GW - 5

GENERAL CORRESPONDENCE

YEAR(S):

2000

DYNEGY MIDSTREAM SERVICES, L. P.

DISCHARGE PLAN GW-5

EUNICE
GAS PROCESSING PLANT

TABLE OF CONTENTS

SECTION I

GENERAL INFORMATION

SECTION I - GENERAL INFORMATION

INTRODUCTION

The Following is presented as the Eunice Plant Discharge Plan and is in accordance with part 3100 of the State of New Mexico Water Quality Control Commission Regulations.

This Plan provides information regarding any potential discharges onto or below the surface of the ground.

OWNER AND OPERATOR

Versado Gas Processors, L. L. C. owns the Eunice Gas Plant and is the landowner of record. Dynegy Midstream Services, L. P. (DMS) operates the facility. The main office is located at 1000 Louisiana St. Ste. 5800 Houston, TX 77002-5050

The mailing address is:
Dynegy Midstream Services, L.P.
1000 Louisiana St. Ste. 5800
Houston, TX 77002-5050

The local Eunice Plant address is :
Dynegy Midstream Services, L. P.
P.O. Box 1909
Eunice, NM 88231

(505)394-2534

The local contacts are the Area Manager or Team Advisor, both officed at the Eunice Plant.

PLANT LOCATION

NE 1/4 of Section 3, Township 22 South, Range 37 East, Lea County, New Mexico.

DYNEGY

EUNICE PLANT

DISCHARGE PLAN

DYNEGY MIDSTREAM SERVICES, L. P.

LAST RENEWAL- MAY, 2001
DUE - MAY, 2006

SECTION II

ORIGINAL DISCHARGE PLAN FOR EUNICE GAS PROCESSING PLANT

OCTOBER 22, 1980

DISCHARGE PLAN UPDATES AND RENEWALS

APRIL, 1981

MAY, 1986

APRIL, 1991

MAY, 1996

WARREN PETROLEUM COMPANY
A SUBSIDIARY OF CHEVRON INC.
UPDATE OF ORIGINAL WASTE WATER DISCHARGE PLAN
EUNICE GAS PROCESSING PLANT
OCTOBER 22, 1980

LIQUID WASTE

In summary, all of the liquid waste water from the plant including the cooling tower blowdown, plant runoff, brine from the Zeolite softner, boiler blowdown, inlet scrubber water, compressor(interstage scrubber) condensate water, and water from the dehydrator are disposed of through the injection well which is annually inspected by the Oil Conservation Division of the New Mexico Energy and Minerals Department. Since all the waste water is disposed in an environmentally acceptable manner, which is already under your authority, Warren Petroleum feels that the operation is in compliance with the amended water quality control commission regulations as referred to in your letter of June 27, 1980.

UPDATE OF WASTEWATER DISCHARGE PLAN
OF MAY, 1984

Liquid Waste
OCD approval from director Joe. D. Ramey for the abandoning and closure of the brine pit.

SECTION III

TOPOGRAPHIC MAPS
EUNICE PLOT PLAN

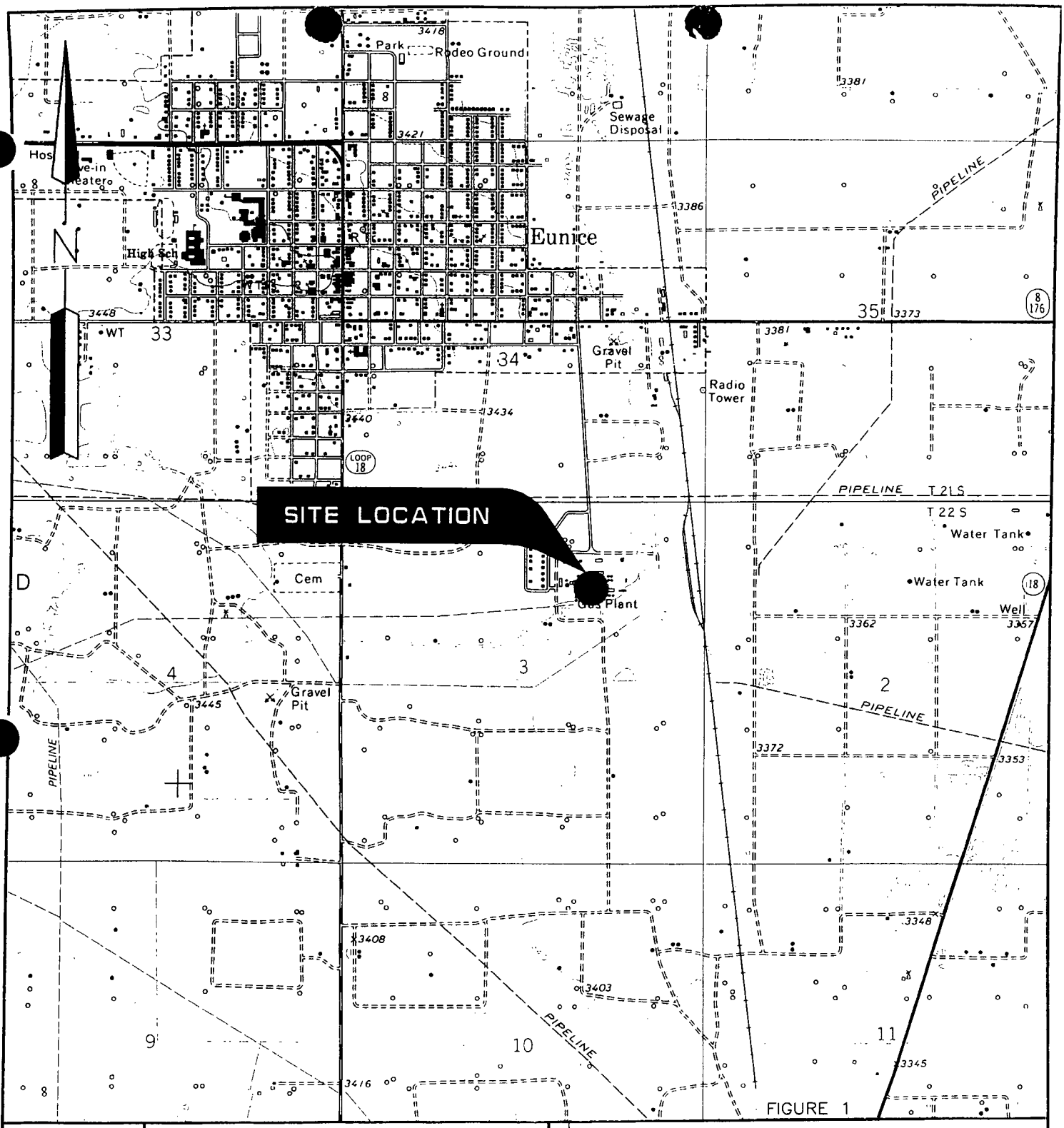


FIGURE 1

NEW MEXICO
QUADRANGLE LOCATION

SCALE
FEET
2000 0 2000
1" = 2000'

NOTE: BASE MAP TAKEN FROM U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP, "EUNICE, N. MEX." DATED 1979, AT A SCALE OF 1:24,000.
APPROXIMATE COORDINATES: ZONE 13
UTM: X=674.320, Y=3588.880
LAT.: 32°25'30"
LONG.: 103°08'46"

NO.	REVISION	DATE	BY

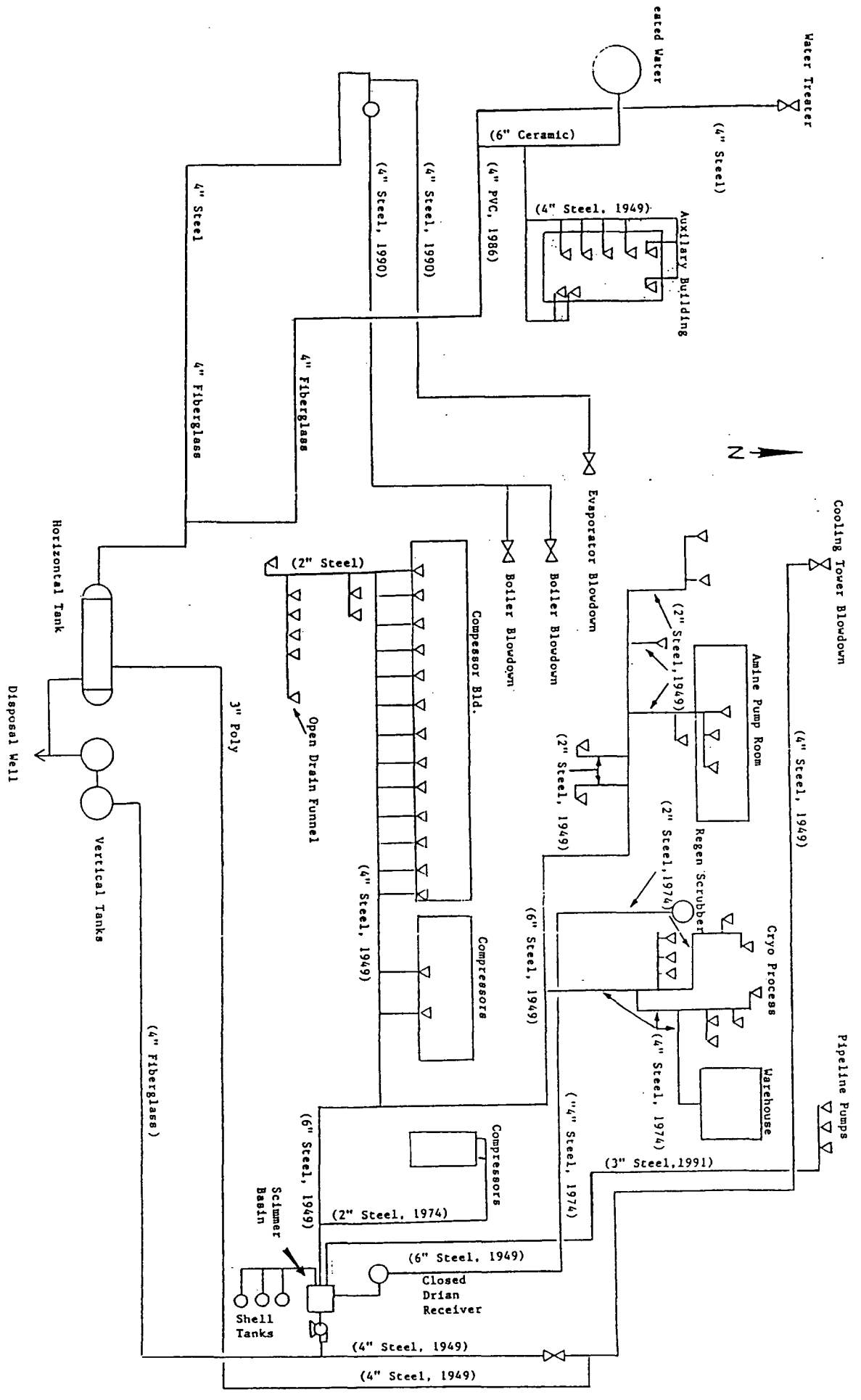
WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
TITLE V PERMIT APPLICATION

EUNICE GAS PLANT
AREA LOCATION MAP

LEA COUNTY, NEW MEXICO

C·K ASSOCIATES, INC.
AUSTIN, TEXAS

DRAWN	ACS	APPROVED	LMT
CHECKED	LMT	DATE	10-09-95
SHEET	OF	DWG. NO.	A36-314-01



WARREN PETROLEUM COMPANY - A Division of Chevron USA Inc.

EUNICE PLANT #161 - Lea County, NM - WASTE WATER SYSTEM LAYOUT

SECTION IV

SUMMARY OF WASTEWATER DISPOSAL METHODS

PROPOSED DISCHARGE OF WASTE WATER FROM HEAT EXCHANGER BACKWASH

Cooling tower water will be used to backwash water cooled heat exchangers. Water will be recovered and sent to the injection well.

Sixteen engine Lube Oil Coolers and 21 Gas Coolers will be backwashed twice per year. The amount of water discharged is expected to be 200 gallons for each cooler per backwash.

SUMMARY OF WASTEWATER DISPOSAL METHODS

Location	Wastewater Disposal Methods*
Section 3, Township 22 South Range 37, Lea County, NM	(1) Plant Disposal Well**

*Section XIII of this Plan further describes the disposal of waste materials generated at the Eunice Plant.

**In the event of any shutdown of the injection well, the water would be trucked by 4C's Trucking Co. to a permitted Disposal Well.

SECTION V

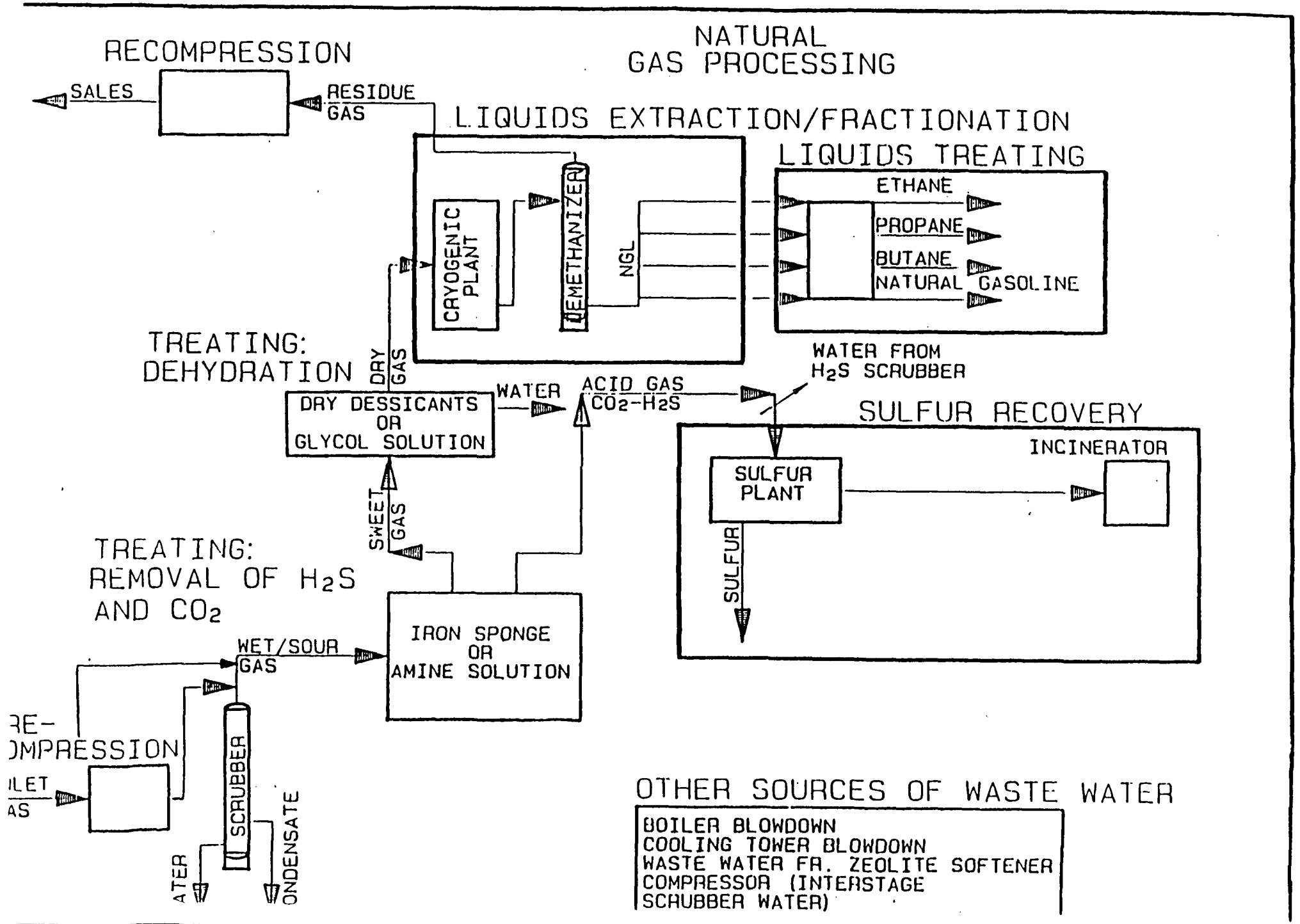
GENERAL DESCRIPTION -

GAS PROCESSING INDUSTRY AND SPECIFIC REFERENCES FOR

EUNICE PLANT

NATURAL GAS PROCESSING FOR THE EUNICE PLANT

The following diagram outlines gas processing for the Eunice Plant.


NATURAL
GAS PROCESSING
RECOMPRESSION
SALES
RESIDUE
GAS
LIQUIDS EXTRACTION/FRACTIONATION
LIQUIDS TREATING
CRYOGENIC
PLANT
DEMETHANIZER
NGL
ETHANE
PROPANE
BUTANE
NATURAL GASOLINE
TREATING:
DEHYDRATION
DRY GAS
DRY DESSICANTS
OR
GLYCOL SOLUTION
WATER
ACID GAS
CO_2-H_2S
WATER FROM
H_2S SCRUBBER
SULFUR RECOVERY
INCINERATOR
SULFUR
PLANT
SULFUR
SWEET
GAS
TREATING:
REMOVAL OF H_2S
AND CO_2
WET/SOUR
GAS
IRON SPONGE
OR
AMINE SOLUTION
RE-
OMPRESSION
ILET
AS
SCRUBBER
ATER
ONDENSATE
OTHER SOURCES OF WASTE WATER
BOILER BLOWDOWN
COOLING TOWER BLOWDOWN
WASTE WATER FR. ZEOLITE SOFTENER
COMPRESSOR (INTERSTAGE
SCRUBBER WATER)

NATURAL GAS PROCESSING FOR THE EUNICE PLANT

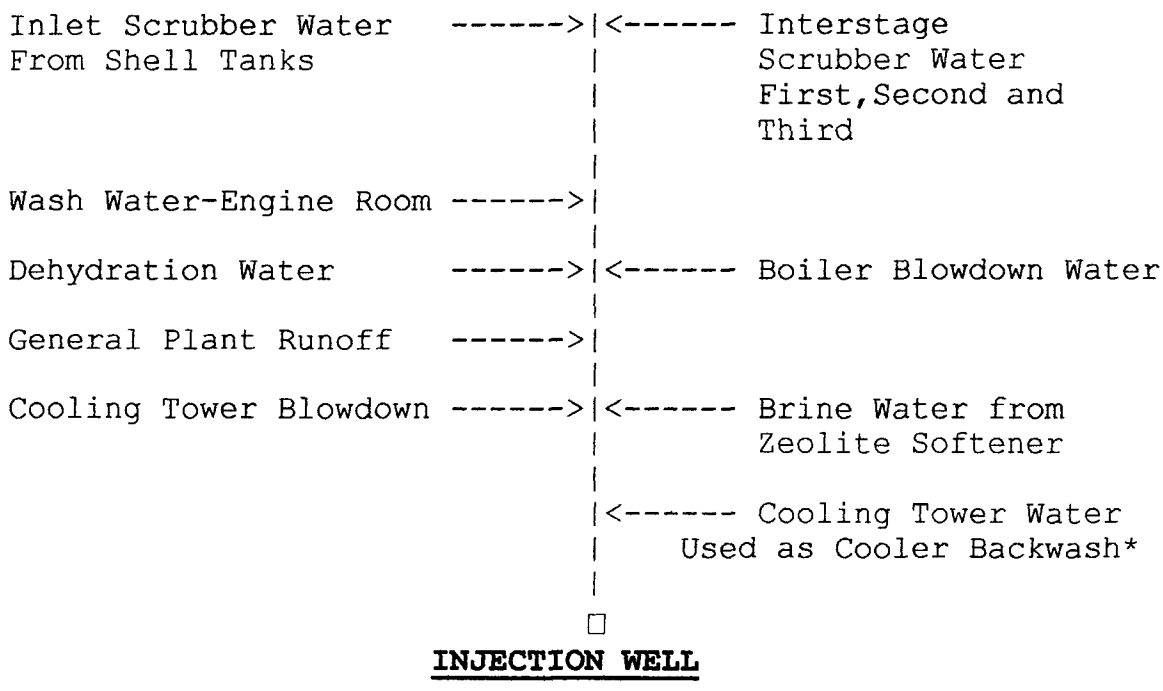
The generalized block flow diagram presented at the beginning of this section lists sources of wastewater that are in association with gas processing. These discharges, along with inlet gas scrubber (process) water, are the major sources for disposal for gas processing plants.

The Wastewater System Disposal diagram for the Eunice Plant directly follows. This diagram also shows the final disposition of the water. This is reiterated on the summary pages presented at the end of this section.

SECTION V - GENERAL DESCRIPTION
GAS PROCESSING INDUSTRY (Continued)

SUMMARY OF WASTE WATER DISCHARGE

EUNICE PLANT



Note:

In the event of any emergency shutdown of the Injection Well, waste water would be hauled from the plant by vacuum truck and delivered to an alternate, state approved well.

*Dynegy will recover and dispose of the backwash water at the disposal well.
Accidental Spill: Procedures in the Spill Control and Countermeasure Plan would take effect.

SECTION V - GENERAL DESCRIPTION
GAS PROCESSING INDUSTRY (Continued)

Sumps

The sumps will be cleaned and visually inspected annually to verify their integrity. This will be documented by a written inspection that will be maintained at the facility.

The sump that is used as a separator/skimmer has a capacity of:

4000 gallons.

Underground Wastewater Lines

The wastewater drain system will be tested this year to demonstrate mechanical integrity. The lines will be isolated into sections that can be tested individually, the testing will be done over an extended period during 2000. For lines that can be blocked in and pressurized we will apply 3 pounds per square inch above normal operating pressure and monitor for 10 minutes. For those lines that cannot be sealed sufficiently to hold pressure we propose to block the down grade end and apply static head pressure and monitor for 10 minutes. All testing will have written documentation identifying piping, method, date and personnel.

SECTION V

GENERAL DESCRIPTION

GAS PROCESSING INDUSTRY

Natural Gas Processing Plants extract liquid hydrocarbons from raw natural gas. Please refer to the block flow diagram which directly follows.

The liquid hydrocarbon components of natural gas are ethane (C2), propane (C3), butane (C4), and natural gasoline (c5+). The remaining gas, from which the liquids are extracted, is almost entirely methane (C1).

Treating for the Removal of Hydrogen Sulfide and Carbon Dioxide

The raw natural gas, termed inlet gas, may contain varying amounts of impurities. The most common contaminates are water (H2O), hydrogen sulfide (H2S), and carbon dioxide (CO2). The gas is compressed and then enters the first phase of natural gas processing, which is treatment to remove the impurities.

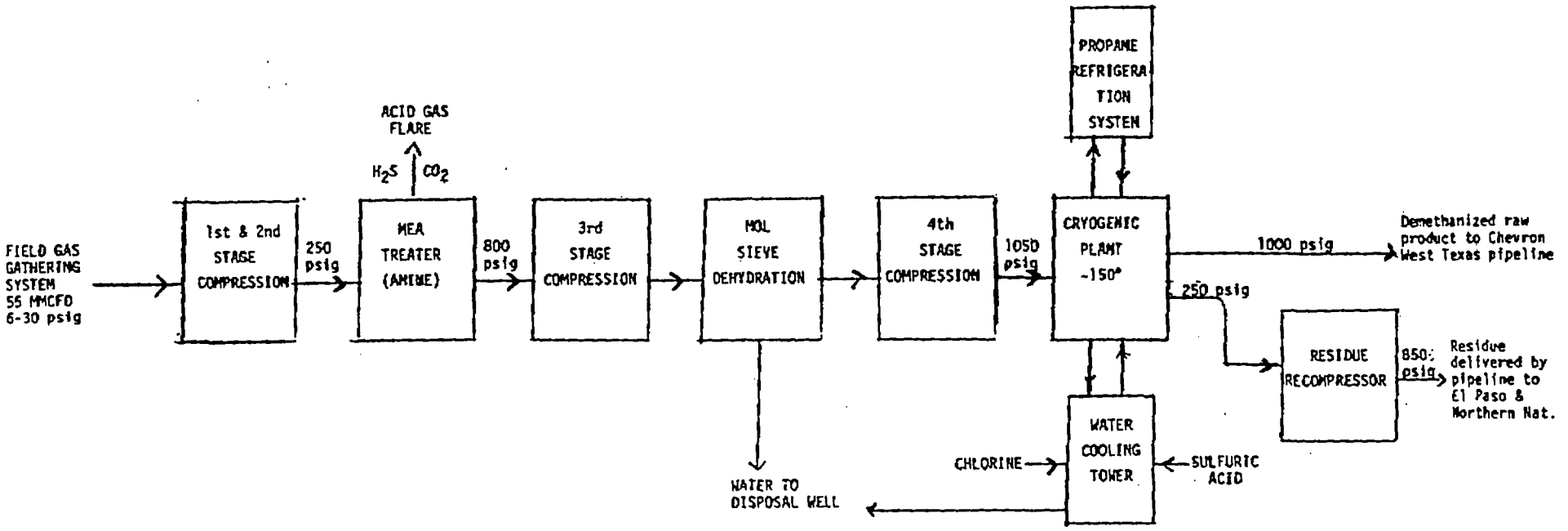
The term acid gas refers to the presence of H2S and CO2 in the raw natural gas. Sour gas has a high concentration of sulfur components. Sweet gas has small quantities of sulfur compounds, usually less than 0.25 grain of H2S per 100 standard cubic feet of gas, and as such, bypasses iron sponge or amine treating.

The acid gas may be removed from the inlet gas stream by and absorption process where the incoming stream contacts a liquid that selectively reacts with and removes the acid gas. This liquid mono- or diethanolamine is regenerated by heat, thereby driving off the gases. The resultant amine liquid then reacts with more acid gas in a continuing cycle of reaction, then regeneration. The gases released from the amine may then be combusted to SO2 in a flare stack, or incinerator. If the acid gas exists in a large concentration, it will not be combusted, but will enter a sulfur recovery plant, which removes elemental sulfur from the stream. Any unoxidized H2S, which occurs in small amounts, is oxidized to SO2 by the sulfur plant incinerator. This incinerator is located after the last sulfur plant catalytic bed. Also note that an H2S scrubber may exist prior to the entry of the gas stream into the sulfur plant. This scrubber removes water from the gas.

WARREN PETROLEUM COMPANY

EUNICE PLANT

SIMPLIFIED PLANT FLOW DIAGRAM



Treating for the Removal of Water

The inlet gas, now minus the acid gas components, enters the next phase of gas processing. This is the removal of water from the gas.

The water may be removed by an absorption, or an absorption process. Both processes may be used in tandem.

Triethylene glycol removes water from the gas by absorption. The glycol is then reconcentrated by removal of the water with heat. This is a continuous cycle. Either alone, or in conjunction with the glycol system, a molecular sieve dehydration system may exist. The molecular sieve is a desiccant which absorbs water from the gas is regenerated by heat to restore its absorptive capability.

Whether removed by glycol or molecular sieve, the water driven off during regeneration exists in the steam phase, then condenses through exchangers and leaves the process as a liquid.

Natural Gas Processing - Removal of Gas Liquids

The extraction of the gas liquids from the gas stream, which is now sweet and dry, is accomplished in several ways. Warren's New Mexico plants use the cryogenic method. Basically, the gas stream is cooled and the non-methane hydrocarbons are then condensed and recovered. In some instances, the liquids are also treated to remove water and or acid gas components.

Natural Gas Processing - Fractionation of Natural Gas Liquids

The natural gas liquids that have been separated out of the inlet stream are fractionated into their individual components. Many of Warren's plants do not fractionate the liquids. These plants remove the gas liquids by pipeline.

Separation of the hydrocarbon components is possible because of the difference in their physical properties, specifically, their boiling points. The distinct gas liquids, along with the purified natural gas, are sold commercially.

The following document, "The Gas Processing Industry: Its Function and Role in Energy Supplies", published by the Gas Processors Association, will provide further details about the industry.

The Gas Processing Industry:

Its Function and Role
in
Energy Supplies

Gas Processors Association
1812 First Place
Tulsa, OK 74103

INTRODUCTION

The gas processing industry is a major segment of the oil and gas industry, distinct from either crude oil or natural gas production, separate from oil refining or gas distribution, yet indispensable to all. As a separate and identifiable function, it is probably the least known and least understood part of the petroleum industry.

In simple terms, the gas processing industry refines raw natural gas from the earth into saleable, useful energy forms for use in a wide variety of applications. Through the gas processing industry's plants flows approximately 60% of the nation's petroleum energy production, which emerges in the form of merchantable natural gas, liquefied petroleum gases, motor fuel components, and raw materials for a myriad of basic petrochemicals.

Natural gas occurs deep below the surface of the earth in two principal forms: associated gas and non-associated gas.

Associated gas is found in crude oil reservoirs, either dissolved in the crude oil, or in conjunction with crude oil deposits. It is produced from oil wells along with the crude. It separates, or is separated from, the oil at the casinghead of the well, which leads to the synonymous term "casinghead gas." It may also be called "oil-well gas" or "dissolved gas." In the industry's beginning, virtually all processed gas was from oil wells.

Non-associated gas occurs in reservoirs separate from crude oil. Its production is not incidental to the production of crude oil. It is commonly called "gas-well gas" or "dry gas." Today about 75% of all natural gas produced is non-associated gas.

In addition, the reservoirs of many oil fields found since 1935 produce neither true gases nor true liquids. The material might properly be called a "two-phase fluid." It is neither a gas because of its high density, nor a liquid because no surface boundary exists between gas and liquid. These reservoirs, called "gas condensate" reservoirs, are usually deeper with higher pressures, which pose special problems in production and processing.

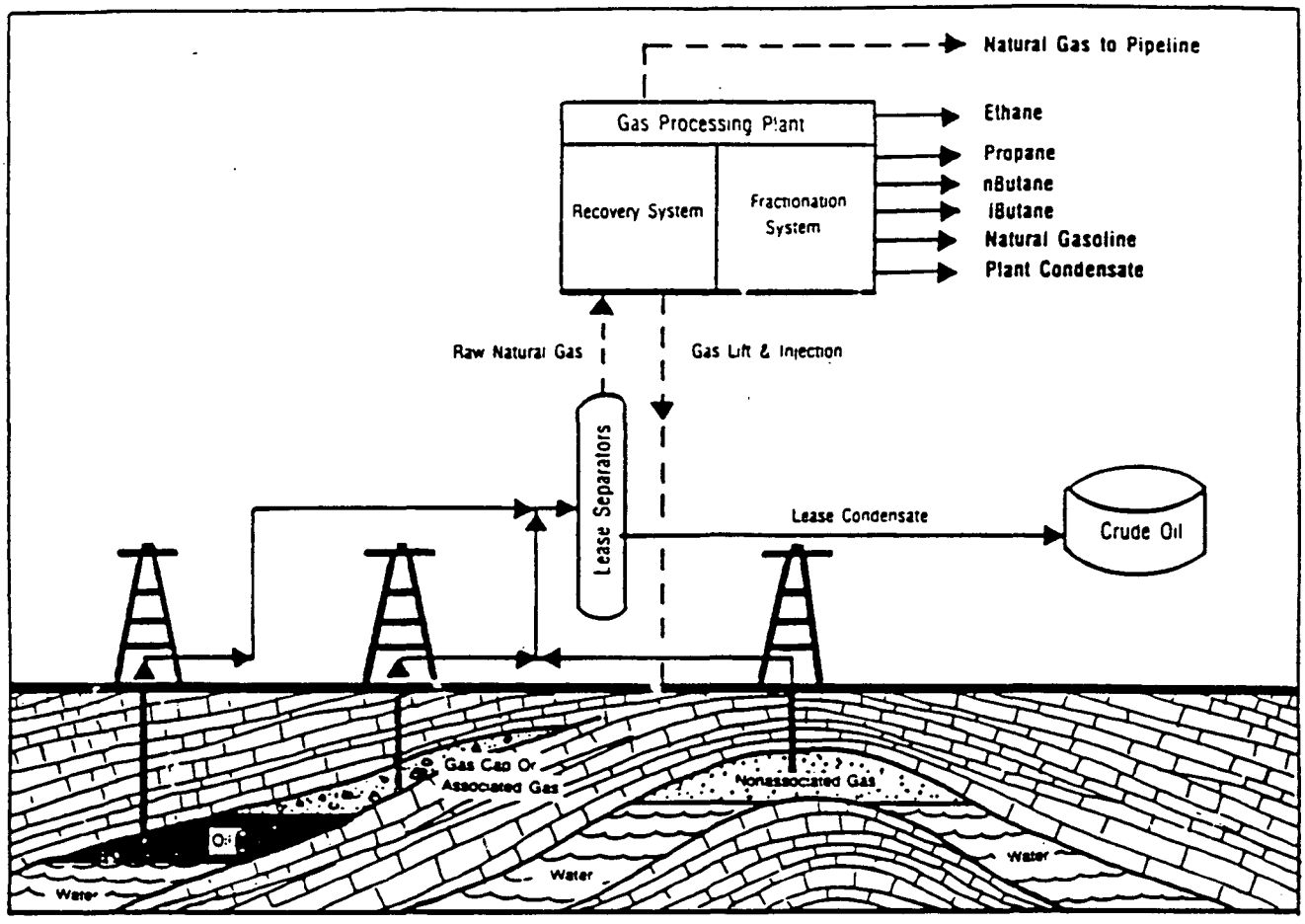
From whatever reservoir, natural gas as produced from the earth has widely varying composition, depending on the field, the formation, or the reservoir from which it is produced. The principal constituents of natural gas are methane and ethane, but most gases contain varying amounts of heavier components, such as propane, butane, pentane, and heavier hydrocarbons that may be removed by any of a number of processing methods.

The removal of individual hydrocarbons by processing is possible because of the differences in physical properties. Each component has a distinctive weight, boiling point, and other physical characteristics, making its separation from other components a relatively simple physical operation.

Gas processors describe gas as "rich" (wet), or "lean" (dry) depending on its content of heavy components. These are relative terms, but as used in the industry, a rich gas may contain five or six gallons or more of recoverable hydrocarbons per thousand cubic feet; a lean gas usually contains less than one gallon of recoverable liquids per thousand cubic feet.

Natural gas may also contain water, hydrogen sulfide, carbon dioxide, nitrogen, helium, or other components that may be diluents and/or contaminants. In any case, natural gas as produced rarely is suitable for pipe line transportation or commercial use. Natural gas in commercial distribution systems is composed almost entirely of methane and ethane, with moisture and other contaminants removed to very low concentrations.

Therefore, all natural gas is processed in some manner to remove unwanted



water vapor, solids and/or other contaminants that would interfere with pipe line transportation or marketing of the gas. In addition, and equally important, most natural gas is processed to separate from the gas those hydrocarbon liquids that have higher value as separate products.

These natural gas liquids (NGL's) are part of a family of saturated hydrocarbons called paraffins. Each compound has a chemical formula C_nH_{2n-2}. The principal natural gas liquids include:

Ethane: Exists as a liquid only under very high pressures (800 psi) or at extremely low temperatures (−135°F). It is recovered and transported in either the liquid or gaseous state principally for use as feedstock for ethylene, the most important basic petrochemical produced today.

Propane: Recovered and handled as a liquid at pressures over 200 pounds, or at temperatures below −44°F. Its principal uses are as feedstock for production of ethylene and propylene, and as LP-gas for heating fuel, engine fuel, and industrial fuel.

Butane: Recovered and handled as a liquid under moderate pressure. Its principal uses are to provide needed volatility to gasoline motor fuel; as domestic LP-gas fuel, either alone or in mixtures with propane; and as a feedstock for the manufacture of butadiene, a key ingredient of synthetic rubber.

Iso-butane: The chemical isomer of butane, it is fractionated and produced as a separate product principally for the manufacture of alkylate, a vital ingredient of high-octane motor gasoline.

Natural Gasoline: A mixture of pentanes and heavier hydrocarbons, with small amounts of butane and iso-butane. Industry specifications define its physical

properties in terms of vapor pressure at 100°F (10 to 34 psi), and percentage evaporated at 140°F (25 to 85%). It is recovered as a liquid, principally for use as a motor fuel component.

If the gas contains hydrogen sulfide, a poisonous gas, it is removed and further processed for recovery of elemental sulfur. Most carbon dioxide is removed to prevent destructive corrosion and to inject into crude oil reservoirs for enhanced oil recovery (EOR). Some helium is extracted for its unique properties as an inert gas.

In addition, gas processing performs vital functions, both economically and technically, in the recovery of crude oil through reservoir pressure maintenance, miscible floods, and other secondary recovery methods. Many of these projects would not be economically possible except for the revenues generated by extraction and sale of natural gas liquids.

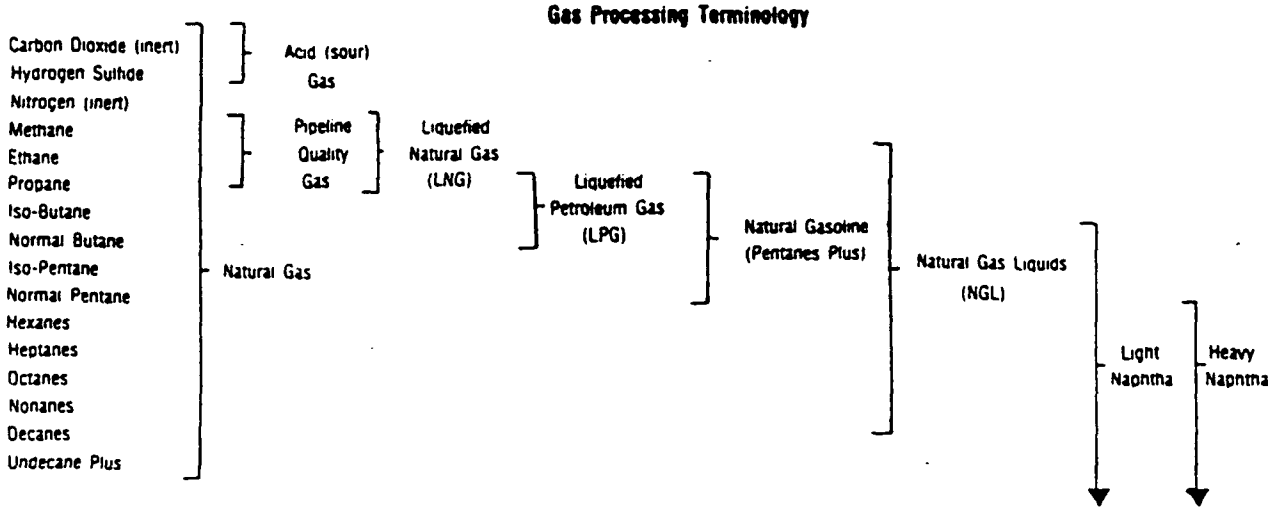
PROCESSING AND MANUFACTURE

Natural gas processing involves two basic operations: (1) extraction of the natural gas liquids from the gas stream; and (2) fractionation of the natural gas liquids into their separate components. Additional processing is usually required to treat and condition both the natural gas and the gas liquids.

Natural gas processing may be as simple as drying the gas by passing it through a fixed bed of a desiccant material, or it may be as complex as complete liquefaction of the total gas stream by cooling to extremely low temperatures. Extraction of heavier gas liquids (pentane and heavier) can be achieved by simple compression and moderate cooling of the natural gas stream.

However, the modern gas processing industry uses a variety of sophisticated processes to treat natural gas and extract natural gas liquids from the gas stream. The two most important extraction processes are the absorption and cryogenic expander processes. Together, these processes account for an estimated 90% of total natural gas liquids production.

Gas Processing Terminology



ABSORPTION PROCESS

The basic step in the absorption process is removal of NGL components from the natural gas by contact with an absorbing oil. Liquid recovery is enhanced by refrigerating the absorption oil. Recovery levels may also be increased by lowering the molecular weight of the absorption oil. Depending on operating conditions, approximately 85% of the propane and essentially all of the heavier natural gas liquids are absorbed in the oil. The lighter fractions – methane, ethane, and some of the propane – are not recovered in the absorbing oil and pass through the absorber tower as merchantable pipeline quality natural gas.

The bottoms effluent from the absorption tower consists of rich absorption oil mixed with absorbed propane, butanes, pentanes, and other heavier natural gas liquids. This stream is then fed to lean oil stills where the absorbed liquids are distilled from the absorber oil by heating the mixture to a temperature above the boiling point of the natural gas liquids, but below that of the absorber oil. The stripped absorber oil is then recirculated to the absorption tower, and the mixed stream of natural gas liquids is piped to the fractionation system for further separation into individual NGL components.

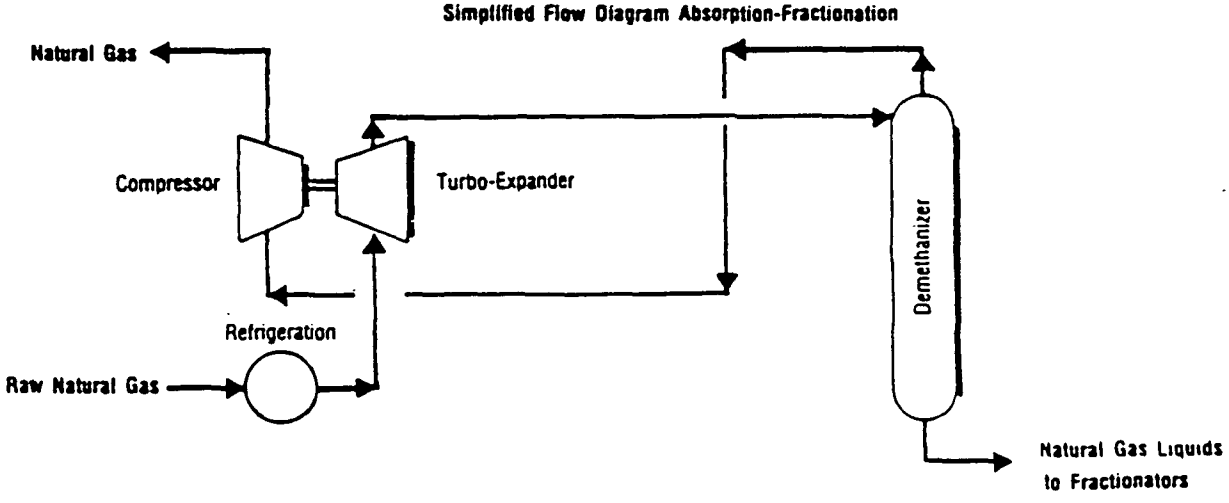
The fractionation system may be an integral part of the gas processing plant, or it may be a "central fractionator" many miles from the primary production. A central fractionator may receive mixed streams of natural gas liquids from many plants.

TURBO EXPANDER PROCESS

In recent years, ethane has become increasingly desirable as a petrochemical feedstock. This has resulted in the construction of many plants that recover ethane and heavier hydrocarbons from natural gas at temperatures ranging down to minus 150°F.

Combinations of external refrigeration and liquid flash-expansion refrigeration with gas turbo expansion cycles are employed to attain the low temperatures desired for high ethane recovery.

In the turbo-expander process, the absorber and still facilities are replaced by an expansion turbine, which accomplishes the separation of gas liquids from the natural gas stream by auto-refrigeration to extremely low temperatures.



Recoveries of 90-95% ethane and all of the heavier hydrocarbons have been achieved with the expander process. The mixed liquid product from the expander plant is then fractionated or may be delivered by pipeline to a central fractionation facility for fractionation into separate NGL components.

FRACTIONATION

Fractionation of a mixed NGL stream into separate components is accomplished by controlling the temperature of the stream in a fractionator to take advantage of the difference in boiling points of separate products. Fractionators are usually named for the overhead or top product. Therefore, a deethanizer implies that the top product is ethane; a depropanizer indicates that the top product is propane, etc. Natural gas liquids are normally fractionated by boiling the lighter products from the heavier products in the following order:

Deethanizer: The first step in the fractionating sequence is to separate the ethane and propane, with the ethane going overhead and the propane and heavier components passing from the bottom of the fractionator.

Depropanizer: The next step in the processing sequence is to separate the propane and the isobutane, with the propane going overhead and the isobutane and heavier components passing from the bottom of the depropanizer.

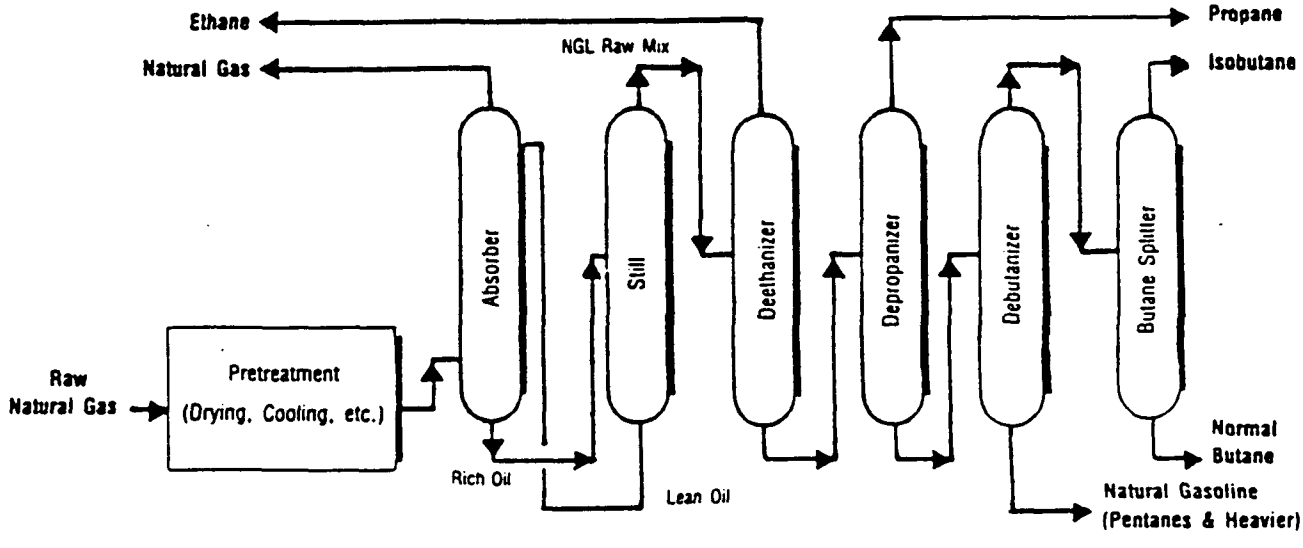
Debutanizer: The next fractionation step is separation of the butanes from the pentanes plus stream. The butanes (both iso and normal) pass overhead and the pentanes plus pass from the bottom of the fractionator.

Butane Splitter or Deisobutanizer: When it is desirable to do so, the butanes which pass overhead from the debutanizer may be separated into iso and normal butanes. The isobutane goes overhead and the normal butane is drawn from the bottom of the tower.

OTHER ROUTINE GAS PROCESSING

As noted earlier, both natural gas and natural gas liquids may require additional treating or processing, either before or after extraction of liquids.

Simplified Flow Diagram Absorption—Fractionation



The most common treatment of natural gas is removal of excess water vapor, which is necessary to prevent formation of hydrates and freezing in pipeline transmission systems. Techniques for dehydrating natural gas include:

–Absorption using liquid desiccants, usually a glycol compound

–Adsorption, using solid desiccants such as silica gel, activated alumina, or molecular sieves

–Dew point depression by injection of anti-freeze compounds such as glycols or alcohols

–Expansion refrigeration which cools the gas stream below the dew point of entrained water vapor.

Removal of excess moisture from some natural gas liquids, principally propane, is also necessary and is accomplished most often with solid desiccants or molecular sieves.

Additional treatment of both natural gas and natural gas liquids is usually required to remove hydrogen sulfide and carbon dioxide. This process in the industry is called "sweetening." Many process methods are used, most of which rely on either chemical reactions, physical solution, or adsorption. Each process has unique advantages, depending on the concentration of hydrogen sulfide, carbon dioxide, and other conditions.

The most common chemical processes are based on contact with amine solutions. These solutions react with unwanted acid gas constituents to form other compounds which can then be removed.

Physical solvent processes include a number of patented chemicals and processing schemes which function much the same as the oil absorption process for removal of liquids from gas.

Adsorption processes involve the removal of unwanted components by passing the gas or liquid through a bed of solid material that has been designed or treated to selectively extract carbon dioxide, hydrogen sulfide, or other contaminants.

SULFUR RECOVERY

The sour gas effluent from a sweetening unit must be further treated, either for disposal or for recovery of sulfur contained in the gas. At plants where hydrogen sulfide concentrations are very low, it is not economical to install sulfur recovery facilities. In these cases, the sour gas is disposed of by incineration.

At higher concentrations, the sour gas is usually processed in a sulfur recovery facility to recover elemental sulfur. The Claus process is the most widely used process for converting hydrogen sulfide into elemental sulfur. The process utilizes thermal and catalytic reactions to achieve conversion of up to 97% of hydrogen sulfide to elemental sulfur. "Tail gas clean up" processes reduce sulfur emissions significantly and boost overall efficiency of sulfur recovery to 98+%.

OTHER SPECIALIZED GAS PROCESSING

Depending on gas composition and other factors, the gas processing function may also include additional processing such as:

- Carbon dioxide removal and transport for enhanced oil recovery
- Helium recovery for commercial sale
- Nitrogen removal to increase heating value of the gas
- Liquefaction of the total gas stream to produce liquefied natural gas.

All of these process functions require specialized processes and additional investment.

PROFILE OF THE U.S. GAS PROCESSING INDUSTRY

PROCESSING PLANTS

There are approximately 859 gas processing plants in the United States, most of which are located in five states: Texas, Louisiana, Oklahoma, Kansas, and New Mexico. These five states account for about 86% of total U.S. gas processing capacity, gas processed, and natural gas liquids production.

Plant sizes range from less than 1 million cubic feet per day up to more than 2.5 billion cubic feet per day. The 200 smallest plants (about 25% of total) are less than 10 million cubic feet per day capacity, and account for only about 1% of total industry capacity.

The 200 largest plants (25% of total) have capacities greater than 80 million cubic feet per day and account for nearly 80% of total industry capacity. Approximately 92% of total gas capacity is in 375 plants (44% of total) with capacities greater than 35 million cubic feet per day. Production of natural gas liquids averages less than 2,000 barrels per day per plant, with maximum production ranging up to 25,000 barrels per day in the largest plants.

Approximately 100 of the 859 U.S. gas processing plants include sulfur recovery facilities, with a total capacity of about 4,500 tons per day of elemental sulfur. Sulfur production from gas plants accounts for about 13% of total U.S. sulfur production.

In addition, there are approximately 20 central fractionating plants operating in the United States. These fractionators may handle the mixed natural gas liquids production of a single separation facility, or may process mixed streams from many plants, some of which may be located hundreds of miles away. These fractionators separate these raw mixed NGL streams from recovery facilities into saleable products such as ethane, propane, butane, or specified mixtures, according to the user's needs.

COMPANIES

The U.S. gas processing industry is composed of an estimated 300 companies, ranging in size from the largest integrated oil companies to the single plant owner-operator.

The 20 largest gas processing companies produce about 70% of total U.S. production of natural gas liquids.

U.S. GAS PROCESSING PLANTS

State	No. Plants	Gas Capacity, mmcfd	Gas throughput, mmcfd	NGL Products, m B/D
Texas	411	25,090	13,380	618
Louisiana	100	22,601	14,070	333
Oklahoma	103	4,765	3,110	145
Kansas	23	4,894	2,648	45
New Mexico	41	3,626	2,211	96
	678	60,976	35,419	1,237
Other	181	9,508	5,738	218
U.S. Total	859	70,484	41,157	1,455

NATURAL GAS LIQUIDS SUPPLY/DEMAND

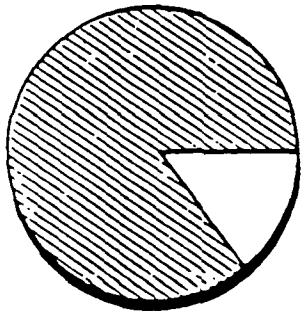
U.S. gas plant production of natural gas liquids totals some 570 million barrels per year, or approximately 1.5 million barrels per day. The distribution of this production during 1984 is as follows:

Ethane	28.7%
Propane	34.2%
Normal and Iso-Butane	19.6%
Pentanes plus, including plant condensate	17.5%

PROPANE CONSUMPTION

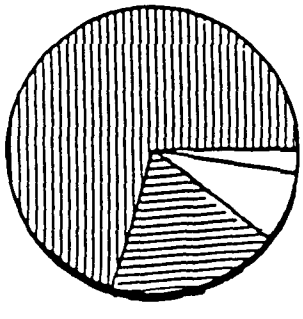
- 2.10% UTILITY GAS
- 3.29% EXPORT
- 5.09% ENGINE FUEL
- 12.57% OTHER
- 34.13% RES & COMM
- 42.82% CHEM & INDUST

ETHANE CONSUMPTION



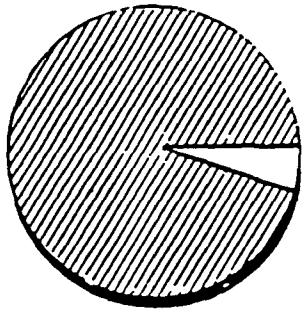
- 13.59% OTHER
- 86.41% CHEMICAL & IND

BUTANE CONSUMPTION



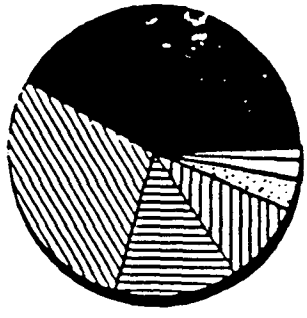
- 1.89% OTHER
- 7.55% EXPORT
- 20.13% CHEM & IND
- 70.43% GASOLINE

PENTANES + CONSUMPTION



- 4.76% CHEM & INDUST
- 95.24% GASOLINE

NGL CONSUMPTION



- 1.13% UTILITY GAS
- 2.12% ENGINE FUEL
- 3% EXPORT
- [illegible]% OTHER
- 14.27% RES & COMM
- 28.54% GASOLINE
- 41.79% CHEM & INDUST

PHYSICAL PROPERTIES OF NATURAL GAS LIQUIDS COMPONENTS

Component	Vapor Pressure psia @ 100 F.	Boiling Point @ 14.7 psia	Specific Gravity 60 F./60 F.
Methane	(5,000)	−259	0.3
Ethane	(800)	−127	0.356
Propane	190	−43.7	0.508
n-Butane	51.6	31.1	0.584
i-Butane	72.2	10.9	0.536
n-Pentane	15.6	96.9	0.631
i-Pentane	20.4	82.1	0.625
Hexane	5.0	155.7	0.664
Heptane	1.6	209.2	0.688

In addition, field facilities handling natural gas prior to delivery into a gas processing plant produce an estimated 350 thousand barrels per day of lease condensate, which is usually transported to refineries along with crude oil.

Total U.S. supply of natural gas liquids is augmented by refinery production and imports.

Refineries produce and market about 120 million barrels per year, or about 325 thousand barrels per day, of natural gas liquids, mainly propane. Refinery yields of natural gas liquids amount to 2-3% of total crude oil charged to the refinery.

Total imports of natural gas liquids are approximately 70 million barrels per year, or roughly 200 thousand barrels per day. About 80% of these imports are from Canada.

Approximately 80% of total U.S. natural gas liquids production is consumed in three major uses: petrochemical feedstocks; motor gasoline manufacture; and residential and commercial heating fuels. The remainder is used in a wide variety of applications, including engine fuels, industrial fuels, utility peak shaving, crop drying, and other agricultural and process fuel applications.

TRANSPORTATION AND STORAGE

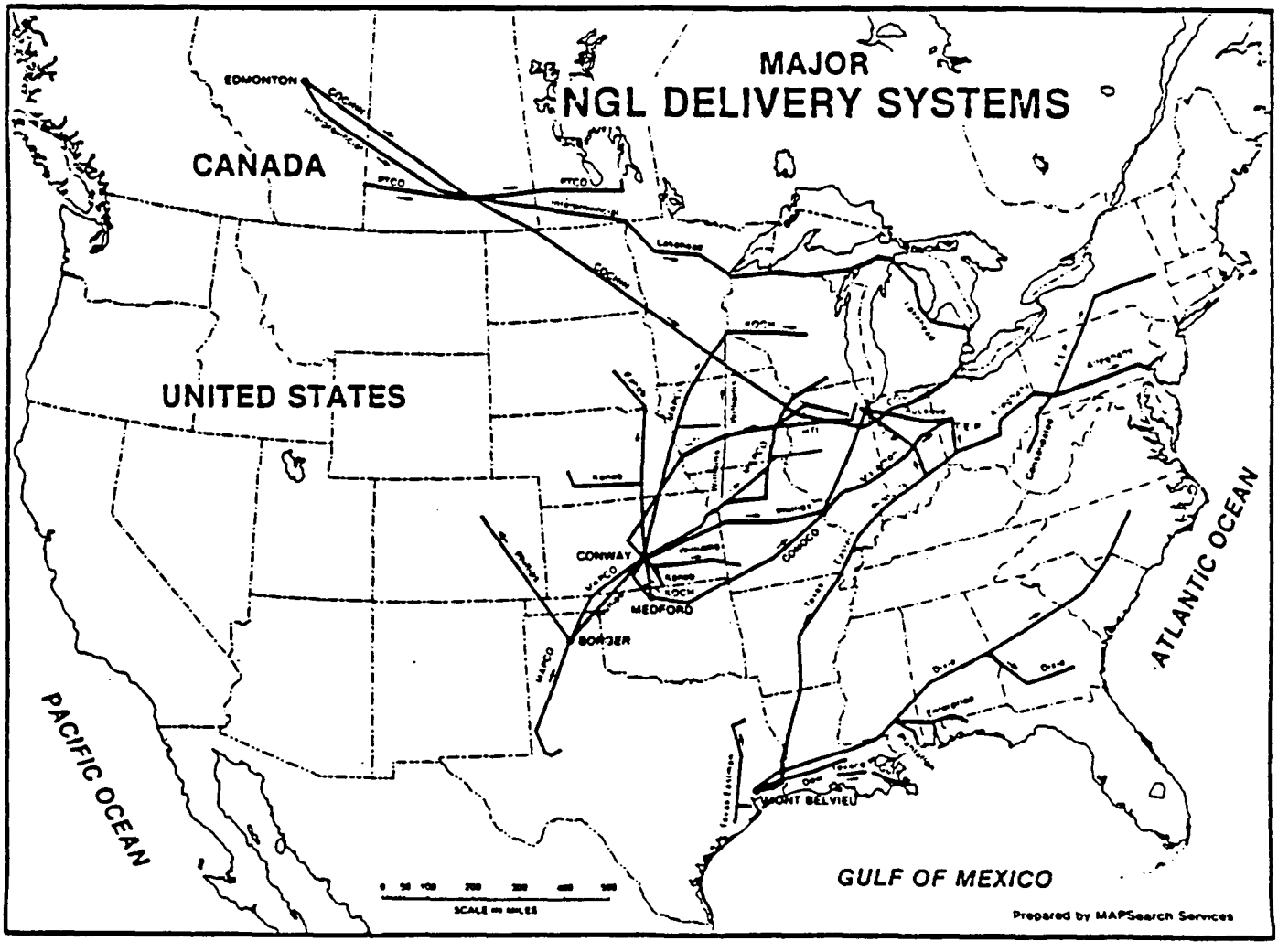
A national network of some 70 thousand miles of high pressure pipelines transport unfractionated NGL streams from production areas to fractionating centers and then transport finished products to major markets.

Four major pipelines extend from the West Texas-New Mexico fields to the major terminal and fractionation center of the U.S. – Mont Belvieu, Texas, located near the petrochemical and refining center of the nation. Other pipeline systems deliver West Texas-New Mexico natural gas liquids to a second major terminal, storage, and fractionation point in central Kansas.

From Mont Belvieu, two major pipeline systems deliver LP-gas fuels to the northeastern and southeastern United States.

Several pipeline systems extend from central Kansas storage and fractionating facilities into west and upper midwest markets.

Total natural gas liquids production is relatively constant throughout the year. However, depending on weather and other factors, demand may vary considerably. Therefore the industry has installed and operates underground storage facilities totaling nearly half a billion barrels capacity. The bulk of this capacity is located near the refining and petrochemical complexes of the Texas and Louisiana Gulf Coasts, with a second major installation in the midcontinent hub of central Kansas.



SECTION VI

HYDROLOGIC & GEOLOGIC DATA

SECTION VI

HYDROLOGIC & GEOLOGIC DATA

Wastewater is removed from the Eunice Plant as described throughout this document. Dynegy does operate one injection well for removal of waste water from this plant.

The Eunice Plant uses water from its wells and from the city of Eunice. Three of our wells located 1.5 miles northeast of the plant show water at an elevation of 3285' above sea level.

Further hydrologic and/or geologic data will be researched at the request of the Oil Conservation Division.

SECTION VII

CHEMICAL ANALYSES

SECTION VII
CHEMICAL ANALYSES

The information provided herein describes the sources and disposition of wastewater from the Eunice Plant which has a disposal system whereby no effluent is allowed to enter a navigable waterway.

Contingency measures would be taken by the plant for wastewater disposal should normally used removal methods ever be rendered inoperable. These procedures have been carefully formulated and would take effect in the event that an emergency would necessitate their implementation.

Section VIII, which follows contains a current copy of the Spill Prevention Control and Countermeasure (SPCC) Plan for the facility. The SPCC Plan is maintained on site and would be implemented in the event of a spill.

Wastewater sample analyses are attached. To obtain highly consistent analyses of the effluent would be difficult due to the several sources throughout each plant which combine to provide the whole.

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Report of tests on	Water	File No.	6923501
Client	Warren Petroleum Company	Report No.	69683
Delivered by	Tim Huffer	Report Date	12-27-90
		Date Received	12-11-90

Identification Vertical Tank, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-12-90 Method EPA 601
Technique Purge and Trap GC/MS Analyst W. Kucera

Compound	ug/L
Chloromethane	34
Bromomethane	*10
Vinyl Chloride	*10
Chloroethane	*10
Methylene Chloride	* 5
1,1-Dichloroethene	* 5
1,1-Dichloroethane	* 5
trans-1,2-Dichloroethene	* 5
Chloroform	96
1,2-Dichloroethane	* 5
1,1,1-Trichloroethane	* 5
Carbon Tetrachloride	* 5
Bromodichloromethane	* 5
1,2-Dichloropropane	* 5
trans-1,3-Dichloropropene	* 5
Trichloroethene	* 5
Dibromochloromethane	* 5
1,1,2-Trichloroethane	* 5
trans-1,3-Dichloropropene	* 5
cis-1,3-Dichloropropene	* 5
2-Chloroethylvinylether	*10
Bromoform	* 5
Tetrachloroethene	* 5
1,1,2,2-Tetrachloroethane	* 5
Chlorobenzene	* 5
1,3-Dichlorobenzene	* 5
1,4-Dichlorobenzene	* 5
1,2-Dichlorobenzene	* 5

*Denotes "less than"

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Attn: Tim Huffer

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Report of tests on	Water	File No.	6923501
Client	Warren Petroleum Company	Report No.	69683
Delivered by	Tim Huffer	Report Date	12-27-9
		Date Received	12-11-9

Identification Vertical Tank, Sampled by Client

REPORT OF TOTAL METALS

Parameters	Results mg/L	Date Performed	Analyst	Test Method
Aluminum	*1.0	12-18-90	A. Johnston	SW846, 7020
Arsenic	0.08	12-20-90	A. Johnston	SW846, 7061
Boron	0.39	12-27-90	J. Goede	SW846, 6010
Cadmium	*0.05	12-18-90	A. Johnston	SW846, 7130
Mercury	*0.02	12-13-90	A. Johnston	SW846, 7470
Molybdenum	*2.5	12-18-90	A. Johnston	SW846, 7480
Nickel	*0.2	12-18-90	A. Johnston	SW846, 7520
Selenium	*0.01	12-20-90	A. Johnston	SW846, 7741

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Report of tests on	Water	File No.	6923501
Client	Warren Petroleum Company	Report No.	69683
Delivered by	Tim Huffer	Report Date	12-27-9
		Date Received	12-11-9

Identification Vertical Tank, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-13-90
Analyst J. Barnett

Method SW846, 5030/802

Compound	mg/L
Benzene	13.86
Toluene	26.61
Ethyl Benzene	3.55
m, p - Xylenes	4.70
o-Xylene	1.85

REPORT OF CHEMICAL ANALYSIS

Parameters	Results mg/L	Date Performed	Analyst	Methods
Phenols	16.6	12-20-90	A. Johnston	SW 846, 9066
Nitrate as N	23	12-11-90	A. Johnston	Standard Method 4500 $-NO_3$,F
Nitrite as N	26	12-11-90	A. Johnston	Standard Method 4500-NO_3,F

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Report of tests on	Water	File No.	692350
Client	Warren Petroleum Company	Report No.	69684
Delivered by	Tim Huffer	Report Date	12-27-
		Date Received	12-11-

Identification Horizontal Tank, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-12-90
Technique Purge and Trap GC/MS
Method EPA 601
Analyst W. Kucera

Compound	ug/L
Chloromethane	*10
Bromomethane	*10
Vinyl Chloride	*10
Chloroethane	*10
Methylene Chloride	* 5
1,1-Dichloroethene	* 5
1,1-Dichloroethane	* 5
trans-1,2-Dichloroethene	* 5
Chloroform	* 5
1,2-Dichloroethane	* 5
1,1,1-Trichloroethane	* 5
Carbon Tetrachloride	* 5
Bromodichloromethane	* 5
1,2-Dichloropropane	* 5
trans-1,3-Dichloropropene	* 5
Trichloroethene	* 5
Dibromochloromethane	* 5
1,1,2-Trichloroethane	* 5
trans-1,3-Dichloropropene	* 5
cis-1,3-Dichloropropene	* 5
2-Chloroethylvinylether	*10
Bromoform	* 5
Tetrachloroethene	* 5
1,1,2,2-Tetrachloroethane	* 5
Chlorobenzene	* 5
1,3-Dichlorobenzene	* 5
1,4-Dichlorobenzene	* 5
1,2-Dichlorobenzene	* 5

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Report of tests on	Water	File No.	692350
Client	Warren Petroleum Company	Report No.	69684
Delivered by	Tim Huffer	Report Date	12-27-
		Date Received	12-11-

Identification Horizontal Tank, Sampled by Client

REPORT OF TOTAL METALS

Parameters	Results mg/L	Date Performed	Analyst	Test Method
Aluminum	*1.0	12-18-90	A. Johnston	SW846, 7020
Arsenic	*0.01	12-20-90	A. Johnston	SW846, 7061
Boron	0.30	12-27-90	J. Goede	SW846, 6010
Cadmium	*0.05	12-18-90	A. Johnston	SW846, 7130
Mercury	*0.02	12-13-90	A. Johnston	SW846, 7470
Molybdenum	*2.5	12-18-90	A. Johnston	SW846, 7480
Nickel	*0.2	12-18-90	A. Johnston	SW846, 7520
Selenium	*0.01	12-20-90	A. Johnston	SW846, 7741

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Report of tests on	Water	**File No.**	6923501
Client	Warren Petroleum Company	**Report No.**	69684
Delivered by	Tim Huffer	**Report Date**	12-27-9
		Date Received	12-11-9

Identification Horizontal Tank, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-11-90
Analyst J. Barnett

Method SW846, 5030/802

Compound	mg/L
Benzene	*0.005
Toluene	*0.005
Ethyl Benzene	*0.005
m, p - Xylenes	*0.005
o-Xylene	*0.005

REPORT OF CHEMICAL ANALYSIS

Parameters	Results mg/L	Date Performed	Analyst	Methods
Phenols	*0.05	12-20-90	A. Johnston	SW 846, 9066
Nitrate as N	11	12-11-90	A. Johnston	Standard Method 4500 $-NO_3$,F
Nitrite as N	*0.1	12-11-90	A. Johnston	Standard Method 4500-NO_3,F

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Report of tests on	Water	File No.	692350
Client	Warren Petroleum Company	Report No.	69682
Delivered by	Tim Huffer	Report Date	12-27-9
		Date Received	12-11-9

Identification Cooling Tower, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-12-90
Technique Purge and Trap GC/MS

Method EPA 601
Analyst W. Kucera

Compound	ug/L
Chloromethane	*10
Bromomethane	*10
Vinyl Chloride	*10
Chloroethane	*10
Methylene Chloride	* 5
1,1-Dichloroethene	* 5
1,1-Dichloroethane	* 5
trans-1,2-Dichloroethene	* 5
Chloroform	* 5
1,2-Dichloroethane	* 5
1,1,1-Trichloroethane	* 5
Carbon Tetrachloride	* 5
Bromodichloromethane	* 5
1,2-Dichloropropane	* 5
trans-1,3-Dichloropropene	* 5
Trichloroethene	* 5
Dibromochloromethane	* 5
1,1,2-Trichloroethane	* 5
trans-1,3-Dichloropropene	* 5
cis-1,3-Dichloropropene	* 5
2-Chloroethylvinylether	*10
Bromoform	* 5
Tetrachloroethene	* 5
1,1,2,2-Tetrachloroethane	* 5
Chlorobenzene	* 5
1,3-Dichlorobenzene	* 5
1,4-Dichlorobenzene	* 5
1,2-Dichlorobenzene	* 5

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Report of tests on	Water	File No.	6923501
Client	Warren Petroleum Company	Report No.	69682
Delivered by	Tim Huffer	Report Date	12-27-9
		Date Received	12-11-9

Identification Cooling Tower, Sampled by Client

REPORT OF TOTAL METALS

Parameters	Results mg/L	Date Performed	Analyst	Test Method
Aluminum	*1.0	12-18-90	A. Johnston	SW846, 7020
Arsenic	0.02	12-20-90	A. Johnston	SW846, 7061
Boron	0.33	12-27-90	J. Goede	SW846, 6010
Cadmium	*0.05	12-18-90	A. Johnston	SW846, 7130
Mercury	*0.02	12-13-90	A. Johnston	SW846, 7470
Molybdenum	*2.5	12-18-90	A. Johnston	SW846, 7480
Nickel	*0.2	12-18-90	A. Johnston	SW846, 7520
Selenium	0.03	12-20-90	A. Johnston	SW846, 7741

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Report of tests on	Water	**File No.**	6923501
Client	Warren Petroleum Company	**Report No.**	69682
Delivered by	Tim Huffer	**Report Date**	12-27-9
		Date Received	12-11-9

Identification Cooling Tower, Sampled by Client

REPORT OF ORGANICS ANALYSIS

Date of Analysis 12-11-90
Analyst J. Barnett

Method SW846, 5030/802

Compound	mg/L
Benzene	*0.005
Toluene	*0.005
Ethyl Benzene	*0.005
m, p - Xylenes	*0.005
o-Xylene	*0.005

REPORT OF CHEMICAL ANALYSIS

Parameters	Results mg/L	Date Performed	Analyst	Methods
Phenols	*0.05	12-20-90	A. Johnston	SW 846, 9066
Nitrate as N	28	12-11-90	A. Johnston	Standard Method 4500 $-NO_3$,F
Nitrite as N	*0.1	12-11-90	A. Johnston	Standard Method 4500-NO_3,F

*Denotes "less than"

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Water Analysis Report

Warren Petroleum
P.O. Box 1909
Eunice, NM 88231

Date Submitted: 12/10/90
Date Reported: 01/09/91

Attn: Tim Huffer

Sample Description: WW Vert Tk
Date Sampled: 12/11/90

Laboratory ID: A1217040

TEST	VALUE	UNITS	METHOD
pH	6.9	pH	Betz C238.1
P-Alkalinity, as CaCO3	0	mg/l	Betz C005.1
M-Alkalinity, as CaCO3	595.	mg/l	Betz C004.1
Conductivity	3410	umhos	Betz C216.2
Conductivity at pH 8.3	N/A	umhos	Betz C217.2
Chloride	722	mg/l	Betz C008.1
Sulfate and Sulfite, as SO4	61.	mg/l	Betz C023.1
Calcium, total, as CaCO3	209.	mg/l	Betz C116.1
Copper, total	< 0.05	mg/l	Betz C125.1
Hardness, total, as CaCO3	328.	mg/l	Betz C128.1
Iron, total	0.23	mg/l	Betz C132.1
Magnesium, total, as CaCO3	117.	mg/l	Betz C144.1
Sodium, total, as Na	335.	mg/l	Betz C153.1
Potasium, total, as K	10.4	mg/l	Betz C150.1
Barium, total, as Ba	0.03	mg/l	Betz C106.1
Chromium, total, as Cr04	0.06	mg/l	Betz C119.1
Cobalt, total, as Co	< 0.01	mg/l	Betz C123.1
Lead, total, as Pb	0.1	mg/l	Betz C136.1
Zinc, total, as Zn	0.01	mg/l	Betz C166.1
Total Anions, as CaCO3	-1676		
Total Cations, as CaCO3	1070		

William W Walter
Laboratory Manager

BETZ LABORATORIES, INC.

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SOUTHERN LABORATORIES: 9669 GROGANS MILL ROAD • THE WOODLANDS, TX 77380 • TELEPHONE: 713 • 367-6201

Water Analysis Report

Warren Petroleum
P.O. Box 1909
Eunice, NM 88231

Date Submitted: 12/10/90
Date Reported: 01/09/91

Attn: Tim Huffer

Sample Description: Cooling Tower
Date Sampled: 12/05/90

Laboratory ID: A1210006

TEST	VALUE	UNITS	METHOD
pH	7.8	pH units	Betz C238.1
P-Alkalinity, as CaCO3	0	mg/l	Betz C005.1
M-Alkalinity, as CaCO3	73.	mg/l	Betz C004.1
Conductivity	5360	umhos	Betz C216.2
Conductivity at pH 8.3	N/A	umhos	Betz C217.2
Chloride	1070	mg/l	Betz C008.1
Sulfate and Sulfite, as SO4	1790	mg/l	Betz C023.1
Phosphate, ortho, as PO4	14.5	mg/l	Betz C017.1
Phosphate, inorganic, as PO4	15.5	mg/l	Betz C021.1
Phosphate, total, as PO4	15.5	mg/l	Betz C019.1
Silica, as SiO2	183.	mg/l	Betz C245.1
Calcium, total, as CaCO3	833.	mg/l	Betz C116.1
Copper, total	< 0.05	mg/l	Betz C125.1
Hardness, total, as CaCO3	1580.	mg/l	Betz C128.1
Iron, total	0.07	mg/l	Betz C132.1
Magnesium, total, as CaCO3	735.	mg/l	Betz C144.1
Sodium, total, as Na	888.	mg/l	Betz C153.1
Potasium, total, as K	38.	mg/l	Betz C150.1
Barium, total, as Ba	0.1	mg/l	Betz C106.1
Chromium, total, as CrO4	0.05	mg/l	Betz C119.1
Cobalt, total, as Co	< 0.01	mg/l	Betz C123.1
Lead, total, as Pb	0.08	mg/l	Betz C136.1
Zinc, total, as Zn	0.02	mg/l	Betz C166.1
Total Anions, as CaCO3	3504		
Total Cations, as CaCO3	-3451		

William W Walter

BETZ LABORATORIES, INC.

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Water Analysis Report

Warren Petroleum
P.O. Box 1909
Eunice, NM 88231

Date Submitted: 12/10/90
Date Reported: 01/09/91

Attn: Tim Huffer

Sample Description: Waste DHWT
Date Sampled: 12/05/90

Laboratory ID: A1210008

TEST	VALUE	UNITS	METHOD
pH	8.8	pH	Betz C238.1
P-Alkalinity, as CaCO3	25.	mg/l	Betz C005.1
M-Alkalinity, as CaCO3	120.	mg/l	Betz C004.1
Conductivity	5530	umhos	Betz C216.2
Conductivity at pH 8.3	5440	umhos	Betz C217.2
Chloride	1160	mg/l	Betz C008.1
Sulfate and Sulfite, as SO4	1620	mg/l	Betz C023.1
Phosphate, ortho, as PO4	3.3	mg/l	Betz C017.1
Phosphate, inorganic, as PO4	3.4	mg/l	Betz C021.1
Phosphate, total, as PO4	3.4	mg/l	Betz C019.1
Silica, as SiO2	150.	mg/l	Betz C245.1
Calcium, total, as CaCO3	724.	mg/l	Betz C116.1
Copper, total	< 0.05	mg/l	Betz C125.1
Hardness, total, as CaCO3	1350	mg/l	Betz C128.1
Iron, total	0.06	mg/l	Betz C132.1
Magnesium, total, as CaCO3	621.	mg/l	Betz C144.1
Sodium, total, as Na	939.	mg/l	Betz C153.1
Potasium, total, as K	33.	mg/l	Betz C150.1
Barium, total, as Ba	0.09	mg/l	Betz C106.1
Chromium, total, as CrO4	0.05	mg/l	Betz C119.1
Cobalt, total, as Co	< 0.01	mg/l	Betz C123.1
Lead, total, as Pb	0.07	mg/l	Betz C136.1
Zinc, total, as Zn	0.02	mg/l	Betz C166.1
Total Anions, as CaCO3	3392		
Total Cations, as CaCO3	-3442		

William Walton

SECTION VIII

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

DMS Eunice Plant personnel will follow the SPCC guidelines on spill/leak reporting for the Eunice facility. These guidelines will conform to the Water Quality Control Commission Section 1203 and to NMOCD Rule 116 for spill/leak reporting.

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

PART 1
GENERAL INFORMATION

1. Name of facility: **Versado Gas Processors – New Mexico and Texas Facilities**

2. Type of facility: **Onshore facilities –Natural Gas Processing Plants and associated compressor stations**

3. Location of facility: **See attached Data Sheets**

4. Name and address of owner or operator:

Dynegy Midstream Services, Limited Partnership (operator)

1000 Louisiana Street
Suite 5800
Houston, Texas 77002

5. Designated person accountable for oil spill prevention for Dynegy Midstream Services, Limited Partnership:

Area Managers **James Lingnau – South Versado (Eunice, Monument Area)**
Tim Jordan- North Versado (Saunders Area)

6. Facility experienced a reportable oil spill event during the twelve months prior to January 10, 1974 (effective date of 40 CFR, Part 112). (If YES, complete Attachment #1.): **No**

MANAGEMENT APPROVAL AND COMMITMENT OF MANPOWER

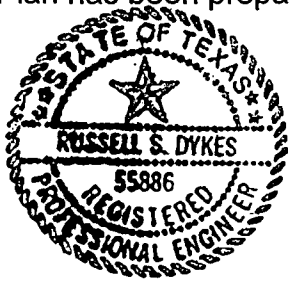
This SPCC Plan will be implemented as herein described. I hereby commit the necessary manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

Area Manager

Signature: James Lingnau

SPCC CERTIFICATION

I hereby certify that I have examined the facilities identified below and on the attached Data Sheets, and being familiar with the provisions of 40 CFR, Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.



Russell S. Dykes, P.E.
Printed Name of Registered Professional

Signature of Registered Professional Engineer

Date: Sept. 16, 1999 Registration No.: 55886 State: TX

APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____

Signatures

_____

Data Sheets attached:

Eunice Plant	Grobe Compressor Station
	North Eunice Compressor Station
	South Eunice Compressor Station
	Teague Switch Compressor Station
Monument Plant	Buckeye Compressor Station
	Joy Compressor Station
	Skaggs-McGee Compressor Station
Saunders Plant	Bluitt Booster
	Cato Compressor Station
	Clauene Compressor Station
	Dean Compressor Station
	Epperson Compressor Station
	King Compressor Station
	Lehman Compressor Station
	Plains Compressor Station
	Sawyer Compressor Station
	Tokio Compressor Station
	Townsend Compressor Station
	Vada Compressor Station

Environmental Incidents / Spill Reporting

If an environmental incident occurs at a Dynegy facility (this could be a fire, an explosion, a release of regulated materials from a tank, etc.), refer to the Dynegy "Safety and Environmental Incident Reporting Procedures" Manual ("Orange Book"), Section X – Environmental Incident Reporting Procedures.

For materials spills and releases:

Federal and State regulations require agency reporting if a release in which more than the "reportable quantity" of a regulated material occurs during a 24-hour period. These regulations require reporting within a limited time period (usually less than 24 hours after the spill occurs). Reportable Quantities are listed in Section X of the "Orange Book". If you fill out a spill report which is to be sent to a state or federal agency, the report should be routed through your regional EHS Advisor before sending it to the applicable agency(s).

For additional information concerning environmental incidents, refer to the "Orange Book" or call your Regional EHS advisor or the Dynegy Midstream Services Environmental, Safety and Health Team in Houston:

Name	Telephone
Cal Wrangham	(915)688-0542
David Howard	(915)688-0541
Shankar	(713)507-6753
Bob Cinq-Mars	(713)507-3993
Russell Dykes	(713)767-0072
Paul Lankford	(713)507-3729
J.D. Morris	(713)507-6752

Amendment / Periodic Review of SPCC Plans

The owner/operator of a facility is required to review the SPCC Plan at least once every three years. The plan must be amended whenever a change in the facility "materially affects the facility's potential for discharge of oil...", or when new technology provides a more effective means of preventing oil discharge. If the plan is amended (not just reviewed), the amended plan must be recertified by a professional engineer.

The actual text of the regulation is as follows:

40 CFR 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to §112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with §112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to §112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if:

(1) Such technology will significantly reduce the likelihood of a spill event from the facility, and

(2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with §112.3(d).

The attached form provides the facility with a means of recording the dates when the plan is reviewed, a space to describe periodic administrative (e.g., name changes, personnel changes, etc.) changes made to the plan and a signature line for the facility manager to attest that the review has been completed (or the administrative change made) and no significant changes were made in the plan. Use the attached form (or additional copies thereof) to record these periodic reviews and / or administrative changes to the plan.

Periodic Review / Administrative Change Record

Facility _____

Date	Review (#)	Admin. Change (#)	Description	Signature

By placing their signature on the form above, the person signing attests that the SPCC Plan review or administrative change described did not result in a change which materially affects the facility's potential for discharge of oil to waters of the United States.

7. Potential Spills -- Prediction & Control

Source	Major Type of Failure	Total Quantity (bbls)	Rate (bbls/hr)	Direction of Flow*	Secondary Containment

See attached Data Sheets

***See maps on attached data sheets**

Discussion:

See attached Data Sheets

8. Containment or diversionary structures or equipment to prevent oil products from reaching navigable waters are practicable. (If NO, complete Attachment #2.)

Yes, for tanks.

9. Inspections and Records

A. The required inspections follow written procedures. **Yes**

B. The written procedures and a record of inspections, signed by the appropriate supervisor or inspector, are attached.

Written procedures are discussed below. Records of inspections that are signed by the appropriate inspector are in the Facility files.

Discussion:

In order to minimize the potential for spills, all areas used for storage of petroleum material will undergo inspection periodically. Periodic inspections are conducted for visual leaks and/or deficiencies and the results are recorded on an inspection log. All above-ground equipment and facilities as listed are located in such a manner that routine visual checks and maintenance may be performed with little difficulty. All tank levels are gauged prior to pumping product into them. Tanks are visually monitored as well. Conditions needing maintenance such as leaks or defective conditions are reported to the Asset Office. Applicable repairs are initiated promptly. The procedures are as follows:

A. Tank Inspections - Tank inspections include checks for leaks and spills. Sudden deviations in tank volumes will be investigated and their causes determined.

B. Material Dispensing Equipment Inspections - The dispensing hoses, connections, valves, pumps, pipes, and fittings are inspected for damage or wear, such as cracks or leaks, and proper functioning.

C. Secondary Containment Areas Inspections - Secondary containment areas are inspected for deterioration, cracks, leaks or failure.

In addition to the above, the following are inspected but not recorded on the annual inspection log:

D. Safety Equipment Inspections - Fire extinguishers are checked monthly to ensure that the units are charged and accessible.

E. Security Inspections - Gates, fences, lighting, and signs are inspected for damage and proper operation.

10. Personnel, Training, and Spill Prevention Procedures

A. Personnel are properly instructed in the following:

(1) operation and maintenance of equipment to prevent oil discharges, **Yes**

(2) and applicable pollution control laws, rules and regulations. **Yes**

Describe procedures employed for instruction:

All personnel potentially involved with the use of petroleum products are appropriately trained and know to comply with company incident reporting procedures in the event of a spill. Formal training is conducted once a year. New employees are trained by experienced operators prior to assuming duty.

Personnel training includes instruction concerning the proper operation and maintenance of equipment. In particular, this training ensures that all personnel have an adequate understanding of the intent and contents of the SPCC Plan and the spill prevention and response procedures. Employees who are responsible for containing and/or stopping spills have spill response training.

Each employee signs training documentation/sign-off sheets, and a training file is maintained at the Asset Office.

B. Scheduled prevention briefings for the operating personnel are conducted frequently enough to assure adequate understanding of the SPCC Plan. **Yes**

Describe briefing program:

Training also continues on a regular basis through such means as on-the-job training, regularly scheduled operating and safety meetings, when regulations and/or procedures change, and with annual refresher training. A copy of the SPCC Plan is provided in the control room and the office for operator reference. Emergency phone numbers are provided for plant personnel.

PART II
DESIGN AND OPERATING INFORMATION

A. Facility Drainage

1. Drainage from secondary containment areas is controlled as follows (include operating description of valves, pumps, ejectors, etc.). (Note: Flapper-type valves should not be used):

See attached Data Sheets

For dikes that have drains, accumulated storm water in the diked areas will be removed by opening a secured valve on a pipe through the dike if no oil is present. For dikes that do not have drains, the storm water will be allowed to evaporate or percolate into the soil.

2. Drainage from undiked areas is controlled as follows (include description of ponds, lagoons, or catchment basins and methods of retaining and returning oil to facility):

See attached Data Sheets

3. The procedure for supervising the drainage of rain water from secondary containment into a storm drain or an open watercourse is as follows (include description of: (a) inspection for pollutants, and (b) method of valving security). (A record of inspection and drainage events is to be maintained on a form similar to Attachment #3):

The presence of hydrocarbons will be identified by the presence of a sheen. Any oil, or water with a sheen of oil, that is collected within a dike, a berm or a low-lying area will be removed by means such as sorbent pads or vacuum trucks to one of the tanks on-site or to a company-approved disposal facility.

For those dikes that have drains, the rain water drains are kept closed and secured except during drainage of storm water. For those berms that have drains, the rain water drains are kept closed except during drainage of storm water. A record of drainage is kept which shows the time of discharge, presence or absence of a sheen, and personnel performing the discharge. Any drainage of water from the dike or berm to the surrounding countryside is done by an SPCC-trained employee.

B. Bulk Storage Tanks

1. Describe tank design, materials of construction, fail-safe engineering features, and if needed, corrosion protection:

See attached Data Sheets

All storage tanks are welded steel, meet API specifications and are surrounded by a containment dike. Each storage tank is equipped with vacuum pressure release valves to prevent rupture of the tanks from collapsing of the tanks due to vacuum while removing liquids.

Tanks are primed and painted to inhibit rust and corrosion. All tank integrity and leak tests performed on tanks and associated piping will be maintained at the Asset Office.

2. Describe secondary containment design, construction materials, and volume:

See attached Data Sheets

Secondary containment is provided for all storage tanks by containment dikes. The dike dimensions are sufficient containment to impound the capacity of the largest tank plus rainfall from a 25-year, 24-hour storm event, unless otherwise indicated on the site-specific Data Sheets. The SPCC tank dike calculations are attached to the site-specific Data Sheets.

3. Describe tank inspection methods, procedures, and record keeping:

See General Information, Inspections and Records, Item 9.

4. Internal heating coil leakage is controlled by one or more of the following control factors:

a. Monitoring the steam return or exhaust lines for oil: **N/A**

Describe the monitoring procedure. **N/A**

b. Passing the steam return or exhaust lines through a settling tank, skimmer, or other separation system. **N/A**

c. Installing external heating systems. **N/A**

5. Disposal facilities for plant effluents discharged into navigable waters are observed frequently for indication of possible upsets which may cause an oil spill event. **N/A**

Describe method and frequency of observation: **N/A**

C. Facility Transfer Operations and Pumping

1. Corrosion protection for buried pipelines:

a. Pipelines are wrapped and coated to reduce corrosion. **Yes**

b. Cathodic protection is provided for pipelines if determined necessary by electrolytic testing. **Yes**

c. When a pipeline section is exposed, it is examined and corrective action taken as necessary. **Yes**

2. Pipeline terminal connections are capped or blank-flanged and marked if the pipeline is not in service or on standby service for extended periods. **Partial**

Describe criteria for determining when to cap or blank-flange:

Product Pipelines are capped or blinded when purged and disconnected from the facility. Marking of in-service lines is done but marking of abandoned lines is not done.

3. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction. **Yes**

Describe pipe support design:

ANSI Code B31.3 design is utilized. Pipe supports and pipes are provided with guide shoes and guides to provide for expansion where applicable. Expansion loops are provided on lines where extraordinary expansion and contraction occur. Other piping is held in place by U-bolts or pipe clamps.

4. Describe procedures for regularly examining all above-ground valves and

pipelines (including flange joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces):

Inspections of above-ground valves, flanges and pipelines are made by operating personnel as part of their operating procedure.

5. Describe procedures for warning vehicles entering the facility to avoid damaging above-ground piping:

Unauthorized access to the facility is limited. Unauthorized vehicles are not allowed in the Facility. Authorized vehicles are either accompanied by plant personnel or directed to drive in specific areas. Barricades are used to protect piping in high traffic areas.

D. Facility Tank Car & Tank Truck Loading/Unloading Rack
Tank car and tank truck unloading occurs at the facility. (If yes, complete 1 through 5 below.)

See attached Data Sheets

1. Unloading procedures meet the minimum requirements and regulations of the Department of Transportation. **See attached Data Sheets**

2. The unloading area has a quick drainage system. **See attached Data Sheets**

3. The containment system will hold the maximum capacity of any single compartment of a tank truck unloaded in the plant. **See attached Data Sheets**

Describe containment system design, construction materials, and volume:

See attached Data Sheets

4. An interlocked warning light, a physical barrier system, or warning signs are provided in loading/unloading areas to prevent vehicular departure before disconnect of transfer lines. **See attached Data Sheets**

Describe methods, procedures, and/or equipment used to prevent premature vehicular departure:

See attached Data Sheets

5. Drains and outlets on tank trucks and tank cars are checked for leakage before unloading or departure.

E. Security

1. Plants handling, processing, or storing oil products are fenced. **Yes**

2. Entrance gates are locked and/or guarded when the plant is unattended or not in production. **Yes**

3. Any valves which permit direct outward flow of a tank's contents are locked closed when in non-operating or standby status. **Yes**

4. Starter controls on all oil product pumps in non-operating or standby status are:

   a. locked in the off position; **No**

   b. located at site accessible only to authorized personnel. **Yes**

5. Discussion of items 1 through 4 as appropriate:

The Facility is remotely operated 24 hours per day. The entrance gate is locked unless personnel are working at the site. Likewise, all storage valves are considered operative 24 hours per day and are not locked.

6. Discussion of lighting around the facility:

The area is adequately lighted such that problems and intruders can easily be detected.

NOT APPLICABLE

SPCC PLAN, ATTACHMENT #1
SPILL HISTORY

(Complete this form for any reportable spill(s) which has (have) occurred from this facility during the twelve months prior to January 10, 1974, into _____ navigable water.)

1. Date_____ Volume _____ Cause: _____

_____

_____

_____

_____

Corrective action taken: _____

_____

_____

_____

Plans for preventing recurrence: _____

_____

_____

_____

_____

_____

2. Date_____ Volume _____ Cause: _____

_____

_____

_____

_____

Corrective action taken: _____

_____

_____

_____

_____

Plans for preventing recurrence: _____

_____

_____

_____

_____

_____

SPCC PLAN, ATTACHMENT #2
OIL SPILL CONTINGENCY PLANS AND
WRITTEN COMMITMENT OF MANPOWER

Secondary containment or diversionary structures are impracticable for the following reasons (attach additional pages if necessary):

A spill in the unloading areas would be caught immediately since the driver/gauger is in attendance during the entire loading procedure. Since the Facility has control over when unloading may occur, the Facility has adopted a policy that product won't be unloaded in a driving 25-year storm event, when the berm is standing full of rainwater.

The no-spills history of these sites supports the conclusion that safe operating practices are effective at these sites. Potential spills at the loading/unloading areas are addressed by a strong Spill Response Plan. Alleviation of a possible spill relies on experienced and capable operators to prevent premature vehicular departure before disconnection of transfer lines. Drains and outlets on tank trucks are checked for leakage before loading/unloading or departure. Equipment and hoses are inspected for deterioration, frays, leaks, breaks, etc., and qualified personnel are present during loading and unloading to respond to any spill of material. The qualified person ensures that the hand break is set and that the wheels are chocked. He also ensures that no smoking or other ignition sources are present in the area.

Company personnel have vehicles equipped with two-way radio communication systems, which facilitates proper implementation of the SPCC plan by allowing immediate spill reporting. All Facilities are serviced by an all-weather road whereby ample manpower and equipment may be promptly dispatched to contain or divert any possible oil spill. Equipment and manpower is available within two hours' notice to effectively dam up, divert, and clean up spills that may occur. The names and telephone numbers of contractors with proper spill control equipment are listed in the Spill Response Plan.

A strong oil spill contingency plant is attached?
Spill Response Plan is at the Asset Office.
A written commitment of manpower is attached?
Yes, See first page of General SPCC Plan.

EXAMPLE - ONLY

SPCC PLAN, ATTACHMENT #3
ONSHORE FACILITY BULK STORAGE TANKS
DRAINAGE SYSTEM

Inspection Procedure:

_____
_____
_____
_____
_____
_____
_____

Record of drainage, bypassing, inspection, and oil removal from secondary containment:

Date of Drainage	Date of Bypassing		Date of Inspection	Oil Removal	Supervisor's or Inspector's Signature
	Open	Closed			

Eunice Plant
DATA SHEET

PART I
GENERAL INFORMATION

1. Name of facility: **Eunice Plant**

3. Location of facility: **3/4 mile SE of Eunice, New Mexico on Texas and 4th Street.**

7. Potential Spills -- Prediction & Control: **See Table 1.**

Discussion:
The map referred to in the Generic SPCC Plan is attached here as Figure 1.

8. Containment or diversionary structures or equipment to prevent oil from reaching navigable waters are practicable: **Yes, for tanks.**

PART II
DESIGN AND OPERATING INFORMATION

A. Facility Drainage

2. Drainage from undiked areas is controlled as follows (include description of ponds, lagoons, or catchment basins and methods of retaining and returning oil to facility):

Drainage from undiked areas generally flows to the south. Any oil released to this area will be absorbed with booms or other similar equipment.

B. Bulk Storage Tanks

2. Describe secondary containment design, construction materials, and volume:

All tanks within the plant are located inside concrete or earth secondary containment structures. Containment structures are generally designed to hold the capacity of the largest tank within the structure plus excess capacity for the 25-year, 24-hour rainfall event. Dimensions of all containment structures are listed in Table 1. Capacities of these structures are calculated in Table 2.

D. Facility Tank Car & Tank Truck Unloading Rack
Tank car and tank truck unloading occurs at the facility. **Yes**

1. Unloading procedures meet the minimum requirements and regulations of the Department of Transportation **Yes**

2. The unloading area has a quick drainage system. **N/A**

3. The containment system will hold the maximum capacity of any single compartment of a tank truck unloaded in the Facility: **N/A**

Describe containment system design, construction materials, and volume:

N/A

4. An interlocked warning light, a physical barrier system, or warning signs are provided in loading/unloading areas to prevent vehicular departure before disconnect of transfer lines. **Yes, signs are provided at each facility and contractors are required to follow the following procedure.**

Describe methods, procedures, and/or equipment used to prevent premature vehicular departure:

- ☐ Contractors are responsible for wearing appropriate Personal Protective Equipment (PPE) required by facility (hard hat, safety glasses, fire retardant clothing). If driver is unfamiliar with the product being loaded, obtain a Material Safety Data Sheet (MSDS) from Dynegy.
- ☐ Truck driver to call local Dynegy personnel before beginning loading/unloading operation described below.
- ☐ Driver pulls truck to designated loading/unloading area with approval from local Dynegy personnel.
- ☐ With truck shut down, driver will attach ground cable and chock wheels.
- ☐ Driver will visually inspect hoses for cracks or defects. If no defects are noted, driver will attach hoses and assure that connections are secure.
- ☐ Record meter reading (where applicable) or gauge tank level prior to loading or unloading.
- ☐ Remove padlocks from valves where applicable.
- ☐ Open valves required to load or unload.
  After the tank is full (or empty) gauge the tank (or read the meter). Record the readings and reverse the procedure above.
- ☐ Driver to fill out appropriate DOT paperwork and provide receipt ticket/copy of paperwork to Dynegy.
- ☐ If a spill occurs during the loading/unloading operation, call the local Dynegy representative immediately at the emergency number shown on the facility sign.

5. Drains and outlets on tank trucks and tank cars are checked for leakage before unloading or departure. **Yes**

Attachments:
Site Plan – Figure 1
Table 1 – Potential Spills – Prediction and Control
Figures 3-14 (Tank photographs)
Applicability of the Substantial Harm Criteria
Table 2 - Dike Calculations.

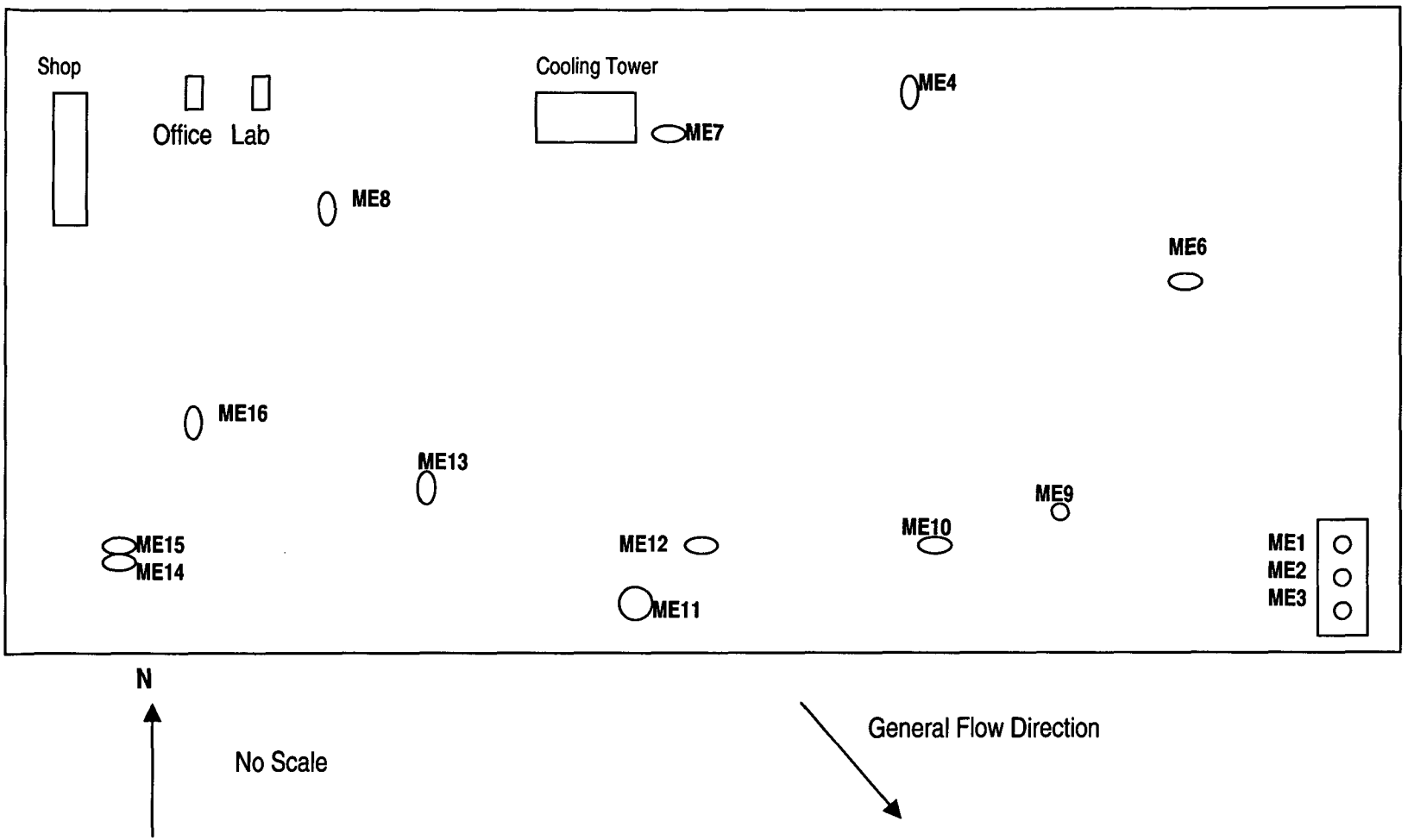


Figure 1
Eunice Plant
Site Plan

Table 1
Potential Spills – Prediction and Control

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
ME1	Slop oil	Overfill / rupture	21,000	SE	Earthen Dike 51' x 117' x 1'6"	11
ME2	Slop oil	Overfill / rupture	21,000	SE	Earthen Dike 51' x 117' x 1'6"	11
ME3	Slop oil	Overfill / rupture	21,000	SE	Earthen Dike 51' x 117' x 1'6"	11
ME4	Amine	Overfill / rupture	11,892	SE	Earthen Dike 40' x 30' x 2'	3
ME5	Product	Overfill / rupture	700	SE		
ME6	Methanol	Overfill / rupture	43,350	SE	None	2
ME7	Sulfuric Acid	Overfill / rupture	1,987	SE	Concrete dike 27' x 15' x 1'	4
ME8	Gasoline	Overfill / rupture	1,036	SE	Concrete dike 7' x 25' x 1'2"	13
ME9	Antifreeze	Overfill / rupture	420	SE	Concrete dike 68" x 9' x 1'4" (containment was full of water at time of inspection	12
ME10	Lube oil (Citgo)	Overfill / rupture	2,537	SE	Concrete dike 8' x 14' x 1'2"	7
ME11	Lube oil	Overfill / rupture	42,000	SE	Concrete dike 35' x 25' x 1'2"	10
ME12	Lube oil	Overfill / rupture	11,892	SE	Earthen Dike 45' x 12' x 1'6"	9
ME13	Lube oil	Overfill / rupture	1,263	SE	Concrete dike 6'8" x 16' x 1'6"	8
ME14	Solvent 140	Overfill / rupture	520	SE	Concrete dike 12' x 15' x 1'	6
ME 15	Diesel	Overfill / rupture	520	SE	Concrete dike 12' x 15' x 1'	6
ME16	Diesel	Overfill / rupture	200	SE	Concrete dike 5' x 8' x 1'	5

Figure 2 – ME6

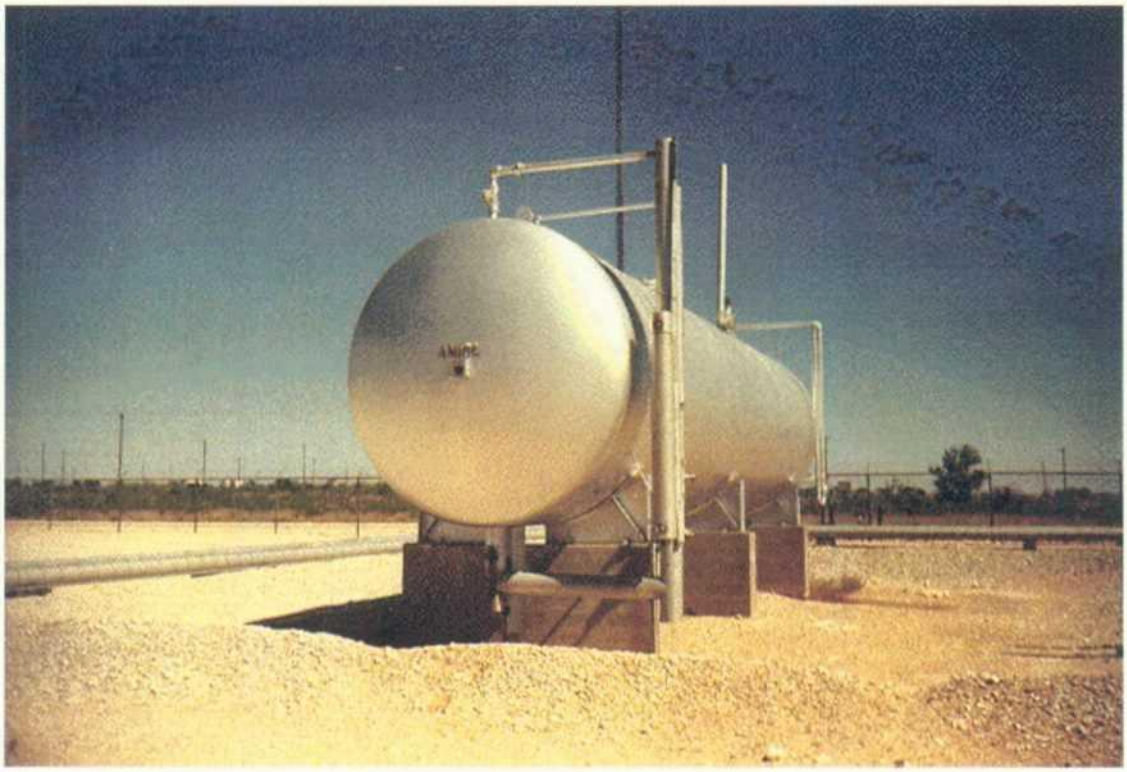


Figure 3 – ME4

Figure 4 – ME7

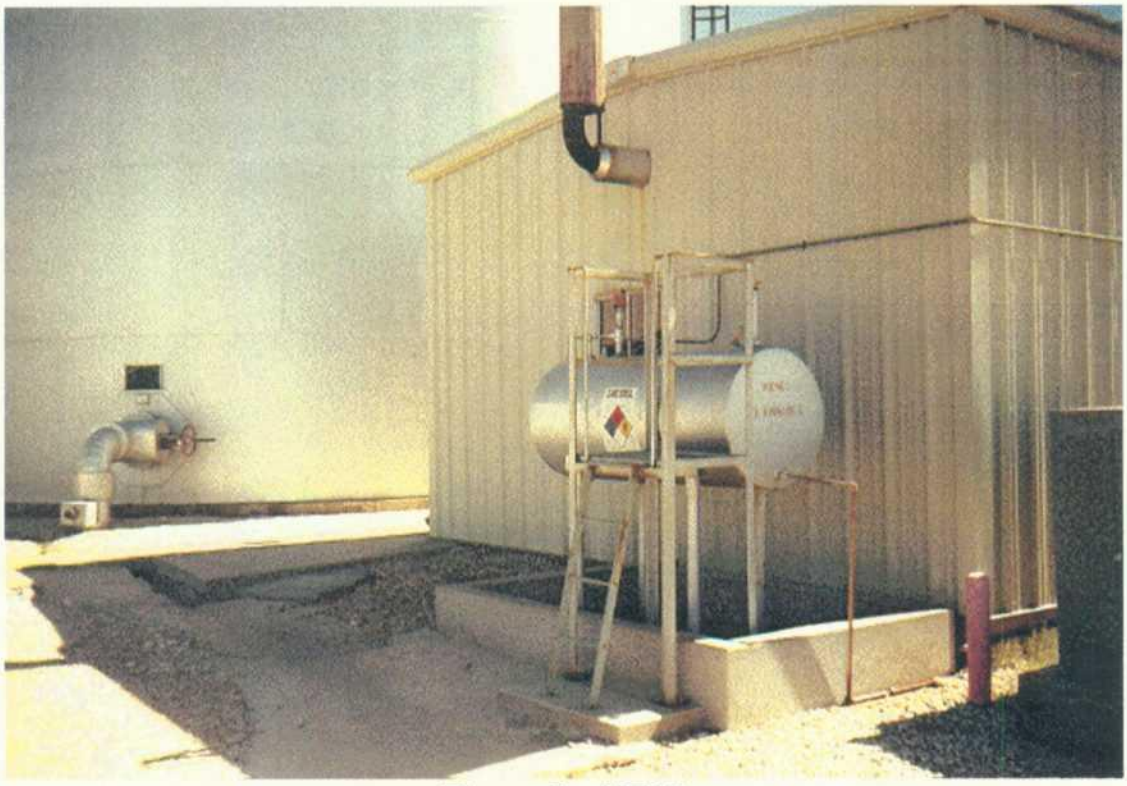


Figure 5 – ME16

Figure 6 – ME14 (left) and ME15 (right)

Figure 7 – ME10

Figure 8 – ME13

Figure 9 – ME12

Figure 10 – ME11

Figure 11 – ME1 (left), ME2 (middle), ME3 (right)

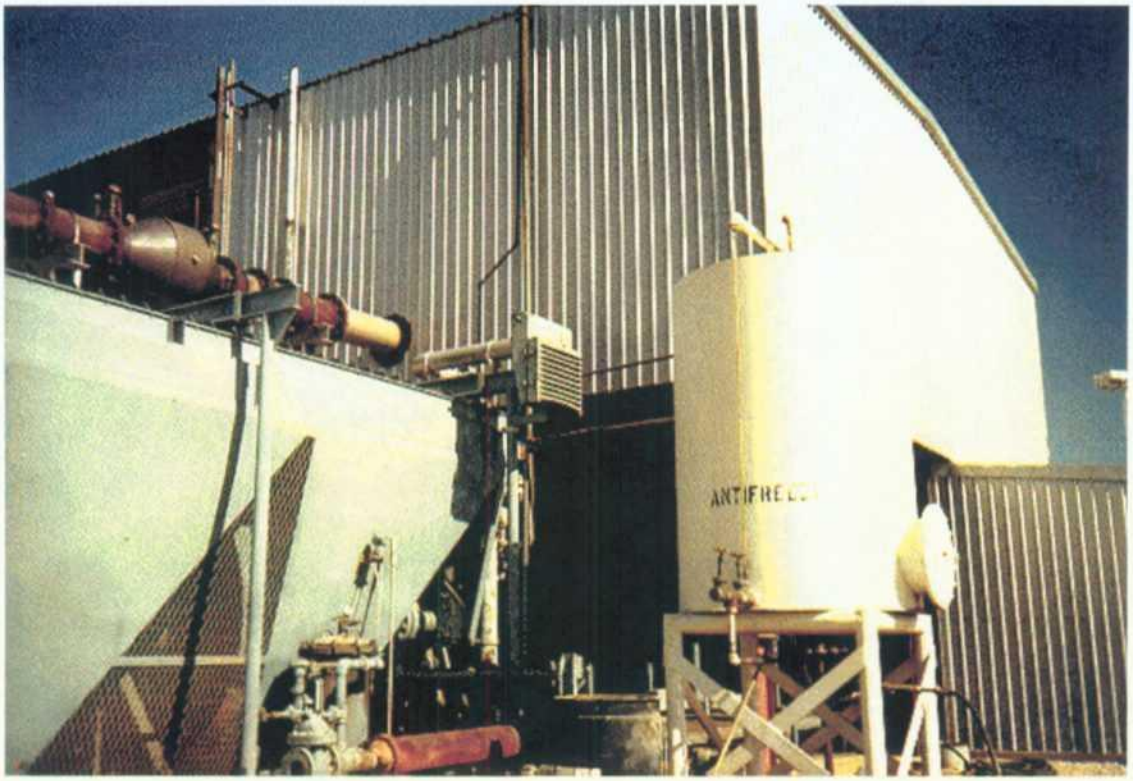


Figure 12 – ME9

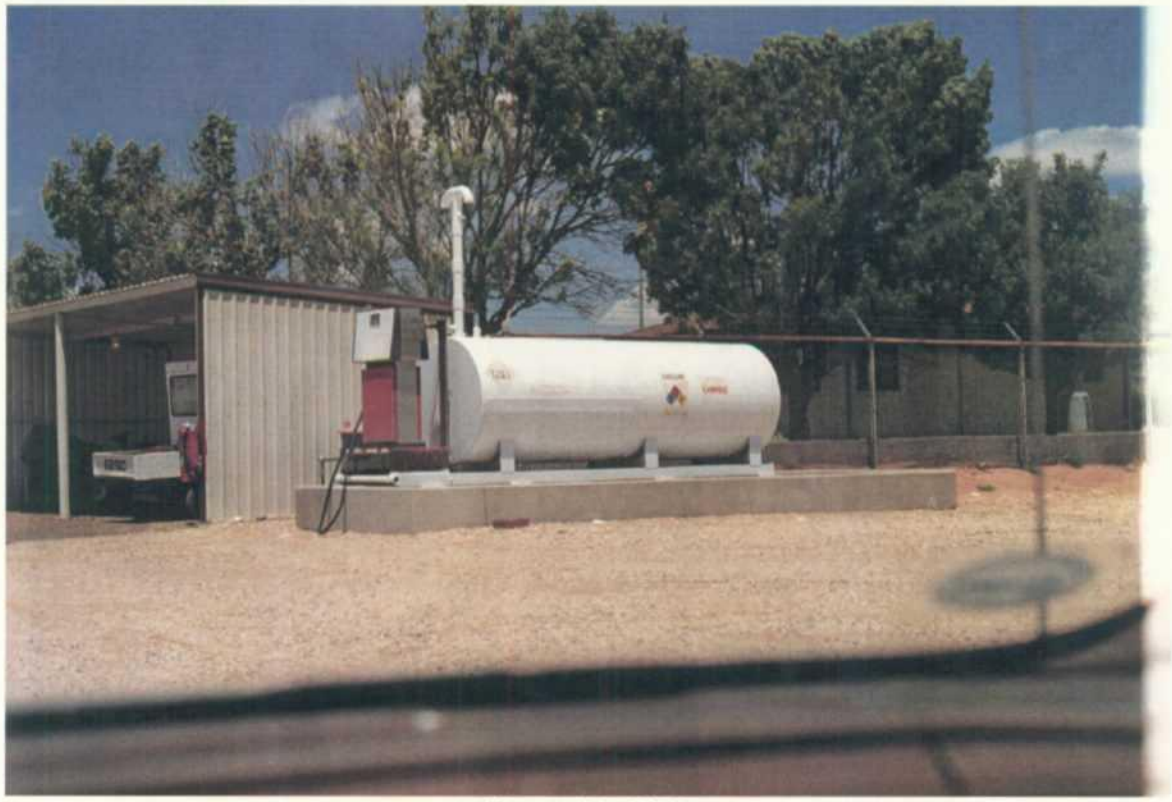


Figure 13 – ME8

Figure 14

Applicability of Substantial Harm Criteria

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? **No**

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area? **No**

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula1) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? **No**

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? **No**

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years? **No**

Table 2
Dike Calculations
Middle Eunice Plant

Tank / Dike Combination	Dike Full Storage Volume (see Table 1 for dimensions), gal.	Largest Tank capacity (gal)	Available Dike Full Precipitation Storage (in.)
ME1, ME2, ME3	66,950	21,000	12.3
ME4	17,952	11,892	8.1
ME7	3,029	1,987	4.1
ME8	1,527	1,036	4.5
ME9	508	420	2.7
ME10	977	2,537	NA
ME11	7,635	42,000	NA
ME12	6,059	11,892	NA
ME13	2,698	1,263	10.6
ME14, ME15	1,346	520	7.3
ME16	299	200	3.9

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Acenaphthene	83329		1*	2		B	100 (45.4)
Acenaphthylene	208968		1*	2		D	5000 (2270)
Acetaldehyde	75070	Ethanal	1000	"1,4"	U001	C	1000 (454)
"Acetaldehyde, chloro-"	107200	Chloroacetaldehyde	1*	4	P023	C	1000 (454)
"Acetaldehyde,trichloro-"	75876	Chloral	1*	4	U034	B	5000 (2270)
"Acetamide,N-" (aminothioxomethyl)-	591082	1-Acetyl-2-thiourea	1*	4	P002	C	1000 (454)
"Acetamide,N-" (4-ethoxyphenyl)-	62442	Phenacetin	1*	4	U187	B	100 (45.4)
"Acetamide, 2-fluoro-"	640197	Fluoroacetamide	1*	4	P057	B	100 (45.4)
"Acetamide, N-9H-fluoren-2-yl-"	53963	2-Acetylaminofluorene	1*	4	U005	X	1 (0.454)
Acetic acid	64197		1000	1		D	5000 (2270)
"Acetic acid (2,4-" dichlorophenoxy)-	94757	"2,4-D Acid" "2, 4-D, salts and esters"	100	"1,4"	U240	B	100 (45.4)
"Acetic acid,lead(2+) salt"	301042	Lead acetate	5000	"1,4"	U144	A	10 (4.54)
"Acetic acid, thallium" (1+) salt	563688	Thallium(I) acetate	1*	4	U214	B	100 (45.4)
"Acetic acid, (2,4,5-" trichlorophenoxy)	93765	"2,4,5-T" "2,4,5-T acid"	100	"1,4"	U232	C	1000 (454)
"Acetic acid, ethyl ester"	141786	Ethyl acetate	1*	4	U112	D	5000 (2270)
"Acetic acid, fluoro-," sodium salt	62748	"Flouracetic acid," sodium salt	1*	4	P058	A	10 (4.54)
Acetic anhydride	108247		1000	1		D	5000 (2270)
Acetone	67641	2-Propanone	1*	4	U002	D	5000 (2270)
Acetone cyanohydrin	75865	"Propanenitrile, 2-" hydroxy-2-methyl- 2-Methyllactonitrile	10	"1,4"	P069	A	10 (4.54)
Acetonitrile	75058		1*	4	U003	D	5000 (2270)
Acetophenone	98862	"Ethanone, 1-phenyl-"	1*	4	U004	D	5000 (2270)
2-Acetylaminofluorene	53963	"Acetamide, N-9H-" fluoren-2-yl-	1*	4	U005	X	1 (0.454)
Acetyl bromide	506967		5000	1		D	5000 (2270)
Acetyl chloride	75365		5000	"1,4"	U006	D	5000 (2270)
1-Acetyl-2-thiourea	591082	"Acetamide, N-(aminoth" ioxomethyl)-	1*	4	P002	C	1000 (454)
Acrolein	107028	2-Propenal	1	"1,2,4"	P003	X	1 (0.454)
Acrylamide	79061	2-Propenamide	1*	4	U007	D	5000 (2270)
Acrylic acid	79107	2-Propenoic acid	1*	4	U008	D	5000 (2270)
Acrylonitrile	107131	2-Propenenitrile	100	"1,2,4"	U009	B	100 (45.4)
Adipic acid	124049		5000	1		D	5000 (2270)
Aldicarb	116063	"Propanal, 2-methyl-2-" "(methylthio)-,O-" [(methylamino) carbonyl]oxime.	1*	4	P070	X	1 (0.454)
Aldrin	309002	"1,4,5,8-Dimethano-" "naphthalene, 1,2,3," "4,10,10-10-hexachloro-" "1,4,4a,5,8,8a-hexahydro-" "(1alpha,4alpha,4abeta," "5alpha,8alpha,8abeta)-"	1 ","	"1,2,4"	P004	X	1 (0.454)
Allyl alcohol	107186	2-Propen-1-ol	100	"1,4"	P005	B	100 (45.4)
Allyl chloride	107051		1000	1		C	1000 (454)
Aluminum phosphide	20859738		1*	4	P006	B	100 (45.4)
Aluminum sulfate	10043013		5000	1		D	5000 (2270)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	*Regulatory Synonyms*	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
5-(Aminomethyl)-3-isoxazolol.	2763964	Muscimol 3(2H)-Iso-"xazolone, 5-(amino-" methyl)-	1*	4	P007	C	1000 (454)
4-Aminopyridine	504245	4-Pyridinamine	1*	4	P008	C	1000 (454)
Amitrole	61825	"1H-1,2,4-Triazol-3-amine"	1*	4	U011	A	10 (4.54)
Ammonia	7664417		100	1		B	100 (45.4)
Ammonium acetate	631618		5000	1		D	5000 (2270)
Ammonium benzoate	1863634		5000	1		D	5000 (2270)
Ammonium bicarbonate	1066337		5000	1		D	5000 (2270)
Ammonium bichromate	7789095		1000	1		A	10 (4.54)
Ammonium bifluoride	1341497		5000	1		B	100 (45.4)
Ammonium bisulfite	10192300		5000	1		D	5000 (2270)
Ammonium carbamate	1111780		5000	1		D	5000 (2270)
Ammonium carbonate	506876		5000	1		D	5000 (2270)
Ammonium chloride	12125029		5000	1		D	5000 (2270)
Ammonium chromate	7788989		1000	1		A	10 (4.54)
"Ammonium citrate, dibasic"	3012655		5000	1		D	5000 (2270)
Ammonium fluoborate	13826830		5000	1		D	5000 (2270)
Ammonium fluoride	12125018		5000	1		B	100 (45.4)
Ammonium hydroxide	1336216		1000	1		C	1000 (454)
Ammonium oxalate	6009707 5972736 14258492		5000	1		D	5000 (2270)
Ammonium picrate	131748	"Phenol, 2,4,6-, trinitro-," ammonium salt	1*	4	P009	A	10 (4.54)
Ammonium silicofluoride	16919190		1000	1		C	1000 (454)
Ammonium sulfamate	7773060		5000	1		D	5000 (2270)
Ammonium sulfide	12135761		5000	1		B	100 (45.4)
Ammonium sulfite	10196040		5000	1		D	5000 (2270)
Ammonium tartrate	14307438 3164292		5000	1		D	5000 (2270)
Ammonium thiocyanate	1762954		5000	1		D	5000 (2270)
Ammonium vanadate	7803556	"Vanadic acid, ammonium" salt	1*	4	P119	C	1000 (454)
Amyl acetate iso- sec- tert-	628637 123922 626380 625161		1000	1		D	5000 (2270)
Aniline	62533	Benzenamine	1000	"1,4"	U012	D	5000 (2270)
Anthracene	120127		1*	2		D	5000 (2270)
Antimony ++	7440360		1*	2		D	5000 (2270)
ANTIMONY AND COMPOUNDS	N.A.		1*	2			**
Antimony pentachloride	7647189		1000	1		C	1000 (454)
Antimony potassium tartrate	28300745		1000	1		B	100 (45.4)
Antimony tribromide	7789619		1000	1		C	1000 (454)
Antimony trichloride	10025919		1000	1		C	1000 (454)
Antimony trifluoride	7783564		1000	1		C	1000 (454)
Antimony trioxide	1309644		5000	1		C	1000 (454)
"Argentate(1-), bis" "(cyano-C)-, potassium"	506616	Potassium silver cyanide	1*	4	P099	X	1 (0.454)
Aroclor 1016	12674112	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Aroclor 1221	11104282	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Aroclor 1232	11141165	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Aroclor 1242	53469219	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Aroclor 1248	12672296	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Aroclor 1254	11097691	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Aroclor 1260	11096825	POLYCHLORINATED BIPHENYLS (PCBs)	10	"1,2"		X	1 (0.454)
Arsenic ++	7440382		1*	"2,3"		X	1 (0.454)
Arsenic acid	1327522 7778394	Arsenic acid H3AsO4	1*	4	P010	X	1 (0.454)
Arsenic acid H3AsO4	1327522 7778394	Arsenic acid	1*	4	P010	X	1 (0.454)
ARSENIC AND COMPOUNDSN.A.			1*	2			**
Arsenic disulfide	1303328		5000	1		X	1 (0.454)
Arsenic oxide As203	1327533	Arsenic trioxide	5000	"1,4"	P012	X	1 (0.454)
Arsenic oxide As205	1303282	Arsenic pentoxide	5000	"1,4"	P011	X	1 (0.454)
Arsenic pentoxide	1303282	Arsenic oxide As205	5000	"1,4"	P011	X	1 (0.454)
Arsenic trichloride	7784341		5000	1		X	1 (0.454)
Arsenic trioxide	1327533	Arsenic oxide As203	5000	"1,4"	P012	X	1 (0.454)
Arsenic trisulfide	1303339		5000	1		X	1 (0.454)
"Arsine, diethyl-"	692422	Diethylarsine	1*	4	P038	X	1 (0.454)
"Arsinic acid, dimethyl-"	75605	Cacodylic acid	1*	4	U136	X	1 (0.454)
"Arsonous dichloride," phenyl-	696286	Dichlorophenylarsine	1*	4	P036	X	1 (0.454)
Asbestos +++	1332214		1*	"2,3"		X	1 (0.454)
Auramine	492808	"Benzenamine," "4,4'-carbonimidoylbis" "(N,N-dimethyl-"	1*	4	U014	B	100 (45.4)
Azaserine	115026	"L-Serine, diazoacetate" (ester)	1*	4	U015	X	1 (0.454)
"1H-Azepine-1-carbothioic acid," "hexahydro-, S-ethyl ester" (Molinate)	2212671		1*	4	U365		# #
Aziridine	151564	Ethylenimine	1*	4	P054	X	1 (0.454)
"Aziridine, 2-methyl"	75558	"1,2-Propylenimine"	1*	4	P067	X	1 (0.454)
"Azirino[2',3':3,4]" "pyrrolo(1,2-a)indole" "-4,7-dione,6-amino-8-" [[(aminocarbonylooxy] "methyl]- 1,1a,2,8,8a,8b-" hexahydro-8a- "methoxy-5-methyl-,[1aS-" "(1aalpha,8beta,8aalpha," 8balpha)].	50077	Mitomycin C	1*	4	U010	A	10 (4.54)
Barium cyanide	542621		10	"1,4"	P013	A	10 (4.54)
"Benz[j]aceanthrylene," "1,2-dihydro-3-methyl-"	56495	3-Methylcholanthrene	1*	4	U157	A	10 (4.54)
Benz[c]acridine	225514		1*	4	U016	B	100 (45.4)
Benzal chloride	98873	"Benzene," dichloromethyl-	1*	4	U017	D	5000 (2270)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Benzamide, 3,5-" "dichloro-N-(1,1-" dimethyl-2-propynyl)-	23950585	Pronamide	1*	4	U192	D	5000 (2270)
Benz[a]anthracene	56553	Benzo[a]anthracene "1,2-Benzanthracene"	1*	"2,4"	U018	A	10 (4.54)
"1,2-Benzanthracene"	56553	Benz[a]anthracene Benzo[a]anthracene	1*	"2,4"	U018	A	10 (4.54)
"Benz[a]anthracene," "7,12-dimethyl-"	57976	"7,12-Dimethylbenz[a]" anthracene	1*	4	U094	X	1 (0.454)
Benzenamine	62533	Aniline	1000	"1,4"	U012	D	5000 (2270)
"Benzenamine, 4,4'-" "carbonimidoylbis(N,N-" dimethyl-	492808	Auramine	1*	4	U014	B	100 (45.4)
"Benzenamine, 4-chloro-"	106478	p-Chloroaniline	1*	4	P024	C	1000 (45.4)
"Benzenamine, 4-chloro-" "2-methyl-,hydrochloride"	3165933	"4-Chloro-o-toluidine," hydrochloride	1*	4	U049	B	100 (45.4)
"Benzeamine, N,N-dimethyl-" 4-(phenylazo-)	60117	p-Dimethylaminoazo-benzene	1*	4	U093	A	10 (4.54)
"Benzenamine, 2-methyl-"	95534	o-Toluidine	1*	4	U328	B	100 (45.4)
"Benzenamine, 4-methyl-"	106490	p-Toluidine	1*	4	U353	B	100 (45.4)
"Benzenamine, 4,4'-" methylenebis(2-chloro-	101144	"4,4'-Methylenebis" (2-chloroaniline)	1*	4	U158	A	10 (4.54)
"Benzenamine," "2-methyl-,hydrochloride"	636215	o-Toluidine hydrochloride	1*	4	U222	B	100 (45.4)
"Benzenamine," 2-methyl-5-nitro	99558	5-Nitro-o-toluidine	1*	4	U181	B	100 (4.54)
"Benzenamine, 4-nitro-"	100016	p-Nitroaniline	1*	4	P077	D	5000 (2270)
Benzene	71432		1000	"1,2,3,4"	U109	A	10 (4.54)
"Benzeneacetic acid, 4-chloro-" alpha-(4-chlorophenyl) "-alpha-hydroxy-,ethyl ester"	510156	Chlorobenzilate	1*	4	U038	A	10 (4.54)
"Benzene, 1-bromo-4-" phenoxy-	101553	4-Bromophenyl phenyl ether	1*	"2,4"	U030	B	100 (45.4)
"Benzenebutanoic acid," 4-[bis(2-chloroethyl) amino]-	305033	Chlorambucil	1*	4	U035	A	10 (4.54)
"Benzene, chloro-"	108907	Chlorobenzene	100	"1,2,4"	U037	B	100 (45.4)
"Benzene, chloromethyl-"	100447	Benzyl chloride	100	"1,4"	P028	B	100 (45.4)
"Benzenediamin, ar-methyl-"	95807 496720 823405	Touenediamine	1*	4	U221	A	10 (4.54)
"1,2-Benzenedicarboxylic acid," dioctyl ester	117840	Di-n-octyl phthalate	1*	"2,4"	U107	D	5000 (2270)
"1,2-Benzenedicarboxylic acid," [bis(2-ethylhexyl)-ester	117817	Bis (2-ethylhexyl) phthalate Diethylhexyl phthalate	1*	"2,4"	U028	B	100 (45.4)
"1,2-Benzenedicarboxylic" dibutyl ester	84742	Di-n-butyl phthalate Dibutyl phthalate n-Butyl phthalate	100	"1,2,4"	U069	A	10 (4.54)
"1,2-Benzenedicarboxylic acid," diethyl ester	84662	Diethyl phthalate	1*	"2,4"	U088	C	1000 (454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"1,2-Benzenedicarboxylic acid, dimethyl ester	"131113	Dimethyl phthalate	1*	"2,4"	U102	D	5000 (2270)
"Benzene, 1,2-dichloro-"	95501	o-Dichlorobenzene "1,2-Dichlorobenzene"	100	"1,2,4"	U070	B	100 (45.4)
"Benzene, 1,3-dichloro-"	541731	m-Dichlorobenzene "1,3-Dichlorobenzene"	1*	"2,4"	U071	B	100 (45.4)
"Benzene, 1,4-dichloro-"	106467	p-Dichlorobenzene "1,4-Dichlorobenzene"	100	"1,2,4"	U072	B	100 (45.4)
"Benzene, 1,1'(2,2-" dichloroethylidene) bis[4-chloro-	72548	DDD TDE "4,4'DDD"	1	"1,2,4"	U060	X	1 (0.454)
"Benzene, dichloromethyl-"	98873	Benzal chloride	1*	4	U017	D	5000 (2270)
"Benzene, 1,3-diiso-" cyanatomethyl-	584849 91087 26471625	Toluene diisocyanate	1*	4	U223	B	100 (45.4)
"Benzene, dimethyl"	1330207	Xylene (mixed)	1000	"1,4"	U239	C	1000 (454)
"m-Benzene, dimethyl"	108383	m-Xylene					
"o-Benzene, dimethyl"	95476	o-Xylene					
"p-Benzene, dimethyl"	106423	p-Xylene					
"1,3-Benzenediol"	108463	Resorcinol	1000	"1,4"	U201	D	5000 (2270)
"1,2-Benzenediol, 4-" [1-hydroxy-2-(methylamino)ethyl]-	51434	Epinephrine	1*	4	P042	C	1000 (454)
"Benzeneethanamine," "alpha,alpha-dimethyl-"	122098	"alpha,alpha-Dimethyl" phenethylamine	1*	4	P046	D	5000 (2270)
"Benzene, hexachloro-"	118741	Hexachlorobenzene	1*	"2,4"	U127	A	10 (4.54)
"Benzene, hexahydro-"	110827	Cyclohexane	1000	"1,4"	U056	C	1000 (454)
"Benzene, hydroxy-"	108952	Phenol	1000	"1,2,4"	U188	C	1000 (454)
"Benzene, methyl-"	108883	Toluene	1000	"1,2,4"	U220	C	1000 (454)
"Benzene, 2-methyl-1,3-dinitro-	"606202	"2,6-Dinitroltoluene"	1000	"1,2,4"	U106	B	100 (45.4)
"Benzene, 1-methyl-2,4-dinitro-	"121142	"2,4-Dinitrotoluene"	1000	"1,2,4"	U105	A	10 (4.54)
"Benzene, 1-methylethyl-"	98828	Cumene	1*	4	U055	D	5000 (2270)
"Benzene, nitro-"	98953	Nitrobenzene	1000	"1,2,4"	U169	C	1000 (454)
"Benzene, pentachloro-"	608935	Pentachlorobenzene	1*	4	U183	A	10 (4.54)
"Benzene," pentochloronitro-	82688	Pentachloronitro-benzene (PCNB)	1*	4	U185	B	100 (0.454)
Benzenesulfonic acid chloride	98099	Benzenesulfonyl chloride	1*	4	U020	B	100 (45.4)
Benzenesulfonyl chloride	98099	Benzenesulfonic acid chloride	1*	4	U020	B	100 (45.4)
"Benzene, 1,2,4,5-" -tetrachloro-	595943	"1,2,4,5-" Tetrachlorobenzene	1*	4	U207	D	5000 (2270)
Benzenethio	108985	Thiophenol	1*	4	P014	B	100 (45.4)
"Benzene, 1,1'-(2,2,2-" tri-chloroethylidene) bis[4-chloro-	50293	DDT "4,4'DDT"	1	"1,2,4"	U061	X	1 (0.454)
"Benzene, 1,1'-(2,2,2-" trichloroethylidene) bis[4-methoxy-	72435	Methoxychlor	1	"1,4"	U247	X	1 (0.454)
"Benzene," (trichloromethyl)-	98077	Benzotrichloride	1*	4	U023	A	10 (4.54)
"Benzene, 1,3,5-trinitro-"	99354	"1,3,5-Trinitrobenzene"	1*	4	U234	A	10 (4.54)
Benzidine	92875	"(1,1'-Biphenyl)-" "4,4'diamine"	1*	"2,4"	U021	X	1 (0.454)
"1,2-Benzisothiazol-3(2H)-one,"	100 (45.4)	81072	Saccharin and salts		1*	4	U202 B

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"1,1-dioxide"							
Benzo[a]anthracene	56553	Benz[a]anthracene "1,2-Benzanthracene"	1*	"2,4"	U018	A	10 (4.54)
"1,3-Benzodioxol-4-ol, 2,2-" "dimethyl-, (Bendiocarb" phenol)	22961826		1*	4	U364		# #
"1,3-Benzodioxol-4-ol, 2,2-" "dimethyl-, methyl carbamate" (Bendiocarb)	22781233		1*	4	U278		# #
"1,3-Benzodioxole, 5-)" 1-propenyl)-	120581	Isosafrole	1*	4	U141	B	100 (45.4)
"1,3-Benzodioxole, 5-" (2-propenyl)-	94597	Safrole	1*	4	U203	B	100 (45.4)
"1,3-Benzodioxole, 5-" propyl-	94586	Dihydrosafrole	1*	4	U090	A	10 (4.54)
Benzo[b]fluoranthene	205992		1*	2		X	1 (0.454)
Benzo(k)fluoranthene	207089		1*	2		D	5000 (2270)
"Benzo[j,k]fluorene"	206440	Fluoranthene	1*	"2,4"	U120	B	100 (45.4)
"7-Benzofuranol, 2,3-" "dihydro-2,2-dimethyl-" (Carbofuran phenol)	1563388		1*	4	U367		# #
Benzoic acid	65850		5000	1		D	5000 (2270)
"Benzoic acid, 2-hydroxy-, compd." "with (3aS-cis)-1,2,3,3a,8,8a-" "hexahydro-1,3a,8-trimethylpyrr" "[2,3-b]indol- 5-yl methylcarba" ester (1:1) (Physostigmine salicylate)	57647	olo mate		1*	4	P188	# #
Benzonitrile	100470		1000	1		D	5000 (2270)
Benzo[rst]pentaphene	189559	"Dibenz[a,i]pyrene"	1*	4	U064	A	10 (4.54)
Benzo[ghi]perylene	191242		1*	2		D	5000 (2270)
"2H-1-Benzopyran-2-one, 4-" hydroxy-3-(3-oxo-1-phenyl- "butyl)-, & salts, when" present at concentrations greater than 0.3%	81812	"Warfarin, & salts,when" present at concentrat- ions greater than 0.3%	1*	4	P001	B	100 (45.5)
Benzo[a]pyrene	50328	"3,4-Benzopyrene"	1*	"2,4"	U022	X	1 (0.454)
"3,4-Benzopyrene"	50328	Benzo[a]pyrene	1*	"2,4"	U022	X	1 (0.454)
p-Benzoquinone	106514	"2,5-Cyclohexadiene-" "1,4-dione"	1*	4	U197	A	10 (4.54)
Benzotrichloride	98077	"Benzene," (trichloromethyl)-	1*	4	U023	A	10 (4.54)
Benzoyl chloride	98884		1000	1		C	1000 (454)
"1,2-Benzphenanthrene"	218019	Chrysene	1*	"2,4"	U050	B	100 (45.4)
Benzyl chloride	100447	"Benzene, chloromethyl-"	100	"1,4"	P028	B	100 (45.4)
BERYLLIUM AND COMPOUNDS		N.A.		1*	2		**
Beryllium chloride	7787475		5000	1		X	1 (0.454)
Beryllium powder ++	7440417	Beryllium ++	1*	"2,3,4"	P015	A	10 (4.54)
Beryllium fluoride	7787497		5000	1		X	1 (0.454)
Beryllium nitrate	13597994 7787555		5000	1		X	1 (4.54)
alpha - BHC	319846		1*	2		A	10 (45.4)
beta - BHC	319857		1*	2		X	1 (0.454)
delta - BHC	319868		1*	2		X	1 (0.454)
gamma - BHC	58899	"Cyclohexane,"	1	"1,2,4"	U129	X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
		"1,2,3,4,5,6-hexachloro-," "(1alpha,2alpha,3beta," "4alpha,5alpha,6beta)-" Hexachlorocyclohexane (gamma isomer) Lindane					
"2,2'-Bioxirane"	1464535	"1,2:3,4-Diepoxybutane"	1*	4	U085	A	10 (45.4)
"(1,1-'Biphenyl)-4,4'diamine"	92875	Benzidine	1*	"2,4"	U021	X	1 (0.454)
"[1,1'-Biphenyl]-" "4,4'diamine,3,3'dichloro-"	91941	"3,3'-Dichlorobenzidine"	1*	"2,4"	U073	X	1 (0.454)
"[1,1'-Biphenyl]-4,4'-diamine," "3,3'dimethoxy-"	119904	"3,3'-Dimethoxybenzidine"	1*	4	U091	B	100 (45.4)
"[1,1'Biphenyl]-4,4'-diamine," "3,3'-dimethyl-"	119937	"3,3'-Dimethylbenzidine"	1*	4	U095	A	10 (4.54)
Bis(2-chloroethyl) ether	111444	Dichloroethyl ether "Ethane, 1,1'- oxybis" [2-chloro-	1*	"2,4"	U025	A	10 (4.54)
Bis(2-chloroethoxy) methane	111911	Dichloromethoxy ethane "Ethane, 1,1'-[methylenebis" (oxy)]bis(2-chloro-	1*	"2,4"	U024	C	1000 (454)
Bis(dimethylthiocarbamoyl) sulfi (Tetramethylthiuram monosulfid		de 97745 e)	1*	4	U401		# #
Bis (2-ethylhexyl) phthalate	117817	Diethylhexyl phthalate "1,2-Benzenedicarboxylic" "acid, [bis(2-ethylhexyl)" ester	1*]	"2,4"	U028	B	100 (45.4)
Bromoacetone	598312	"2-Propanone, 1-bromo-"	1*	4	P017	C	1000 (454)
Bromoform	75252	"Methane, tribromo-"	1*	"2,4"	U225	B	100 (45.4)
4-Bromophenyl phenyl ether	101553	"Benzene, 1-bromo-4-" phenoxy-	1*	"2,4"	U030	B	100 (45.4)
Brucine	357573	"Strychnidin-10-one," "2,3-dimethoxy-"	1*	4	P018	B	100 (45.4)
"1,3-Butadiene,1,1,2,3,4,4-" hexachloro-	87683	Hexachlorobutadiene	1*	"2,4"	U128	X	1 (0.454)
"1-Butanamine, N-butyl-N-" nitroso-	924163	N-Nitrosodi-n-butylamine	1*	4	U172	A	10 (4.54)
1-Butanol	71363	n-Butyl alcohol	1*	4	U031	D	5000 (2270)
2-Butanone	78933	Methyl ethyl ketone (MEK)	1*	4	U159	D	5000 (2270)
2-Butanone peroxide	1338234	Methyl ethyl ketone peroxide	1*	4	U160	A	10 (4.54)
"2-Butanone, 3,3-dimethyl-1-" "(methylthio)-,O[(methyl-" amino)carbonyl]oxime.	39196184	Thiofanox	1*	4	P045	B	100 (45.4)
2-Butenal	123739 4170303	Crotonaldehyde	100	"1,4"	U053	B	100 (45.4)
"2-Butene,1,4-dichloro-"	764410	"1,4-Dichloro-2-butene"	1*	4	U074	X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"2-Butenoic acid, 2-methyl-," "7[[2,3-dihydroxy-2-(1-" methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-"2,3,5,7a-tetrahydro-1H-" "pyrrolizin-1-yl ester," "[1S-[1alpha(Z), 7(2S*," "3R*),7aalpha]]-"	303344	Lasiocarpine	1*	4	U143	A	10 (4.54)
Butyl acetate	123864		5000	1		D	5000 (2270)
iso-	110190						
sec-	105464						
tert-	540885						
n-Butyl alcohol	71363	1-Butanol	1*	4	U031	D	5000 (2270)
Butylamine	109739		1000	1		C	1000 (454)
iso-	78819						
sec-	513495						
sec-	13952846						
tert-	75649						
Butyl benzyl phthalate	85687		1*	2		B	100 (45.4)
n-Butyl phthalate	84742	Di-n-butyl phthalate Dibutyl phthalate "1,2-Benzenedicarboxylic" "acid, dibutyl ester"	100	"1,2,4"	U069	A	10 (4.54)
Butyric acid	107926		5000	1		D	5000 (2270)
iso-Butyric acid	79312						
Cacodylic acid	75605	"Arsinic acid, dimethyl-"	1*	4	U136	X	1 (0.454)
Cadmium ++	7440439		1*	2		A	10 (4.54)
Cadmium acetate	543908		100	1		A	10 (4.54)
CADMIUM AND COMPOUNDS		N.A.		1*	2		**
Cadmium bromide	7789426		100	1		A	10 (4.54)
Cadmium chloride	10108642		100	1		A	10 (4.54)
Calcium arsenate	7778441		1000	1		X	1 (0.454)
Calcium arsenite	52740166		1000	1		X	1 (0.454)
Calcium carbide	75207		5000	1		A	10 (4.54)
Calcium chromate	13765190	"Chromic acid, H2CrO4," calcium salt	1000	"1,4"	U032	A	10 (4.54)
Calcium cyanide	592018	Calcium cyanide Ca(CN)2	10	"1,4"	P021	A	10 (4.54)
Calcium cyanide Ca(CN)2	592018	Calcium cyanide	10	"1,4"	P021	A	10 (4.54)
Calcium dodecylbenzene sulfonate	26264062		1000	1		C	1000 (454)
Calcium hypochlorite	7778543		100	1		A	10 (4.54)
"Camphene, octachloro-"	8001352	Toxaphene	1	"1,2,4"	P123	X	1 (0.454)
Captan	133062		10	1		A	10 (4.54)
"Carbamic acid, butyl-," 3-iodo-2-n-butylcarbamate)	55406536		1*	4	U375		# #
"Carbamic acid, [1-" [(butylamino) carbonyl]-"1H-benzimidazol-2-yl," methyl ester (Benomyl)	17804352		1*	4	U271		# #
"Carbamic acid, 1H-benzimidazol" #NAME? (Carbendazim)		10605217	1*	4	U372		# #

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Carbamic acid, (3-chlorophenyl)-" 4-chloro-2-butynyl ester (Barban)		", 101279"	1*	4	U280		# #
"Carbamic acid," "[(dibutylamino)thio] methyl-," "2,3-dihydro-2,2-" dimethyl-7-benzofuranyl ester (Carbosulfan)	55285148		1*	4	P189		# #
"Carbamic acid, dimethyl-,1-" [(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester (Dimetilan)	644644		1*	4	P191		# #
"Carbamic acid, dimethyl-," 3-methyl-1-(1-methylethyl) -1H-pyrazol-5- yl ester (Isolan)	119380		1*	4	P192		# #
"Carbamic acid," ethyl ester	51796	Ethyl carbamate (urethane)	1*	4	U238	B	100 (45.4)
"Carbamic acid, methyl-, 3-" methylphenyl ester (Metolcarb)	1129415		1*	4	P190		# #
"Carbamic acid, [1,2-" phenylenebis "(iminocarbonothioyl)]bis-," dimethyl ester (Thiophanate-methyl)	23564058		1*	4	U409		# #
"Carbamic acid, phenyl-," 1-methylethyl ester (Propham)	122429		1*	4	U373		# #
"Carbamic acid," "methylnitroso-, ethyl ester"	615532	N-Nitroso-N-methylurethane	1*	4	U178	X	1 (0.454)
"Carbamic chloride, dimethyl-"	79447 U097	X	Dimethylcarbamoyl chloride 1 (0.454)			1*	4
"Carbamodithioic acid, dibutyl," sodium salt (Sodium dibutyldithiocarbamate)	136301		1*	4	U379		# #
"Carbamodithioic acid, diethyl-," 2- chloro-2-propenyl ester (Sulfallate)	95067		1*	4	U277		# #
"Carbamodithioic acid, diethyl-," sodium salt (Sodium diethyldithiocarbamate)	148185		1*	4	U381		# #
"Carbamodithioic acid, dimethyl," potassium salt (Potassium dimethyldithiocarbamate)	128030		1*	4	U383		# #
"Carbamodithioic acid, dimethyl-," sodium salt (Sodium dimethyldithiocarbamate)	128041		1*	4	U382		# #
"Carbamodithioic acid, dimethyl-," tetraanhydrosulfide with orthothioselenious acid "(Selenium, tetrakis" (dimethyldithiocarbamate))	144343	1*		4	U376		# #

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Carbamodithioic acid," "(hydroxymethyl)methyl-," monopotassium salt (Potassium hydroxymethyl-n-methyldithiocarbamate)	51026289	n-	1*	4	U378		# #
"Carbamodithioic acid, methyl,-" monopotassium salt (Potassium methyldithiocarbamate)	"137417	n-	1*	4	U377		# #
"Carbamodithioic acid, methyl-," monosodium salt (Metam Sodium)	"137428		1*	4	U384		# #
"Carbamodithioic acid," "1,2-ethanediylbis," salts & esters	111546	Ethylenebisdithio- "carbamic acid, salts" & esters	1*	4	U114	D	5000 (2270)
"Carbamothioic acid," "bis(1-methylethyl)-," "S-(2,3-dichloro-2-" propenyl) ester	2303164	Diallate	1*	4	U062	B	100 (45.4)
"Carbamothioic acid, bis(1-" "methylethyl)-, S-(2,3,3-" trichloro -2-propenyl) ester (Triallate)	2303175		1*	4	U389		# #
"Carbamothioic acid, bis(2-" "methylpropyl)-, S-ethyl ester" (Butylate)	2008415		1*	4	U392		# #
"Carbamothioic acid," "butylethyl-, S-propyl" ester (Pebulate)	1114712		1*	4	U391		# #
"Carbamothioic acid," "cyclohexylethyl-, S-ethyl" ester (Cycloate)	1134232		1*	4	U386		# #
"Carbamothioic acid," "dipropyl-, S- ethyl" ester (EPTC)	759944		1*	4	U390		# #
"Carbamothioic acid," "dipropyl-, S-" (phenylmethyl) ester (Prosulfocarb)	52888809		1*	4	U387		# #
"Carbamothioic acid," "dipropyl-, S-" propyl ester (Vernolate)	1929777		1*	4	U385		# #
Carbaryl	63252		100	1		B	100 (45.4)
Carbofuran	1563662		10	1		A	10 (4.54)
Carbon disulfide	75150		5000	"1,4"	P022	B	100 (45.4)
Carbon oxyfluoride	353504	Carbonic difluoride	1*	4	U033	C	1000 (454)
Carbon tetrachloride	56235	"Methane, tetrachloro-"	5000	"1,2,4"	U211	A	10 (4.54)
"Carbonic acid," dithallium (1+) salt	6533739	Thallium(I) carbonate	1*	4	U215	B	100 (45.4)
Carbonic dichloride	75445	Phosgene	5000	"1,4"	P095	A	10 (4.54)
Carbonic difluoride	353504	Carbon oxyfluoride	1*	4	U033	C	1000 (454)
"Carbonochloridic acid," methyl ester	79221	Methyl chlorocarbonate Methyl chloroformate	1*	4	U156	C	1000 (454)
Chloral	75876	"Acetaldehyde, trichloro-"	1*	4	U034	D	5000 (2270)
Chlorambucil	305033	"Benzenebutanoic acid," 4-[bis(2-chloroethyl)amino]-	1*	4	U035	A	10 (4.54)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Chlordane	57749	"Chlordane, alpha & gamma isomers "Chlordane, technical" "4,7-Methano-1H-indene," "1,2,4,5,6,7,8,8-octa-" "chloro-2,3,3a," "4,7,7a-hexahydro-"	"1	"1,2,4"	U036	X	1 (0.454)
CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)		N.A.		1*	2		**
"Chlordane, alpha &" gamma isomers	57749	Chlordane "Chlordane, technical" "4,7-Methano-" "1H-indene, 1,2,4,5,6" "7,8,8-octachloro-2,3,3a," "4,7,7a-hexahydro-"	1	"1,2,4"	U036	X	1 (0.454)
"Chlordane, technical"	57749	Chlordane "Chlordane, alpha &" gamma isomers "4,7-Methano-1H-indene, 1,2" "4,5,6,7,8,8-octachloro-" "2,3,3a,4,7,7a-hexahydro-"	1	"1,2,4" ","	U036	X	1 (0.454)
CHLORINATED BENZENES	N.A.		1*	2			**
CHLORINATED ETHANES	N.A.		1*	2			**
CHLORINATED NAPHTHALENE		N.A.		1*	2		**
CHLORINATED PHENOLS	N.A.		1*	2			**
Chlorine	7782505		10	1		A	10 (4.45)
Chlornaphazine	494031	"Naphthalenamine, N,N'-" bis(2-chloroethyl)-	1*	4	U026	B	100 (45.4)
Chloroacetaldehyde	107200	"Acetaldehyde, chloro-"	1*	4	P023	C	1000 (454)
CHLOROALKYL ETHERS	N.A.		1*	2			**
p-Chloroaniline	106478	"Benzenamine, 4-chloro-"	1*	4	P024	C	1000 (454)
Chlorobenzene	108907	"Benzene, chloro-"	100	"1,2,4"	U037	B	100 (45.4)
Chlorobenzilate	510156	"Benzeneacetic acid," 4-chloro-alpha-(4-chlorophenyl)-alpha- "hydroxy-, ethyl ester"	1*	4	U038	A	10 (4.54)
4-Chloro-m-cresol	59507	p-Chloro-m-cresol "Phenol, 4-chloro-3-" methyl-	1*	"2,4"	U039	D	5000 (2270)
p-Chloro-m-cresol	59507	"Phenol, 4-chloro-3-" methyl- 4-Chloro-m-cresol	1*	"2,4"	U039	D	5000 (2270)
Chlorodibromomethane	124481		1*	2		B	100 (45.4)
Chloroethane	75003		1*	2		B	100 (45.4)
2-Chloroethyl vinyl ether	110758	"Ethene, 2-chloroethoxy-"	1*	"2,4"	U042	C	1000 (454)
Chloroform	67663	"Methane, trichloro-"	5000	"1,2,4"	U044	A	10 (4.54)
Chloromethyl methyl ether	107302	"Methane, chloromethoxy-"	1*	4	U046	A	10 (4.54)
beta-Chloronaphthalene	91587	"Napthalene, 2-chloro-" 2-Chloronaphthalene	1*	"2,4"	U047	D	5000 (2270)
2-Chloronaphthalene	91587	beta-Chloronaphthalene "Naphthalene, 2-chloro-"	1*	"2,4"	U047	D	5000 (2270)
2-Chlorophenol	95578	o-Chlorophenol "Phenol, 2-chloro-"	1*	"2,4"	U048	B	100 (45.4)
o-Chlorophenol	95578	"Phenol, 2-chloro-" 2-Chlorophenol	1*	"2,4"	U048	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
4-Chlorophenyl phenyl ether	7005723		1*	2		D	5000 (2270)
1-(o-Chlorophenyl)thiourea	5344821	"Thiourea, (2-" chlorophenyl)-	1*	4	P026	B	100 (45.4)
3-Chloropropionitrile	542767	"Propanenitrile, 3-" chloro-	1*	4	P027	C	1000 (454)
Chlorosulfonic acid	7790945		1000	1		C	1000 (454)
"4-Chloro-o-toluidine," hydrochloride	3165933	"Benzenamine," "4-chloro-2-methyl-," hydrochloride	1*	4	U049	B	100 (45.4)
Chlorpyrifos	2921882		1	1		X	1 (0.454)
Chromic acetate	1066304		1000	1		C	1000 (454)
Chromic acid	11115745 7738945		1000	1		A	10 (4.54)
Chromic acid "H2CrO4, calcium" salt	13765190	Calcium chromate	1000	"1,4"	U032	A	10 (4.45)
Chromic sulfate	10101538		1000	1		C	1000 (454)
Chromium ++	7440473		1*	2		D	5000 (2270)
CHROMIUM AND COMPOUNDS		N.A.		1*	2		**
Chromous chloride	10049055		1000	1		C	1000 (454)
Chrysene	218019	"1,2-Benzphenanthrene"	1*	"2,4"	U050	B	100 (45.4)
Cobaltous bromide	7789437		1000	1		C	1000 (454)
Cobaltous formate	544183		1000	1		C	1000 (454)
Cobaltous sulfamate	14017415		1000	1		C	1000 (454)
Coke Oven Emissions	N.A.		1*	3		X	1 (0.454)
COPPER AND COMPOUNDS		N.A.		1*	2		**
Copper ++	7440508		1*	2		D	5000 (2270)
"Copper, bis" "(dimethylcarbamodithioato-S,S'" (Cooper dimethyldithiocarbamat	137291	)- e)	1*	4	U393		# #
Copper cyanide	544923	Copper cyanide CuCN	1*	4	P029	A	10 (4.54)
Copper cyanide CuCN	544923	Copper cyanide	1*	4	P029	A	10 (4.54)
Coumaphos	56724		10	1		A	10 (4.54)
Creosote	8001589		1*	4	U051	X	1 (0.454)
Cresol(s)	1319773	Cresylic acid "Phenol, methyl-"	1000	"1,4"	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
Cresylic acid	1319773	Cresol(s) "Phenol, methyl-"	1000	"1,4"	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
Crotonaldehyde	123739 4170303	2-Butenal	100	"1,4"	U053	B	100 (45.4)
Cumene	98828	"Benzene, 1-methylethyl-"	1*	4	U055	D	5000 (2270)
Cupric acetate	142712		100	1		B	100 (45.4)
Cupric acetoarsenite	12002038		100	1		X	1 (0.454)
Cupric chloride	7447394		10	1		A	10 (4.54)
Cupric nitrate	3251238		100	1		B	100 (45.4)
Cupric oxalate	5893663		100	1		B	100 (45.4)
Cupric sulfate	7758987		10	1		A	10 (4.54)
Cupric sulfate ammoniated	10380297		100	1		B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Cupric tartrate	815827		100	1		B	100 (45.4)
CYANIDES	N.A.		1*	2			**
Cyanides (soluble salts and complexes) not otherwise specified	57125		1*	4	P030	A	10 (4.54)
Cyanogen	460195	Ethanedinitrile	1*	4	P031	B	100 (45.4)
Cyanogen bromide	506683	Cyanogen bromide (CN)Br	1*	4	U246	C	1000 (454)
Cyanogen bromide (CN)Br (CN)Br	506683	Cyanogen bromide	1*	4	U246	C	1000 (454)
Cyanogen chloride	506774	Cyanogen chloride (CN)Cl	10	"1,4"	P033	A	10 (4.54)
Cyanogen chloride (CN)Cl	506774	Cyanogen chloride	10	"1,4"	P033	A	10 (4.45)
"2,5-Cyclohexadiene-" "1,4-dione"	106514	p-Benzoquinone	1*	4	U197	A	10 (4.54)
Cyclohexane	110827	"Benzene, hexahydro-"	1000	"1,4"	U056	C	1000 (454)
"Cyclohexane, 1,2,3," "4,5-6-hexachloro-," "(1alpha,2alpha," " 3beta,4alpha,5alpha," 6beta)-	58899	gamma-BHC Hexachlorocyclohexane (gamma isomer) Lindane	1	"1,2,4"	U129	X	1 (0.454)
Cyclohexanone	108941		1*	4	U057	D	5000 (2270)
"2-Cyclohexyl-4,6-" dinitrophenol	131895	"Phenol, 2-cyclohexyl-" "4,6-dinitro-"	1*	4	P034	B	100 (45.4)
"1,3-Cyclopentadiene," "1,2,3,4,5,5-hexachloro-"	77474	Hexachlorocyclopenta-diene	1	"1,2,4"	U130	A	10 (4.54)
Cyclophosphamide	50180	"2H-1,3,2-" Oxazaphosphorin-2- "amine," "N,N-bis(2-chloro" "ethyl)tetrahydro-,2-" oxide	1*	4	U058	A	10 (4.54)
"2,4-D Acid"	94757	"Acetic acid (2,4-" dichlorophenoxy)- "2,4-D, salts and esters"	100	"1,4"	U240	B	100 (45.4)
"2,4-D Esters"	94111 94791 94804 1320189 1928387 1928616 1929733 2971382 25168267 53467111		100	1		B	100 (45.4)
"2,4-D, salts and esters"	94757	"Acetic acid (2,4-di-" "chlorophenoxy)-2,4-" D Acid	100	"1,4"	U240	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Daunomycin	20830813	"5,12-Naphthacenedione," 8-acetyl-10-[3-amino- "2,3,6-trideoxy-alpha-" L-lyxo-hexo-pyranosyl) "oxy]-7,8,9,10-tetra-" "hydro-6,8,11-trihydroxy-" "1-methoxy-,(8S-cis)-"	1*	4	U059	A	10 (4.54)
DDD	72548	"Benzene, 1,1'-(2,2-di-" chloroethylidene)bis [4-chloro- TDE "4,4' DDD"	1	"1,2,4"	U060	X	1 (0.454)
"4,4' DDD"	72548	"Benzene, 1,1'-(2,2-di-" chloroethylidene)bis [4-chloro- DDD TDE	1	"1,2,4"	U060	X	1 (0.454)
DDE	72559	"4,4' DDE"	1*	2		X	1 (0.454)
"4,4' DDE"	72559	DDE	1*	2		X	1 (0.454)
DDT	50293	"Benzene, 1,1'-(2,2,2-" trichloroethylidene) bis[4-chloro- "4,4'DDT"	1	"1,2,4"	U061	X	1 (0.454)
"4,4'DDT"	50293	"Benzene, 1,1'-(2,2,2-" trichloroethylidene) bis[4-chloro- DDT	1	"1,2,4"	U061	X	1 (0.454)
DDT AND METABOLITES	N.A.		1*	2			**
Diallate	2303164	"Carbamothioic acid, bis" "(1-methylethyl)-, S-(2,3" - dichloro-2-propenyl) ester	1*	4	U062	B	100 (45.4)
Diazinon	333415		1	1		X	1 (0.454)
"Dibenz[a,h]anthracene"	53703	"Dibenzo[a,h]anthracene" "1,2:5,6-Dibenzanthracene"	1*	"2,4"	U063	X	1 (0.454)
"1,2:5,6-" Dibenzanthracene	53703	"Dibenz[a,h]anthracene" "Dibenzo[a,h]anthracene"	1*	"2,4"	U063	X	1 (0.454)
"Dibenzo[a,h]anthracene"	53703	"Dibenz[a,h]anthracene" "1,2:5,6-" Dibenzanthracene	1*	"2,4"	U063	X	1 (0.454)
"Dibenz[a,i]pyrene"	189559	Benzo[rst]pentaphene	1*	4	U064	A	10 (4.54)
"1,2-Dibromo-3-" chloropropane	96128	"Propane, 1,2-dibromo-3-" chloro-	1*	4	U066	X	1 (0.454)
Dibutyl phthalate	84742	Di-n-butyl phthalate n-Butyl phthalate "1,2-Benzenedicarboxylic" "acid, dibutyl ester"	100	"1,2,4"	U069	A	10 (4.54)
Di-n-butyl phthalate	84742	Dibutyl phthalate n-Butyl phthalate "1,2-Benzenedicarboxylic" "acid, dibutyl ester"	100	"1,2,4"	U069	A	10 (4.54)
Dicamba	1918009		1000	1		C	1000 (454)
Dichlobenil	1194656		1000	1		B	100 (45.4)
Dichlone	117806		1	1		X	1 (0.454)
Dichlorobenzene	25321226		100	1		B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"1,2-Dichlorobenzene"	95501	"Benzene, 1,2-dichloro-" o-Dichlorobenzene	100	"1,2,4"	U070	B	100 (45.4)
"1,3-Dichlorobenzene"	541731	"Benzene, 1,3-dichloro" m-Dichlorobenzene	1*	"2,4"	U071	B	100 (45.4)
"1,4-Dichlorobenzene"	106467	"Benzene, 1,4-dichloro" p-Dichlorobenzene	100	"1,2,4"	U072	B	100 (45.4)
m-Dichlorobenzene	541731	"Benzene, 1,3-dichloro" "1,3-Dichlorobenzene"	1*	"2,4"	U071	B	100 (45.4)
o-Dichlorobenzene	95501	"Benzene, 1,2-dichloro" "1,2-Dichlorobenzene"	100	"1,2,4"	U070	B	100 (45.4)
p-Dichlorobenzene	106467	"Benzene, 1,4-dichloro" "1,4-Dichlorobenzene"	100	"1,2,4"	U072	B	100 (45.4)
DICHLOROBENZIDINE	N.A.		1*	2			**
"3,3'-Dichlorobenzidine"	91941	"[1,1'-Biphenyl]-" "4,4'diamine,3,3'dichloro"	1* -	"2,4"	U073	X	1 (0.454)
Dichlorobromomethane	75274		1*	2		D	5000 (2270)
"1,4-Dichloro-2-butene"	764410	"2-Butene, 1,4-dichloro-"	1*	4	U074	X	1 (0.454)
Dichlorodifluoromethane	75718	"Methane," dichlorodifluoro-	1*	4	U075	D	5000 (2270)
"1,1-Dichloroethane"	75343	"Ethane, 1,1-dichloro-" Ethylidene dichloride	1*	"2,4"	U076	C	1000 (454)
"1,2-Dichloroethane"	107062	"Ethane, 1,2-dichloro-" Ethylene dichloride	5000	"1,2,4"	U077	B	100 (45.4)
"1,1-Dichloroethylene"	75354	"Ethene, 1,1-dichloro-" Vinylidene chloride	5000	"1,2,4"	U078	B	100 (45.4)
"1,2-Dichloroethylene"	156605	"Ethene, 1,2-" dichloro-(E)	1*	"2,4"	U079	C	1000 (454)
Dichloroethyl ether	111444	Bis (2-chloroethyl) ether "Ethane, 1,1'-" oxybis[2-chloro-	1*	"2,4"	U025	A	10 (4.54)
Dichloroisopropyl ether	108601	"Propane, 2,2'-" oxybis[2-chloro-	1*	"2,4"	U027	C	1000 (454)
Dichloromethoxy ethane	111911	Bis(2-chloroethoxy) methane "Ethane, 1,1'-" [methylenebis(oxy)]bis (2-chloro-	1*	"2,4"	U024	C	1000 (454)
Dichloromethyl ether	542881	"Methane, oxybis(chloro-"	1*	4	P016	A	10 (4.54)
"2,4-Dichlorophenol"	120832	"Phenol, 2,4-dichloro-"	1*	"2,4"	U081	B	100 (45.4)
"2,6-Dichlorophenol"	87650	"Phenol, 2,6-dichloro-"	1*	4	U082	B	100 (45.4)
Dichlorophenylarsine	696286	"Arsonous dichloride," phenyl-	1*	4	P036	X	1 (0.454)
Dichloropropane "1,1-Dichloropropane" "1,3-Dichloropropane"	26638197 78999 142289		5000	1		C	1000 (454)
"1,2-Dichloropropane"	78875	"Propane, 1,2-dichloro-" Propylene dichloride	5000	"1,2,4"	U083	C	1000 (454)
Dichloropropane - Dichloropropene (mixture)	8003198		5000	1		B	100 (45.4)
Dichloropropene "2,3-Dichloropropene"	26952238 78886		5000	1		B	100 (45.4)
"1,3-Dichloropropene"	542756	"1-Propene,1,3-" dichloro-	5000	"1,2,4"	U084	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"2,2-Dichloropropionic" acid	75990		5000	1		D	5000 (2270)
Dichlorvos	62737		10	1		A	10 (4.54)
Dicofol	115322		5000	1		A	10 (4.54)
Dieldrin	60571	"2,7:3,6-Dimethano-" "naphth[2,3-b]oxirene," "3,4,5,6,9,9-hexachloro-" "1a,2,2a,3,6,6a,7,7a-" "octahydro-," "(1aalpha,2beta,2aalpha," "3beta,6beta, 6aalpha," "7beta,7aalpha)-"	1	"1,2,4"	P037	X	1 (0.454)
"1,2:3,4-Diepoxybutane"	1464535	"2,2'-Bioxirane"	1*	4	U085	A	10 (4.54)
Diethylamine	109897		1000	1		B	100 (45.4)
Diethylarsine	692422	"Arsine, diethyl-"	1*	4	P038	X	1 (0.454)
"1,4-Diethylenedioxide"	123911	"1,4-Dioxane"	1*	4	U108	B	100 (45.4)
Diethylhexyl phthalate	117817	Bis (2-ethylhexyl) phthalate "1,2-Benzene-" "dicarboxylic acid, [bis" (2-ethylhexyl)] ester	1*	"2,4"	U028	B	100 (45.4)
"N,N'-Diethylhydrazine"	1615801	"Hydrazine, 1,2-diethyl-"	1*	4	U086	A	10 (4.54)
"O,O-Diethyl S-" methyl dithiophosphate	3288582	"Phosphorodithioic acid," "O,O-diethyl S-methyl" ester	1*	4	U087	D	5000 (2270)
Diethyl-p-nitrophenyl phosphate	311455	"Phosphoric acid, diethyl" 4-nitrophenyl ester	1*	4	P041	B	100 (45.4)
Diethyl phthalate	84662	"1,2-Benzenedicarboxylic" "acid, diethyl ester"	1*	"2,4"	U088	C	1000 (454)
"O,O-Diethyl O-pyrazinyl" phosphorothioate	297972	"Phosphorothioic acid," "O,O-diethyl O-" pyrazinyl ester	1*	4	P040	B	100 (45.4)
Diethylstilbestrol	56531	"Phenol, 4,4'-(1,2-" "diethyl-1,2-ethenediyl)" "bis-,(E)"	1*	4	U089	X	1 (0.454)
Dihydrosafrole	94586	"1,3-Benzodioxole, 5-" propyl-	1*	4	U090	A	10 (4.54)
Diisopropylfluorophosphate	55914	Phosphorofluoridic "acid, bis(1-methylethyl)" ester	1*	4	P043	B	100 (45.4)
"1,4,5,8-Dimethano-" " napthalene, 1,2,3,4," "10,10-10-hexachloro-" "1,4,4a,5,8,8a-hexa-" "hydro-, (1alpha," "4alpha,4abeta,5alpha,8alpha," "8abeta)-1,4," "5,8-Dimethanonaphthalene," "1,2,3,4,10,10-hexachloro-" "1,4,4a,5,8,8a-hexahydro," "(1alpha,4alpha,4abeta," "5abeta,8beta,"	309002	Aldrin	1	"1,2,4"	P004	X	1 (0.454)
	465736	Isodrin	1*	4	P060	X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"8abeta)- 2,7:3,6-Dimethano-" "naphth[2,3-b]oxirene," "3,4,5,6,9,9-hexachloro-" "1a,2,2a,3,6,6a,7,7a-" "octahydro-,(1aalpha,2beta," "2aalpha,3beta,6beta," "6aalpha,7beta,7aalpha)-"	60571	Dieldrin	1	"1,2,4"	P037	X	1 (0.454)
"2,7:3,6-Dimethanonaphth" "[2,3-b]oxirene," "3,4,5,6,9,9-hexachloro-" "1a,2,2a,3,6,6a,7,7a-" "octa-hydro-,(1aalpha," "2beta,2abeta,3alpha,6alpha," "6alpha,6abeta,7beta"	72208	Endrin "Endrin, & metabolites"	1	"1,2,4"	P051	X	1 (0.454)
7alpha)-Dimethoate	60515	"Phosphorodithioic acid," "O,O-dimethyl S-[2" (methylamino)-2-oxo-ethyl] ester	1*	4	P044	A	10 (4.54)
"3,3'-Dimethoxybenzidine"	119904	"[1,1'-Biphenyl]-" "4,4'diamine,3,3'" dimethoxy-	1*	4	U091	B	100 (45.4)
Dimethylamine	124403	"Methanamine," N-methyl-	1000	"1,4"	U092	C	1000 (454)
p-Dimethylamino-azobenzene	60117	"Benzenamine, N,N-" dimethyl-4-(phenylazo-)	1*	4	U093	A	10 (4.54)
"7,12-Dimethylbenz[a]" anthracene	57976	"Benz[a]anthracene," "7,12-dimethyl-"	1*	4	U094	X	1 (0.454)
"3,3'-Dimethylbenzidine"	119937	"[1,1'Biphenyl]-4,4'-" "diamine,3,3'-dimethyl-"	1*	4	U095	A	10 (4.54)
"alpha,alpha-" Dimethylbenzyl-hydroperoxide	80159	"Hydroperoxide, 1-methyl-" 1-phenylethyl-	1*	4	U096	A	10 (4.54)
Dimethylcarbamoyl chloride	79447	"Carbamic chloride," dimethyl-	1*	4	U097	X	1 (0.454)
"1,1-Dimethylhydrazine"	57147	"Hydrazine,1,1-dimethyl-"	1*	4	U098	A	10 (4.54)
"1,2-Dimethylhydrazine"	540738	"Hydrazine,1,2-dimethyl-"	1*	4	U099	X	1 (0.454)
"alpha,alpha-" Dimethylphenethylamine	122098	"Benzeneethanamine," "alpha,alpha-dimethyl-"	1*	4	P046	D	5000 (2270)
"2,4-Dimethylphenol"	105679	"Phenol, 2,4-dimethyl-"	1*	"2,4"	U101	B	100 (45.4)
Dimethyl phthalate	131113	"1,2-Benzenedicarboxylic" "acid, dimethyl ester"	1*	"2,4"	U102	D	5000 (2270)
Dimethyl sulfate	77781	"Sulfuric acid, dimethyl" ester	1*	4	U103	B	100 (45.4)
Dinitrobenzene (mixed)	25154545		1000	1		B	100 (45.4)
m-Dinitrobenzene	99650						
o-Dinitrobenzene	528290						
p-Dinitrobenzene	100254						
"4,6-Dinitro-o-cresol" and salts	534521	"Phenol, 2-methyl-4,6-" dinitro-	1*	"2,4"	P047	A	10 (4.54)
Dinitrophenol	25550587		1000	1		A	10 (4.54)
" 2,5-Dinitrophenol"	329715						
"2,6-Dinitrophenol"	573568						
"2,4-Dinitrophenol"	51285	"Phenol, 2,4-dinitro-"	1000	"1,2,4"	P048	A	10 (4.54)
Dinitrotoluene	25321146		1000	"1,2"		A	10 (4.54)
"3,4-Dinitrotoluene"	610399						

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"2,4-Dinitrotoluene"	121142	"Benzene,1-methyl-2,4-" dinitro-	1000	"1,2,4"	U105	A	10 (4.54)
"2,6-Dinitrotoluene"	606202	"Benzene,2-methyl-1,3-" dinitro-	1000	"1,2,4"	U106	B	100 (45.4)
Dinoseb	88857	"Phenol, 2-(1-methyl-" "propyl)-4,6-dinitro"	1*	4	P020	C	1000 (454)
Di-n-octyl phthalate	117840	"1,2-Benzenedicarboxylic" "acid, dioctyl ester"	1*	"2,4"	U107	D	5000 (2270)
"1,4-Dioxane"	123911	"1,4-Diethylenedioxide"	1*	4	U108	B	100 (45.4)
DIPHENYLHYDRAZINE	N.A.		1*	2			**
"1,2-Diphenylhydrazine"	122667	"Hydrazine,1,2-diphenyl-"	1*	"2,4"	U109	A	10 (4.54)
"Diphosphoramide," octamethyl-	152169	Octamethylpyrophos-phoramide	1*	4	P085	B	100 (45.4)
"Diphosphoric acid," tetraethyl ester	107493	Tetraethyl pyrophos-phate	100	"1,4"	P111	A	10 (4.54)
Dipropylamine	142847	"1-Propanamine,N-propyl-"	1*	4	U110	D	5000 (2270)
Di-n-propylnitrosamine	621647	"1-Propanamine,N-nitroso-" N-propyl-	1*	"2,4"	U111	A	10 (4.54)
Diquat	85007 2764729		1000	1		C	1000 (454)
Disulfoton	298044	"Phosphorodithioic acid," "o,o-diethyl S-[2-" (ethylthio)ethyl]ester	1	"1,4"	P039	X	1 (0.454)
Dithiobiuret	541537	Thiomidodicarbonic diamide [(H2N) C(S)] 2NH	1*	4	P049	B	100 (45.4)
"1,3-Dithiolane-2-" "carboxaldehyde, 2,4-dimethyl-," O-[(methylamino) carbonyl]oxime (Tirpate)	26419738		1*	4	P185		# #
Diuron	330541		100	1		B	100 (45.4)
Dodecylbenzenesul-fonic acid	27176870		1000	1		C	1000 (454)
Endosulfan	115297	"6,9-Methano-2,4,3-" "benzodioxathiepin," "6,7,8,9,10,10-hexa-" "chloro-1,5,5a,6,9,9a-" "hexahydro-, 3-oxide"	1	"1,2,4"	P050	X	1 (0.454)
alpha - Endosulfan	959988		1*	2		X	1 (0.454)
beta - Endosulfan	33213659		1*	2		X	1 (0.454)
ENDOSULFAN AND METABOLITES		N.A.	1*	2			**
Endosulfan sulfate	1031078		1*	2		X	1 (0.454)
Endothall	145733	7-Oxabicyclo[2.2.1] "heptane-2,3-" dicarboxylic acid	1*	4	P088	C	1000 (454)
Endrin	72208	"Endrin, & metabolites" "2,7:3,6-Dimethano-" "naphth[2,3-b]oxirene," "3,4,5,6,9,9-hexachloro-" "1a,2,2a,3,6,6a,7,7a-" "octa-hydro-,(1aalpha," "2beta,2abeta,3alpha," "6alpha,6abeta,7beta," 7aalpha)-	1	"1,2,4"	P051	X	1 (0.454)
Endrin aldehyde	7421934		1*	2		X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
ENDRIN AND METABOLITES		N.A.		1*	2		**
"Endrin, & metabolites"	72208	"Endrin 2,7:3,6-Dimeth-" "anonaphth[2,3-b]" "oxirene, 3,4,5,6,9,9-" "hexachloro-1a,2,2a,3," "6,6a,7,7a-octa-hydro-," "(1aalpha,2beta,2abeta," "3alpha,6alpha," "6abeta,7beta,7aalpha)-"	1	"1,2,4"	P051	X	1 (0.454)
Epichlorohydrin	106898	"Oxirane, (chloromethyl)-"	1000	"1,4"	U041	B	100 (45.4)
Epinephrine	51434	"1,2-Benzenediol, 4-[1-" hydroxy-2-(methylamino)ethyl]-	1*	4	P042	C	1000 (454)
Ethanal	75070	Acetaldehyde	1000	"1,4"	U001	C	1000 (454)
"Ethanamine, N-ethyl-N-nitroso-"	55185	N-Nitrosodiethylamine	1*	4	U174	X	1 (0.454)
"1,2-Ethanediamine," "N,N-dimethyl-N'-2-" pyridinyl-N'-(2-thienylmethyl)-	91805	Methapyrilene	1*	4	U155	D	5000 (2270)
"Ethane, 1,2-dibromo-"	106934	Ethylene dibromide	1000	"1,4"	U067	X	1 (0.454)
"Ethane, 1,1-dichloro-"	75343	Ethylidene dichloride "1,1-Dichloroethane"	1*	"2,4"	U076	C	1000 (454)
"Ethane, 1,2-dichloro-"	107062	Ethylene dichloride "1,2-Dichloroethane"	5000	"1,2,4"	U077	B	100 (45.4)
Ethanedinitrile	460195	Cyanogen	1*	4	P031	B	100 (45.4)
"Ethane, hexachloro-"	67721	Hexachloroethane	1*	"2,4"	U131	B	100 (45.4)
"Ethane, 1,1'-[methylenebis" (oxy)]bis(2-chloro-	111911	Bis(2-chloroethoxy) methane Dichloromethoxy ethane	1*	"2,4"	U024	C	1000 (454)
"Ethane, 1,1'-oxybis-"	60297	Ethyl ether	1*	4	U117	B	100 (45.4)
"Ethane, 1,1'-oxybis[2-chloro-"	10 (4.54)	111444 ether Dichloroethyl ether	Bis (2-chloroethyl)	1*	"2,4"	U025	A
"Ethane, pentachloro-"	76017	Pentachloroethane	1*	4	U184	A	10 (4.54)
"Ethane, 1,1,1,2-tetrachloro-"	630206	"1,1,1,2-" Tetrachloroethane	1*	4	U208	B	100 (45.4)
"Ethane, 1,1,2,2-tetrachloro-"	79345	"1,1,2,2-" Tetrachloroethane	1*	"2,4"	U209	B	100 (45.4)
Ethanethioamide	62555	Thioacetamide	1*	4	U218	A	10 (4.54)
"Ethane, 1,1,1-trichloro-"	71556	Methyl chloroform "1,1,1-Trichloroethane"	1*	"2,4"	U226	C	1000 (454)
"Ethane, 1,1,2-trichloro-"	79005	"1,1,2-Trichloroethane"	1*	"2,4"	U227	B	100 (45.4)
"Ethanimidiothioic acid," N-[[(methylamino)carbonyl] "oxy]-, methyl ester"	16752775	Methomyl	1*	4	P066	B	100 (45.4)
"Ethanimidothioci acid, 2-" (dimethylamino-N-hydroxy-2-oxo methyl ester (A2213)	30558431	"-,"	1*	4	U394		# #
"Ethanimidothoic acid, 2-" (dimethylamino)-N-[[(methylami "carbonyl]oxy]-2-oxo-, methyl" ester (Oxamyl)	23135220	no)	1*	4	P194		# #
"Ethanimidothioic acid, N,N'-" [thiobis[(methylimino)	59669260		1*	4	U410		# #

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"carbonyloxy]] bis-," dimethyl ester (Thiodicarb)							
"Ethanol, 2-ethoxy-"	110805	Ethylene glycol mono-ethyl ether	1*	4	U359	C	1000 (454)
"Ethanol, 2,2'-" (nitrosoimino)bis-	1116547	N-Nitrosodiethanolamine	1*	4	U173	X	1 (0.454)
"Ethanol, 2,2'-oxybis-," dicarbamate (Diethylene "glycol, dicarbamate)"	5952261		1*	4	U395		# #
"Ethanone, 1-phenyl-"	98862	Acetophenone	1*	4	U004	D	5000 (2270)
"Ethene, chloro-"	75014	Vinyl chloride	1*	"2,3,4"	U043	X	1 (0.454)
"Ethene, 2-chloroethoxy-"	110758	2-Chloroethyl vinyl ether	1*	"2,4"	U042	C	1000 (454)
"Ethene, 1,1-dichloro-"	75354	Vinylidene chloride "1,1-Dichloroethylene"	5000	"1,2,4"	U078	B	100 (45.4)
"Ethene, 1,2-dichloro- (E)"	156605	"1,2-Dichloroethylene"	1*	"2,4"	U079	C	1000 (454)
"Ethene, tetrachloro-"	127184	Perchloroethylene Tetrachloroethene Tetrachloroethylene	1*	"2,4"	U210	B	100 (45.4)
"Ethene, trichloro-"	79016	Trichloroethene Trichloroethylene	1000	"1,2,4"	U228	B	100 (45.4)
Ethion	563122		10	1		A	10 (4.54)
Ethyl acetate	141786	"Acetic acid, ethyl ester"	1*	4	U112	D	5000 (2270)
Ethyl acrylate	140885	"2-Propenoic acid, ethyl" ester	1*	4	U113	C	1000 (454)
Ethylbenzene	100414		1000	"1,2"		C	1000 (454)
Ethyl carbamate (urethane)	51796	"Carbamic acid," ethyl ester	1*	4	U238	B	100 (45.4)
Ethyl cyanide	107120	Propanenitrile	1*	4	P101	A	10 (4.54)
Ethylenebisdithiocarbamic "acid, salts & esters"	111546	"Carbamodithioic acid," "1,2-ethanediylbis," salts & esters	1*	4	U114	D	5000 (2270)
Ethylenediamine	107153		1000	1		D	5000 (2270)
Ethylenediamine-tetraacetic acid (EDTA)	60004		5000	1		D	5000 (2270)
Ethylene dibromide	106934	"Ethane, 1,2-dibromo-"	1000	"1,4"	U067	X	1 (0.454)
Ethylene dichloride	107062	"Ethane, 1,2-dichloro-" "1,2-Dichloroethane"	5000	"1,2,4"	U077	B	100 (45.4)
Ethylene glycol monoethyl ether	110805	"Ethanol, 2-ethoxy-"	1*	4	U359	C	1000 (454)
Ethylene oxide	75218	Oxirane	1*	4	U115	A	10 (4.54)
Ethylenethiourea	96457	2-Imidazolidinethione	1*	4	U116	A	10 (4.54)
Ethylenimine	151564	Aziridine	1*	4	P054	X	1 (0.454)
Ethyl ether	60297	"Ethane, 1,1'-oxybis-"	1*	4	U117	B	100 (45.4)
Ethylidene dichloride	75343	"Ethane, 1,1-dichloro-" "1,1-Dichloroethane"	1*	"2,4"	U076	C	1000 (454)
Ethyl methacrylate	97632	"2-Propenoic acid," "2-methyl-, ethyl ester"	1*	4	U118	C	1000 (454)
Ethyl methanesulfonate	62500	"Methanesulfonic acid," ethyl ester	1*	4	U119	X	1 (0.454)
Famphur	52857	"Phosphorothioic acid," "O,[4-[(di-methylamino)" "sulfonyl] phenyl] O,O-" dimethyl ester	1*	4	P097	C	1000 (454)
Ferric ammonium citrate	1185575		1000	1		C	1000 (454)
Ferric ammonium oxalate	2944674		1000	1		C	1000 (454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
	55488874						
Ferric chloride	7705080		1000	1		C	1000 (454)
Ferric fluoride	7783508		100	1		B	100 (45.4)
Ferric nitrate	10421484		1000	1		C	1000 (454)
Ferric sulfate	10028225		1000	1		C	1000 (454)
Ferrous ammonium sulfate	10045893		1000	1		C	1000 (454)
Ferrous chloride	7758943		100	1		B	100 (45.4)
Ferrous sulfate	7720787 7782630		1000	1		C	1000 (454)
Fluoranthene	206440	"Benzo[j,k]fluorene"	1*	"2,4"	U120	B	100 (45.4)
Fluorene	86737		1*	2		D	5000 (2270)
Fluorine	7782414		1*	4	P056	A	10 (4.54)
Fluoroacetamide	640197	"Acetamide, 2-fluoro-"	1*	4	P057	B	100 (45.4)
"Fluoroacetic acid," sodium salt	62748	"Acetic acid, fluoro-," sodium salt	1*	4	P058	A	10 (4.54)
Formaldehyde	50000		1000	"1,4"	U122	B	100 (45.4)
Formic acid	64186		5000	"1,4"	U123	D	5000 (2270)
"Fulminic acid," mercury(2+)salt	628864	Mercury fulminate	1*	4	P065	A	10 (4.54)
Fumaric acid	110178		5000	1		D	5000 (2270)
Furan	110009	Furfuran	1*	4	U124	B	100 (45.4)
"Furan, tetrahydro-"	109999	Tetrahydrofuran	1*	4	U213	C	1000 (454)
2-Furancarboxaldehyde	98011	Furfural	1000	"1,4"	U125	D	5000 (2270)
"2,5-Furandione"	108316	Maleic anhydride	5000	"1,4"	U147	D	5000 (2270)
Furfural	98011	2-Furancarboxaldehyde	1000	"1,4"	U125	D	5000 (2270)
Furfuran	110009	Furan	1*	4	U124	B	100 (45.4)
"Glucopyranose, 2-" deoxy-2-(3-methyl-3-nitrosoureido)-	18883664	"D-Glucose, 2-deoxy-2-" [[(methylnitrosoa-mino)-carbonyl]amino] Streptozotocin	1*	4	U206	X	1 (0.454)
"D-Glucose, 2-deoxy-" 2-[[(methylnitroso-amino)-carbonyl] amino]-.	18883664	"Glucopyranose, 2-deoxy-" 2-(3-methyl-3-nitro-soureido)- Streptozotocin	1*	4	U206	X	1 (0.454)
Glycidylaldehyde	765344	Oxiranecarboxyaldehyde	1*	4	U126	A	10 (4.54)
"Guanidine, N-methyl-" N'-nitro-N-nitroso-	70257	MNNG	1*	4	U163	A	10 (4.54)
Guthion	86500		1	1		X	1 (0.454)
HALOETHERS	N.A.		1*	2			**
HALOMETHANES	N.A.		1*	2			**
Heptachlor	76448	"4,7-Methano-1H-" "indene,1,4,5,6,7,8,8-" "heptachloro-3a,4,7,7a-" tetrahydro-	1	"1,2,4"	P059	X	1 (0.454)
HEPTACHLOR AND METABOLITES		N.A.		1*	2		**
Heptachlor epoxide	1024573		1*	2		X	1 (0.454)
Hexachlorobenzene	118741	"Benzene, hexachloro-"	1*	"2,4"	U127	A	10 (4.54)
Hexachlorobutadiene	87683	"1,3-Butadiene, 1,1,2,3," "4,4-hexachloro-"	1*	"2,4"	U128	X	1 (0.454)
HEXACHLOROCYCLOHEXANE (all isomers)	608731			1*	2		**

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Hexachlorocyclohexane (gamma isomer)	58899	"Cyclohexane, 1,2,3,4,5," "6-hexachloro-,(1alpha," "2alpha,3beta,4alpha," "5alpha,6beta)-gamma-" BHC Lindane	1	"1,2,4"	U129	X	1 (0.454)
Hexachlorocyclopentadiene	77474	"1,3-Cyclopentadiene," "1,2,3,4,5,5-hexachloro-"	1	"1,2,4"	U130	A	10 (4.54)
Hexachloroethane	67721	"Ethane, hexachloro-"	1*	"2,4"	U131	B	100 (45.4)
Hexachlorophene	70304	"Phenol, 2,2'-methylene-" "bis[3,4,6-trichloro-"	1*	4	U132	B	100 (45.4)
Hexachloropropene	1888717	"1-Propene, 1,1,2,3,3,3-" hexachloro-	1*	4	U243	C	1000 (454)
Hexaethyl tetraphosphate	757584	"Tetraphosphoric acid," hexaethyl ester	1*	4	P062	B	100 (45.4)
Hydrazine	302012		1*	4	U133	X	1 (0.454)
"Hydrazine, 1,2-diethyl-"	1615801	"N,N'-Diethylhydrazine"	1*	4	U086	A	10 (4.54)
"Hydrazine, 1,1-dimethyl-"	57147	"1,1-Dimethylhydrazine"	1*	4	U098	A	10 (4.54)
"Hydrazine, 1,2-dimethyl-"	540738	"1,2-Dimethylhydrazine"	1*	4	U099	X	1 (0.454)
"Hydrazine, 1,2-diphenyl-"	122667	"1,2-Diphenylhydrazine"	1*	"2,4"	U109	A	10 (4.54)
"Hydrazine, methyl-"	60344	Methyl hydrazine	1*	4	P068	A	10 (4.54)
Hydrazinecarbothioamide	79196	Thiosemicarbazide	1*	4	P116	B	100 (45.4)
Hydrochloric acid	7647010	Hydrogen chloride	5000	1		D	5000 (2270)
Hydrocyanic acid	74908	Hydrogen cyanide	10	"1,4"	P063	A	10 (4.54)
Hydrofluoric acid	7664393	Hydrogen fluoride	5000	"1,4"	U134	B	100 (45.4)
Hydrogen chloride	7647010	Hydrochloric acid	5000	1		D	5000 (2270)
Hydrogen cyanide	74908	Hydrocyanic acid	10	"1,4"	P063	A	10 (4.54)
Hydrogen fluoride	7664393	Hydrofluoric acid	5000	"1,4"	U134	B	100 (45.4)
Hydrogen sulfide	7783064	Hydrogen sulfide H2S	100	"1,4"	U135	B	100 (45.4)
Hydrogen sulfide H2S	7783064	Hydrogen sulfide	100	"1,4"	U135	B	100 (45.4)
"Hydroperoxide," 1-methyl-1-phenylethyl-	80159	"alpha,alpha-" Dimethylbenzyl-hydroperoxide	1*	4	U096	A	10 (4.54)
2-Imidazolidinethione	96457	Ethylenethiourea	1*	4	U116	A	10 (4.54)
"Indeno(1,2,3-cd)pyrene"	193395	"1,10-(1,2-Phenylene)" pyrene	1*	"2,4"	U137	B	100 (45.4)
"Iron, tris" "(dimethylcarbamodithioato-S,S'" (Ferbam)	14484641	)-	1*	4	U396		# #
"1,3-Isobenzofurandione"	85449	Phthalic anhydride	1*	4	U190	D	5000 (2270)
Isobutyl alcohol	78831	"1-Propanol, 2-methyl-"	1*	4	U140	D	5000 (2270)
Isodrin	465736	"1,4,5,8-Dimethano-" "naphthalene, 1,2,3,4," "10,10-hexachloro-1,4," "4a,5,8,8a-hexahydro," "(1alpha,4alpha,4abeta," "5beta,8beta,8abeta)-"	1*	4	P060	X	1 (0.454)
Isophorone	78591		1*	2		D	5000 (2270)
Isoprene	78795		1000	1		B	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate	42504461		1000	1		C	1000 (454)
Isosafrole	120581	"1,3-Benzodioxole, 5-)" 1-propenyl)-	1*	4	U141	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"3(2H)-Isoxazolone," 5-(aminomethyl)-	2763964	Muscimol 5-(Amino-5-(Amino-methyl)-3-isoxazolol	1*	4	P007	C	1000 (454)
Kepone	143500	"1,3,4-Metheno-2H-" cyclobutal[cd]pentalen-"2-one, 1,1a,3,3a,4," "5,5,5a,5b,6-decachloro-" octahydro-	1	"1,4"	U142	X	1 (0.454)
Lasiocarpine	303344	"2-Butenoic acid, 2-" "methyl-,7[[2,3-" dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy] "methyl]-2,3,5,7a-" tetrahydro-1H-"pyrrolizin-1-yl ester," "[1S-[1alpha(Z),7(2S*," "3R*),7aalpha]]-"	1*	4	U143	A	10 (4.54)
Lead ++	7439921		1*	2		A	10 (4.54)
Lead acetate	301042	"Acetic acid, lead(2+)" salt	5000	"1,4"	U144	A	10 (4.54)
LEAD AND COMPOUNDS	N.A.		1*	2			**
Lead arsenate	7784409 7645252 10102484		5000	1		X	1 (0.454)
"Lead, bis(acetato-" O)tetrahydroxytri	1335326	Lead subacetate	1*	4	U146	A	10 (4.54)
Lead chloride	7758954		5000	1		A	10 (4.54)
Lead fluoborate	13814965		5000	1		A	10 (4.54)
Lead fluoride	7783462		1000	1		A	10 (4.54)
Lead iodide	10101630		5000	1		A	10 (4.54)
Lead nitrate	10099748		5000	1		A	10 (4.54)
Lead phosphate	7446277	"Phosphoric acid," lead (2+) salt (2:3)	1*	4	U145	A	10 (4.54)
Lead stearate	7428480 1072351 52652592 56189094		5000	1		A	10 (4.54)
Lead subacetate	1335326	"Lead, bis(acetato-O)" tetrahydroxytri	1*	4	U146	A	10 (4.54)
Lead sulfate	15739807 7446142		5000	1		A	10 (4.54)
Lead sulfide	1314870		5000	1		A	10 (4.54)
Lead thiocyanate	592870		5000	1		A	10 (4.54)
Lindane	58899	"Cyclohexane, 1,2,3,4,5," "6-hexachloro-,(1alpha," "2alpha,3beta,4alpha," "5alpha,6beta)-gamma-BHC" Hexachlorocyclohexane (gamma isomer)	1	"1,2,4"	U129	X	1 (0.454)
Lithium chromate	14307358		1000	1		A	10 (4.54)
Malathion	121755		10	1		B	100 (45.4)
Maleic acid	110167		5000	1		D	5000 (2270)
Maleic anhydride	108316	"2,5-Furandione"	5000	"1,4"	U147	D	5000 (2270)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Maleic hydrazide	123331	"3,6-Pyridazinedione," "1,2-dihydro-"	1*	4	U148	D	5000 (2270)
Malononitrile	109773	Propanedinitrile	1*	4	U149	C	1000 (454)
"Manganese, bis" "(dimethylcarbamodithioato-S,S'" (Manganese dimethyldithiocarbamate)	15339363	)-	1*	4	P196		# #
Melphalan	148823	"L-Phenylalanine," 4-[bis(2-chloroethyl) aminol]	1*	4	U150	X	1 (0.454)
Mercaptodimethur	2032657		100	1		A	10 (4.54)
Mercuric cyanide	592041		1	1		X	1 (0.454)
Mercuric nitrate	10045940		10	1		A	10 (4.54)
Mercuric sulfate	7783359		10	1		A	10 (4.54)
Mercuric thiocyanate	592858		10	1		A	10 (4.54)
Mercurous nitrate	10415755 7782867		10	1		A	10 (4.54)
Mercury	7439976		1*	"2,3,4"	U151	X	1 (0.454)
MERCURY AND COMPOUNDS		N.A.		1*	2		**
"Mercury," (acetate-O)phenyl-	62384	Phenylmercury acetate	1*	4	P092	B	100 (45.4)
Mercury fulminate	628864	"Fulminic acid," mercury (2+) salt	1*	4	P065	A	10 (4.54)
Methacrylonitrile	126987	"2-Propenenitrile," 2-methyl-	1*	4	U152	C	1000 (454)
"Methanamine, N-methyl-"	124403	Dimethylamine	1000	"1,4"	U092	C	1000 (454)
"Methanamine, N-methyl-" N-nitroso-	62759	N-Nitrosodimethylamine	1*	"2,4"	P082	A	10 (4.54)
"Methane, bromo-"	74839	Methyl bromide	1*	"2,4"	U029	C	1000 (454)
"Methane, chloro-"	74873	Methyl chloride	1*	"2,4"	U045	B	100 (45.4)
"Methane," chloromethoxy-	107302	Chloromethyl methyl ether	1*	4	U046	A	10 (4.54)
"Methane, dibromo-"	74953	Methylene bromide	1*	4	U068	C	1000 (454)
"Methane, dichloro-"	75092	Methylene chloride	1*	"2,4"	U080	C	1000 (454)
"Methane," dichlorodifluoro-	75718	Dichlorodifluoromethane	1*	4	U075	D	5000 (2270)
"Methane, iodo-"	74884	Methyl iodide	1*	4	U138	B	100 (45.4)
"Methane, isocyanato-"	624839	Methyl isocyanate	1*	"3,4"	P064	A	10 (4.54)
"Methane, oxybis" (chloro-	542881	Dichloromethyl ether	1*	4	P016	A	10 (4.54)
Methanesulfenyl "chloride, trichloro-"	594423	Trichloromethane-sulfenyl chloride	1*	4	P118	B	100 (45.4)
"Methanesulfonic acid," ethyl ester	62500	Ethyl methanesulfonate	1*	4	U119	X	1 (0.454)
"Methane, tetrachloro-"	56235	Carbon tetrachloride	5000	"1,2,4"	U211	A	10 (4.54)
"Methane, tetranitro-"	509148	Tetranitromethane	1*	4	P112	A	10 (4.54)
"Methane, tribromo-"	75252	Bromoform	1*	"2,4"	U225	B	100 (45.4)
"Methane, trichloro-"	67663	Chloroform	5000	"1,2,4"	U044	A	10 (4.54)
"Methane, trichloro-" fluoro-	75694	Trichloromonofluoro-methane	1*	4	U121	D	5000 (2270)
Methanethiol	74931	Methylmercaptan Thiomethanol	100	"1,4"	U153	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Methanimidamide," "N,N-dimethyl-N'-" [3-[[(methylamino)carbonyl] "oxylphenyl]-, monohydrochiorid" (Formetanate hydrochloride)	23422539	e	1*	4	P198		# #
"Methanimidamide," "N,N-dimethyl-N'-" [2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]- (Formparanate)	17702577		1*	4	P197		# #
"6,9-Methano-2,4,3-" "benzodioxathiepin," "6,7,8,9,10,10-hexachloro-" "1,5,5a,6,9,9a-hexahydro-," 3-oxide	115297	Endosulfan	1	"1,2,4"	P050	X	1 (0.454)
"1,3,4-Metheno-2H-" cyclobutal[cd]pentalen- "2-one,1,1a,3,3a,4,5,5,5a," "5b,6-decachloroctahydro-"	143500	Kepone	1	"1,4"	U142	X	1 (0.454)
"4,7-Methano-1H-indene," "1,4,5,6,7,8,8-heptachloro-" "3a,4,7,7a-tetrahydro-"	76448	Heptachlor	1	"1,2,4"	P059	X	1 (0.454)
"4,7-Methano-1H-indene," "1,2,4,5,6,7,8,8-" "octachloro-2,3,3a," "4,7,7a-hexahydro-"	57749	Chlordane "Chlordane, alpha &" gamma isomers "Chlordane, technical"	1	"1,2,4"	U036	X	1 (0.454)
Methanol	67561	Methyl alcohol	1*	4	U154	D	5000 (2270)
Methapyrilene	91805	"1,2-Ethanediamine," "N,N-dimethyl-N'-2-" pyridinyl-N'-(2-thienylmethyl)-	1*	4	U155	D	5000 (2270)
Methomyl	16752775	"Ethanimidothioic acid," N-[[(methylamino) "carbonyl]oxy]-,methyl" ester	1*	4	P066	B	100 (45.4)
Methoxychlor	72435	"Benzene, 1,1'-(2,2,2-" trichloroethylidene) bis[4-methoxy-	1	"1,4"	U247	X	1 (0.454)
Methyl alcohol	67561	Methanol	1*	4	U154	D	5000 (2270)
Methyl bromide	74839	"Methane, bromo-"	1*	"2,4"	U029	C	1000 (454)
1-Methylbutadiene	504609	"1,3-Pentadiene"	1*	4	U186	B	100 (45.4)
Methyl chloride	74873	"Methane, chloro-"	1*	"2,4"	U045	B	100 (45.4)
Methyl chlorocarbonate	79221	"Carbonochloridic acid," methyl ester Methyl chloroformate	1*	4	U156	C	1000 (454)
Methyl chloroform	71556	"Ethane, 1,1,1-trichloro-" "1,1,1-Trichloroethane"	1*	"2,4"	U226	C	1000 (454)
Methyl chloroformate	79221	"Carbonochloridic acid," methyl ester Methyl chlorocarbonate	1*	4	U156	C	1000 (454)
3-Methylcholanthrene	56495	"Benz[j]aceanthrylene," "1,2-dihydro-3-methyl-"	1*	4	U157	A	10 (4.54)
"4,4'-Methylenebis(2-" chloroaniline)	101144	"Benzenamine, 4,4'-" methylenebis(2-chloro-	1*	4	U158	A	10 (4.54)
Methylene bromide	74953	"Methane, dibromo-"	1*	4	U068	C	1000 (454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Methylene chloride	75092	"Methane, dichloro-"	1*	"2,4"	U080	C	1000 (454)
Methyl ethyl ketone (MEK)	78933	2-Butanone	1*	4	U159	D	5000 (2270)
Methyl ethyl ketone peroxide	1338234	2-Butanone peroxide	1*	4	U160	A	10 (4.54)
Methyl hydrazine	60344	"Hydrazine, methyl-"	1*	4	P068	A	10 (4.54)
Methyl iodide	74884	"Methane, iodo-"	1*	4	U138	B	100 (45.4)
Methyl isobutyl ketone	108101	4-Methyl-2-pentanone	1*	4	U161	D	5000 (2270)
Methyl isocyanate	624839	"Methane, isocyanato-"	1*	"3,4"	P064	A	10 (4.54)
2-Methyllactonitrile	75865	Acetone cyanohydrin "Propanenitrile, 2-" hydroxy-2-methyl-	10	"1,4"	P069	A	10 (4.54)
Methylmercaptan	74931	Methanethiol Thiomethanol	100	"1,4"	U153	B	100 (45.4)
Methyl methacrylate	80626	"2-Propenoic acid, 2-" "methyl-, methyl ester"	5000	"1,4"	U162	C	1000 (454)
Methyl parathion	298000	"Phosphorothioic acid," "O,O-dimethyl O-(4-" nitrophenyl) ester	100	"1,4"	P071	B	100 (45.4)
4-Methyl-2-pentanone	108101	Methyl isobutyl ketone	1*	4	U161	D	5000 (2270)
Methylthiouracil	56042	"4(1H)-Pyrimidinone," "2,3-dihydro-6-methyl-" 2-thioxo-	1*	4	U164	A	10 (4.54)
Mevinphos	7786347		1	1		A	10 (4.54)
Mexacarbate	315184		1000	1		C	1000 (454)
Mitomycin C	50077	"Azirino[2',3':3,4]" "pyrrolo[1,2-a]" "indole-4,7-dione,6-" amino-8- [[(aminocarbonyl)oxy] "methyl]- 1,1a,2,8,8a,8b-" hexahydro-8a- "methoxy-5-methyl-," "[1aS-(1aalpha,8beta," "8aalpha,8balpha)]-"	1*	4	U010	A	10 (4.54)
MNNG	70257	"Guanidine, N-methyl-N'" -nitro-N-nitroso-	1*	4	U163	A	10 (4.54)
Monoethylamine	75047		1000	1		B	100 (45.4)
Monomethylamine	74895		1000	1		B	100 (45.4)
Multi Source Leachate			1*	4	F039	X	1 (0.454)
Muscimol	2763964	"3(2H)-Isoxazolone," 5-(aminomethyl)- 5-(Aminomethyl)-3- isoxazolol	1*	4	P007	C	1000 (454)
Naled	300765		10	1		A	10 (4.54)
"5,12-Naphthacenedione," 8-acetyl-10-[3-amino- " 2,3,6-trideoxy-alpha-L-" lyxo-hexopyranosyl)oxy]- "7,8,9,10-tetrahydro-" "6,8,11-trihydroxy-" "1-*methoxy*-,(8S-*cis*)-"	20830813	Daunomycin	1*	4	U059	A	10 (4.54)
1-Naphthalenamine	134327	alpha-Naphthylamine	1*	4	U167	B	100 (45.4)
2-Naphthalenamine	91598	beta-Naphthylamine	1*	4	U168	A	10 (4.54)
"Naphthalenamine, N,N'-" bis(2-chloroethyl)-	494031	Chlornaphazine	1*	4	U026	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Naphthalene	91203		5000	"1,2,4"	U165	B	100 (45.4)
"Naphthalene, 2-chloro-"	91587	beta-Chloronaphthalene 2-Chloronaphthalene	1*	"2,4"	U047	D	5000 (2270)
"1,4-Naphthalenedione"	130154	"1,4-Naphthoquinone"	1*	4	U166	D	5000 (2270)
"2,7-" Naphthalenedisulfonic "acid, 3,3'-[(3,3'-" "dimethyl-(1,1'-" "biphenyl)-4,4'-diyl)-" bis(azo)]bis(5-amino-4-hydroxy)- tetrasodium salt.	72571	Trypan blue	1*	4	U236	A	10 (4.54)
Naphthenic acid	1338245		100	1		B	100 (45.4)
"1,4-Naphthoquinone"	130154	"1,4-Naphthalenedione"	1*	4	U166	D	5000 (2270)
alpha-Naphthylamine	134327	1-Naphthalenamine	1*	4	U167	B	100 (45.4)
beta-Naphthylamine	91598	2-Naphthalenamine	1*	4	U168	A	10 (4.54)
alpha-Naphthylthiourea	86884	"Thiourea," 1-naphthalenyl-	1*	4	P072	B	100 (45.4)
Nickel ++	7440020		1*	2		B	100 (45.4)
Nickel ammonium sulfate	15699180		5000	1		B	100 (45.4)
NICKEL AND COMPOUNDS	N.A.		1*	2			**
Nickel carbonyl	13463393	Nickel carbonyl Ni(CO) "4,(T-4)-"	1*	4	P073	A	10 (4.54)
Nickel carbonyl "Ni(CO)4, (T-4)-"	13463393	Nickel carbonyl	1*	4	P073	A	10 (4.54)
Nickel chloride	7718549 37211055		5000	1		B	100 (45.4)
Nickel cyanide	557197	Nickel cyanide Ni(CN)2	1*	4	P074	A	10 (4.54)
Nickel cyanide Ni(CN)2	557197	Nickel cyanide	1*	4	P074	A	10 (4.54)
Nickel hydroxide	12054487		1000	1		A	10 (4.54)
Nickel nitrate	14216752		5000	1		B	100 (45.4)
Nickel sulfate	7786814		5000	1		B	100 (45.4)
"Nicotine, & salts"	54115	"Pyridine, 3-(1-methyl-" "2-pyrrolidinyl)-,(S)-"	1*	4	P075	B	100 (45.4)
Nitric acid	7697372		1000	1		C	1000 (454)
"Nitric acid," thallium (1+) salt	10102451	Thallium (I) nitrate	1*	4	U217	B	100 (45.4)
Nitric oxide	10102439	Nitrogen oxide NO	1*	4	P076	A	10 (4.54)
p-Nitroaniline	100016	"Benzenamine, 4-nitro-"	1*	4	P077	D	5000 (2270)
Nitrobenzene	98953	"Benzene, nitro-"	1000	"1,2,4"	U169	C	1000 (454)
Nitrogen dioxide	10102440 10544726	Nitrogen oxide NO2	1000	"1,4"	P078	A	10 (4.54)
Nitrogen oxide NO	10102439	Nitric oxide	1*	4	P076	A	10 (4.54)
Nitrogen oxide NO2	10102440 10544726	Nitrogen dioxide	1000	"1,4"	P078	A	10 (4.54)
Nitroglycerine	55630	"1,2,3-Propanetriol," trinitrate-	1*	4	P081	A	10 (4.54)
Nitrophenol (mixed)	25154556		1000	1		B	100 (45.4)
m-Nitrophenol	554847					B	100 (45.4)
o-Nitrophenol	88755	2-Nitrophenol					
p-Nitrophenol	100027	"Phenol, 4-nitro-" 4-Nitrophenol					
o-Nitrophenol	88755	2-Nitrophenol	1000	"1,2"		B	100 (45.4)
p-Nitrophenol	100027	"Phenol, 4-nitro-" 4-Nitrophenol	1000	"1,2,4"	U170	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
2-Nitrophenol	88755	o-Nitrophenol	1000	"1,2"		B	100 (45.4)
4-Nitrophenol	100027	p-Nitrophenol	1000	"1,2,4"	U170	B	100 (45.4)
NITROPHENOLS	N.A.	"Phenol, 4-nitro-"	1*	2			**
2-Nitropropane	79469	"Propane, 2-nitro-"	1*	4	U171	A	10 (4.54)
NITROSAMINES	N.A.		1*	2			**
N-Nitrosodi-n-butylamine	924163	"1-Butanamine, N-butyl-" N-nitroso-	1*	4	U172	A	10 (4.54)
N-Nitrosodiethanol-amine	1116547	"Ethanol, 2,2'-" (nitrosoimino)bis-	1*	4	U173	X	1 (0.454)
N-Nitrosodiethylamine	55185	"Ethanamine, N-ethyl-" N-nitroso-	1*	4	U174	X	1 (0.454)
N-Nitrosodimethylamine	62759	"Methanamine, N-methyl-" N-nitroso-	1*	"2,4"	P082	A	10 (4.54)
N-Nitrosodiphenylamine	86306		1*	2		B	100 (45.4)
N-Nitroso-N-ethylurea	759739	"Urea, N-ethyl-N-nitroso-"	1*	4	U176	X	1 (0.454)
N-Nitroso-N-methylurea	684935	"Urea, N-methyl-N-" nitroso	1*	4	U177	X	1 (0.454)
N-Nitroso-N-methylurethane	615532	"Carbamic acid," "methylnitroso-, ethyl" ester	1*	4	U178	X	1 (0.454)
N-Nitroso-methylvinylamine	4549400	"Vinylamine, N-methyl-" N-nitroso-	1*	4	P084	A	10 (4.54)
N-Nitrosopiperidine	100754	"Piperidine, 1-nitroso-"	1*	4	U179	A	10 (4.54)
N-Nitrosopyrrolidine	930552	"Pyrrolidine, 1-nitroso-"	1*	4	U180	X	1 (0.454)
Nitrotoluene	1321126		1000	1		C	1000 (454)
m-Nitrotoluene	99081						
o-Nitrotoluene	88722						
p-Nitrotoluene	99990						
5-Nitro-o-toluidine	99558	"Benzenamine, 2-methyl-" 5-nitro-	1*	4	U181	B	100 (45.4)
Octamethylpyro-phosphoramide	152169	"Diphosphoramide," octamethyl-	1*	4	P085	B	100 (45.4)
Osmium oxide OsO4 (T-4)	20816120	Osmium tetroxide	1*	4	P087	C	1000 (454)
Osmium tetroxide	20816120	Osmium oxide OsO4(T-4)-	1*	4	P087	C	1000 (454)
7-Oxabicyclo[2.2.1] "heptane-2,3-" dicarboxylic acid	145733	Endothall	1*	4	P088	C	1000 (454)
"1,2-Oxathiolane," "2,2-dioxide"	1120714	"1,3-Propane sultone"	1*	4	U193	A	10 (4.54)
"2H-1,3,2-" Oxazaphosphorin- "2-amine, N,N-bis(2-" chloroethyl) "tetrahydro-, 2-oxide"	50180	Cyclophosphamide	1*	4	U058	A	10 (4.54)
Oxirane	75218	Ethylene oxide	1*	4	U115	A	10 (4.54)
Oxiranecarboxyaldehyde	765344	Glycidylaldehyde	1*	4	U126	A	10 (4.54)
"Oxirane, (chloro-" methyl)-	106898	Epichlorohydrin	1000	"1,4"	U041	B	100 (45.4)
Paraformaldehyde	30525894		1000	1		C	1000 (454)
Paraldehyde	123637	"1,3,5-Trioxane," "2,4,6-trimethyl-"	1*	4	U182	C	1000 (454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Parathion	56382	Phosphorothioic "acid, O,O-diethyl O-" (4-nitrophenyl) ester	1	"1,4"	P089	A	10 (4.54)
Pentachlorobenzene	608935	"Benzene, pentachloro-"	1*	4	U183	A	10 (4.54)
Pentachloroethane	76017	"Ethane, pentachloro-"	1*	4	U184	A	10 (4.54)
Pentachloronitrobenzene (PCNB)	82688	"Benzene," pentachloronitro-	1*	4	U185	B	100 (45.4)
Pentachlorophenol	87865	"Phenol, pentachloro-"	10	"1,2,4"	U242	A	10 (4.54)
"1,3-Pentadiene"	504609	1-Methylbutadiene	1*	4	U186	B	100 (45.4)
Perchloroethylene	127184	"Ethene," tetrachloro- Tetrachloro- ethene Tetrachloroethylene	1*	"2,4"	U210	B	100 (45.4)
Phenacetin	62442	"Acetamide, N-" (4-ethoxyphenyl)-	1*	4	U187	B	100 (45.4)
Phenanthrene	85018		1*	2		D	5000 (2270)
Phenol	108952	"Benzene, hydroxy-"	1000	"1,2,4"	U188	C	1000 (454)
"Phenol, 2-chloro-"	95578	o-Chlorophenol 2-Chlorophenol	1*	"2,4"	U048	B	100 (45.4)
"Phenol, 4-chloro-3-" methyl-	59507	p-Chloro-m-cresol 4-Chloro-m-cresol	1*	"2,4"	U039	D	5000 (2270)
"Phenol, 2-cyclohexyl-" "4,6-dinitro-"	131895	"2-Cyclohexyl-4,6-" dinitrophenol	1*	4	P034	B	100 (45.4)
"Phenol, 2,4-dichloro-"	120832	"2,4-Dichlorophenol"	1*	"2,4"	U081	B	100 (45.4)
"Phenol, 2,6-dichloro-"	87650	"2,6-Dichlorophenol"	1*	4	U082	B	100 (45.4)
"Phenol, 4,4'-(1,2-" "diethyl-1,2-ethene-" "diyl)bis-,(E)"	56531	Diethylstilbestrol	1*	4	U089	X	1 (0.454)
"Phenol, 2,4-dimethyl-"	105679	"2,4-Dimethylphenol"	1*	"2,4"	U101	B	100 (45.4)
"Phenol, 2,4-dinitro-"	51285	"2,4-Dinitrophenol"	1000	"1,2,4"	P048	A	10 (4.54)
"Phenol, methyl-"	1319773	Cresol(s) Cresylic acid	1000	"1,4"	U052	C	1000 (454)
m-Cresol	108394	m-Cresylic acid					
o-Cresol	95487	o-Cresylic acid					
p-Cresol	106445	p-Cresylic acid					
"Phenol, 2-methyl-4,6-" dinitro-	534521	"4,6-Dinitro-o-cresol" and salts	1*	"2,4"	P047	A	10 (4.54)
"Phenol, 2,2'-methyl-" "enebis[3,4,6-" trichloro-	70304	Hexachlorophene	1*	4	U132	B	100 (45.4)
"Phenol, 3-(1-methylethyl)-," methyl carbamate (m-Cumenyl methylcarbamate)	64006		1*	4	P202		# #
"Phenol, 3-methyl-5-" "(1-methylethyl)-, methyl" carbamate (Promecarb)	2631370		1*	4	P201		# #
"Phenol, 2-(1-methyl-" "propyl)-4,6-dinitro"	88857	Dinoseb	1*	4	P020	C	1000 (454)
"Phenol, 4-nitro-"	100027	p-Nitrophenol 4-Nitrophenol	1000	"1,2,4"	U170	B	100 (45.4)
"Phenol, pentachloro-"	87865	Pentachlorophenol	10	"1,2,4"	U242	A	10 (4.54)
"Phenol, 2,3,4,6-" tetrachloro-	58902	"2,3,4,6-" Tetrachlorophenol	1*	4	U212	A	10 (4.54)
"Phenol, 2,4,5-" trichloro-	95954	"2,4,5-Trichlorophenol"	10	"1,4"	U230	A	10 (4.54)

Table 302.4 -- *List of Hazardous Substances and Reportable Quantities*

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Phenol, 2,4,6-" trichloro-	88062	"2,4,6-Trichlorophenol"	10	"1,2,4"	U231	A	10 (4.54)
"Phenol, 2,4,6-" "trinitro-," ammonium salt	131748	Ammonium picrate	1*	4	P009	A	10 (4.54)
"L-Phenylalanine,4-[bis" (2-chloroethyl)aminol]	148823	Melphalan	1*	4	U150	X	1 (0.454)
"1,10-(1,2-" Phenylene)pyrene	193395	"Indeno(1,2,3-cd)pyrene"	1*	"2,4"	U137	B	100 (45.4)
Phenylmercury acetate	62384	"Mercury, (acetato-O)" phenyl-	1*	4	P092	B	100 (45.4)
Phenylthiourea	103855	"Thiourea, phenyl-"	1*	4	P093	B	100 (45.4)
Phorate	298022	"Phosphorodithioic acid," "O,O-diethyl" "S-(ethylthio)," methyl ester	1*	4	P094	A	10 (4.54)
Phosgene	75445	Carbonic dichloride	5000	"1,4"	P095	A	10 (4.54)
Phosphine	7803512		1*	4	P096	B	100 (45.4)
Phosphoric acid	7664382		5000	1		D	5000 (2270)
"Phosphoric acid," diethyl 4-nitrophenyl ester	311455	Diethyl-p-nitrophenyl phosphate	1*	4	P041	B	100 (45.4)
"Phosphoric acid," lead(2+) salt (2:3)	7446277	Lead phosphate	1*	4	U145	A	10 (4.54)
Phosphorodithioic "acid, O,O-diethyl S-" [2-(ethylthio)ethyl] ester	298044	Disulfoton	1	"1,4"	P039	X	1 (0.454)
Phosphorodithioic "acid, O,O-diethyl" "S-(ethylthio)," methyl ester	298022	Phorate	1*	4	P094	A	10 (4.54)
Phosphorodithioic "acid, O,O-diethyl S-" methyl ester	3288582	"O,O-Diethyl S-methyl" dithiophosphate	1*	4	U087	D	5000 (2270)
"Phosphorodithioic acid," "O,O-dimethyl S-" [2(methylamino)-2-oxoethyl] ester	60515	Dimethoate	1*	4	P044	A	10 (4.54)
Phosphorofluoridic "acid, bis(1-" methylethyl) ester	55914	Diisopropyl-fluorophosphate	1*	4	P043	B	100 (45.4)
"Phosphorothioic acid," "O,O-diethyl O-" (4-nitrophenyl) ester	56382	Parathion	1	"1,4"	P089	A	10 (4.54)
"Phosphorothioic acid," "O,[4-[(dimethyl" amino) sulfonyl] "phenyl]O,O-dimethyl" ester	52857	Famphur	1*	4	P097	C	1000 (454)
"Phosphorothioic acid," "O,O-dimethyl O-(4-" nitrophenyl) ester	298000	Methyl parathion	100	"1,4"	P071	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Phosphorothioic acid," "O,O-diethyl O-" pyrazinyl ester	297972	"O,O-Diethyl O-pyrazinyl" phosphorothioate	1*	4	P040	B	100 (45.4)
Phosphorus	7723140		1	1		X	1 (0.454)
Phosphorus oxychloride	10025873		5000	1		C	1000 (454)
Phosphorus pentasulfide	1314803	Phosphorus sulfide Sulfur phosphide	100	"1,4"	U189	B	100 (45.4)
Phosphorus sulfide	1314803	Phosphorus pentasulfide Sulfur phosphide	100	"1,4"	U189	B	100 (45.4)
Phosphorus trichloride	7719122		5000	1		C	1000 (454)
PHTHALATE ESTERS	N.A.		1*	2			**
Phthalic anhydride	85449	"1,3-Isobenzofurandione"	1*	4	U190	D	5000 (2270)
2-Picoline	109068	"Pyridine, 2-methyl-"	1*	4	U191	D	5000 (2270)
"Piperidine, 1-nitroso-"	100754	N-Nitrosopiperidine	1*	4	U179	A	10 (4.54)
"Piperidine, 1,1'-" (tetrathiodicarbonothioyl)-bis (Bis(pentamenthylene)thiuram tetrasulfide)	120547 -		1*	4	U400		# #
"Plumbane, tetraethyl-"	78002	Tetraethyl lead	100	"1,4"	P110	A	10 (4.54)
POLYCHLORINATED BIPHENYLS (PCBs)	1336363		10	"1,2"		X	1 (0.454)
Aroclor 1016	12674112	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1221	11104282	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1232	11141165	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1242	53469219	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1248	12672296	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1254	11097691	POLYCHLORINATED BIPHENYLS (PCBs)					
Aroclor 1260	11096825	POLYCHLORINATED BIPHENYLS (PCBs)					
POLYNUCLEAR AROMATIC HYDROCARBONS.		N.A.		1*	2		**
Potassium arsenate	7784410		1000	1		X	1 (0.454)
Potassium arsenite	10124502		1000	1		X	1 (0.454)
Potassium bichromate	7778509		1000	1		A	10 (4.54)
Potassium chromate	7789006		1000	1		A	10 (4.54)
Potassium cyanide	151508	Potassium cyanide K (CN)	10	"1,4"	P098	A	10 (4.54)
Potassium cyanide K(CN)	151508	Potassium cyanide	10	"1,4"	P098	A	10 (4.54)
Potassium hydroxide	1310583		1000	1		C	1000 (454)
Potassium permanganate	7722647		100	1		B	100 (45.4)
Potassium silver cyanide	506616	"Argentate (1-)," "bis(cyano-C)-," potassium	1*	4	P099	X	1 (0.454)
Pronamide	23950585	"Benzamide," "3,5-dichloro-N-(1,1-" dimethyl-2-propynyl)-	1*	4	U192	D	5000 (2270)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Propanal, 2-methyl-2-" "(methylsulfonyl)-, O-" [(methylamino)carbonyl] oxime (Aldicarb sulfone)	1646884		1*	4	P203		# #
"Propanal, 2-methyl-2-" "(methylthio)-, O-" [(methylamino) carbonyl] oxime	116063	Aldicarb	1*	4	P070	X	1 (0.454)
1-Propanamine	107108	n-Propylamine	1*	4	U194	D	5000 (2270)
"1-Propanamine," N-propyl-	142847	Dipropylamine	1*	4	U110	D	5000 (2270)
"1-Propanamine," N-nitroso- N-propyl-	621647	Di-n-propylnitrosamine	1*	"2,4"	U111	A	10 (4.54)
"Propane, 1,2-dibromo-" 3-chloro-	96128	"1,2-Dibromo-3-" chloropropane	1*	4	U066	X	1 (0.454)
"Propane, 2-nitro-"	79469	2-Nitropropane	1*	4	U171	A	10 (4.54)
"1,3-Propane sultone"	1120714	"1,2-Oxathiolane," "2,2-dioxide"	1*	4	U193	A	10 (4.54)
"Propane, 1,2-dichloro-"	78875	Propylene dichloride "1,2-Dichloropropane"	5000	"1,2,4"	U083	C	1000 (454)
Propanedinitrile	109773	Malononitrile	1*	4	U149	C	1000 (454)
Propanenitrile	107120	Ethyl cyanide	1*	4	P101	A	10 (4.54)
"Propanenitrile," 3-chloro-	542767	3-Chloropropionitrile	1*	4	P027	C	1000 (454)
"Propanenitrile," 2-hydroxy-2-methyl-	75865	Acetone cyanohydrin 2-Methyllactonitrile	10	"1,4"	P069	A	10 (4.54)
"Propane, 2,2'oxybis" [2-chloro-	108601	Dichloroisopropyl ether	1*	"2,4"	U027	C	1000 (454)
"1,2,3-Propanetriol," trinitrate-	55630	Nitroglycerine	1*	4	P081	A	10 (4.54)
"1-Propanol, 2,3-" "dibromo-, phosphate" (3:1)	126727	"Tris(2,3-dibromopropyl)" phosphate	1*	4	U235	A	10 (4.54)
"1-Propanol, 2-methyl-"	78831	Isobutyl alcohol	1*	4	U140	D	5000 (2270)
2-Propanone	67641	Acetone	1*	4	U002	D	5000 (2270)
"2-Propanone, 1-bromo-"	598312	Bromoacetone	1*	4	P017	C	1000 (454)
Propargite	2312358		10	1		A	10 (4.54)
Propargyl alcohol	107197	2-Propyn-1-ol	1*	4	P102	C	1000 (454)
2-Propenal	107028	Acrolein	1	"1,2,4"	P003	X	1 (0.454)
2-Propenamide	79061	Acrylamide	1*	4	U007	D	5000 (2270)
"1-Propene, 1,1,2,3," "3,3-hexachloro-"	1888717	Hexachloropropene	1*	4	U243	C	1000 (454)
"1-Propene, 1,3-" dichloro-	542756	"1,3-Dichloropropene"	5000	"1,2,4"	U084	B	100 (45.4)
2-Propenenitrile	107131	Acrylonitrile	100	"1,2,4"	U009	B	100 (45.4)
"2-Propenenitrile," 2-methyl-	126987	Methacrylonitrile	1*	4	U152	C	1000 (454)
2-Propenoic acid	79107	Acrylic acid	1*	4	U008	D	5000 (2270)
"2-Propenoic acid," ethyl ester	140885	Ethyl acrylate	1*	4	U113	C	1000 (454)
"2-Propenoic acid," "2-methyl-, ethyl ester"	97632	Ethyl methacrylate	1*	4	U118	C	1000 (454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"2-Propenoic acid," "2-methyl-, methyl" ester	80626	Methyl methacrylate	5000	"1,4"	U162	C	1000 (454)
2-Propen-1-ol	107186	Allyl alcohol	100	"1,4"	P005	B	100 (45.4)
Propionic acid	79094		5000	1		D	5000 (2270)
"Propionic acid," "2-(2,4,5-" trichlorophenoxy)-	93721	"Silvex (2,4,5-TP)" "2,4,5-*TP* acid"	100	"1,4"	U233	B	100 (45.4)
Propionic anhydride	123626		5000	1		D	5000 (2270)
n-Propylamine	107108	1-Propanamine	1*	4	U194	D	5000 (2270)
Propylene dichloride	78875	"Propane, 1,2-" dichloro- "1,2-Dichloropropane"	5000	"1,2,4"	U083	C	1000 (454)
Propylene oxide	75569		5000	1		B	100 (45.4)
"1,2-Propylenimine"	75558	"Aziridine, 2-methyl-"	1*	4	P067	X	1 (0.454)
2-Propyn-1-ol	107197	Propargyl alcohol	1*	4	P102	C	1000 (454)
Pyrene	129000		1*	2		D	5000 (2270)
Pyrethrins	121299 121211 8003347		1000	1		X	1 (0.454)
"3,6-Pyridazinedione," "1,2-dihydro-"	123331	Maleic hydrazide	1*	4	U148	D	5000 (2270)
4-Pyridinamine	504245	4-Aminopyridine	1*	4	P008	C	1000 (454)
Pyridine	110861		1*	4	U196	C	1000 (454)
"Pyridine, 2-methyl-"	109068	2-Picoline	1*	4	U191	D	5000 (2270)
"Pyridine, 3-(1-methyl-" "2-pyrrolidinyl)-,(S)"	54115	"Nicotine, & salts"	1*	4	P075	B	100 (45.4)
"2,4-(1H,3H)-Pyrimidinedione," 5-[bis(2-chloroethyl)amino]-	10 (4.54)	66751	Uracil mustard		1*	4	U237 A
"4(1H)-Pyrimidinone," "2,3-dihydro-6-" methyl-2-thioxo-	56042	Methylthiouracil	1*	4	U164	A	10 (4.54)
"Pyrrolidine," 1-nitroso-	930552	N-Nitrosopyrrolidine	1*	4	U180	X	1 (0.454)
"Pyrrolo[2,3-b] indol-5-ol," "1,2,3,3a,8,8a-hexahydro-1,3a,8" "trimethyl-, methylcarbamate" "(ester), (3aS-cis)-" (Physostigmine	57476	-	1*	4	P204		# #
Quinoline	91225		1000	1		D	5000 (2270)
RADIONUCLIDES	N.A.		1*	3			§
Reserpine	50555	Yohimban-16-carboxylic "acid, 11,17-dimethoxy-" "18-[(3,4,5-" "trimethoxybenzoyl)oxy-," "methyl ester (3beta," "16beta, 17alpha, 18beta," 20alpha)-	1*	4	U200	D	5000 (2270)
Resorcinol	108463	"1,3-Benzenediol"	1000	"1,4"	U201	D	5000 (2270)
Saccharin and salts	81072	"1,2-Benzisothiazol-" "3(2H)-one, 1,1-dioxide"	1*	4	U202	B	100 (45.4)
Safrole	94597	"1,3-Benzodioxole," 5-(2-propenyl)-	1*	4	U203	B	100 (45.4)
Selenious acid	7783008		1*	4	U204	A	10 (4.54)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Selenious acid," dithallium (1+) salt	12039520	Thallium selenite	1*	4	P114	C	1000 (454)
Selenium ++	7782492		1*	2		B	100 (45.4)
SELENIUM AND COMPOUNDS		N.A.		1*	2		**
Selenium dioxide	7446084	Selenium oxide	1000	"1,4"	U204	A	10 (4.54)
Selenium oxide	7446084	Selenium dioxide	1000	"1,4"	U204	A	10 (4.54)
Selenium sulfide	7488564	Selenium sulfide SeS2	1*	4	U205	A	10 (4.54)
Selenium sulfide SeS2	7488564	Selenium sulfide	1*	4	U205	A	10 (4.54)
Selenourea	630104		1*	4	P103	C	1000 (454)
"L-Serine, diazoacetate" (ester)	115026	Azaserine	1*	4	U015	X	1 (0.454)
Silver ++	7440224		1*	2		C	1000 (454)
SILVER AND COMPOUNDS	N.A.		1*	2			**
Silver cyanide	506649	Silver cyanide Ag (CN)	1*	4	P104	X	1 (0.454)
Silver cyanide Ag (CN)	506649	Silver cyanide	1*	4	P104	X	1 (0.454)
Silver nitrate	7761888		1	1		X	1 (0.454)
"Silvex (2,4,5-TP)"	93721	"Propionic acid, 2-(2," "4,5-trichlorophenoxy)-" "2,4,5-TP acid"	100	"1,4"	U233	B	100 (45.4)
Sodium	7440235		1000	1		A	10 (4.54)
Sodium arsenate	7631892		1000	1		X	1 (0.454)
Sodium arsenite	7784465		1000	1		X	1 (0.454)
Sodium azide	26628228		1*	4	P105	C	1000 (454)
Sodium bichromate	10588019		1000	1		A	10 (4.54)
Sodium bifluoride	1333831		5000	1		B	100 (45.4)
Sodium bisulfite	7631905		5000	1		D	5000 (2270)
Sodium chromate	7775113		1000	1		A	10 (4.54)
Sodium cyanide	143339	Sodium cyanide Na (CN)	10	"1,4"	P106	A	10 (4.54)
Sodium cyanide Na (CN)	143339	Sodium cyanide	10	"1,4"	P106	A	10 (4.54)
Sodium dodecyl-benzenesulfonate	25155300		1000	1		C	1000 (454)
Sodium fluoride	7681494		5000	1		C	1000 (454)
Sodium hydrosulfide	16721805		5000	1		D	5000 (2270)
Sodium hydroxide	1310732		1000	1		C	1000 (454)
Sodium hypochlorite	7681529 10022705		100	1		B	100 (45.4)
Sodium methylate	124414		1000	1		C	1000 (454)
Sodium nitrite	7632000		100	1		B	100 (45.4)
"Sodium phosphate, dibasic"	7558794 10039324 10140655		5000	1		D	5000 (2270)
"Sodium phosphate, tribasic"	7601549 7758294 7785844 10101890 10124568 10361894		5000	1		D	5000 (2270)
Sodium selenite	10102188 7782823		1000	1		B	100 (45.4)
Streptozotocin	18883664	"D-Glucose, 2-deoxy-2-" [[(methylnitroso-amino)-carbonyl]amino]- "Glucopyranose, 2-" deoxy-2-(3-methyl-3-nitrosoureido)-	1*	4	U206	X	1 (0.454)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Strontium chromate	7789062		1000	1		A	10 (4.54)
Strychnidin-10-one	57249	"Strychnine, & salts"	10	"1,4"	P108	A	10 (4.54)
"Strychnidin-10-one," "2,3-dimethoxy-"	357573	Brucine	1*	4	P018	B	100 (45.4)
"Strychnine, & salts"	57249	Strychnidin-10-one	10	"1,4"	P108	A	10 (4.54)
Styrene	100425		1000	1		C	1000 (454)
Sulfur monochloride	12771083		1000	1		C	1000 (454)
Sulfur phosphide	1314803	Phosphorus pentasulfide Phosphorus sulfide	100	"1,4"	U189	B	100 (45.4)
Sulfuric acid	7664939 8014957		1000	1		C	1000 (454)
"Sulfuric acid," dithallium (1+) salt	7446186 10031591	Thallium(I) sulfate	1000	"1,4"	P115	B	100 (45.4)
"Sulfuric acid," dimethyl ester	77781	Dimethyl sulfate	1*	4	U103	B	100 (45.4)
"2,4,5-T acid"	93765	"Acetic acid, (2,4,5-" trichlorophenoxy) "2,4,5-T"	100	"1,4"	U232	C	1000 (454)
"2,4,5-T amines"	2008460 1319728 3813147 6369966 6369977		100	1		D	5000 (2270)
"2,4,5-T esters"	93798 1928478 2545597 25168154 61792072		100	1		C	1000 (454)
"2,4,5-T salts"	13560991		100	1		C	1000 (454)
"2,4,5-T"	93765	"Acetic acid, (2,4,5-" trichlorophenoxy) "2,4,5-T acid"	100	"1,4"	U232	C	1000 (454)
TDE	72548	"Benzene, 1,1'-(2,2-" dichloroethylidene) bis[4-chloro- DDD "4,4' DDD"	1	"1,2,4"	U060	X	1 (0.454)
"1,2,4,5-Tetrachloro-" benzene	95943	"Benzene, 1,2,4,5-" tetrachloro-	1*	4	U207	D	5000 (2270)
"2,3,7,8-Tetrachloro-" dibenzo-p-dioxin (TCDD)	1746016		1*	2		X	1 (0.454)
"1,1,1,2-" Tetrachloroethane	630206	"Ethane, 1,1,1,2-" tetrachloro-	1*	4	U208	B	100 (45.4)
"1,1,2,2-" Tetrachloroethane	79345	"Ethane, 1,1,2,2-" tetrachloro-	1*	"2,4"	U209	B	100 (45.4)
Tetrachloroethene	127184	"Ethene, tetrachloro-" Perchloroethylene Tetrachloroethylene	1*	"2,4"	U210	B	100 (45.4)
Tetrachloroethylene	127184	"Ethene, tetrachloro-" Perchloroethylene Tetrachloroethene	1*	"2,4"	U210	B	100 (45.4)
"2,3,4,6-" Tetrachlorophenol	58902	"Phenol, 2,3,4,6-" tetrachloro-	1*	4	U212	A	10 (4.54)
Tetraethyl lead	78002	"Plumbane, tetraethyl-"	100	"1,4"	P110	A	10 (4.54)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Tetraethyl-pyrophosphate	107493	"Diphosphoric acid," tetraethyl ester	100	"1,4"	P111	A	10 (4.54)
Tetraethyldithiopyro-phosphate	3689245	"Thiodiphosphoric acid," tetraethyl ester	1*	4	P109	B	100 (45.4)
Tetrahydrofuran	109999	"Furan, tetrahydro-"	1*	4	U213	C	1000 (454)
Tetranitromethane	509148	"Methane, tetranitro-"	1*	4	P112	A	10 (4.54)
"Tetraphosphoric acid," hexaethyl ester	757584	Hexaethyl tetraphosphoate	1*	4	P062	B	100 (45.4)
Thallic oxide	1314325	Thallium oxide TI203	1*	4	P113	B	100 (45.4)
Thallium ++	7440280		1*	2		C	1000 (454)
THALLIUM AND COMPOUNDS N.A.			1*	2			**
Thallium(I) acetate	563688	"Acetic acid," thallium(1+) salt	1*	4	U214	B	100 (45.4)
Thallium(I) carbonate	6533739	"Carbonic acid," dithallium(1+) salt	1*	4	U215	B	100 (45.4)
Thallium(I) chloride	7791120	Thallium chloride TlCl	1*	4	U216	B	100 (45.4)
Thallium chloride TlCl	7791120	Thallium(I) chloride	1*	4	U216	B	100 (45.4)
Thallium(I) nitrate	10102451	"Nitric acid," thallium(1+) salt	1*	4	U217	B	100 (45.4)
Thallium oxide TI203	1314325	Thallic oxide	1*	4	P113	B	100 (45.4)
Thallium selenite	12039520	"Selenious acid, dithal-" lium(1+) salt	1*	4	P114	C	1000 (454)
Thallium(I) sulfate	7446186 10031591	"Sulfuric acid," dithallium(1+) salt	1000	"1,4"	P115	B	100 (45.4)
"2H-1,3,5-Thiadiazine-2-thione, "tetrahydro-3,5-dimethyl-(Dazom"	533744	et)	1*	4	U366		# #
Thioacetamide	62555	Ethanethioamide	1*	4	U218	A	10 (4.54)
Thiodiphosphoric "acid, tetraethyl" ester	3689245	Tetraethyldithiopyro-phosphate	1*	4	P109	B	100 (45.4)
Thiofanox	39196184	"2-Butanone," "3,3-dimethyl-1-" "(methylthio)-," O[(methylamino) carbonyl) oxime	1*	4	P045	B	100 (45.4)
Thioimidodicarbonic diamide [(H2N)C(S)] 2NH	541537	Dithiobiuret	1*	4	P049	B	100 (45.4)
Thiomethanol	74931	Methanethiol Methylmercaptan	100	"1,4"	U153	B	100 (45.4)
"Thioperoxydicarbonic diamide," tetrabutyl (Tetrabutylthiuram disulfide)		1634022		1*	4	U402	# #
"Thioperoxydicarbonic diamide," tetraethyl (Disulfiram)		97778		1*	4	U403	# #
Thioperoxydicarbonic diamide [(H2N)C(S)] "2S2, tetramethyl-"	137268	Thiram	1*	4	U244	A	10 (4.54)
Thiophenol	108985	Benzenethiol	1*	4	P014	B	100 (45.4)
Thiosemicarbazide	79196	Hydrazinecarbothioamide	1*	4	P116	B	100 (45.4)
Thiourea	62566		1*	4	U219	A	10 (4.54)
"Thiourea," (2-chlorophenyl)-	5344821	1-(o-Chlorophenyl) thiourea	1*	4	P026	B	100 (45.4)
"Thiourea," 1-naphthalenyl-	86884	alpha-Naphthylthiourea	1*	4	P072	B	100 (45.4)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"Thiourea, phenyl-"	103855	Phenylthiourea	1*	4	P093	B	100 (45.4)
Thiram	137268	Thioperoxydicarbonic diamide [(H2N)C(S)] "2S2, tetramethyl-"	1*	4	U244	A	10 (4.54)
Toluene	108883	"Benzene, methyl-"	1000	"1,2,4"	U220	C	1000 (454)
Toluenediamine	95807 496720 823405 25376458	"Benzenediamine, ar-" methyl-	1*	4	U221	A	10 (4.54)
Toluene diisocyanate	584849 91087 26471625	"Benzene, 1,3-" diisocyanatomethyl-	1*	4	U223	B	100 (45.4)
o-Toluidine	95534	"Benzenamine, 2-methyl-"	1*	4	U328	B	100 (45.4)
p-Toluidine	106490	"Benzenamine, 4-methyl-"	1*	4	U353	B	100 (45.4)
o-Toluidine hydrochloride	636215	"Benzenamine, 2-methyl-," hydrochloride	1*	4	U222	B	100 (45.4)
Toxaphene	8001352	"Camphene, octachloro-"	1*	"1,2,4"	P123	X	1 (0.454)
"2,4,5-TP acid"	93721	"Propionic acid," "2-(2,4,5-trichloro-" phenoxy)- "Silvex (2,4,5-TP)"	100	"1,4"	U233	B	100 (45.4)
"2,4,5-TP esters"	32534955		100	1		B	100 (45.4)
"1H-1,2,4-Triazol-" 3-amine	61825	Amitrole	1*	4	U011	A	10 (4.54)
Trichlorfon	52686		1000	1		B	100 (45.4)
"1,2,4-Trichlorobenzene"	120821		1*	2		B	100 (45.4)
"1,1,1-Trichloroethane"	71556	"Ethane, 1,1,1-trichloro-" Methyl chloroform	1*	"2,4"	U226	C	1000 (454)
"1,1,2-Trichloroethane"	79005	"Ethane, 1,1,2-trichloro-"	1*	"2,4"	U227	B	100 (45.4)
Trichloroethene	79016	"Ethene, trichloro-" Trichloroethylene	1000	"1,2,4"	U228	B	100 (45.4)
Trichloroethylene	79016	"Ethene, trichloro-" Trichloroethene	1000	"1,2,4"	U228	B	100 (45.4)
Trichloromethane-sulfenyl chloride	594423	Methanesulfenyl "chloride, trichloro-"	1*	4	P118	B	100 (45.4)
Trichloromono-fluoromethane	75694	"Methane," trichlorofluoro-	1*	4	U121	D	5000 (2270)
Trichlorophenol "2,3,4-Trichlorophenol" "2,3,5-Trichlorophenol" "2,3,6-Trichlorophenol"	25167822 15950660 933788 933755		10	1		A	10 (4.54)
"2,4,5-Trichlorophenol"	95954	"Phenol, 2,4,5-trichloro-"	10*	"1,4"	U230	A	10 (4.54)
"2,4,6-Trichlorophenol" "3,4,5-Trichlorophenol"	88062 609198	"Phenol, 2,4,6-trichloro-"	10*	"1,2,4"	U231	A	10 (4.54)
"2,4,5-Trichlorophenol"	95954	"Phenol, 2,4,5-trichloro-"	10*	"1,4"	U230	A	10 (4.54)
"2,4,6-Trichlorophenol"	88062	"Phenol, 2,4,6-trichloro-"	10	"1,2,4"	U231	A	10 (4.54)
Triethanolamine dodecylbenzene-sulfonate	27323417		1000	1		C	1000 (454)
Triethylamine	121448		5000	1		D	5000 (2270)
Trimethylamine	75503		1000	1		B	100 (45.4)
"1,3,5-Trinitrobenzene"	99354	"Benzene, 1,3,5-" trinitro-	1*	4	U234	A	10 (4.54)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
"1,3,5-Trioxane," "2,4,6-trimethyl-"	123637	Paraldehyde	1*	4	U182	C	1000 (454)
"Tris(2,3-dibromopropyl)" phosphate	126727	"1-Propanol, 2,3-" "dibromo-, phosphate" [(3:1)	1*	4	U235	A	10 (4.54)
Trypan blue	72571	"2,7-" Naphthalenedisulfonic "acid, 3,3'-3,3'-dimethyl" "(1,1'-biphenyl)-4,4'-diy" bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium sal	1* - l)- t	4	U236	A	10 (4.54)
Unlisted Hazardous Wastes Characteristic of Corrosivity.	N.A.		1*	4	D002	B	100 (45.4)
Unlisted Hazardous Wastes Characteristics: Characteristic of Toxicity:	N.A.		1*	4			
Arsenic (D004)	N.A.		1*	4	D004	X	1 (0.454)
Barium (D005)	N.A.		1*	4	D005	C	1000 (454)
Benzene (D018)	N.A.		1000	"1,2,3,4"	D018	A	10 (4.54)
Cadmium (D006)	N.A.		1*	4	D006	A	10 (4.54)
Carbon tetra-chloride (D019)	N.A.		5000	"1,2,4"	D019	A	10 (4.54)
Chlordane (D020)	N.A.		1	"1,2,4"	D020	X	1 (0.454)
Chlorobenzene (D021)	N.A.		100	"1,2,4"	D021	B	100 (45.4)
Chloroform (D022)	N.A.		5000	"1,2,4"	D022	A	10 (4.54)
Chromium (D007)	N.A.		1*	4	D007	A	10 (4.54)
o-Cresol (D023)	N.A.		1000	"1,4"	D023	C	1000 (454)
m-Cresol (D024)	N.A.		1000	"1,4"	D024	C	1000 (454)
p-Cresol (D025)	N.A.		1000	"1,4"	D025	C	1000 (454)
Cresol (D026)	N.A.		1000	"1,4"	D026	C	1000 (454)
"2,4-D (D016)"	N.A.		100	"1,4"	D016	B	100 (45.4)
"1,4-Dichloro-" benzene (D027)	N.A.		100	"1,2,4"	D027	B	100 (45.4)
"1,2-Dichloro-" ethane (D028)	N.A.		5000	"1,2,4"	D028	B	100 (45.4)
"1,1-Dichloro-" ethylene (D029)	N.A.		5000	"1,2,4"	D029	B	100 (45.4)
"2,4-Dinitroto-" luene (D030)	N.A.		1000	"1,2,4"	D030	A	10 (4.54)
Endrin (D012)	N.A.		1	"1,4"	D012	X	1 (0.454)
Heptachlor (and epoxide) (D031)	N.A.		1	"1,2,4"	D031	X	1 (0.454)
Hexachloroben-zene (D032)	N.A.		1*	"2,4"	D032	A	10 (4.54)
Hexachloro-butadiene (D033)	N.A.		1*	"2,4"	D033	X	1 (0.454)
Hexachloro-ethane (D034)	N.A.		1*	"2,4"	D034	B	100 (45.4)
Lead (D008)	N.A.		1*	4	D008	A	10 (4.54)
Lindane (D013)	N.A.		1	"1,4"	D013	X	1 (0.454)
Mercury (D009)	N.A.		1*	4	D009	X	1 (0.454)
Methoxychlor (D014)	N.A.		1	"1,4"	D014	X	1 (0.454)
Methyl ethyl ketone (D035)	N.A.		1*	4	D035	D	5000 (2270)

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Nitrobenzene (D036)	N.A.		1000	"1,2,4"	D036	C	1000 (454)
Pentachloro-phenol (D037)	N.A.		10	"1,2,4"	D037	A	10 (4.54)
Pyridine (D038)	N.A.		1*	4	D038	C	1000 (454)
Selenium (D010)	N.A.		1*	4	D010	A	10 (4.54)
Silver (D011)	N.A.		1*	4	D011	X	1 (0.454)
Tetrachloro-ethylene (D039)	N.A.		1*	"2,4"	D039	B	100 (45.4)
Toxaphene (D015)	N.A.		1	"1,4"	D015	X	1 (0.454)
Trichloro-ethylene (D040)	N.A.		1000	"1,2,4"	D040	B	100 (45.4)
"2,4,5-Trichloro-" phenol (D041)	N.A.		10	"1,4"	D041	A	10 (4.54)
"2,4,6-Trichloro-" phenol (D042)	N.A.		10	"1,2,4"	D042	A	10 (4.54)
"2,4,5-TP (D017)"	N.A.		100	"1,4"	D017	B	100 (45.4)
Vinyl chloride (D043)	N.A.		1*	"2,3,4"	D043	X	1 (0.454)
Unlisted Hazardous Wastes Characteristic of Ignitability.	N.A.		1*	4	D001	B	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Reactivity.	N.A.		1*	4	D003	B	100 (45.4)
Uracil mustard	66751	"2,4-(1H,3H)-Pyrimi-" "dinedione, 5-[bis(2-" chloroethyl)amino]-	1*	4	U237	A	10 (4.54)
Uranyl acetate	541093		5000	1		B	100 (45.4)
Uranyl nitrate	10102064 36478769		5000	1		B	100 (45.4)
"Urea, N-ethyl-N-" nitroso-	759739	N-Nitroso-N-ethylurea	1*	4	U176	X	1 (0.454)
"Urea, N-methyl-N-" nitroso	684935	N-Nitroso-N-methylurea	1*	4	U177	X	1 (0.454)
"Vanadic acid," ammonium salt	7803556	Ammonium vanadate	1*	4	P119	C	1000 (454)
Vanadium oxide V205	1314621	Vanadium pentoxide	1000	"1,4"	P120	C	1000 (454)
Vanadium pentoxide	1314621	Vanadium oxide V205	1000	"1,4"	P120	C	1000 (454)
Vanadyl sulfate	27774136		1000	1		C	1000 (454)
Vinyl chloride	75014	"Ethene, chloro-"	1*	"2,3,4"	U043	X	1 (0.454)
Vinyl acetate	108054	Vinyl acetate monomer	1000	1		D	5000 (2270)
Vinyl acetate monomer	108054	Vinyl acetate	1000	1		D	5000 (2270)
"Vinylamine, N-methyl-" N-nitroso-	4549400	N-Nitrosomethyl-vinylamine	1*	4	P084	A	10 (4.54)
Vinylidene chloride	75354	"Ethene, 1,1-dichloro-" "1,1-Dichloroethylene"	5000	"1,2,4"	U078	B	100 (45.4)
"Warfarin, and salts," when present at concentrations greater than 0.3%.	81812	"2H-1-Benzopyran-2-one," 4-hydroxy-3-(3-oxo-1-"phenylbutyl)-, and salts" when present at concentrations greater than 0.3%	1* ","	4	P001	B	100 (45.4)
Xylene (mixed)	1330207	"Benzene, dimethyl"	1000	"1,4"	U239	C	1000 (454)
"m-Benzene, dimethyl"	108383	m-Xylene					
"o-Benzene, dimethyl"	95476	o-Xylene					
"p-Benzene, dimethyl"	106423	p-Xylene					

Table 302.4 -- List of Hazardous Substances and Reportable Quantities

Hazardous Substance	CASRN	Regulatory Synonyms	RQ	Statutory Code	RCRA Waste No.	CAT	Final RQ [lbs&(Kg)]
Xylenol	1300716		1000	1		C	1000 (454)
Yohimban-16-carboxylic "acid,11,17-dimethoxy-" "18-[(3,4,5-" "trimethoxybenzoyl)oxy]-," " methyl ester (3beta," "16beta, 17alpha, 18beta," 20alpha)-	50555	Reserpine	1*	4	U200	D	5000 (2270)
Zinc ++	7440666		1*	2		C	1000 (454)
ZINC AND COMPOUNDS	N.A.		1*	2			**
Zinc acetate	557346		1000	1		C	1000 (454)
Zinc ammonium chloride	52628258 14639975 14639986		5000	1		C	1000 (454)
"Zinc, bis(dimethyl" "carbomodithioato -S,S')-," (Ziram)	137304		1*	4	P205		# #
"Zinc, bis(diethylcarbamo" "dithioato -S,S')-(Ethyl" Ziram)	14324551		1*	4	U407		# #
Zinc borate	1332076		1000	1		C	1000 (454)
Zinc bromide	7699458		5000	1		C	1000 (454)
Zinc carbonate	3486359		1000	1		C	1000 (454)
Zinc chloride	7646857		5000	1		C	1000 (454)
Zinc cyanide	557211	Zinc cyanide Zn(CN)2	10	"1,4"	P121	A	10 (4.54)
Zinc cyanide Zn(CN)2	557211	Zinc cyanide	10	"1,4"	P121	A	10 (4.54)
Zinc fluoride	7783495		1000	1		C	1000 (454)
Zinc formate	557415		1000	1		C	1000 (454)
Zinc hydrosulfite	7779864		1000	1		C	1000 (454)
Zinc nitrate	7779886		5000	1		C	1000 (454)
Zinc phenolsulfonate	127822		5000	1		D	5000 (2270)
Zinc phosphide	1314847 100 (45.4)	"Zinc phosphide Zn(3)P(2)," when present at concentrations greater than 10%		1000	"1,4"	P122	B
"Zinc phosphide Zn(3)P(2)," when present at concentrations greater than 10%.	1314847	Zinc phosphide	1000	"1,4"	P122	B	100 (45.4)
Zinc silicofluoride	16871719		5000	1		D	5000 (2270)
Zinc sulfate	7733020		1000	1		C	1000 (454)
Zirconium nitrate	13746899		5000	1		D	5000 (2270)
Zirconium potassium fluoride	16923958		5000	1		C	1000 (454)
Zirconium sulfate	14644612		5000	1		D	5000 (2270)
Zirconium tetrachloride	10026116		5000	1		D	5000 (2270)

SECTION IX

WASTE MANAGEMENT PLAN

TRAINING GUIDE

PURPOSE AND SCOPE

The management of wastes generated at gas processing facilities has become increasingly complex; new regulations are promulgated so quickly it is practically impossible to keep up with them. Waste handling and disposal techniques that were acceptable yesterday are no longer allowed today. Facility personnel must comply with a myriad of agency notifications, testing requirements and recordkeeping requirements. This waste management plan is designed to provide guidance in the management of wastes generated at the facility by ensuring their proper storage, transportation, and disposal. Specifically, this plan will provide the following information:

- Waste identification, classification, handling, and disposition.
- Waste minimization and elimination alternatives.
- Information on applicable shipping requirements under the Department of Transportation
- Examples of forms and letters necessary for disposal and reporting requirements.
- Data on how each facility is managing waste and the associated costs.

This information will make it possible to meet the following goals:

- Facilitate proper waste identification and management by plant personnel.
- Involve plant personnel in identifying ways to reduce waste generation.
- Comply with regulatory requirements for developing and implementing a plan to minimize waste generation.
- Increase awareness and provide training to plant personnel.
- Provide a means for inter-facility communication and transfer of technology.

The scope of this plan covers all wastes generated at the facility which meet the Resource Conservation and Recovery Act (RCRA) definition of a "solid waste" and does not include the following:

- Wastes which are discharged into and remain as part of the atmosphere (i.e., fired equipment exhaust, relief valve discharges, flare emissions, incinerator emissions, etc...).

- Wastes which are discharged through an effluent system which is covered under an NPDES or State permit (i.e., boiler and/or cooling tower blowdown, sewage treatment facility effluent, stormwater runoff, etc...).

WASTE MINIMIZATION

The primary emphasis of this Plan is on waste minimization; the reasons for this emphasis are:

1. A congressional mandate,
2. Savings to the company, and
3. Reduction in environmental liability.

Minimization is defined by the U. S. Environmental Protection Agency (EPA) as "the reduction, to the extent feasible, of waste generated prior to treatment." Congress established a national policy declaring the importance of reducing or eliminating the volume of hazardous waste generated as soon as possible. **As a result, industry is required by law to develop waste management plans and reduce the volume of waste generated each year (54 FR 25056-25057).** A second reason for emphasizing waste reduction

WASTE MANAGEMENT AND CLASSIFICATION

Waste Classification

The Hazardous Waste Management System was promulgated by the EPA in response to requirements levied by the Resource Conservation and Recovery Act (RCRA). This act, as codified in 40 CFR, lists those substances considered as hazardous. It provides lists of chemicals, pollutants, wastes and the like that are to be monitored, reported, controlled, or eliminated, if present in the workplace or the general environment. There is not an all encompassing list that can be used. The Environmental Department does monitor the lists published by the EPA and the hazardous materials as identified in Material Safety Data Sheets (MSDS) received from chemical manufacturers and distributors used by NGC Warren.

Before disposing of used chemicals, solvents, filters, drums, or other solid or liquid wastes, check to be certain that it is not a listed substance or that the MSDS received on the substance does not identify it as hazardous due to its characteristics. Contact the Environmental Department if you are unsure of the category of the waste or if you do not know what the substance is. If you do not recognize the term SQG, you are not alone in that regard. Many firms that generate hazardous waste are not familiar with this term. The law that gave rise to the term, or the multitude of requirements that the government imposes on generators of small quantities of hazardous waste.

Small Quantity Generators

SQG's generate between 100 and 1,000 kilograms (kg) of hazardous waste in any calendar month, which translates to between 220 and 2,200 pounds. That's roughly equivalent to between one-half and five 55-gallon drums, or between 25 and 300 gallons. That amount of hazardous waste monthly is the federal government's definition of a small quantity generator (SQG). Many states' definitions of the SQG are even more restrictive, which is why we have included as much state-specific regulatory information as is practically possible.

Defining a Hazardous Waste

It's likely that your facility uses hazardous chemicals of some kind often easily identified Hazardous as such because the vendors selling them also supply the chemicals' material safety data sheets (MSDSs).

Operations involving such chemicals often result in wastes such as spent chemicals, stained rags, or contaminated filters. When those wastes pose a potential danger to the environment or human health and life, they are considered hazardous wastes.

The regulations focus on four specific dangers. These are:

1. Ignitability - the property of being easily set aflame by nearby heat sources;

2. Corrosiveness - the capability to bum eyes or skin on contact;

3. Reactivity - the tendency for a substance to explode or otherwise react violently if exposed to air, water, or other common substances; and

4. Toxicity - meaning poisonous if taken into the body.

Wastes are considered hazardous if they exhibit any of these characteristics or if they appear on certain government lists.

Because they are hazardous, these wastes must be accounted for, constantly tracked and reported on, and handled with "kid gloves," from "cradle to grave" from the point of generation to the moment they are incinerated, treated, recycled, or landfilled.

The law that governs this "cradle-to-grave" tracking system and that imposes requirements on businesses, large and small alike, is called the Resource Conservation and Recovery Act (RCRA). This is also the law under which the category of "small-quantity generator" was created.

To find out if you are subject to the provisions of RCRA, you need to:

Start With The Right Question

Under RCRA, firms whose operations create hazardous waste are classified as one of three types of "generators"— based on the quantity of waste they generate.

The federal government's categories are:

1. Conditionally exempt generator,
2. Small-quantity generator, and
3. Large-quantity generator.

Again, some states have their own categories.

To determine which category of hazardous waste generator your facility falls into and what requirements you must meet you must answer two questions:

1. Is the waste you generate hazardous, under the law? and
2. Knowing the amount of hazardous waste you generate, which of the three compliance categories describes your business?

In determining the amount of hazardous waste generated, it is easy to become confused because the law defines quantity limits expressed in pounds or kilograms, while companies measure their waste in terms of gallons or gallon-rated containers, e.g., drums.The following chart helps you visualize how much waste we are talking about.

Conversion Chart

KILOGRAMS	POUNDS	GALLONS	55 GAL.
100 kilograms	220 pounds	30 gallons	one-half
1,000 kilograms	2,200 pounds	300 gallons	five
6,000 kilograms	13,200 pounds	1,800 gallons	thirty

If You're Unsure Whether Your Waste is Hazardous

The critical decision of whether your waste is hazardous is based on your special knowledge of the waste. Some wastes such as certain spent solvents are easily classified as hazardous. Yet, other wastes such as solvents that are not readily flammable, oils that may be contaminated with toxic metals, or chemical by-products may have to be tested to determine if they are hazardous.

Generator Responsibilities

It's important to note that under the law, you are presumed to know what your waste contains and are able to support any conclusions you reach. The generator category into which you fall is based on your adding up the weight of all the hazardous wastes your facility generates during the month. The compliance requirements vary markedly depending on how much waste you generate.

Note at this point, however, that the following *are federal* RCRA requirements. Some state requirements vary.

Conditionally Exempt Compliance Requirements (0- 100 kg/month)

The government recognizes that generators of very low quantities of hazardous waste are often smaller firms with limited resources. They have therefore allowed firms that generate between 0 and 100 kg (0 to 220 pounds) of hazardous waste per month to be "conditionally exempt" from certain federal regulations governing hazardous waste disposal, if they fulfill the following requirements:

- ☐ Fully identify all hazardous waste they generate;
- ☐ Send their waste to a waste facility approved by the state or RCRA-authorized facility; and
- ☐ Never accumulate more than 1,000 kg (2,200 pounds) of hazardous waste at any single time.

SQG Compliance Requirements (100-1,000 kg/month)

Those firms that generate between 100 and 1,000 kg (220 and 2,200 pounds) of hazardous waste, however, come under additional regulation by the EPA. Under the federal law, SQGs must:

- ☐ Fully identify all hazardous waste they generate;
- ☐ Obtain a U. S. EPA Identification Number,
- ☐ Send their waste to a hazardous waste facility, or other facility approved by the EPA or state to receive such waste;
- ☐ Use a hazardous waste manifest form when shipping waste off-site;
- ☐ Offer waste only to a hazardous waste transporter that has a U.S. EPA Transporter Identification Number,

keep on file an MSDS for every chemical product that you have on your premises for commercial use.

These sheets are invaluable in providing information about the physical, chemical, and toxic properties of the material.

An MSDS can greatly simplify the process of identifying the characteristics of your chemical waste. It can also save you money by eliminating the need for expensive first-time chemical analysis. Be forewarned, however, that you must always scrutinize any MSDS, making sure that the information it contains is accurate and sufficiently detailed. If there is any question, call the supplier listed on the sheet.

At a minimum, an MSDS will give you information on the hazards or risks associated with the hazardous substance. This includes: (a) the potential for, explosion, corrosivity, and reactivity; (b) the acute and chronic health effects resulting from exposure, including any medical conditions that might be aggravated by exposure; (c) the potential routes of exposure via skin, inhalation, ingestion, etc. and (d) the symptoms of overexposure.

The MSDS will also provide a description of the specific potential health risks posed by a hazardous substance. This includes, but is not limited to, carcinogenic (cancer-causing), mutagenic (mutationcausing), teratogenic (fetus-damaging), or neurotoxic (nerve-damaging) effects.

If your waste stream is relatively simple, an MSDS may provide you with all the information you need to determine whether your chemical waste is hazardous.

Some waste cannot be evaluated using MSDSs. Short of expensive laboratory analysis, there are additional ways to determine if your waste is hazardous.

Question 3: What Are the Eligible Exemptions?

First, you need to see if your waste stream may be among a group of substances that are totally excluded from the regulations. Although we have not listed all the exclusions here, those that may be pertinent to SQGs include:

- Household refuse;
- Unusable paper, cardboard, and plastic scrap;
- Air emissions;
- Certain wastes containing chromium;
- Demolition debris
- Wastes left in the bottom of product storage tanks, as long as that residue is not removed from the tank;

- ☐ Wastes discharged to surface waters under a National Pollutant Discharge Elimination System (NPDES) permit;
- ☐ Fly ash and related waste from burning fossil fuels;
- ☐ Scrap metal, used lead-acid batteries, and waste oil ***that will be sent offsite for reclamation;***
- ☐ Waste remaining in the bottom of containers emptied through conventional means (e.g., pumping or pouring). This residue must measure no more than one inch, or constitute no more, in the case of a 55-gallon drum, than 3 percent by weight of the total capacity (1.65 gallons in a 55 gallon drum).
- ☐
- ☐ Wastes managed in an elementary neutralization unit, a totally enclosed treatment unit, or a wastewater treatment unit.
- ☐ Arsenic-treated wood or wood products used as intended.
- ☐ Waste materials that are reclaimed and returned for use to the original process in which they were generated, provided that certain "closed-loop" recycling criteria are met (essentially, the wastes never leave the production loop).

If you think, but are not sure, that your wastes fit this group, call the state environmental agency.

Question 4: Is The Waste Listed?

A waste is *automatically* considered hazardous if it appears on any one of four lists of hazardous wastes contained in the RCRA regulations. Comprised of more than 400 substances, the lists—found in Subpart D of the regulations—include chemicals that exhibit one of the four hazard characteristics.

A chemical waste does not make one of these lists by accident. EPA follows strict criteria in making the determination of whether a particular substance should be listed. EPA is authorized to list classes of hazardous wastes (e.g., electroplating sludges), as well as named substances (e.g., acetone).

The listed wastes are known by letter identification, as follows:

F wastes. This category refers to generic waste streams found in a variety of industrial processes. Many SQGs generate F wastes; the short list includes cleaners and strippers, dry-cleaning solvents, spent paint wastes, still residues, cleaning and stripping tank solutions, plating bath solutions and sludges from electroplating operations, and sludges from pretreatment of wastewaters.

Examples

F002—Waste perchloroethylene
F005—Methyl ethyl ketone
F003—Acetone

K wastes. This category refers to specific industrial processes whose wastes are deemed hazardous, such as wastes from the manufacturing of certain chemicals, pigments, inks, explosives, and petroleum refining and steel finishing.

Examples
KOO 1—Bottom sediment sludge from the treatment of wastewaters from wood preserving, processes that use creosote and/or pentachlorophenol
K083—Distillation bottoms from aniline production

P wastes. This category refers to discarded chemical products or off-specification products containing certain acute toxic chemicals. This category includes many pesticides, toxic metals, and organic chemicals shown to be carcinogenic. Except for small chemical firms and pesticide formulators, few SQGs generate P wastes.

Examples
P05-Fluorine
P099—Potassium silver cyanide

U **wastes.** This category refers to discarded chemical products or off-specification products containing certain toxic chemicals. This list also contains many pesticides, toxic metals, and organic chemicals. As described above, few SQGs generate these wastes.

Examples
U037-chlorobenzene
U06 1—DDT

Special Note about Solvent Wastes

Many *solvents* are mixtures that contain one or more of the "listed" F-waste constituents. It is important to remember that only wastes derived from products containing 10 percent or more of listed solvents are hazardous wastes.

The 10 percent rule does not, however, apply to ignitable wastes (F003) because F003 solvent mixtures may be ignitable at concentrations below 10 percent.

F003 Mixtures should therefore be tested; if the wastes are no longer considered ignitable, they do not need to be classified as a RCRA hazardous waste.

Question 5: Does your Waste Exhibit a Hazardous Characteristic?

The "lists" are not exhaustive. Listing is only one of the ways in which regulated wastes are identified. In addition to all of the substances that are specifically listed in the regulations, any other wastes found to be ignitable, corrosive, reactive, or toxic are also hazardous wastes.

WASTES GENERATED IN EXPLORATION AND PRODUCTION OPERATIONS

GAS PLANTS

This section discusses the four primary operations associated with E&P activities: gas plants, production facilities, drilling and workovers It discusses operational and design aspects as well as wastes generated Companies may vary in their engineering design and operational practices, but they generally all utilize the technology and generate the wastes discussed in this section.

Natural gas plants provide centralized dehydration, compression and sweetening facilities necessary to place natural gas in marketable condition and to extract natural gas liquids such as ethane, propane and butane.

Natural gas streams entering gas processing plants vary in composition but methane usually is the predominant component, with smaller amounts of ethane, propane, butanes, pentanes, and heavier hydrocarbons. The raw gas may also contain compounds such as carbon dioxide, hydrogen sulfide, mercaptans, other sulfur compounds, water, and certain solid impurities. These compounds are removed in treating facilities. The treated raw gas then enters an extraction facility which produces residue gas and heavier natural gas liquids (NGLs) such as ethane, propane and butane.

Listed below are the five extraction and treating processes frequently performed in gas plants and the waste materials that may be generated from these processes.

INLET SEPARATION AND COMPRESSION

Gas is gathered from the field at the inlet of the gas plant. Here fluids such as produced water and liquid hydrocarbons are separated, and the gas, if necessary, is compressed to a sufficient pressure to allow the plant to operate. Wastes typically associated with inlet separation include produced water as well as pigging materials, inlet filter media, fluids from corrosion treatments, and small amounts of solid material (pipe scale, rust, and minor amounts of reservoir formation materials). Wastes generated from the operation of plant inlet compressors are the same as wastes generated from compressors used in field operations. These wastes include engine cooling water and used lubrication oil and filters.

Inlet separators should be designed to send the produced water and hydrocarbons into process vessels where hydrocarbons can be recovered for sale and produced water separated for disposal. Small amounts of pigging materials may be recovered at pig receiving traps andshould be disposed of properly.

For safety reasons, inlet separators are equipped with relief valves that vent to emergency containment. This occurs if a fluid slug reaches the plant that exceeds separation capacity or if gas pressure exceeds design capacity of plant facilities. Emergency pits are not disposal facilities and fluids vented should be recovered as soon as practical (generally within 48-72 hours) and disposed of properly.

The pits should be constructed in accordance with regulations. In the event natural gas is flared, these flare incidents may require reporting to air quality and oil and gas regulatory agencies depending on the composition and volume of the flare gas.

DEHYDRATION

All natural gas contains a certain amount of water vapor. Typically this water content must be reduced to meet sales pipeline specifications. Dehydration is the process of extracting water vapor to make the gas marketable. The processes used are identical to those used in field facilities where centralized dehydration at a gas plant does not occur.

Natural gas is dehydrated by contact with liquid or solid desiccants. Liquid desiccants such as ethylene, diethylene, or triethylene glycol absorb the water. Heat regeneration evaporates the water, and the glycol is recovered for reuse. With solid desiccant dehydration, natural gas flows through tower vessels filled with alumina, silica-gel, silica-alumina beads, or molecular sieve which absorb water vapor

Wastes generated during the dehydration process consists of glycol based fluids, glycol filters, condensed water, and solid desiccants. These fluids and solids may contain trace levels of hydrocarbons and treating chemicals.

SWEETENING SULFUR RECOVERY

Some natural gas contains hydrogen sulfide, carbon dioxide, or other impurities that must be removed to meet specifications for sales pipeline and field fuel use. The process of sweetening may be conducted using units identical in operation to units used in field facilities where centralized sweetening facilities are unavailable or in dedicated sulfur recovery facilities where high hydrogen sulfide concentrations are present.

Sweetening primarily consists of lowering the hydrogen sulfide and carbon dioxide content in natural gas. Hydrogen sulfide is removed from natural gas by contact with amine, sulfinol, iron sponge, caustic solutions, and other sulfur converting chemicals. Heat regenerates amine or sulfinol for reuse. Iron sponge, caustic solutions, and other sulfur converting chemicals are spent in the process as hydrogen sulfide is converted to iron sulfide and other sulfur compounds.

Amine treating of natural gas for the removal of hydrogen sulfide and carbon dioxide is the process that is probably most widely used in industry.

This process is based on the reaction that aliphatic alkanolamines will react with acid gases at moderate temperatures, and that the acid gases are released at slightly higher temperatures.

The reactions for this process using aqueous monoethanolamine (MEA) and hydrogen sulfide are as follows:

$2\ (HO\ CH_2 - CH_2 - NH_2) + H_2S \leftrightarrow (HO\ CH_2 - CH_2 - NH_3)\ 2\ S + Heat$

- ☐ Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves
- ☐ Gas plant sweetening wastes for sulfur removal, including amine, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge.
- ☐ Cooling tower blowdown.
- ☐ Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream
- ☐ Packing fluids
- ☐ Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- ☐ Hydrocarbon-bearing soil
- ☐ Pigging wastes from gathering lines
- ☐ Wastes from subsurface gas storage and retrieval, except for the listed nonexempt wastes
- ☐ Constituents removed from produced water before it is injected or otherwise disposed of
- ☐ Liquid hydrocarbons removed from the production stream but not from oil refining
- ☐ Gases removed from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons
- ☐ Materials ejected from a producing well during the process known as blowdown
- ☐ Waste crude oil from primary field operations and production
- ☐ Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment.

EPA's List of Nonexempt Exploration and Production Wastes

EPA's Regulatory Determination for exploration and production wastes lists the following wastes as nonexempt. It appears that the EPA concluded waste materials from maintenance of production equipment as well as transportation (pipeline and trucking)

related wastes were nonexempt. While the following wastes are nonexempt, they are not necessarily hazardous.

- ☐ Unused fracturing fluids or acids
- ☐ Gas plant cooling tower cleaning wastes
- ☐ Painting wastes
- ☐ Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- ☐ Vacuum truck and drum rinsate from trucks and drums transporting or containing nonexempt waste
- ☐ Refinery wastes
- ☐ Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- ☐ Used equipment lubrication oils
- ☐ Waste compressor oil, filters, and blowdown
- ☐ Used hydraulic fluids
- ☐ Waste solvents
- ☐ Waste in transportation pipeline-related pits
- ☐ Caustic or acid cleaners
- ☐ Boiler cleaning wastes
- ☐ Boiler refractor bricks
- ☐ Incinerator ash
- ☐ Laboratory wastes
- ☐ Sanitary wastes
- ☐ Pesticide wastes

- Radioactive tracer wastes
- Drums, insulation, and miscellaneous solids.

EPA did not specifically address in the Regulatory Determination the status of hydrocarbon-bearing material that is recycled or reclaimed by reinjection into a crude stream (used oils, hydraulic fluids, and solvents).

However, under existing EPA regulations, recycled oil, even if it were otherwise hazardous, could be reintroduced into the crude stream, if it is from normal operations and is to be refined along with normal process streams at a petroleum refinery facility [see 40 CFR§261.6 (a)(3)(vi)].

ADDITIONAL EXEMPT WASTES

It should be noted that EPA's lists of exempt and nonexempt wastes are not all-inclusive and that determinations will need to be made on a number of other incidental wastes. In deciding which wastes were exempt, it appears that EPA focused on wastes necessary to conduct so-called "primary field operations" (including centralized facilities and gas plants).

Using this approach, the following wastes, although not specifically listed as exempt, appear clearly exempt.

- Excess cement slumes and cement cuttings
- Sulfur contaminated soil or sulfur waste from sulfur recovery units
- Gas plant sweetening unit catalyst
- Produced water contaminated soil
- Wastes from the reclamation of tank bottoms and emulsions when generated at a production location
- Production facility sweetening and dehydration wastes
- Pigging wastes from producer operated gathering lines
- Production line hydrotest presenring fluids utilizing produced water
- Iron sulfide

This section does not address wastes exempt from Subtitle C under other provisions of RCRA (e.g., 40 CFR 261.4).

Requirements for Nonexempt Wastes

Operators should consider testing nonexempt wastes whenever there is reason to believe they may exhibit one of the hazardous waste characteristics.

Although there is no requirement that a nonexempt waste be tested to determine if it is hazardous, civil and criminal penalties may be imposed if the waste is not managed in a safe manner, and according to regulations.

It is also important to emphasize the prudence of segregating non-exempt waste from exempt waste. One possible implication is that knowingly commingling of a nonexempt waste with an exempt waste could result in the entire waste stream losing its exempt status and perhaps having to be handled as a hazardous waste.

If the nonexempt waste were a listed hazardous waste, EPA's mixture rule makes the entire commingled waste stream subject to stringent RCRA Subtitle C requirements, including the requirement that it be disposed at a hazardous waste facility. Therefore, it is usually in the best interest of an operator to routinely segregate nonexempt waste from exempt waste. When segregation is not practical, the nonexempt waste should be examined closely to ensure that it is not a hazardous waste.

Finally, there are a few states with hazardous waste regulations which differ from those the EPA has promulgated. These state rules are at least as stringent as the federal regulations (by law they must be at least equivalent to those set forth by the EPA).

LIST OF WASTE STREAMS - New Mexico

ACID (SPENT)

WASTE CATEGORY:

Spent acid from gas processing plants may be a characterisitcally hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.20 - 261-24). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

Test for hazardous characteristics (corrosivity) and TCLP metals.

DISPOSAL AT AN OCD-APPROVED FACILITY If **NOT HAZARDOUS**: OCD does not require testing of this waste; however each OCD-approved facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store acid in a properly labeled rigid-wall container prior to disposal. Handle in a manner that minimizes employee exposure.

FOR SHIPPING: if **nonhazardous** no shipping requirements. If **hazardous**, will need to review the shipping requirements and possibly test. Call ES&H in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD-APPROVED FACILITY: There are no reporting requirements for the OCD. Retain a copy of the Bill of Lading or other billing information that documents the generator, type and quantity of waste, transporter, and disposal site. MAINTAIN copies of records in active files for 3 years and archived for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

If test indicates non-hazardous waste, it should be disposed of in a permitted injection/disposal well. If test indicates hazardous waste, it should be disposed of at a RCRA permitted TSD facility. Contact safety department.

ACTIVATED ALUMINA

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT AN OCD-APPROVED FACILITY: OCD does not require testing of this waste; however each OCD-approved facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain and collect fluids. Allow alumina to dry for 48 hours. Collect and incorporate fluids into wastewater disposal system. Store alumina in a properly labeled container prior to disposal.

FOR OFFSITE SHIPPING, not a hazardous waste, therefore no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD-APPROVED FACILITY: There are no reporting requirements for the OCD. Retain a copy of the Bill of Lading or other billing information that documents the generator, type and quantity of waste, transporter, and disposal site. MAINTAIN copies of records in active files for 3 years and archived for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-approved disposal facility. See Section 12 for a complete and current list of facilities.

AMINE - includes spent monoethanolamine, diethanolamine.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) **when used in gas sweetening processes**. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL VIA CLASS II DISPOSAL WELL: *no testing is required.*

FOR DISCHARGE PER NPDES PERMIT: comply with testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in storage vessel such as sump or storage tank prior to disposal in onsite or commercial disposal well.

FOR SHIPPING OFFSITE: For **Monoethanolamine only** the shipping description is **Ethanolamine Solutions, 8, UN2491, III**. Shipping papers are **required**, the placard is **Corrosive**. For **Diethanolamine only** the shipping description is **RQ, Environmentally Hazardous Substance, liquid, N.O.S. (contains Diethanolamine), 9, UN3082, III**. Shipping papers are **required**, the placard is **Class 9**.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II permit or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted by the OCD to **dispose of gas plant wastewaters**; **OR**, if specified in the permit, NPDES discharge.

AMINE RECLAIMER BOTTOMS

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR RECLAIMING, DISPOSAL PER CLASS II DISPOSAL WELL, OR OCD-PERMITTED DISPOSAL FACILITIES: the OCD does not require testing. However, each OCD-permitted disposal pit may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Removal of bottoms from vessels should be done in such a manner as to minimize spillage. Use drip pans or catchment vessels.

Mix solids with wastewaters for disposal via Class II disposal well.

For storage onsite prior to disposal, place in drums, tanks, or other closed/covered containers, or remove from site immediately upon removal of bottoms from vessels.

FOR SHIPPING OFFSITE: For **Monoethanolamine only** the shipping description is **Ethanolamine Solutions, 8, UN2491, III**. Shipping papers are **required**, the placard is **Corrosive**. For **Diethanolamine only** the shipping description is **RQ, Environmentally Hazardous Substance, liquid, N.O.S. (contains Diethanolamine), 9, UN3082, III**. Shipping papers are **required**, the placard is **Class 9**.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY (including commercial disposal wells or waste pits): There are no reporting requirements. Keep Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, the generator, transporter, and disposal site.

FOR ONSITE DISPOSAL WELLS: maintain records per Class II disposal well permit.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (on-site or off-site) permitted by the OCD to accept gas plant wastewaters.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

ANTIFREEZE (USED)

WASTE CATEGORY:

Used antifreeze consists of a mixture of ethylene glycol and water that is used as a heat transfer medium in internal combustion gas compressor engines. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Used antifreeze should be recycled or reclaimed if possible.

TESTING:

FOR RECLAIMING, DISPOSAL PER CLASS II DISPOSAL WELL, OR OCD-PERMITTED DISPOSAL FACILITIES: the OCD does not require testing. However, each OCD-permitted disposal pit may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Remove antifreeze from radiator/engine in a manner which prevents spillage. Drip pans or catchment vessels are recommended. If antifreeze is stored, leak-proof, rigid-walled containers are preferred.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY: There are no reporting requirements. Keep Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, the generator, transporter, and disposal site.

FOR ONSITE DISPOSAL WELLS: maintain records per Class II disposal well permit.

FOR RECLAIM OR RECYCLE: No recordkeeping requirements.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

If reclaim or recycle not possible, state may allow disposal in a permitted injection well. Contact environmental staff.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

BARRELS/DRUMS/CONTAINERS (NOT EMPTY)

WASTE CATEGORY:

Containers which held chemicals, paints, thinners, solvents, or other products but now are only partially full of the material. The exact contents of the material in the barrel/drum may be unknown. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

If the contents are known, return the barrel/drum/container to the vendor or use the contents. If the contents are unknown, see **MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS** section below.

TESTING:

Contact environmental staff.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

If the contents of the barrel/drum/container are known, handle the material as indicated by the IVISDS. If the contents are unknown, contact your environmental staff. Store the barrel/drum/container so that leakage is prevented. Place bungs or covers securely on containers during storage.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY: There are no reporting requirements. Keep Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, the generator, transporter, and disposal site.

FOR RECLAIM OR RECYCLE: No recordkeeping requirements.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

If reclaim or recycle not possible, Contact environmental staff.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

BOILER WATER BLOWDOWN

WASTE CATEGORY:

Non-exempt solid waste (53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL WELL: this waste must be tested for ignitability, corrosivity, reactivity, and Toxicity Characteristic Leaching Procedure (TCLP) metals and organic compounds to characterize the waste. If the generator can prove by knowledge of process, that this waste is not hazardous, then no testing is required. The generator must provide information concerning the process and the chemicals used in that process.

FOR NPDES DISCHARGE: comply with testing specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in storage vessel such as sump or storage tank prior to disposal.

FOR SHIPPING: if **nonhazardous** no shipping requirements. If **hazardous**, will need to review the shipping requirements and possibly test. Call EH&S in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL, maintain records per Class II or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

IF NONHAZARDOUS: Class II disposal well (onsite or offsite) permitted by the OCD **to dispose of gas plant wastewaters**; **OR**, if specified in the permit, discharge per NPDES permit .

IF THE WASTE IS HAZARDOUS: it can be disposed in a Class I Hazardous disposal well or if specified in the permit, NPDES discharge.

BRINE CONTAMINATED SOILS

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT AN OCD-APPROVED FACILITY: OCD does not require testing of this waste; however each OCD-approved facility may have specific testing requirements.

FOR ON-SITE TREATMENT/DISPOSAL: Contact environmental department.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

If necessary, brine contaminated soils should be stored in an area lined with impermeable material and bermed to prevent runoff or leaching.

When remediation is deemed necessary (usually per landowner's request) contaminated soils should be sampled and analyzed for chloride content and sodium absorption ratio. Soil restoration should begin promptly. In-place treatment is recommended. Depending on site hydrologic characteristics, land treatment may be acceptable. Gypsum or other soil treatments may be applied. (Such as LCA 11.) Soil rinsing may be appropriate with approved disposal of residue (see Brine Water).

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE TREATMENT/DISPOSAL: Contact environmental department.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal sites.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Removal of the contaminated soil and disposal in a permitted off-site pit or landfill is acceptable. Contact safetydepartment.

BRINE WATER

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL VIA CLASS II DISPOSAL WELL: no testing is required.

FOR DISCHARGE PER NPDES PERMIT: comply with the testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Separate oil, condensate, water. Store water in holding vessels such as sumps, storage tanks or evaporation pits prior to disposal. Tanks and pits that might contain oil should be flagged, netted or covered in some manner to protect wildlife. Avoid contact with soil as much as possible. Collect hydrocarbons in storage vessel for sale.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal sites.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted by the OCD **to dispose of gas plant wastewaters**; OR, if specified in the permit, NPDES discharge.

Off-site evaporation at a permitted facility.

CAUSTIC - spent.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL VIA CLASS II DISPOSAL WELL: no testing is required.

FOR DISCHARGE PER NPDES PERMIT: comply with testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in storage vessel such as sump, storage tank, or evaporation pit prior to disposal. Tanks and pits that might contain oil should be flagged, netted or otherwise covered to protect wildlife.

FOR SHIPPING: The shipping description is **Sodium Hydroxide, Solution, 8, UN1824, II**. Shipping papers are **required**, the placard is **Corrosive**. If the shipment contains 1,000 lbs or more, the letters "**RQ**" must precede the shipping description.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II permit or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted by the OCD **to dispose of gas plant wastewaters**; **OR**, if specified in the permit, NPDES discharge.

CHARCOAL

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: OCD does not require testing of this waste; however each OCD-approved facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain and collect fluids. Allow charcoal to dry for 48 hours. Collect and incorporate fluids into wastewater disposal system. Store charcoal in a properly labeled and sealed container prior to disposal. Dust can be explosive.

FOR SHIPPING OFFSITE: The shipping description is **Charcoal, 4.2, NA1361, III**. Shipping papers are **required**. The placard is **Spontaneously Combustible**.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT OCD FACILITY: There are no reporting requirements for the OCD. Retain a copy of the Bill of Lading or other billing information that documents the generator, type and quantity of waste, transporter, and disposal site.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

COOLING TOWER BLOWDOWN

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Use corrosion inhibitors that do not contain chromium.

Operate cooling towers efficiently to minimize the generation of blowdown.

TESTING:

FOR DISPOSAL WELL VIA CLASS II DISPOSAL WELL: no testing is required.

FOR DISCHARGE PER NPDES: comply with testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in wastewater storage vessel such as sump, storage tank or evaporation pit prior to disposal. Tanks and pits that might contain oil should be flagged, netted or otherwise covered to protect wildlife.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted **to dispose of gas plant wastewaters**; **OR**, if specified in the permit, NPDES discharge.

COOLING TOWER SLUDGE

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Use corrosion inhibitors that do not contain chromium.

TESTING:

DISPOSAL AT A OCD-APPROVED FACILITY: The waste must be characterized. Test for Toxicity Characteristic Leaching Procedure (TCLP) metals and organics, ignitability, and reactivity. Use the Paint Filter Liquids test to determine if sludge contains free liquid. If free liquids are present test for corrosivity. If the generator can prove by knowledge of process that a waste is not hazardous, then no testing is required. The generator must provide information regarding the process from which the waste is generated and the chemicals used in that process.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

(1) Remove all free liquids and incorporate into wastewater disposal system. (2) Store in drums, tanks, or other closeable containers.

FOR SHIPPING OFFSITE: if **nonhazardous** there are no shipping requirements. If **hazardous**, will need to review the shipping requirements and possibly test. Call EH&S in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT OCD FACILITY: There are no reporting requirements for the OCD. Retain a copy of the Bill of Lading or other billing information that documents the generator, type and quantity of waste, transporter, and disposal site.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

DEBRIS, UNCONTAMINATED - includes wood, glass, concrete.

WASTE CATEGORY:

Inert nonhazardous solid waste. Inert wastes can be disposed at facilities approved by the New Mexico Oil Conservation Division or at a municipal landfill. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store in labeled bins. Do not mix with material that is contaminated or may be hazardous.

FOR SHIPPING OFFSITE, no shipping requirements if uncontaminated.

RECORDKEEPING/REPORTING REQUIREMENTS:

Permits are not necessary for the disposal of inert and uncontaminated solid waste. Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of debris disposed.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

On-site burial if permitted in the facility discharge plan. Consult lease requirements and landowner for any additional requirements.

DEHYDRATOR - CONDENSED WATER

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Should be stored in leak-proof, rigid-walled containers.

FOR SHIPPING OFFSITE, no shipping requirements if uncontaminated.

RECORDKEEPING/REPORTING REQUIREMENTS:

Permits are not necessary for the disposal of inert and uncontaminated solid waste. Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of debris disposed. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted **to dispose of gas plant wastewaters**; **OR**, if specified in the permit, NPDES discharge

DRUMS - Empty plastic or metal.

WASTE CATEGORY:

Non-exempt solid waste. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste. Check the Material Safety Data Sheet (MSDS) and Hazardous Waste Booklet (Section 14) to confirm whether drum contained a pure product that is listed as acutely hazardous. If the product is acutely hazardous consult with HE&LP in Houston for specific cleaning instructions.

WASTE MINIMIZATION:

Return drums to vendor.

Use tanks to store chemicals in bulk and reduce or eliminate the use of drummed chemicals.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Do not allow empty drums to accumulate onsite. All drums must be empty; i.e., All materials or wastes have been removed using practices employed to handle drums such as pouring, pumping, or aspirating. No more than 2.5 centimeters (one inch) of residue remains on the bottom of the drum or inner liner. No more than 3% by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size; no more than 0.3% by weight of the total capacity of the container or inner liner if the container is greater than 110 gallons in size. Mark the drums as "Empty" and use one of the following options prior to disposal. 1) Replace the lid or bungs tightly on empty drums to prevent the accumulation of rainwater or other materials. Rainwater or other materials that accumulate in empty drums may have to be handled and disposed as hazardous waste. 2) Cut the ends out of the drum so it cannot be used as a container.

FOR SHIPPING: Remove or paint over all DOT markings and labels on drums prior to shipping.

RECORDKEEPING/REPORTING REQUIREMENTS:

Track the empty drums using the Warren Petroleum Company Waste Drum/Container Log (Section 11). Keep Bill of Lading, run ticket, or other information that documents the generator, transporter, disposal site and volume when drums are disposed. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Recycle drums: Make arrangements with vendor to return on a deposit basis.

Replace drums with bulk storage units.

FILTERS, AIR

WASTE CATEGORY:

Inert nonhazardous solid waste. This waste can be disposed at a facility permitted by the New Mexico Oil Conservation Division or at a municipal landfill.

WASTE MINIMIZATION:

None at this time.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store separately from oil, sock, glycol or other filters to avoid contamination, testing and permitting requirements.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

Permits are not necessary if disposed with other inert solid waste. Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of filters disposed. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

FILTERS, GLYCOL

WASTE CATEGORY:

Inert nonhazardous solid waste. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste

WASTE MINIMIZATION:

None at this time.

TESTING:

TCLP (not required if recycled).

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Waste filters should be handled in a way to prevent spillage. Drip pans or catchment vessels should be used. All liquids should be drained from filters before disposal. Liquids should be returned to production facilities for reprocessing. Filters should be segregated from other filter types, placed in plastic garbage bags and into metal containers.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

Keep following records: Disposal date, number of filters disposed of, haulers name, location and name of disposal facility. Results of analyses (TCLP) required for disposal into landfill. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Recycle filters.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

FILTERS, SOCK includes sock filters used as glycol, and amine filters.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-APPROVED FACILITY: OCD does not require testing of this waste; however, each OCD-approved facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain and collect liquids. Allow filters to dry for 48 hours. Store in bin for process filters. Incorporate liquids into wastewater disposal system.

FOR SHIPPING OFFSITE, not a hazardous waste, therefore no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY: There are no reporting requirements for the OCD. Keep copies of Bill of Lading, run ticket or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

FILTERS, USED OIL - non-terne plated; terne is an alloy of tin and lead which is used to plate oil filters. These filters are from an internal combustion engine used to filter crankcase oil.

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) (261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain more than 24 hours to remove all used oil by one of the following hot-draining methods: 1) Puncturing the filter anti-drain back valve or the filter dome end and hot-drain; **OR** 2) Hot-drain and crush; **OR** 3) Dismantle and hot-drain; **OR** 4) Flush the filter; **OR** 5) Any other equivalent method which will remove the free flowing oil.

After draining, allow filters to dry. Collect oil and reclaim or sell for refining. Store filters in covered enclosure or covered rainproof containers on an impermeable surface. Containers must be labeled "Used Oil Filters". **Do not keep storage units containing filters onsite more than 30 days**. Transport containers must be labeled with the date, the final destination, and the name and address of both the generator and the transporter.

FOR SHIPPING OFFSITE, if **nonhazardous** no shipping requirements. If **hazardous** contact EH&S in Houston for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD FACILITY: There are no reporting requirements for the OCD. Retain copies of the Bill of Lading, run ticket, or other billing information that documents the volume and type of waste, generator, transporter, and disposal facility.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

OCD-permitted processor, disposer, or end user (someone who uses the oil filters or its components as feedstock for their processes).

GLYCOL - spent ethylene glycol, triethylene glycol, and diethylene glycol.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) **when used in dehydration processes** (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL VIA CLASS II DISPOSAL WELL: no testing is required.

FOR DISCHARGE PER NPDES PERMIT: comply with testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in storage vessel such as sump or tank, prior to disposal. Tanks that might contain oil should be flagged, netted or otherwise covered to protect wildlife.

FOR SHIPPING OFFSITE, For **Ethylene Glycol only** the shipping description is **RQ, Environmentally Hazardous Substance, liquid, N.O.S. (contains ethylene glycol), 9, UN3082, III**. Shipping papers are **required**, the placard is **Class 9**.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II permit or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted **to dispose of gas plant wastewaters**; **OR**, if specified in the permit, NPDES discharge.

HYDROSTATIC TEST WATER

WASTE CATEGORY:

Hydrostatic test water is **exempt** from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b)) **when derived from the testing of gathering pipelines or pipelines used to transport raw or unrefined products**. Hydrostatic test water is **non-exempt** solid waste under RCRA **when derived from the testing of transmission pipelines or pipelines used to transport refined products**. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste. See Section 12 (Guidelines for Hydrostatic Test Dewatering) for specific information regarding the requirements for disposal of this waste in New Mexico.

WASTE MINIMIZATION:

Conduct tests only when necessary.

TESTING:

FOR CLASS II DISPOSAL WELL: if exempt no testing is required. If non-exempt, test for Toxicity Characteristic Leaching Procedure (TCLP) metals and organics, ignitability, corrosivity and reactivity. If the generator can prove by knowledge of process that this waste is not hazardous, then no testing required. The generator must provide information on the chemical composition of the waste and the process from which it was derived.

FOR DISCHARGE PER NPDES PERMIT: meet testing requirements of the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store water in holding vessels such as sumps, storage tanks or evaporation pits prior to disposal. Tanks and pits that might contain oil should be flagged, netted, or otherwise covered to protect wildlife.

FOR SHIPPING OFFSITE, if **nonhazardous**, no shipping requirements. If **hazardous**, need to review shipping requirements and possibly test. Contact EH&S in Houston for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ON-SITE DISPOSAL: maintain records per Class II permit or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: maintain records of type and volume of waste, generator, transporter, and disposal facility by retaining run tickets or other billing information. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

IF EXEMPT OR NONHAZARDOUS: Class II disposal well (onsite or offsite) permitted **for disposal of gas plant wastewaters**; **OR**, If specified in the permit, NPDES discharge.

IF THE WASTE IS HAZARDOUS: it can be disposed in a Class I Hazardous disposal well; **OR**, if specified in the permit, NPDES discharge.

INHIBITORS (USED) / BIOCIDES

WASTE CATEGORY:

(Chemical inhibitors can be used for selected chemical treating programs to prevent scale. In most cases these chemicals will remain in the gas stream and do not become a waste management issue. This description addresses the case where inhibitors are recovered). Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL VIA CLASS II DISPOSAL WELL: TCLP, RIC if recovered inhibitors cannot be reused.

FOR DISCHARGE PER NPDES PERMIT: comply with testing requirements specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

All spent inhibitors should be contained to prevent spills or leaching to the soil. Drums or containerized storage is preferred.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Reuse/reclaim if possible.

If reuse/reclaim not possible, contact the safety and environmental department for case bycase evaluation.

IRON SPONGE

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Wash thoroughly with a soda ash and water solution by circulating it through the bed for several hours to prevent auto-ignition. Can also be regenerated using this method. Incorporate soda ash solution into water disposal system.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY: There are no reporting requirements for the OCD. Keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, disposal facility, and any analytical results.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

LEAD ACID BATTERIES

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Recycle or return to vendor if possible.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Wear protective equipment and handle in manner to prevent spillage of acid. Store in vented area. Do not store on ground or cement slab.

RECORDKEEPING/REPORTING REQUIREMENTS:

1) DOT manifest for transport by vessel. 2) Retain copy at assigned locations. 3) Copy of MSDS.

Keep records of off-site recycling in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Return to vendor for exchange.

Local recycler.

LITHIUM BATTERIES

(Batteries used in Haliburton flow meters)

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Recycle or return to vendor if possible.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Wrap in shipping container provided by Haliburton. Store in a cool dry area.

RECORDKEEPING/REPORTING REQUIREMENTS:

1) Mailing receipts. 2) Copy of MSDS.
Keep records of off-site recycling in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Return to vendor.

MERCURY

WASTE CATEGORY:

Mercury is a listed hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.20 - 261-24). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

None if reclaimed or recycled, otherwise TCLP/Mercury and Total/Mercury.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Contact Safety & Environmental Manager prior to any mercury handling. Should be stored in air-tight, properly labeled containers.

RECORDKEEPING/REPORTING REQUIREMENTS:

Manifests or records of recycling. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details. No hazardous waste disposal is allowed in OCD-permitted facilities.

Contact safety department for recycling.

Dispose at an EPA permitted hazardous waste facility. Contact safety department.

MOLECULAR SIEVE

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Regenerate for reuse.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain all liquids and incorporate them into the water disposal system. Allow molecular sieve to cool in a nonhydrocarbon inert atmosphere. Hydrate in ambient air for 24 hours.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY: There are no reporting requirements for the OCD. Keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, disposal facility, and any analytical results.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Regenerate for reuse.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

NORM (Naturally Occurring Radioactive Material)

WASTE CATEGORY:

Special E&P Waste (Contact the Safety/Environmental Department). See Section 12 of the Manual for specific procedures for NORM handling and disposal in New Mexico.

WASTE MINIMIZATION:

None at this time.

TESTING:

Will be required for ground contamination and prior to disposal company acceptance. Check state rules.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Review company safety guidelines for handling NORM. Protect ground area with non-permeable material. NORM should be properly labeled and contained in an isolated area where there is restricted access to the public and employees. Area should be clearly marked.

RECORDKEEPING/REPORTING REQUIREMENTS:

Records generated for the disposal or storage of NORM should be maintained as active files.

DISPOSAL OPTIONS:

Do not dispose of NORM without approval of Safety/Environmental Department.

OILY RAGS - contaminated with lubricating oil.

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Use a contractor to supply clean rags and pick up used rags.

TESTING:

RECYCLING: The contractor may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store in containers marked for oily rags only. Keep cover of container secure when not transferring material. Do not mix with material that may be hazardous.

FOR SHIPPING OFFSITE, if **nonhazardous**, no shipping requirements. If **hazardous**, will need to review the shipping requirements. Contact EH&S, in Houston for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

RECYCLING: Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of material recycled.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Contract with a company to recycle used rags.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

PAINTING WASTES

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

Contact the Safety & Environmental Department.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Paints should remain in their original metal containers with tight fitting lids.

RECORDKEEPING/REPORTING REQUIREMENTS:

If waste is hazardous, manifests, test data, and disposal records must be retained for three years and archived for fifteen years. No recordkeeping is necessary for non hazardous disposal.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Unused paint should be applied to equipment and buildings to prevent corrosion and water damage. Empty containers may be disposed of in permitted landfills.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

PAINTING SOLVENT - used

WASTE CATEGORY:

Special - contact ES&H Deaprtment in Houston. Used painting solvent which is returned directly to condensate stream (hydrocarbon) without processing is not defined as a solid waste by the Resource Conservation and Recovery Act (RCRA).

WASTE MINIMIZATION:

None at this time.

TESTING:

Contact the Safety & Environmental Department.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Painting solvent should not be filtered, accumulated, stored or otherwise processed prior to returning to condensate stream.

RECORDKEEPING/REPORTING REQUIREMENTS:

No recordkeeping is necessary if painting solvent returned to condensate stream.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Do not process used painting solvent prior to returning to condensate stream. Processing creates a "solid waste" which may be subject to hazardous waste regulations.

PIGGING WASTE

WASTE CATEGORY:

Exempt waste under the Resource Conservation and Recovery Act (RCRA) if derived from gathering line; non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) if from distribution line. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

If non-exempt, TCLP; RIC analysis may be required. Contact Safety & Environmental Department

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Should be handled to prevent spills or leakage. Should be stored in rigid-walled, leak-proof containers.

RECORDKEEPING/REPORTING REQUIREMENTS:

Maintain manifest or run ticket for a minimum of three years if off-site disposal is utilized and records archived for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

If exempt, liquids can be disposed of at a Class II injection well. Solids need to go to an oil and gas permitted facility. If hazardous or non-exempt, contact the safety & environmental department.

PLANT TRASH - includes paper, cardboard, plastic containers, glass. Does not include items such as aerosol cans, paint cans, pesticides, batteries or flammables.

WASTE CATEGORY:

Inert nonhazardous solid waste. Inert wastes can be disposed at a facility permitted by the New Mexico Oil Conservation Division or a permitted landfill.

WASTE MINIMIZATION:

None at this time.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store in labeled bins. Do not mix with material that is contaminated or may be hazardous.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

Keep Bill of Lading, run ticket, other billing information that documents the generator, transporter, disposal site, and volume of material disposed. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Recycle paper, cardboard, glass, aluminum and plastics.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

PROCESS WASTEWATER

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR DISPOSAL WELL: this waste must be tested for ignitability, corrosivity, reactivity, Toxicity Characteristic Leaching Procedure (TCLP) metals and organic compounds. If the generator can prove by knowledge of process that this waste is not hazardous then no testing is required. The generator must provide information concerning the process and the chemicals used in the process.

FOR DISCHARGE PER NPDES PERMIT: comply with testing requirements of the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store water in holding vessels such as sumps, storage tanks, or evaporation pits prior to disposal. Tanks and pits that might contain oil should be flagged, netted, or otherwise covered to protect wildlife.

FOR SHIPPING OFFSITE, if **nonhazardous**, no shipping requirements. If **hazardous**, need to review the shipping requirements and possibly test. Contact EH&S for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ON-SITE DISPOSAL: maintain records per Class II permit or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

IF NONHAZARDOUS, Class II disposal well (on-site or off-site) permitted **for disposal of gas plant wastewaters**; **OR**, If specified in the permit, NPDES discharge.

IF THIS WASTE IS HAZARDOUS: it can be disposed in a Class I Hazardous disposal well; **OR**, if specified in the permit, NPDES discharge.

PRODUCED WATER

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988) The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Regenerate for reuse.

TESTING:

None required

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Should be handled in a manner which prevents spillage onto ground or other surface and stored in rigid-walled containers.

RECORDKEEPING/REPORTING REQUIREMENTS:

State injection well regulations require that records be kept of volumes injected, annular pressures, origin of produced water. These records are required to be kept for a period of threeyears, and then should be archived for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Produced water can be injected into a state permitted Class II injection well.

SANDBLAST MEDIA

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Disposal of sandblast media used by a contractor remains the responsibility of that contractor.

TESTING:

Test for TCLP metals.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Enclose area to be blasted to collect media. Use proper personal protective equipment. Store in rigid-walled containers, or in 5000# polyurethane sacks.

RECORDKEEPING/REPORTING REQUIREMENTS:

All off-site disposal records should be maintained as active files for three years and archived for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Disposal of sandblast media used by a contractor remains the responsibility of that contractor. If non-hazardous, recycle for reuse. Company generated sandblast media should be analyzed for TCLP metal content prior to disposal. Refer laboratory results to the Safety & Environmental Department.

SEWAGE

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA). Local authorities typically have jurisdiction over sewage disposal (either in a sewer system or via septic tank). OCD has authority over sewage disposal when it is mixed with an oilfield waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

None.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Should be handled in a manner that minimizes exposure to workers. Adequate sanitary procedures should be implemented. For- long term operations, a septic system may be desirable. Septic systems must be permitted by state or local authorities.

RECORDKEEPING/REPORTING REQUIREMENTS:

Local authorities may have specific recordkeeping or reporting requirements.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Disposal in local sewer system (requires sewer connection).

Can be disposed of in an on-site septic system or by a commercially owned sanitation service.

SCRAP METAL - uncontaminated.

WASTE CATEGORY:

Nonhazardous solid waste. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

Testing is not required unless contamination or scale is present. Review the Warren Petroleum Company policy on testing for Naturally Occurring Radioactive Material (NORM).

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store in areas designated for scrap metal. Do not mix with contaminated or hazardous material.

FOR SHIPPING: if not radioactive then no shipping requirements. If **radioactive**, call EH&S in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, recycle site, and volume of scrap recycled. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

SILICA GEL

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Drain all liquids and allow silica gel to dry for 48 hours. Incorporate fluids into water disposal system.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD FACILITY: There are no reporting requirements for the OCD. Keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, disposal facility, and any analytical results.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

SOIL CONTAMINATED WITH CRUDE OIL

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Check equipment on a regular basis for leaks, spills. Repair or replace leaking equipment immediately. Use sorbent pads to prevent spills from contaminating the soil.

TESTING:

LANDFARM ONSITE: Total Petroleum Hydrocarbons (TPH) by Method 418.1 and leachable chlorides.

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Contaminated soils must be cleaned up. For small, localized spills remediate by tilling soil and adding fertilizer. For remediation (such as landfarming) of large quantities of soil onsite the OCD may have site specific handling requirements. Contact the OCD District Office (Sectioon 13) for specific guidelines.

FOR SHIPPING OFFSITE, contact EH&S for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

LANDFARM ONSITE: For large spills, send a letter to the District Office detailing the landfarm procedures, the quantity of soil involved, and receive written approval from the District.

DISPOSAL OR LANDFARMING AT AN OCD FACILITY: Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of soil to be treated or disposed.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Landfarm onsite if permitted by disposal plan.

Landfarm or disposal at OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

SOIL CONTAMINATED WITH LUBE OIL

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Check equipment on a regular basis for leaks, spills. Repair or replace leaking equipment immediately. Use sorbent pads to prevent spills from contaminating the soil.

TESTING:

LANDFARM ONSITE: Total Petroleum Hydrocarbons (TPH) by Method 418.1 and leachable chlorides.

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Contaminated soils must be cleaned up. For small, localized spills remediate by tilling soil and adding fertilizer. For remediation (such as landfarming) of large quantities of soil onsite the OCD may have site specific handling requirements. Contact the OCD District Office (Section 13) for specific guidelines.

FOR SHIPPING OFFSITE, contact Compliance for specific requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

LANDFARM ONSITE: For large spills, send a letter to the District Office detailing the landfarm procedures, the quantity of soil involved, and receive written approval from the District.

DISPOSAL OR LANDFARMING AT A OCD FACILITY: Keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of soil to be treated or disposed.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Landfarm onsite if permitted by the disposal plan

Landfarm or disposal at OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

SOLVENT, HAZARDOUS - this material is either a listed hazardous waste according to 40 CFR 261.31 or is characteristically hazardous according to 40 CFR 261.21-24. The characteristics of the solvent are on the Material Safety Data Sheet (MSDS).

WASTE CATEGORY:

Non-exempt hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Use water-based solvents or detergents when possible.

TESTING:

If the waste is a listed hazardous waste per 40 CFR 261.31, then no testing is necessary. If the waste could be characteristically hazardous waste test for Ignitability, Toxicity Characteristic Leaching Procedure (TCLP) metals and organics, Reactivity and Corrosivity. The MSDS may have specific information regarding the solvents hazardous status. If the generator can prove by knowledge of process that the solvent is not hazardous then no testing is required. The generator must provide information about the chemical composition of the solvent and about the processes in which it was used.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Do not mix waste solvents with materials that are not hazardous. Nonhazardous waste mixed with a listed hazardous waste is automatically hazardous and increases the volume of hazardous waste that must be treated and disposed.

Store in containers for "Used Solvent" Only. Keep cover secure when not transferring material. Containers should be stored on an impervious surface and/or in a covered area. For conditionally exempt small quantity generators (CESQG) (generators producing less than 220 lbs per calendar month) do not accumulate more than 2200 lbs (1,000 kilograms) onsite at any one time. If the generator accumulates more than 2200 lbs onsite at any one time, then the generator must meet the requirements of a small quantity generator or large quantity generator depending on the volume of waste onsite.

FOR SHIPPING: the hazardous nature of this solvent will determine which shipping requirements to follow. Contact EH&S in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR CESQGs: keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of material recycled or disposed. The generator may have to obtain an EPA identification number; many disposal facilities will not accept waste, regardless of generator status, without an EPA identification number. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Contract with a company to recycle waste solvents.

Dispose at a disposal facility permitted to accept waste solvent.

SOLVENT, NONHAZARDOUS - this material does not contain listed hazardous wastes (40 CFR 261.31) and is not characteristically hazardous (40 CFR 261.21-24). The characteristics of the solvent are on the Material Safety Data Sheet (MSDS).

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

If the generator can prove by knowledge of process, including information on the MSDS, that the waste is not characteristically hazardous and has not been combined with a listed hazardous waste, no testing is required. If the waste could be characteristically hazardous, then test for ignitability, Toxicity Characteristic Leaching Procedure (TCLP) metals and organics, corrosivity, and reactivity.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store spent solvent in a sealable container or combine with slop oil or condensate. Do not mix with material that may be hazardous. Containers should be stored on an impervious surface and/or in a covered area.

FOR SHIPPING: the specific nature of the solvent will determine the applicable shipping requirements. Contact EH&S in Houston for specific instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

IF COMBINED WITH SLOP OIL, CONDENSATE OR SENT TO A RECYCLER: keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of material recycled. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Recycle by combining with slop oil or condensate for sale.

Contract with a company to recycle waste solvents.

SORBENT PADS - CONTAMINATED WITH CRUDE OIL.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

DISPOSAL AT A OCD-PERMITTED FACILITY: each OCD-permitted facility may have specific testing requirements.

RECYCLE: each recycler may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Remove all free oil by washing to reduce the TPH concentration and return to oil storage tanks. Store pads in containers marked for sorbent pads only. Keep cover of container secure when not transferring material. Do not mix with material that may be hazardous.

FOR SHIPPING OFFSITE, no shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD FACILITY OR RECYCLER: There are no reporting requirements for the OCD. Keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, disposal facility, and any analytical results.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.
Recycle.

STORMWATER

WASTE CATEGORY:

Special E&P Waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

Test for chlorides. Check for oil sheen.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Uncontaminated stormwater should be allowed to run-off the location as needed. Stormwater collected behind firewalls should not be discharged if it contains a "sheen". Stormwater should not be stored when it prohibits adequate storage volume within diked areas for spill prevention.

RECORDKEEPING/REPORTING REQUIREMENTS:

Diked areas refer to SPCC. If stormwater is taken to an injection well for disposal, a run ticket should be retained for a period of three years.

DISPOSAL OPTIONS:

Uncontaminated stormwater should be allowed to escape from location into natural drainage pathways.

Stormwaters containing a "sheen" should have the sheen removed and then be allowed to escape into natural drainage pathways.

SUMP SLUDGE - from all sumps onsite.

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) and must be characterized to determine if hazardous. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

FOR RECLAIMING, DISPOSAL PER CLASS II DISPOSAL WELL, OR OCD-PERMITTED DISPOSAL PITS: waste must be classified to determine if the waste is hazardous. Test for Toxicity Characteristic Leaching Procedure (TCLP) metals and organics, reactivity and ignitability. Use the Paint Filter Liquids test to determine if sludge contains free liquid. If free liquids are present test for corrosivity. If the generator can prove that the waste is not hazardous, then no testing is required. The generator must provide information on the chemical composition of the waste and the process from which it was produced.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Removal of sludge from sumps should be done in such a manner ad to minimized spillage. Use drip pans or catchment basins. Remove all free liquids. If nonhazardous, mix solids with wastewaters for disposal via Class II disposal well. For storage onsite prior to disposal place in drums, tanks, or other closed/covered containers or dispose immediately upon removal of bottoms from tanks.

FOR SHIPPING: if **nonhazardous**, no shipping requirements. If **hazardous** contact EH&S in Houston for specific shipping instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT AN OCD FACILITY (including commercial disposal wells or waste pits): There are no reporting requirements. Keep Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, the generator, transporter, disposal site, and analytical results.

FOR ONSITE DISPOSAL WELLS: maintain records per Class II disposal well permit.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted **to accept gas plant wastewaters**.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

TANK BOTTOMS - from crude oil tanks.

WASTE CATEGORY:

Exempt from regulation as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

RECLAIMING: None required.

FOR RECLAIMING, DISPOSAL PER CLASS II DISPOSAL WELL, OR TRC-PERMITTED DISPOSAL PITS: the OCD does not require testing. However, each OCD-permitted disposal pit may have specific testing requirements.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Removal of bottoms from tanks should be done in such a manner ad to minimized spillage. Use drip pans or catchment basins. Remove and reclaim all free oil. Mix solids with wastewaters for disposal via Class II disposal well. For storage onsite prior to disposal place in drums, tanks, or other closed/covered containers or dispose immediately upon removal of bottoms from tanks.

FOR SHIPPING OFFSITE, contact EH&S for specific shipping instructions.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A OCD FACILITY (including commercial disposal wells or waste pits): There are no reporting requirements. Keep Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, the generator, transporter, and disposal site. FOR ONSITE DISPOSAL WELLS, maintain records per Class II disposal well permit.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

Class II disposal well (onsite or offsite) permitted **to accept gas plant wastewaters**.
OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

USED OIL - includes any oil refined from crude oil, or any synthetic oil, that has been used and as a result of such use if contaminated by physical or chemical impurities (40 CFR 279.1; 57 FR 41613).

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA) (40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Inspect tanks or containers on a regular basis for leaks or spills and to confirm that storage units are in good condition.

TESTING:

RECYCLING: each recycler may have specific testing requirements (such as total halogen) prior to accepting used oil. No testing required when combined with scrubber oil or condensate for sale.

DISPOSAL: used oil must be recycled in the State of Texas.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Store in tanks or containers marked "Used Oil". Tanks and containers must be in good condition (Generators storing used oil onsite must comply with applicable requirements of 40 CFR 112 Spill Control and Countermeasures plan for used oil storage units). Keep cover secure when not transferring material. Leaks or spills must be contained and repaired immediately; releases to the environment must be cleaned up.

Shipments of used oil of 55 gallons or less may be transported by the generator in their own vehicles and without obtaining an EPA identification number. An EPA registered transporter must be used for shipments of more than 55 gallons of used oil. Generators transporting more than 55 gallons must obtain an EPA identification number and comply with all requirements of 40 CFR 279 Subpart E.

Do not mix used oil with material that may be hazardous.

FOR SHIPPING OFFSITE, if **nonhazardous**, no shipping requirements. If **hazardous**, need to review shipping requirements and possibly test. Contact EH&S in Houston for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

DISPOSAL AT A PERMITTED RECYCLER: keep copies of Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of oil shipped as well as any analytical results and certification forms required by recycler.

WHEN COMBINED WITH SCRUBBER OIL OR CONDENSATE: keep Bill of Lading, run ticket, or other billing information that documents the generator, transporter, disposal site, and volume of oil sold.

Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

Combine with scrubber oil or condensate for sale.

WASH WATER

WASTE CATEGORY:

Non-exempt solid waste under the Resource Conservation and Recovery Act (RCRA)(40 CFR 261.4(b); 53 FR 25453-25454, July 6, 1988). The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

None at this time.

TESTING:

For DISPOSAL WELL: this waste must be tested for corrosivity, reactivity, ignitability and Toxicity Characteristic Leaching Procedure (TCLP) metals and organic to characterize the waste. If the generator can prove by knowledge of process that this waste is not hazardous, then no testing required. The generator must provide information on the chemical composition of the waste and the process from which it was derived.

For NPDES DISCHARGE: comply with testing specified in the permits.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

Collect in storage vessel such as sump, storage tank or evaporation pit prior to disposal.

FOR SHIPPING OFFSITE, if **nonhazardous**, no shipping requirements. If **hazardous**, need to review shipping requirements and possibly test. Contact EH&S in Houston for specific shipping requirements.

RECORDKEEPING/REPORTING REQUIREMENTS:

FOR ONSITE DISPOSAL: maintain records per Class II or NPDES permit.

FOR DISPOSAL AT COMMERCIAL FACILITIES: keep copies of Bill of Lading, run ticket, or other billing information that documents the type and volume of waste, generator, transporter, and disposal facility. Keep records of off-site disposal in active files for three years and archive for fifteen years.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

IF NONHAZARDOUS: Class II disposal well (onsite or offsite) permitted to dispose of gas plant wastewaters; **OR**, If specified in the permit, discharge per NPDES permit.

IF THE WASTE IS HAZARDOUS, it can be disposed in a Class I Hazardous disposal well; **OR**, if specified in the permit, NPDES discharge

WOODEN PALLETS

WASTE CATEGORY:

Inert nonhazardous solid waste. The New Mexico Oil Conservation Division has jurisdiction over the management of this waste.

WASTE MINIMIZATION:

Return to vendor or sell.

TESTING:

None required.

MANAGEMENT, STORAGE AND TRANSPORTATION INSTRUCTIONS:

No special handling requirements..

RECORDKEEPING/REPORTING REQUIREMENTS:

No recordkeeping required.

DISPOSAL OPTIONS:

All waste disposal in New Mexico is regulated by OCD through facility-specific "discharge plans" that are designed to provide "protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids." See Section 12 for details.

OCD-permitted disposal facility. See Section 12 for a complete and current list of facilities.

On-site burial if allowed by the discharge plan. Consult lease requirements and landowner for any additional requirements.

Eunice Plant
Waste Streams
Dynegy Midstream Services, L. P.

ITEM	TYPE	EXPECTED AMOUNT	SOURCE	DISPOSAL METHOD
Filter	Amine, Dust	1000 Cartridges/yr	Amine, Oil, Gas filter	Waste Management
	Oil, Product		cases, Air intake	of SE New Mexico
	Charcoal, Air,		cases	
Cooling	Water	600 Bbls/Day	Cooling	Facility Disposal
Tower			Tower	Well
Blowdown				
Boiler	Water	included above	boilers	Facility Disposal
Blowdown				Well
Water				
Plant	Paper, Wood,	900 yds/yr.	Office, Shop etc	Waste Management
Trash	Cardboard,			of SE New Mexico
	Household items,			
	etc.			
Cooling	Sludge,	Infrequent, varied	Cooling	Gandy Marley, Inc.
Tower	Slurry mix	amounts	Tower	
Basin				
Sludge				
Oil/Scrubber	Oil sludge, Sand,	Infrequent, varied	Scrubbers, Oil	Gandy Marley, Inc.
Tank Bottoms	Dirt, Scrubber	amounts	Tanks	
Solvent	Varsol	500 gals/yr	Parts washing	Oil Recovery
	Cleaning Fluid			Tank (Recycled)
Steel Drums	Lube oil, Antifreeze,	Infrequent, varied	Outside vendors	Emptied and
	Chemicals, LPG	amounts		returned to
	Odorizer			vendor.
Concrete		Infrequent, varied	Various in-plant	Waste Management
		amounts		of SE New Mexico
Molecular Sieve	Solid Particles	Infrequent varied	Dehydrators, Sulfur	Waste Management
and SRU Catalyst,		amounts	Plant, Product and	of SE New Mexico
Silica Gel,			Water Treaters	
Ion exchange,				
Iron Sponge				
Amine	DEA	Infrequent negligible	Amine System	Facility Disposal
Glycol		amounts		Well
Used Oil	Lub Oils	1428 bbls/yr.	Engines	Added to Scrubber
				Oil Sales (Recycled)
Scrap		Infrequent varied	Maintenance,	Sold to Scrap
Metals		amounts	Construction	Dealer (Recycled)
Soil contaminated	N/A	Infrequent varied	Pipeline Leaks	NMOCD Permitted
with hydrocarbons		amounts	NGL Liquids	Landfarm

SECTION I

General Procedures For Sample Collection and Analysis

Contact and use an EPA certified laboratory for all sampling. State and Federal regulations set strict sampling requirements for various substances. Using a properly certified lab will save time and money in the long run. A good lab will usually furnish all the sample equipment, labels and forms necessary to do a good sampling job.

Samples should be collected by personnel wearing clean, unused latex gloves. During sample collection, particular care should be taken to prevent contamination of the sample and container. A sample collected for laboratory analysis should be placed directly into the appropriate container(s) that are properly labeled.

Samples should be placed into individual airtight plastic bags, and stored in an ice chest approximately 1/4 filled with bagged ice. The containers, labels, and empty ice chests should will be provided by the laboratory.

Exhibit I shows an example of a completed sample label that includes project name, number, and location, sample point and identification, person and company conducting the sampling, sample date and time, and required analyses. The laboratory forms may differ but should include the above listed information.

The sampler should keep a record of all samples collected and show the location of the samples on a sketch of the facility. These records (and sketch) should be kept in afield notebook which should be kept in the project file.

After all necessary containers have been filled, a chain-of-custody form (provided by the laboratory) should be completed. This document should include all the samples collected, with the parameters and analytical methods specified (discussed below). The chain-of-custody form should be signed and dated (along with time relinquished), and sent with the samples to the laboratory. Exhibit 2 shows an example of a completed chain-of-custody document.

The laboratory should be notified approximately two days prior to the sampling to allow time for delivery of the sampling equipment, and should be contacted during the day of the sampling in order to send a courier to pick up the samples or to ensure they know the samples are being delivered by company personnel.

Because of laboratory schedules and sample holding time limitations, sampling should be planned for the early part of the week.

Ensure the lab analyzes the sample and sends the report with the parameters set forth in the permit or regs. For example, if the permit limits are in ppm then the report should state the results in ppm.

SECTION II

Types of Samples

Selection of the type of sample to take is usually directed by the specific permit or regulation. There are generally two different types of samples used in water or waste sampling.

Discrete or Grab Samples - These are samples collected at selected intervals, and each sample is retained separately for analysis. Usually, each sample is collected at a single point in the discharge or storage container.

Composite Samples - Simple composite samples are those made up of a series of smaller samples know as aliquots. These samples should be taken at regular time intervals or locations in the sampling stream or storage device. It is important they be similar in size and content.

Sampling Locations

The proper location for taking a sample is usually the actual discharge point and is very important in ensuring a representative and accurate analysis. It is also necessary to have awareness of the general character of water flows and knowledge of the variability of the pollutant concentration. Some of the considerations necessary in selecting a proper location are:

- ☐ Make sure to sample the proper point. For a combined process/stormwater outfall, make sure to sample below the confluence point.
- ☐ Be sure the sampling site provides the information desired. This includes familiarity with the water discharge system including inflow and outflow.
- ☐ Make sure there is no cross contamination of the sampling stream from othersources, such as fresh water in a stream or other pollutant discharge points.
- ☐ Locate the sample point in a straight length of pipe or discharge conveyance(ditch etc.).
- ☐ Make sure the sampling point is easily accessible and safe. Areas with turbulent water flows should be avoided.
- ☐ Finally. make sure the sample point is in compliance with any permit, regulation or guidance document that lists specific requirements.

SECTION III

Water Sampling

Appropriate Sample

Sample should be collected during a dry period when no rainfall is expected for at least 24 hours

Do not sample within 24 hours prior to a weekend or holiday

General Sampling Guidelines

Use clean latex gloves prior to collection of each sample

Use clean sampling containers between grab sample and each composite sample at each location

Collect samples from the center of the discharge flow channel.

Record all pertinent sampling data on the chain-of-custody.

Use preprinted labels provided in the sampling kit to label each sample container.

Seal, label, bag, and ice down each sample immediately after collection

Make certain the laboratory preserves the samples within 24 hours of collection. Some laboratories ship sample containers already containing the required preservative. Call the lab to discuss any special handling requirements or precautions for preserved samples.

Sample Collection

Collect a grab sample for laboratory analysis of oil and grease and field analysis of temperature and pH.

An additional grab sample will be required for analysis of fecal coliform. After filling the appropriate sample containers for laboratory analysis of fecal coliform and oil and grease, immediately measure the temperature and pH of a portion of the sample, and record all pertinent data in the field notebook.

Collect a composite sample. This process involves collecting a minimum of 8 separate samples at periodic intervals during the operating hours of the facility over a 24 hour period, filling a complete set of sample containers for each sample (samples will be composited by the laboratory), and recording all pertinent sampling information upon completion of sampling.

Quality Assurance/Quality Control

Collect a single field blank from each sampling location at some point during a composite sampling event. This process involves pouring deionized water into a clean sampling device and then pouring this water into the two 40 ml glass vials, label and bag the field blank sample, and place the sample in an ice chest to accompany the samples to the laboratory. When collecting field blanks, the vials must be completely filled with fluids, allowing no headspace or air bubbles.

Trip blanks are provided by the laboratory with the sample containers. After all samples have been collected, label and bag the trip blank and place one trip blank into each ice chest to accompany the samples to the laboratory.

Sample Analysis

Each grab sample will be analyzed by the laboratory for oil and grease and a portion of the sample will be analyzed for temperature and pH in the field.

Each composite sample will be analyzed by the laboratory for the parameters required by the permit or regulation such as: BTEX, ammonia, total suspended solids, biological oxygen demand (5 day), chemical oxygen demand, and total organic carbon.

Table B-1 of the Sampling and Analysis Plan summarizes the analytical parameters and method numbers to be included on the chain-of-custody form.

Chain-of-Custody Form

For each sampling event, complete the chain-of-custody form (in ink) to include project name and numbers, transportation information and name of the laboratory. For each sample, the chain-of-custody will include: identity of sample, date and time collected, name and significant collector, number of containers, sample matrix, and analytical requirements.

Sample transfers will be evidenced on the chain-of-custody form by signature of the receiver and relinquisher until final delivery to the laboratory. Place the chain of-custody in a plastic (zip lock) bag inside the ice chest to accompany the samples to the laboratory. An example copy of a completed chain-of-custody form is included as Exhibit B-3.

Place the chain-of-custody in a plastic (zip lock) bag inside the ice chest to accompany the samples to the laboratory. An example copy of a completed chain-of-custody form is included as Exhibit A-3.

Surface Waste Management Facilities

A commercial surface waste management facility is a facility that receives compensation for collection, disposal, evaporation, remediation, reclamation, treatment, and/or storage of oil field related wastes. A centralized surface waste management facility is a facility that does not receive compensation for waste management, and is used exclusively by one generator subject to New Mexico's "Oil and Gas Conservation Tax Act" Section 7-30-1 NMSA-1978 as amended; or is used by more than one generator subject to New Mexico's "Oil and Gas Conservation Tax Act" Section 7-30-1 NMSA-1978 as amended under an operation agreement and which receives waste that are generated from two or more production units or areas or from a set of jointly owned or operated leases.

Attachment I is a current list of the commercial surface waste management facilities in the state ofNew Mexico. To construct and operate a commercial waste management facility an application, form C-137 (Attachment II), must be filed with the OCD Santa Fe Office as specified under OCD Rule 711.

Financial assurance is required prior to construction of all surface waste management facilities. Centralized surface waste management facilities shall submit acceptable financial assurance in the amount of $25,000 per facility. Commercial surface waste management facilities shall submit acceptable financial assurance in the amount of the closure cost estimate to be based upon the useof equipment normally available to a third party contractor sufficient to close the facility to protectpublic health and the environment according to the four year or percentage filled, whichever comes first, schedule. The financial assurance shall be in a form approved by the Director (Attachment III). The Division will issue public notice for all surface waste management facilities and allow 30 daysfor comments.

Tab 4a contains the Guidelines for Permit Application, Engineering Design, and Construction of Surface Waste Management Facilities and the accompanying application.

Oil and gas wastes which are exempt from RCRA Subtitle C do not need OCD approval to be disposed of at an OCD authorized surface waste management facility. Oil and gas wastes which are not exempt from RCRA Subtitle C, but which do not exhibit hazardous waste characteristics must receive OCD approval prior to disposal at any surface waste management facility. Either the disposal facility or the waste generator may request OCD approval with a form C-138 (AttachmentIV) to dispose of the wastes at the facility. A blanket approval to dispose of non-exempt, non-hazardous OCD regulated oil and gas waste may be obtained if incorporated into an OCD discharge plan.

Non-oilfield wastes which are not regulated by the OCD may be accepted in an emergency if ordered by the Department of Public Safety. Prior to acceptance, a OCD form C-138 accompanied by the Department of Public Safety order will be submitted to the OCD Santa Fe office and the appropriate District office.

OCD regulated commercial surface waste management facilities may accept wastes from out-of-state on a case-by-case basis. Approval must be requested by the disposal facility, be received prior to disposal and be accompanied by acceptable documentation to determine that the waste is non-hazardous.

Under no circumstance will an OCD regulated surface waste management facility accepthazardous wastes.

ATTACHMENT I
COMMERCIAL SURFACE WASTE MANAGEMENT FACILITIES

SOUTHEAST

COMPANY	ORDER/PERMIT NO	LOCATION	WASTE	DATE
AA Oilfield Services Inc	R-7333	S3 T19S R37E	PW TP	1983
C & C	R-9769-A / 711-01-0012	S03 T20S R37E	LF	1993
Chaparral	----	S17 T23S R37E	PW TP	1995
Controlled Recovery Inc.	R-9166 /711-01-0006	S27 T20S R32E	PW TP S M	1990
EPI	711-01-0013	S15 T22s R37E	LF	1993
ESSR	----	S01 T26S R31E	LF	1993
Gandy Corp.	R-4594	S11 T10S R35E	PW TP	1973
Gandy Marley Inc	711-01-0019	S04 T11S R31E	LF	1995
GooYea	711-01-0015	S14 T11S R38E	LF	1995
Jenex Operating Co.	----	S14 T20S R38E	PW TP	1993
Kelly Maclaskey	----	S16 T20S R37E	PW TP	1992
Kenneth Tank Services	R-8167	S35 T09S R35E	TP	1986
Loco Hills	R-6811-A	S16 T17S R30E	PW TP	1982
Sundance	R-6940 / 711-01-0003	S29 T21S R38E	PW TP S M	1982
Watson	R-6095	S34 T08S R35E	TP	1979

NORTHWEST

COMPANY	ORDER/PERMIT NO	LOCATION	WASTE	DATE
Basin Disposal	711-01-0005	S03 T29N R11W	PW TP	1985
Envirotech No. 2	711-01-0011	S06 T26N R10W	LF	1992
Sunco	R-9485-A	S02 T29N R12W	PW TP	1991
TNT Construction	711-01-0008	S08 T25N R03W	PW TP LF	1990
Tierra Environmental Inc	R-9772 / 711-01-0010	S02 T29N R12W	LF	1992

PW - Produced Water
TP - Waste Oil Treating Plant
S -- Solids
LF - Landfarm (Solids)
M - Drilling Muds

IN NEW MEXICO

AA OILFIELD SERVICES, INC.
P.O. Box 5208
Hobbs, NM 88241

BASIN DISPOSAL, INC.
P.O Box 100
Aztec, New Mexico 87410
(505) 325- 6336

C&C LANDFARM
Box 55
Monument, N. Mex.
(505) 397-2045

CHAPARRAL TREATING PLANT
P.O. Box 1769
Eunice, NM 88231
(505) 394-2545

CONTROLED RECOVERY, INC.
P.O Box 369
Hobbs, N.M. 88241
(505) 393-1079

ENVIRONMENTAL PLUS, INC.
601 W Illinois
Hobbs N.M. 88240

ENVIROTECH, INC.
5796 U.S. Highway 64-3014
Farmington, NM 87401

ESSR INC.
208 W. Stevens
P.O. Box 1387
Carlsbad, N.M. 88220
(505) 885-2353

GANDY CORP.
1109 East Broadway
P.O. Box 827
Tatum, NM 88267
(505) 398-4960

GANDY MARLEY, INC.
Box 1658
Roswell, N.M. 88202
(505) 625-9026

GOO YEA
4007 Lovington Highway
Hobbs, N.M.
(505) 392-4498

JENEX OPERATING
P.O. Box 308
Hobbs, NM 88241
(505) 397-3360

KELLY MACLASKEY OILFIELD SERVICES, INC.
P.O. Box 580
Hobbs, NM 88241
(505) 393-1016

KENNETH TANK SERVICES, INC.
P.O. Box 100
Crossroads, NM 88114

LOCO HILLS WATER DISPOSAL
8426 N. Dal Paso
Hobbs, N.M. 88240
(505) 667-2118

SUNDANCE SERVICES, INC.
P.O. Box 1737
Eunice, N.M. 88231
(505) 394-2511

SUNCO WATER DISPOSAL
P.O. Box 443
Farmington, N.M. 87499
(505) 327-0416

TNT CONSTRUCTION
HCR 74 Box 115
Lindrith N.M. 87029
(505) 774-6663

TIERRA ENVRONMENTAL COMPANY, INC.
420 CR 3100
Aztec, N.M. 87410
(505) 334-8894

WATSON TREATING PLANT, INC
P.O. Box 75
Tatum, NM 88267
(505)398-3490

SECTION X

CLOSURE PLAN

CLOSURE PLAN-EUNICE PLANT
DYNEGY MIDSTREAM SERVICES, L. P.
AS PART OF THE
DISCHARGE PLAN

Pursuant to WQCC 3:107.A.11, DYNEGY will take all reasonable and necessary measures to prevent the exceedance of WQCC Section 3103 quality standards should DYNEGY choose to permanently close the facility. Closure measures will include removal or closure in place of all underground piping and equipment. All tanks will be emptied. No potentially toxic materials or effluents will remain on the site. All potential sources of toxic pollutants will be inspected. Should contaminated soil be discovered, any necessary reporting under NMOCD Rule 116 and WQCC Section 1203 will be made and clean-up activities will commence. Post-closure maintenance and monitoring plans would not be necessary unless contamination is encountered.

SECTION XII

INJECTION WELL PERMIT

EUNICE PLANT
SWD #1

Non-hazardous liquids may be injected onto Class II Wells.

Class II wells are wells which inject fluids:

1. Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as hazardous waste at the time of injection.

2. For enhanced recovery of oil and gas; and

3. For storage of hydrocarbons which are liquid at standard temperature and pressure.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

ROUTE		INIT.
	DIST. MANAGER	
	P. SUPT.	
	M. SUPT.	
✓	A. SUPERVISOR	GL
	FILE	
	SR. ACCT.	
	SR. CLERK	

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I.

Operator: Chevron U. S. A. Inc.

Address: P. O. 670, Hobbs, New Mexico 88240

Reason(s) for filing (Check proper box)

- [ ] New Well
- [ ] Recompletion
- [x] Change in Ownership
- Change in Transporter of:
  - [ ] Oil
  - [ ] Dry Gas
  - [ ] Casinghead Gas
  - [ ] Condensate

Other (Please explain): Effective 7-01-85 Change of operator

If change of ownership give name and address of previous owner: Gulf Oil Corp. P. O. Box 670, Hobbs, NM 88240

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
Eunice Plant #161	SWD 1	San Andres	State, Federal or (Fee)	

Location

Unit Letter H : 2255' Feet From The North Line and 908' Feet From The East

Line of Section 3 Township 22-S Range 37E NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☐	Address (Give address to which approved copy of this form is to be sent)
SALT WATER DISPOSAL WELL	Warren Petroleum, Box 1909, Eunice, NM 88231
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☐	Address (Give address to which approved copy of this form is to be sent)
CHEVRON USA, Warren Petroleum Company	Warren Petroleum, Box 1909, Eunice, NM 88231

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: *Complete Parts IV and V on reverse side if necessary.*

V. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

Ray O Zimmerman
(Signature)
PLANT MANAGER - EUNICE
(Title)
9/15/86
(Date)

OIL CONSERVATION DIVISION
APPROVED SEP 17 1986, 19
BY ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR
TITLE

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

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Fill B 2 c(B)3

REPORT NO.
1289041

PAGE NO. 1

TEST DATE:
18-MAR-1999

S T A R

Schlumberger Testing Data Report

Pressure Data Report

Schlumberger

COMPANY: DYNAGY MIDSTREAM SERVICES	WELL: SWD #1 UNIT H2
TEST IDENTIFICATION	**WELL LOCATION**
Test Type ..... BHP	Field ..... WARREN
Test No. 1	County ..... LEA
Formation	State ..... NM
Test Interval (ft) ..... 4100 to 4237	Sec/Twn/Rng S3T22sR37e
COMPLETION CONFIGURATION	**TEST STRING CONFIGURATION**
Total Depth (MD/TVD) (ft) 4237	Tubing Length (ft)/I.D. (in)..
Casing/Liner I.D. (in) 7	Tubing Length (ft)/I.D. (in)..
Hole Size (in) 8.75	Packer Depth (ft) ..... 4083.
Perforated Interval (ft) ..... 4100 to 4237	Gauge Depth (ft)/Type 4237/SLSR 833
Shot Density (shots/ft)	Downhole Valve (Y/N)/Type ....
Perforation Diameter (in)	**TEST CONDITIONS**
Net Pay (ft) 154	Tbg/Wellhead Pressure (psi) ..
	Separator Pressure (psi) .....
INTERPRETATION RESULTS	**ROCK/FLUID/WELLBORE PROPERTIES**
Model of Behavior	Oil Density (deg. API) .....
Fluid Type Used for Analysis..	Basic Solids (%) .....
Reservoir Pressure (psi)	Gas Gravity .....
Transmissibility (md.ft/cp) ..	GOR (scf/STB) .....
Effective Permeability (md) ..	Water Cut (%) .....
Skin Factor	Viscosity (cp) .....
Storativity Ratio, Omega	Total Compressibility (1/psi).
Interporos.Flow Coef.,Lambda..	Porosity (%) .....
Distance to an Anomaly (ft) ..	Reservoir Temperature (F) 85
Radius of Investigation (ft)..	Form.Vol.Factor (bbl/STB) ....

PRODUCTION RATE DURING TEST: Data Report

COMMENTS:

TAGGED FILL AT 4237'ZEROED AT GROUND LEVEL SLICKLINE MEASURMENT.OBTAINED STATIC GRADIENTS.DETERMINED FLUID LEVEL AT 1000'.INJECTED AT 700 BARREL PER DAY RATE FOR 6 HOURS THEN SHUT IN WITH GUAGES AT 4237'.PULLED GUAGES MAR.19.1999 @ 07:11 AM.MOVE OFF WELL FOR COIL TUBING CLEAN OUT.

WELL TEST INTERPRETATION REPORT #:1289041 CLIENT : DYNAGY MIDSTREAM SERVICES		PAGE: 2, 29-MAR-99
REGION :CSD DISTRICT:HOBBS BASE :MIDLAND ENGINEER:C.TAYLOR	SEQUENCE OF EVENTS	FIELD:WARREN ZONE : WELL :SWD [redacted]1 UNIT H2 LOCATION:S3T22sR37e

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
18-MAR	09:38	Gradient Stop 0 Ft.	-916	17	
	09:49	Gradient Stop 500 Ft.	-905	19	
	09:58	Gradient Stop 1000 Ft.	-896	78	
	10:04	Gradient Stop 1500 Ft.	-890	298	
	10:11	Gradient Stop 2000 Ft.	-883	514	
	10:17	Gradient Stop 2500 Ft.	-877	732	
	10:24	Gradient Stop 3000 Ft.	-870	948	
	10:30	Gradient Stop 3500 Ft.	-864	1165	
	10:37	Gradient Stop 4000 Ft.	-857	1383	
	10:45	Gradient Stop 4237 Ft.	-849	1483	
	12:26	START INJECTION. 700 BBL/D	-748	1487	
19-MAR	00:54	END FLOW & START SHUT-IN	0	1813	
	06:57	END SHUT-IN NOTE: Tagged fill at 4237'	363	1492	

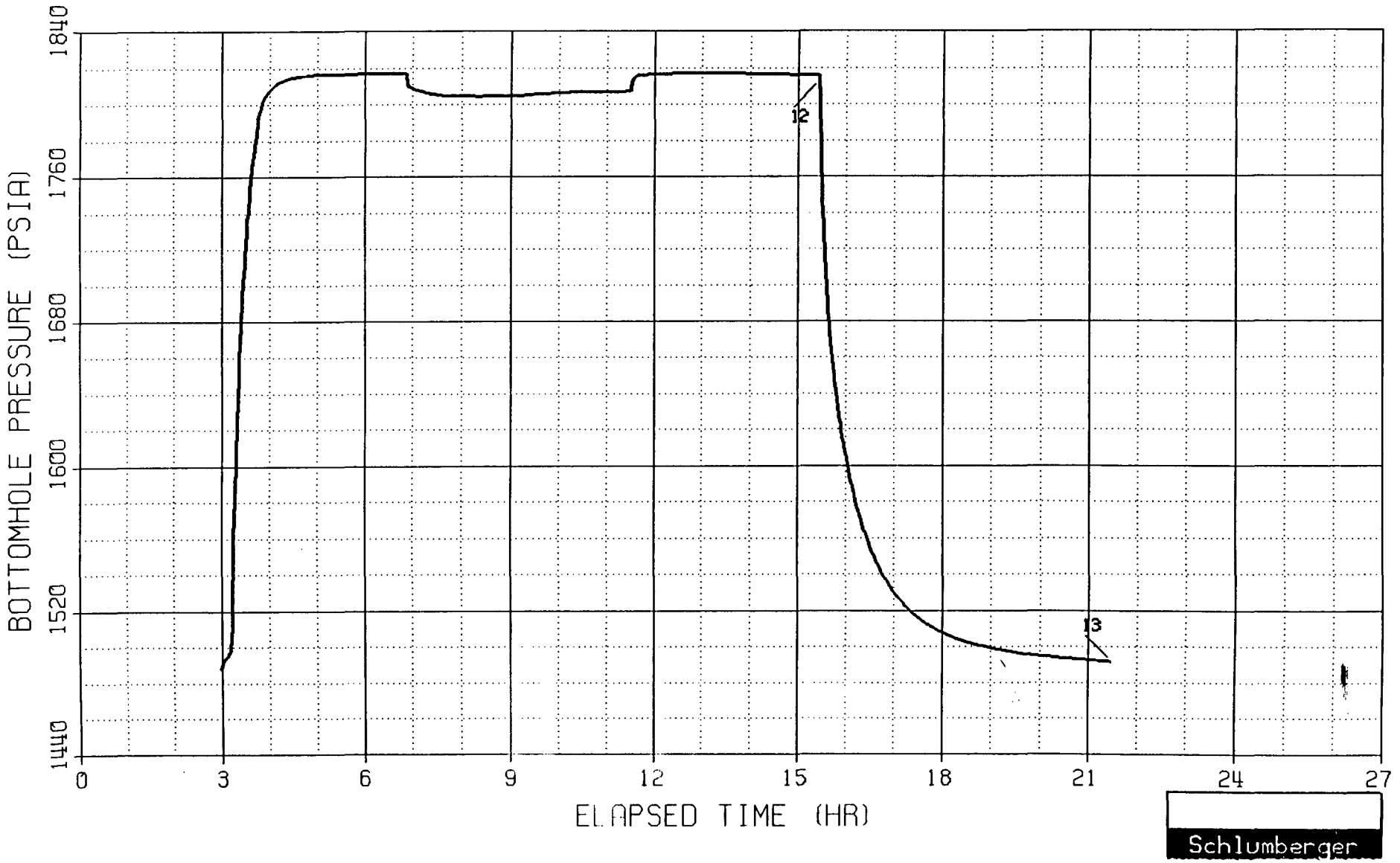
SCHLUMBERGER

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833
DEPTH : 4237 FT
CAPACITY : 10000 PSI
PORT OPENING : OUTSIDE

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD #1 UNIT H2, TEST #1

Electronic Pressure Data

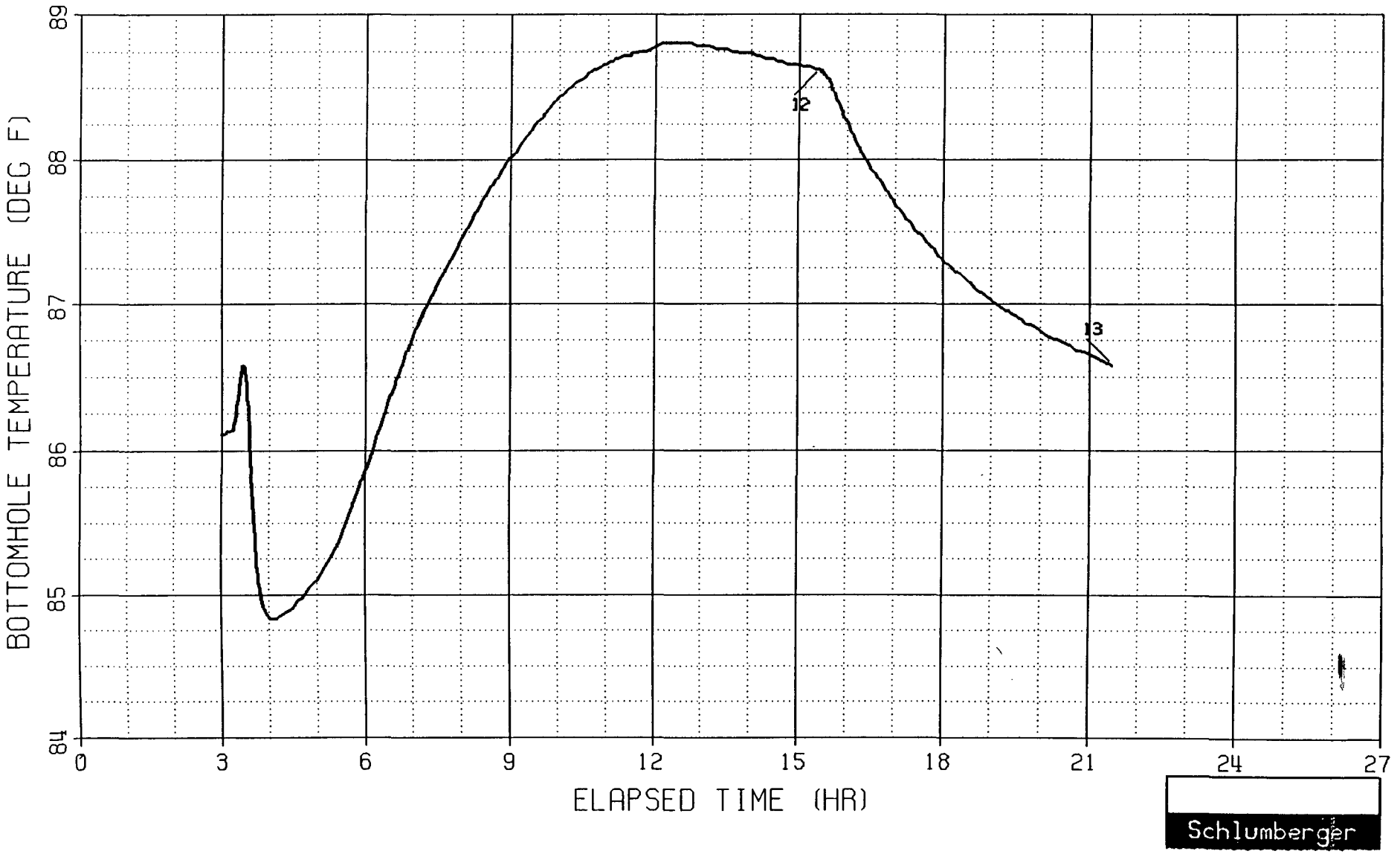


BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833
DEPTH : 4237 FT

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD #1 UNIT H2, TEST #1

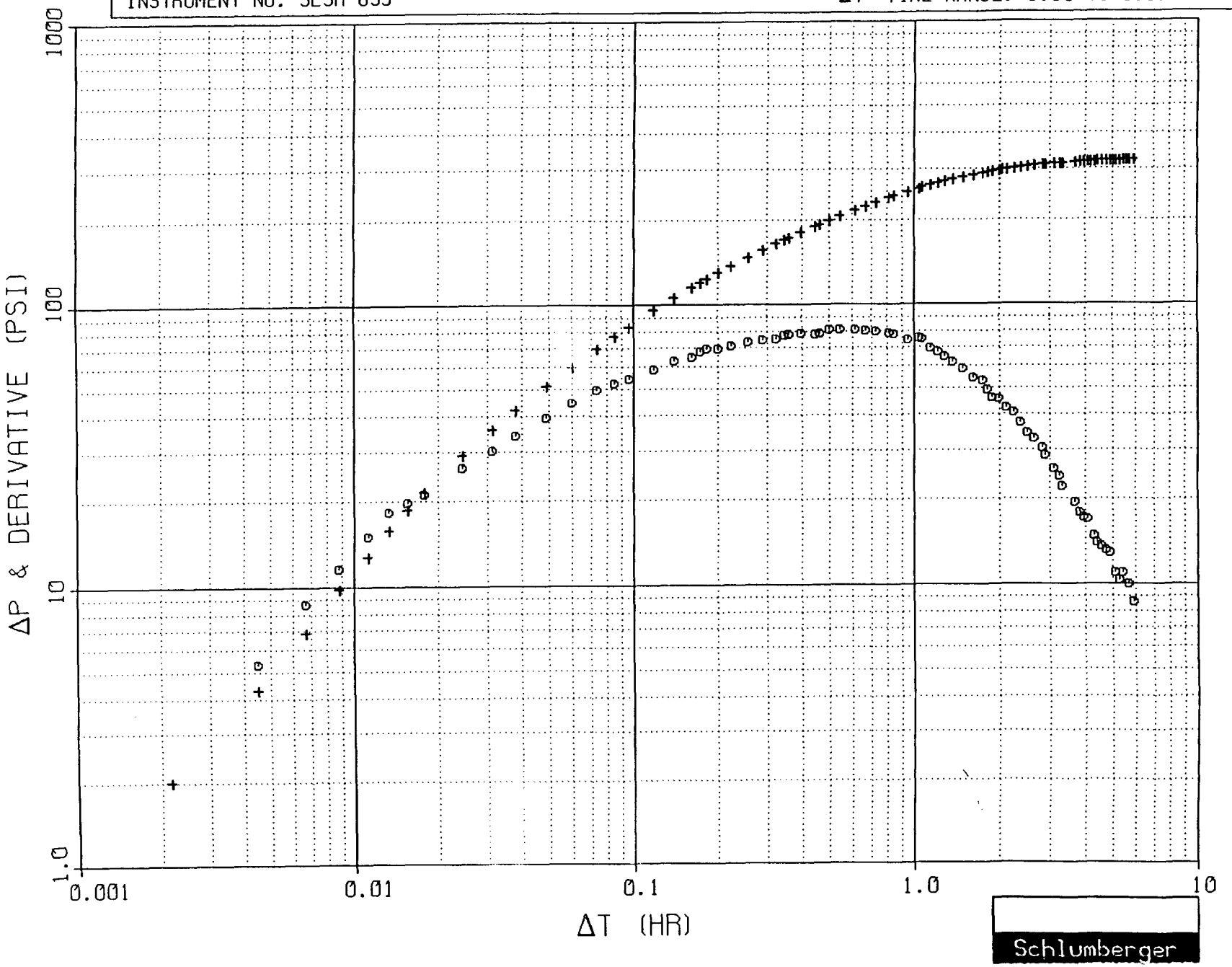
Electronic Temperature Data

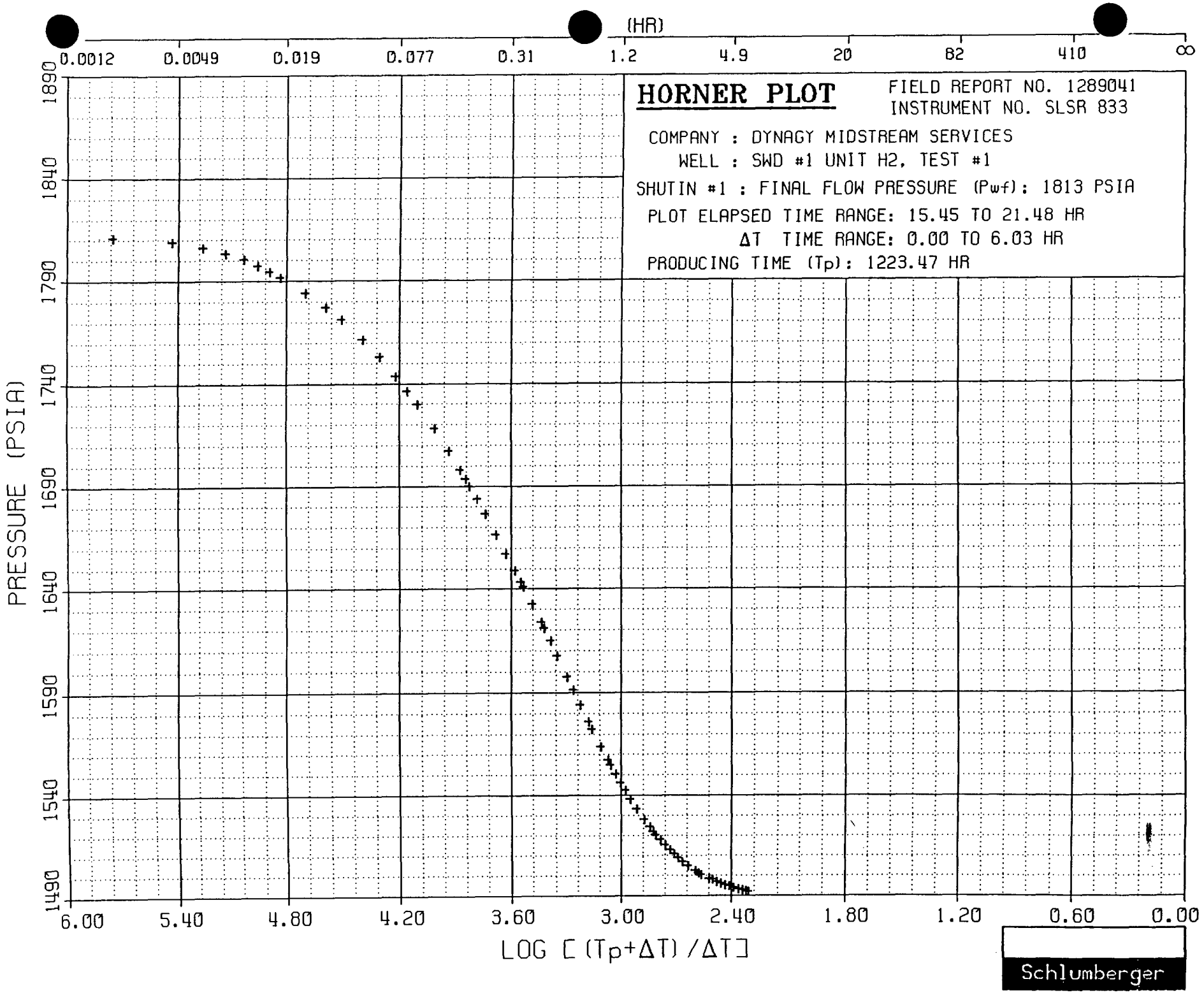


LOG LOG PLOT

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD #1 UNIT H2, TEST #1
FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833

SHUTIN #1 : PRODUCING TIME (Tp): 1223.36 HR
FINAL FLOW PRESSURE (Pwf): 1813 PSIA
PLOT ELAPSED TIME RANGE: 15.45 TO 21.48 HR
ΔT TIME RANGE: 0.00 TO 6.03 HR




(HR)
0.0012
0.0049
0.019
0.077
0.31
1.2
4.9
20
82
410
∞
HORNER PLOT
FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833
COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD #1 UNIT H2, TEST #1
SHUTIN #1 : FINAL FLOW PRESSURE (Pwf): 1813 PSIA
PLOT ELAPSED TIME RANGE: 15.45 TO 21.48 HR
ΔT TIME RANGE: 0.00 TO 6.03 HR
PRODUCING TIME (Tp): 1223.47 HR
PRESSURE (PSIA)
1890
1840
1790
1740
1690
1640
1590
1540
1490
6.00
5.40
4.80
4.20
3.60
3.00
2.40
1.80
1.20
0.60
0.00
LOG [(Tp+ΔT)/ΔT]
Schlumberger

****
** WELL TEST DATA PRINTOUT **
****

COMPANY: DYNAGY MIDSTREAM SERVICES
WELL: SWD #1 UNIT H2, TEST #1

FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833

RECORDER CAPACITY: 10000 PSI PORT OPENING: OUTSIDE DEPTH: 4237 FT

LABEL POINT INFORMATION
****

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, HR	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F	DEPTH FT
1	9:38:34	18-MAR	GRADIENT STOP	0.159	17.22	51.55	0.0
2	9:49:22	18-MAR	GRADIENT STOP	0.340	19.34	58.28	500.0
3	9:58:10	18-MAR	GRADIENT STOP	0.486	78.03	70.63	1000.0
4	10:04:58	18-MAR	GRADIENT STOP	0.600	297.83	77.83	1500.0
5	10:11:06	18-MAR	GRADIENT STOP	0.702	513.83	80.51	2000.0
6	10:17:54	18-MAR	GRADIENT STOP	0.815	731.56	82.15	2500.0
7	10:24:50	18-MAR	GRADIENT STOP	0.931	947.92	83.39	3000.0
8	10:30:26	18-MAR	GRADIENT STOP	1.024	1165.03	84.31	3500.0
9	10:37:06	18-MAR	GRADIENT STOP	1.135	1382.80	85.46	4000.0
10	10:45:06	18-MAR	GRADIENT STOP	1.268	1483.03	86.16	4237.0
11	12:26:57	18-MAR	START FLOW	2.966	1486.74	86.09	
12	0:55:45	19-MAR	END FLOW & START SHUT-IN	15.446	1813.12	88.63	
13	6:57:45	19-MAR	END SHUT-IN	21.479	1491.82	86.58	

MARY OF FLOW PERIODS
****

PERIOD	START ELAPSED TIME, HR	END ELAPSED TIME, HR	DURATION HR	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	2.966	15.446	12.480	1486.74	1813.12	1486.74

SUMMARY OF SHUTIN PERIODS
****

PERIOD	START ELAPSED TIME, HR	END ELAPSED TIME, HR	DURATION HR	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, HR
1	15.446	21.479	6.033	1813.12	1491.82	1813.12	1223.4

TEST PHASE: FLOW PERIOD # 1

TIME HH:MM:SS	DAY DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
12:26:57	18-MAR	2.966	0.000	86.09	1486.74
12:32:09	18-MAR	3.053	0.087	86.11	1492.97
12:37:45	18-MAR	3.146	0.180	86.13	1495.77
12:42:57	18-MAR	3.232	0.267	86.14	1538.11
12:48:01	18-MAR	3.317	0.351	86.31	1614.94
12:53:21	18-MAR	3.406	0.440	86.52	1679.50
12:58:33	18-MAR	3.493	0.527	86.52	1719.32
13:04:01	18-MAR	3.584	0.618	86.13	1750.08
13:09:21	18-MAR	3.673	0.707	85.60	1774.09
13:14:33	18-MAR	3.759	0.793	85.19	1792.66
13:19:37	18-MAR	3.844	0.878	84.99	1800.66
13:25:29	18-MAR	3.941	0.975	84.87	1805.84
13:30:33	18-MAR	4.026	1.060	84.83	1808.53
13:37:37	18-MAR	4.144	1.178	84.83	1811.51
13:43:13	18-MAR	4.237	1.271	84.85	1812.97
13:49:21	18-MAR	4.339	1.373	84.88	1814.03
13:57:13	18-MAR	4.470	1.505	84.90	1814.83
14:04:33	18-MAR	4.592	1.627	84.96	1815.55
14:09:53	18-MAR	4.681	1.716	84.97	1815.83
14:19:53	18-MAR	4.848	1.882	85.05	1816.13
14:28:41	18-MAR	4.995	2.029	85.10	1816.39
14:38:41	18-MAR	5.161	2.195	85.19	1816.47
[illegible]46:49	18-MAR	5.297	2.331	85.26	1816.49
[illegible]53:53	18-MAR	5.415	2.449	85.33	1816.62
15:05:13	18-MAR	5.604	2.638	85.50	1816.72
15:13:53	18-MAR	5.748	2.782	85.62	1816.86
15:22:17	18-MAR	5.888	2.922	85.75	1816.97
15:30:01	18-MAR	6.017	3.051	85.87	1817.03
15:37:13	18-MAR	6.137	3.171	85.98	1817.07
15:44:17	18-MAR	6.255	3.289	86.11	1817.10
15:53:53	18-MAR	6.415	3.449	86.25	1817.17
16:01:37	18-MAR	6.544	3.578	86.38	1817.14
16:08:41	18-MAR	6.661	3.695	86.49	1817.17
16:15:21	18-MAR	6.773	3.807	86.58	1817.18
16:21:53	18-MAR	6.881	3.916	86.68	1817.23
16:27:53	18-MAR	6.981	4.016	86.76	1809.41
16:33:29	18-MAR	7.075	4.109	86.83	1808.25
16:43:29	18-MAR	7.241	4.276	86.97	1806.90
16:52:17	18-MAR	7.388	4.422	87.06	1805.96
17:00:41	18-MAR	7.528	4.562	87.15	1805.51
17:08:33	18-MAR	7.659	4.693	87.22	1805.09
17:15:45	18-MAR	7.779	4.813	87.31	1804.93
17:21:53	18-MAR	7.881	4.916	87.37	1804.83
17:29:37	18-MAR	8.010	5.044	87.46	1804.70
17:36:33	18-MAR	8.126	5.160	87.53	1804.65
17:43:37	18-MAR	8.244	5.278	87.60	1804.63
17:51:05	18-MAR	8.368	5.402	87.67	1804.59
[illegible]58:09	18-MAR	8.486	5.520	87.75	1804.65
[illegible]06:01	18-MAR	8.617	5.651	87.82	1804.77
18:12:01	18-MAR	8.717	5.751	87.87	1804.76
18:19:29	18-MAR	8.841	5.875	87.94	1804.72

TEST PHASE: FLOW PERIOD # 1

TIME HH:MM:SS	DAY DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
18:29:05	18-MAR	9.001	6.036	88.02	1804.80
18:34:25	18-MAR	9.090	6.124	88.05	1804.88
18:40:33	18-MAR	9.193	6.227	88.11	1804.98
18:48:17	18-MAR	9.321	6.356	88.16	1805.30
18:55:53	18-MAR	9.448	6.482	88.21	1805.60
19:02:17	18-MAR	9.555	6.589	88.27	1805.83
19:09:53	18-MAR	9.681	6.716	88.30	1806.04
19:16:49	18-MAR	9.797	6.831	88.36	1806.18
19:24:09	18-MAR	9.919	6.953	88.41	1806.32
19:30:57	18-MAR	10.033	7.067	88.45	1806.49
19:41:45	18-MAR	10.212	7.247	88.50	1806.72
19:50:41	18-MAR	10.361	7.395	88.54	1806.83
19:59:37	18-MAR	10.510	7.544	88.57	1806.89
20:06:17	18-MAR	10.621	7.656	88.61	1806.92
20:11:53	18-MAR	10.715	7.749	88.63	1807.04
20:20:57	18-MAR	10.866	7.900	88.65	1807.06
20:26:49	18-MAR	10.964	7.998	88.66	1807.10
20:32:01	18-MAR	11.050	8.085	88.68	1807.17
20:38:57	18-MAR	11.166	8.200	88.70	1807.26
20:50:01	18-MAR	11.350	8.385	88.72	1807.28
20:58:17	18-MAR	11.488	8.522	88.72	1807.33
21:04:17	18-MAR	11.588	8.622	88.74	1814.96
[illegible]13:13	18-MAR	11.737	8.771	88.75	1816.22
[illegible]22:57	18-MAR	11.899	8.933	88.77	1816.48
21:30:49	18-MAR	12.030	9.064	88.79	1816.57
21:37:13	18-MAR	12.137	9.171	88.81	1816.66
21:45:45	18-MAR	12.279	9.313	88.81	1816.85
21:56:17	18-MAR	12.455	9.489	88.81	1817.05
22:02:09	18-MAR	12.553	9.587	88.81	1817.14
22:09:13	18-MAR	12.670	9.704	88.81	1817.20
22:20:17	18-MAR	12.855	9.889	88.79	1817.30
22:33:37	18-MAR	13.077	10.111	88.79	1817.30
22:46:09	18-MAR	13.286	10.320	88.77	1817.14
22:57:29	18-MAR	13.475	10.509	88.77	1817.11
23:06:17	18-MAR	13.621	10.656	88.75	1817.10
23:14:17	18-MAR	13.755	10.789	88.74	1816.99
23:19:53	18-MAR	13.848	10.882	88.74	1816.91
23:25:37	18-MAR	13.944	10.978	88.74	1816.77
23:36:25	18-MAR	14.124	11.158	88.72	1816.60
23:47:29	18-MAR	14.308	11.342	88.70	1816.53
23:58:09	18-MAR	14.486	11.520	88.70	1816.44
0:06:01	19-MAR	14.617	11.651	88.68	1816.40
0:14:49	19-MAR	14.764	11.798	88.66	1816.38
0:21:45	19-MAR	14.879	11.913	88.66	1816.36
0:33:29	19-MAR	15.075	12.109	88.65	1816.33
0:39:29	19-MAR	15.175	12.209	88.65	1816.32
0:48:41	19-MAR	15.328	12.362	88.63	1816.27
[illegible]54:49	19-MAR	15.430	12.465	88.63	1816.20
[illegible]55:45	19-MAR	15.446	12.480	88.63	1813.12

TEST PHASE: SHUTIN PERIOD # 1 FINAL FLOW PRESSURE = 1813.12 PSIA
PRODUCING TIME = 1223.4 HR

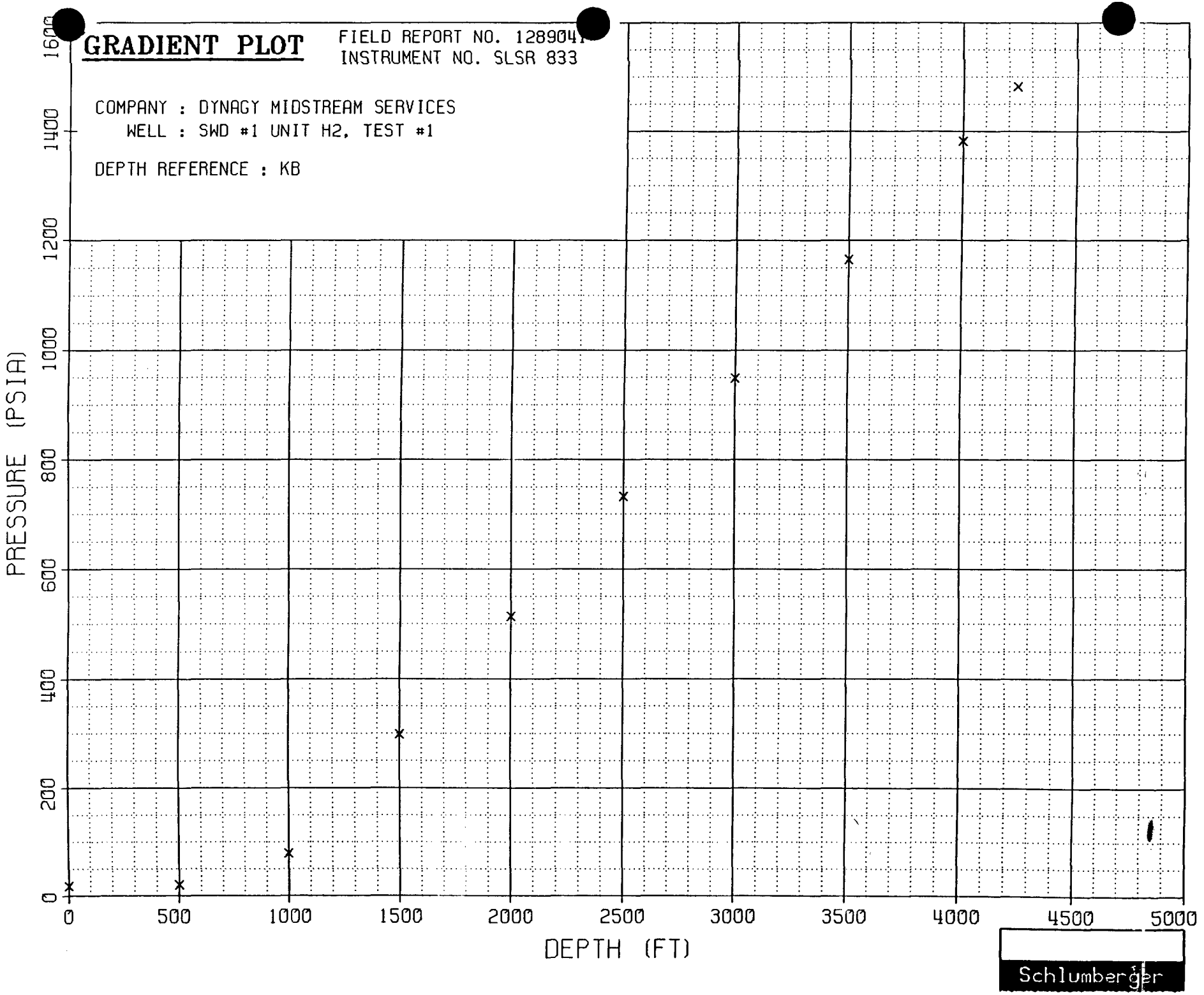
TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
0:55:45	19-MAR	15.446	0.000	88.63	1813.12	0.00	
0:56:25	19-MAR	15.457	0.011	88.61	1800.44	12.68	5.0396
0:57:13	19-MAR	15.470	0.024	88.61	1784.10	29.02	4.6984
0:58:01	19-MAR	15.484	0.038	88.61	1771.14	41.98	4.5097
0:58:41	19-MAR	15.495	0.049	88.61	1761.72	51.40	4.3989
0:59:21	19-MAR	15.506	0.060	88.61	1753.19	59.93	4.3094
1:00:09	19-MAR	15.519	0.073	88.59	1743.59	69.53	4.2223
1:00:49	19-MAR	15.530	0.085	88.59	1736.34	76.78	4.1607
1:01:29	19-MAR	15.541	0.095	88.59	1729.79	83.33	4.1076
1:02:49	19-MAR	15.564	0.118	88.57	1718.02	95.10	4.0163
1:04:09	19-MAR	15.586	0.140	88.57	1707.46	105.66	3.9415
1:05:29	19-MAR	15.608	0.162	88.56	1697.99	115.13	3.8777
1:06:41	19-MAR	15.628	0.182	88.56	1690.16	122.96	3.8272
1:09:05	19-MAR	15.668	0.222	88.52	1676.35	136.77	3.7410
1:11:05	19-MAR	15.701	0.256	88.48	1666.17	146.95	3.6803
1:13:05	19-MAR	15.735	0.289	88.47	1657.08	156.04	3.6270
1:15:05	19-MAR	15.768	0.322	88.43	1648.84	164.28	3.5796
1:16:33	19-MAR	15.792	0.347	88.41	1643.36	169.76	3.5478
1:19:37	19-MAR	15.844	0.398	88.38	1632.66	180.46	3.4880
1:22:25	19-MAR	15.890	0.444	88.34	1623.85	189.27	3.4398
1:25:37	19-MAR	15.944	0.498	88.29	1614.78	198.34	3.3906
1:28:25	19-MAR	15.990	0.544	88.27	1607.49	205.63	3.3518
1:35:45	19-MAR	16.112	0.667	88.18	1591.07	222.05	3.2639
1:44:09	19-MAR	16.253	0.807	88.09	1575.87	237.25	3.1811
1:52:25	19-MAR	16.390	0.944	88.00	1563.68	249.44	3.1127
1:59:29	19-MAR	16.508	1.062	87.93	1555.05	258.07	3.0617
2:08:09	19-MAR	16.653	1.207	87.87	1546.15	266.97	3.0064
2:17:53	19-MAR	16.815	1.369	87.78	1537.98	275.14	2.9517
2:24:49	19-MAR	16.930	1.485	87.73	1533.07	280.05	2.9165
2:32:49	19-MAR	17.064	1.618	87.67	1528.17	284.95	2.8792
2:40:01	19-MAR	17.184	1.738	87.62	1524.42	288.70	2.8482
2:48:41	19-MAR	17.328	1.882	87.57	1520.45	292.67	2.8136
2:55:05	19-MAR	17.435	1.989	87.51	1517.83	295.29	2.7897
3:02:57	19-MAR	17.566	2.120	87.48	1515.08	298.04	2.7620
3:10:49	19-MAR	17.697	2.251	87.42	1512.61	300.51	2.7359
3:17:37	19-MAR	17.810	2.364	87.39	1510.64	302.48	2.7147
3:25:45	19-MAR	17.946	2.500	87.33	1508.73	304.39	2.6905
3:33:53	19-MAR	18.081	2.636	87.28	1506.92	306.20	2.6676
3:44:57	19-MAR	18.266	2.820	87.22	1504.84	308.28	2.6383
4:02:01	19-MAR	18.550	3.105	87.15	1502.30	310.82	2.5967
5:02:41	19-MAR	19.561	4.116	86.90	1496.47	316.65	2.4746
6:02:49	19-MAR	20.564	5.118	86.72	1493.51	319.61	2.3803
6:57:45	19-MAR	21.479	6.033	86.58	1491.82	321.30	2.3091

GRADIENT PLOT

FIELD REPORT NO. 128904
INSTRUMENT NO. SLSR 833

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD #1 UNIT H2, TEST #1

DEPTH REFERENCE : KB



****
** WELL TEST DATA PRINTOUT **
****

IPANY: DYNAGY MIDSTREAM SERVICES
WELL: SWD #1 UNIT H2, TEST #1

FIELD REPORT NO. 1289041
INSTRUMENT NO. SLSR 833

RECORDER CAPACITY: 10000 PSI
DEPTH REFERENCE: KB

GRADIENT INFORMATION
****

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DEPTH FROM REF. FT	PRESSURE AT DEPTH PSIA	PRES. GRADIENT PSI/FT	TEMPERATURE AT DEPTH DEG F	TEMP. GRADIENT DEG F/FT
9:38:34	18-MAR	0.159	0.0	17.22		51.55	
9:49:22	18-MAR	0.340	500.0	19.34	0.00424	58.28	0.0135
9:58:10	18-MAR	0.486	1000.0	78.03	0.117	70.63	0.0247
10:04:58	18-MAR	0.600	1500.0	297.83	0.440	77.83	0.0144
10:11:06	18-MAR	0.702	2000.0	513.83	0.432	80.51	0.00536
10:17:54	18-MAR	0.815	2500.0	731.56	0.435	82.15	0.00328
10:24:50	18-MAR	0.931	3000.0	947.92	0.433	83.39	0.00248
10:30:26	18-MAR	1.024	3500.0	1165.03	0.434	84.31	0.00184
10:37:06	18-MAR	1.135	4000.0	1382.80	0.436	85.46	0.00230
10:45:06	18-MAR	1.268	4237.0	1483.03	0.423	86.16	0.00295

WELL TEST INTERPRETATION REPORT #:1289041 CLIENT : DYNAGY MIDSTREAM SERVICES		PAGE: 12, 29-MAR-99
REGION :CSD DISTRICT:HOBBS BASE :MIDLAND ENGINEER:C.TAYLOR	DISTRIBUTION OF REPORTS	FIELD:WARREN ZONE : WELL :SWD #1 UNIT H2 LOCATION:S3T22sR37e

SCHLUMBERGER has sent copies of this report to the following:

DYNAGY MIDSTREAM SERVICES
PO BOX 1929
EUNICE, NM 88231
Attn: MR. JEFF HARBOUR
(1 copy)

DYNAGY MIDSTREAM SERVICES
1000 LOUISIANA
SUITE 5800
HOUSTON, TX 77002
Attn: MR. BOB BERRY
(2 copies)

SCHLUMBERGER

REPORT NO.
6028100-MV

PAGE NO. 1

TEST DATE:
22-MAR-1999

S T A R

Schlumberger Transient Analysis Report

Based on Model Verified Interpretation

Schlumberger

COMPANY: DYNAGY MIDSTREAM SERVICES	WELL: SWD #1 UNIT H2, TEST #2
TEST IDENTIFICATION	**WELL LOCATION**
Test Type ..... Falloff	Field ..... WARREN
Test No. 2	County ..... LEA
Formation ..... San Andres	State ..... NM
Test Interval (ft) ..... 4083 to 4250	Sec/Twn/Rng S3T22sR37e
COMPLETION CONFIGURATION	**TEST STRING CONFIGURATION**
Total Depth (MD/TVD) (ft)	Tubing Length (ft)/I.D. (in).. 4082 / 1.995
Casing/Liner I.D. (in) 7	Tubing Length (ft)/I.D. (in)..
Hole Size (in) 8.75	Packer Depth (ft) 4083
Perforated Interval (ft) ..... 4083 to 4250	Gauge Depth (ft)/Type 4250/SLSR 878
Shot Density (shots/ft)	Downhole Valve (Y/N)/Type .... None
Perforation Diameter (in)	**TEST CONDITIONS**
Net Pay (ft) ..... 200 (est)	Tbg/Wellhead Pressure (psi) .. 19 to n/a
	Equivalent Inj. Time (hrs) ... 1223
INTERPRETATION RESULTS	**ROCK/FLUID/WELLBORE PROPERTIES**
Model of Behavior ..... Homogeneous	Oil Density (deg. API) ..... --
Fluid Type Used for Analysis.. Water	Water Saturation (%) ..... 100 (est)
Reservoir Pressure (psi) ..... 1469 @ 4250'	Gas Gravity ..... --
Transmissibility (md.ft/cp) .. 8761.82	GOR (scf/STB) ..... --
Effective Permeability (md) .. 32.629	Water Cut (%) 100
Total Skin Factor 5.48	Viscosity (cp) 0.7448
Radius of Investigation (ft).. 1798	Total Compressibility (1/psi). 6.7245 E-06
	Porosity (%) ..... 15 (est)
	Reservoir Temperature (F) 90
	Form.Vol.Factor (bbl/STB) 0.999

FINAL INJECTION RATE DURING TEST: 1432 BBLS/D

COMMENTS:

This is a Model Verified Interpretation of the 71 hour falloff test started on 22-MAR-1999. Inspection of the flow regime identification plot (page #4) indicates wellbore storage at early time, changing wellbore storage during transition and a fairly well defined infinite acting region at middle time. This is the second test of this well. The first test (field report number: 1289041) was cut short because of fill in the wellbore. The values reported above use an estimated net thickness of 200 ft, which gives a permeability-thickness value of 6528.80 md-ft. It is possible that there is an additional 600 feet of formation below the tested interval, but the data does not indicate vertical communication with a larger pay zone. There is no apparent partial penetration behavior in the data. Page #9 shows the multi-rate type curve match for the short initial test. That data indicates more wellbore damage. This difference is due to the acid treatment conducted between the two tests. Thank you for using Schlumberger Oilfield Services. Questions concerning this report should be directed to Dick Simper at (915) 684-0700.

Table of Contents

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DATA SUMMARY

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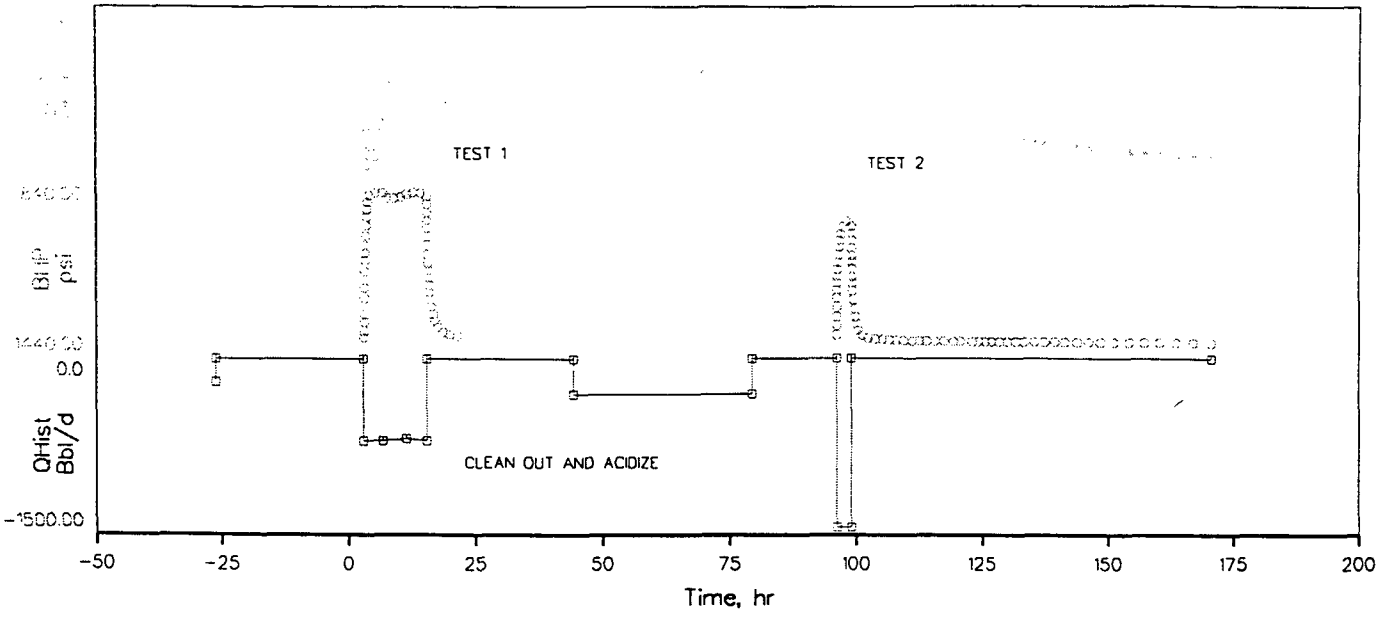
PRESSURE/FLOWRATE HISTORY



SEQUENCE OF EVENTS

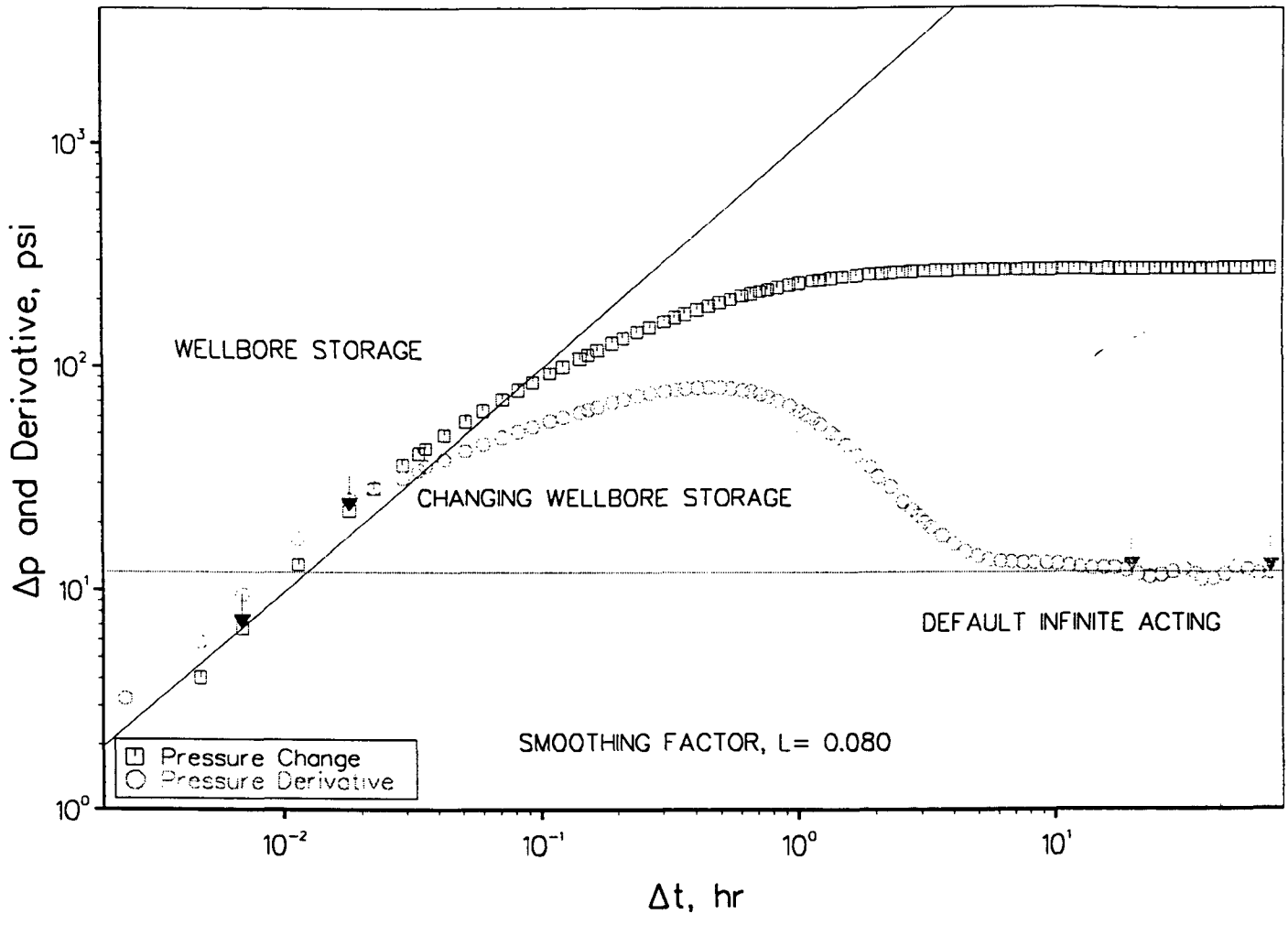
EVENT NO.	DATE	TIME (HR:MIN)	DESCRIPTION	ELAPSED TIME (HR:MIN)	BHP
1	18-MAR	11:51	FINISH STATIC GRADIENT	2:23	1486.50
2	18-MAR	12:26	START INJECTING	2:58	1486.74
3	18-MAR	16:21	INJECTION RATE CHANGE	6:53	1817.23
4	18-MAR	20:59	INJECTION RATE CHANGE	11:30	1807.34
5	19-MAR	00:54	END FLOW & START SHUT-IN	15:26	1816.20
6	19-MAR	06:57	PULL INSTRUMENTS, CLEAN OUT	21:29	1491.82
7	20-MAR	06:00	RESUME LINE INJECTION	44:3	n/a
8	21-MAR	17:00	STOP INJECTION	79:3	n/a
9	22-MAR	09:30	FINISH STATIC GRADIENTS	96:0	1490.04
10	22-MAR	09:38	START INJECTING	96:1	1491.26
11	22-MAR	12:37	END FLOW & START SHUT-IN	99:0	1753.18
12	25-MAR	12:04	PULL INSTRUMENTS	170:3	1474.86

SUMMARY OF FLOW PERIODS

PERIOD	DURATION (HR:MIN)	PRESSURE		Water FLOWRATE Bbl/D
		START	STOP	
# 1, DD	3:55	1486.74	1817.19	702.00
# 2, DD	4:37	1817.23	1807.35	682.00
# 3, DD	3:56	1807.34	1816.25	700.00
# 4, BU	29:04	1816.19	1491.79	0.0
# 5, DD	35:00	0.0	0.0	300.00
# 6, BU	16:39	0.0	0.0	0.0
# 7, DD	2:59	1491.26	1753.43	1432.00
# 8, BU	71:26	1753.23	1474.86	0.0

FLOW REGIME IDENTIFICATION
Transient 6

Schlumberger



Flow Regime Identification:

From the above plot, flow regimes influenced by inner boundary, reservoir and/or outer boundary conditions are identified if encountered during the test. From this a reservoir model can be generated that would attempt to describe all flow regimes, and matched to the test data.

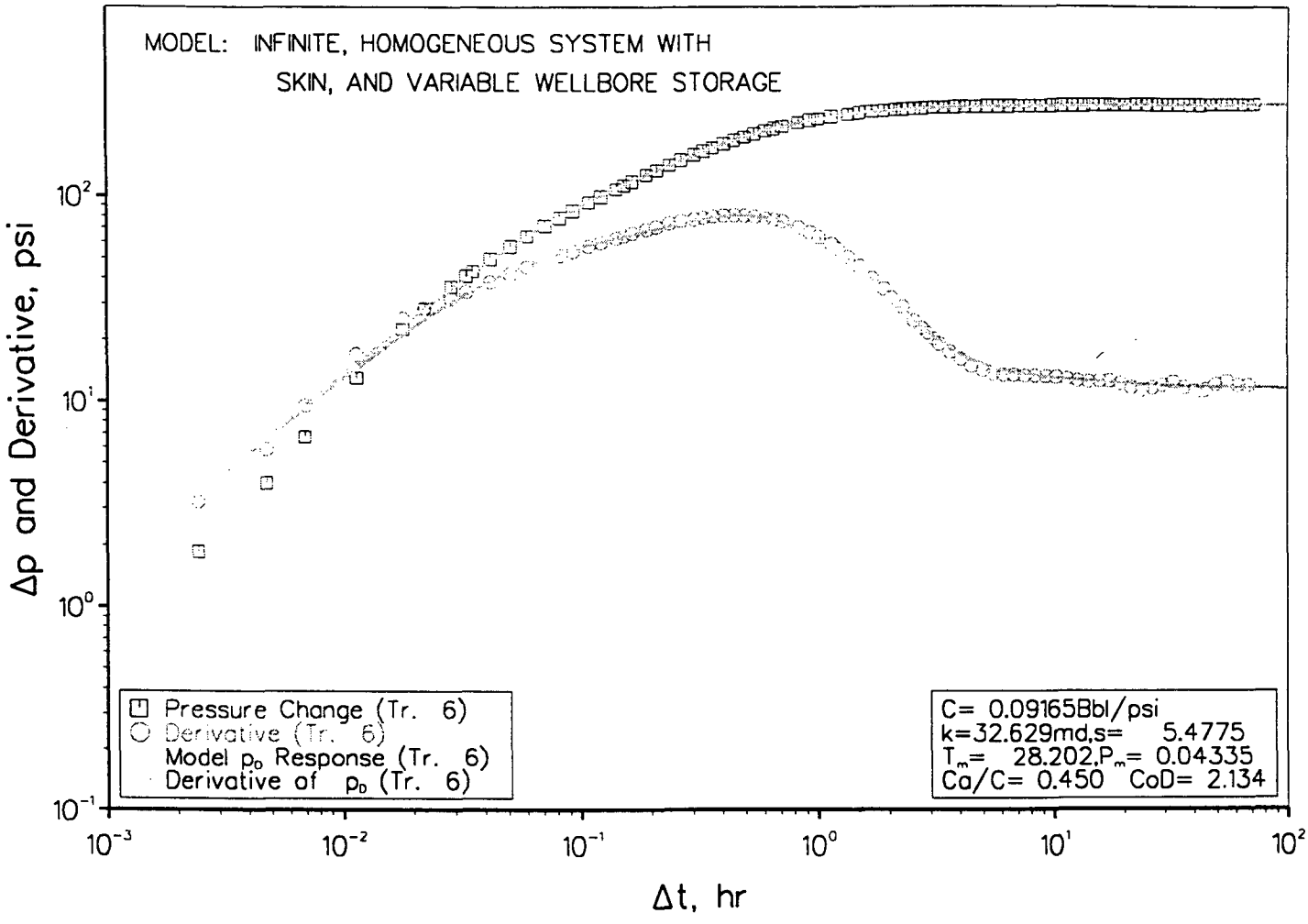
Some of the more common flow regimes are shown below. For a more detailed explanation of flow regime identification see SPE 18594, "Use of the Pressure Derivative for Diagnosing Pressure Transient Behavior"

..Note: All flow regimes listed below may not be observed during the test

Flow Regime	Log-Log Characteristic
Bilinear Flow	1/4 slope early time
Linear Flow	1/2 slope early time
Wellbore Storage	Unit slope early time
Double Porosity	Dip below IARF in middle time
Infinite Acting Radial Flow	Constant Plateau middle time
Single Sealing Fault	Constant Plateau (2 X IARF Plateau)
Two Faults at right angle to well	Constant Plateau (4 X IARF Plateau)

MULTI-RATE TYPE CURVE MATCH
Transient 6

Schlumberger



Middle-Time Flow Regime Analysis:
Log-log (Model Verified) Analysis:

The above plot shows the Model-Verified, Multi-Rate Type Curve analysis match obtained for the test data. Using the match parameters and the equations listed below, the desired reservoir parameters were obtained.

Kh = 141.2 * Dq * mu * B * Pm

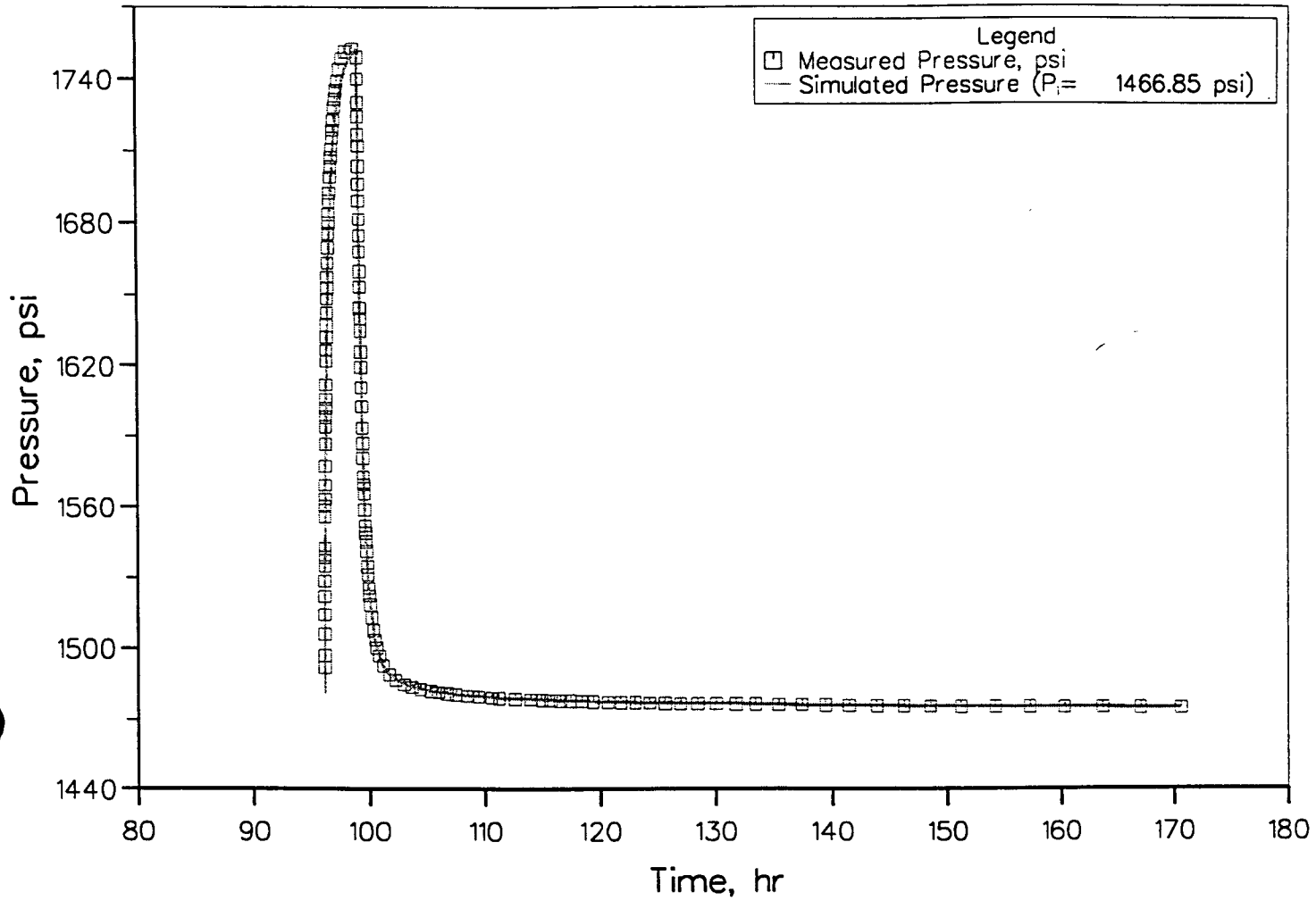
C = (kh / 3389 * mu) * 1/Tm

CD = (0.8936 * C) / (phi * Ct * h * rw2)**

S = 0.5 * ln (CDE2S / CD)

PRESSURE HISTORY SIMULATION
Transient 6

Schlumberger

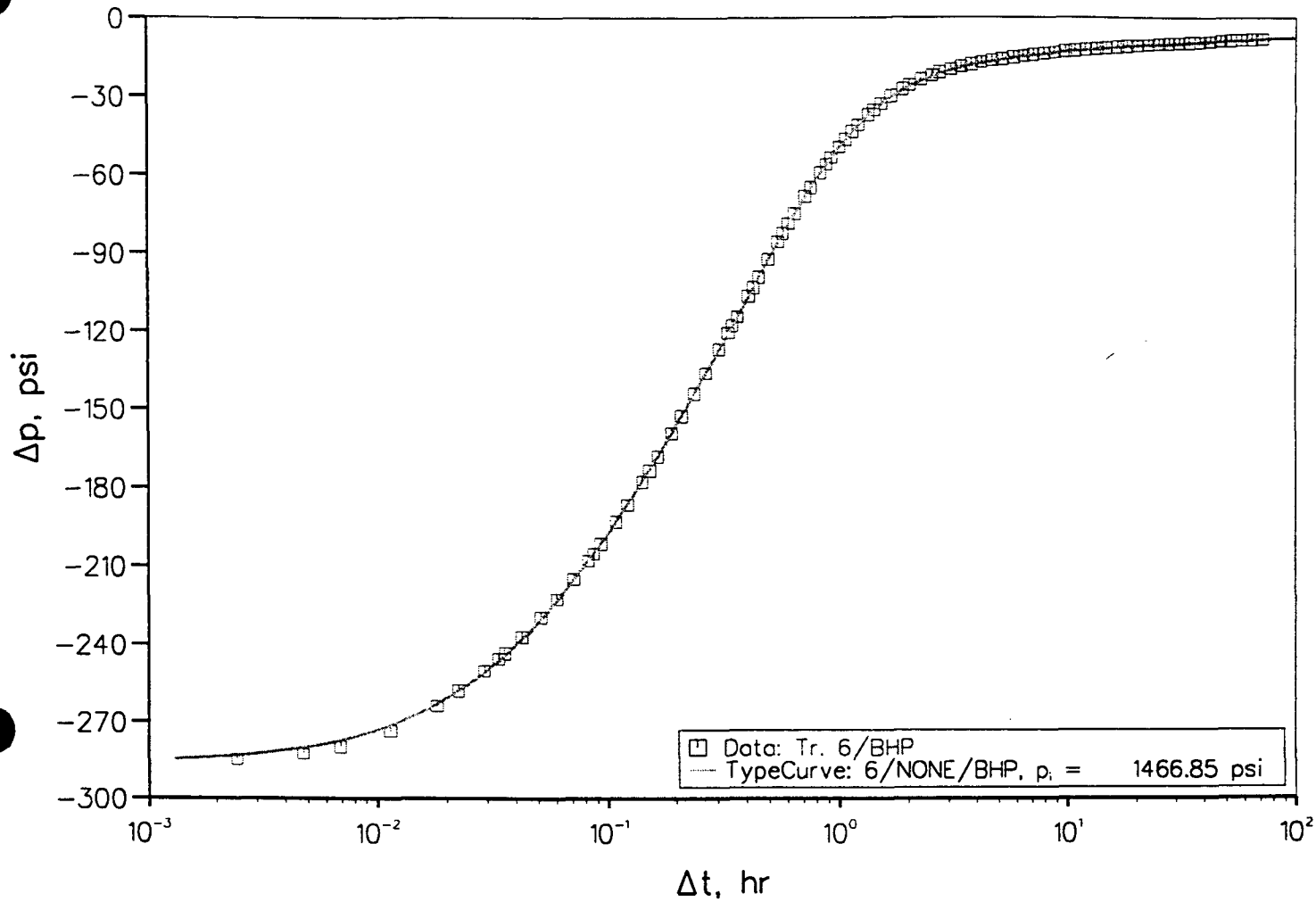


Checking Procedure (Pressure History Match)

The above plot is used as a check of the interpretation procedures. The plot presents on cartesian coordinates, for the given transient, the data generated using the interpretation parameters, plotted against the actual test data. The match takes into account the total system, therefore, it provides a look at quality of the match.

DIMENSIONLESS SUPERPOSITION PLOT
Transient 6

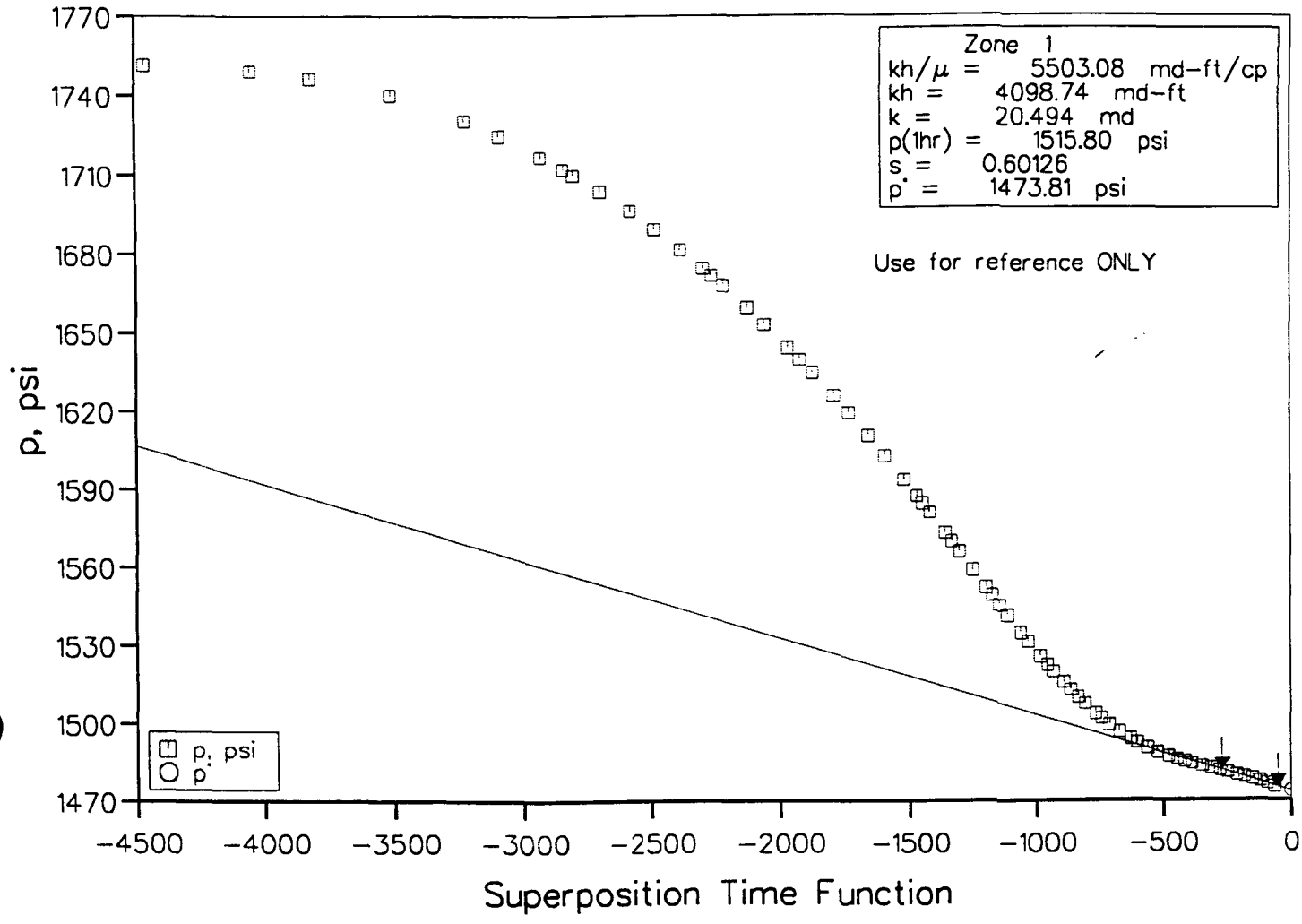
Schlumberger



Checking Procedure (Dimensionless Superposition):
The above plot is used as a check of the interpretation procedures. The plot presents on semi-log coordinates, for the given transient the data generated using the interpretation parameters, plotted against the actual test data. As with the pressure history match, the dimensionless superposition type-curve takes into account the total system. The dimensionless superposition type-curve highlights different time ranges from the pressure history simulation, therefore, it provides a different look at quality of the match.

SEMI-LOG ANALYSIS
Transient 6

Schlumberger



Semi-log (Superposition) Analysis:

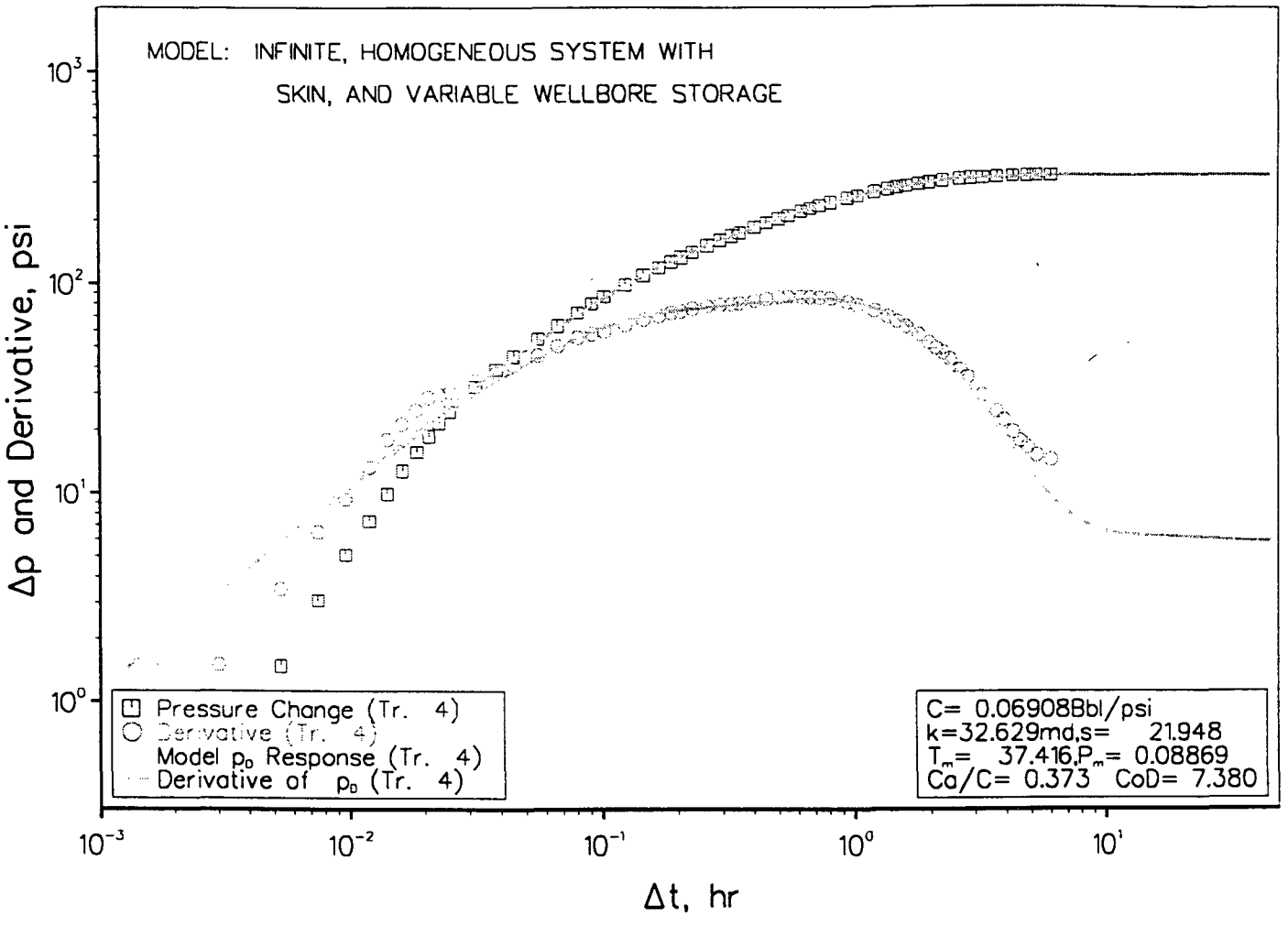
Due to the fact that there were rate changes prior to the well test the semi-log analysis was conducted using the Superposition time function. above plot contains the values obtained from the straight line drawn through the IARF period. The equations listed below were used to determine the desired reservoir parameters

$$Kh = (162.6 * mu * B)/ m'$$

$$S = 1.151 * \left[\frac{(P1hr - P0)}{m'*(Qn-1-Qn)} - \log \left(\frac{K}{phi * mu * Ct * rw**2} \right) + 3.2275 \right]$$

MULTI-RATE TYPE CURVE MATCH
Transient 4

Schlumberger



Middle-Time Flow Regime Analysis:
Log-log (Model Verified) Analysis:

The above plot shows the Model-Verified, Multi-Rate Type Curve analysis match obtained for the test data. Using the match parameters and the equations listed below, the desired reservoir parameters were obtained.

Kh = 141.2 * Dq * mu * B * Pm

C = (kh / 3389 * mu) * 1/Tm

CD = (0.8936 * C) / (phi * Ct * h * rw2)**

S = 0.5 * ln (CDE2S / CD)

FLOW RATE HISTORY

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FLOW HISTORY

Reference Date: 18-MAR-1999 09:29:00

Date DD-MMM-YYYY	Time of Day HH:MM:SS	Elapsed Time HR	Flowrate Bbl/d
18-MAR-1998	12:29:00	-8757.0000	-200.0000
17-MAR-1999	07:29:00	-26.0000	0.0000
18-MAR-1999	12:26:57	2.9658	-702.0000
18-MAR-1999	16:21:53	6.8813	-682.0000
18-MAR-1999	20:59:13	11.5037	-700.0000
19-MAR-1999	00:55:18	15.4383	0.0000
20-MAR-1999	05:59:43	44.5120	-300.0000
21-MAR-1999	16:59:43	79.5120	0.0000
22-MAR-1999	09:38:45	96.1625	-1432.0000
22-MAR-1999	12:37:56	99.1489	0.0000

RATE HISTORY ESTIMATED FROM REPORTED DAILY INJECTION VOLUMES.

FIELD SEQUENCE OF EVENTS

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DD-MON	HR-MN	DESCRIPTION	DEPTH or PRESSURE
22-MAR	08:48	Gradient Stop 0 Ft.	
	09:05	Gradient Stop 1000 Ft.	
	09:13	Gradient Stop 2000 Ft.	
	09:21	Gradient Stop 3000 Ft.	
	09:27	Gradient Stop 4000 Ft.	
	09:31	Gradient Stop 4250 Ft.	
	09:37	START INJECTION, 1432 BPD	
	12:37	END FLOW & START SHUT-IN	
25-MAR	12:04	END SHUT-IN	

MODEL-VERIFIED METHODOLOGY

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This is Schlumberger-Geoquest's Model-Verified(tm) interpretation report With Model-Verified(tm) interpretation, the goal of the Geoquest analyst is to construct a total system reservoir model that matches all of your well test data. This provides you with reliable answers that you can have confidence in.

From the diagnostic log-log plot of pressure and pressure derivative, the Geoquest analyst identifies the flow regimes governed by the inner boundary conditions, basic reservoir behavior, and outer boundary conditions. A reservoir model is then constructed and the test data are matched to it. In order to verify the quality of the match, the theoretical model response (type curve) and the test data are plotted together. The presentation of the match can be shown in any of three different forms.

1) Log-log plot (delta pressure and derivative vs. delta time)

2) Semi-log plot (pressure vs. superposition time)

3) Cartesian plot (pressure vs. time)

Geoquest uses superposition techniques (multi-rate analysis) to account for the well's prior production history. Especially in cases where the prior production is erratic or unusual, superposition is the only means of providing an accurate type curve match of the well test data. For gas wells, the pseudo-pressure technique is used to account for the change in gas properties with changing pressure.

In some instances, the well test data will not be unique, i.e., more than one reservoir model will match the test data. The most appropriate model can be determined as we work with you and discuss the area lithology and geology.

The reservoir answers derived from Model-Verified(tm) interpretation can include; effective permeability (k), skin damage (s), reservoir pressure (p*), fracture half-length (xf), fracture capacity (kfw), boundary conditions and distance to boundaries, as well as the model of basic reservoir behavior.

Using the reservoir model determined by Model-Verified(tm) interpretation, flowrate predictions can be made for the well. Additionally, we can help you optimize well performance by using Geoquest's nodal analysis software to examine the well's sensitivity to different completion designs (e.g., fracture half-length, tubing size, wellhead pressure, skin value, shot density). This affords you the opportunity to forecast production potential for the well before making final completion/recompletion decisions.

WELL TEST MODELS

The Schlumberger-Geoquest analyst constructs the total system reservoir model that best matches your test data by choosing the inner boundary condition(s), a basic reservoir model, and the outer boundary condition(s). These components are put together into one reservoir model and the test data is matched by adjusting the model parameters (e.g., permeability and skin) to obtain the best fit. The following is a partial list of the model components available to the Schlumberger-Geoquest analyst for matching your well test data.

Inner Boundary Condition

- No wellbore storage
- Constant wellbore storage
- Variable wellbore storage
- Finite conductivity vertical fracture
- Infinite conductivity vertical fracture
- Uniform flux vertical fracture
- Horizontal fracture
- Partial penetration

Basic Reservoir Model

- Homogeneous
- Dual porosity, pseudo steady state interporosity flow
- Dual porosity, transient interporosity flow
- Triple porosity
- Dual permeability
- Radial composite

Outer Boundary Condition

- Infinite system
- Single sealing no flow boundary
- Partially sealing boundary
- Single constant pressure boundary
- Two intersecting no flow boundaries (wedge geometry)
- Parallel no flow boundaries (channel)
- Gas cap/bottom water drive
- Closed (no flow) circle
- Constant pressure circle
- Closed (no flow) rectangle
- Constant pressure rectangle
- Mixed boundary rectangle

For some applications, such as horizontal and layered reservoir tests, all of the possible combinations are not available. References on most model components can be found in SPE papers.

SCHLUMBERGER has sent copies of this report to the following:

DYNAGY MIDSTREAM SERVICES
PO BOX 1929
EUNICE, NM 88231
Attn: MR. JEFF HARBOUR
(1 copy

DYNAGY MIDSTREAM SERVICES
1000 LOUISIANA
SUITE 5800
HOUSTON, TX 77002
Attn: MR BOB BERRY
(2 copies)

APPENDIX

Schlumberger

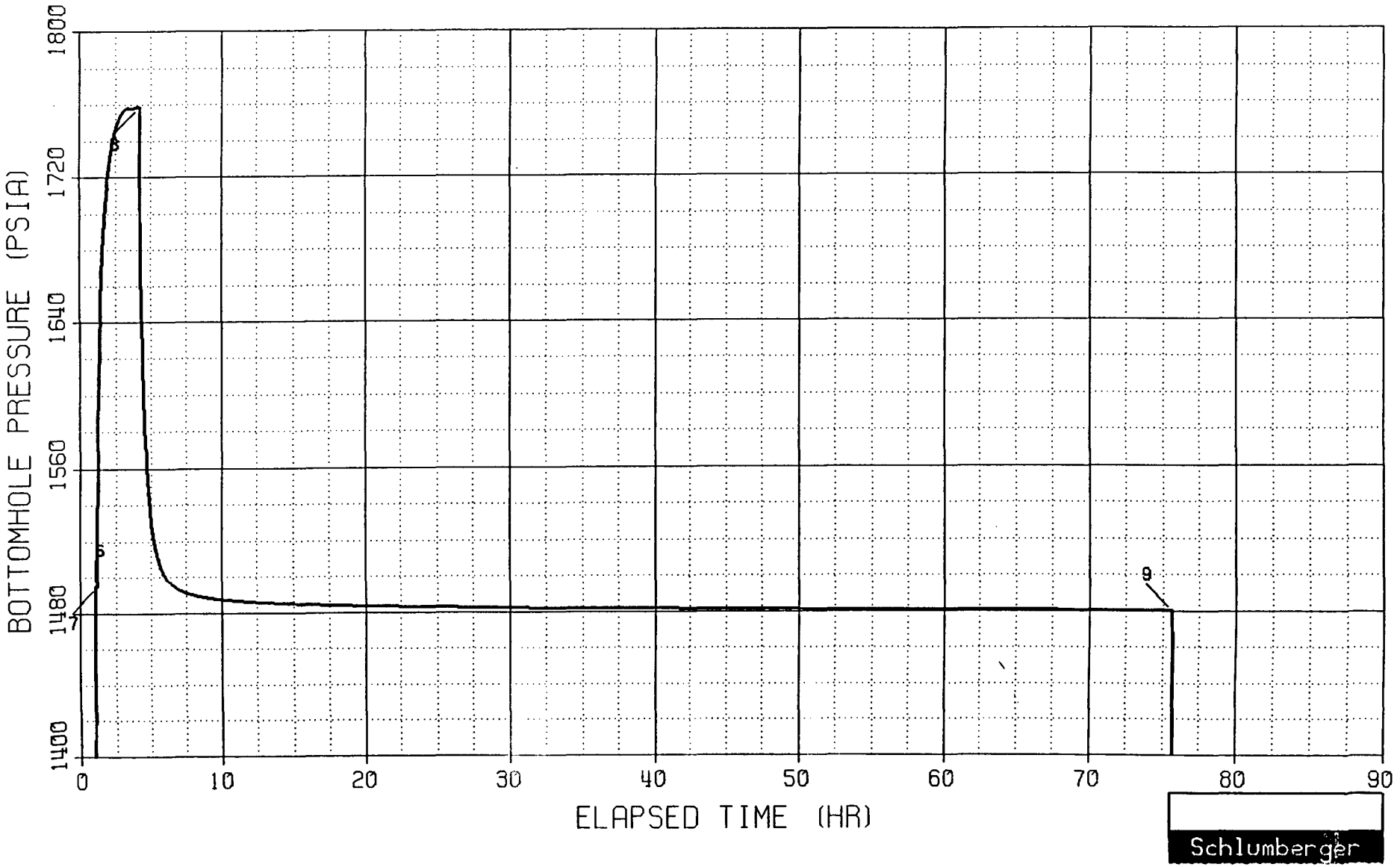
The following pages contain plots and printouts of the gauge data obtained during the test. Plots of bottomhole pressure vs. time are presented along with bottomhole temperature vs. time if a temperature channel was recorded If gradient stops were recorded either running into, or pulling out of the well, then plots and printouts of these stops will be included.

BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878
DEPTH : 4250 FT
CAPACITY : 10000 PSI
PORT OPENING : OUTSIDE

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD#1 UNIT H2, TEST #2

Electronic Instrument Data

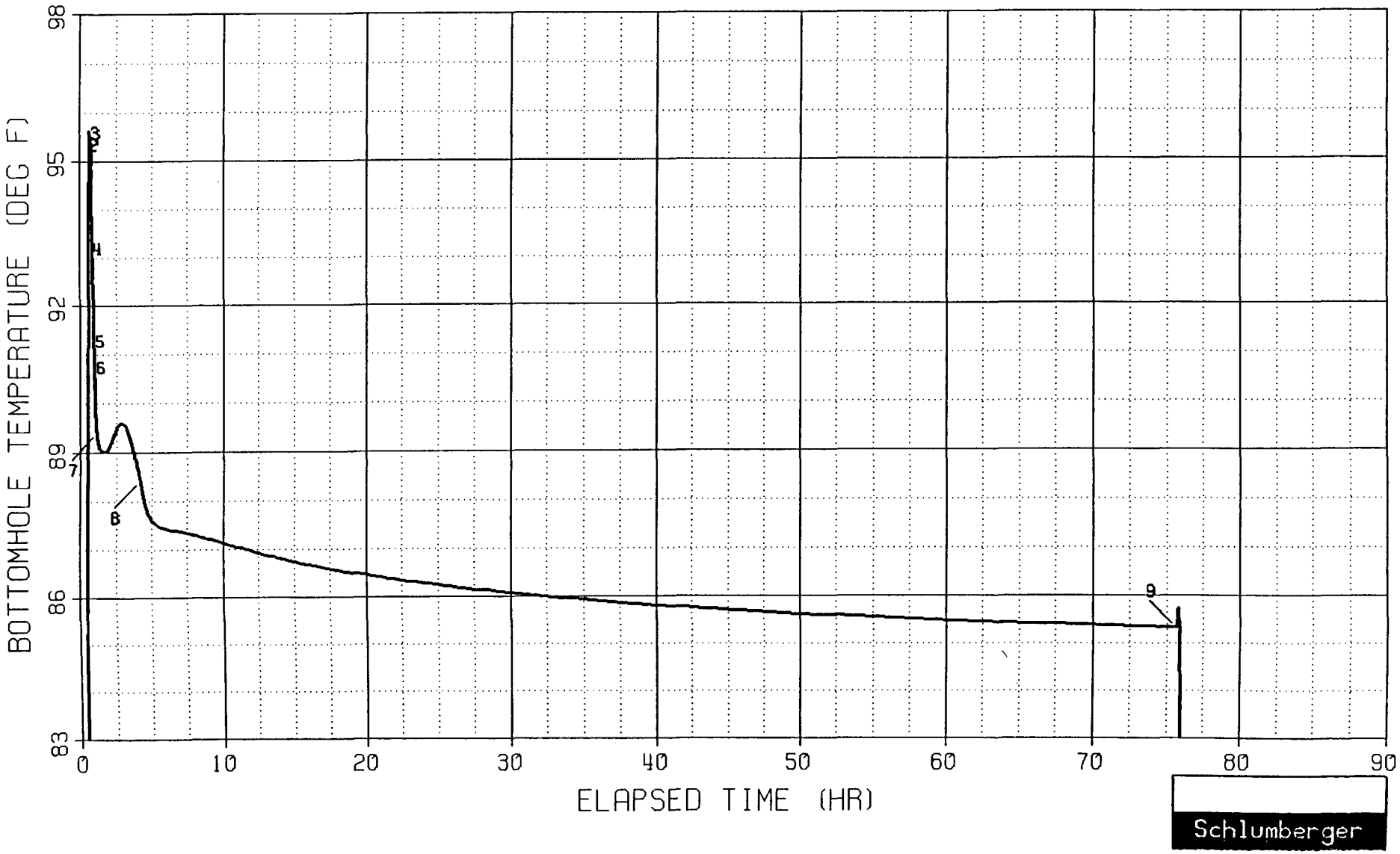


BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878
DEPTH : 4250 FT

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD#1 UNIT H2, TEST #2

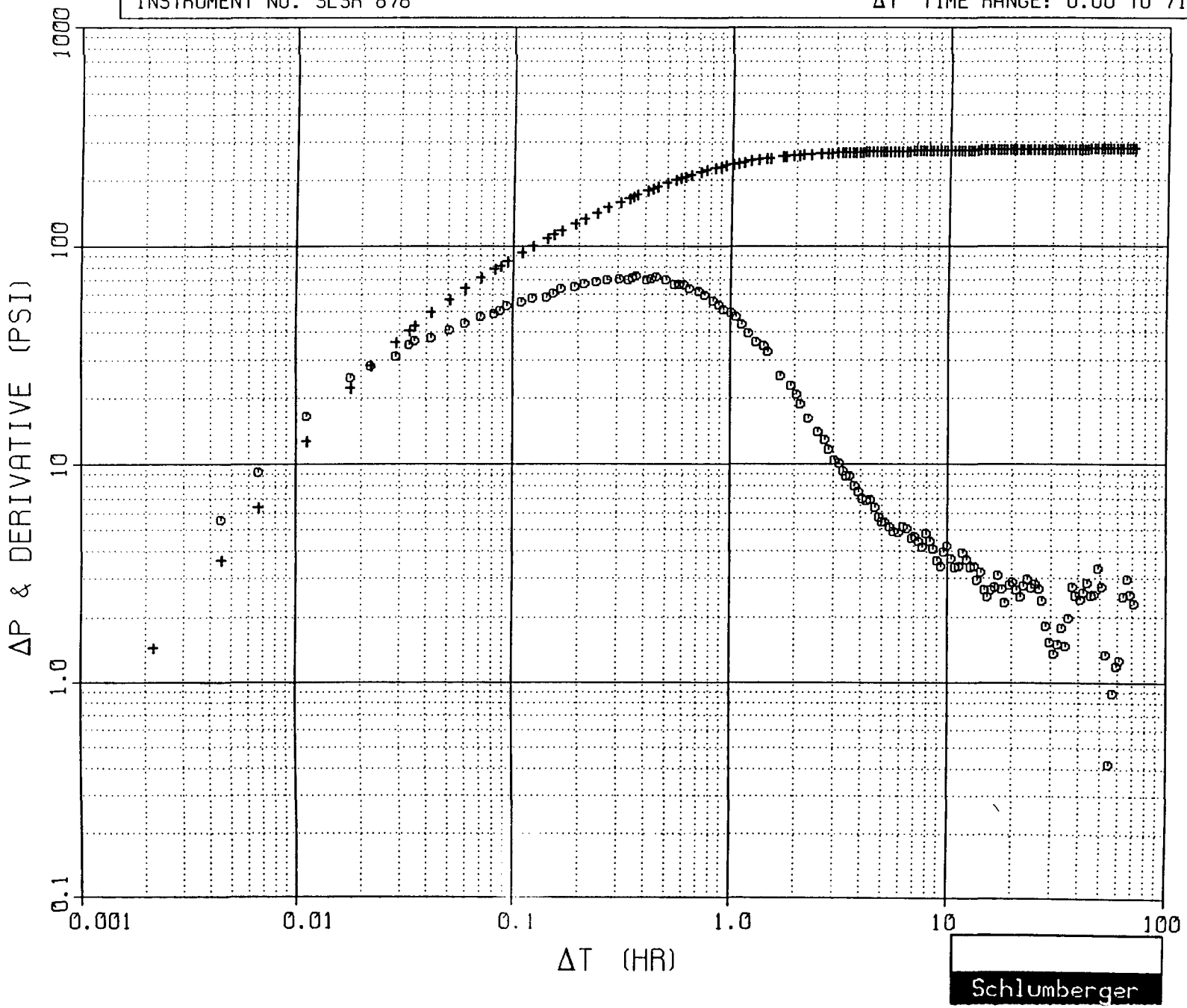
Electronic Instrument Data

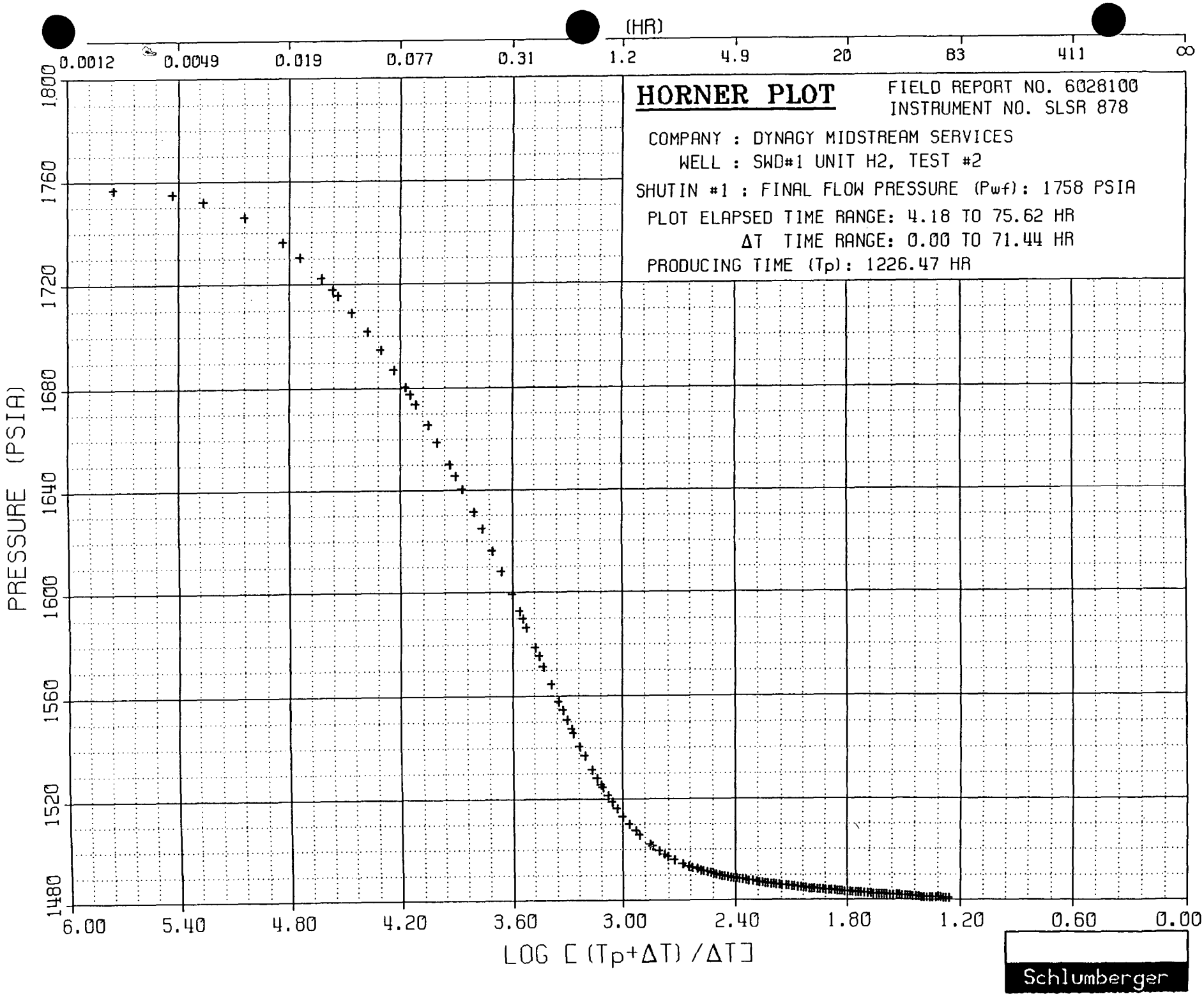


LOG LOG PLOT

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD#1 UNIT H2, TEST #2
FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878

SHUTIN #1 : PRODUCING TIME (T_p): 1226.47 HR
FINAL FLOW PRESSURE (P_{wf}): 1758 PSIA
PLOT ELAPSED TIME RANGE: 4.18 TO 75.62 HR
ΔT TIME RANGE: 0.00 TO 71.44 HR




(HR)
0.0012
0.0049
0.019
0.077
0.31
1.2
4.9
20
83
411
∞
HORNER PLOT
FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878
COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD#1 UNIT H2, TEST #2
SHUTIN #1 : FINAL FLOW PRESSURE (Pwf): 1758 PSIA
PLOT ELAPSED TIME RANGE: 4.18 TO 75.62 HR
ΔT TIME RANGE: 0.00 TO 71.44 HR
PRODUCING TIME (Tp): 1226.47 HR
PRESSURE (PSIA)
1800
1760
1720
1680
1640
1600
1560
1520
1480
6.00
5.40
4.80
4.20
3.60
3.00
2.40
1.80
1.20
0.60
0.00
LOG [(Tp+ΔT)/ΔT]
Schlumberger

****
** WELL TEST DATA PRINTOUT **
****

COMPANY: DYNAGY MIDSTREAM SERVICES
WELL: SWD#1 UNIT H2, TEST #2

FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878

RECORDER CAPACITY: 10000 PSI PORT OPENING: OUTSIDE DEPTH: 4250 FT

LABEL POINT INFORMATION
****

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, HR	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F	DEPTH FT
1	8:48:45	22-MAR	GRADIENT STOP	0.363	18.86	70.36	0.0
2	9:05:17	22-MAR	GRADIENT STOP	0.638	98.90	94.59	1000.0
3	9:13:25	22-MAR	GRADIENT STOP	0.774	529.09	94.84	2000.0
4	9:21:09	22-MAR	GRADIENT STOP	0.903	959.38	92.46	3000.0
5	9:27:33	22-MAR	GRADIENT STOP	1.009	1391.14	90.52	4000.0
6	9:31:09	22-MAR	GRADIENT STOP	1.069	1495.41	89.98	4250.0
7	9:37:49	22-MAR	START FLOW	1.180	1494.97	89.40	
8	12:37:57	22-MAR	END FLOW & START SHUT-IN	4.182	1758.31	88.41	
9	12:04:21	25-MAR	END SHUT-IN	75.623	1480.36	85.33	

SUMMARY OF FLOW PERIODS
****

PERIOD	START ELAPSED TIME, HR	END ELAPSED TIME, HR	DURATION HR	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	1.180	4.182	3.002	1494.97	1758.31	1494.97

SUMMARY OF SHUTIN PERIODS
****

PERIOD	START ELAPSED TIME, HR	END ELAPSED TIME, HR	DURATION HR	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, HR
1	4.182	75.623	71.440	1758.31	1480.36	1758.31	1226.5

TEST PHASE: FLOW PERIOD # 1 INITIAL PRESSURE = 1494.97 PSIA

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI
9:37:49	22-MAR	1.180	0.000	89.40	1494.97	0.00
9:53:01	22-MAR	1.434	0.253	89.06	1637.53	142.56
10:09:09	22-MAR	1.702	0.522	89.01	1692.11	197.14
10:24:53	22-MAR	1.965	0.784	89.06	1717.86	222.89
10:41:01	22-MAR	2.234	1.053	89.26	1735.08	240.11
10:57:41	22-MAR	2.511	1.331	89.46	1746.34	251.37
11:12:53	22-MAR	2.765	1.584	89.58	1752.32	257.35
11:27:57	22-MAR	3.016	1.836	89.58	1755.98	261.01
11:43:17	22-MAR	3.271	2.091	89.46	1757.66	262.69
11:58:45	22-MAR	3.529	2.349	89.24	1757.93	262.96
12:14:05	22-MAR	3.785	2.604	88.95	1758.10	263.13
12:29:09	22-MAR	4.036	2.855	88.63	1758.60	263.63
12:37:57	22-MAR	4.182	3.002	88.41	1758.31	263.34

TEST PHASE: SHUTIN PERIOD # 1 FINAL FLOW PRESSURE = 1758.31 PSIA
PRODUCING TIME = 1226.5 HR

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
12:37:57	22-MAR	4.182	0.000	88.41	1758.31	0.00	
12:38:37	22-MAR	4.194	0.011	88.39	1745.72	12.59	5.0407
12:39:17	22-MAR	4.205	0.022	88.39	1730.24	28.07	4.7430
12:39:57	22-MAR	4.216	0.033	88.38	1717.81	40.50	4.5658
12:41:01	22-MAR	4.234	0.051	88.34	1701.70	56.61	4.3797
12:42:13	22-MAR	4.254	0.071	88.32	1687.09	71.22	4.2364
12:42:53	22-MAR	4.265	0.082	88.30	1680.07	78.24	4.1740
12:43:33	22-MAR	4.276	0.093	88.29	1673.56	84.75	4.1187
12:44:29	22-MAR	4.291	0.109	88.27	1665.31	93.00	4.0519
12:46:29	22-MAR	4.325	0.142	88.21	1649.93	108.38	3.9359
12:47:57	22-MAR	4.349	0.167	88.18	1640.24	118.07	3.8669
12:49:25	22-MAR	4.374	0.191	88.14	1631.46	126.85	3.8073
12:52:21	22-MAR	4.423	0.240	88.09	1616.22	142.09	3.7085
12:54:05	22-MAR	4.451	0.269	88.05	1608.33	149.98	3.6593
12:56:21	22-MAR	4.489	0.307	88.00	1599.07	159.24	3.6021
12:58:05	22-MAR	4.518	0.335	87.96	1592.71	165.60	3.5631
12:59:57	22-MAR	4.549	0.367	87.93	1586.35	171.96	3.5245
13:02:29	22-MAR	4.591	0.409	87.89	1578.55	179.76	3.4773
13:05:09	22-MAR	4.636	0.453	87.84	1571.22	187.09	3.4324
13:07:57	22-MAR	4.683	0.500	87.80	1564.35	193.96	3.3899
13:14:37	22-MAR	4.794	0.611	87.71	1550.76	207.55	3.3027
13:21:09	22-MAR	4.902	0.720	87.66	1540.31	218.00	3.2316
13:28:21	22-MAR	5.023	0.840	87.60	1531.27	227.04	3.1647
13:34:21	22-MAR	5.122	0.940	87.57	1525.25	233.06	3.1159
13:42:13	22-MAR	5.254	1.071	87.53	1518.86	239.45	3.0592
13:51:33	22-MAR	5.409	1.227	87.49	1513.02	245.29	3.0004
13:59:17	22-MAR	5.538	1.355	87.48	1509.23	249.08	2.9570
14:08:05	22-MAR	5.685	1.502	87.46	1505.79	252.52	2.9125
14:20:13	22-MAR	5.887	1.705	87.44	1502.22	256.09	2.8577
14:32:53	22-MAR	6.098	1.916	87.42	1499.56	258.75	2.8071

TEST PHASE: SHUTIN PERIOD # 1 FINAL FLOW PRESSURE = 1758.31 PSIA
PRODUCING TIME = 1226.5 HR

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
14:40:45	22-MAR	6.229	2.047	87.42	1498.04	260.27	2.7783
14:49:01	22-MAR	6.367	2.184	87.40	1496.81	261.50	2.7501
14:55:49	22-MAR	6.480	2.298	87.40	1495.96	262.35	2.7282
15:11:41	22-MAR	6.745	2.562	87.39	1494.36	263.95	2.6810
15:22:45	22-MAR	6.929	2.747	87.37	1493.42	264.89	2.6508
15:29:57	22-MAR	7.049	2.867	87.37	1492.89	265.42	2.6323
15:39:33	22-MAR	7.209	3.027	87.35	1492.31	266.00	2.6088
16:12:53	22-MAR	7.765	3.582	87.31	1490.71	267.60	2.5358
16:43:25	22-MAR	8.274	4.091	87.28	1489.67	268.64	2.4783
17:17:17	22-MAR	8.838	4.656	87.22	1488.81	269.50	2.4223
17:48:53	22-MAR	9.365	5.182	87.19	1488.20	270.11	2.3760
18:20:45	22-MAR	9.896	5.713	87.13	1487.69	270.62	2.3338
18:54:45	22-MAR	10.462	6.280	87.10	1487.24	271.07	2.2929
19:29:01	22-MAR	11.034	6.851	87.04	1486.80	271.51	2.2553
19:59:41	22-MAR	11.545	7.362	86.99	1486.48	271.83	2.2242
20:34:05	22-MAR	12.118	7.936	86.95	1486.15	272.16	2.1919
21:05:01	22-MAR	12.634	8.451	86.92	1485.87	272.44	2.1647
21:37:49	22-MAR	13.180	8.998	86.86	1485.61	272.70	2.1377
22:08:21	22-MAR	13.689	9.507	86.83	1485.41	272.90	2.1140
22:41:33	22-MAR	14.242	10.060	86.79	1485.20	273.11	2.0896
23:16:05	22-MAR	14.818	10.635	86.76	1485.01	273.30	2.0656
[illegible]:52:21	22-MAR	15.422	11.240	86.70	1484.80	273.51	2.0419
[illegible]:29:41	23-MAR	16.045	11.862	86.67	1484.62	273.69	2.0187
1:07:41	23-MAR	16.678	12.495	86.63	1484.42	273.89	1.9963
1:38:21	23-MAR	17.189	13.007	86.59	1484.30	274.01	1.9791
2:11:57	23-MAR	17.749	13.567	86.58	1484.15	274.16	1.9610
2:42:37	23-MAR	18.260	14.078	86.54	1484.05	274.26	1.9451
3:12:37	23-MAR	18.760	14.578	86.52	1483.92	274.39	1.9301
3:52:29	23-MAR	19.425	15.242	86.49	1483.80	274.51	1.9110
4:23:57	23-MAR	19.949	15.767	86.47	1483.71	274.60	1.8965
5:00:21	23-MAR	20.556	16.373	86.43	1483.62	274.69	1.8803
5:38:37	23-MAR	21.194	17.011	86.40	1483.52	274.79	1.8639
6:16:05	23-MAR	21.818	17.635	86.38	1483.42	274.89	1.8485
6:50:37	23-MAR	22.394	18.211	86.34	1483.31	275.00	1.8347
7:34:45	23-MAR	23.129	18.947	86.31	1483.22	275.09	1.8178
8:10:21	23-MAR	23.722	19.540	86.29	1483.15	275.16	1.8046
8:48:29	23-MAR	24.358	20.175	86.27	1483.04	275.27	1.7909
9:23:57	23-MAR	24.949	20.767	86.25	1482.97	275.34	1.7786
10:00:29	23-MAR	25.558	21.375	86.22	1482.90	275.41	1.7662
10:37:01	23-MAR	26.167	21.985	86.20	1482.83	275.48	1.7543
11:12:21	23-MAR	26.756	22.573	86.18	1482.77	275.54	1.7430
11:52:37	23-MAR	27.427	23.244	86.14	1482.69	275.62	1.7305
12:32:53	23-MAR	28.098	23.916	86.13	1482.57	275.74	1.7184
13:13:09	23-MAR	28.769	24.587	86.11	1482.52	275.79	1.7066
13:50:21	23-MAR	29.389	25.207	86.09	1482.43	275.88	1.6960
14:29:09	23-MAR	30.036	25.853	86.07	1482.39	275.92	1.6852
[illegible]:09:25	23-MAR	30.707	26.524	86.05	1482.31	276.00	1.6743
[illegible]:49:41	23-MAR	31.378	27.196	86.02	1482.23	276.08	1.6637
[illegible]:29:57	23-MAR	32.049	27.867	86.00	1482.20	276.11	1.6533
17:10:13	23-MAR	32.720	28.538	85.98	1482.14	276.17	1.6432

TEST PHASE: SHUTIN PERIOD # 1 FINAL FLOW PRESSURE = 1758.31 PSIA
PRODUCING TIME = 1226.5 HR

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
17:50:29	23-MAR	33.391	29.209	85.96	1482.15	276.16	1.6334
18:30:45	23-MAR	34.062	29.880	85.95	1482.09	276.22	1.6237
19:11:01	23-MAR	34.734	30.551	85.93	1482.04	276.27	1.6143
19:52:29	23-MAR	35.425	31.242	85.91	1482.01	276.30	1.6048
20:32:45	23-MAR	36.096	31.913	85.89	1481.97	276.34	1.5958
21:13:01	23-MAR	36.767	32.584	85.87	1481.95	276.36	1.5870
21:53:17	23-MAR	37.438	33.256	85.86	1481.91	276.40	1.5784
22:33:33	23-MAR	38.109	33.927	85.84	1481.88	276.43	1.5700
23:13:49	23-MAR	38.780	34.598	85.84	1481.90	276.41	1.5617
23:54:05	23-MAR	39.451	35.269	85.82	1481.82	276.49	1.5536
0:34:21	24-MAR	40.123	35.940	85.80	1481.78	276.53	1.5456
1:14:37	24-MAR	40.794	36.611	85.78	1481.78	276.53	1.5378
1:54:53	24-MAR	41.465	37.282	85.77	1481.73	276.58	1.5302
2:35:09	24-MAR	42.136	37.953	85.77	1481.68	276.63	1.5226
3:15:25	24-MAR	42.807	38.625	85.75	1481.66	276.65	1.5153
3:55:41	24-MAR	43.478	39.295	85.73	1481.61	276.70	1.5080
4:35:57	24-MAR	44.149	39.967	85.73	1481.56	276.75	1.5009
5:16:13	24-MAR	44.820	40.638	85.71	1481.52	276.79	1.4939
5:56:29	24-MAR	45.491	41.309	85.69	1481.48	276.83	1.4870
6:36:45	24-MAR	46.162	41.980	85.69	1481.41	276.90	1.4802
7:17:01	24-MAR	46.834	42.651	85.68	1481.37	276.94	1.4736
:58:21	24-MAR	47.523	43.340	85.66	1481.35	276.96	1.4668
:38:37	24-MAR	48.194	44.011	85.66	1481.32	276.99	1.4604
9:18:53	24-MAR	48.865	44.682	85.64	1481.25	277.06	1.4541
9:59:09	24-MAR	49.536	45.353	85.62	1481.24	277.07	1.4478
10:39:25	24-MAR	50.207	46.024	85.62	1481.19	277.12	1.4417
11:19:41	24-MAR	50.878	46.695	85.60	1481.14	277.17	1.4356
11:59:57	24-MAR	51.549	47.367	85.60	1481.14	277.17	1.4296
12:40:13	24-MAR	52.220	48.038	85.59	1481.09	277.22	1.4238
13:20:29	24-MAR	52.891	48.709	85.59	1481.05	277.26	1.4180
14:00:45	24-MAR	53.562	49.380	85.57	1480.99	277.32	1.4122
14:41:01	24-MAR	54.234	50.051	85.57	1480.97	277.34	1.4066
15:21:17	24-MAR	54.905	50.722	85.55	1480.90	277.41	1.4011
16:01:33	24-MAR	55.576	51.393	85.55	1480.87	277.44	1.3956
16:41:49	24-MAR	56.247	52.065	85.53	1480.84	277.47	1.3902
17:22:05	24-MAR	56.918	52.736	85.53	1480.84	277.47	1.3848
18:02:21	24-MAR	57.589	53.407	85.51	1480.82	277.49	1.3796
18:42:37	24-MAR	58.260	54.078	85.51	1480.80	277.51	1.3744
19:22:53	24-MAR	58.931	54.749	85.50	1480.79	277.52	1.3692
20:03:09	24-MAR	59.602	55.420	85.50	1480.80	277.51	1.3642
20:44:29	24-MAR	60.291	56.109	85.48	1480.76	277.55	1.3591
21:24:45	24-MAR	60.963	56.780	85.48	1480.78	277.53	1.3541
22:05:01	24-MAR	61.634	57.451	85.46	1480.77	277.54	1.3492
22:45:17	24-MAR	62.305	58.122	85.46	1480.75	277.56	1.3444
23:25:33	24-MAR	62.976	58.793	85.46	1480.73	277.58	1.3397
0:05:49	25-MAR	63.647	59.465	85.44	1480.73	277.58	1.3350
:46:05	25-MAR	64.318	60.136	85.44	1480.74	277.57	1.3303
:26:21	25-MAR	64.989	60.807	85.42	1480.73	277.58	1.3257
2:06:37	25-MAR	65.660	61.478	85.42	1480.72	277.59	1.3212
2:46:53	25-MAR	66.331	62.149	85.41	1480.70	277.61	1.3167

TEST PHASE: SHUTIN PERIOD # 1 FINAL FLOW PRESSURE = 1758.31 PSIA
PRODUCING TIME = 1226.5 HR

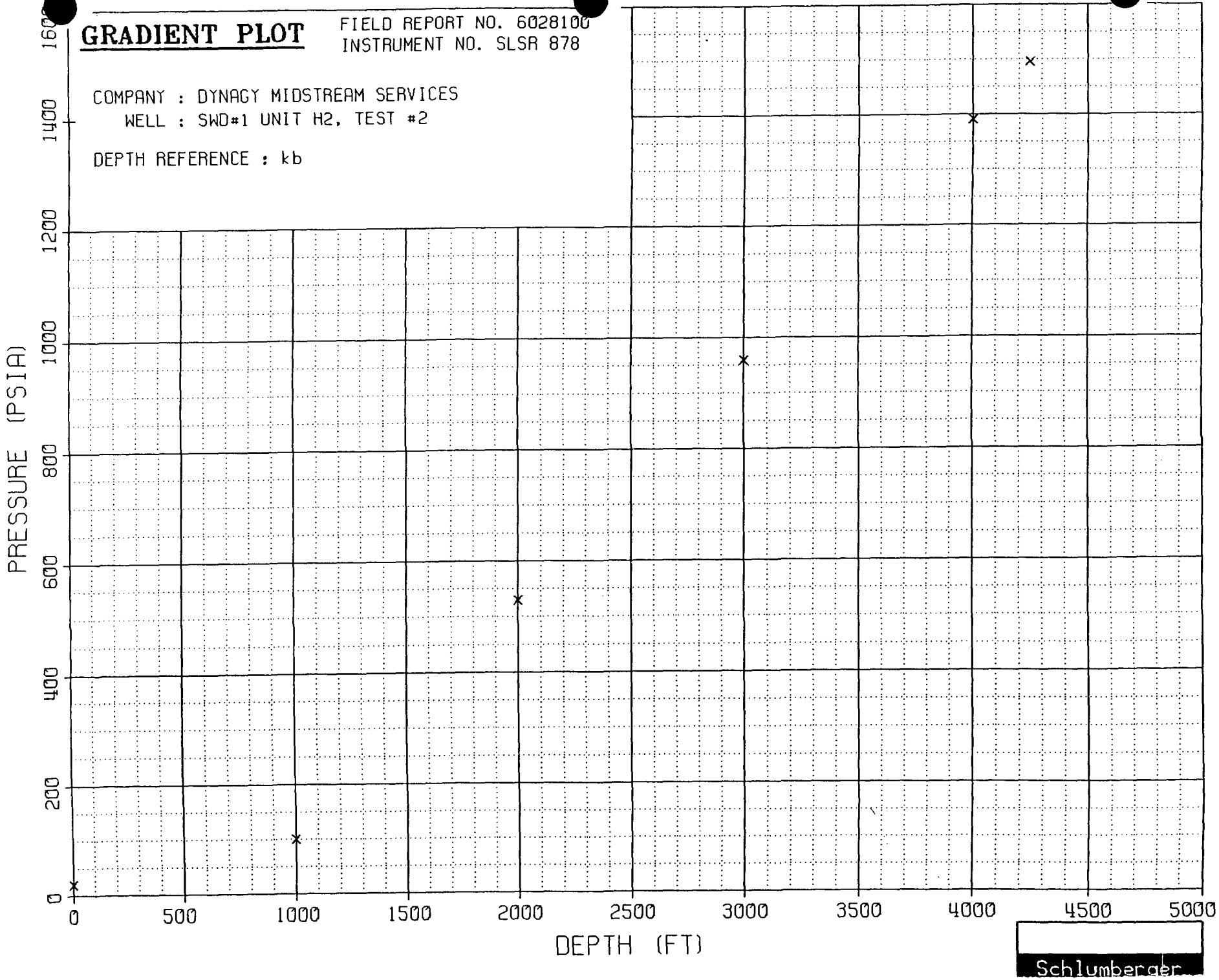
TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DELTA TIME, HR	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
3:27:09	25-MAR	67.002	62.820	85.41	1480.67	277.64	1.3123
4:07:25	25-MAR	67.674	63.491	85.41	1480.66	277.65	1.3079
4:47:41	25-MAR	68.345	64.162	85.39	1480.64	277.67	1.3035
5:27:57	25-MAR	69.016	64.833	85.39	1480.61	277.70	1.2992
6:08:13	25-MAR	69.687	65.505	85.39	1480.58	277.73	1.2950
6:48:29	25-MAR	70.358	66.175	85.37	1480.57	277.74	1.2908
7:28:45	25-MAR	71.029	66.847	85.37	1480.53	277.78	1.2866
8:09:01	25-MAR	71.700	67.518	85.37	1480.47	277.84	1.2825
8:50:21	25-MAR	72.389	68.207	85.35	1480.45	277.86	1.2783
9:30:37	25-MAR	73.060	68.878	85.35	1480.44	277.87	1.2743
10:10:53	25-MAR	73.731	69.549	85.35	1480.42	277.89	1.2703
10:51:09	25-MAR	74.402	70.220	85.33	1480.39	277.92	1.2664
11:31:25	25-MAR	75.074	70.891	85.33	1480.42	277.89	1.2625
12:04:21	25-MAR	75.623	71.440	85.33	1480.36	277.95	1.2593

GRADIENT PLOT

FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878

COMPANY : DYNAGY MIDSTREAM SERVICES
WELL : SWD#1 UNIT H2, TEST #2

DEPTH REFERENCE : kb



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** WELL TEST DATA PRINTOUT **
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COMPANY: DYNAGY MIDSTREAM SERVICES
WELL: SWD#1 UNIT H2

FIELD REPORT NO. 6028100
INSTRUMENT NO. SLSR 878

RECORDER CAPACITY: 10000 PSI
DEPTH REFERENCE:

GRADIENT INFORMATION
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TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, HR	DEPTH FROM REF. FT	PRESSURE AT DEPTH PSIA	PRES. GRADIENT PSI/FT	TEMPERATURE AT DEPTH DEG F	TEMP. GRADIEN DEG F/F
8:48:45	22-MAR	0.363	0.0	18.86		70.36	
9:05:17	22-MAR	0.638	1000.0	98.90	0.0800	94.59	0.0242
9:13:25	22-MAR	0.774	2000.0	529.09	0.430	94.84	0.0002
9:21:09	22-MAR	0.903	3000.0	959.38	0.430	92.46	-0.0023
9:27:33	22-MAR	1.009	4000.0	1391.14	0.432	90.52	-0.0019
9:31:09	22-MAR	1.069	4250.0	1495.41	0.417	89.98	-0.0021