. R. Delaney
Minerals, Inc.
921 West Sanger
Hobbs, New Mexico 88240

RE: Discharge Plan GW-175 Renewal
Hobbs Gas Plant
Lea County, New Mexico

Dear Mr. Delaney:

On January 4, 1995, the groundwater discharge plan renewal, GW-175, for the Minerals, Inc. Hobbs Gas Plant located in the SW/4 NE/4 of Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico, was approved by the Director of the New Mexico Oil Conservation Division (OCD). This discharge plan renewal was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. **The approval will expire on January 4, 2000.**

If the facility continues to have potential or actual effluent or leachate discharges and wishes to continue operation, the discharge plan must be renewed. **Pursuant to Section 3106.F., if an application for renewal is submitted at least 120 days before the discharge plan expires, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved.** The OCD is reviewing discharge plan submittals and renewals carefully and the review time can extend for several weeks to months. Please indicate whether Minerals, Inc. has made or intends to make, any changes in the system, and if so, please include these modifications in the application for renewal.

The discharge plan renewal application for the **Hobbs Gas Plant** is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of $50.00 plus a flat fee equal to one-half of the original flat fee for gas plants. The $50.00 filing fee 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 Hobbs District Office. **Note that the completed and signed application form must be submitted with your discharge plan renewal request.** (Copies of the WQCC regulations and discharge plan application form and guidelines are enclosed to aid you in preparing the renewal application. A complete copy of the regulations is also available on OCD's website at **www.emnrd.state.nm.us/ocd/**).

If the Hobbs Gas Plant no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If Minerals, Inc. has any questions, please do not hesitate to contact me at (505) 827-7152.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf

enclosed: Discharge Plan Application form

cc: OCD Hobbs District Office

Z 274 520 531 OCD Ford

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to	JR Delaney
Street & Number	NEW MEXICO Inc
Post Office, State, & ZIP Code	Hobbs
Postage	$ .33
Certified Fee	1.40
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.25
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$ 2.98
Postmark or Date	GW-175

SEP 1 1999

USPS

PS Form 3800, April 1995

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, once each week on the same day of the week, for one (1) consecutive weeks, beginning with the issue of

October 13, 1994

and ending with the issue of

....., 19.....

And that the cost of publishing said notice is the sum of $ 35.64

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

Joyce Clemens

Subscribed and sworn to before me this 27th day of October, 19 94

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 1998

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 the New Mexico Water Quality Control Commission Regulations, the following discharge plan 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:

(GW-175) - Minerals, Inc., J.R. Delaney, Operations Manager, 921 W. Sanger, Hobbs, New Mexico, 88240, has submitted a discharge plan application for their Hobbs Gas Plant located in the SW/4 NE/4 Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 210 gallons per day of waste water with a total dissolved solids concentration of 1420 mg/l will be collected and stored in an above ground closed top steel tank prior to transport to an OCD approved offsite disposal facility. Groundwater most likely to be affected in the event of an accidental discharge is at a depth approximately 61 feet with a total dissolved solids concentration of approximately 675 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of October, 1994.

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

SEAL

Published in the Lovington Daily Leader October 13, 1994.

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

October 31, 1994

William J. Lemay, Director
New Mexico Water Quality
Control Commission
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

This responds to your agency's public notice dated October 4, 1994, regarding the State of New Mexico's proposal to approve a discharge plan application for the applicant listed below. The U.S. Fish and Wildlife Service has reviewed the public notice and has no comments on GW-175.

> (GW-175) Minerals, Inc., J.R. Delaney, Operations Manager, 921 W. Sanger, Hobbs, new Mexico. 88240 - discharges from their Hobbs Gas Plant located in the SW/4 NE/4 Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 210 gallons per day of waste water will be stored in an above ground, closed-top steel tank prior to transport to an OCD approved offsite disposal facility. Ground water most likely to be affected in the event of an accidental discharge is at a depth approximately 61 feet with a total dissolved solids concentration of approximately 675 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

Thank you for the opportunity to review and comment on this discharge plan application. If you have any questions concerning these comments, please contact Joel D. Lusk at (505) 883-7877.

Sincerely,

Jennifer Fowler-Propst
State Supervisor

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 9-8-94,

or cash received on _____ in the amount of $ 3335.00

from LLANO, INC (Minerals Inc)

for GW-175 Hobbs Gas Plant
(Facility Name)

Submitted by: _____ (DF No.) Date: _____

Submitted to ASD by: Chris Eustice Date: 2-15-95

Received in ASD by: Carolyn F. Haskell Date: 2/15/95

Filing Fee ___ New Facility ✓ Renewal ___

Modification ___ Other _____
(specify)

Organization Code _____ Applicable FY _____

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment ___

OPERATING ACCOUNT
P.O. BOX 569550
DALLAS, TX 75356-9550

Llano, Inc.

DATE	CHECK NUMBER
09/08/94	[redacted]

0259

THREE-THOUSAND-THREE-HUNDRED-THIRTY-FIVE-DOLLARS -ZERO-CENTS**********
****
PAY TO THE ORDER OF

CHECK AMOUNT
****$3,335.00*

LLANO, INC.
OPERATING ACCOUNT

WATER QUALITY MANAGEMENT FUND
STATE OF NEW MEXICO
PO BOX 2088
SANTA FE, NM

Payable through Mellon Bank (DE) N.A., Wilmington, DE 19899
Mellon Bank (East) N.A., Philadelphia, PA 19102
62-4/311

[redacted]

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

New Mexico DRUG FREE It's a State of Mind!

January 9, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-083

Mr. John R. Delaney
Minerals, Inc.
921 W. Sanger
Hobbs, New Mexico 88240

Re: Discharge Plan (GW-175)
Hobbs Gas Plant
Lea County, New Mexico

Dear Mr. Delaney:

The groundwater discharge plan GW-175 for the Minerals, Inc. Hobbs Gas Plant located in the SW/4 NE/4, Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the application dated September 6, 1993.

The discharge plan was submitted pursuant to section 3-106 of the Water Quality Control Commission Regulations. It is approved pursuant to section 3-109.A.. Please note Section 3-109.F., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve you of your liability should your operation result in actual pollution of surface or ground waters or the environment which may be actionable under other laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that section 3-104 of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan". Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase,or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3-109.G.4., this approval is for a period of five years. This approval will expire January 9, 2000 and you should submit an application for renewal in ample time before that date.

The discharge plan application for the Minerals, Inc. Hobbs Gas Plant is subject to the WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus the flat rate of three thousand three hundred thirty-five (3335) dollars for gas processing plants.

The OCD has received your $50 filing fee. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/cee
Attachment

xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN GW-175 APPROVAL
MINERALS, INC.
HOBBS GAS PLANT
DISCHARGE PLAN REQUIREMENTS
(January 9, 1995)

1. Payment of Discharge Plan Fees: The $3335 flat fee (either total payment or installment) will be paid upon receipt of this approval.

2. Drum Storage: All drums will be stored on pad and curb type containment.

3. Sump Inspection: Any new sumps or below-grade tanks will incorporate leak detection in their designs.

4. Berms: All tanks that contain materials other than freshwater will be bermed to contain one and one-third (1-1/3) the capacity of the largest tank within the berm or one and one-third (1-1/3) the total capacity of all interconnected tanks.

5. Pressure testing: All discharge plan facilities are required to pressure test all underground piping at the time of discharge plan renewal. All new underground piping shall be designed and installed to allow for isolation and pressure testing at 3 psi above normal operating pressure.

6. Spills: All spills and/or leaks will be reported to the OCD district office pursuant to WQCC Rule 1-203 and OCD Rule 116.

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commision Regulations, the following discharge plan 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.

(GW-175)-Minerals, Inc., J.R. Delaney, Operations Manager, 921 W. Sanger, Hobbs, New Mexico, 88240, has submitted a discharge plan application for their Hobbs Gas Plant located in te SW/4NE/4 Section 36, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico. Approximately 210 gallons per day of waste water with a total dissolved solids concentration of 1420 mg/l will be collected and stored in an above ground closed top steel tank prior to transport to a OCD approved offsite disposal facility. Groundwater most likely to be effected in the event of an accidental discharge is at a depth approximately 61 feet with a total diseolved solids concentration of approximately 575 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m. Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of October, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/WILLIAM J. LEMAY, Director

Journal: October 15, 1994.

STATE OF NEW MEXICO
County of Bernalillo ss

Bill Tafoya being duly sworn declares and says that he is Classified Advertising manager 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 15 day of Oct, 1994, and the subsequent consecutive publications on ,1994

Bill Tafoya

Sworn and subscribed to before me, a notary Public in and for the County of Bernalillo and State of New Mexico, this 15 day of, Oct 1994.

OFFICIAL SEAL
Megan Millage
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 5-20-98

PRICE $31.62

Statement to come at end of month.

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

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

OIL CONSERVATION DIVISION
RECEIVED

'94 SEP 16 AM 8 50

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Roger Anderson-Environmental Bureau Chief

From: Wayne Price-Environmental Engineer District I

Date: September 12, 1994

Reference: Minerals Inc.- Discharge plan application for Natural Gas Processing Plant

Subject: Review and comments from NMOCD District I

Comments:

Please note, after reviewing the submitted plan with Ed Sloman of Llano, He has plans on separating the two waste streams going to the slop oil tank. (see Dwg. # 9406-D-2001-0). He will submit this information upon request. The criteria behind this is that it appears that the waste stream coming from the compressor building might be non-exempt, thus it would cause the resultant mixture in this tank to be non-exempt. Minerals should commit in writing as to the waste classification of all of their waste streams to determine if they are exempt or non-exempt.

The drawing does not indicate what is actually on containment, therefore I recommend that they define what is actually contained.

There is no provisions for storage of chemical drums and/or empty drums.

The drawing does not show the methanol tank on site. The waste stream of the methanol secondary containment is not addressed.

The drawing submitted does not define that the "slop oil" tank is actually part of the "holding tanks" as listed in the written description in the discharge plan. The fiberglass tank is not identified on the drawing as the "haul tank" which was sampled. The "waste oil tank" listed on the analytical work is actually the "slop oil" tank accordingly to Mr. Sloman.

The analytically results of the "haul tank" might not actually represent the proper constituents that should be looked at. The same goes for the analytical work for the water well which is called "well house". In both cases I recommend some screening mechanism for hydrocarbons if you concur.

There are no chain of custodies provided.

Future practices indicate disposing of the waste from the "haul tank" (fiberglass tank) into disposal wells owned by either AA or Rowland Trucking co's. The Plan should spell out and commit to which and type of disposal facilities they are going to use, rather than listing the trucking co.

Minerals plant sells either miscellaneous hydrocarbons and/or condensate (drip) to different parties. They should commit in writing in abiding by NMOCD rules 311 and 314 and spell out in their discharge plan where this material goes.

Under Item X. last sentence " All clean up would be carried out in an approved manner and all necessary waste would be dealt with accordingly."

I recommend that Minerals be more specific and define all their waste streams, for example contaminated soils, and list where these waste will be dispose of and/or how they will be managed. This should be part of their discharge plan. If not, then they should commit to an approval process subject to NMOCD approval on a case-by-case basis.

The other issue of remaining contaminates left in the ground due to leaks and spills should be addressed also.

Mr. Ed Sloman indicated they are not required to have an SPCC plan. EPA Storm water discharge plan was not discussed.

cc: Jerry Sexton-District I Supervisor

HADSON

OIL CONSERVATION DIVISION
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94 OC 11 AM 8 52

October 4, 1994

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

Re: Hobbs Gas Plant
Lea County, New Mexico

Dear Mr. LeMay:

Minerals Inc. has received your letter of authorization to discharge with out an approved discharge plan, pursuant to Section 3-106.B. of the New Mexico Water Quality Control Commission (WQCC) regulations, dated September 30, 1994.

As you have requested, this is our written notification to the OCD of commencement of operations. Our plant was placed into operations Monday, October 3, 1994. We will be operating this plant under the authorization of your letter pending an approved discharge plan.

If you, or any of your staff have any questions we could assist you in please notify us.

Sincerely

John R. Delaney
General Manager
Minerals Inc.

xc: file
OCD - Hobbs Office, Jerry Sexton
OCD - Hobbs Office, Wayne Price

MINERALS, INC.
A SUBSIDIARY OF HADSON NEW MEXICO, INC.
Broadmoor Bldg. / P.O. Box 1390 / Hobbs, New Mexico 88241
Telephone (505) 393-7153

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

Notice is hereby given that pursuant to the New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-175) - Minerals, Inc., J.R. Delaney, Operations Manager, 921 W. Sanger, Hobbs, New Mexico, 88240, has submitted a discharge plan application for their Hobbs Gas Plant located in the SW/4 NE/4 Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico. Approximately 210 gallons per day of waste water with a total dissolved solids concentration of 1420 mg/l will be collected and stored in an above ground closed top steel tank prior to transport to an OCD approved offsite disposal facility. Groundwater most likely to be affected in the event of an accidental discharge is at a depth approximately 61 feet with a total dissolved solids concentration of approximately 675 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of October, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

for William J. LeMay

SEAL

WILLIAM J. LEMAY, Director

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 9-6-94,

or cash received on _____ in the amount of $ 50.00

from LLANO, INC

for Hobbs Gas Plant (Facility Name) GW-175 (DP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: CHRIS EUSTICE Date: 10-5-94

Received in ASD by: Carlos F. Gabaldon Date: 10/5/94

Filing Fee ✓ New Facility ___ Renewal ___

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 95

To be deposited in the Water Quality Management Fund.

Full Payment ___ or Annual Increment ___

LLANO, INC.
BOX 1320
HOBBS, NEW MEXICO 88240

SUNWEST BANK OF HOBBS, N.A.
HOBBS, NEW MEXICO 88240

[redacted]

95-321
1122

CHECK DATE	CHECK NO.
9/6/94	[redacted]

THE SUM OF FIFTY DOLLARS AND 00 CTS

PAY TO THE ORDER OF

THE WATER QUALITY MANAGEMENT FUND
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPT.
OIL CONSERVATION DIVISION
P O BOX 2088
SANTA FE, NEW MEXICO 87504-2088

CHECK AMOUNT
$50.00

LLANO, INC. - GENERAL ACCOUNT

VOID AFTER 90 DAYS

[redacted]

LLANO, INC.

[redacted]

INVOICE NO.	INVOICE DATE	DESCRIPTION	GROSS AMOUNT	DISCOUNT	NET AMOUNT
CHECK REQ.	8/6/94	FILING FEE FOR MINERALS DISCHARGE PLAN AS REQ. BY LAW WATER QUALITY MGMT. FUND STATE OF NEW MAEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPT. OIL CONSERVATION DIVISION P O BOX 2088 SANTA FE, NEW MEXICO 87504	$50.00	N/A	$50.00
CHECK NUMBER		TOTALS >	$50.00	N/A	$50.00

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

September 30, 1994

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-267

Mr. John Delaney
Minerals Inc.
921 W. Sanger
Hobbs, New Mexico 88240

Re: Hobbs Gas Plant
Eddy County, New Mexico

Dear Mr. Delaney:

The Oil Conservation Division (OCD) has received your request dated September 7, 1994 for a 120 day authorization to discharge without an approved discharge plan at the above referenced facility. The OCD has received your discharge plan application dated September 17, 1994, and is in the process of reviewing the application.

Pursuant to Section 3-106.B. of the New Mexico Water Quality Control Commission (WQCC) regulations and for good cause shown, Llano Inc. is hereby authorized to discharge at the Hobbs Gas Plant , located in the SW/4 NE/4 Section 36, Township 18 South, Range 36 East, NMPM, Lea County, New Mexico, without an approved discharge plan until February 1, 1995. This authorization is granted to allow the OCD time to review the discharge plan application.

Please notify the OCD in writing when the facility commences operations. If you have any questions, please feel free to contact Chris Eustice at (505) 827-5824.

Sincerely,

William J. LeMay
Director

WJL/cee
xc: OCD - Hobbs Office, Wayne Price
OCD - Hobbs Office, Jerry Sexton

HADSON

CONSERVATION DIVISION
RECEIVED
'94 SEP 9 AM 8 50

Sept. 07, 1994

Director, Oil Conservation Division
State of New Mexico
Energy, Minerals and Natural Resources Department
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Sir,

Minerals Inc., Operator of Minerals Inc., Hobbs Gas Plant has made application for an approved Discharge Plan for this facility. This plant was originally built in the 1970's prior to the requirements of a Discharge Plan.

Earlier this year this plant suffered a fire which necessitated the rebuilding of the "Process" skid and related equipment. Accordingly Minerals Inc. has been involved in a vigorous rebuilding schedule to get this plant back in operations as scon as possible.

The rebuilding is scheduled to be completed by Oct. 1, 1994, and the plant will be able to begin operations. Our application for Discharge Plan has been submitted, and is awaiting approval. We have conducted a tour of our facility with Mr. Price, and Mr. Sexton of our local O.C.D. offices to assure all requirements of a Discharge Plan were identified. We have made every effort to see that these requirements are being met for compliance.

It is the request of Minerals Inc. for approval to start this facility on Oct. 1, 1994 while the application for a Discharge Plan is pending approval. This will allow us to start recovering from this economic set-back which we have experienced. Once again, every effort will be made to see that we are operating this facility in compliance of the O.C.D. and all other regulations.

Your consideration in this matter is very much appreciated.

Sincerely

J. R. Delaney
General Manager of Operations

LLANO, INC.
A SUBSIDIARY OF HADSON ENERGY PRODUCTS & SERVICES, INC.
921 W. Sanger / Hobbs, New Mexico 88240
Telephone (505) 393-2153 / FAX (505) 393-0361

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

RECEIVED
SEP 07 1994
OIL CONSERVATION DIV.
SANTA FE

GW-175

DISCHARGE PLAN APPLICATION FOR NATURAL GAS PROCESSING PLANTS, OIL REFINERIES AND GAS COMPRESSOR STATIONS

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

I. TYPE: NATURAL GAS PROCESSING PLANT

II. OPERATOR: MINERALS INC.

ADDRESS: 921 W. Sanger, Hobbs, New Mexico 88240

CONTACT PERSON: Mr. J. R. Delaney PHONE 505-3

III. LOCATION: SW /4 NE /4 Section 36 Township 18 S Range 36 E
Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner(s) of the disposal facility site.

V. Attach description of the facility with a diagram indicating location of fences, pits, dikes, on the facility.

VI. Attach a description of sources, quantities and quality of effluent and waste solids.

VII. Attach a description of current liquid and solid waste transfer and storage procedures.

VIII. Attach a description of current liquid and solid waste disposal procedures.

IX. Attach a routine inspection and maintenance plan to ensure permit compliance.

X. Attach a contingency plan for reporting and clean-up of spills or releases.

XI. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes adversely impact fresh water. Depth to and quality of ground water must be included.

XII. Attach such other information as is necessary to demonstrate compliance with any oth rules, regulations and/or orders.

XIII. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: J. R. Delaney Title: General Manager of Operatio

Signature: [signature] Date: 9-6-94

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District

I.

The major purpose of this facility, The Minerals, Hobbs Gas Plant, is the processing of natural gas.

We will be taking gas into the plant from our pipeline. The gas will then be compressed to a higher pressure in preparing for the processing. The gas will then be processed by cryogenics.

After processing, the clean, dry, natural gas will be sent by pipeline to our Apex Compressor Station where it will be compressed and dispursed to various markets. The gas will be sold via these competitive markets.

The NGL resulting from the processing, will be sold into an NGL pipeline.

II.

The Owner/Operator of the facility will be:
Minerals Inc. (505) 393-2153
921 W. Sanger
Hobbs, New Mexico 88240

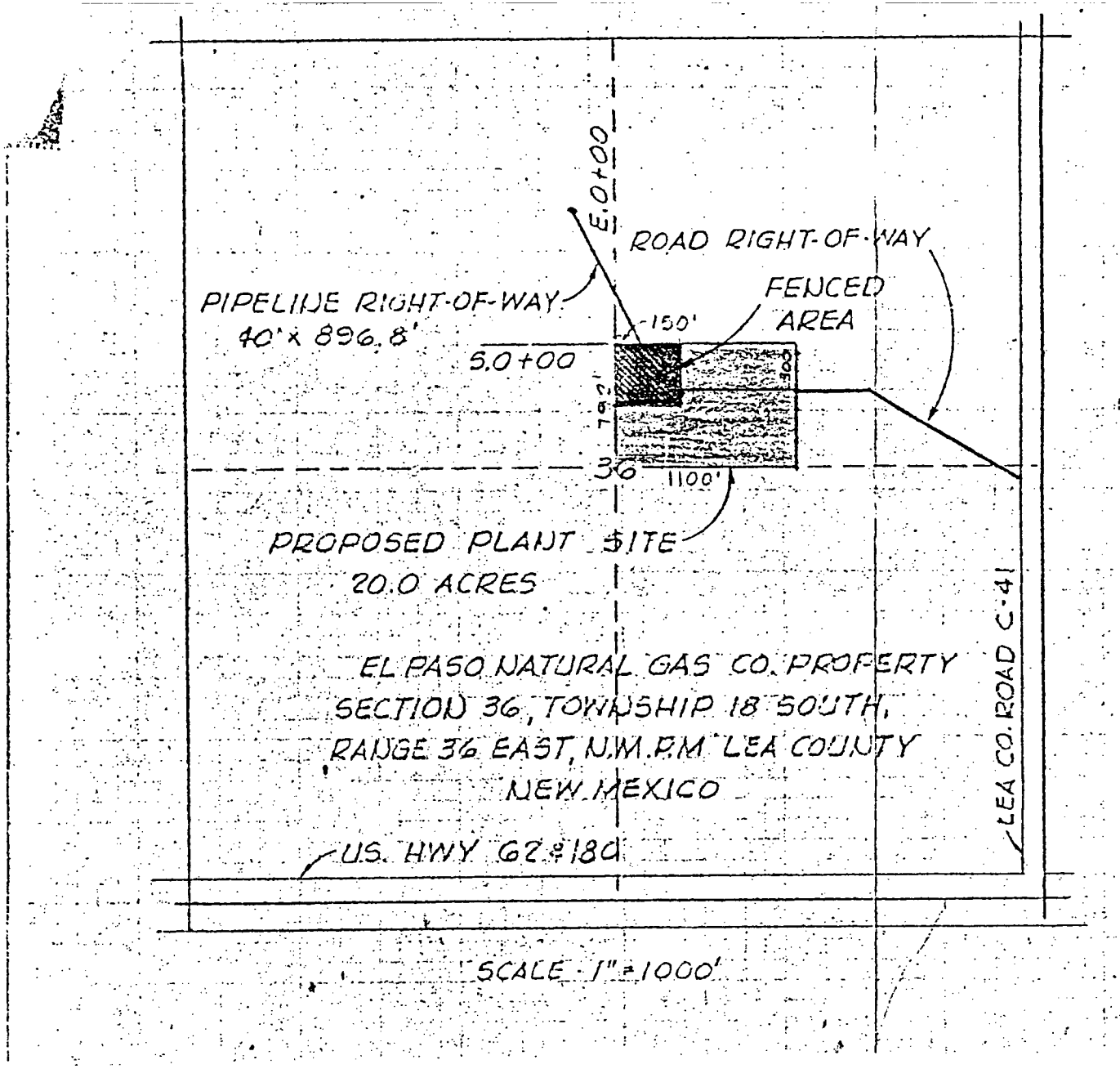
Mr. J. R. Delaney (505) 393-2153
Manager; Operations
921 W. Sanger
Hobbs, New Mexico 88240

The name of this facility is "The Minerals, Hobbs Gas Plant."

III.

Location: SW/4, of NE/4, Section 36, Township 18 S, Range 36 E, NMPM, LEA County, New Mexico:

Please find a copy of Survey Plat, Lease Agreement, and plate site plat attached. All legal land descriptions are contained in these attachments.


E. 0+00
ROAD RIGHT-OF-WAY
PIPELINE RIGHT-OF-WAY
40' x 896.8'
150'
FENCED AREA
5.0+00
300'
792'
36
1100'
PROPOSED PLANT SITE
20.0 ACRES
EL PASO NATURAL GAS CO. PROPERTY
SECTION 36, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M. LEA COUNTY
NEW MEXICO
US. HWY 62 & 180
LEA CO. ROAD C-41
SCALE 1" = 1000'

Misc BOOK 347 PAGE 758

43627

LEASE AGREEMENT

STATE OF NEW MEXICO

COUNTY OF LEA

THIS LEASE AGREEMENT made and entered into as of March 1, 1978, by and between EL PASO NATURAL GAS COMPANY (hereinafter referred to as "Lessor"), a Delaware corporation whose address is P. O. Box 1492, El Paso, Texas 79978, and MINERALS, INC. (hereinafter referred to as "Lessee"), a New Mexico corporation whose address is P. O. Drawer 1320, Hobbs, New Mexico 88240.

W I T N E S S E T H:

1. Lessor hereby demises, grants and leases to Lessee the following described tract of land situated in Lea County, New Mexico, to wit:

A tract of land containing 20.00 acres, more or less, being a certain part of the Northeast Quarter of Section 36, Township 18 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and is more particularly described as follows:

Beginning at a point South 1848 feet, and South 89°58'30" West 1,543.04 feet from the Northeast corner of the said Section 36; thence South 0°00'30" West a distance of 792 feet; thence, South 89°58'30" West a distance of 1,100 feet; thence, North 0°00'30" East a distance of 792 feet; thence, North 89°58'30" East a distance of 1,100 feet to the point of beginning.

upon the terms and conditions as hereinafter specified:

2. The term of this lease shall be for a period of twenty (20) years beginning the 1st day of March, 1978, subject, however, to termination and cancellation as hereinafter provided.

3. Lessee agrees to pay to Lessor as rental for the leased premises the sum of Two Thousand Dollars ($2,000.00) per year during the term of this lease, due and payable on or before March 1 of each year.

4. This lease shall be for the purpose of constructing, maintaining and operating on the leased premises a natural gas processing plant and for the construction, maintenance and operation on the leased premises of buildings, structures, pipelines, roads and such other facilities and appurtenances as are or may be used or useful in connection with the maintenance and operation of Lessee's natural gas processing plant. Lessee shall also have the right of ingress to and egress from the leased premises across lands owned by Lessor adjoining the leased premises.

5. Lessee will at all times during the continuation of this lease maintain a fence around all improvements on the leased premises of such construction as to turn livestock, but Lessee may maintain such gates for entry to and egress from the leased premises as in its sole discretion it deems necessary, provided such gates are of such construction as to prevent the passage of livestock over or through them.

6. Lessee agrees to keep the leased premises in a neat, clean and respectable condition and free from the unsightly storage of materials and equipment which will not be used in connection with Lessee's natural gas processing plant.

7. This lease is subject to the terms of all outstanding valid oil, gas and mineral leases of record; and all oil, gas and mineral conveyances of record; and to all easements and rights of way of record.

8. It is understood that the described 20-acre tract to be leased is presently encumbered by an Indenture of Mortgage to Manufacturers Hanover Trust Company. Lessor agrees to take, as expeditiously as possible, the necessary action to obtain a release from said Mortgage insofar as it pertains to the property to be leased hereunder.

9. Lessor expressly reserves the right to lay pipelines across and/or to drill water wells on the 20 acres subject to this lease; provided, however, that the exercise of such rights shall be subject to Lessee's facilities, and provided further, that Lessor shall not lay any pipeline or drill any well until after Lessee has been given written notice of Lessor's intent to do so and until after Lessor has consulted with and reached an agreement with Lessee as to the location of such pipeline or well.

10. Lessee shall remain owner of and without payment of additional rental or other consideration shall have the right to remove from the leased premises within six (6) months after the expiration of this lease or after the

termination or cancellation hereof, as hereinafter provided, any and all buildings, structures, facilities, pipelines and equipment placed or installed thereon by Lessee, and all such property, as between the parties shall be considered as severed from the realty. If, upon such expiration or termination or cancellation of this lease Lessee is so requested in writing by Lessor, it will undertake to return the leased premises as nearly as is reasonably practicable to the condition in which they were when received by Lessee, but Lessee shall not be required to take up or remove any concrete slabs, foundations or other similar structures.

11. Lessee is hereby granted an option to renew this lease for an additional term of twenty (20) years upon the same terms and conditions herein specified. In the event Lessee elects to exercise this option of renewal, Lessee shall give Lessor written notice of such election at least three (3) months prior to the expiration date of this lease.

12. Lessee shall pay all taxes which may be levied upon the improvements and structures placed upon the leased premises by Lessee, plus any increase in taxes or new taxes or assessments assessed against Lessor's interest in the land over the amount paid by Lessor for the calendar year 1977, until such time as this lease expires or is terminated or cancelled. Lessor shall pay all taxes levied on its interest in land not to exceed the amount paid for such taxes for the calendar year 1977.

13. If Lessee should fail to perform any obligation imposed on Lessee under the terms of this agreement, Lessor shall notify Lessee of such failure. If the defect or default is not cured or remedied within thirty (30) days after receipt of such notification, Lessor, at its option may seek specific performances, damages or if Lessee's default is failure to pay rent, termination of this lease.

14. Lessor hereby acknowledges that Lessee's rights hereunder will be subject to a Leasehold Mortgage in favor of Manufacturers Hanover Trust Company and agrees to accept performance by Manufacturers Hanover Trust Company of any of Lessee's obligations hereunder and to allow Manufacturers Hanover Trust Company to cure any default of Lessee hereunder.

15. Lessee shall have the right to terminate and cancel this lease at any time prior to its expiration by giving ninety (90) days prior written notice to the Lessor of Lessee's intention to so terminate. In the event of such termination and cancellation, Lessee shall be under no further obligations to Lessor under the provisions of this lease, except as specifically provided for in Paragraph 10 above, and Lessor shall not be obligated to refund any portion of the consideration paid for this lease.

16. Lessee agrees to indemnify, protect, defend and save harmless Lessor, its directors, officers, agents and employees, from all and every kind and character of damages, losses, expenses, demands, claims and causes of action on account of personal injuries, death claims, or damages to property brought by any employee, agent or representative of Lessee, Lessor or any other third-party caused by any act of Lessee or Lessee's agent or employee, or arising directly or indirectly out of Lessee's exercise of any rights granted herein.

17. All notices necessary to be given under the terms of this lease shall be given in writing and addressed as follows:

Minerals, Inc.
P. O. Drawer 1320
Hobbs, New Mexico 88240

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978
Attention: Director, Right of Way Department

or such other address as either party hereto may timely designate by written notice to the other party. All notices hereunder shall be deemed to have been given when properly addressed and deposited in the United States mail, with adequate postage paid.

18. Lessor covenants and agrees with Lessee that Lessor has good title to said leased premises and has the right and authority to lease the same to Lessee, and that Lessee shall have and hold peaceable possession of said premises during the term of this lease against the claim of any person or party whomsoever.

19. The terms, provisions, obligations, rights and privileges hereof shall be binding upon and shall inure to the benefit of the parties hereto, their successors, legal representatives and assigns.

EL PASO NATURAL GAS COMPANY

BY: Roland G. Tayler
ROLAND G. TAYLER
Attorney-in-Fact

LESS

MINERALS, INC.

BY: Donald L. Garey
DONALD L. GAREY
President

LESS

STATE OF Texas

COUNTY OF El Paso

The foregoing instrument was acknowledged before me this 16th day of March, 1978, by ROLAND G. TAYLER, as Attorney-in-Fact on behalf of EL PASO NATURAL GAS COMPANY.

Witness my hand and official seal.

D. Cynthia Jauregui
Notary Public in and for the
County of El Paso
State of Texas

My Commission Expires:
D. CYNTHIA JAUREGUI
Notary Public in and for El Paso County, Texas
Commission Expires May 20, 1979

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

The foregoing instrument was acknowledged before me this 8 day of March, 1978, by DONALD L. GAREY, President of MINERALS, INC., a New Mexico corporation, on behalf of said corporation.

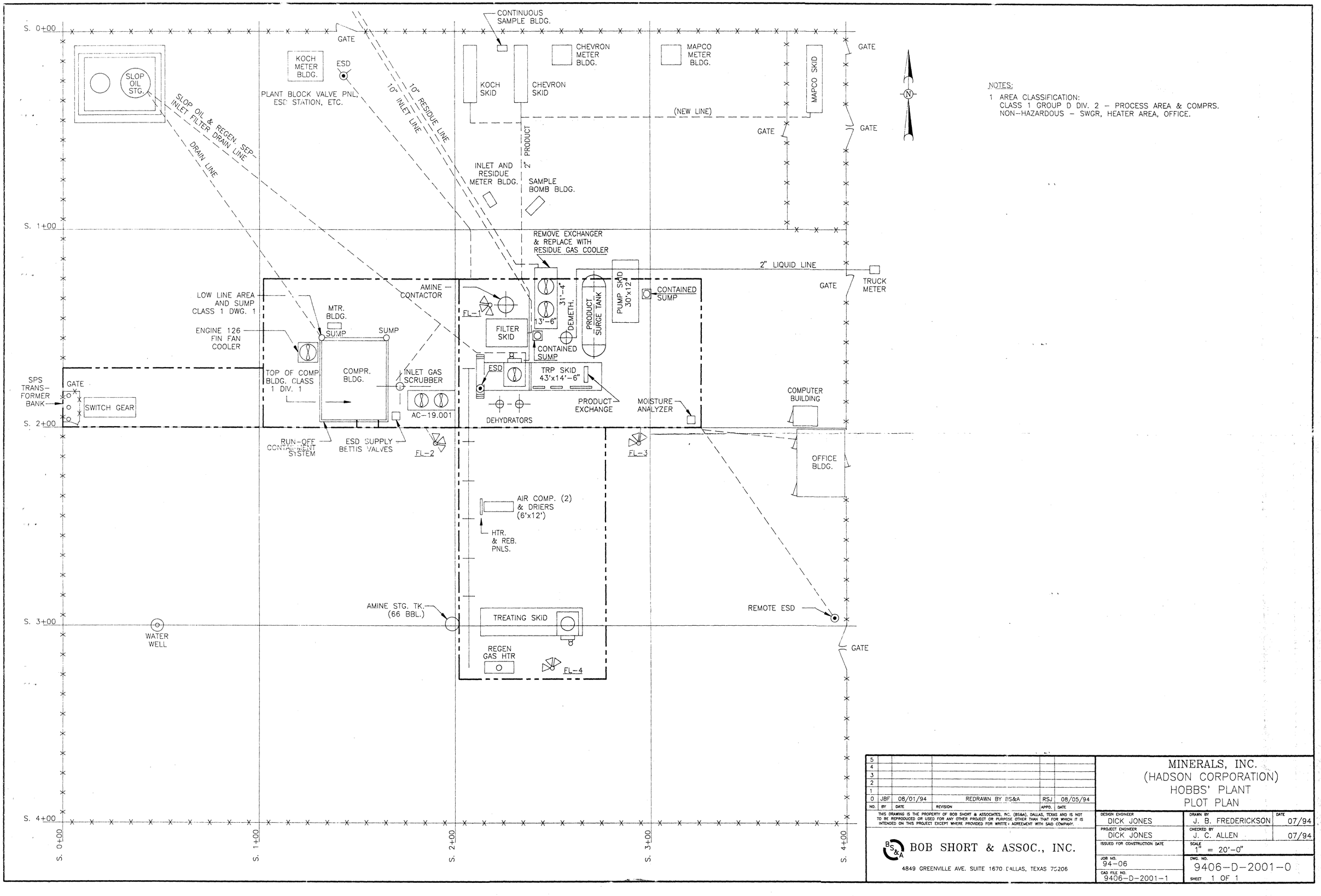
Loury L Greig
Notary Public in and for the
County of Lea
State of New Mexico

My Commission Expires:
October 30, 1980

43627

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

MAR 22 1978
at 11:55 o'clock A. M.
and Recorded in Book 347
Page 758
Donna Benge, County Clerk
By Jane Lewton Deputy



NOTES:

1 AREA CLASSIFICATION:
CLASS 1 GROUP D DIV. 2 – PROCESS AREA & COMPRS.
NON-HAZARDOUS – SWGR, HEATER AREA, OFFICE.

NO.	BY	DATE	REVISION	APPD.	DATE
5					
4					
3					
2					
1					
0	JBF	08/01/94	REDRAWN BY BS&A	RSJ	08/05/94

BS&A BOB SHORT & ASSOC., INC.
4849 GREENVILLE AVE. SUITE 1670 DALLAS, TEXAS 75206

MINERALS, INC.
(HADSON CORPORATION)
HOBBS' PLANT
PLOT PLAN

DESIGN ENGINEER	DICK JONES	DRAWN BY	J. B. FREDERICKSON 07/94
PROJECT ENGINEER	DICK JONES	CHECKED BY	J. C. ALLEN 07/94
ISSUED FOR CONSTRUCTION DATE		SCALE	1" = 20'-0"
JOB NO.	94-06	DWG. NO.	9406-D-2001-0
CAD FILE NO.	9406-D-2001-1	SHEET	1 OF 1

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

CHEMICAL ANALYSIS OF WATER

Company : Llano, Inc.
City, St.: 921 W. Sanger
Proj.Name: Minerals, Inc.
Location : not given

Sample 1 : Well House
Sample 2 : Haul Tank

Lab #: H1774
Date Received: 8/18/94
Date Analyzed: 8/19/94
P.O. # 822-01

Units: mg/L

PARAMETER	RESULT 1	RESULT 2
pH	6.97	8.72
Hardness ($CaCO_3$)	216	156
Calcium ($CaCO_3$)	148	100
Magnesium ($CaCO_3$)	68	56
Sulfate (SO_4^-)	43.1	309
Chloride (Cl^-)	32	
Total Dissolved Solids	363	1,420
Total Alkalinity	180	1,600
Bicarbonate	nil	736
Carbonate	nil	864
Sodium	34.3	143
Potassium	4.77	69.8

Michael R. Fowler

8/22/94
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240
PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM

FINAL ANALYSIS REPORT

Company: Llano, Inc.
Address: 921 W. Sanger
City, State: Hobbs, NM 88240

Date: 8/22/94
Lab #: H1774
P.O.#: 822-01

Project Name: Minerals, Inc.
Location: not given
Sampled by: JM,MB Date: 8/18/94 Time: 7:15
Analyzed by: MF Date: 8/18/94 Time: 12:41
Sample Type: Water Sample Condition: VOA Units: mg/L

Samp #	Field Code	BENZENE	TOLUENE	ETHYL BENZENE	PARA-XYLENE	META-XYLENE	ORTHO-XYLENE
2	Waste Oil Tank	2.275	7.160	0.939	1.339	4.295	1.820
3	Inlet Filter Drain	<0.001	634.826	38.104	93.110	70.782	20.174
	QC Recovery	0.873	0.848	0.960	0.935	0.931	0.972
	QC Spike	0.881	0.865	0.869	0.866	0.860	0.886
	Accuracy	99.1%	98.0%	110.1%	107.6%	108.3%	109.7%
	Air Blank	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Methods - GAS CHROMOTOGRAPHY
- EPA SW-846; 8020

Michael R. Fowler

8/22/94
Date

VII. TRANSFER & STORAGE OF PROCESS FLUIDS & EFFLUENTS

Waste water and hydrocarbon liquids are collected in the inlet filter separator. The waste water and hydrocarbon liquids are commingled and piped to closed storage tank.
(See attached facility schematic).

The inlet filter separators are each pressurized. The closed storage tank will be maintained and checked on a daily bases.

The closed storage tank is a standard API 100, Barrel tank. There is an open top fiberglass 100 Barrel tank in the same location which has a metal netting over the top of it. After separation of the fluids, water is drained from the closed tank to the open top fiberglass tank. The tanks are constructed above ground level with an earthen dike enclosure to provide secondary containment equal to or greater than one-third of the tank capacity.

Waste lubrication oil and foundation drains are piped to sump tanks with safety containment. The waste oils and liquids from the floor drains are then transferred to the closed tanks. The drain system has atmospheric pressure only until liquid is "dumped" to the closed storage tank. All underground drain lines will be pressure tested to assure there are no leaks. A copy of the test report will be forwarded as soon as it is available.

VIII.

This is not a disposal site for EFFLUENT Liquid.

As previously stated, the purpose of this site is to process natural gas. There will be some produced water, and condensate which will be recovered from the natural gas. These liquids will be stored in the API. tanks, and will be hauled from location. The produced water will be disposed of by a trucking company, either Rowland Trucking, or AA Oilfield Service. Both of these companies have approved disposal wells which they use, and charge us for the disposal of the produced water.

The condensate will be sold to a refinery. The refinery of choice will be elected by price, and they will pick up the condensate from the storage tank and transport it to their facility.

The storage tank will be monitored by our operators on a daily bases. Our operators will be reporting to their supervisor if this tank should need any further attention. Our supervisors have the means to order a truck to haul liquid at the time our operator's report to him. With this type of check, and safety check, there should be no ground water contamination to contend with.

Simply stated, if the liquid is contained in the tank, then it cannot contaminate the ground, or ground water.

IX.

This facility will have operators which will check the operations of the facility on daily bases. The operator will report the functioning of the complete plant, and a log will be kept of the units. If the operator should locate any problem in any of the equipment, what-so-ever, he will report the problem to his supervisor.

In the event of a "reportable spill", the operator would notify his supervisor immediately of the occurrence. The supervisor would in turn notify his immediate supervisor, and our emergency report and operating plan would be implemented.

Fluids will be collected inside pressure vessels. These vessels will be ASME stamped, approved, pressure vessels. Therefore, no precipitation can be collected in them, or commingled with produced fluids.

The compressor units have "environmental" drains around the compressor building which will not allow precipitation to runoff onto the ground. The building drains will be piped into "sumps" which will transfer all fluids to above ground storage tanks. As previously stated the contents of this tank will be hauled by truck as often as necessary to assure proper levels are maintained.

X.

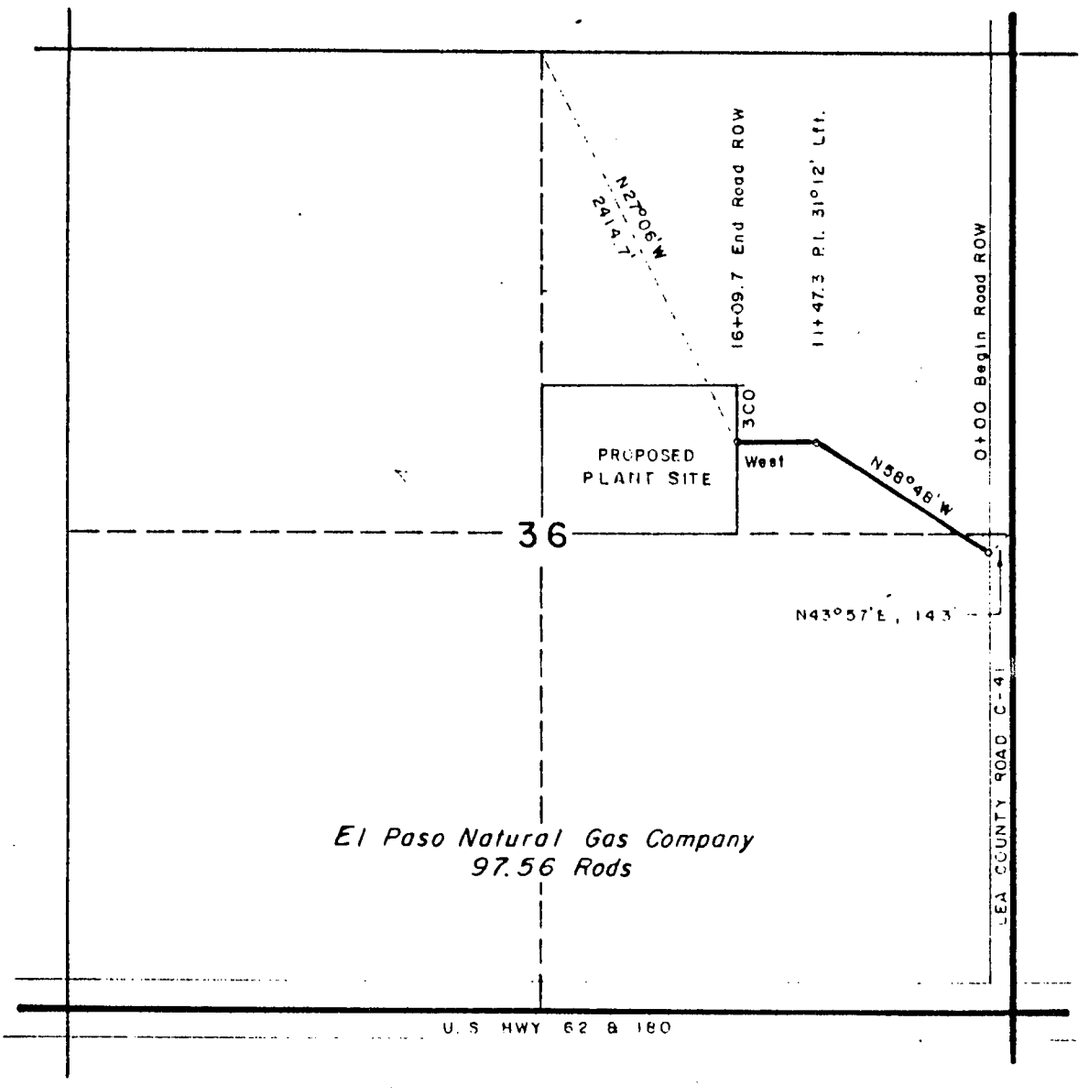
Our contingency plan for cleaning up spills, and reporting same is not complicated. We have a supervisor on call who is available on 24 hours a day. There are administrative support supervisors available when ever needed.

If a spill should occur, the supervisor on duty would start the field operations of the clean-up, by first stopping the source of the spill, and containing all fluids that he possibly can. The on duty supervisor would notify the support people of the situation. The OCD would be notified pursuant to rule 116, and a contractor would be dispatched at that time to start clean up. The land owner would be notified, and all measures would be taken to protect his live-stock, as well as any wild animals.

All clean up would be carried out in an approved manner, and all necessary waste would be dealt with accordingly.

SEC. 36, T18S, R36E, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DESCRIPTION OF RIGHT-OF-WAY

A strip of land for a Road Right-of-way 50 feet wide, being 25 feet right, and 25 feet left of the following described survey of centerline:

Beginning at Eng. Sta. 0+00, a point on the west boundary line of Lea County Road No. C-41, from which the east quarter corner of Section 36, Township 18 South, Range 36 East, N. M. P. M., Lea County, New Mexico bears north 43°57' east a distance of 143 feet; thence, north 58°48' west, crossing the El Paso Natural Gas Company land a distance of 1147.3 feet to Eng. Sta. 11+47.3; thence, west a distance of 462.4 feet to Eng. Sta. 16+09.7, a point on the east boundary line of proposed plant site, from which the north quarter corner of the said Section 36 bears north 27°06' west a distance of 2414.7 feet.

97.56 Rods

STATE OF NEW MEXICO 676 REGISTERED ENGINEER & LAND SURVEYOR JOHN W. WEST

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

John W. West

JOHN W. WEST, N.M. P.E. & L.S. NO.676
TEXAS R.P.S. NO. 1138

RONALD J. EIDSON, N.M. L.S. NO. 3239
TEXAS R.P.S. NO 1883

MINERALS, INC.

Proposed road right-of-way crossing the El Paso Natural Gas Company property in the Northeast Quarter of Section 36, Township 18 South, Range 36 East, N. M. P. M., Lea County, New Mexico.

JOHN W. WEST ENGINEERING COMPANY
CONSULTING ENGINEERS HOBBS, NEW MEXICO

Scale: 1" = 1000'	Drawn by: chb
Date: Jan. 31, 1978	Sheet 1 of 1 Sheets

IV.

The land owner of the facility site is:

ElPaso Natural Gas
"A Delaware Corp."
P.O. Box 1492
ElPaso, Texas 79978

Director, Right of Way Department
Same address:

(note) Address is contained in Lease Agreement attached.

V. Facility Description

This facility consist of an inlet filter skid, two inlet compressors, inlet dehydrators, gas processing skids, and an Amine skid for treating N G L. There is one steel tank with a steel top, and one fiberglass tank with metal netting for a top. These tanks have a capacity of 100 Bbl. each

The total compression Horse Power of this facility is 2700 H.P.

The gas enters the plant from the north, and is processed. The liquid product, N G L, is pumped out of the plant via a sales line which is located on the north side of the plant. The residue natural gas leaves the plant on the north side of the facility.

Please refer to the attached diagram of the facility for more detailed information.

VI. Sources, Quantities, & Quality of Effluent & Waste Solids

1) ENGINE COOLING WATER - The engine driving the compressors contains approximately 230 gallons of a 50% antifreeze, 50% water mixture, each, for cooling purposes. This is a closed loop system and normally requires no make-up.

2) SEPARATORS - The inlet filter separators remove an estimated 0 to 5 BBL/day of water and an estimated 0 to 5 BBL/day of hydrocarbon liquids depending upon ambient conditions.

3) WASTE LUBRICATION OILS - The compressors contains approximately 60 gallons of lubricating oil and the engine contains approximately 165 gallons of lubrication oil. The lubrication oil is a standard 30 or 40 weight oil and replaced approximately every 2160 hours of run time, or as required by oil analysis.

4) DEHYDRATION UNIT - The dehydration unit is a Molecular Sieve type dehydrator. The Molecular Sieve is Sodium/Aluminosilicate.(see attached MSDS). This is a sealed unit with no discharge.

5) SEWAGE - There is an office building with restroom and shower facilities. The office also has a sink, and an additional wash basin. All of the sewage from this office is plumbed into a septic tank which has been installed since the plant was first built. There is no sewage discharge commingled with plant fluids, or discharged just on top of the ground.

6) TRASH - The trash which is generated from this facility is disposed of in a "dumpster" type of container which has been furnished by Waste Management of Southeast New Mexico. This plant is on a scheduled pick-up from this contractor and they handle the actual disposal of the trash.

VI. SOURCES, QUANTITIES & QUALITY OF EFFLUENT & WASTE SOLIDS: CONT.

7) FLOOR DRAINS - The drains around the compressor building are gravity feed into two sumps. These sumps are individual tanks contained in a concrete "vault" for secondary containment. Each will have a float switch and a pump for automatic transfer of liquid to our above ground, burmed, tanks, previously mentioned. All wash down fluids and other liquids will be contained from our compressors by these drains.

The waste water and hydrocarbon liquids will be commingled within the facility. Individual rates, volumes and concentrations should not vary beyond the ranges identified above. All process units which could have a discharge to the ground, will be self-contained to prevent intentional or inadvertent discharges and spills. The hydrocarbon liquids and water will be separated at the holding tanks and will dealt with in an approved manner.

Please refer to the laboratory analysis of our waste streams attached to this document.

XI. SITE CHARACTERISTICS

A. There is one water well on location at this plant. The well is located in the south west section of the plant.(please refer to attached plant plot plan) This well is used for non-potable water for our plant facility. A labortory analysis of the water from this well is attached to this report, and demonstrates no contamination of our well.

This is not a disposal site, for Effluent liquids. As previously stated, all liquids are contained, held in closed tanks, and properly disposed of by trucking. (also see section 5)

61 feet to GW

Cond 962 mmhos

= ≈ 675 ppm TDS

XII. ADDITIONAL INFORMATION:

This plant, Hobbs Minerals Plant, was originally built in the 1970's prior to the requirements of a Discharge Plan. Earlier this year we experienced a fire of significant magnitude to require us to rebuild the process skid in this plant.

In late June of 1994, a tour of this plant was done by Mr. Jerry Sexton, and Mr. Wayne Price of the O C D. The purpose of the tour was to identify this plant's Discharge Plan Requirements. The requirements were identified by Mr. Price, working with Mr. Roger Anderson, of the Oil Conservation Division. A copy of the requirements we received from this tour has been submitted with this Discharge Plan.

We have made every effort to see that these requirements have been satisfied in the rebuilding of this facility.

Additionally, all Air Emissions Permits are, and have been, in place for this plant. Copies of this document are on file at the plant and in the Operational Offices in Hobbs N.M.

A copy of the MSD sheets on file at the plant have been attached for your reference.

If you have any questions we can help with please feel free to call at (505) 393-2153, or written inquires can be addressed to 921 W. Sanger, Hobbs, New Mexico 88240.

FAX TO ED SLOMAN
LLANO - 393-0381
7/1/94 9:35 AM

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

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Jerry Sexton-District I Supervisor

From: Wayne Price-Environmental Engineer District I

Date: July 1, 1994

Reference: Telephone conference with Roger Anderson

Subject: Llano Minerals Plant-Discharge Plan Requirements

Comments: Per telephone conversations with Roger, the following items were discussed:

1. Any new piece of equipment, pump, tank, line, etc. that has the opportunity to cause discharges to the ground will need some sort of pad and curb "type" containment.

2. Existing pieces of equipment that are already in place can be grandfather, however if significate contamination results from these devices and discovered during an inspection, then we will require them to amend their discharge plan and put the containment in place.

3. All drums will have to have pad and curb "type" containment. Empty drums are recommended to be on containment however not required, but must be stored properly.

4. All LPG or LNG horizontal saddle type tanks are not required to be contained or bermed at

this time. Other regulations might required by other agencies.

5. All existing vertical tanks are required to bermed to 1-1/3 capacity at this time. If tanks are installed or old one's renovat then the requirement will be to install impermeable pad and to be bermed.

6. All horizontal tanks shall have pad and c "type" containment.

7. All process units that have the probability leaking shall be installed to prev contamination of the underlying soils.

8. Existing sumps shall be cleaned out inspected on a yearly basis. Any new su will be required to be installed w secondary containment with leak detection. minimum leak detection of line of sight allowed.

9. All underground lines shall be hydrosta pressure tested to 3 psi above operat pressure, held for 4 hours. This shall completed once every five years or when the is due.

10 You will be required to I.D. all waste stre and their final disposition.

Note: The discha ge plan approval does not relieve LLano of ot legal responsibil ties, such as other Federal, State, Local la rules, regulation .

#7

PABCO

DIVISION OF
FIBREBOARD
CORPORATION

Material Safety Data Sheet
May be used to comply with OSHA's Hazard Communicat
Standard, 29 CFR 1910.1200. Standard must be consulted
specific requirements.

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

Section I

MANUFACTURER'S NAME: Pabco Insulation	EMERGENCY TELEPHONE NO.: 1-303-858-7554
ADDRESS: 1110 - 16 Road, Fruita, CO 81521	
CHEMICAL NAME: Tobermorite form of calcium silicate	PRODUCT: Pabco Super Caltemp
CAS #: 1344-95-2	FORMULA: $CaSiO_3$

	YES	NO
IS THE MATERIAL LISTED AS A KNOWN OR SUSPECTED CARCINOGEN?		X
IS ASBESTOS USED AS AN INGREDIENT IN MAKING THE PRODUCT?		X
IS MERCURY USED IN THE PRODUCT IN ANY WAY?		X

Section II—Physical and Chemical Data

APPEARANCE AND ODOR: White, chalklike solid. No odor.

Density (pcf)*	14	Major ingredient	$Ca SiO_3$
Solubility in water*	insol.	Minor ingredient	$Na_2 SiO_3$
Maximum use temp. (°F)*	1200°F	Reinforcing fibers	Cellulosic
pH in water*	10.5		

*Typical

Section III—Fire and Explosion Hazard Data

COMBUSTIBILITY: Passes ASTM E136; 0 Smoke, 0 flame per ASTM E84

EXPLOSION HAZARD: None

Section IV—Health Hazard Data

ACGIH TLV OR OTHER RECOMMENDED EXPOSURE LIMIT: Nuisance dust - 10 mg/m³

SYMPTOMS OF OVEREXPOSURE: Drying of skin

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: None known

ACUTE AND TOXIC EFFECTS AND PRIMARY ROUTES OF ENTRY: None known

AGENCY FIRST AID PROCEDURES: None

#8+

Section V—Reactivity Data

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Unknown

INCOMPATIBILITY
The alkalinity of wet calcium silicate corrodes unprotected aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS
None

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Unknown

Reduces autoignition temperature of ethylene oxide

Section VI—Waste Management

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Scraps from cutting and sawing should be cleaned up.

WASTE DISPOSAL METHOD
Dispose to dry dump area.

Section VII—Special Protection Information

RESPIRATORY PROTECTION
When sawing the materia nuisance dump respirators should be worn.

VENTILATION
When sawing indoors, me chanical ventilation should be provided.

EYE PROTECTION
Safety glasses recommer ed when sawing.

PROTECTIVE GLOVES
Protective gloves or barrie creams suggested for sensitive skin.

OTHER PROTECTIVE EQUIPMENT

Section VIII—Other Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Should be stored in a dry, clean area. Or anically-contaminated insulation should not be installed.

Material Safety Data Sheet

The Dow Chemical Company
Midland, Michigan 48674
Emergency 517-636-4400

The Dow Chemical Company, Midland, MI 48674 Emergency Phone:517-636-4400

Product Code: 40087 Page: 1

Product Name: TRYMER (R) 2000 RIGID FOAM INSULATION

Effective Date: 04/07/93 Date Printed: 02/01/94 MSDS:004826

1. INGREDIENTS: (% w/w, unless otherwise noted)

Polymerized polyurethane modified polyisocyanurate rigid cellular plastic		89%
1,1-Dichloro-1-fluoroethane	CAS# 001717-00-6	11%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: Not applicable
VAP. PRESS: Not applicable
VAP. DENSITY: Not applicable
SOL. IN WATER: Not applicable
SP. GRAVITY: Not applicable
APPEARANCE: Rigid cellular plastic.
ODOR: None.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: Not applicable
METHOD USED: Not applicable

FLAMMABLE LIMITS
LFL: Not applicable
UFL: Not applicable

EXTINGUISHING MEDIA: If stored or in-place polyurethane or polyisocyanurate foam should ignite, extinguish fire immediately by drenching with water spray from a fire hose. For small fires, use water spray, foam, carbon dioxide, or dry chemical extinguishers.

(Continued on page 2)

3. FIRE AND EXPLOSION HAZARD DATA: (CONTINUED)

FIRE AND EXPLOSION HAZARDS: Rigid polyurethane and polyisocyanurate foams, in common with other organic materials such as paper, wood, cotton and rubber, can present unreasonable fire risks in certain misapplications when exposed to ignition sources in air. Once ignited, such fires can burn rapidly and produce intense heat, dense smoke and irritating or toxic gases. Rigid polyurethane foams autoignite at about 650-800F (343-427C) and rigid polyisocyanurate foams at about 900-1000F (482-538C).

Carbon dioxide, carbon monoxide, possible traces of hydrogen cyanide, halogen acids, and nitrogen oxides evolved under fire conditions.

The probability of dust explosions from polyurethane or polyisocyanurate dust is very low, however, do not smoke or use naked lights, open flames, space heaters or other ignition sources near rigid foam fabricating operations or near stored buns or sheets.

Install foam only after all welding, cutting or other hot work has been completed. If hot work must be done after foam has been installed, the hot work trade must be warned: Remove foam from immediate work area to a sufficient distance that heat transmitted from the torch or through the metal will not ignite the foam. Remove all combustible material from vicinity of and immediately below work area. Post a fire watcher equipped with a fire extinguisher during and for 30 minutes after hot operations. Stop work immediately if foam begins to smoke and remove more foam from the work area.

When hot-wire cutting rigid polyurethane or polyisocyanurate foam, keep a fire extinguisher nearby. Work should be carried out in well ventilated area - do not breathe fumes.

FIRE-FIGHTING EQUIPMENT: Wear positive pressure self-contained

(Continued on page 3)

3. FIRE AND EXPLOSION HAZARD DATA: (CONTINUED)

breathing apparatus and protective turnout clothing.

Protect all indoor bun and sheet storage areas with fusible sprinklers. Maintain a minimum clearance of six feet between tops of foam stacks and sprinkler heads.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Stable.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, possible traces of hydrogen cyanide, halogen acids and nitrogen oxides under fire conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS: Not applicable.

DISPOSAL METHOD: Incinerate or bury in an approved landfill according to local, state, and federal regulations.

6. HEALTH HAZARD DATA:

EYE: Solid or dust may cause irritation or corneal injury due to mechanical action.

SKIN CONTACT: Essentially nonirritating to skin. Mechanical injury only.

SKIN ABSORPTION: Skin absorption is unlikely due to physical properties.

(Continued on page 4)

6. HEALTH HAZARD DATA: (CONTINUED)

INGESTION: Ingestion is unlikely due to physical state. Physical injury only. May cause choking if swallowed.

INHALATION: Dust may cause irritation to upper respiratory tract. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. (1,1-dichloro-1-fluoroethane) Signs and symptoms of excessive exposure may be central nervous system effects. (1,1-dichloro-1-fluoroethane) Excessive exposure may increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). (1,1-dichloro-1-fluoroethane) Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause the acute inhalation effects above and to be well below the OSHA PEL and Dow IHG.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Repeated excessive exposures to dusts may cause respiratory irritation and possibly other respiratory effects. In laboratory animals, repeated inhalation exposure to concentrations of 8000 ppm produced no adverse effects; higher concentrations prodced only minor biochemical changes such as an increase in choiesterol.

CANCER INFORMATION: Preliminary results of a 2-year inhalation study on dichlorofluoroethane show an increase in testicular tumors in rats exposed to 1500 ppm. Direct administration (injection) of polyurethane dust into lungs of rats resulted in benign tumors; this route of administration delivers large particles to the lungs and is not relevant to industrial exposure.

TERATOLOGY (BIRTH DEFECTS): Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause virth defects in animals; other effects were seen in the fetus only at doses which

(Continued on page 5)

6. HEALTH HAZARD DATA: (CONTINUED)

caused toxic effects to the mother. (1,1-dichloro-1-fluoroethane) No relevant information found on other component(s).

REPRODUCTIVE EFFECTS: Interim results of a 2-generation reproduction study suggest possible effects on fertility in rats exposed to high vapor concentrations of dichlorofluoroethane. (1,1-dichloro-1-fluoroethane)

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Has been shown to be negative in some in vitro ('test tube') mutagenicity tests and positive in others. (1,1-dichloro-1-fluoroethane) Results of in vitro ('test tube') mutagenicity tests have been negative. (1,1-dichloro-1-fluoroethane) The weight of evidence from a battery of mutagenicity studies suggests that this material has a very low potential to affect genetic material. (1,1-dichloro-1-fluoroethane) No relevant information found on other component(s).

7. FIRST AID:

EYES: Flush eyes with plenty of water; mechanical effects only.

SKIN: Wash off in flowing water or shower.

INGESTION: No adverse effects anticipated by this route of exposure.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE(S): 1,1-dichloro-1-fluoroethane: AIHA WEEL is 500 ppm. Although some of the additives used in this

(Continued on page 6)

8. HANDLING PRECAUTIONS: (CONTINUED)

product may have exposure guidelines, these additives are encapsulated under normal handling conditions. For particulates which have no specific guideline, the ACGIH TLV is 10 mg/m3 and the OSHA PEL is 15mg/m3 total, 5 mg/m3 respirable.

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty atmospheres, use an approved dust respirator.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

EYE PROTECTION: Use safety glasses. If there is a potential for exposure to particles which could cause mechanical injury to the eye, wear chemical goggles.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Potential risks associated with rigid polyurethane and polyisocyanurate foams arise from DUST, FIRE and TOXIC THERMAL DECOMPOSITION PRODUCTS and may result from improper storage, inadequate ventilation, improper disposal and/or misapplication.

DUST: The probability of dust explosions from polyurethane or polyisocyanurate dust is very low. Finely divided dust can cause health risks and can irritate the eyes, nose and throat, as can any other nuisance dust. Avoid exposure to any dust, including foam dust. Conduct rigid foam fabrication operations

(Continued on page 7)

9. ADDITIONAL INFORMATION: (CONTINUED)

(sawing, routing, fly-cutting, etc.) in areas reserved exclusively for such operations. Do not allow dust to accumulate. Use cyclone dust collectors on all fabricating power tools. Keep work areas clean. Remove settled dust by vacuuming, not blowing.

FIRE: Polyurethane or polyisocyanurate foam used as a wall or ceiling insulation must not be left exposed, but must be covered as soon as practicable with a fire-resistive thermal barrier of one-half inch gypsum wallboard or the equivalent. If covering is not immediately possible or practicable, post signs that fire risk exists because of the exposed foam. Do not install foam in any flue-like configuration. Do not allow combustible trash or scrap foam to accumulate on the job site. Dispose of scrap foam according to good industrial practice and in accordance with environmental protection regulations. Provide protection for BOTH surfaces of foam used as ceiling insulation. Foam plastic must not remain exposed in attics or crawl spaces.

Store polyurethane and polyisocyanurate foam buns and sheets with adequate aisleways to permit access to all areas.

For more detailed information on precautions for the proper handling and storage of polyurethanes, polyisocyanurates, and related materials, contact the Urethanes Product Department, The Dow Chemical Company, Midland, Michigan.

MSDS STATUS: New MSDS

#12

The Dow Chemical Company, Midland, MI 48674 Emergency Phone:517-636-4400

Product Code: 40087 Page: R 1

Product Name: TRYMER (R) 2000 RIGID FOAM INSULATION

Effective Date: 04/07/93 Date Printed: 02/01/94 MSDS:004826

REGULATORY INFORMATION: (Not meant to be all-inclusive--selected regulations represented.)

NOTICE: The information herein is presented in good faith and believed to be accurate as the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numberous federal, state or provincial, and local laws and regulations. See MSD Sheet for health and safety information.

U.S. REGULATIONS

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

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.
(Similar to U.S. Department of Labor Form OMB 1218-0072 and generally accepted in Canada for information purposes)
Do Not Duplicate This Form. Request an Original.

I. PRODUCT IDENTIFICATION

PRODUCT	Molecular Sieve Type 4A		
CHEMICAL NAME	Sodium/Aluminosilicate	**SYNONYMS**	Zeolite
FORMULA	Na_2O, MgO, Al_2O_3, SiO_2	**CHEMICAL FAMILY**	Molecular Sieve
		MOLECULAR WEIGHT	Not Applicable

TRADE NAME UOP® Molecular Sieve formerly UNION CARBIDE® Molecular Sieve

II. HAZARDOUS INGREDIENTS

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

MATERIAL (CAS/TSCA NO.)	Wt (%)	1989-1990 ACGIH TLV—TWA (OSHA-PEL)	
Sodium Oxide (1313-59-3)	<30	None established	(None established)
Magnesium Oxide (1309-48-4)	< 5	10 mg/m³ Fume	(10 mg/m³ Fume Total (5 mg/m³ Respirable fraction)
Aluminum Oxide (1344-28-1)	<30	10 mg/m³ as Al	(10 mg/m³ Total dust) (5 mg/m³ Respirable fraction)
Silicon Oxide (7631-86-9)	<50	10 mg/m³	(6 mg/m³)

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	Not Applicable	**FREEZING POINT**	Not Applicable
SPECIFIC GRAVITY (H_2O = 1)	1.1 (piece), 2.0 (crystal)	**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 may appear as a bead, pellet, TRISIV, mesh, cake or powder; odorless.

M-4502-D

EMERGENCY PHONE NUMBER

IN CASES OF EMERGENCIES involving this material, further information is available at all times:
Emergency Phone No.: In USA: UOP 708-391-2123 CHEMTREC 800-424-9300
In Canada: CANUTEC 613-996-6666 From other Countries: CHEMTREC 202-483-7616
For routine information contact your local supplier

UOP urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the potential hazards associa with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prev tion, as necessary or appropriate to use and understand the data contained in this MSDS. To promote safe handling, each customer or recip should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product, and (3) requ such customers to notify their employees, customers, and other users of the product of this information.

UOP ☐ MOLECULAR SIEVE ADSORBENTS
UOP CANADA INC.

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: See Section II.

EFFECTS OF SINGLE (ACUTE) OVEREXPOSURE:

SWALLOWING — The product gets hot as it adsorbs water. Burns to moist body tissues can result if contact is prolonged. 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 and/or burns.

EYE CONTACT — May cause irritation seen as excess redness of the conjunctiva and/or burns.

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. Contact physician for permission to induce vomiting.

SKIN CONTACT — Wash the contacted area with soap and water.

INHALATION — Remove the person to fresh air.

EYE CONTACT — Flush eyes with water for at least 15 minutes.

NOTES 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 symptomatically.*

V. FIRE AND EXPLOSION HAZARD DATA

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 hazardou nature. The user of this product must identify the hazards of the retained material and inform the fire fighters of these hazard

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

VI. REACTIVITY DATA

STABILITY	
UNSTABLE	**STABLE**
	X

CONDITIONS TO AVOID: The addition of moisture (water) without flooding can cause rise in tempera ture from heat of adsorption, and contact with skin might result in burns.

INCOMPATIBILITY (Materials to Avoid): Sudden contact with high concentrations of chemicals having high heats of adsorptio such as olefins, HCl, etc.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrocarbons and other materials that contact the molecular sieve during norma 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 products would include the mix of oxides listed in Section II.

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

CONDITIONS TO AVOID: None currently known.

VII. SPILL OR LEAK PROCEDURES

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.

RCRA Hazardous Waste No.: Not federally regulated.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: A NIOSH/MSHA approved respirator for protection against dust, mist or vapor is recommended for operations when the permissible exposure limit might be exceeded.

VENTILATION	**LOCAL EXHAUST** — Local exhaust ventilation is recommended for operations where the permissible exposure limit might be exceeded.
	MECHANICAL (general) — Not applicable - See Local Exhaust.
	SPECIAL — Not applicable - See Local Exhaust.
	OTHER — Not applicable - See Local Exhaust.

PROTECTIVE GLOVES: Use gloves to avoid PROLONGED skin contact.

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

OTHER PROTECTIVE EQUIPMENT: Select in accordance with OSHA 1910.132 and 1910.133.

IX. SPECIAL PRECAUTIONS

LABEL:

CAUTION

DUST MAY IRRITATE EYES, NOSE, THROAT AND SKIN.
Avoid breathing dust.
Avoid contact with eyes and skin.
Open container slowly.
Use with adequate ventilation.
Do not put in mouth or pour liquid into product. Burns can result.
BEFORE HANDLING OR USING, READ AND UNDERSTAND CURRENT MATERIAL SAFETY DATA SHEET FOR THIS MATERIAL, and, when appropriate, also read safety booklet, M-1001.

FIRST AID - EYE CONTACT: Immediately flush with water for at least 15 minutes. Call a physician if irritation persists. **SWALLOWING:** Give two or more glasses of water. **INHALED:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. **SKIN CONTACT:** Flush with plenty of water.

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

Designers of processes and fabricators of equipment should read UOP's free booklet, *Precautions and Safe Practices for Handling Molecular Sieves in Process Units*, M-1001. Request a copy from your UOP representative.

X. REGULATORY INFORMATION

Under the TSCA rules for chemical mixtures and naturally occurring substances the EPA defines this product to be a statuatory mix, therefore, only its component oxides or metals shown in Section II of this MSDS are in the inventory. The human and the environmental hazards are, however, not the summation of the hazards of the components because the components do not separate from the product (see Section VI of this MSDS). The hazards discussed in this MSDS are based on the product as a whole.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40 CFR 355 (used for SARA 302, 304, 311 and 312).

Components present in this product at a level which could require reporting under the statute are: ****NONE****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.
Components present in this product at a level which could require reporting under the statute are: ****NONE****

D.O.T.: Hazard Class — Not a corrosive, flammable, irritant, or explosive material. Not a Class B poison by skin contact or acute inhalation.

PROPOSITION 65: This product contains no levels of listed substances, which the State of Califor ia has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.

This product is not classified as a controlled product under Canada's Federal Hazardous Product Act (WHMIS).

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

GENERAL OFFICES

IN THE USA:
UOP
Molecular Sieve Adsorbents
25 East Algonquin Road
Des Plaines, IL 60017-5017

IN CANADA:
UOP Canada Inc.
245 Eglington Ave. East Suite 310
Toronto, Ontario M4P 3B7

Other offices in principal cities all over the world.

MOLSIV® ADSORBENTS
A PRODUCT OF UOP

Lithographed in U.S.A.

NORTON

NORTON COMPANY

MATERIAL SAFETY DATA SHEET

HEALTH RATING

HAZARD RATING

Please rate consistent with NFP

SECTION I — NAME AND PRODUCT

MANUFACTURER'S NAME: NORTON COMPANY

CONTACT: K. HARRISON

ADDRESS STREET, CITY, STATE AND ZIP CODE: P.O. BOX 350 AKRON, OHIO 44309

EMERGENCY TELEPHONE NO.: (216)-673-5860

TRADE NAME, COMMON NAME OR SPECIFICATION: DENSTONE 57 BALLS AND PELLETS ALL SIZES

APPROVED BY: LOU WALT

DATE: 8/3/90

CHEMICAL FAMILY OR PRODUCT TYPE

SECTION II — COMPOSITION

CHEMICAL NAME		COMMON NAME	REG* (Y/N)	CAS #	OSHA PERMISSIVE EXPOSURE LIMIT	ACGIH TLV
Silicon dioxide	64.06	Silica	y	14808-60-7	0.1mg/m^3	
Aluminum oxide	26.48	Alumina	y	1344-28-1	5mg/m^3	
Titanium oxide	1.21	Titania	y	13463-67-7	5mg/m^3	
Iron oxide	0.78	Iron oxide	y	1309-37-1	10mg/m^3	
Calcium oxide	0.70	Calcia	y	1305-78-8	5mg/m^3	
Magnesium oxide	0.67	Magnesia	y	1309-48-4	5mg/m^3	
Potassium oxide	1.18	Potassia	N	12136-45-7	10mg/m^3	
Sodium oxide	1.22	Soda	N	1313-59-3	10mg/m^3	

* Materials are regulated by OSHA 1910.1200, Hazard Communication Standard, and/or the Massachusetts General Law Chapter 11F, Right to Know Regulations

SECTION III — PHYSICAL AND CHEMICAL DATA

BOILING POINT: N/A

MELTING POINT: N/A

SPECIFIC GRAVITY: 2.6

VAPOR PRESSURE: N/A

PERCENT VOLATILE BY VOL.: N/A

VAPOR DENISTY: N/A

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: Insoluble

SOLUBILITY IN ALCOHOL: Insoluble

SOLUBILITY IN OTHER SOLVENT: Insoluble

APPEARANCE AND ODOR: Buff colored solid-od

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A

(METHOD USED)

FLAMMABLE LIMITS LEL: N/A LEL

EXTINGUISHING MEDIA: N/A

SPECIAL FIREFIGHTING PROCEDURES: N/A

EXPLOSION POTENTIAL: N/A

SECTION V — HEALTH FIRST AID AND MEDICAL DATA

PRIMARY ROUTE(S) OF ENTRY	ACUTE AND CHRONIC HEALTH EFFECTS AND EFFECTS OF OVEREXPOSURE	FIRST AID AND MEDICAL INFORMATION
INHALATION	If dust is created there is the possibility in irritant powders. Excessive exposure to silica can lead to silicosis. Silica may also be a possible carcinogen.	For acute exposure, rem to fresh air. Call for assistance if symptoms
INGESTION		N/A
SKIN CONTACT & ABSORPTION	N/A	N/A
EYE	Dust may cause irritation.	Irrigate eyes with wate Examine for physical pr of particles.
OTHER POTENTIAL HEALTH RISKS	Most of the silica is chemically combined as Silicates.	Minimize creation of du

MATERIAL SAFETY DATA SHEET (page 2)

SECTION VI — CORROSIVITY AND REACTIVITY DATA

STABILITY UNSTABLE ☐ STABLE ☒ | **POLYMERIZATON** MAY OCCUR ☐ WILL N

INCOMPATIBILITY (MATERIALS TO AVOID) Silicate products may react, although not violen with hydrofluoric acid or active fluorides.

DECOMPOSITION PRODUCTS
None

CONDITIONS TO BE AVOIDED
Active fluorides

SECTION VII — STORAGE, HANDLING AND USE PROCEDURES

NORMAL STORAGE AND HANDLING Store in dry areas. Do not overstock to the point deforming cartons. Suppress dust when unloading cartons or wear res Protect against sharp, broken edges.

NORMAL USE Avoid rough handeling to prevent abrading or crushing the art

STEP TO BE TAKEN IN CASE OF LEAKS OR SPILLS Minimize dust. Sweep, shovel, vacuum. Watch footing if articles fall onto walking surface.

WASTE DISPOSAL METHOD Landfill in according with local, state, and federal re Be guided by extraneous mater to which these articles may have been e the using process.

SECTION VIII — PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE)
NIOSH approved disposable or other dust mask. See OSHA CFR 1910.134

VENTILATION	LOCAL
	Recommended
	MECHANICAL (GENERAL)
	OTHER

PROTECTIVE GLOVES
Recommended

EYE PROTECTION
Recommended

OTHER EQUIPMENT
As customers policies dictate.

MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CONTACT WITH THIS MATERI As said, these articles are inert and non-hazardous. If customers p introduces hazardous materials to the articles, be guided by their n Minimize dust when handling these articles.

SECTION IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Minimize dust by careful handling. Use respirators and adequate ven if dust is created.

OTHER PRECAUTIONS These articles are hard and abrasive. Minimize bodily co with gloves, safety glasses, and adequate covering.

FOR COMPANY USE

Date Issued: 12/05/90
Supercedes: 06/21/89

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:
00584 URSA OIL P-100

Chemical Name and/or Family or Description:
Paraffin Pale Oils

Manufacturer's Name and Address:
Texaco Lubricants Co. Div of TRMI
P.O. Box 52332 Houston, TX 77052

Telephone Numbers:
TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300
HEALTH EMERGENCY Company: (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204
TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509
Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or Component(s) Carcinogenic According to:	OSHA	IARC	NTP	OTHER	NONE
	–	–	–	–	X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
Solvent-dewaxed heavy paraffinic petroleum distillates	64742650	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	100.00

Mineral oil mist has a permissible exposure level (PEL); therefore, this product by definition, is considered hazardous by OSHA (1910.1200).

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: dark pale liquid

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS				NFPA	
Health:	0	Reactivity:	0	Health:	0	Reactivity:	0
Flammability:	1	Special:	-	Flammability:	1	Special:	-

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	–

Effects of Overexposure

Acute

Eyes:
May cause minimal irritation, experienced as temporary discomfort.

Skin:
No adverse effects expected from absorption of material through the skin.

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

Date Issued: 12/05/90
Supercedes: 06/21/89

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:
00584 URSA OIL P-100

Chemical Name and/or Family or Description:
Paraffin Pale Oils

Manufacturer's Name and Address:
Texaco Lubricants Co. Div of TRMI
P.O. Box 52332 Houston, TX 77052

Telephone Numbers:
TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300
HEALTH EMERGENCY Company (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204
TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509
Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or Component(s) Carcinogenic According to:	OSHA	IARC	NTP	OTHER	NONE
	_	_	_	_	X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
Solvent-dewaxed heavy paraffinic petroleum distillates	64742650	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	100.00

Mineral oil mist has a permissible exposure level (PEL); therefore, this product by definition, is considered hazardous by OSHA (1910.1200).

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: dark pale liquid

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS				NFPA			
Health:	0	Reactivity:	0	Health:	0	Reactivity:	0
Flammability:	1	Special:	-	Flammability:	1	Special:	-

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	_

Effects of Overexposure

Acute

Eyes:
May cause minimal irritation, experienced as temporary discomfort.

Skin:
No adverse effects expected from absorption of material through the skin.

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

7. HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage:
Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:
Chemical-type goggles or face shield recommended to prevent eye contact.

Skin Protection:
Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned at least once a week.

Respiratory Protection:
Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Ventilation:
Adequate to meet occupational exposure limits. (See below)

Exposure Limit for Total Product:
5mg/m3 for mineral oil mist averaged over an 8 hour daily exposure (ACGIH)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: dark pale liquid
Boiling Point (Degrees): N.D.
Specific Gravity: .887 (H2O=1)
pH of undiluted product N.A.
Vapor Pressure: N.D. mmhg
Viscosity: 107 cSt @ 4 C

Percent VOC: 100
Vapor Density: N.D. Air=
Solubility in Water: N.D.
Other: -

10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for deta

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	Y	-	-

Comments:
None

Products Evolved When Subjected to Heat or Combustion:
Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of nitrogen, sulfur

Hazardous Polymerizations:	OCCUR	DO NOT OCCUR
	-	X

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION(ANIMAL TOXICITY DATA)

Median Lethal Dose (LD50 LC50) (Species)

Oral: believed to be >5 g/kg (rat); practically non-toxic
Inhalation: N.D.
Dermal: believed to be >3 g/kg (rabbit); practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin: believed to be <0.5/8.0 (rabbit); no appreciable effect
Eyes: believed to be <15/110 (rabbit); no appreciable effect
Sensitization: N.D.

Other:

None

12. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

REMARKS

None

13. TRANSPORT INFORMATION

TRANSPORTATION

DOT: PROPER SHIPPING NAME: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

14. REGULATORY INFORMATION

A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RQ (lbs)	TPQ (lbs)
NONE				

CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
NONE			

Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
-	-	-	-	-	X

Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
NONE		

B. WHMIS CLASSIFICATION

NA

C. MICHIGAN CRITICAL MATERIALS

No critical materials present.

15. OTHER INFORMATION

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

16. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT

00584 URSA OIL P-100

WARNING STATEMENT

NONE CONSIDERED NECESSARY

PRECAUTIONARY MEASURES

FIRST AID

INGESTION:
If more than several mouthfuls have been swallowed, give two glasses of water (16 oz.). Get medical attention.

INHALATION:
If irritation or drowsiness occurs, remove to fresh air.

EYE CONTACT:
Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

SKIN CONTACT:
Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

FIRE

In case of fire, use foam, dry chemical, or CO2. Use water spray to keep containers cool.

Chemical/Common Name	CAS No.	Range in %
Solvent-dewaxed heavy paraffinic petroleum distillates	64742650	100.00

Mineral oil mist has a permissible exposure level (PEL); therefore, this product by definition, is considered hazardous by OSHA (1910.1200).
Not classified as a hazardous material by DOT definition.

HMIS				National Fire Protection Association			
Health	: 0	Reactivity	: 0	Health	: 0	Reactivity	: 0
Flammability	: 1	Special	: -	Flammability	: 1	Special	: -

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if use to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressuriz or expose to open flame or heat. Keep container closed and drum bungs in place.

Manufacturer's Name: Texaco Lubricants Co. Div of TRMI
P.O. Box 52332 Houston, TX 77052

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILTIY OR FITNESS FOR A PARTICULAR PURPOSE MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 12-05-90 _ New X Revised, Supersedes: 06-21-89
Date Printed: 02-07-91

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

MATERIAL SAFETY DATA SHEET

NATURAL GAS

ARCO OIL AND GAS COMPANY
DIVISION OF ATLANTIC RICHFIELD COMPANY
1601 BRYAN ST.
DALLAS, TEXAS 75201

**IMPORTANT: Rea
handling and dispo
and pass this inform
employees, custom
this product**

I. General

Trade Name	PLANT RESIDUE GAS	**Telephone Numbe** EMERGENCY 214/880-469 800/424-930
Other Names	MARSH GAS, NATURAL GAS	
Chemical Family	ALKANES	**DOT Hazardous Materials Proper Shippi** METHANE
Generic Name	METHANE	**DOT Hazard Class** FLAMMABLE GAS
CAS No.	74-82-8	**Company ID No.** 000000010 — **UN/NA ID No.** UN 197

II. DANGER — Summary of Hazards

**EXTREMELY FLAMMABLE! OSHA/NFPA CLASS-IA FLAMMABLE GAS.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.**

**VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING. ASPHYXIANT HAZARD!
USE ONLY WITH ADEQUATE VENTILATION. ODOR IS AN INADEQUATE
WARNING OF POTENTIALLY HAZARDOUS AIR CONCENTRATIONS.
LOW BOILING POINT INTENSIFIES PRESSURE AND RAPID DIFFUSION HAZARD.
MAY CAUSE FROSTBITE OR FREEZE BURNS!
AVOID EXPOSURE TO LIQUID OR CRYOGENIC GAS VAPOR.**

III. Fire and Explosion

Flash Point (Method)	Autoignition Temperature (Method)	Flammable Limits (% Vol. in Air) At Normal Atmospheric Temper
LT -305° F (EST.) SEE FIREFIGHTING PROCEDURES	AP 930° F (EST.)	Lower AP 5.0 Upper

Fire and Explosion Hazards: THIS GAS RELEASES FLAMMABLE VAPORS AT WELL BELOW AMBIENT TEMPERATURES AND READILY FORMS FLAMMABLE MIXTURES WITH AIR. EXPOSED TO AN IGNITION SOURCE, IT WILL BURN IN THE OPEN OR BE EXPLOSIVE IN CONFINED SPACES. ITS VAPORS MAY TRAVEL LONG DISTANCES TO A POINT OF IGNITION, AND THEN FLASH BACK. ALKANE/CHLORINE GAS MIXTURES HAVE PRODUCED EXPLOSIONS.

Extinguishing Media: DRY CHEMICAL
CO_2

HALOGENATED EXTINGUISHING AGENT

HAZARD RATING:
4 - Extreme
3 - High
2 - Moderate
1 - Slight
0 - Insignificant
Fire
Health
1

Special Firefighting Procedures: GAS FIRES SHOULD NOT BE EXTINGUISHED UNLESS THE GAS FLOW CAN BE STOPPED IMMEDIATELY. SHUT OFF GAS SOURCE AND ALLOW THE FIRE TO BURN ITSELF OUT. IF THE SOURCE CANNOT BE SHUT OFF IMMEDIATELY, ALL EQUIPMENT AND SURFACES EXPOSED TO THE FIRE SHOULD BE COOLED WITH WATER TO PREVENT OVER-HEATING, FLASH-BACKS, OR EXPLOSIONS. CONTROL FIRE UNTIL GAS SUPPLY CAN BE SHUT OFF. FIREMEN MUST USE PROPER PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY APPARATUS TO PROTECT AGAINST HAZARDOUS COMBUSTION PRODUCTS/OXYGEN DEFICIENCIES.

IV. Health Hazards

Summary of Acute Hazards	EXTREME FLAMMABILITY. VAPOR CLOUDS ARE EASILY IGNITED. SIMPLE ASPHYXIANT. FREEZE BURNS.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	Primary Route(s)
Inhalation	OXYGEN DEFICIENT ATMOSPHERES MAY PRODUCE RAPID BREATHING, HEADACHE, DIZZINESS, VISUAL DISTURBANCES, MUSCULAR WEAKNESS, TREMORS, NARCOSIS, UNCONSCIOUSNESS, AND DEATH, DEPENDING ON CONCENTRATION AND DURATION OF EXPOSURE.	[x]
Eye Contact	THIS GAS IS NON-IRRITATING, BUT DIRECT CONTACT WITH LIQUIFIED/PRESSURIZED GAS OR FROST PARTICLES MAY PRODUCE SEVERE AND POSSIBLY PERMANENT EYE DAMAGE FROM FREEZE BURNS.	[ ]
Skin Absorption	THIS MATERIAL IS NOT EXPECTED TO BE ABSORBED THROUGH THE SKIN.	[ ]
Skin Irritation	NON IRRITATING, BUT SOLID AND LIQUID FORMS OF THIS MATERIAL AND PRESSURIZED GAS CAN CAUSE FREEZE BURNS.	[ ]
Ingestion	SOLID AND LIQUID FORMS OF THIS MATERIAL AND THE PRESSURIZED GAS CAN CAUSE FREEZE BURNS.	[ ]
Summary of Chronic Hazards and Special Health Effects	PERSONNEL WITH PRE-EXISTING CHRONIC RESPIRATORY DISEASES SHOULD AVOID EXPOSURE TO THIS MATERIAL.	

V. Protective Equipment and Other Control Measures

Respiratory	FOR EXCESSIVE GAS CONCENTRATIONS, USE ONLY NIOSH/MSHA-APPROVED, SELF-CONTAINED BREATHING APPARATUS. (SEE "OTHER HYGIENE AND WORK PRACTICES" BELOW, AND SECTION XI.)
Eye	USE CHEMICAL-TYPE GOGGLES AND FACE SHIELD WHEN HANDLING LIQUIFIED GASES. SAFETY GLASSES AND/OR A FACE SHIELD ARE RECOMMENDED WHEN HANDLING HIGH-PRESSURE CYLINDERS AND PIPING SYSTEMS AND WHENEVER VAPORS ARE DISCHARGED.
Skin	PREVENT POTENTIAL SKIN CONTACT WITH COLD LIQUID/SOLID/VAPORS. USE INSULATED, IMPERVIOUS PLASTIC OR NEOPRENE-COATED CANVAS GLOVES AND PROTECTIVE GEAR (APRON, FACE SHIELD, ETC.) TO PROTECT HANDS AND OTHER SKIN AREAS.
Engineering Controls	LOCAL EXHAUST AND GENERAL ROOM VENTILATION MAY BOTH BE ESSENTIAL IN WORK AREAS TO PREVENT ACCUMULATION OF EXPLOSIVE MIXTURES. IF MECHANICAL VENTILATION IS USED, ELECTRICAL EQUIPMENT MUST MEET N.E.C. REQUIREMENTS.
Other Hygienic and Work Practices	EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS FOR FIRST AID TREATMENT OF POTENTIAL FREEZE BURNS SHOULD BE AVAILABLE IN THE VICINITY OF ANY SIGNIFICANT EXPOSURE FROM COMPRESSED GAS RELEASE. (SEE SECTIONS IV. AND VII.) PERSONNEL SHOULD NOT ENTER AREAS WHERE THE ATMOSPHERE IS BELOW 19.5 VOL.% OXYGEN WITHOUT SPECIAL PROCEDURES/EQUIPMENT. RESPIRATOR USE SHOULD COMPLY WITH OSHA 29 CFR 1910.134 OR EQUIVALENT. (SEE SECTION XI.-GENERAL COMMENTS)

VI. Occupational Exposure Limits

Substance	Source	Date	Type	Value/Units	Time
METHANE	ACGIH	1986			

VII. Emergency and First Aid

Inhalation	IMMEDIATELY REMOVE FROM CONTAMINATED AREA TO FRESH AIR. FOR RESPIRATORY DISTRESS, GIVE AIR, OXYGEN, AND/OR ADMINISTER CARDIOPULMONARY RESUSITATION. PATIENTS SHOULD BE KEPT QUIET AND WARM UNTIL MEDICAL CARE IS OBTAINED.
Eye Contact	RINSE IMMEDIATELY WITH WATER. REMOVE CONTACT LENSES. THEN FLUSH EYES WITH WATER FOR 10-15 MINUTES. IF IRRITATION OR DISCOMFORT PERSISTS, CALL FOR MEDICAL ATTENTION.
Skin Contact	FROZEN TISSUES SHOULD BE FLOODED OR SOAKED WITH WARM WATER (105' - 115'F.). DO NOT USE HOT WATER! CRYOGENIC BURNS WHICH RESULT IN BLISTERING OR DEEPER TISSUE FREEZING SHOULD BE PROMPTLY SEEN BY A PHYSICIAN.
Ingestion	RINSE MOUTH WITH WATER. DRINK 1-2 GLASSES OF WATER OR MILK. DO NOT INDUCE VOMITING UNLESS DIRECTED BY MEDICAL PERSONNEL.
Emergency Medical Treatment Procedures	SEE ABOVE PROCEDURES.

VIII. Spill and Disposal

Precautions if Material is Spilled or Released	ELIMINATE ALL POTENTIAL SOURCES OF IGNITION. EVACUATE ALL NON-ESSENTIAL PERSONNEL TO AN AREA UPWIND. (AT LEAST 1/2 MILE IN ALL DIRECTIONS IF TANKS OR TANK CARS ARE INVOLVED IN FIRE.) STOP SOURCE OF RELEASE WITH NON-SPARKING TOOLS BEFORE PUTTING OUT ANY FIRE. VENTILATE ENCLOSED AREAS TO PREVENT FORMATION OF FLAMMABLE OR OXYGEN-DEFICIENT ATMOSPHERES. WATER SPRAY MAY BE USED TO REDUCE VAPORS. LIQUID SPILLS WILL VAPORIZE FORMING COLD, DENSE VAPOR CLOUDS THAT DO NOT READILY DISPERSE. AVOID VAPOR CLOUD, EVEN WITH PROPER RESPIRATORY EQUIPMENT.
Waste Disposal Methods	RELEASES ARE EXPECTED TO CAUSE ONLY LOCALIZED NON-PERSISTENT ENVIRONMENTAL DAMAGE. WASTE MIXTURES CONTAINING THESE GASES SHOULD NOT BE ALLOWED TO ENTER DRAINS OR SEWERS WHERE THERE IS DANGER OF THEIR VAPORS BEING IGNITED. WHEN IT BECOMES NECESSARY TO DISPOSE OF THESE GASES, IT IS PREFERABLE TO DO SO AS A VAPOR. THESE GASES MAY BE USED AS AN AUXILIARY FUEL OR DISPOSED OF BY BURNING IN A PROPERLY DESIGNED FLARE OR INCINERATOR. VENTING OF THE GASES TO THE ATMOSPHERE SHOULD BE AVOIDED.

IX. Components

{This may not be a complete list of components} SEE SUPPLEME BEGINNING ON P

Component Name	CAS No.	Carcinogen##		Composition amou (See Qualification c
METHANE	74-82-8	N/AP	N/DA	
CARBON DIOXIDE	124-38-9	N/AP	GT	≤ 5 PERCENT

##Listed By: 1 = NTP, 2 = IARC, 3 = OSHA, 4 = Other

Compositions given are typical values, not specifi

X. Physical and Chemical Data

Boiling Point (At 760.0 mm Hg) AP -258° F	**Viscosity Units, Temp. (Method)** N/AP		**Dry Point** N/AP
Freezing Point AP -296° F	**Vapor Pressure** N/DA		**Volatile Characteristics** COMPLETE
Specific Gravity (H,O = 1 at 39.2°F) LT 0.30	**Vapor Sp. Gr. (Air = 1.0 at 60° - 90°F)** AP 0.5	**Solubility in Water** NEGLIGIBLE	**pH** N/AP
Hazardous Polymerization NOT EXPECTED TO OCCUR	**Other Chemical Reactivity** N/P		**Stability** STABLE

Other Physical and Chemical Properties	GROSS HEAT OF COMBUSTION @ 60° F.= AP 24,000 BTU/LB OR 1,000 BTU/FT3.
Appearance and Odor	COLORLESS, TASTELESS, ODORLESS GAS. ODOR IS INADEQUATE WARNING (SEE SECTION XI.).
Conditions to Avoid	HEAT, SPARKS, AND OPEN FLAMES.
Materials to Avoid	OXIDIZING AGENTS SUCH AS OXYGEN, CHLORINE, FLUORINE/FLUORIDE COMPOUNDS, BROMINE & METAL CATALYSTS.
Hazardous Decomposition Products	INCOMPLETE COMBUSTION MAY PRODUCE CARBON MONOXIDE AND OTHER HARMFUL SUBSTANCES.

XI. Additional Precautions

Handling, Storage and Decontamination Procedures	CONSULT D.O.T. REGULATIONS ABOUT THE SHIPMENT OF PETROLEUM GASES. D.O.T. REQUIRES USE OF RED "FLAMMABLE GAS" LABEL. IF UPON INITIAL RECEIPT INSPECTION A CYLINDER IS FOUND TO BE IN POOR OPERATING CONDITION, CONTACT THE SUPPLIER. THE MOST COMMON HAZARD IS LEAKAGE DUE TO FAULTY PRESSURE CONTROL REGULATORS. LARGE PRESSURE BUILD-UP CAN RESULT IN EXPLOSIVE DECOMPRESSION AT THE CYLINDER HEAD, CAUSING THE CYLINDER TO ROCKET LIKE A MISSILE. USE PRESSURE-REDUCING REGULATOR WHEN CONNECTING TO LOWER PRESSURE PIPING SYSTEMS. PREVENT ENTRAPMENT OF LIQUID IN CLOSED SYSTEMS. USE CHECK VALVE TO PREVENT BACK-FLOW INTO STORAGE CONTAINER. CHAIN CYLINDERS WHEN NOT IN USE.
General Comments	STORE AND USE GAS CONTAINERS ONLY IN WELL-VENTILATED AREAS. STORAGE AREAS SHOULD NOT EXCEED 100° F AND BE PROTECTED FROM DAMPNESS, SALT, AND CORROSIVE CHEMICALS. CYLINDER STORAGE SHOULD BE SEGREGATED FROM OXIDIZERS SUCH AS OXYGEN, CHLORINE, ETC. AND AWAY FROM HEAVY TRAFFIC AREAS TO PREVENT KNOCKING OVER OR DAMAGE OF FALLING OBJECTS. AVOID DRAGGING, ROLLING, OR SLIDING CYLINDERS. VALVE CAPS SHOULD REMAIN ON CYLINDERS NOT CONNECTED FOR USE. SEPARATE FULL CONTAINERS FROM EMPTY ONES. ODOR IS NOT AN ADEQUATE WARNING OF POTENTIALLY HAZARDOUS CONCENTRATIONS IN AIR. FOR EXPLANATION OF OCCUPATIONAL EXPOSURE LIMITS SHOWN IN SECTION VI., REFER TO THE DEFINITION OF "SIMPLE ASPHYXIANT" PRESENTED IN THE ACGIH TLV BOOKLET. RELEASES OF THESE GASES MAY CAUSE FLAMMABLE ATMOSPHERE WITH EXPLOSION POTENTIAL. THESE ATMOSPHERES MAY ALSO BE OXYGEN DEFICIENT. DO NOT ENTER SUCH AREAS/CONFINED SPACES WITHOUT IMPLEMENTING SPECIAL SAFETY PROCEDURES, INCLUDING MONITORING FOR OXYGEN DEFICIENCY AND FLAMMABLES. THE INFORMATION AND CONCLUSIONS HEREIN REFLECT NORMAL OPERATING CONDITIONS AND MAY BE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE MIXTURE ITSELF.

- - - Note - - - Qualifications:

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

XII. Supplement

INDUSTRY EXPERIENCE HAS SHOWN THAT THIS MATERIAL MAY CONTAIN SMALL AMOUNTS OF RADON, A NATURALLY OCCURING RADIOACTIVE GAS, AND ITS PARTICULATE DECAY PRODUCTS, SOME OF WHICH MAY BE RETAINED IN PROCESS EQUIPMENT. GAMMA RADIATION ABOVE BACKGROUND LEVELS, EMITTED FROM SHORT HALF-LIFE DECAY PRODUCTS, MAY BE DETECTED EXTERNALLY AT THAT EQUIPMENT DURING OPERATIONS BUT WILL DECAY TO BACK-GROUND LEVELS WITHIN 4 HOURS AFTER CESSATION OF FLOW. EQUIPMENT EMITTING GAMMA RADIATION SHOULD PRESUMED TO BE INTERNALLY CONTAMINATED WITH THE LONGER-LIFE DECAY PRODUCTS THAT EMIT ALPHA RADIA-TION, WHICH MAY BE A HAZARD IF INHALED.

IF YOUR ASSESSMENT INDICATES THE PRESENCE OF GAMMA RADIATION, EMPLOYEE EXPOSURE POTENTIAL SHOULD MINIMIZED BY LIMITING ACCESS NEAR THAT EQUIPMENT. PRIOR TO MAINTENANCE ON THOSE EQUIPMENT INTERNA STOP FLOW AND ALLOW A 4-HOUR DELAY PRIOR TO OPENING. MAINTENANCE PERSONNEL SHOULD WEAR APPROPRIA PROTECTIVE EQUIPMENT TO PREVENT SKIN CONTAMINATION OR INHALATION OF ANY RESIDUE CONTAINING ALPHA RADIATION.

XII. Supplement Continued

IV. Health Hazards

SEE SUPPLEMENT BEGINNING ON PAG

Primary Hazard	BURNS AND INJURY DUE TO FIRE AND EXPLOSION. INHALATION OF EXCESSIVE VAPOR OR AEROSOL CONCENTRATION.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS
Inhalation	DROWSINESS/DRUNKENNESS,HEADACHE,VISUAL DISTURBANCE LEADING TO BLINDNESS; COUGHING/SHORTNESS OF BREATH;COLLAPSE AND DEATH AT VERY HIGH CONCENTRATIONS
Eye Contact	UPON DIRECT LIQUID CONTACT, MAY CAUSE MODERATE BURNING, TEARING, REDNESS, AND SWELLING.HIGH VAPOR CONCENTRATIONS (>2000 PPM) MAY CAUSE SAME SYMPTOMS.
Skin Absorption	IN LIQUID OR SOLUTION FORM, THIS MATERIAL MAY BE ABSORBED THROUGH INTACT SKIN AND PRODUCE TOXIC EFFECTS.
Skin Irritation	FOLLOWING EXTENSIVE, REPEATED AND/OR PROLONGED SKIN CONTACT, MAY CAUSE BURNING, ITCHING, REDNESS, OR BLISTERS.
Ingestion	SWALLOWING BETWEEN 2 AND 8 OUNCES OF METHANOL CAN CAUSE DEATH.
Effects Of Overexposure	SEE SUPPLEMENTAL DATA BEGINNING ON PAGE 5 OF THIS MSDS.

V. Protective Equipment

SEE SUPPLEMENT BEGINNING ON PAGI

Respiratory	DO NOT USE AIR-PURIFYING RESPIRATORS. METHANOL CANNOT BE DETECTED BY ITS ODOR UNTIL DANGEROUS EXPOSURE OCCURS. SEE SUPPLEMENTAL SHEET BEGINNING ON PAGE 5 OF THIS MSDS FOR DETAILED RECOMMENDATIONS.
Ventilation	LOCAL EXHAUST VENTILATION MAY BE REQUIRED TO MEET EXPOSURE STANDARD(S) IN ADDITION TO GENERAL ROOM VENTILATION.
Eye	EYE PROTECTION, SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE MASK, MUST BE WORN WHEN ANY POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID. CONTACT LENSES SHOULD NOT BE WORN.
Skin	PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS AND HEAD AND FACE PROTECTION MUST BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.
Other	EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE.

VI. Occupational Exposure Limits

	Substance	Source	Date
1.	METHANOL	OSHA	1972

Exposure Limit Value/Time	Short Term Limit/Time	Peak Limit
200.00 PPM / 8 HOURS		

	Substance	Source	Date
2.	METHANOL -SKIN	ACGIH	1982

Exposure Limit Value/Time	Short Term Limit/Time	Peak Limit
200.00 PPM / 8 HOURS	250.00 PPM / 15 MINUTES	

VII. Emergency and First Aid

SEE SUPPL
BEGINNING O

Inhalation	IF OVERCOME BY EXPOSURE, IMMEDIATELY MOVE VICTIM TO FRESH AIR. KEEP VICTIM QUIET. ADMINISTER OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. OBTAIN EMERGENCY MEDICAL ATTENTION IMMEDIATELY. PROMPT ACTION IS ESSENTIAL.
Eye Contact	IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH EYES WITH CLEAN, LOW PRESSURE, LUKEWARM WATER FOR AT LEAST 15 MINUTES. OCCASIONALLY LIFTING EYELIDS. OBTAIN MEDICAL ATTENTION.
Skin Contact	SEE SUPPLEMENTAL DATA BEGINNING ON PAGE 5 OF THIS MSDS.
Ingestion	IF SWALLOWED, ADMINISTER LUKEWARM WATER (PINT) ONLY IF VICTIM IS COMPLETELY CONSCIOUS/ALERT. INDUCE VOMITING. OBTAIN IMMEDIATE EMERGENCY MEDICAL TREATMENT. PROMPT ACTION IS ESSENTIAL.
Note to Physician	IN CASE OF INGESTION OR MASSIVE INHALATION, OBSERVE AS INPATIENT BECAUSE SLOW METABOLISM CAUSES A LATENT PERIOD OF 24 HOURS BETWEEN EXPOSURE AND ACIDOSIS/BLINDNESS. SEE SUPPLEMENTAL DATA BEGINNING ON PAGE 5 OF THIS MSDS FOR ADDITIONAL INFORMATION.

VIII. Spill and Disposal

SEE SUPPLE
BEGINNING O

Precautions if Material is Spilled or Released	SEE SUPPLEMENTAL DATA BEGINNING ON PAGE 5 OF THIS MSDS.
Waste Disposal Methods	DESIGNATE RCRA F005 IF SPENT SOLVENT INTENDED FOR DISPOSAL. DESIGNATE SPILL CLEANUP RESIDUE RCRA U154. LANDFILL PROPERLY CONTAINED, CONTAMINATED SOLIDS ONLY AT PERMITTED DISPOSAL SITES USING REGISTERED CONTRACTORS. BURN CONCENTRATED LIQUID WASTE IN PROPERLY DESIGNED COMBUSTION SYSTEMS. TAKE SAFETY PRECAUTIONS DUE TO LOW FLASH POINT. ASSURE EMISSIONS ARE COMPLIANT WITH ALL APPLICABLE AIR POLLUTION CONTROL REGULATIONS. DILUTE AQUEOUS WASTE (<1% WT) MAY BE BIODEGRADABLE WHEN FED IN LOW PROPORTION TO SUITABLE BIOPLANT. AVOID OVERLOADING/POISONING THE BIOMASS. ASSURE EFFLUENT IS COMPLIANT WITH ALL APPLICABLE WATER POLLUTION CONTROL REGULATIONS.

IX. Components

(This may not be a complete list of components)

Component Name	CAS No.		Composition and (See Note on Pa
METHANOL	67-56-1	AP	100 PERCENT

Compositions given are typical values, not specifications.

MATERIAL SAFETY DATA SHEET

METHANOL

MSDS N
99821120
Rev. Dat
01/28/83

ARCO CHEMICAL COMPANY
DIVISION OF ATLANTIC RICHFIELD COMPANY
1500 MARKET STREET
P.O. BOX 7258
PHILADELPHIA, PENNSYLVANIA 19101

IMPORTANT: Read this MSDS befo handling and disposing of this produc and pass this information on to employees, customers, and users of this product

I. General

Trade Name METHANOL	**Telephone Numbers** 800/424-9300 CHEMTREC 215/353-8300 ARCO CHEM 215/557-2000 INFO ONLY
Other Names METHYL ALCOHOL, WOOD ALCOHOL	
Chemical Family ALIPHATIC ALCOHOL	**DOT Hazardous Materials Proper Shipping Name** METHYL ALCOHOL
Generic Name	**DOT Hazard Class** FLAMMABLE LIQUID
CAS No.	**Company ID No.** EC00142300 — **UN No.** 1230

II. Summary of Hazards

DANGER

EXTREMELY FLAMMABLE - MAY BURN WITH INVISIBLE FLAME
CAUTION - MODERATE INHALATION HAZARD - SERIOUS OVEREXPOSURE TO METHANOL VAPOR CAN CAUSE BLINDNESS AND PERHAPS DEATH
CAUTION - MODERATE INGESTION HAZARD - UNSAFE FOR HUMAN CONSUMPTION, MAY CAUSE BLINDNESS OR DEATH
CAUTION - MODERATE SKIN HAZARD - EXTENSIVE/PROLONGED LIQUID CONTACT CAN CAUSE SERIOUS ILLNESS
CAUTION - MODERATE EYE HAZARD

III. Fire and Explosion

SEE SUPPLEMENT BEGINNING ON PAGE 5

Flash Point (Method)	Autoignition Temperature (Method)	Flammable Limits at Normal Atmospheric Temperature Pressure (% Vol in Air)
AP 50 F (CC)	AP [illegible] F	Lower 6.0 Upper 36.5

Unusual Fire and Explosion Hazards
RELEASES FLAMMABLE VAPOR BELOW NORMAL AMBIENT TEMPERATURES. WHEN MIXED WITH AIR AND EXPOSED TO IGNITION SOURCE, CAN BURN IN THE OPEN OR EXPLODE IF CONFINED. MIXTURES WITH WATER AND AS LITTLE AS 21% (BY VOL) METHANOL ARE STILL FLAMMABLE (FLASH PT. <100 F) UNDER SOME CIRCUMSTANCES, MAY CORRODE CERTAIN METALS, INCLUDING ALUMINUM AND ZINC, AND GENERATE HYDROGEN GAS.

Extinguishing Media
DRY CHEMICAL ALCOHOL TYPE FOAM
CO2
FOR ADDITIONAL EXTINGUISHING MEDIA INFORMATION -
SEE SUPPLEMENTAL DATA BEGINNING ON PAGE 5 OF MSDS

Special Firefighting Procedures
DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION. SEE SECTION X - DECOMPOSITION PRODUCTS POSSIBLE. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED CONTAINERS, SPREADING FIRE, INCREASING RISK OF BURNS/INJURIES. FIGHT FIRE FROM SAFE DISTANCE/PROTECTED LOCATION. APPLY AQUEOUS EXTINGUISHING MEDIA CAREFULLY TO AVOID FROTHING AND LIMIT EXPOSURE OF NEARBY EQUIPMENT. NOTIFY AUTHORITIES IF LIQUID ENTERS SEWER OR PUBLIC WATERS. A METHANOL FIRE MAY NOT BE VISIBLE TO THE NAKED EYE.

X. Physical and Chemical Data

Boiling Point AP 148 F	**Evaporation Rate (Ratio of Time)** N/AP		**Dry Point** N/AP
Freezing Point AP -144 F	**Vapor Pressure** (MM HG AT 68 F) AP 96		**Volatile Characteristics** MODERATE
Specific Gravity (H,O = 1 at 39.2° F) AP 0.79	**Vapor Density (Air = 1 at 60 - 90° F)** AP 1.1	**Solubility in Water** COMPLETE	**Stability** STABLE
Hazardous Polymerization NOT EXPECTED TO OCCUR	**Viscosity Units, Temp., Method** N/AP		**pH** N/AP

Other Physical and Chemical Properties	
Appearance and Odor	CLEAR LIQUID WITH FAINT ALCOHOL ODOR. ODOR IS NOT GOOD INDICATION OF EXPOSURE LEVEL.
Conditions to Avoid	HEAT, SPARKS, OPEN FLAME, OXIDIZING CONDITIONS: OPEN CONTAINERS AND POOR VENTILATION.
Materials to Avoid	STRONG OXIDIZING AGENTS; ALUMINUM; ZINC; ANY REACTIVE METAL WHICH WILL DISPLACE HYDROGEN; CERTAIN FORMS OF PLASTICS, RUBBER, AND COATINGS.
Hazardous Decomposition Products	INCOMPLETE COMBUSTION WILL GENERATE HIGHLY POISONOUS CARBON MONOXIDE AND PERHAPS OTHER TOXIC VAPORS SUCH AS FORMALDEHYDE.

XI. Additional Precautions

Handling and Storage

STORE ONLY IN TIGHTLY CLOSED/PROPERLY VENTED CONTAINERS AWAY FROM HEAT, OPEN FLAME, SPARKS, STRONG OXIDIZING AGENTS. MAY BE STORAGE FIRE HAZARD ON CONTACT WITH AIR ABOVE 50 DEG.F. BLANKET STORAGE WITH DRY INERT GAS. STORE DRUMS W/ BUNG IN UP POSITION. CAREFULLY VENT INTERNAL PRESSURE BEFORE REMOVING CLOSURE. GROUND CONTAINERS BEFORE TRANSFER. WILL ABSORB ATMOSPHERIC MOISTURE. ELECTRICAL EQUIPMENT SHOULD CONFORM TO NATIONAL ELECTRIC CODE. CARBON STEEL IS SATISFACTORY MATERIAL OF CONSTRUCTION. DO NOT STORE IN ALUMINUM OR ZINC (GALVANIZED). HANDLE "EMPTY" DRUMS WITH CARE/VAPOR RESIDUE MAY BE FLAMMABLE. DECONTAMINATE CONTAINERS BEFORE REUSE/DISPOSAL.

General Comments

IT IS RECOMMENDED THAT SPILL CLEANUP RESIDUES CONTAMINATED WITH THIS PRODUCT BE SHIPPED AS:

HAZARDOUS WASTE (METHYL ALCOHOL)
FLAMMABLE LIQUID
UN 1230

- - - Note - - - Qualifications: EQ = Equal; LT = Less Than; AP = Approximately; GT = Greater Than; UK = Unknown; TR = Trace; N/AV = Not Available; N/AP = Not Applicable

XII. Supplement

FIRE EXTINGUISHING MEDIA

DO NOT USE SOLID WATER STREAM BUT WATER SPRAY/FOG ARE USEFUL TO COOL EXPOSED FACILITIES OR DILUTE THIS WATER SOLUBLE LIQUID BELOW FLASH POINT. WATER DILUTION REQUIRED TO EXTINGUISH FIRE IS HIGH (>5:1).

EFFECTS OF OVEREXPOSURE

EXPOSURE TO 4,000-13,000 PPM OF METHANOL FOR 12 HOURS WAS FATAL TO ONE WORKER. APPARENT EXPOSURE TO 1,200-8,000 PPM FOR 4 YEARS CAUSED CHRONIC POISONING WITH DIMMING OF VISION AMONG A GROUP OF WORKERS; OTHERS IN THE AREA WERE NOT AFFECTED. HEADACHES REPORTED AMONG DUPLICATING MACHINE OPERATORS EXPOSED TO 300 PPM. MOST SERIOUS CASES OF METHANOL POISONING REPORTED IN LAST 40 YEARS RESULTED FROM INGESTION IN BELIEF IT WAS ETHYL ALCOHOL.

RESPIRATORY PROTECTION

CONDITION	MINIMUM RESPIRATORY PROTECTION* REQUIRED ABOVE 200 PPM
VAPOR CONCENTRATION	
2000 PPM OR LESS	ANY SUPPLIED-AIR RESPIRATOR
	ANY SELF-CONTAINED BREATHING APPARATUS
10,000 PPM OR LESS	ANY SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE, HELMET OR HOOD
	ANY SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE
25,000 PPM OR LESS	A TYPE C SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE OR WITH FULL FACEPIECE, HELMET OR HOOD OPERATED IN CONTINUOUS-FLOW MODE.
GREATER THAN 25,000 PPM OR ENTRY AND ESCAPE FROM UNKNOWN CONCENTRATIONS	SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE.
	A COMBINATION RESPIRATOR WHICH INCLUDES TYPE C SUPPLIED-AIR RESPIRATOR WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE OR CONTINUOUS-FLOW MODE AND AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.
FIREFIGHTING	SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.
ESCAPE	ANY ESCAPE SELF-CONTAINED BREATHING APPARATUS.

*ONLY NIOSH-APPROVED OR MSHA-APPROVED EQUIPMENT SHOULD BE USED.

NOTE TO PHYSICIAN

METHANOL IS WATER SOLUBLE AND DISTRIBUTES IN THE WATER SPACE (0.65 X WT. (KG)). IT IS SLOWLY METABOLIZED TO FORMIC ACID. ETHANOL, BY COMPETITIVE INHIBITION, RETARDS METHANOL METABOLISM. TREATMENT SHOULD BEGIN WITH PO ETHANOL VIA NG TUBE OR IV ETHANOL UNTIL BLOOD ETHANOL LEVEL REACHES 100 MG/DL. CONTINUE ETHANOL UNTIL BLOOD METHANOL LEVEL IS LESS THAN 20 MG/DL. RELAPSES CAN OCCUR IF ETHANOL STOPPED PREMATURELY. HEMODIALYSIS IS HELPFUL TO REMOVE METHANOL AND FORMATE BUT ALSO REMOVES ETHANOL AND DOSAGE ADJUSTMENT IS REQUIRED.

XII. Supplement Continued

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

RELEASE MAY CAUSE FIRE/EXPLOSION. EVACUATE/EXCLUDE NONESSENTIAL PERSONNEL. EXTINGUISH ALL I SOURCES/STOP RELEASE IF FEASIBLE WITHOUT UNDUE RISK. IMMEDIATELY NOTIFY FIRE/WATER SUPPLY/P CONTROL AUTHORITIES. DO NOT FLUSH TO SEWER. LIQUID REMAINS FLAMMABLE EVEN WHEN MIXED WITH W UNLESS MAJOR DILUTION IS ACHIEVED. BLANKET SPILL WITH ALCOHOL RESISTANT FOAM TO LIMIT VAPOR SION. EQUIP CLEANUP CREW WITH PROPER PROTECTION.

DIKE/IMPOUND DOWNGRADE FROM LARGE LAND SPILL. SOAK UP SMALL SPILL ONTO INERT SOLIDS/SHOVEL SUITABLE DISPOSAL CONTAINERS. RESTRICT WATER USE IN CLEANUP. ON WATER, LIQUID IS HIGHLY SOL REMAIN ON SURFACE UNTIL RECOVERED OR DISPERSED. LIQUID IS HIGHLY BIODEGRADABLE/MAY DEPLETE FROM WATER/CAUSE FISH KILL. DISPERSE UNRECOVERABLE MATERIAL TO MINIMIZE THIS EFFECT. IF REL THE ENVIRONMENT, COMPLY WITH ALL REGULATORY NOTIFICATION REQUIREMENTS.

TEXACO INC.
INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

NOTE: NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE INFORMATION HEREIN. SEE PAGE 7 FOR CONDITIONS UNDER WHICH DATA ARE FURNISHED.

Trade Name and Synonyms
00365 TEXACO UNLEADED

Manufacturer's Name
Texaco Inc.

Emergency Telephone No.
(914) 831-3400 ext. 204

Address
P.O. Box 509 Beacon, NY 12508

Chemical Name and/or Family or Description
Automotive Lead-Free Gasoline

THIS PRODUCT IS CLASSIFIED AS:
X HAZARDOUS BY DEFINITION NO. 1,2,7,10
____ NOT HAZARDOUS
____ ON ATTACHED EXPLANATION SHEET

WARNING STATEMENT:
DANGER! EXTREMELY FLAMMABLE
HARMFUL OR FATAL IF SWALLOWED
MAY BE HARMFUL IF INHALED; MAY CAUSE IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN

OCCUPATIONAL CONTROL PROCEDURES

Protective Equipment (Type)

Eyes: Chemical type goggles or face shield optional.

Skin: Protective clothing such as uniforms, coveralls or lab coats should be worn. Launder or dry clean when soiled. Gloves resistant to chemicals and petroleum distillates required.

Inhalation: SCBA or supplied air respiratory protection required for entry into tanks, vessels, or other confined spaces containing gas

Ventilation: Adequate to meet permissible concentrations.

Permissible Concentrations:

Air: The ACGIH (1984-85) TWA for gasoline is 300ppm; Texaco recommends a TWA of 100ppm.

EMERGENCY AND FIRST AID PROCEDURES

First Aid

Eyes: Flush with water for fifteen minutes.

Skin: Wash exposed areas with soap and water.

Ingestion: Do NOT induce vomiting. May cause chemical pneumonitis. Call physician.

Inhalation: Should symptoms noted under physiological effects occur, remove to fresh air. If not breathing, apply artificial respiration

Other Instructions: Remove gasoline-soaked clothing.

PHYSIOLOGICAL EFFECTS

Code No. 1100363

Effects of Exposure

Acute:

Eyes: Causes slight-moderate eye irritation.

Skin: Moderately irritating; causes redness, edema, or drying of the skin.

Respiratory System: May cause dizziness, irritation of eyes, nose and throat, vomiting, bluish color of the skin, and CNS effects. See A.C., p.4.

Chronic: Recent studies with laboratory animals have shown that gasoline vapors caused kidney damage and kidney cancer in rats and liver cancer in mice.

Other: -

Sensitization Properties:

Skin: Yes ___ No X Unknown ___ Respiratory: Yes ___ No X Unknown ___

Median Lethal Dose (LD_{50} LC_{50} XSpecies)

Oral: LD50 = 18.75 ml/kg (rat)

Inhalation: N.D.

Dermal: >5 ml/kg (rabbit)

Other: N. D.

Irritation Index, Estimation of Irritation (Species)

Skin: 0.98/8.0 (rabbit)

Eyes: 0/110 (rabbit)

Symptoms of Exposure: See above.

FIRE PROTECTION INFORMATION

Ignition Temp °F: 850 F Flash Point °F. (Method): -40F (COC)

Flammable Limits (%) Lower 1.4% Upper 7.6%

Products Evolved When Subjected to Heat or Combustion:

Carbon monoxide and carbon dioxide may be formed on burning in limited air supply.

Recommended Fire Extinguishing Agents And Special Procedures:

According to the National Fire Protection Association Guide 325M, use dry chemical, foam or carbon dioxide. Water may be ineffective on the flames, but water should be used to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for the persons attempting to stop the leak.

Unusual or Explosive Hazards:

Flowing gasoline can be ignited by self-generated static electricity; use adequate grounding.

ENVIRONMENTAL PROTECTION

Code No. 00365

Waste Disposal Method:

Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures and processes may change classification to non-hazardous or hazardous for reasons other than, or in addition to ignitability. (See Remarks for Waste Classification.)

Procedures in Case of Breakage or Leakage (Transportation Spills Call CHEMTREC (800) 424-9300)

Eliminate all ignition sources including internal combustion engines and power tools. Ventilate area. Avoid breathing vapor. Use SCBA or supplied-air mask for large spills in confined areas. Contain spill if possible. Remove with inert absorbant.

Remarks:

Waste Classification: Product (as presently constituted) has the RCRA characteristic of ignitability and if discarded in its purchased form would have the hazardous waste number D001.

PRECAUTIONS

DANGER! EXTREMELY FLAMMABLE
HARMFUL OR FATAL IF SWALLOWED
MAY BE HARMFUL IF INHALED. MAY CAUSE IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
Long term exposure to vapors has caused cancer in laboratory animals. Keep away from heat, sparks and flame.
Avoid breathing vapor. Use only in well-ventilated locations.
Avoid contact with eyes and prolonged contact with skin.
Keep container closed. Wash thoroughly after handling.
FOR USE AS MOTOR FUEL ONLY

Requirements for Transportation, Handling and Storage

Transport, handle and store in accordance with OSHA Regulation 1910.106, and applicable D.O.T. regulations.

DOT Proper Shipping Name: Gasoline

DOT Hazard Class (if applicable): Flammable liquid, UN 1203

CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (°F) >90 Vapor Pressure >-350 (mmHg)

Specific Gravity .7-.77 (H_2O = 1) Vapor Density 3-4.0 (Air = 1)

Appearance and Odor Light straw to light red liquid

pH of undiluted product N.A. Solubility slight

Percent Volatile by Volume 100 Evaporation N.D. ( )= 1

Viscosity <1.4 cSt @ 100F Other -

Hazardous Polymerizations ____ Occur X Do not occur

The Material Reacts Violently With (If others is checked below, see additional comments on page 5 for fulher details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
		X	X		

ND = Not Determined NA = Not Applicable
< = Less Than > = Greater Than

MPOSITION

Code No. 00365

Chemical/Common Name	CAS No.	Exposure Limit	Range in
*Gasoline consists mainly of straight chain and branched paraffin-ic hydrocarbons,olefins-,cycloparaffins and aromatics. The ben- zene content normally varies from 0.2-3.5% with a typical value of 1.4%.	8006619	300ppm ACGIH 100ppm Texaco	95.00 - 9
*Benzene	71432	10ppm TWA ACGIH 10ppm TWA OSHA	1.00 -

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

PRODUCT SHIPPING LABEL

No. 00365

00365 TEXACO UNLEADED

DANGER! EXTREMELY FLAMMABLE
HARMFUL OR FATAL IF SWALLOWED
MAY BE HARMFUL IF INHALED; MAY CAUSE IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
Long term exposure to vapors has caused cancer in laboratory animals. Keep away from heat, sparks and flame.
Avoid breathing vapor. Use only in well-ventilated locations.
Avoid contact with eyes and prolonged contact with skin.
Keep container closed. Wash thoroughly after handling.
FOR USE AS MOTOR FUEL ONLY

If swallowed, do not induce vomiting. Call a physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Gasoline-soaked clothing should be removed and laundered befor reuse.

In case of fire use water spray, foam, dry chemical or CO2.

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
*Gasoline consists mainly of straight chain and branched paraffin-ic hydrocarbons, olefins-, cycloparaffins and aromatics. The benzene content normally varies from 0.2-3.5% with a typical value of 1.4%.	8006619	300ppm ACGIH 100ppm Texaco	95.00 - 99
*Benzene	71432	10ppm TWA ACGIH 10ppm TWA OSHA	1.00 - 3

*Hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

HMIS
Health : 2 Reactivity :
Flammability: 4 Special :

DOT Proper Shipping Name: Gasoline
DOT Hazardous Class : Flammable liquid, UN 1203

ON Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flamm or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

HEALTH EMERGENCY TELEPHONE (914) 831-3400 (EXT. 204)

Texaco Inc.
2000 Westchester Avenue
White Plains, New York 10650

For Additional Information Concerning:

Fuels/Lubricants/Antifreezes
call (914) 831-3400 (EXT.204)
Chemicals/Additives
call (409) 722-8381
Transportation Spills
call CHEMTREC (800) 424-9300

ADDITIONAL COMMENTS

Code No. 00385

STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1985)
1.4% benzene; conversion factor 6.7 pounds per gallon

Other effects of inhalation include central nervous system effects such as contracted pupils, loss of reflexes, convulsions, seizures, sudden loss of consciousness, coma and sudden death. Other indications of overexposure are headaches, flushing of the face, nausea, mental confusion and depression, loss of appetite, blurred speech and difficulty in swallowing.
This product is intended for motor fuel only.

By R. T. Richards Title Mgr. Env. Conservation & Toxicology

Date 11-27 85 ☐ New ☒ Revised, Supersedes 01-19-84

ND Not Determined NA Not Applicable
< Less Than > Greater Than

TRANSPORTATION EQUIPMENT DATA

– EMERGENCY DATA ON OTHER SIDE –

PRODUCT	CODE NO.	DATE ISSUED OR REVISED
DIETHANOLAMINE LFG	21106	R-05-01-79

SYNONYM:		TYPE COMMODITY	
		Ethanolamine/ water solution	
CHARACTERISTICS			
DOT SHIPPING NAME: --		DOT HAZARD CLASS: --	
FLASH POINT: 342°F (PMCC)	FLAMMABLE LIMITS: --	BOILING POINT: 514°F	VAPOR DENSITY (AIR = 1): >Air
FREEZING POINT: -37°F	LOADING TEMP.: 100°F	MAX. PRODUCT TEMP.: 140°F	MAX. STEAM PRESSURE: 0 psig
WT/GAL @ 77°F (25°C): 8.9	CONCENTRATION SHIPPED: 85% in water	SOLUBILITY IN WATER: Mixes completely	PHYSICAL STATE: Liquid

APPROVED EQUIPMENT:

	TANK TRUCK	TANK CAR
TANK TYPE:	MC 303, 304, 306, 307 NON-ALUMINIUM	DOT 103W, 111A60W-1, 111A100W-1 111A100W-6
TANK MATERIALS:	Stainless steel	Stainless steel, lined steel Carbon steel
INSULATION:	Not required	Not required
STEAMCOILS	Not required	Not required
METHOD USED TO CLEAN TANK:	Drain, flush with water, steam, rinse thoroughly with water and dry.	Drain, flush with water, steam, rinse with water and dry.
PUMP TYPES:	Stainless steel, carbon steel Centrifugal or positive displacement	
HOSE TYPES:	Stainless steel, Teflon, Viton, Neoprene	
GASKETS:	Teflon, Asbestos, Viton, Neoprene (leather - single use only)	
OTHER:	PREVENT CONTACT WITH BRASS, BRONZE & COPPER ALLOYS.	

HANDLING:

HOW UNLOADED:	Pump or N_2 (Pressure NOT approved for MC 303 & 306 tanks.)
PROBLEMS:	IRRITATING: PREVENT PERSONAL CONTACT. DO NOT BREATHE VAPORS.
PRECAUTIONS:	USE PROTECTIVE EQUIPMENT- MINIMUM OF CHEMICAL WORKERS GOGGLES HARD HAT, RUBBER GLOVES, RUBBER BOOTS. HAVE RESPIRATOR AVAILABLE.
OTHER:	

FOR CHEMICAL EMERGENCY - CALL 1-800-424-9300 IN THE U.S.A.
(1-202-483-7616 OUTSIDE THE CONTINENTAL U.S. AND IN WASHINGTON, D.C.)

EMERGENCY RESPONSE INFORMATION

DIETHANOLAMINE LFG

COMPOSITION: DIETHANOLAMINE 84-86% MINIMUM, WATER 14-16%

PHYSICAL PROPERTIES:
FORM: LIQUID
DENSITY: 1.08
SOLUBILITY IN WATER: MIXES COMPLETELY
FREEZING POINT: -37°F
BOILING POINT: 514°F
FLASH POINT: 342°F (PMCC)
FLAMMABLE LIMITS:
VAPOR HAZARD:
REACTS WITH: OXIDIZERS

HAZARDS

ENVIRONMENT:
ANIMAL: AVOID INGESTION AND EXPOSURE.
FISH: AVOID ENTRY INTO NATURAL WATERS. MAY CAUSE LOCALIZED FISH KILL

EXPOSURE:
EYES: MAY CAUSE SEVERE PAIN, IRRITATION AND INJURY.
SKIN: UP TO MODERATE IRRITATION, EVEN A BURN ON REPEATED CONTACT.
INHALATION: VAPORS IRRITATING.
INGESTION: LOW SINGLE DOSE ORAL TOXICITY.

IN CASE OF ACCIDENT

SPILL or LEAK

IRRITATING. KEEP UPWIND. ISOLATE AND ROPE OFF AREA.
PREVENT PERSONAL CONTACT. DO NOT BREATHE VAPORS.
NO SMOKING OR OPEN FLAMES. SHUT OFF IGNITION AND LEAK IF WITHOUT RISK
AVOID ENTRY INTO SEWERS OR NATURAL WATERS. USE NONCOMBUSTIBLE ABSORBE
OR SAND ON SMALL SPILLS AND SWEEP OR SCOOP INTO WASTE CONTAINERS.
DIKE LARGER SPILLS AND RECOVER.
CLOTHING: WEAR FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING EQUIPMENT.
DISPOSAL: CONTACT MANUFACTURER AND AUTHORITIES.

FIRE

IRRITATING. WILL BURN BUT DOES NOT IGNITE EASILY.
COOL CONTAINERS EXPOSED TO HEAT/FIRE WITH WATER.
MAY DECOMPOSE IN HEAT/FIRE RELEASING PRODUCTS OF GREATER HAZARDS.
SMALL FIRES: USE DRY CHEMICAL OR CARBON DIOXIDE.
LARGE FIRES: USE WATER SPRAY OR ALCOHOL FOAM.
DIKE RUN OFF. PREVENT ENTRY INTO SEWERS OR NATURAL WATERS.
CLOTHING: WEAR FULL TURNOUT CLOTHING AND SELF-CONTAINED BREATHING EQUIPMENT.

FIRST AID

EYES: IRRIGATE WITH FLOWING WATER IMMEDIATELY & CONTINUOUSLY FOR 15 MIN. REFER TO MEDICAL PERSONNEL.
SKIN: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVE CONTAMINATED CLOTHING. CALL A PHYSICIAN.
CLOTHING: REMOVE CONTAMINATED CLOTHING IMMEDIATELY, PREFERABLY UNDER SHOWER, & WASH BEFORE REUSE. DESTROY CONTAMINATED SHOES.
INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CALL A PHYSICIAN &/OR TAKE TO A MEDICAL FACILITY.

FORM C-10810 PRINTED 8-11-78

DOW CHEMICAL U.S.A.
AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

TRANSPORTATION EQUIPMENT DATA

– EMERGENCY DATA ON OTHER SIDE –

TRIETHYLENE GLYCOL TECH	CODE NO. 87792	DATE ISSUED OR REVISED 08-01-80

SYNONYM:			TYPE COMMODITY: Glycol	
CHARACTERISTICS	DOT SHIPPING NAME: --		DOT HAZARD CLASS: --	
	FLASH POINT: 320°F (COC)	FLAMMABLE LIMITS: 0.9 - 9.2%	BOILING POINT: 545.9°F	VAPOR DENSITY (AIR = 1): >Air
	FREEZING POINT: 21.2°F	LOADING TEMP.: Ambient	MAX. PRODUCT TEMP.: (1)	MAX. STEAM PRESSURE: (1)
	WT/GAL @ 77°F (25°C): 9.33	CONCENTRATION SHIPPED: Full strength	SOLUBILITY IN WATER: Mixes completely	PHYSICAL STATE: Liquid

APPROVED EQUIPMENT:

	TANK TRUCK	TANK CAR
TANK TYPE	MC 303, 304, 306, 307	DOT-103ALW, 111A60ALW, 103W, 111A60W-1, 111A100W-1
TANK MATERIALS:	Stainless steel, aluminum, lined steel	Aluminum, lined carbon steel
INSULATION:	Required in severe cold weather (Temp. 32°F or lower)	Required in severe cold weather
STEAMCOILS:	Not required	Required in severe cold weather
METHOD USED TO CLEAN TANK	Drain, flush with water, steam, wash with water and dry.	Drain, Butterworth aluminum tank with hot water, steam carbon steel tank, wash with water, dry.
PUMP TYPES:	Stainless steel, carbon steel, air pressure Centrifugal or positive displacement	
HOSE TYPES:	Seamless stainless steel, Teflon, Viton, Neoprene, Hypalon, CHEM-SOLV, Kem-King, Chemi-Flo	
GASKETS:	Teflon, Asbestos, Viton, Neoprene (leather - single use only)	
OTHER	(1) OBTAIN INSTRUCTIONS IF NECESSARY TO HEAT. WHEN COLD (-20°F OR LESS) BECOMES VISCOUS AND DIFFICULT TO PUMP.	

HANDLING:

HOW UNLOADED:	Pump or air pressure. (Pressure NOT approved for Mc 303 and 306 tanks)
PROBLEMS:	AVOID PERSONAL CONTACT. AVOID BREATHING VAPORS IF ANY.
PRECAUTIONS	USE PROTECTIVE EQUIPMENT - MINIMUM OF CHEMICAL WORKERS GOGGLES, HARD HAT, RUBBER GLOVES.
OTHER:	

ORM C-16709 PRINTED 8-6-79

FOR CHEMICAL EMERGENCY - CALL 1-800-424-9300 IN THE U.S.A.
(1-202-483-7616 OUTSIDE THE CONTINENTAL U.S. AND IN WASHINGTON, D.C.)

EMERGENCY RESPONSE INFORMATION

TRIETHYLENE GLYCOL TECH

COMPOSITION: TRIETHYLENE GLYCOL 99%

PHYSICAL PROPERTIES:

FORM: LIQUID, COLORLESS
DENSITY: 1.122
SOLUBILITY IN WATER: MIXES COMPLETELY
FREEZING POINT: 21.2°F
BOILING POINT: 545.9°F
FLASH POINT: 320°F (COC)
FLAMMABLE LIMITS: 0.9% - 9.2%
WILL IGNITE IN AIR AT 700°F
REACTS WITH: OXIDIZING MATERIALS

HAZARDS

ENVIRONMENT:

ANIMAL: NOT LIKELY A PROBLEM.

FISH: AVOID ENTRY INTO NATURAL WATERS. MAY CAUSE LOCALIZED FISH KILL.

EXPOSURE:

EYES: UP TO SLIGHT IRRITATION.
SKIN: UP TO SLIGHT IRRITATION.
INHALATION: LOW IN TOXICITY.
INGESTION: VERY LOW IN TOXICITY FROM SINGLE DOSE.

IN CASE OF ACCIDENT

SPILL or LEAK

AVOID EYE AND SKIN CONTACT. AVOID BREATHING VAPORS IF ANY.
NO SMOKING, FLARES OR OPEN FLAMES. SHUT OFF IGNITION AND LEAK IF WITHOUT RISK. AVOID ENTRY INTO SEWERS OR NATURAL WATERS. USE ABSORBENT OR SAND ON SMALL SPILLS AND SHOVEL INTO STEEL DRUMS. DIKE LARGER SPILLS AND RECOVER.
CLOTHING: WEAR FULL PROTECTIVE CLOTHING AND, IF VAPORS PRESENT, SELF-CONTAINED BREATHING APPARATUS.
DISPOSAL: CONTACT MANUFACTURER AND AUTHORITIES.

FIRE

WILL BURN IF EXPOSED TO FIRE.
COOL CONTAINERS WITH WATER IF EXPOSED TO FIRE TO PREVENT BURSTING.
SMALL FIRES: USE DRY CHEMICALS OR CARBON DIOXIDE.
LARGE FIRES: USE WATER FOR OR SPRAY OR ALCOHOL FOAM. DIKE RUNOFF. PREVENT ENTRY INTO SEWERS OR NATURAL WATERS.
CLOTHING: WEAR FULL TURN OUT CLOTHING AND SELF-CONTAINED BREATHING.

FIRST AID

EYES: IRRIGATION IMMEDIATELY WITH WATER FOR 5 MIN IS GOOD SAFETY PRACTICE.
SKIN: WASH OFF IN FLOWING WATER OR SHOWER.
CLOTHING: REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.
INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CALL A PHYSICIAN AND/OR TAKE TO A MEDICAL FACILITY.

08-01-80

FORM [illegible] PRINTED 8-81-79

DOW CHEMICAL U.S.A.
AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

TRIANGLE REFINERIES, INC.
SPECIALTY PRODUCTS DIVISION
3020 KNIGHT STREET • SUITE 130 • SHREVEPORT, LOUISIANA 71105
TELEPHONE (800) 548-3417 (318) 861-0954
A SUBSIDIARY OF KERR-McGEE REFINING CORPORATION

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: W-1410

EMERGENCY TELEPHONE	COMPANY	CHEMTREC
	405/270-2526	800/424-9300

I. PRODUCT IDENTIFICATION

PRODUCT	CHEMICAL NAME	
KERMAC 100-W	Stoddard Solvent, White Spirits	
CHEMICAL FAMILY	**FORMULA**	**CAS NUMBER**
Petroleum Hydrocarbon Naphtha	C_8-C_{12}	64741-48-9

NATIONAL FIRE PROTECTION ASSOCIATION HAZARD RATING CODES Least - 0 Slight - 1 Moderate - 2 High - 3 Extreme - 4	HEALTH CODE	FIRE CODE	REACTIVITY CODE
	0	2	0

II. HAZARDOUS COMPONENTS

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

III. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT	VAPOR PRESSURE	EVAPORATION (ETHYL ETHER = 1)
300-410°F	Approx. 5.3 mm Hg @ 100°F	Estimated 4
PERCENT VOLATILE BY VOLUME (%)	**MOLECULAR WEIGHT**	**APPEARANCE**
100	Approximately 140	Clear Liquid
ODOR AND THRESHOLD	**MELTING POINT**	**VAPOR DENSITY (AIR = 1)**
Petroleum Naphtha/Approx 1 ppm	Not Available	4.8
SPECIFIC GRAVITY (H_2O = 1)	**VISCOSITY**	**SOLUBILITY (G/100G WATER AT 20°C)**
0.78	<32 SUS @ 100°F	Negligible

VI. FIRST AID PROCEDURES

INHALATION

Move exposed person to fresh air. If breathing has stopped, perform artificial resp
'et medical attention as soon as possible.

EYE CONTACT

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

SKIN CONTACT

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

INGESTION

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

VII. EMPLOYEE PROTECTION

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

Up to 500 ppm, half-mask organic vapor respirator.
Up to 1000 ppm, full-face organi vapor respirator or full-face supplied air respirat
Greater than 1000 ppm, fire fighting, or unknown concentration, self-contained breath
apparatus with positive pressure

PROTECTIVE CLOTHING

EYE Chemical goggles, face shield.

SKIN Gloves: Nitrile, neoprene or other material resistant to naphtha solven

VENTILATION

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

IV. FIRE PROTECTION INFORMATION

FLASH POINT AND METHOD	AUTOIGNITION TEMPERATURE	FLAMMABLE LIMITS % VOLUME IN AIR	LOWER	UPPE
Tag Closed Cup 100°F minimum	Approx. 440°F		1	

EXTINGUISHING MEDIA

Carbon dioxide, dry chemical, or foam. Water stream may spread fire, use water spray onl cool containers exposed to fire. If leak or spill has not ignited, use water spray to disperse vapors.

HAZARDOUS DECOMPOSITION PRODUCTS

Incomplete combustion can yield carbon monoxide and various hydrocarbons.

FIRE AND EXPLOSION HAZARDS

Can form flammable mixtures with air and flash when heated to approximately 100°F. Explos hazard in fire situation. Vapor heavier than air and may travel considerable distance to source of ignition and flash back.

HAZARDOUS POLYMERIZATION		STABILITY	
☒ Will Not Occur	☐ May Occur	☒ Stable	☐ Unstable

V. HEALTH INFORMATION

INHALATION

Possible effects include headache, nasal and respiratory irritation, nausea, drowsiness, tigue, peumonitis, pulmonary edema, central nervous system depression.

EYE CONTACT

Irritation

SKIN CONTACT

Irritation, may cause dermatitis due to defatting of keratin layer.

INGESTION

Possible effects include headache, drowsiness, nausea, fatigue, peumonitis, pulmonary edema, central nervous system depression. Aspiration hazard.

REPORTED AS POTENTIAL CARCINOGEN OR CARCINOGEN			
☒ Not Applicable		☐ National Toxicology Program	
☐ International Agency for Research on Cancer		☐ OSHA	

VIII. TRANSPORTATION AND STORAGE INFORMATION

DOT Hazardous Material ☒ Yes ☐ No

DOT SHIPPING NAME AND NUMBER	DOT HAZARD CLASS
Petroleum naphtha UN1255	Combustible liquid

STORAGE

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

IX. ENVIRONMENTAL PROTECTION

SPILLS

Notify emergency response personnel. Evacuate area and remove ignition sources. Build dike to contain flow. Remove free liquid, do not flush to sewer or open water. Pick up with inert absorbent and place in closed container for disposal. If flash point of residue is under 140°F, utilize hazardous waste manifest and permitted hazardous waste disposal site. If flash is above 140°F, utilize permitted industrial waste disposal site.

WASTE DISPOSAL

EPA Hazardous Waste ☒ Yes ☐ No

EPA WASTE CODE NUMBER	WASTE CHARACTERISTIC OR HAZARD CODE
D 001	Ignitable

Utilize licensed waste disposal company. Consider recycling or incineration. Based on flash point, utilize permitted hazardous waste disposal site and manifest or permitted industrial waste disposal site as appropriate.

MANAGER'S SIGNATURE (PRODUCT SAFETY AND COMPLIANCE)	DATE PREPARED
Prepared by Kerr-McGee Refining Corporation for Triangle Refineries, Inc. C. L. Russell	5-15-85

Material Safety Data Sheet

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
(Formerly Called MATERIAL INFORMATION BULLETIN)

CHEVRON Gas Engine Oil HDAX SAE 40 **CPS 2**

TYPICAL COMPOSITION

Highly refined base oils (CAS 64742-54-7, 64742-65-0, 64742-36-5, 64742-62-7, 64742-41-2, 64742-57-0, 64742-01-4)
Detergent, inhibitor, antiwear agent and zinc dialkyldithiophosphate (CAS 68649-42-3)

EXPOSURE STANDARD

No Federal OSHA exposure standard or ACGIH TLV has been established for material. Based on information reviewed to date, we recommend an exposure sta of 5 mg/m^3. This is the Federal OSHA exposure standard and the ACGIH (198 TLV for mineral oil mists.

PHYSIOLOGICAL & HEALTH EFFECTS	EMERGENCY & FIRST AID PROCEDURES
Eyes	
Expected to cause no more than minor eye irritation.	Flush eyes immediately with fresh for at least 15 minutes while holding eyelids open. If irritation persists, a doctor.
Skin	
Expected to cause no more than minor skin irritation following prolonged or frequently repeated contact. SEE ADDITIONAL HEALTH DATA.	Wash skin thoroughly with soap and wa Launder contaminated clothing.
Inhalation	
Not expected to be acutely toxic by inhalation. Breathing mineral oil mist at concentrations in air that exceed the recommended exposure standard can cause respiratory irritation or discomfort. See Additional Health Data.	If respiratory discomfort or irrita occurs, move the person to fresh air. a doctor if discomfort or irrita continues.
Ingestion	
Not expected to be acutely toxic by ingestion.	If swallowed, give water or milk to d and telephone for medical advice. Con medical personnel before indu vomiting. If medical advice cannot obtained, then take the person and pro container to the nearest medical emerg treatment center or hospital.

ADDITIONAL HEALTH DATA

se Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: No special eye protection is necessary.
Skin Protection: No special skin protection is necessary.
Respiratory Protection: No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standard, the use of an approved respirator is recommended.
Ventilation: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

FIRE PROTECTION

Flash Point: (COC)464°F(240°C) Min.
Autoignition Temp.: NDA
Flammability Limits: n/a
Extinguishing Media: CO_2, Dry Chemical, Foam, Water Fog.
Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. See Hazardous Decomposition Products. Read the entire MSDS.

SPECIAL PRECAUTIONS

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or explosion may result.

ENVIRONMENTAL PROTECTION

X-18

Environmental Impact: This material is not expected to present any environmental problems other than those associated with oil spills.
Precautions if Material is Released or Spilled: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable.
Incompatibility (Materials to Avoid): May react with strong oxidizing materials.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen and phosphorus; incomplete combustion can produce carbon monoxide.
Hazardous Polymerization: Will not occur.

PHYSICAL PROPERTIES

Solubility: Insoluble in water. Miscible with hydrocarbon solvents.
Appearance (Color, Odor, etc.): Amber liquid
Boiling Point: n/a
Melting Point: n/a
Specific Gravity: 0.89 @ 15.6/15.6°C
Vapor Pressure: n/a
Vapor Density (Air=1): n/a
Percent Volatile (Volume %): n/a

n/a = Not Applicable
NDA = No Data Available

No.

Gulf Oil Corporation

MATERIAL SAFETY DATA SHEET

MEDICAL & HEALTH RESOURCES DIVISION, TOXICOLOGY DEPARTMENT
P. O BOX 3240, PITTSBURGH, PA 15230

LPG, Demethanized, Gulf

CODE NUMBER 10WAR0002MAR8301	SECTION I	PREPARED BY	R. K. Ric
MANUFACTURER'S NAME: Warren Petroleum Company	EMERGENCY TELEPHONE NO.: (713) 651-0693	NEW / REVISED	3/83 (#2,
ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE): P. O. Box 1589, Tulsa, OK 74102		REPLACES	10WARPP2F
		EXPIRES	3/86

CHEMICAL NAME & SYNONYMS: NA	TRADE NAMES & SYNONYMS: Gulf Demethanized Raw Product
CHEMICAL FAMILY: Liquid Petroleum Gas	FORMULA: Mixture
CAS NUMBER: 68476-85-7	UN Number: 1075

SECTION II – HAZARDOUS INGREDIENTS

MATERIALS	%	TLV (Units)	MATERIALS	%	
L.P.G.	100	1000 ppm 1800mg/m^3			

DOT HAZARD CLASS: Flammable Gas

SECTION III – PHYSICAL DATA

Distillation Range °C °F	~ 45 to 181°C (~113 to 375°F)	SPECIFIC GRAVITY (H_2O=1) 15.6 / 15.6 C	Variable
VAPOR PRESSURE (mm Hg.)	290psig at -20°F (loading temperature)	PERCENT, VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (Air = 1)	Variable	EVAPORATION RATE	NA
SOLUBILITY IN WATER	Negligible		
APPEARANCE AND ODOR	Colorless gas which may, or may not, be odorized.		

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT NA | FLAMMABLE LIMITS | LEL 1.9 | UEL

EXTINGUISHING MEDIA

☐ ALCOHOL FOAM ☒ CARBON DIOXIDE ☒ DRY CHEMICAL ☐ FOAM ☐ WATER ☐ OTHER

SPECIAL FIRE FIGHTING PROCEDURES

Stop flow of gas or liquid. Let fire burn out. Wear a self-contained breathin apparatus when firefighting in confined or enclosed spaces. Use water to cool fire-exposed containers, structures and to protect personnel. Use water to disperse flammable vapors.

FIRE AND EXPLOSION HAZARDS – Dangerous when exposed to heat or flame. Vapors may form explosive mixture with air. Material may be ignited by flame or spark under al normal atmospheric conditions. In highly concentrated atmospheres, gas may ads to clothing creating a potential fire hazard. Can react when exposed to higher than normal temperatures.

SECTION V – HEALTH HAZARD DATA

RECOMMENDED OCCUPATIONAL EXPOSURE LIMIT: See Section II.

EFFECTS OF OVEREXPOSURE

At concentrations above the recommended TLV, muscle relaxation, fatigue, lethargy, insensibility and unconsciousness may result in addition to irritation of the eyes and mucous membranes. At even higher concentrations, this product may act as a simple asphyxiant gas. Symptoms of the consequent oxygen deficiency include nausea, vomiting, fainting, unconsciousness and possible death. Liquefied gas may cause frostbite.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Immediately remove from exposure. If the victim is unconscious, administer artificial respiration and/or oxygen, as indicated. Seek medical aid. Contact with liquid - EYES: Flush immediately with large amounts of lukewarm water. Seek medical aid. SKIN: Keep affected area warm. If possible, submerge affected area in lukewarm water. Stimulate circulation in affected area by massage. Seek medical aid.

SECTION VI – REACTIVITY DATA

STABILITY:	UNSTABLE		STABLE	X	CONDITIONS TO AVOID: Heat, flame, sparks, etc.

INCOMPATABILITY (Materials to avoid): May react with oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide may be emitted under conditions of incomplete combustion.

HAZARDOUS POLYMERIZATION:	MAY OCCUR		WILL NOT OCCUR	X	CONDITIONS TO AVOID: NA

SECTION VII – SPILL OR LEAK PROCEDURES

- [x] EVACUATE AREA
- [x] STOP FLOW
- [x] ELIMINATE ALL SOURCES OF IGNITION, FLAMMABLES
- [x] AVOID INHALATION (Excessive)
- [x] AVOID DERMAL CONTACT (with liquid)
- [x] RESPIRATORY PROTECTION (AS PER SECTION VIII)
- [x] SKIN PROTECTION (AS PER SECTION VIII)
- [ ] ABSORB OR SCRAPE UP
- [ ] VACUUM UP
- [ ] OTHER
- [x] Turn leaking cylinder with leak upside down to prevent liquid contents from escaping.
- [x] If leak is irreparable, move cylinder to an open, safe area and allow gas to dissipate into the atmosphere.
- [ ] NEUTRALIZE AND WASH AWAY WITH WATER
- [x] OBSERVE GOVERNMENTAL SPILL & WATER QUALITY REGULATIONS
- [x] REMOVE SOILED CLOTHING
- [x] KEEP UPWIND AND ISOLATE EXPOSURE AREA

SECTION VIII – SPECIAL PROTECTION INFORMATION

	DURING NORMAL USE EXPOSURE LESS THAN TLV	FOR GASES, VAPORS, DUSTS, FUMES, MISTS EXCEEDING TLV	SPECIAL (E.G. THERMAL PROCESSING, SPRAY APPLICATIONS)
GENERAL VENTILATION	Maintain adequate ventilation	Yes	NA
LOCAL EXHAUST	Maintain adequate ventilation	Yes	
NIOSH - CERTIFIED RESPIRATORY PROTECTION (1-3)	NA	3	

1. Particle Removing Air Purifying Air Respirator (Mechanical Filter) *2. Gas and Vapor Removing Air Purifying Respirator (Canister)* *3. Full Face Mask Positive Pressure-Demand Type Supplied Air*

EYE PROTECTION	SAFETY GLASSES	X	CHEMICAL GOGGLES	*	FACE SHIELD		*(E) EXCELLENT*
PROTECTIVE GLOVES *	NEOPRENE	NR	POLYVINYL ALCOHOL	NR	POLYETHYLENE	NR	*(G) GOOD* *(F) FAIR* *(P) POOR*
	NATURAL RUBBER	NR	BUTYL RUBBER	NR	POLYVINYL CHLORIDE	NR	*(NR) NOT RECOMMENDED*

OTHER PROTECTIVE EQUIPMENT: *When working with LPG wear thermal protective clothing, heavy duty insulated gloves, and chemical goggles.

SECTION IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Follow methods advocated for the safe handling and storage of flammable or combustible hydrocarbons. Protect against physical damage. Store in a cool, well-ventilated area, away from possible sources of ignition. Protect against static electricity and lightning.

OTHER PRECAUTIONS

Gas may adsorb to clothing after exposure to high concentrations, creating a fire hazard. No open flames, sparks or smoking permitted in areas where this product is being used. Flammable vapors may spread from area of leak or spill.

FOR TRANSPORTATION SPILLS OR LEAK EMERGENCIES, CALL CHEMTREC - 800 424 9300 (CHEMICAL TRANSPORTATION EMERGENCY CENTER).

MATERIAL SAFETY DATA SHEET

"Essentially Similar" to Form OSHA-20

UNICHEM INTERNATIONAL

Date Prepared March 24, 1987

Supersedes Previous Sheet Dated New

I PRODUCT IDENTIFICATION

UNICHEM INTERNATIONAL 707 N. Leech / P. O. Box 1499 / Hobbs, New Mexico 88240	EMERGENCY TELEPHONE N((505) 393-7751

PRODUCT NAME TECHNI-HIB 630W TRADE NAME: Corrosion Inhibitor

CHEMICAL DESCRIPTION:

Aqueous solution of formaldehyde and quaternary compounds

II HAZARDOUS INGREDIENTS

MATERIAL		TLV (UNITS)
Contains Ethylene Glycol		50 ppm PEL Not established
Contains Formaldehyde		8 hr. TWA 3 ppm

III PHYSICAL DATA

BOILING POINT, 760 mm Hg	N/D	FREEZING POINT:	-35°F
SPECIFIC GRAVITY (H_2O=1)	1.07	VAPOR PRESSURE @	N/D
VAPOR DENSITY (AIR=1)	N/D	SOLUBILITY IN WATER	Soluble
PERCENT VOLATILES BY WEIGHT	N/D	EVAPORATION RATE	N/D

APPEARANCE AND ODOR Clear liquid, pungent odor

IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD) 145°F (TCC)

FLAMMABLE LIMITS IN AIR, % BY VOLUME for Methanol	LOWER	6.0	UPPER	36.5

EXTINGUISHING MEDIA CO_2, dry chemical, alcohol foam, and water mist or fog. Use a blanketing effect to smother fire.

SPECIAL FIRE FIGHTING PROCEDURES Fire fighters should wear self-contained breathing apparatus and ful protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS Moderate to low explosion hazard and dangerous fire hazard when exposed to heat, sparks, or flames and can react vigouously with oxidizing agents.

UNICHEM
INTERNATIONAL

Home Office 707 N. Leech, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, TWX 910/986-0010

AUGUST 1987

The **Environmental Protection Agency** (EPA) has completed a **health risk assessment for formaldehyde,** and concluded that "formaldehyde is a probable human carcinogen." The findings were based on "sufficient" evidence that formaldehyde causes cancer in laboratory animals, and "limited" evidence from human studies.

The study seems in direct contradiction to a National Cancer Institute study released last February that failed to show a connection between formaldehyde and cancer.

The two main areas of exposure that triggered the EPA study involved mobile homes constructed with products containing urea-formaldehyde resins, and the manufacture of apparel from fabrics treated with formaldehyde resins.

EPA has now classified the substance as a B1 probable carcinogen under carcinogen risk assessment guidelines. The studies reported "statistically significant" associations between site-specific respiratory neoplasms and exposure to formaldehyde. Supportive evidence was gained by checking the effects of the carcinogenicity on the DNA of the rats. Cross-linkage, sister chromatid exchange and chromosome abberations were found.

EPA notes, however, that human cancer risk was assessed by the use of a linear model, and actual risk may be lower than the linear model suggests.

MATERIAL SAFETY DATA SHEET

Sun Refining and Marketing Company

THIS PRODUCT SAFETY INFORMATION IS PROVIDED PERIODICALLY TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH/SAFETY/ENVIRONMENTAL REGULATIONS. PLEASE FORWARD THIS TO YOUR MANAGER OF SAFETY AND HEALTH. THIS IS THE FIRST FORM PRINTED FOR YOU FOR THIS PRODUCT

SUN CODE R000044351

PRINTED: 87/09/19

SECTION 1 IDENTIFICATION

NAME CRUDE OIL

SYNONYMS CRUDE; PETROLEUM CRUDE; PETROLEUM

REV. DATE 12/09/85

CAS REGISTRY NO 8002-05-9

CAS NAME CRUDE OIL

NAVAJO REFINING CO.
2600 DIAM. SHAMROCK TWR.
DALLAS, TEXAS 75201

CHEMICAL FAMILY PETROLEUM

SUN REFINING
AND MARKETING COMPANY
TEN PENN CENTER 1801 MARKET STREET
PHILADELPHIA PA 19103

INFORMATION SUPPLIED BY AND PHONE JONATHAN M. HAAS (215) 293-6321

SECTION 2 INGREDIENTS

MATERIAL(S)

A NATURAL PRODUCT PRIMARILY CONSISTING OF COMPLEX COMBINATION OF ALIPHATIC HYDROCARBONS. MAY ALSO CONTAIN UNSATURATED HYDROCARBONS, AROMATIC HYDROCARBONS AND THEIR DERIVATIVES, NITROGEN COMPOUNDS, SULFUR COMPOUNDS, ACID GASES, WATER, SALTS, TRACE AMOUNTS OF SOLUBLE METALS, AND SMALL AMOUNTS OF HYDROGEN SULFIDE AND BENZENE.

SECTION 3 PHYSICAL DATA

BOILING POINT: 760 mm Hg WIDE RANGE °F. WIDE RANGE °C

MELTING POINT: N/A °F. N/A °C

SPECIFIC GRAVITY: (H_2O=1) < 1

PACKING DENSITY: (WHEN APPLICABLE) Kg/m³ N/A

VAPOR PRESSURE: (mm Hg AT 20°C) ≥15 TO 570

VAPOR DENSITY: (AIR = 1) > 1

SOLUBILITY IN H_2O: (% BY VOL.) < 1

% VOLATILES BY VOL.: < 25

EVAPORATION RATE: (ETHYL ETHER = 1) SLOWER

pH INFORMATION: pH N/A @ N/A g/l H_2

OCTANOL/WATER PARTITION COEFFICIENT: N.D.

APPEARANCE AND ODOR: YELLOW TO DK. GREEN DISTINCTIVE, ACRID.

ODOR THRESHOLD (ppm) N.D.

SECTION 4 FIRE AND EXPLOSION DATA (CONT. ON PAGE 2)

FLASH POINT: 20 TO 90 °F. MINUS 6 TO 32 °C.

AUTOIGNITION TEMPERATURE: NOT DETERMINED °F. NOT DETERMINED °C.

NFPA CLASSIFICATION

HEALTH 2 FIRE 3 REACTIVITY 0

SPECIFIC HAZARD

HAZARD RATING

LEAST 0 SLIGHT 1 MODERATE 2 HIGH 3 EXTREME 4

FLAMMABLE LIMITS IN AIR

LOWER EXPLOSIVE LEVEL (LEL) ESTIMATED AT 1.0 % V

UPPER EXPLOSIVE LEVEL (UEL) ESTIMATED AT 7.0 % V

FIRE AND EXPLOSION HAZARDS

FLAMMABLE LIQUID (FLASH POINT LESS THAN 100F)

SUN CODE R000044351

Material Safety Data Sheet

Prepared According to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
(Formerly Called MATERIAL INFORMATION BULLETIN)

CHEVRON DELO 100 Motor Oil SAE 30 **CPS 222**

TYPICAL COMPOSITION

Highly refined base oils (CAS 64742-65-0, 64742-52-5, 64741-96-4, 64742-54-7, 64742-01-4, 64742-36-5, 64742-62-7, 64742-41-2)	>9
Additives including inhibitors, dispersants, calcium phenate and zinc dialkyldithiophosphate (CAS 68649-42-3)	<1

EXPOSURE STANDARD

No Federal OSHA exposure standard or ACGIH TLV has been established for th material. Based on information reviewed to date, we recommend an exposure standa of 5 mg/m^3. This is the Federal OSHA exposure standard and the ACGIH (1984-8 TLV for mineral oil mists.

PHYSIOLOGICAL & HEALTH EFFECTS	EMERGENCY & FIRST AID PROCEDURES
Eyes	
Expected to cause no more than minor eye irritation.	Flush eyes immediately with fresh wat for at least 15 minutes while holding t eyelids open. If irritation persists, s a doctor.
Skin	
Expected to cause no more than minor skin irritation following prolonged or frequently repeated contact. See Additional Health Data.	Wash skin thoroughly with soap and wate Launder contaminated clothing.
Inhalation	
Not expected to be acutely toxic by inhalation. Breathing mineral oil mist at concentrations in air that exceed the recommended exposure standard can cause respiratory irritation or discomfort. See Additional Health Data.	If respiratory discomfort or irritati occurs, move the person to fresh air. S a doctor if discomfort or irritati continues.
Ingestion	
Not expected to be acutely toxic by ingestion.	If swallowed, give water or milk to dri and telephone for medical advice. Consul medical personnel before inducir vomiting. If medical advice cannot b obtained, then take the person and produc container to the nearest medical emergenc treatment center or hospital.

ADDITIONAL HEALTH DATA

See Page 3.

SPECIAL PROTECTIVE INFORMATION

Eye Protection: No special eye protection is necessary.
Skin Protection: No special skin protection is necessary.
Respiratory Protection: No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standard, the use of an approved respirator is recommended.
Ventilation: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

FIRE PROTECTION

Flash Point: (COC)428°F(220°C) Min.
Autoignition Temp.: NDA
Flammability Limits: n/a
Extinguishing Media: CO_2, Dry Chemical, Foam, Water Fog..
Special Fire Fighting Procedures: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. See Hazardous Decomposition Products. Read the entire MSDS.

SPECIAL PRECAUTIONS

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or explosion may result.

ENVIRONMENTAL PROTECTION

Environmental Impact: This material is not expected to present any environmental problems other than those associated with oil spills.
Precautions if Material is Released or Spilled: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

REACTIVITY DATA

Stability (Thermal, Light, etc.): Stable.
Incompatibility (Materials to Avoid): May react with strong oxidizing materials.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor and may produce oxides of sulfur, nitrogen and phosphorus; incomplete combustion can produce carbon monoxide.
Hazardous Polymerization: Will not occur.

PHYSICAL PROPERTIES

Solubility: Insoluble in water. Miscible with hydrocarbon solvents.
Appearance (Color, Odor, etc.): Dark amber liquid.
Boiling Point: n/a
Melting Point: n/a
Specific Gravity: 0.89 @ 15.6/15.6°C
Vapor Pressure: n/a
Vapor Density (Air=1): n/a
Percent Volatile (Volume %): n/a
Evaporation: n/a
Pour Point: -18°C (0.4°F) Max.
Viscosity: 12 cSt @ 100°C

n/a = Not Applicable
NDA = No Data Available

Material Safety Data Sheet

CHEVRON DELO 100 Motor Oil SAE 30 CPS 222403

ADDITIONAL HEALTH DATA

Signs and symptoms of respiratory tract irritation may include, but may not be limited to, one or more of the following, depending on concentration and length of exposure: nasal discharge, nosebleed, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing.

This product contains zinc dialkyldithiophosphate (ZDDP). ZDDPs have been tested by repeated application to the skin of young rabbits for three weeks. These rabbits developed severe skin damage, weight loss, and adverse testicular effects. Follow-up studies indicated similar testicular effects can be produced by placing rabbits on a restricted diet and causing them to lose weight or by treating rabbits with simple caustic chemicals and causing them to develop both severe skin irritation and weight loss. Rats similarly treated with ZDDP did not develop testicular effects even when skin damage and weight loss occurred. These results indicate that the testicular effects seen in rabbits were not caused by the toxicity of ZDDPs but were due to the species reaction to stress from severe skin irritation and weight loss. There is no evidence that human exposure to ZDDPs in the workplace will cause testicular effects since occupational exposure does not cause stress from severe skin irritation and weight loss similar to that observed in rabbits. In summary, we now believe there is no risk of male reproductive impairment from working with ZDDPs.

Several ZDDPs have also been found to have weak mutagenic activity in cultured mammalian cells. The low level of activity occurred only at ZDDP concentrations which were highly toxic to the test cells. Since mutagenic activity was observed with zinc chloride but not with calcium dialkyldithiophosphate, the weak mutagenic activity of ZDDP may be due to the zinc in the chemical. Zinc is abundant in the environment, is an essential element in our diets, and it is generally accepted that zinc is not a health hazard. Therefore, we do not believe the test results discussed above indicate a genetic hazard to employees working with ZDDPs. Appropriate personal hygiene procedures as outlined in the MSDS, should, of course, be followed since ZDDPs in concentrated form are irritating to the skin.

This product also contains calcium phenate. When a similar calcium phenate was applied to the skin of rabbits five days/week for four weeks, the animals developed adverse testicular effects. Studies with other chemicals have since shown that rabbits may develop similar testicular effects due to stress rather than to chemical toxicity. We further investigated the effects of calcium phenates in rats, a species now recognized as more appropriate than rabbits for investigating toxicity by repeated skin exposures. Calcium phenate applied five days/week for four weeks to the skin of rats did not produce adverse testicular effects. Based on these data, we believe that there is no risk of male reproductive impairment from exposure to calcium phenate in the workplace.

This product contains base oils which the International Agency for Research on Cancer (IARC) classifies as having no evidence of carcinogenic potential.

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly

removed by washing with soap and water. See Chevron Material Safety Data Sheet No. 1
for additional information on used motor oil.

PETROLITE

MATERIAL SAFETY DATA SHEET

PETROLITE CORPORATION
369 MARSHALL AVE.
ST.LOUIS MO 63119 U.S.A

REVISION DATE: 05/29/90
EMERGENCY PHONE: 1-314-961-3500
CHEMTREC EMER NO: 1-800-424-9300

SECTION 1 PRODUCT IDENTIFICATION

PRODUCT: OW 5827 TRADE NAME: FLUDEX LABEL: 12 97

(IF HAZARDOUS PER D.O.T. CFR TITLE 49)
SHIPPING NAME: Combustible Liquid, N.O.S. (In Bulk D.O.T.)

HAZARD CLASS: Combustible Liquid ID#: NA1993

CHEMICAL DESCRIPTION
FATTY QUATERNARY AMMONIUM CHLORIDE IN METHANOL AND WATER.

SECTION 2 HAZARDOUS INGREDIENTS

CAS NUMBER	MATERIAL	%	EXPOSURE LIMITS
**	Fatty quaternary ammonium chloride	10-30	Not Established
00067-56-1	Methanol	10-30	ACGIH TLV: 200ppm TWA OSHA PEL: 200ppm TWA ACGIH STEL: 250 ppm

**Specific chemical identity is being withheld for confidential business purposes.

SECTION 3 PHYSICAL DATA

SPECIFIC GRAVITY(H20 = 1.0@60 F): 0.966 VOLATILITY: Moderate
VAPOR PRESSURE: Not Established SOL. IN WATER: Soluble

APPEARANCE AND ODOR: Amber liquid. Amine/alcohol odor.

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 110 F FLAMMABLE LIMITS: Not Established

FLASH METHOD:
SFCC ASTM D-3828

EXTINGUISHING MEDIA:
Use water spray or fog, alcohol-type foam, dry chemical or CO2.

CONTINUED ON PAGE: 2

***CONTINUATION OF OW 5827 ***

FIRE FIGHTING PROCEDURES:
Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Combustible. Keep fire exposed containers cool using water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
At elevated temperatures, vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back.

****

SECTION 5 HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

INHALATION:
Prolonged exposure may cause mild irritation of mucous membranes, headache and tiredness. At elevated concentrations, symptoms may include nausea, shortness of breath and a sense of drunkeness. In extreme cases, visual disturbances and occular damage may occur.
Inhalation of mists or exposure to very high vapor concentrations may cause extreme eye, nose and respiratory irritation, and may result in lung damage. Prolonged over-exposure may result in chemical pneumonitis and systemic effects.

SKIN AND EYE CONTACT:
Contact with skin will cause moderate to severe irritation or burns. Repeated or prolonged contact may result in absorption of toxic quantities. Contact with eyes will result in severe eye irritation or burns and, if not immediately removed, may lead to permanent eye damage. Systemic effects resulting from repeated or prolonged skin absorption may include kidney and liver injury as well as other organ damage.

INGESTION:
Harmful if swallowed. May cause headache, gastrointestinal disturbances, dizziness, and nausea. May result in irritation or burns of mouth and digestive tract. Ingestion of methanol may result in a feeling of intoxication and can cause visual disturbances and, in extreme cases, occular damage.

EMERGENCY AND FIRST AID PROCEDURES:
If contacted, wash skin immediately with soap and water. Remove contaminated clothing and wash before reuse. If irritation or burns develop, consult a physician. If in eyes, irrigate with flowing water immediately and continuously for fifteen minutes. Consult a physician.

CONTINUED ON PAGE: 3

***CONTINUATION OF OW 5827 ***

If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.
If ingested, DO NOT induce vomiting. If conscious, drink promptly large quantities of water. Call a physician immediately. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsion may be necessary.

****

SECTION 6 REACTIVITY DATA

STABILITY:
Stable under normal conditions of storage and use.

INCOMPATIBILITY:
Keep away from strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
Oxides of nitrogen. HCl.

HAZARDOUS POLYMERIZATION:
Will not occur.

****

SECTION 7 SPILL AND LEAK PROCEDURES

IF MATERIAL IS SPILLED OR RELEASED:
Small spill - Absorb on paper, cloth or other material.
Large spill - Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Cover residue with dirt, or suitable chemical adsorbent. Use personal protective equipment as necessary.

DISPOSAL METHOD:
Place chemical residues and contaminated adsorbent materials into a suitable waste container and take to an approved hazardous waste disposal site. Dispose of all residues in accordance with applicable waste management regulations.

DECONTAMINATION PROCEDURES:
Not appropriate.

****

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:
When concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a self-contained breathing unit may be necessary.

CONTINUED ON PAGE: 4

***CONTINUATION OF OW 5827 ***

VENTILATION:

General ventilation should be provided to maintain ambient concentrations below nuisance levels. Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits.

PROTECTIVE CLOTHING:

Chemical-resistant gloves, rubberized boots and full body and face protection should be used to prevent skin and eye contact.

****

SECTION 9 SPECIAL PRECAUTIONS

Avoid heat, sparks and open flames. Avoid breathing of vapors and contact with eyes, skin or clothing. Keep container closed when not in use. Hazardous product residue may remain in emptied container. Do not reuse empty container without commercial cleaning or reconditioning.

****

Although the information and recommendations set forth herein are believed to be correct as of the date hereof, Petrolite makes no representations to the accuracy of such information and recommendations. It is the user's responsibility to determi the suitability and completeness of such information and recommendation for its own particular use.Petrolite shall not be responsible for any direct,indirect,incidenta or consequential damages of whatsoever nature resulting from the publication,use of or reliance upon such information and recommendations.

PETROLITE EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES OF EVERY KIND AND NATURE INCLUDING THOSE OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT, THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN, OR ANY USE OR RELIANCE THEREON.

PETROLITE

ENVIRONMENTAL DATA SHEET

PETROLITE CORPORATION
369 MARSHALL AVE.
ST. LOUIS MO 63119 U.S.A.

REVISION DATE: 02/06/91
EMERGENCY PHONE: 1-314-961-3500
CHEMTREC EMER NO: 1-800-424-9300

****

OW 5827

SARA TITLE III, SECTION 313

This notification is incorporated into the Material Safety Data Sheet (MSDS) for the Petrolite product named above. When physically attached to the MSDS, this notification must not be detached from the MSDS. Any copying and redistribution of the MSDS to which this notification is attached must include copying and redistribution of this notification.

This Petrolite product contains a toxic chemical or chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372, as follows:

CHEMICAL	CAS NUMBER	WEIGHT PERCENT
Methanol	000067-56-1	15.7 %

****

15/91 **Champion Technologies, Inc.** MATERIAL SAFETY DATA SHEET TIME 13.46

********** SECTION I - PRODUCT CODE 90004 **********

CHAMPION TECHNOLOGIES, INC.
3130 FM 521 FRESNO, TEXAS 77545
PO BOX 450499 HOUSTON, TEXAS 77245

EMERGENCY TELEPHONE NO.
713/431-2561 1/800/424-93

PRODUCT NAME: METHANOL FORMULA: CH3 OH
CHEMICAL FAMILY: Alcohol

********** SECTION II - HAZARDOUS INGREDIENTS **********

MATERIALS	%	TLV UNITS	MATERIALS	%	TLV UN
* Methanol (67561)	100	200ppm			

RQ=13.5 Drums

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

BOILING POINT	IBP 149	SPECIFIC GRAVITY	0.8
VAPOR PRESSURE	97 @ 20 C	% VOLATILE BY VOLUME	100
VAPOR DENSITY	1.11	EVAPORATION RATE	ND
pH	Neutral	Viscosity	1-5

SOLUBILITY IN WATER: Complete CARCINOGEN: NO
APPEARANCE AND ODOR: Water clear liquid with alcohol odor

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

FLASH POINT 54 F (TCC) FLAMMABLE LIMITS -- LEL 6 UEL 36.5
EXTINGUISHING MEDIA: YES- ALCOHOL FOAM NO- CARBON DIOXIDE
NO- FOAM YES- DRY CHEMICAL YES- WATER SPRAY (FOG)

SPECIAL FIRE FIGHTING PROCEDURES:
Water spray may be used to cool fire-exposed metal containers to prevent re-ignition from hot surfaces. Do not breathe smoke or hot fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Water may not be effective unless large quantities are used. Burns with an invisible flames in daylight.

********** TRANSPORTATION DATA **********

TRANSPORTATION HAZARD CLASS: Flammable Liquid
LABEL REQUIRED: Flammable # 2
PROPER SHIPPING NAME: Methyl Alcohol

ID NUMBER: UN 1230

* Denotes an ingredient listed in SARA Title III, Section 313

SARA Title III Hazard Categories: 1, 3

NFPA Rating Scale: FIRE 3 REACTIVITY 0 HEALTH 1
4 Severe 3 Serious 2 Moderate 1 Slight 0 Minim

NA = Not Applicable ND = No Data Available NE = Not Established

REVISION DATES: 12/09/89 8/19/88

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

THRESHOLD LIMIT VALUE: 200 ppm

EFFECTS OF OVEREXPOSURE:

EYES	Irritation, burning, itching and pain.
SKIN CONTACT	Irritation, redness. Sensitized skin may show signs of dermati
INHALATION	Nausea, dizziness; pneumonia if aspirated.
IF SWALLOWED	Nausea, vomiting, lightheadedness, and other symptoms of methanol poisoning.

EMERGENCY AND FIRST AID PROCEDURES:

EYES	Flush copiously with water immediately for 15-20 minutes, get medical treatment.
SKIN CONTACT	Wash with soap and water. Remove contaminated clothing and was skin with soap and water. Launder clothing before rewearing.
INHALATION	Remove to fresh air. Give oxygen if breathing is labored. Call a physician.
IF SWALLOWED	Drink water to dilute. INDUCE vomiting. Get emergency medical treatment for ingestion of methanol.

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

STABLE: YES CONDITIONS TO AVOID: heat, sparks and open flames
INCOMPATABLE MATERIALS TO AVOID:
strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:
none known
HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NA

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

top the flow of liquid, eliminate sources of ignition. Dike or otherwise stop spreading. Vacuum up, absorb or scrape up liquid and contaminated soil. Put into containers for later disposal in approved incinerator or chemical landfill.

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

RESPIRATORY PROTECTION: NIOSH approved respirator for organic vapors.

VENTILATION:
LOCAL EXHAUST: recommended
MECHANICAL: adequate to maintain TLV
SPECIAL: entering tanks or cleaning up spills; air supply recommend
PROTECTIVE GLOVES: chemically resistant
EYE PROTECTION: splash proof goggles
OTHER PROTECTIVE EQUIPMENT: eyewash stations, ample water supply; showers

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Keep containers closed when not in use. Do not weld or cut empty drums.

OTHER PRECAUTIONS:
DO NOT INGEST.

PREPARED BY: Don G. Morse

********** SECTION I - PRODUCT CODE 70025 **********

CHAMPION TECHNOLOGIES, INC.
3130 FM 521 FRESNO, TEXAS 77545
PO BOX 450499 HOUSTON, TEXAS 77245

EMERGENCY TELEPHONE NO.
713/431-2561 1/800/

PRODUCT NAME: BACTRON K-24 FORMULA: Proprietary
CHEMICAL FAMILY: Quaternary Ammonium Chlroide

********** SECTION II - HAZARDOUS INGREDIENTS **********

MATERIALS	%	TLV UNITS	MATERIALS	%
* Methanol (67561)	3.0	200(PPM)		

RQ=416 Drums

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

BOILING POINT	200-210	SPECIFIC GRAVITY	0.944
VAPOR PRESSURE	25	% VOLATILE BY VOLUME	50
VAPOR DENSITY	0.5	EVAPORATION RATE	NA
PH	7.5	VISCOSITY	94 cps

SOLUBILITY IN WATER: soluble CARCINOGEN: NO
APPEARANCE AND ODOR: pale yellow liquid with slight or no odor

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

FLASH POINT 120 F (TCC) FLAMMABLE LIMITS -- LEL 6.7 UE
EXTINGUISHING MEDIA: NO- ALCOHOL FOAM YES- CARBON DIOXI
YES- FOAM YES- DRY CHEMICAL YES- WATER SPRAY

Flammable limits based on volatile portion of prod

SPECIAL FIRE FIGHTING PROCEDURES:
Water spray may be used to cool fire exposed metal containers to preve re-ignition from hot surfaces. Do not breathe smoke or hot fumes.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
No unusual fire and explosion hazard known.

********** TRANSPORTATION DATA **********

TRANSPORTATION HAZARD CLASS: Combustible Liquid
LABEL REQUIRED: None if container capacity is 110 gallons or less. # 2
PROPER SHIPPING NAME: Combustible Liquid, N.O.S.
(Methanol)
ID NUMBER: NA 1993

* Denotes an ingredient listed in SARA Title III, Section 313

SARA Title III Hazard Categories: 3,

NFPA Rating Scale: FIRE 2 REACTIVITY 0 HEALTH 1
4 Severe 3 Serious 2 Moderate 1 Slight 0

NA = Not Applicable ND = No Data Available NE = Not Establishe

REVISION DATES: 12/07/89 10/28/87

Champion Technologies, Inc. PRODUCT: BACTRON K-24

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

THRESHOLD LIMIT VALUE: 200 ppm TLV based on Methanol

EFFECTS OF OVEREXPOSURE:

EYES	May cause severe irritation, burning, itching and pain.
SKIN CONTACT	Will cause severe irritation, redness, and dermatitis.
INHALATION	Nausea, dizziness; pneumonia if aspirated.
IF SWALLOWED	Nausea, vomiting, lightheadedness, and other systems of methanol poisoning.

EMERGENCY AND FIRST AID PROCEDURES:

EYES	Flush copiously with water immediately for 15 - 20 minutes, get medical treatment.
SKIN CONTACT	Wash with soap and water. Remove contaminated clothing and wash skin with soap and water. Launder clothing before rewearing.
INHALATION	Remove to fresh air. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.
IF SWALLOWED	Drink water to dilute. INDUCE vomiting. Get emergency medical treatment for ingestion of methanol.

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

STABLE: YES CONDITIONS TO AVOID: open flames and ignition sources
INCOMPATABLE MATERIALS TO AVOID:
strong oxidizing agents, mineral acids
HAZARDOUS DECOMPOSITION PRODUCTS:
may emit carbon dioxide,carbon monoxide and oxides of nitrogen
HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID: NA

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

Stop the flow of liquid, eliminate sources of ignition. Dike or otherwise stop spreading. Avoid prolonged dermal and inhalation contact. Wear NIOSH approved organic vapor respirator or self-contained breathing apparatus. Vacuum up, absorb or scrape up liquid and contaminated soil. Put into containers for later disposal in approved incinerator or chemical landfill. Remove soiled clothing.

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

RESPIRATORY PROTECTION: In closed area use NIOSH approved organic vapor respirator.
VENTILATION:
LOCAL EXHAUST: recommended
MECHANICAL: adequate to maintain TLV
SPECIAL: Entering tanks or cleaning up spills; air supply recommended
PROTECTIVE GLOVES: neoprene or rubber
EYE PROTECTION: chemical safety glasses
OTHER PROTECTIVE EQUIPMENT: eyewash stations, ample water supply; showers

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

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
General good housekeeping practices should be observed. Clean up any spills promptly. Protect exposed skin.

OTHER PRECAUTIONS:
DO NOT INGEST.

PREPARED BY: Bob Young

Marathon Oil Company

PRODUCT NAME: NATURAL GAS
MARATHON MSDS NO: 217MAR001

THE FOLLOWING INFORMATION IS FURNISHED SUBJECT TO THE DISCLAIMER ON THE BOTTOM OF THIS FORM

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: NATURAL GAS

SYNONYMS:
NATURAL GAS; NATURAL GAS C1-C4; RAW NATURAL GAS

MANUFACTURER / DISTRIBUTOR:
MARATHON OIL COMPANY
539 SOUTH MAIN STREET
FINDLAY, OH
45840
EMERGENCY PHONE NUMBERS:
(419) 422-2121 (MARATHON)
(800) 424-9300 (CHEMTREC)

CHEMICAL FAMILY: NATURAL GAS
CHEMICAL FORMULA: MIXTURE
CAS NO: 8006-14-2
PRODUCT CODE:

SECTION 2 - PHYSICAL PROPERTIES

BOILING POINT	MELTING POINT	SPECIFIC GRAVITY(H2O=1)
-259 TO-43 F	N.A. F	.37-.5 LIQ
% SOLUBILITY IN WATER	VAPOR DENSITY(AIR=1)	VAPOR PRESSURE
SLIGHT	0.55-0.62	N.A.

PH INFORMATION: PH: N.A. AT CONC.
APPEARANCE: COLORLESS GAS ODOR: MERCAPTAN ODOR

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	AUTOIGNITION TEMP	EXPLOSIVE LIMITS (% BY VOLUME IN AIR)
N.A. F	N.D.A. F	LOWER/UPPER: 3.2/14.0

EXTINGUISHING MEDIA:

CLASS B FIRE EXTINGUISHING MEDIA SUCH AS HALON, CO2 OR DRY CHEMICAL CAN BE USED. FIRE FIGHTING SHOULD BE ATTEMPTED ONLY BY THOSE WHO ARE ADEQUATELY TRAINED.

SPECIAL FIRE FIGHTING PROCEDURES:

STOP THE FLOW OF GAS AND ALLOW FIRE TO BURN OUT. EXTINGUISHING THE FLAME BEFORE SHUTTING OFF THE SUPPLY CAN CAUSE THE FORMATION OF EXPLOSIVE MIXTURES. IN SOME CASES IT MAY BE PREFERRED TO ALLOW THE FLAME TO CONTINUE TO BURN. KEEP THE SURROUNDING AREA COOL WITH WATER SPRAY AND PREVENT FURTHER IGNITION OF COMBUSTIBLE MATERIAL.

PRODUCT NAME: NATURAL GAS
MARATHON MSDS NO: 217MAR001

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA (CON'T)

STABILITY: THE MATERIAL IS STABLE AT 70 F, 760MM PRESSURE
CONDITIONS TO AVOID:
SOURCES OF HEAT OR IGNITION

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE, CARBON DIOXIDE

INCOMPATIBLE MATERIALS:
STRONG OXIDIZERS (E.G. CHLORINE), MINERAL ACIDS

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 4 - PRODUCT COMPOSITION AND EXPOSURE LIMITS

EXPOSURE LIMITS FOR PRODUCT:	TLV	SOURCE
NATURAL GAS	NONE ESTABLISHED	

COMPONENTS:	PERCENT RANGE	TLV	SOURCE
NATURAL GAS	100.00	0.00 ( )	

RAW NATURAL GAS, AS FOUND IN NATURE, OR A GASEOUS COMBINATION OF HYDROCARBONS HAVING CARBON NUMBERS PREDOMINANTLY IN THE RANGE OF C1 THROUGH C4 SEPARATED FROM RAW NATURAL GAS BY THE REMOVAL OF NATURAL GAS CONDENSATE, NATURAL GAS LIQUIDS, AND NATURAL GAS CONDENSATE NATURAL GAS.
*
METHANE, ETHANE AND PROPANE ARE SIMPLE ASPHYXIANTS BY ACGIH, OXYGEN LIMITING FACTOR. NITROGEN IS AN INERT GAS.
*

SECTION 5 - POTENTIAL HEALTH EFFECTS

EYE:

NATURAL GAS IS GENERALLY NON-IRRITATING TO EYES. PRESSURIZED GAS CAN CAUSE MECHANICAL INJURY TO THE EYE.

SKIN:

NATURAL GAS IS GENERALLY NON-IRRITATING TO SKIN.

INHALATION:

NATURAL GAS ACTS AS AN ANESTHETIC AT HIGH CONCENTRATIONS, PRODUCING DIZZINESS, HEADACHE, INCOORDINATION AND NARCOSIS; EXTREMELY HIGH CONCENTRATIONS CAN CAUSE ASPHYXIATION BY EXCLUSION OF OXYGEN.

INGESTION:

INGESTION NOT LIKELY.

ADDITIONAL TOXICITY INFORMATION:

AT EXTREMELY HIGH CONCENTRATIONS AND EXCESSIVE EXPOSURE CONDITIONS, COMPONENTS OF NATURAL GAS MAY PRODUCE CARDIAC SENSITIZATION.

NISHED SUBJECT TO THE DISCLAIMER ON THE BOTTOM OF THIS FORM

TION

-C4; RAW NATURAL

MANUFACTURER / DISTRIBUTOR:
MARATHON OIL COMPANY
539 SOUTH MAIN STREET
FINDLAY, OH
45840
EMERGENCY PHONE NUMBERS:
(419) 422-2121 (MARATHON)
(800) 424-9300 (CHEMTREC)

CAS NO: 8006-14-2
PRODUCT CODE:

S

ELTING POINT
.A. F

SPECIFIC GRAVITY(H2O=1)
.37-.5 LIQ

APOR DENSITY(AIR=1)
.55-0.62

VAPOR PRESSURE
N.A.

AT CONC.
S

ODOR: MERCAPTAN ODOR

HA''RD DATA

N TEMP
F

EXPLOSIVE LIMITS (% BY VOLUME IN AIR)
LOWER/UPPER: 3.2/14.0

MEDIA SUCH AS HALON, CO2 OR DRY CHEMICAL
SHOULD BE ATTEMPTED ONLY BY THOSE WHO

ES:

LOW FIRE TO BURN OUT. EXTINGUISHING THE
HE SUPPLY CAN CAUSE THE FORMATION OF
E CASES IT MAY BE PREFERRED TO ALLOW THE
KEEP THE SURROUNDING AREA COOL WITH
THER IGNITION OF COMBUSTIBLE MATERIAL.

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OXYGEN.

IRE CONDITIONS,
ZATION.

PRODUCT NAME: NATURAL GAS
MARATHON MSDS NO: 217MAR001

SECTION 5 - POTENTIAL HEALTH EFFECTS (CON'T)

EMERGENCY FIRST AID PROCEDURES

EYE:

CALL A PHYSICIAN IF SYMPTOMS OR IRRITATION OCCUR.

SKIN:

CALL A PHYSICIAN IF SYMPTOMS OR IRRITATION OCCUR.

INHALATION:

MOVE PERSON TO FRESH AIR. IF NOT BREATHING OR IF NO HEARTBEAT, GIVE ARTIFICIAL RESPIRATION OR CARDIOPULMONARY RESUSCITATION (CPR). IMMEDIATELY CALL A PHYSICIAN.

INGESTION:

INGESTION NOT LIKELY.

SECTION 6 - SPECIAL PROTECTION INFORMATION

VENTILATION:

LOCAL OR GENERAL EXHAUST REQUIRED IF USED IN AN ENCLOSED AREA IN ORDER TO KEEP CONCENTRATIONS BELOW THE LOWER EXPLOSIVE LIMIT.

RESPIRATORY PROTECTION:

USE ATMOSPHERE SUPPLIED RESPIRATORS IN THE EVENT OF OXYGEN DEFICIENCY. SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED FOR FIRE FIGHTING.

EYE PROTECTION:

GOGGLES OR FACESHIELD MAY BE NEEDED WHEN HANDLING PRESSURIZED GASES.

OTHER PROTECTIVE EQUIPMENT:

USE EXPLOSION-PROOF EQUIPMENT.

PRODUCT NAME: NATURAL GAS
MARATHON MSDS NO: 217MAR001

SECTION 7 - SPILL OR LEAK PROCEDURES

ENVIRONMENTAL EFFECTS:

MOST COMPONENTS OF NATURAL GAS ARE LIGHTER THAN AIR AND SHOULD DISSIPATE RAPIDLY IN UNCONFINED AREAS.

STEPS TO BE TAKEN IN CASE OF SPILL, LEAK OR RELEASE:

KEEP PUBLIC AWAY. SHUT OFF SOURCE IF POSSIBLE TO DO SO WITHOUT HAZARD. ADVISE LOCAL AND STATE EMERGENCY SERVICES AGENCIES, IF APPROPRIATE.

WASTE DISPOSAL METHOD:

PREFERRED METHOD OF DISPOSAL IS BURNING AS A VAPOR IN A PROPERLY DESIGNED FLARE. SPECIAL CARE MUST BE TAKEN TO ENSURE COMPLETE DISSIPATION OF GAS BELOW LOWER EXPLOSIVE LIMIT.

SECTION 8 - HANDLING AND STORAGE PRECAUTIONS

PRODUCT SHOULD BE HANDLED AND STORED IN ACCORDANCE WITH INDUSTRY ACCEPTED PRACTICES. IN THE ABSENCE OF SPECIFIC LOCAL CODE REQUIREMENTS, NFPA OR OSHA REQUIREMENTS SHOULD BE FOLLOWED. USE APPROPRIATE GROUNDING AND BONDING PRACTICES. STORE IN PROPERLY CLOSED CONTAINERS THAT ARE APPROPRIATELY LABELED. DO NOT EXPOSE TO HEAT, OPEN FLAME, STRONG OXIDIZERS OR OTHER SOURCES OF IGNITION.

SECTION 9 - HAZARD WARNING

DANGER!

EXTREMELY FLAMMABLE
GAS UNDER PRESSURE

SECTION 10 - COMMENTS

PRODUCT NAME: NATURAL GAS
MARATHON MSDS NO: 217MAR001

SECTION 11 - REGULATORY INFORMATION

SARA TITLE III/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 - SECTIONS 302, 304, 311, 312 AND 313.

THE FOLLOWING REGULATIONS APPLY TO THIS PRODUCT:

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS:

40 CFR PART 370 (52 FR 38344 - OCTOBER 15, 1987).

DEPENDING ON LOCAL, STATE AND FEDERAL REGULATIONS, MATERIAL SAFETY DATA SHEETS (MSDS'S) OR LISTS OF MSDS'S (PRODUCT NAMES) MAY BE REQUIRED TO BE SUBMITTED TO THE STATE EMERGENCY RESPONSE COMMISSION, LOCAL EMERGENCY PLANNING COMMITTEE AND LOCAL FIRE DEPARTMENT IF YOU HAVE:

10,000 POUNDS OR MORE OF AN OSHA HAZARDOUS SUBSTANCE* OR
500 POUNDS OR THE THRESHOLD PLANNING QUANTITY WHICHEVER IS LESS, OF AN EXTREMELY HAZARDOUS SUBSTANCE.

* REPORTABLE QUANTITY LEVELS CAN VARY FROM STATE TO STATE AND YEAR TO YEAR DEPENDING ON APPLICABLE STATE AND/OR FEDERAL REGULATIONS.

THIS PRODUCT IS COVERED UNDER THE CRITERIA DEFINED IN OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 (52 FR 31852 - AUGUST 24, 1987) AND SHOULD BE REPORTED UNDER THE FOLLOWING EPA HAZARD CATEGORIES:

	IMMEDIATE (ACUTE) HEALTH HAZARD
	DELAYED (CHRONIC) HEALTH HAZARD
XX	FIRE HAZARD
XX	SUDDEN RELEASE OF PRESSURE HAZARD
	REACTIVE HAZARD

DEPARTMENT OF TRANSPORTATION:

49 CFR 172.101 AS REVISED ON OCTOBER 1, 1988.

PROPER SHIPPING NAME -- HYDROCARBON GAS, NONLIQUIFIED
DOT CLASSIFICATION -- FLAMMABLE GAS
DOT IDENTIFICATION NUMBER -- UN 1964

SECTION 12 - REGULATIONS/COMMENTS CONTINUED

INFORMATION SUPPLIED BY: COORDINATOR TOXICOLOGY AND PRODUCT SAFETY
CRAIG M. PARKER PHONE: (419)421-3070

MSDS DATE: 05/16/90 DATE OF PREVIOUS MSDS: 08/21/89

*** DISCLAIMER ***

Marathon Oil Company

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

THE FOLLOWING INFORMATION IS FURNISHED SUBJECT TO THE DISCLAIMER ON THE BOTTOM OF THIS FO

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: NATURAL GAS - DRY

SYNONYMS:
GAS PLANT NATURAL GAS; NATURAL GAS - DRY;

MANUFACTURER / DISTRIBUTOR:
MARATHON OIL COMPANY
539 SOUTH MAIN STREET
FINDLAY, OH
45840
EMERGENCY PHONE NUMBERS:
(419) 422-2121 (MARATHON)
(800) 424-9300 (CHEMTREC)

CHEMICAL FAMILY: NATURAL GAS
CHEMICAL FORMULA: MIXTURE

CAS NO: 68410-63-9
PRODUCT CODE:

SECTION 2 - PHYSICAL PROPERTIES

BOILING POINT	MELTING POINT	SPECIFIC GRAVITY(H2O=1)
-259TO-43 F	N.A. F	.37-.50LIQ
% SOLUBILITY IN WATER	VAPOR DENSITY(AIR=1)	VAPOR PRESSURE
SLIGHT	0.55-0.62	N.A.

PH INFORMATION: PH: N.A. AT CONC.
APPEARANCE: COLORLESS GAS ODOR: MERCAPTAN ODOR

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	AUTOIGNITION TEMP	EXPLOSIVE LIMITS (% BY VOLUME IN AIR)
N.A. F	N.D.A. F	LOWER/UPPER: 3.2/14.0

EXTINGUISHING MEDIA:

CLASS B FIRE EXTINGUISHING MEDIA SUCH AS HALON, CO2 OR DRY CHEMICAL CAN BE USED. FIRE FIGHTING SHOULD BE ATTEMPTED ONLY BY THOSE WHO ARE ADEQUATELY TRAINED.

SPECIAL FIRE FIGHTING PROCEDURES:

STOP THE FLOW OF GAS AND ALLOW FIRE TO BURN OUT. EXTINGUISHING THE FLAME BEFORE SHUTTING OFF THE SUPPLY CAN CAUSE THE FORMATION OF EXPLOSIVE MIXTURES. IN SOME CASES IT MAY BE PREFERRED TO ALLOW THE FLAME TO CONTINUE TO BURN. KEEP THE SURROUNDING AREA COOL WITH WATER SPRAY AND PREVENT FURTHER IGNITION OF COMBUSTIBLE MATERIAL.

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA (CON'T)

STABILITY: THE MATERIAL IS STABLE AT 70 F, 760MM PRESSURE
CONDITIONS TO AVOID:
SOURCES OF HEAT OR IGNITION

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE, CARBON DIOXIDE

INCOMPATIBLE MATERIALS:
STRONG OXIDIZERS (E.G. CHLORINE), MINERAL ACIDS

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 4 - PRODUCT COMPOSITION AND EXPOSURE LIMITS

EXPOSURE LIMITS FOR PRODUCT:	TLV	SOURCE
NATURAL GAS - DRY	NONE ESTABLISHED	

COMPONENTS:	PERCENT RANGE	TLV			SOURCE
METHANE	50.00- 95.00	0.00		( )	
ETHANE	1.00- 20.00	0.00		( )	
PROPANE	.10- 12.00	0.00		( )	
		1000.00	PPM	(8 HR TWA)	OSHA
CARBON DIOXIDE	.50- 5.00	5000.00	PPM	(8 HR TWA)	ACGIH
		30000.00	PPM	(STEL)	ACGIH
		10000.00	PPM	(8 HR TWA)	OSHA
		30000.00	PPM	(STEL)	OSHA
NITROGEN	.10- 18.00	0.00		( )	

COMPLEX COMBINATION OF HYDROCARBONS (PREDOMINANTLY C1 THROUGH C4) SEPARATED FROM NATURAL GAS. CONSISTS PREDOMINANTLY OF METHANE AND ETHANE.
***
METHANE, ETHANE AND PROPANE ARE SIMPLE ASPHYXIANTS BY ACGIH, OXYGEN LIMITING FACTOR. NITROGEN IS AN INERT GAS.

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

SECTION 5 - POTENTIAL HEALTH EFFECTS

EYE:

NATURAL GAS IS GENERALLY NON-IRRITATING TO EYES. PRESSURIZED GAS CAN CAUSE MECHANICAL INJURY TO THE EYE.

SKIN:

NATURAL GAS IS GENERALLY NON-IRRITATING TO SKIN.

INHALATION:

NATURAL GAS ACTS AS AN ANESTHETIC AT HIGH CONCENTRATIONS, PRODUCING DIZZINESS, HEADACHE, INCOORDINATION AND NARCOSIS; EXTREMELY HIGH CONCENTRATIONS CAN CAUSE ASPHYXIATION BY EXCLUSION OF OXYGEN.

INGESTION:

INGESTION NOT LIKELY.

ADDITIONAL TOXICITY INFORMATION:

AT EXTREMELY HIGH CONCENTRATIONS AND EXCESSIVE EXPOSURE CONDITIONS, COMPONENTS OF NATURAL GAS MAY PRODUCE CARDIAC SENSITIZATION.

EMERGENCY FIRST AID PROCEDURES

EYE:

CALL A PHYSICIAN IF SYMPTOMS OR IRRITATION OCCUR.

SKIN:

CALL A PHYSICIAN IF SYMPTOMS OR IRRITATION OCCUR.

INHALATION:

MOVE PERSON TO FRESH AIR. IF NOT BREATHING OR IF NO HEARTBEAT, GIVE ARTIFICIAL RESPIRATION OR CARDIOPULMONARY RESUSCITATION (CPR). IMMEDIATELY CALL A PHYSICIAN.

INGESTION:

INGESTION NOT LIKELY.

SECTION 6 - SPECIAL PROTECTION INFORMATION

VENTILATION:

LOCAL OR GENERAL EXHAUST REQUIRED IF USED IN AN ENCLOSED AREA IN ORDER TO KEEP CONCENTRATIONS BELOW THE LOWER EXPLOSIVE LIMIT.

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

SECTION 6 - SPECIAL PROTECTION INFORMATION (CON'T)

RESPIRATORY PROTECTION:

USE ATMOSPHERE SUPPLIED RESPIRATORS IN THE EVENT OF OXYGEN DEFICIENCY. SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED FOR FIRE FIGHTING.

EYE PROTECTION:

GOGGLES OR FACESHIELD MAY BE NEEDED WHEN HANDLING PRESSURIZED GASES.

OTHER PROTECTIVE EQUIPMENT:

USE EXPLOSION-PROOF EQUIPMENT.

SECTION 7 - SPILL OR LEAK PROCEDURES

ENVIRONMENTAL EFFECTS:

MOST COMPONENTS OF NATURAL GAS ARE LIGHTER THAN AIR AND SHOULD DISSIPATE RAPIDLY IN UNCONFINED AREAS.

STEPS TO BE TAKEN IN CASE OF SPILL, LEAK OR RELEASE:

KEEP PUBLIC AWAY. SHUT OFF SOURCE IF POSSIBLE TO DO SO WITHOUT HAZARD. ADVISE LOCAL AND STATE EMERGENCY SERVICES AGENCIES, IF APPROPRIATE.

WASTE DISPOSAL METHOD:

PREFERRED METHOD OF DISPOSAL IS BURNING AS A VAPOR IN A PROPERLY DESIGNED FLARE. SPECIAL CARE MUST BE TAKEN TO ENSURE COMPLETE DISSIPATION OF GAS BELOW LOWER EXPLOSIVE LIMIT.

SECTION 8 - HANDLING AND STORAGE PRECAUTIONS

PRODUCT SHOULD BE HANDLED AND STORED IN ACCORDANCE WITH INDUSTRY ACCEPTED PRACTICES. IN THE ABSENCE OF SPECIFIC LOCAL CODE REQUIREMENTS, NFPA OR OSHA REQUIREMENTS SHOULD BE FOLLOWED. USE APPROPRIATE GROUNDING AND BONDING PRACTICES. STORE IN PROPERLY CLOSED CONTAINERS THAT ARE APPROPRIATELY LABELED. DO NOT EXPOSE TO HEAT, OPEN FLAME, STRONG OXIDIZERS OR OTHER SOURCES OF IGNITION.

SECTION 9 - HAZARD WARNING

DANGER!

EXTREMELY FLAMMABLE
GAS UNDER PRESSURE

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

SECTION 10 - COMMENTS

SECTION 11 - REGULATORY INFORMATION

SARA TITLE III/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 - SECTIONS 302, 304, 311, 312 AND 313.

THE FOLLOWING REGULATIONS APPLY TO THIS PRODUCT:

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS:

40 CFR PART 370 (52 FR 38344 - OCTOBER 15, 1987).

DEPENDING ON LOCAL, STATE, AND FEDERAL REGULATIONS, MATERIAL SAFETY DATA SHEETS (MSDS'S) OR LISTS OF MSDS'S (PRODUCT NAMES) MAY BE REQUIRED TO BE SUBMITTED TO THE STATE EMERGENCY RESPONSE COMMISSION, LOCAL EMERGENCY PLANNING COMMITTEE, AND LOCAL FIRE DEPARTMENT IF YOU HAVE:

10,000 POUNDS OR MORE OF AN OSHA HAZARDOUS SUBSTANCE* OR
500 POUNDS OR THE THRESHOLD PLANNING QUANTITY WHICHEVER IS LESS, OF AN EXTREMELY HAZARDOUS SUBSTANCE.

* REPORTABLE QUANTITY LEVELS CAN VARY FROM STATE TO STATE AND YEAR TO YEAR DEPENDING ON APPLICABLE STATE AND/OR FEDERAL REGULATIONS.

THIS PRODUCT IS COVERED UNDER THE CRITERIA DEFINED IN OSHA'S HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200 (52 FR 31852 - AUGUST 24, 1987) AND SHOULD BE REPORTED UNDER THE FOLLOWING EPA HAZARD CATEGORIES:

	IMMEDIATE (ACUTE) HEALTH HAZARD
	DELAYED (CHRONIC) HEALTH HAZARD
XX	FIRE HAZARD
XX	SUDDEN RELEASE OF PRESSURE HAZARD
	REACTIVE HAZARD

DEPARTMENT OF TRANSPORTATION:

49 CFR 172.101 AS REVISED ON OCTOBER 1, 1988.

PROPER SHIPPING NAME -- HYDROCARBON GAS, NONLIQUIFIED
DOT CLASSIFICATION -- FLAMMABLE GAS
DOT IDENTIFICATION NUMBER -- UN 1964

SECTION 12 - REGULATIONS/COMMENTS CONTINUED

INFORMATION SUPPLIED BY: COORDINATOR TOXICOLOGY AND PRODUCT SAFETY
CRAIG M. PARKER PHONE: (419)421-3070

MSDS DATE: 05/16/90 DATE OF PREVIOUS MSDS: 08/21/89

PRODUCT NAME: NATURAL GAS - DRY
MARATHON MSDS NO: 196MAR001

*** DISCLAIMER ***

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