GW - 25

REPORTS

YEAR(S):

2006 - 2000

Larson & Associates, Inc.
Environmental Consultants

March 3, 2006

VIA EMAIL: wayne.price@state.nm.us
VIA CERTIFIED MAIL

2006 MAR 20 PM 1 31

Mr. Wayne Price, Chief
State of New Mexico
Oil Conservation Division – Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Brine Pond #1 Investigation and Closure Plan, Targa Midstream Services, L.P., Monument Gas Plant (GW-025), Unit Letter N ("SE/4, SW/4"), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico

Dear Mr. Price:

This letter is submitted to the State of New Mexico Oil Conservation Division ("OCD") on behalf of Targa Midstream Services, L.P. ("TMS") by Larson and Associates, Inc. ("LA"), its consultant, and presents an investigation and closure plan for brine pond #1 at the Monument Gas Plant ("Facility') located in unit letter N ("SE/4, SW/4"), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico. The Facility is located approximately 2.6 miles southeast of Monument, New Mexico. Contact information for TMS is as follows:

Contact:	Mr. Cal Wrangham
Title:	Region Environmental, Health & Safety Advisor
Company:	Targa Midstream Services, L.P.
Address:	6 Desta Drive, Suite 3300
	Midland, Texas 79705
Telephone:	(432) 688-0542
E Mail:	cwrangham@targaresources.com

Figure 1 presents a topographic map and location map. Figure 2 presents a Facility drawing.

Background

The Facility previously used two (2) lined ponds for temporary storage of brine water in conjunction with two (2) gas storage wells. Brine pond #2 was closed in 2003 and the storage wells are temporarily abandoned. The OCD requested a closure plan for brine pond #1 as a condition of renewal of the Facility's ground water discharge plan (GW-025).

Investigation Plan

Brine pond #1 measures approximately 100 x 150 feet and is about 5 feet deep. A high-density polyethylene ("HDPE") liner retains fluid from seeping into the subsurface. TMS proposes to remove liquid from the brine pond using a vacuum truck or pump and dispose the liquid at an OCD approved commercial salt-water disposal ("SWD") facility. Residual water will be allowed to evaporate before solids are removed and disposed at a facility approved by OCD to accept salt-contaminated oilfield solids. The liner will be removed and disposed at a State of New Mexico approved landfill.

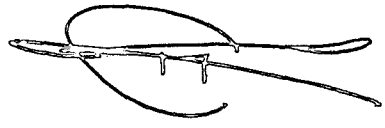
TMS proposes to use direct-push or rotary drilling methods to collect soil samples at five (5) locations to assess potential impacts to soil following liner removal. The samples will be collected to depths sufficient to assess the vertical extent of impact and placed in 4-ounce glass sample containers. The containers will be filled to near zero headspace, labeled, preserved and deliver under chain of custody control to an environmental laboratory. Duplicate samples will be collected in 8-ounce glass sample jars for headspace analysis. The headspace containers will be partially filled, covered with a layer of aluminum foil before securing the cap and allowed to warm to the ambient temperature (approximately 30 minutes). The headspace samples will be analyzed using a photoionization detector ("PID") that will be calibrated to an isobutylene span gas tested to 100 parts per million ("ppm"). The sampling devise will be washed between samples with a solution of laboratory grade detergent and water, and rinsed with distilled water.

The laboratory will analyze samples for benzene, toluene, ethyl benzene and xylene ("BTEX") using method SW-846-8021B, if the corresponding headspace sample exhibits a PID reading greater than 100 ppm. The laboratory will analyze these and additional samples for total petroleum hydrocarbons ("TPH) using method SW-846-8015 for gasoline range organics ("GRO") and diesel range organics ("DRO"), and chloride, using method SW-846-300. Method SW-846-1312, referred to as the synthetic precipitation leaching procedure ("SPLP"), may be used to assess leaching potential of contaminants to ground water. Figure 3 presents proposed sample locations.

A summary report will be prepared and submitted to OCD within 45 days after receipt and review of analysis from the laboratory and will include a final closure plan for brine pond #1. Your approval of this proposal is requested. Please call Mr. Cal Wrangham with TMS at (432) 688-0452, myself at (432) 687-0901 or email cwrangham@targaresources.com or mark@laenvironmental.com, if you have questions.

Sincerely,

Larson and Associates, Inc.



Mark J. Larson, P.G., C.P.G., C.G.W.P.
Senior Project Manager/President

Enclosures

cc: Cal Wrangham/TMS
James Lingnau/TMS
Chris Williams/OCD – District 1

FIGURES

FIGURES

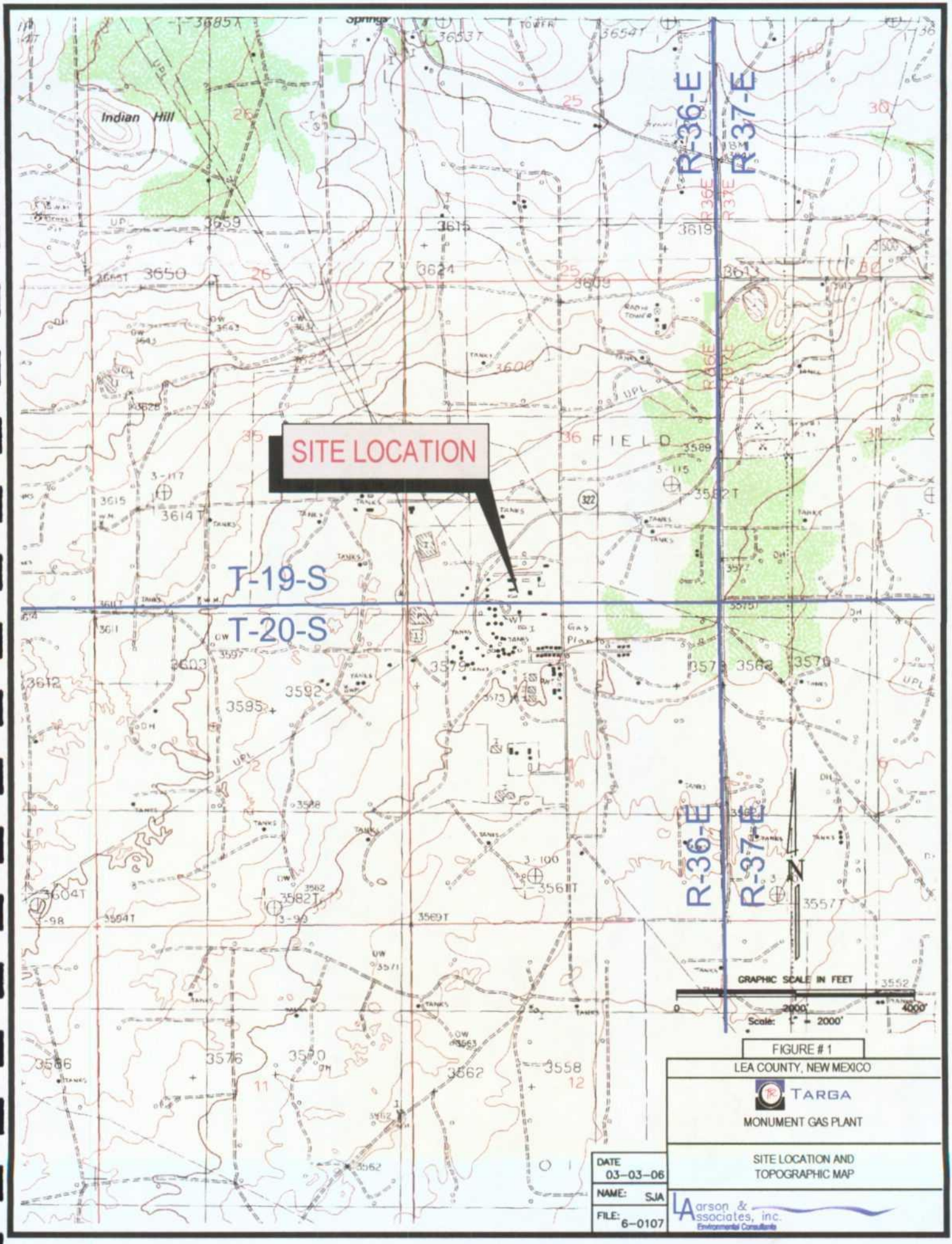


FIGURE # 1

LEA COUNTY, NEW MEXICO

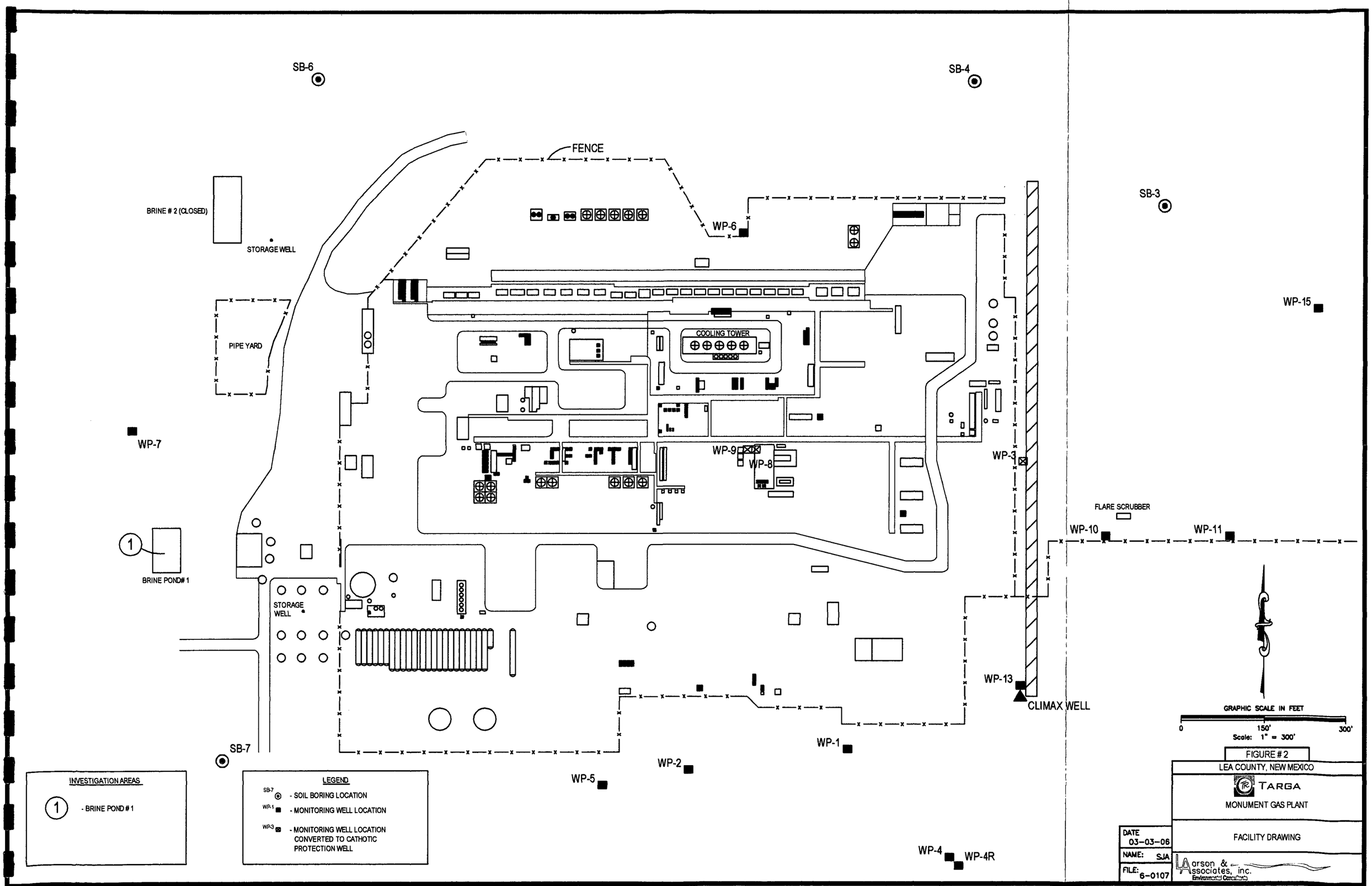
TARGA

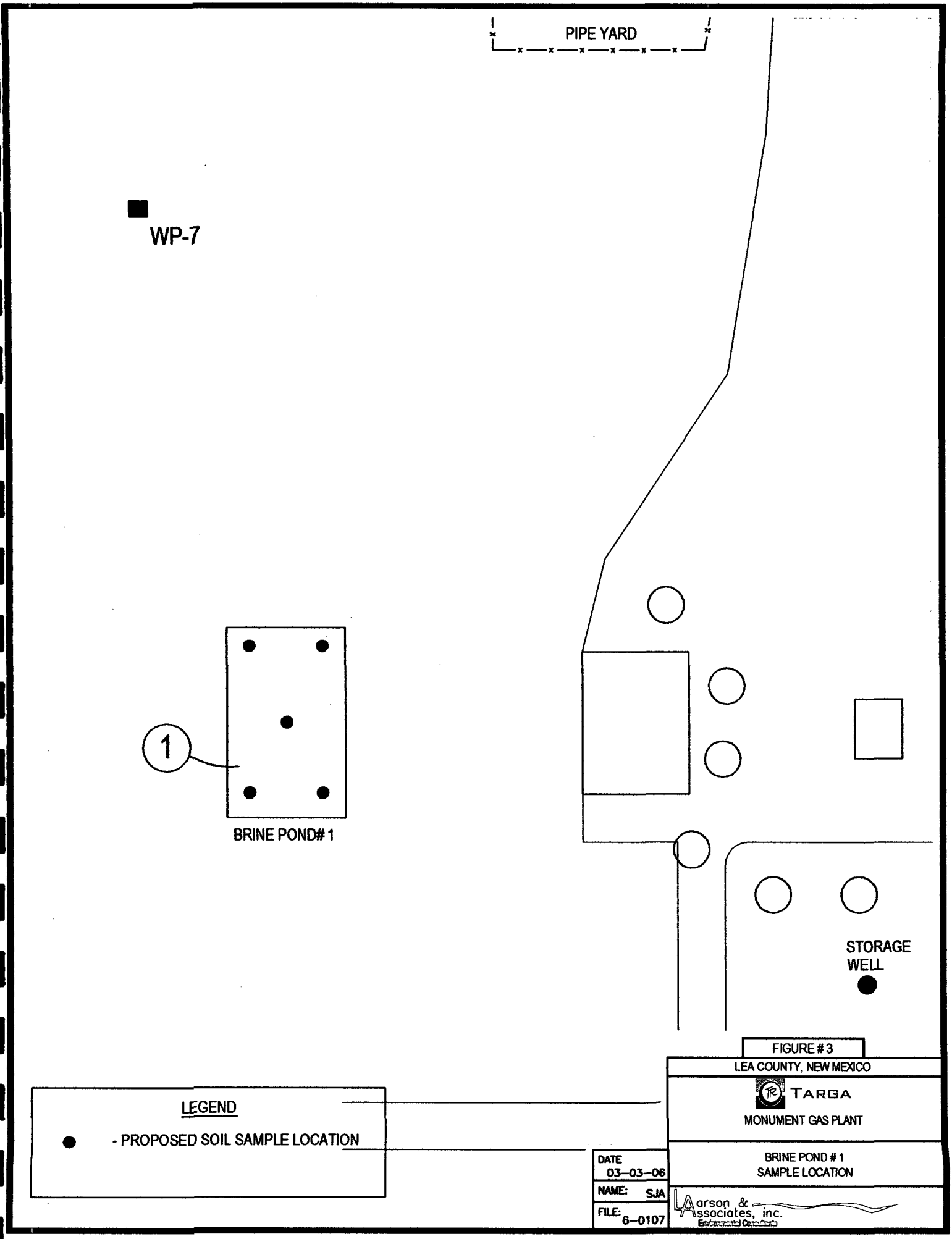
MONUMENT GAS PLANT

SITE LOCATION AND TOPOGRAPHIC MAP

DATE	03-03-06
NAME:	SJA
FILE:	6-0107

Larson & Associates, inc.
Environmental Consultants


SB-6
SB-4
SB-3
FENCE
BRINE # 2 (CLOSED)
STORAGE WELL
WP-6
PIPE YARD
COOLING TOWER
WP-15
WP-7
WP-9
WP-8
WP-3
FLARE SCRUBBER
WP-10
WP-11
1
BRINE POND# 1
STORAGE WELL
WP-13
CLIMAX WELL
SB-7
WP-1
WP-2
WP-5
WP-4
WP-4R
INVESTIGATION AREAS
1 - BRINE POND # 1
LEGEND
SB-7 - SOIL BORING LOCATION
WP-1 - MONITORING WELL LOCATION
WP-3 - MONITORING WELL LOCATION CONVERTED TO CATHOTIC PROTECTION WELL
GRAPHIC SCALE IN FEET
0
150'
300'
Scale: 1" = 300'
FIGURE # 2
LEA COUNTY, NEW MEXICO
TARGA
MONUMENT GAS PLANT
FACILITY DRAWING
DATE 03-03-06
NAME: SJA
FILE: 6-0107
Larson & Associates, inc.
Environmental Consultants


PIPE YARD
WP-7
1
BRINE POND# 1
STORAGE WELL
LEGEND
- PROPOSED SOIL SAMPLE LOCATION
FIGURE # 3
LEA COUNTY, NEW MEXICO
TARGA
MONUMENT GAS PLANT
BRINE POND # 1
SAMPLE LOCATION
DATE 03-03-06
NAME: SJA
FILE: 6-0107
Larson & Associates, inc.

Larson & Associates, Inc.
Environmental Consultants

RECEIVED

JAN 15 2004

Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505

January 8, 2004

Mr. Wayne Price
Petroleum Engineer Specialist
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Groundwater Discharge Plan Renewal Investigation Report, Dynegy Midstream Services, L.P., Monument Gas Plant (GW-025), U.L. N, Section 36, Township 19 South, Range 36 East, Lea County, New Mexico

Dear Mr. Price:

Dynegy Midstream Services, L.P. (Dynegy) has retained Larson and Associates, Inc. (LA) to conduct investigations at its Monument Gas Plant (Site) in response to conditions identified by the New Mexico Oil Conservation Division (NMOCD) during renewal of the Site groundwater discharge plan (GW-025). The Site is located in the SE/4, SW/4 (Unit Latter N), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico. A report and work plan was submitted to the NMOCD on July 25, 2001 that addressed the following issues:

Item 14 A	Provide to OCD for approval a clean-up plan for the area located west of the plant, and between the gas storage brine well ponds;
Item 14 B	Investigate and provide the results for the contamination found near the west side of the oil/water tanks secondary containment;
Item 14 D	Provide an action plan for OCD approval for the #2 gas storage well and brine pond. Please identify if the well and brine pond has integrity; and
Item 15	Submit a storm water run-off plan for OCD by July 31, 2001.

The work plan proposed to properly dispose of debris from the area west of the plant, and between the gas storage brine well ponds, including sediment that had been removed from the #1 brine pond that was temporarily stored on a liner in the area. A separate work plan was issued and approved on January 22, 2002 that included removal and disposal of sediment and liner material from the #2 brine pond (Item 14D). The report also included the results of an investigation of the area near the oil/water tanks secondary containment (Item 14B) where staining was identified by the NMOCD during its inspection of the Site. The remediation plan proposed tilling, and amendments (i.e.,

fertilizer) to bioremediate the spill. Dynegy proposed to investigate soils beneath the #2 brine pond as a method to determining integrity of the liner (Item 14D). Dynegy also proposed a mechanical integrity test (MIT) of the temporarily abandoned#2 brine storage well if and when the well is placed in service. The NMOCD requested that Dynegy conduct a MIT prior to January 1, 2003. A storm water management plan was included in the July 25, 2001 report (Item 15), was approved, and implemented. Figure 1 presents a Site location map. Figure 2 presents a Site drawing, and investigation areas. A discussion of the investigations and remedial actions is presented below.

Item 14 A

Dynegy contracted with Gandy Corporation, located in Tatum, New Mexico, to remove debris from the area west of the plant, and between the gas storage brine well ponds. Approximately 1,236 cubic yards of debris, including sediment from the #1 brine storage pond, sediment from the #2 brine storage pond, and miscellaneous material was disposed at the Sundance Services facility, located east of Eunice, New Mexico. The liner material was taken to Lea Land. Figure 2 presents a Site drawing and location of the debris (Area 1). Appendix A presents the waste manifests.

Item 14 B

Dynegy began tilling the soil near the secondary containment of the oil/water tanks (east of the #1 brine pond) where TPH exceeded the regulatory threshold of 100 milligrams per kilogram (mg/kg). Initial soil samples revealed that the impact was limited to about 2 feet below ground surface (bgs), and extended to about 4 feet bgs at location HA-4. The soil was tilled and nitrogen fertilizer was added to promote bioremediation of the TPH. Soil samples were collected on January 2, 2003 and June 4, 2003, and showed that the TPH had been reduced to concentrations below the regulatory threshold (100 mg/kg) at two (2) locations (HA-3 and HA-5), but remained above the regulatory threshold at three (3) locations (HA-1, HA-2 and HA-4). Dynegy proposes to remediate the remaining TPH by excavating the soil for disposal at an NMOCD permitted facility. The impact extends to about 3 feet bgs at location HA-1, and 4 feet bgs at locations HA-2 and HA-4. Soil samples will be collected from the excavation(s) for TPH analysis. The excavation(s) will be filled with clean soil once the laboratory confirms that the TPH is below 100 mg/kg. A final report will be issued to the NMOCD upon completion of the work. Figure 2 presents a Site drawing and approximate location of the secondary containment area (Area 2). Figure 3 presents a detailed drawing of the area, and sample locations. Table 1 presents a summary of the laboratory analysis. Appendix B presents the laboratory report.

Item 14 D

The #2 brine pond and storage well are located near the northwest corner of the Site. Dynegy has no plans to use the #2 brine storage well, and proposes to plug the well in accordance with NMOCD regulations. A plugging report will be submitted to the

NMOCD. Sediment and liner were removed from the #2 brine storage pond, and disposed with debris from the area west of the plant (Item 14A). On June 7, 2002, soil samples were collected at three locations (HA-1 through HA-3) using a stainless steel hand auger, and analyzed for chloride by Environmental Lab of Texas, Inc. (ELTI). The samples were collected from approximately 3 and 7 feet below the pond, at which depth caliche was encountered that prohibited further sampling. The auger was thoroughly washed between sample events using laboratory-grade detergent, and rinsed with distilled water. The soil samples were placed in clean glass containers, sealed, labeled, chilled in an ice chest, and delivered to the lab under chain-of-custody control. The laboratory analysis indicated the need for further investigation.

On June 6, 2003, an air rotary drilling rig, operated by Scarborough Drilling, Inc., was used to collect soil samples at three (3) locations (BH-1 through BH-3). The borings were advanced from 25 and 30 feet below the pond, at which point groundwater was observed. The soil samples were collected using a jam tube sampler approximately every five feet (i.e., 0 to 1 feet, 5 to 6 feet, 10 to 11 feet, etc.), placed in clean glass sample jars, sealed, labeled, chilled in an ice chest, and delivered under chain-of-custody control to ELTI, and analyzed for chloride. A duplicate of each sample was also collected for headspace analysis using NMOCD approved methods. The sample jars were filled approximately ¾ full, and sealed with a layer of aluminum foil before replacing the cap. After about 15 minutes at ambient temperature a RAE Instruments, Model 2000 photoionization detector (PID) was used to measure the concentration of organic vapors in the sample headspace. The PID probe was inserted into the headspace of the sample jars (through the aluminum foil), and the concentration of organic vapors was displayed by the instrument in parts per million (ppm). The measurements were recorded in a field book, and on geologic logs presented in Appendix C. The NMOCD was notified prior to each sampling event, and the borings were filled with bentonite following the investigation. Figure 2 presents a Site drawing, and location of the #2 brine storage pond. Figure 4 presents a detailed drawing and sample locations. Table 2 presents a summary of the headspace and chloride analysis. Appendix B presents the laboratory reports.

Referring to Table 2, no headspace readings exceeded background levels (0.01 ppm) concluding that no impact had occurred from petroleum hydrocarbons. Chloride concentrations in the hand auger samples ranged from 1600 mg/kg (HA-2, 7 to 8 feet) to 8600 mg/kg (HA-2, 3 to 4 feet). The samples from location BH-3 accept the sample from 10-11 feet (177 mg/kg), reported chloride concentrations above 250 mg/kg. The samples from location BH-1 reported chloride in the sample from 0 to 1 feet at 8270 mg/kg. The concentrations decreased with depth to 780 mg/kg at approximately 21 feet. The highest chloride reading in samples from boring BH-2 was reported in the sample from approximately 5 feet (1060 mg/kg). The chloride concentrations in the remaining samples ranged from 922 mg/kg to 993 mg/kg. Chloride was lowest in soil samples collected at location BH-3 near the north side of the brine pond. The highest concentration occurred in the sample from 0 to 1 foot (815 mg/kg). The remaining

samples, except the sample from 30 to 31 feet, ranged from 177 mg/kg (10 to 11 feet) to 373 mg/kg (25 to 26 feet). The sample from 30 to 31 feet reported a chloride concentration of 1,950 mg/kg, and was apparently impacted by groundwater. A groundwater impact involving chloride has been documented at the Climax Chemical facility that is located immediately up gradient (northwest) of the Site. The Climax facility began operations in the early 1960's, and manufactured sulfuric and hydrochloric acid. The facility disposed of chloride contaminated wash water in an unlined evaporation pond, and also generated large a quantity of sodium sulfate, a solid waste that is stored on the ground in large uncovered piles. The wastewater and sodium sulfate are considered sources for the chloride plume that extends to the southeast. Chloride has been reported in groundwater from monitoring wells at the facility from 6,080 milligrams per liter (mg/L) and 28,400 mg/L.

The concentrations of chloride in soil beneath the #2 brine pond is low compared to the concentration of the brine that was once stored in the pond, indicating that only minor leakage may have occurred. The chloride concentration in background soil may be higher due to dispersion of the sodium sulfate stored at the Climax facility. The chloride levels in soil beneath the #2 brine pond will not have an influence on groundwater quality due to the existing chloride impact, therefore, Dynegy does not feel that any remedial action is required. Please contact Mr. Cal Wrangham at (432) 688-0542 or myself at (432) 687-0901, or we may be reached by e-mail at Cal.Wrangham@Dynegy.com or mark@LAenvironmental.com.

Sincerely,

Larson and Associates, Inc.

Mark J. Larson, CPG, CGWP
President

Encl.

cc: Cal Wrangham - Dynegy
James Lingnau – Dynegy
Chris Williams – NMOCD District I

TABLES

Tables

Table 1
Summary of TPH Analysis of Soil Samples
Dynegy Midstream Services, L.P., Monument Gas Plant
Unit Letter N, Section 36, Township 19 South, Range 36 East
Lea County, New Mexico

Sample Number	Depth Feet BGS	Sample Date	GRO C6-C12 (mg/kg)	DRO >C12-C35 (mg/kg)	TPH C6-C35 (mg/kg)
HA-1	0 - 1	02-Jan-03	<10.0	394	394
	0 - 1	04-Jun-03	333	6,860	7,193
	2 - 3	02-Jan-03	<10.0	<10.0	<20.0
HA-2	0 - 1	02-Jan-03	26.2	1,190	1,216.2
	0 - 1	04-Jun-03	175	1,620	1,795
	2 - 3	02-Jan-03	18.4	280	298.4
	2 - 3	04-Jun-03	<10.0	109	109
	5 - 6	04-Jun-03	<10.0	<10.0	<20.0
HA-3	0 - 1	02-Jan-03	<10.0	<10.0	<20.0
	2 - 3	02-Jan-03	<10.0	<10.0	<20.0
HA-4	0 - 1	02-Jan-03	243	2,070	2,313
	0 - 1	04-Jun-03	48.9	2,620	2,668.9
	2 - 3	02-Jan-03	507	2,120	2,627
	2 - 3	04-Jun-03	16.1	1,510	1,526.1
	5 - 6	04-Jun-03	<10.0	<10.0	<20.0
HA-5	0 - 1	02-Jan-03	<10.0	<10.0	<20.0
	2 - 3	02-Jan-03	<10.0	<10.0	<20.0

Notes: Analysis performed by Environmental Lab of Texas I, Inc., Odessa, Texas

1. BGS: Sample depth in feet below ground surface
2. DRO: Diesel-range organics
3. GRO: Gasoline-range organics
4. TPH: Total petroleum hydrocarbons (Sum of DRO + GRO)
5. mg/kg: Milligrams per kilogram
9. <: Below method detection limit

Table 2
Summary of Chloride Analysis of Soil Samples
Dynegy Midstream Services, L.P., Monument Gas Plant
Unit Letter N, Section 36, Township 19 South, Range 36 East
Lea County, New Mexico

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Chloride mg/kg
HA-1	07-June-02	3 - 4	—	2300
	07-June-02	7 - 8	—	1820
HA-2	07-June-02	3 - 4	—	8600
	07-June-02	7 - 8	—	1600
HA-3	07-June-02	3 - 4	—	6560
	07-June-02	7 - 8	—	2920
BH-1	06-June-03	0 - 1	0.1	8270
	06-June-03	5 - 6	0.5	2750
	06-June-03	10 - 11	0.1	2130
	06-June-03	15 - 16	0.1	1200
	06-June-03	20 - 21	0.1	780
	06-June-03	25 - 26	0.1	1200
	06-June-03	30 - 31	0.1	2340
BH-2	06-June-03	0 - 1	0.1	514
	06-June-03	5 - 6	0.1	1060
	06-June-03	10 - 11	0.1	922
	06-June-03	15 - 16	0.1	993
	06-June-03	20 - 21	0.1	922
	06-June-03	25 - 26	0.1	922
BH-3	06-June-03	0 - 1	0.1	815
	06-June-03	5 - 6	0.1	319
	06-June-03	10 -11	0.1	177
	06-June-03	15 - 16	0.5	276
	06-June-03	20 - 21	0.1	336
	06-June-03	25 - 26	0.1	373
	06-June-03	30 - 31	0.1	1950

Notes: Analysis performed by Environmental Lab of Texas, Inc., Odessa, Texas

1. HA: Hand auger boring
2. BH: Rotary drilled boring
3. PID: Photoionization detector
4. PPM: Parts per million
5. Mg/kg: Miligram per kilogram
6. –: No data available

FIGURES

Figures

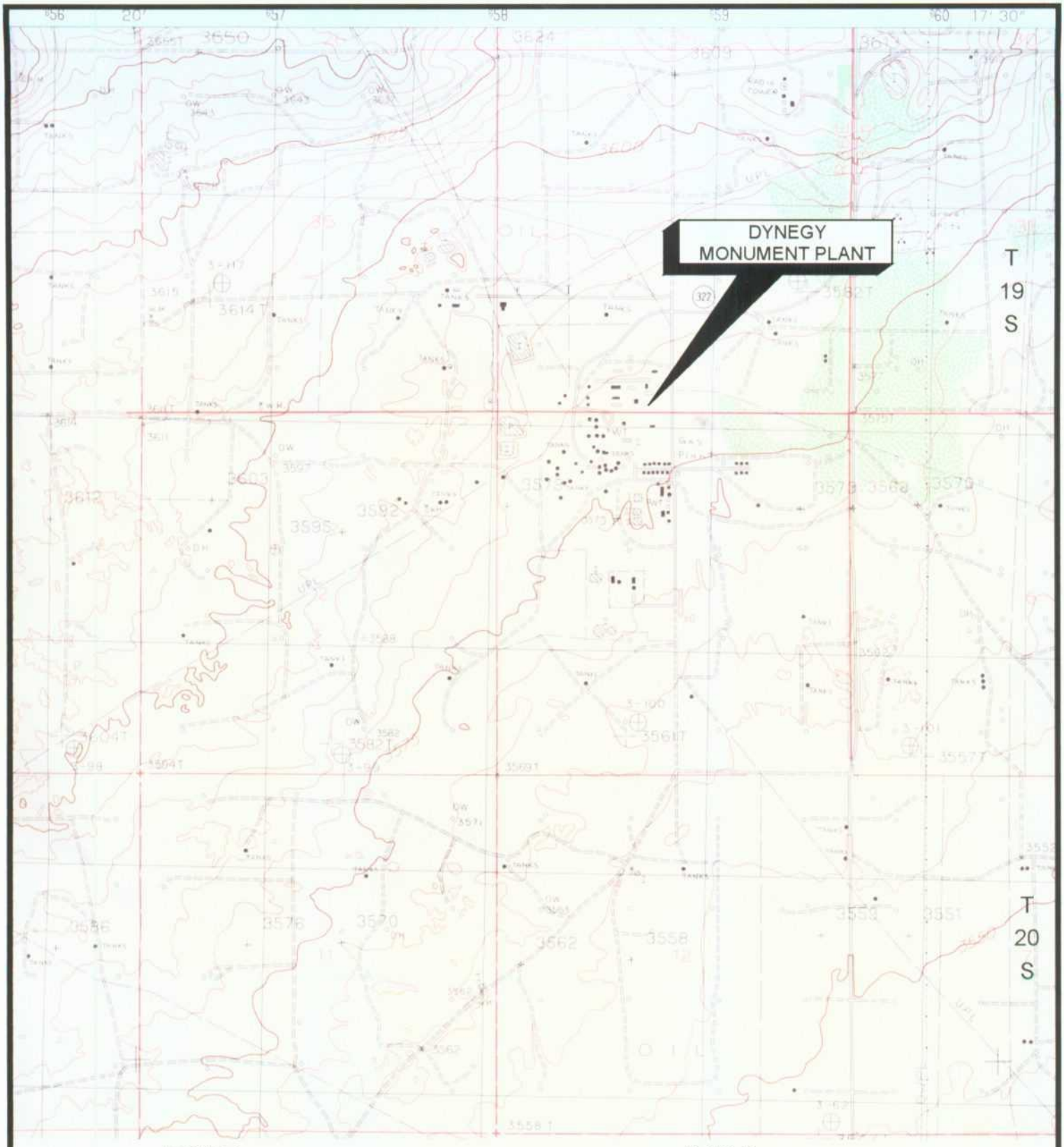


FIGURE #1

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT PLANT

SE/4, SW/4, SEC. 36, T19E,R36S

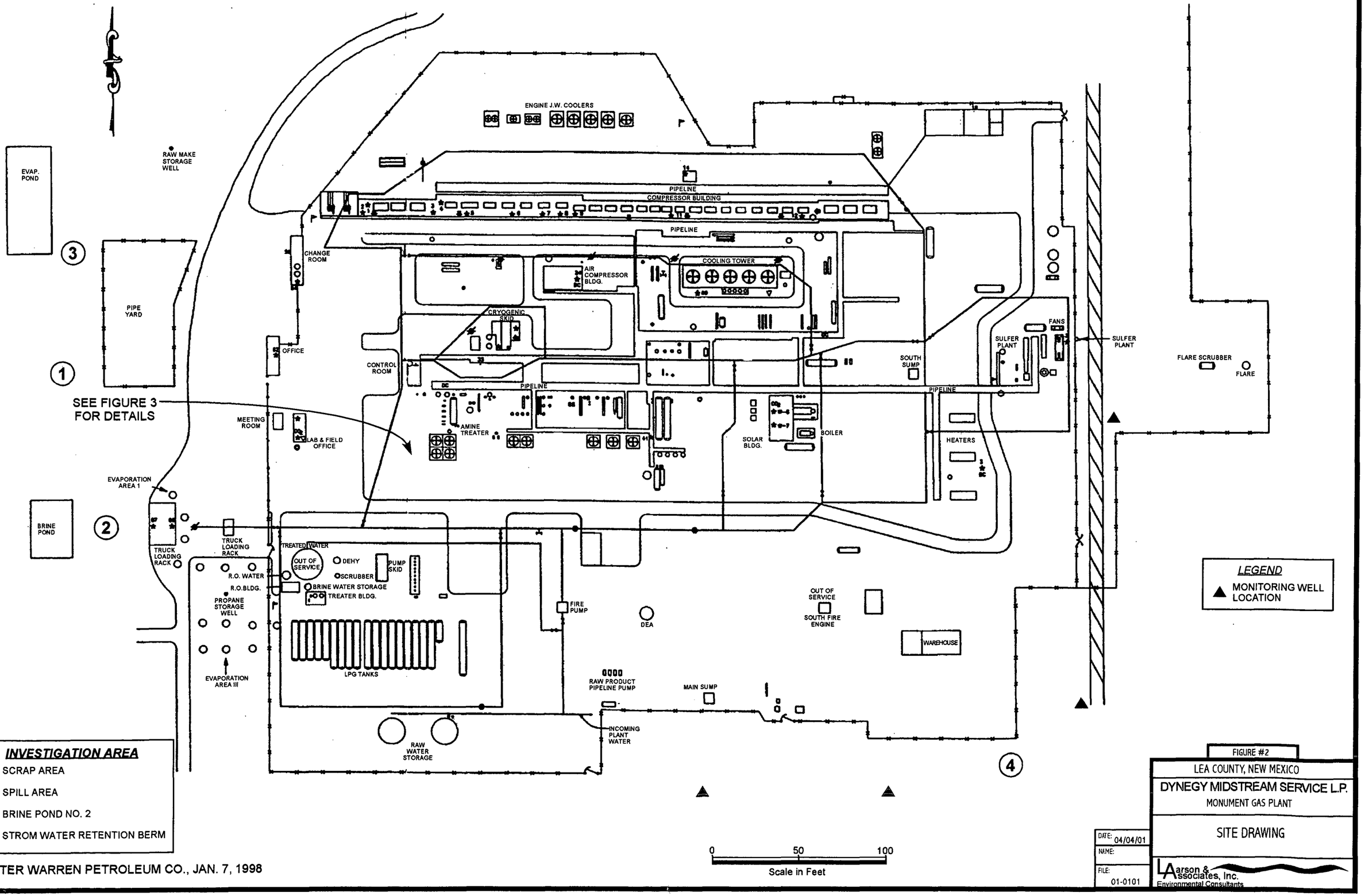
TOPOGRAPHIC MAP

TAKEN FROM U.S.G.S.
MONUMENT SOUTH, NEW MEXICO 1985
7.5' QUADRANGLES

SCALE: 1"=2000'

DATE: 4/30/01
NAME:
JOB: 01-0106

Larson & Associates, Inc.
Environmental Consultants



INVESTIGATION AREA

1. SCRAP AREA
2. SPILL AREA
3. BRINE POND NO. 2
4. STROM WATER RETENTION BERM

LEGEND

▲ MONITORING WELL LOCATION

AFTER WARREN PETROLEUM CO., JAN. 7, 1998

0 50 100

Scale in Feet

FIGURE #2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

SITE DRAWING

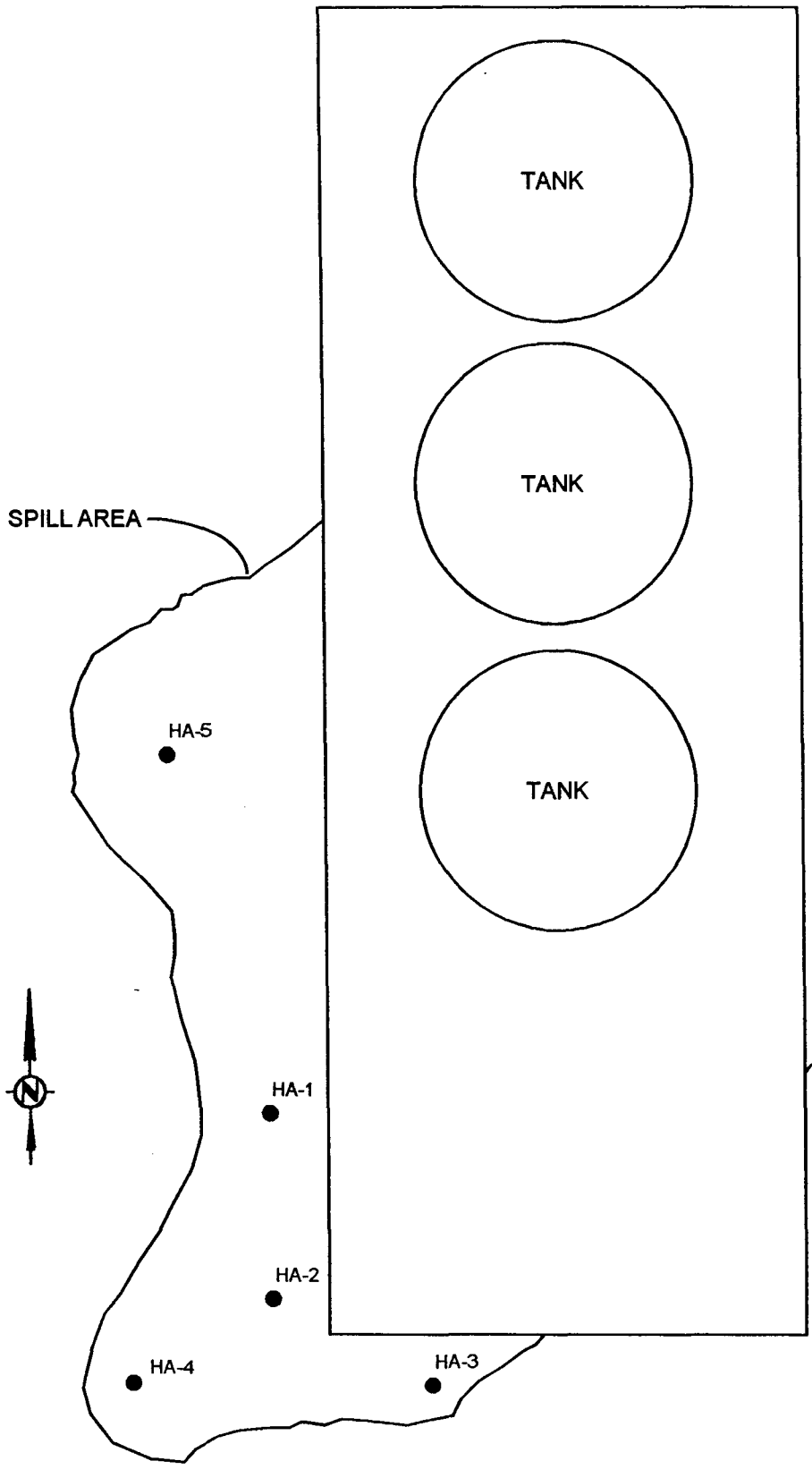
DATE: 04/04/01

NAME:

FILE: 01-0101

Larson & Associates, Inc.
Environmental Consultants

APPENDIX A



LEGEND

HA-1 ● HAND AUGER SOIL SAMPLE LOCATION

FIGURE #3

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

STORAGE TANK
AREA EAST of BRINE POND

DATE: 07/21/01

NAME:

FILE:

Larson & Associates, Inc.
Environmental Consultants

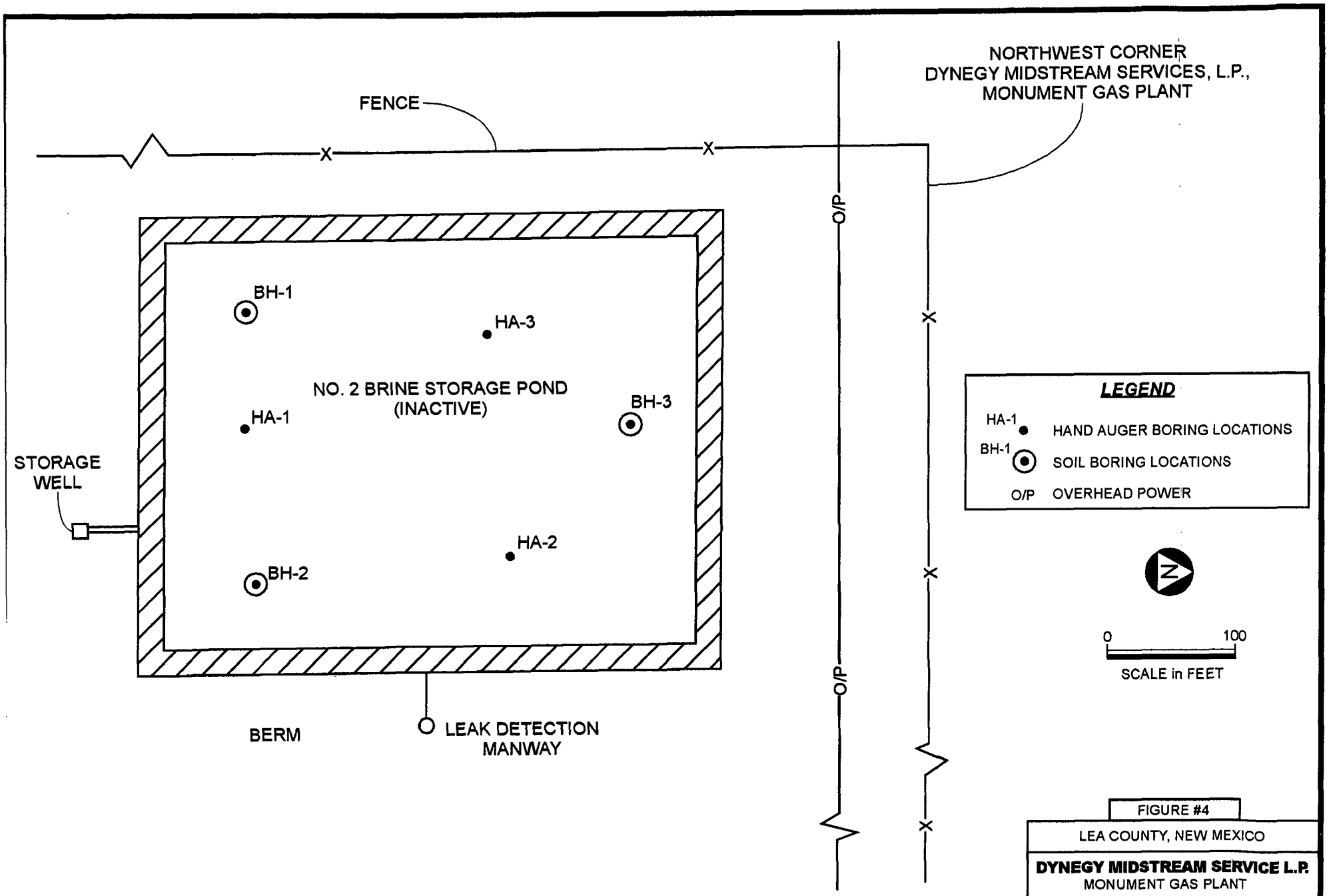


FIGURE #4

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.
MONUMENT GAS PLANT

NO. 2 BRINE STORAGE POND DRAWING

DATE: 7/8/03

PROJECT #: 00-0100

Larson & Associates, Inc.
Environmental Consultants

Appendix A

Waste Manifests

19905

P.O. B. ... 7
398-4.60

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 142935

AUTHORIZATION FOR WORK

Date 1-22-02

YOUR NO. 203

COMPANY ~~[illegible]~~ Dynegy

LEASE Monument Plant

MAIL INVOICE TO

WELL

DESCRIPTION OF WORK Haul Loader to Monument Plant

OK

Equipment Used 203-204T	@ $ 62.00	Hrs. worked 3	Total 186.00
Equipment Used	@ $	Hrs. worked	Total
Pusher Marvin Lewis	@ $	Hrs. worked 3	Total
Labor	@ $	Hrs. worked	Total
Roustabout		Hrs. worked	Sub Total 186.00
Roustabout		Hrs. worked	Sales Tax 11.51
Roustabout		Hrs. worked	TOTAL 197.51
Roustabout		Hrs. worked	

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 140697

AUTHORIZATION FOR WORK

Date 1-23-02

YOUR NO. 501

COMPANY Duke Midstream LEASE Versado Gas Processors

MAIL INVOICE TO _____ WELL Monument

DESCRIPTION OF WORK

Work on brine wall
and haul oil Dirt

Equipment Used Backhoe Dumptruck @ $ 61.25 Hrs. worked 10½ Total 643.13

Equipment Used _____ @ $ _____ Hrs. worked _____ Total _____

Pusher Monte Tebeau @ $ _____ Hrs. worked 10½ Total _____

Labor _____ @ $ _____ Hrs. worked _____ Total _____

Roustabout _____ Hrs. worked _____ Sub Total 643.13

Roustabout _____ Hrs. worked _____ Sales Tax 39.80

Roustabout _____ Hrs. worked _____ TOTAL 682.93

Roustabout _____ Hrs. worked _____

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135750

AUTHORIZATION FOR WORK

Date 1-23-02

YOUR NO. _____

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK cut & roll old pit liner & load on 203 haul truck & take to Lea Land Farm

Equipment Used	203 haultruck	@ $	62.00	Hrs. worked	3	Total 186.00
Equipment Used	HELPER	@ $	19.00	Hrs. worked	6	Total 114.00
Pusher	Mack a Gross	@ $		Hrs. worked	9	Total
Labor		@ $		Hrs. worked		Total
Roustabout		Hrs. worked				Sub Total 320.00
Roustabout		Hrs. worked				Sales Tax 18.57
Roustabout		Hrs. worked				TOTAL 318.57
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143111

AUTHORIZATION FOR WORK

Date 1-23-02

YOUR NO. 507 D.T.

COMPANY DINEGY LEASE MONUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

PICKED UP PLASTIC ON THE PIT.

Equipment Used		@ $		Hrs. worked	Total
Equipment Used		@ $	~~12.00~~	Hrs. worked	Total
Pusher	NORBERTO AMAYA.	@ $	12.00	Hrs. worked 4½	Total 85.50
Labor		@ $		Hrs. worked	Total
Roustabout		Hrs. worked			Sub Total 85.50
Roustabout		Hrs. worked			Sales Tax 4.49
Roustabout		Hrs. worked			TOTAL 89.99
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

AUTHORIZATION FOR WORK

№ 143112

Date 1-23-02

YOUR NO. 502

COMPANY DINEGY LEASE MONUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

HAULED 2 LOADS OF OILY DIRT.
12 YARDS TO THE SUNDANCE W.I.D.

Equipment Used	507 DT	@ $	55.00	Hrs. worked 6	Total 330.00
Equipment Used		@ $		Hrs. worked	Total
Pusher	NORBERTO ANAYA	@ $		Hrs. worked 6	Total
Labor		@ $		Hrs. worked	Total
Roustabout		Hrs. worked			Sub Total 330.00
Roustabout		Hrs. worked			Sales Tax 17.33
Roustabout		Hrs. worked			TOTAL 347.33
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141490

Date Jan. 23, 002 AUTHORIZATION FOR WORK

YOUR NO. 512

COMPANY DYNEGY LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 2 Loads Contaminated Soil
TO SUNDOWN Land FARM.

Equipment Used 512	@ $ 55.00	Hrs. worked 6	Total 330.00		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher M. FARooQ	@ $ _____	Hrs. worked 6	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total	330.00
Roustabout _____	Hrs. worked _____			Sales Tax	17.33
Roustabout _____	Hrs. worked _____			TOTAL	347.33
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141491

Date Jan. 23. 002 AUTHORIZATION FOR WORK

YOUR NO. SM

COMPANY Dynegy LEASE Mounnet Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cut Plastic and Roll up

Equipment Used		@ $		Hrs. worked	Total
Equipment Used		@ $		Hrs. worked	Total
Pusher M. FAROOQ		@ $	19.00	Hrs. worked 4 1/2	Total 85.50
Labor		@ $		Hrs. worked	Total
Roustabout	Hrs. worked				Sub Total 85.50
Roustabout	Hrs. worked				Sales Tax 4.49
Roustabout	Hrs. worked				TOTAL 89.99
Roustabout	Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141461

AUTHORIZATION FOR WORK

Date 1/23/02

YOUR NO. 508

COMPANY Dynegy LEASE Monument plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Hauled 2 loads of contaminated soil to Sundance landfarm.

Equipment Used	dump truck	@ $ 55.00	Hrs. worked 6	Total	330.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Isidro Morales	@ $	Hrs. worked 6	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	330.00
Roustabout		Hrs. worked		Sales Tax	17.33
Roustabout		Hrs. worked		TOTAL	347.33
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141462

AUTHORIZATION FOR WORK

Date 1/23/02

YOUR NO. _____

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cut plastic around pit and rolled up to haul off.

Equipment Used	@ $		Hrs. worked		Total
Equipment Used	@ $		Hrs. worked		Total
Pusher Jesus Prado	@ $	19.00	Hrs. worked	4 1/2	Total 85.50
Labor	@ $		Hrs. worked		Total
Roustabout	Hrs. worked				Sub Total 85.50
Roustabout	Hrs. worked				Sales Tax 4.49
Roustabout	Hrs. worked				TOTAL 89.99
Roustabout	Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135767

AUTHORIZATION FOR WORK

Date 1/23/07

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt, took dirt to pit to help soak up water.

Equipment Used	loader	@ $ 74.50	Hrs. worked 10½	Total	782.25
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 10½	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	782.25
Roustabout		Hrs. worked		Sales Tax	48.40
Roustabout		Hrs. worked		TOTAL	$830.65
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 135847

AUTHORIZATION FOR WORK

Date 1-23-02

YOUR NO. 511

COMPANY DYNAGY LEASE MONUMENT, PLANT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

LABOR CUT PLASTIC 6 HOURS

HAUL MUD, TO SUNDANCE DISPOSAL 5 HOURS
2 LOADS

Equipment Used	~~LABOR~~ LABOR	@ $	19.00	Hrs. worked	6	Total	114.00
Equipment Used	PUMP TRUCK	@ $	55.00	Hrs. worked	5	Total	275.00
Pusher	Jose Espinoza	@ $		Hrs. worked	11	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	389.00
Roustabout		Hrs. worked				Sales Tax	20.42
Roustabout		Hrs. worked				TOTAL	409.42
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 140813

AUTHORIZATION FOR WORK

Date 1-24-02

YOUR NO. 717

COMPANY Dynegy LEASE Monument Plant.

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Loaded Trucks

Equipment Used	Larry Solberg	@ $ 74.50	Hrs. worked 10	Total	745.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher		@ $	Hrs. worked	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	745.00
Roustabout		Hrs. worked		Sales Tax	39.11
Roustabout		Hrs. worked		TOTAL	784.11
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135769

AUTHORIZATION FOR WORK

Date 11/25/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated soil, put dirt into pit to try to dry it up.

Equipment Used	loader	@ $ 74.50	Hrs. worked 10 1/2	Total	782.25
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 10 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	782.25
Roustabout		Hrs. worked		Sales Tax	41.07
Roustabout		Hrs. worked		TOTAL	823.32
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141492

AUTHORIZATION FOR WORK

Date Jan. 25. 002

YOUR NO. 512

COMPANY Dayenergy LEASE Mommeit

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 3 loads Oily Dirt
to Sun Down Land Farm Eunice

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked	10 1/2	Total 577.50
Equipment Used		@ $	Hrs. worked		Total
Pusher	M. FAROOQ	@ $	Hrs. worked	10 1/2	Total
Labor		@ $	Hrs. worked		Total

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Sub Total 577.50

Sales Tax 30.32

TOTAL 607.82

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143116

Date 01 25-02 **AUTHORIZATION FOR WORK**

YOUR NO. 508. D.J.

COMPANY DYNEGY LEASE W MONUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

HAULED 1 LOAD OF PLASTIC
TO LEA LAND LAND FILL.

Equipment Used	508. D.J.	@ $ 55.00	Hrs. worked 3	Total	165.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Roberto Amaya	@ $	Hrs. worked 3	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	165.00
Roustabout		Hrs. worked		Sales Tax	8.66
Roustabout		Hrs. worked		TOTAL	173.66
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143115

Date 01. 25 02 AUTHORIZATION FOR WORK

508. D. T.

YOUR NO. _____

COMPANY DYNEGY LEASE W M. NUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

PICKED UP PLASTIC ON THE PIT.

Equipment Used	@ $	Hrs. worked	Total	
Equipment Used	@ $	Hrs. worked	Total	
Pusher NORBERTO AMAYA.	@ $ 19.00	Hrs. worked 8	Total 152.00	
Labor	@ $	Hrs. worked	Total	
Roustabout	Hrs. worked		Sub Total	152.00
Roustabout	Hrs. worked		Sales Tax	7.98
Roustabout	Hrs. worked		TOTAL	159.98
Roustabout	Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135849

AUTHORIZATION FOR WORK

Date 1-25-02

YOUR NO. 511

COMPANY DYNAGY. LEASE MONUMENT PLANT.

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

HAUL 3 LOADS TO SUNDANCE DISPOSAL.

Equipment Used		@ $		Hrs. worked		Total	
Equipment Used	DUMP TRUCK.	@ $	55.00	Hrs. worked	11	Total	605.00
Pusher	Jose Espinoza	@ $		Hrs. worked	11	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	605.00
Roustabout		Hrs. worked				Sales Tax	31.76
Roustabout		Hrs. worked				TOTAL	636.76
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 142940

AUTHORIZATION FOR WORK

Date 1-25-02

YOUR NO. 18

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Fuel loader at Monument

Equipment Used P.U. 18	@ $	43.50	Hrs. worked	2	Total	87.00
Equipment Used _____	@ $	_____	Hrs. worked	_____	Total	_____
Pusher Marvin Lewis	@ $	_____	Hrs. worked	1	Total	_____
Labor _____	@ $	_____	Hrs. worked	_____	Total	_____

Roustabout _____	Hrs. worked _____	Sub Total	87.00
Roustabout _____	Hrs. worked _____	Sales Tax	4.57
Roustabout _____	Hrs. worked _____	TOTAL	91.57
Roustabout _____	Hrs. worked _____		

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 140812

AUTHORIZATION FOR WORK

Date 1-28-02

YOUR NO. 717

COMPANY Dynegy LEASE Monument Plant.

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Loaded Trucks

Equipment Used	Loader	@ $ 745	Hrs. worked	Total	745.00
Equipment Used	Larry Solbers	@ $	Hrs. worked	Total	
Pusher		@ $	Hrs. worked	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	745.00
Roustabout		Hrs. worked		Sales Tax	39.11
Roustabout		Hrs. worked		TOTAL	784.11
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141494

Date Jan: 29: 002 **AUTHORIZATION FOR WORK**

YOUR NO. 512

COMPANY Dynegy LEASE Mounment

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Hal one Loady Plastic
To Lea Land Farm Carlsbad Hwy

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked 3 1/2	Total	192.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M. FAROOQ	@ $	Hrs. worked 3 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	192.50
Roustabout		Hrs. worked		Sales Tax	10.11
Roustabout		Hrs. worked		TOTAL	202.61
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141495

Date Jan. 29, 002 AUTHORIZATION FOR WORK

YOUR NO. _____

COMPANY Dynegy LEASE Mourmont

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cut Plastic and Loads on Truck - all Around Pit.

Equipment Used		@ $		Hrs. worked		Total	
Equipment Used		@ $		Hrs. worked		Total	
Pusher	M. FARROQ	@ $	19.00	Hrs. worked	4	Total	76.00
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	76.00
Roustabout		Hrs. worked				Sales Tax	3.99
Roustabout		Hrs. worked				TOTAL	79.99
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143117

AUTHORIZATION FOR WORK

Date 1-29-02

YOUR NO. 50% D.T.

COMPANY DYNEGY LEASE MONUMENT

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

CUTTING PLASTIC ON THE PIT.

Equipment Used @ $ Hrs. worked Total

Equipment Used @ $ Hrs. worked Total

Pusher NORBERTO AMAYA @ $ 19.00 Hrs. worked 3 Total 57.00

Labor @ $ Hrs. worked Total

Roustabout Hrs. worked Sub Total 57.00

Roustabout Hrs. worked Sales Tax 2.99

Roustabout Hrs. worked TOTAL 59.99

Roustabout Hrs. worked

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

AUTHORIZATION FOR WORK

№ 143118

Date 1-29-02

50% D.T.

YOUR NO.

COMPANY DYNEGY LEASE MONUMENT

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

HAULED 3-12 YARDS
LOADS OF OILY DIRT.
TO SUNDANCE EUNICE

Equipment Used	50% D.T.	@ $	55.00	Hrs. worked	9	Total	495.00
Equipment Used		@ $		Hrs. worked		Total	
Pusher	NORBERTO AMAYA	@ $		Hrs. worked	9	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	495.00
Roustabout		Hrs. worked				Sales Tax	25.99
Roustabout		Hrs. worked				TOTAL	520.99
Roustabout		Hrs. worked					

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 135771

AUTHORIZATION FOR WORK

Date 1/29/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated soil + plastic, mixed dirt with it to try to dry it.

Equipment Used	Loader	@ $ 74.50	Hrs. worked 11	Total	819.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 11	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	819.50
Roustabout		Hrs. worked		Sales Tax	43.02
Roustabout		Hrs. worked		TOTAL	862.52
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141493

AUTHORIZATION FOR WORK

Date Jan: 29: 002

YOUR NO. 512

COMPANY Dynegy LEASE Maumont Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul one Loads oily Dirt
From Maumont to Eunice Sun DANCE Plant

Equipment Used	512 D-T	@ $ 55.00	Hrs. worked 3 1/2	Total	192.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M-FAROOQ	@ $	Hrs. worked 3 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	192.50
Roustabout		Hrs. worked		Sales Tax	10.11
Roustabout		Hrs. worked		TOTAL	202.61
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 140814

AUTHORIZATION FOR WORK

Date 2-5-02

YOUR NO 717

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Loaded Trucks

Equipment Used	Loader	@ $ 74.50	Hrs. worked 10	Total	745.00
Equipment Used	L	@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	745.00
Roustabout		Hrs. worked		Sales Tax	39.11
Roustabout		Hrs. worked		TOTAL	784.11
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141677

Date FEB-7-002 AUTHORIZATION FOR WORK

YOUR NO. 507

COMPANY Dayngy LEASE Mommat

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Hal one Loads Plastic
Cut Plastic and Helped Loads
Take to Lea Land F

Equipment Used 507	@ $ 55.00	Hrs. worked 7	Total 385.00		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher M-FARooQ	@ $ _____	Hrs. worked 7	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total 385.00	
Roustabout _____	Hrs. worked _____			Sales Tax 20.21	
Roustabout _____	Hrs. worked _____			TOTAL 405.21	
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136056

AUTHORIZATION FOR WORK

Date 2/7/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Helped cut plastic, loaded up on dump truck, stirred pit to dry up.

Equipment Used	loader	@ $	74.50	Hrs. worked	6	Total 447.00
Equipment Used	2 HELPER	@ $	19.00	Hrs. worked	2	Total 38.00
Pusher	Larry Solberg	@ $		Hrs. worked	8	Total
Labor		@ $		Hrs. worked		Total
Roustabout		Hrs. worked				Sub Total 485.00
Roustabout		Hrs. worked				Sales Tax 25.46
Roustabout		Hrs. worked				TOTAL 510.46
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135774

AUTHORIZATION FOR WORK

Date 2/8/02

YOUR NO. 25

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Took diesel out to loader, filled up loader, miped up pit.

Equipment Used	pickup	@ $	43.50	Hrs. worked	3	Total	130.50
Equipment Used	loader	@ $	74.50	Hrs. worked	1	Total	74.50
Pusher	Jerry Solberg	@ $		Hrs. worked	4	Total	
Labor	Mohammad Fadoog	@ $	19.00	Hrs. worked	4	Total	76.00
Roustabout		Hrs. worked				Sub Total	281.00
Roustabout		Hrs. worked				Sales Tax	14.75
Roustabout		Hrs. worked				TOTAL	295.75
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135775

AUTHORIZATION FOR WORK

Date 2/11/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt, swiped up pit.

Equipment Used Loader	@ $ 74.50	Hrs. worked 10 1/2	Total 782.25		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher Larry Solberg	@ $ _____	Hrs. worked 10 1/2	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total	782.25
Roustabout _____	Hrs. worked _____			Sales Tax	41.07
Roustabout _____	Hrs. worked _____			TOTAL	823.32
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 135724

AUTHORIZATION FOR WORK

Date 2-11-02

COMPANY Dynegy LEASE Monument Brine Pit YOUR NO. 511

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK haul 4 loads from pit to Paavo disposal

Equipment Used	511 dump truck	@ $	55.00	Hrs. worked	10	Total 550.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Mark Grass	@ $		Hrs. worked	10	Total
Labor		@ $		Hrs. worked		Total
Roustabout		Hrs. worked				Sub Total 550.00
Roustabout		Hrs. worked				Sales Tax 34.03
Roustabout		Hrs. worked				TOTAL 584.03
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№136169

AUTHORIZATION FOR WORK

Date 2-11-02

YOUR NO. 508

COMPANY Dyengy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 48 yds of oily Dirt to Sundance Services Inc.

Equipment Used	Dumptruck	@ $ 55.00	Hrs. worked	10½	Total 577.50
Equipment Used		@ $	Hrs. worked		Total
Pusher	Mark Tarbutton	@ $	Hrs. worked	10½	Total
Labor		@ $	Hrs. worked		Total
Roustabout		Hrs. worked			Sub Total 577.50
Roustabout		Hrs. worked			Sales Tax 35.73
Roustabout		Hrs. worked			TOTAL 613.23
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141678

AUTHORIZATION FOR WORK

Date FEB-11-002

YOUR NO. 512

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 4 Loads
Oily Dirt From Loction to
Unice Sundance INC

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked 10 1/2	Total	577.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M. FARRO	@ $	Hrs. worked 10 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	577.50
Roustabout		Hrs. worked		Sales Tax	35.73
Roustabout		Hrs. worked		TOTAL	613.23
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136170

AUTHORIZATION FOR WORK

Date 2-12-02

YOUR NO. 810

COMPANY DYENGY LEASE Monument Plant

MAIL INVOICE TO ______ WELL ______

DESCRIPTION OF WORK

haul 49 yds of oily Dirt
Sundance Services INC

Equipment Used Dumptruck	@ $55.00	Hrs. worked 10½	Total 577.50
Equipment Used	@ $	Hrs. worked	Total
Pusher Martin Lebrez Jr	@ $	Hrs. worked 10½	Total
Labor	@ $	Hrs. worked	Total
Roustabout		Hrs. worked	Sub Total 577.50
Roustabout		Hrs. worked	Sales Tax 35.73
Roustabout		Hrs. worked	TOTAL 613.23
Roustabout		Hrs. worked	

Approved by ______

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141679

AUTHORIZATION FOR WORK

Date FEB-12-00

YOUR NO. 512

COMPANY DYNEGY LEASE Mounument

MAIL INVOICE TO _____ WELL Plat

DESCRIPTION OF WORK

Haul 4 Loads Oily Dirt
To Sundance SERVICES

Equipment Used	512	@ $ 55.00	Hrs. worked	10 1/2	Total 577.50
Equipment Used		@ $	Hrs. worked		Total
Pusher	M. FAROOQ	@ $	Hrs. worked	10 1/2	Total
Labor		@ $	Hrs. worked		Total
Roustabout		Hrs. worked			Sub Total 577.50
Roustabout		Hrs. worked			Sales Tax 35.73
Roustabout		Hrs. worked			TOTAL 613.23
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136051

AUTHORIZATION FOR WORK

Date 2/12/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt, moved up pit, piled up plastic.

Equipment Used loader	@ $ 74.50	Hrs. worked 10	Total 745.00		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher Larry Solberg	@ $ _____	Hrs. worked 10	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total 745.00	
Roustabout _____	Hrs. worked _____			Sales Tax 39.11	
Roustabout _____	Hrs. worked _____			TOTAL 784.11	
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№135725

AUTHORIZATION FOR WORK

Date 2-12-02

YOUR NO. 511

COMPANY Dynegy

LEASE Monument Brine Pit

MAIL INVOICE TO _____

WELL _____

DESCRIPTION OF WORK

haul 4 loads from pit to Paraso disposal

Equipment Used	511 Dumptruck	@ $	55.00	Hrs. worked	10	Total 550.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Mack Grass	@ $		Hrs. worked	10	Total
Labor		@ $		Hrs. worked		Total

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Sub Total 550.00
Sales Tax 34.03
TOTAL 584.03

Approved by _____

SUPERIOR-102

24-HOUR SERVICE, CALL
PHO. 398-4960
LOVINGTON 396-4948

GANDY CORPORATION

KILL TRUCKS — VACUUM TRUCKS — WINCH TRUCKS
TANK CLEANING — OIL TREATING
ROUSTABOUTING
NMSCC #14225

1109 E. BROADWAY
BOX 827
TATUM, NEW MEXICO 88267

278837

Date 2-12-02 Truck No. [redacted] 25

Company Dynegy Purchase Order No. Invoice Number

From Rig No. Location

To Lease Monument Plant Well No. Location

Time Out A.M. P.M. Time In A.M. P.M.

Diesel Brine Water Fresh Water
Crude Oil Salt Water Acid Bbls. Hauled

	TIME	RATE	AMOUNT
Driver, Operator or Pusher Ramon Pena	2 hrs.	43.50	87.00
Helper			
Helper			
Helper			
Other Charges			

Description of Work: Took pickup and diesel filled up Loaders.

Sub Total	87.00
Sales Tax	4.57
TOTAL	91.57

Authorized by:

SUPERIOR-101

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 136052

AUTHORIZATION FOR WORK

Date 2/13/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contamination, plastic, and piled up plastic.

Equipment Used	loader	@ $ 74.50	Hrs. worked 10½	Total	782.25
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 10½	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	782.25
Roustabout		Hrs. worked		Sales Tax	41.07
Roustabout		Hrs. worked		TOTAL	823.32
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141680

AUTHORIZATION FOR WORK

Date FEB-13-002

YOUR NO. 512

COMPANY DYNEGY LEASE Monument

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul 3 Loads of Plastic
From Mounment Plat to
Lea Land INC

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked	10	Total	550.00
Equipment Used		@ $	Hrs. worked		Total	
Pusher	M. FAROOQ	@ $	Hrs. worked	10	Total	
Labor		@ $	Hrs. worked		Total	
Roustabout		Hrs. worked			Sub Total	550.00
Roustabout		Hrs. worked			Sales Tax	28.37
Roustabout		Hrs. worked			TOTAL	578.37
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141501

AUTHORIZATION FOR WORK

Date 2-13-02

YOUR NO. 511

COMPANY Dynegy LEASE Brine Pit

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Haul 4 louds contaminated dirt from pit to Paravo Disposal

Equipment Used	511 dump truck	@ $	55.00	Hrs. worked	10	Total 550.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Mack a Grass	@ $		Hrs. worked	10	Total
Labor		@ $		Hrs. worked		Total

Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____

Sub Total 550.00
Sales Tax 28.87
TOTAL 578.87

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143152

AUTHORIZATION FOR WORK

Date 2-14-02

YOUR NO. 511

COMPANY Dyenergy LEASE Monument

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

haul 36 yds of Oiley Dirt
Teendance

Equipment Used Dumptruck	@ $ 55.00	Hrs. worked 8½	Total 467.50		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher Manuel Salas Jr	@ $ _____	Hrs. worked 8½	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total 467.50	
Roustabout _____	Hrs. worked _____			Sales Tax 24.54	
Roustabout _____	Hrs. worked _____			TOTAL 492.04	
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136171

AUTHORIZATION FOR WORK

Date 2-14-02

YOUR NO. 511

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

haul 48 yds of oily dirt to
Laddance Services

Equipment Used	Dempstertruck	@ $ 55.00	Hrs. worked 10½	Total	577.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Mark Tolert	@ $	Hrs. worked 10½	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	577.50
Roustabout		Hrs. worked		Sales Tax	30.31
Roustabout		Hrs. worked		TOTAL	607.81
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141682

Date FEB-14-002 AUTHORIZATION FOR WORK

YOUR NO. 512

COMPANY Dynegy LEASE Monument

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul one Load Oily Dirt
From Monument Plant to Sundance INC Unit

Equipment Used	512 D-T	@ $ _____	Hrs. worked	2 1/2	Total 137.50
Equipment Used		@ $ _____	Hrs. worked		Total
Pusher	M. FARRAR	@ $ _____	Hrs. worked	2 1/2	Total
Labor		@ $ _____	Hrs. worked		Total
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			

Sub Total 137.50

Sales Tax 7.21

TOTAL 144.71

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141681

AUTHORIZATION FOR WORK

Date FEB-14-002

YOUR NO. 512

COMPANY Dynegy LEASE Mourmit

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul 3 Loads Plastic
From Mourmit plat to
Lea Land Fill

Equipment Used	512 D.T	@ $	55.00	Hrs. worked	9	Total	495.00
Equipment Used		@ $		Hrs. worked		Total	
Pusher	MOHAMMAD FAROOQ	@ $		Hrs. worked	9	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	495.00
Roustabout		Hrs. worked				Sales Tax	25.98
Roustabout		Hrs. worked				TOTAL	520.98
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136053

AUTHORIZATION FOR WORK

Date 2/14/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt. & plastic, stockpiled contaminated dirt.

Equipment Used	Loader	@ $ 74.50	Hrs. worked 11	Total	819.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 11	Total	
Labor		@ $	Hrs. worked	Total	

Roustabout	Hrs. worked	Sub Total	819.50
Roustabout	Hrs. worked	Sales Tax	43.02
Roustabout	Hrs. worked	TOTAL	862.52
Roustabout	Hrs. worked		

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141502

AUTHORIZATION FOR WORK

Date 2-14-02

YOUR NO. 510

COMPANY Dynegy LEASE Mownat Plt.

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK haul 3 loads from Brine Pit to Parmo disposal

Equipment Used	510 Dumptruck	@ $ 55.00	Hrs. worked 8	Total	440.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Mack Green	@ $	Hrs. worked 8	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	440.00
Roustabout		Hrs. worked		Sales Tax	23.10
Roustabout		Hrs. worked		TOTAL	463.10
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 136057

AUTHORIZATION FOR WORK

Date 2/15/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt and plastic. Stockpiled contamination and plastic.

Equipment Used	loader	@ $ 74.50	Hrs. worked 10 1/2	Total	782.25
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 10 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	782.25
Roustabout		Hrs. worked		Sales Tax	41.07
Roustabout		Hrs. worked		TOTAL	823.32
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141684

AUTHORIZATION FOR WORK

Date FEB-15-002

YOUR NO. 512

COMPANY Dynegy LEASE Monument

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul 4 Loads Oily Dirt From Monument Plant to Sundance INC

Equipment Used	~~M~~ D.T. 512	@ $ 55.00	Hrs. worked 9	Total	495.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M-FA0002	@ $	Hrs. worked 9	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	495.00
Roustabout		Hrs. worked		Sales Tax	25.98
Roustabout		Hrs. worked		TOTAL	520.98
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141683

AUTHORIZATION FOR WORK

Date FEB-15-002

YOUR NO. 512

COMPANY Dynegy LEASE Monument

MAIL INVOICE TO WELL Plant

DESCRIPTION OF WORK

Haul One Loads Plastic
From Monmet Plat to Lea Land fill

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked 2 1/2	Total	137.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M. FAROOQ	@ $	Hrs. worked 2 1/2	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	137.50
Roustabout		Hrs. worked		Sales Tax	7.21
Roustabout		Hrs. worked		TOTAL	144.71
Roustabout		Hrs. worked			

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141651

AUTHORIZATION FOR WORK

Date 2-15-02

YOUR NO. 510

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 60 yds of oily dirt to Sundance Services

Equipment Used Peterbilt truck 510 @ $ 65.00 Hrs. worked 10 1/2 Total 682.50

Equipment Used _____ @ $ _____ Hrs. worked _____ Total _____

Pusher Monte Lewis @ $ _____ Hrs. worked 10 1/2 Total _____

Labor _____ @ $ _____ Hrs. worked _____ Total _____

Roustabout _____ Hrs. worked _____ Sub Total 682.50

Roustabout _____ Hrs. worked _____ Sales Tax 35.83

Roustabout _____ Hrs. worked _____ TOTAL 718.33

Roustabout _____ Hrs. worked _____

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141503

AUTHORIZATION FOR WORK

Date 2-15-02

YOUR NO. 511

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Haul 6 loads from Brine Pit To Paraco disposal

Equipment Used	511 Dump Trucks	@ $	55.00	Hrs. worked	12	Total	660.00
Equipment Used		@ $		Hrs. worked		Total	
Pusher	Mack A Grass	@ $		Hrs. worked	12	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	660.00
Roustabout		Hrs. worked				Sales Tax	34.65
Roustabout		Hrs. worked				TOTAL	694.65
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141803

AUTHORIZATION FOR WORK

Date 2-15-02

YOUR NO. 25

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Fuel up loader

Equipment Used P.U.25	@ $ 43.50	Hrs. worked 2	Total 87.00		
Equipment Used _____	@ $ _____	Hrs. worked _____	Total _____		
Pusher Marvin Lewis	@ $ _____	Hrs. worked 2	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total 87.00	
Roustabout _____	Hrs. worked _____			Sales Tax 4.57	
Roustabout _____	Hrs. worked _____			TOTAL 91.57	
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136058

AUTHORIZATION FOR WORK

Date 2/18/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt and plastic. Stockpiled dirt & plastic.

Equipment Used	loader	@ $ 74.50	Hrs. worked 10½	Total	782.25
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Larry Solberg	@ $	Hrs. worked 10½	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	782.25
Roustabout		Hrs. worked		Sales Tax	41.07
Roustabout		Hrs. worked		TOTAL	823.32
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 139138

AUTHORIZATION FOR WORK

Date 2-18-02

YOUR NO. 510

COMPANY DYNEGY LEASE MONUMENT PLANT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK HAULED 6 LOADS OF CONTAMINATED SOIL TO SUNDANCE EACH LOAD WAS 12 YARDS.

Equipment Used	DUMP TRK.	@ $ 55.00	Hrs. worked 12	Total	660.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	ROMAN PONCE	@ $ 12	Hrs. worked	Total	12
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	660.00
Roustabout		Hrs. worked		Sales Tax	34.65
Roustabout		Hrs. worked		TOTAL	694.65
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143119

AUTHORIZATION FOR WORK

Date 2-18-02

YOUR NO 507. D. T.

COMPANY DYNEGY LEASE MONUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

HAULED 4 LOADS OF
OILY DIRT.

Equipment Used 507 - D. T - @ $ 55.00 Hrs. worked 11 Total 605.00

Equipment Used _____ @ $ _____ Hrs. worked _____ Total _____

Pusher NORBERTO ARMAYA Hrs. worked 11 Total _____

Labor _____ @ $ _____ Hrs. worked _____ Total _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Roustabout _____ Hrs. worked _____

Sub Total 605.00

Sales Tax 31.76

TOTAL 636.76

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141685

AUTHORIZATION FOR WORK

Date FEB - 18-002

YOUR NO. 512

COMPANY Dynegy LEASE Mourmont

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul one Loads Soil Mud
from Location to Sundance INC

Equipment Used	512 · D.T	@ $ 55.00	Hrs. worked	2 1/2	Total 137.50
Equipment Used		@ $	Hrs. worked		Total
Pusher	M - FAROOQ	@ $	Hrs. worked	2 1/2	Total
Labor		@ $	Hrs. worked		Total
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			

Sub Total 137.50
Sales Tax 7.21
TOTAL 144.71

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141686

AUTHORIZATION FOR WORK

Date FEB-18-002

YOUR NO. 512

COMPANY Dynegy LEASE Mounet

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul 3 Loads Plastic
From Location to Lealand INC

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked	8 1/2	Total 467.50
Equipment Used		@ $	Hrs. worked		Total
Pusher	M. FAROOQ	@ $	Hrs. worked	8 1/2	Total
Labor		@ $	Hrs. worked		Total

Roustabout	Hrs. worked	Sub Total	467.50
Roustabout	Hrs. worked	Sales Tax	24.54
Roustabout	Hrs. worked	TOTAL	492.04
Roustabout	Hrs. worked		

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141505

AUTHORIZATION FOR WORK

Date 2-18-02

YOUR NO. 511

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

haul 6 loads O-D from brine pit to Parano disposal

Equipment Used	511 Dump truck	@ $	55.00	Hrs. worked	12	Total 660.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Mack Grass	@ $		Hrs. worked	12	Total
Labor		@ $		Hrs. worked		Total

Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____

Sub Total 660.00
Sales Tax 34.65
TOTAL 694.65

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136059

AUTHORIZATION FOR WORK

Date 2/19/02

YOUR NO. 714

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with contaminated dirt + plastic.

Equipment Used	loader	@ $ 74.50	Hrs. worked	10 1/2	Total 782.25
Equipment Used		@ $	Hrs. worked		Total
Pusher	Larry Solberg	@ $	Hrs. worked	10 1/2	Total
Labor		@ $	Hrs. worked		Total
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			
Roustabout		Hrs. worked			

Sub Total 782.25

Sales Tax 41.06

TOTAL 823.31

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141871

AUTHORIZATION FOR WORK

Date 2-14-02

YOUR NO.

COMPANY Dynegy LEASE Monument PLANT

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

Cutting up pit liner and rolling it in order to haul it out of there.

Equipment Used	Gang Truck #59	@ $	23.00	Hrs. worked	~~6~~	Total 138.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Doug A. Murray	@ $	23.00	Hrs. worked	11	Total 253.00
Labor		@ $	19.00	Hrs. worked	22	Total 418.00
Roustabout	Gabriel Vejar	Hrs. worked	11			Sub Total 809.00
Roustabout	Timothy Fabela	Hrs. worked	11			Sales Tax 42.48
Roustabout		Hrs. worked				TOTAL 851.48
Roustabout		Hrs. worked				

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

1109 E. Broadway

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

№ 141506

AUTHORIZATION FOR WORK

Date 2-19-02

YOUR NO. 511

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO ______ WELL ______

DESCRIPTION OF WORK

haul 5 loads O-D from brine pit to Parsvo disposal

Equipment Used	511 Dump truck	@ $	55.00	Hrs. worked	10½	Total	577.50
Equipment Used		@ $		Hrs. worked		Total	
Pusher	Mack Glass	@ $		Hrs. worked	10½	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout				Hrs. worked		Sub Total	577.50
Roustabout				Hrs. worked		Sales Tax	30.31
Roustabout				Hrs. worked		TOTAL	607.81
Roustabout				Hrs. worked			

Approved by ______

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 143121

AUTHORIZATION FOR WORK

Date 2-19-02

YOUR NO 507 D.T

COMPANY DYNEGY LEASE MONUMENT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

HAULED 5 LOADS OF
OILY DIRT.

Equipment Used	507 - D. T -	@ $	55.00	Hrs. worked 12	Total 660.00
Equipment Used		@ $		Hrs. worked	Total
Pusher	NORBERTO ANAYA	@ $		Hrs. worked 12	Total
Labor		@ $		Hrs. worked	Total

Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____
Roustabout _____ Hrs. worked _____

Sub Total 660.00
Sales Tax 34.65
TOTAL 694.65

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141687

Date FEB-19/002 AUTHORIZATION FOR WORK

YOUR NO. 512

COMPANY Dynegy LEASE Mourmont Plant

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

Haul 4 Loads Plastic
From Mourmont Plant to Lea Landing

Equipment Used	512 D.T	@ $ 55.00	Hrs. worked 11	Total	605.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	M. FARRAR	@ $	Hrs. worked 11	Total	
Labor		@ $	Hrs. worked	Total	
Roustabout		Hrs. worked		Sub Total	605.00
Roustabout		Hrs. worked		Sales Tax	31.76
Roustabout		Hrs. worked		TOTAL	636.76
Roustabout		Hrs. worked			

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 136060

AUTHORIZATION FOR WORK

Date 2/20/02

YOUR NO. 714

COMPANY Dypegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Loaded trucks with plastic, helped cut + roll plastic, backdragged pit.

Equipment Used loader	@ $ 7	Hrs. worked 74.50	Total 521.50		
Equipment Used labor	@ $ 3	Hrs. worked 19.00	Total 57.00		
Pusher Larry Solberg	@ $ 10	Hrs. worked _____	Total _____		
Labor _____	@ $ _____	Hrs. worked _____	Total _____		
Roustabout _____	Hrs. worked _____			Sub Total 578.50	
Roustabout _____	Hrs. worked _____			Sales Tax 30.38	
Roustabout _____	Hrs. worked _____			TOTAL 608.88	
Roustabout _____	Hrs. worked _____				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141688

AUTHORIZATION FOR WORK

Date 2-20-2002

YOUR NO. 512

COMPANY Dynegy LEASE Mammoth

MAIL INVOICE TO _____ WELL Plant

DESCRIPTION OF WORK

Haul 2 Loads Plastic
From Location to Lea Land Inc

Equipment Used	5 12 D.T	@ $	55.00	Hrs. worked	5	Total	275.00
Equipment Used		@ $		Hrs. worked		Total	
Pusher	M. FARLOW	@ $		Hrs. worked	5	Total	
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	275.00
Roustabout		Hrs. worked				Sales Tax	14.43
Roustabout		Hrs. worked				TOTAL	289.43
Roustabout		Hrs. worked					

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141689

AUTHORIZATION FOR WORK

Date 2-20-2002

YOUR NO. 512

COMPANY Dynegy LEASE Mounett

MAIL INVOICE TO WELL Plant

DESCRIPTION OF WORK

Helped Sik up Plastic

Equipment Used		@ $		Hrs. worked		Total	
Equipment Used		@ $		Hrs. worked		Total	
Pusher	M. FAROOQ	@ $	19.00	Hrs. worked	5	Total	95.00
Labor		@ $		Hrs. worked		Total	
Roustabout		Hrs. worked				Sub Total	95.00
Roustabout		Hrs. worked				Sales Tax	4.99
Roustabout		Hrs. worked				TOTAL	99.99
Roustabout		Hrs. worked					

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141872

AUTHORIZATION FOR WORK

Date 2-20-02

YOUR NO. _____

COMPANY Dynegy LEASE Moument PLANT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cutting & Rolling up pit liner

Equipment Used	Pick Up #	@ $ 20.50	Hrs. worked 5 ~~0~~ ½	Total	102.50
Equipment Used		@ $	Hrs. worked	Total	
Pusher	Berge A. Thomas	@ $ 23.00	Hrs. worked 10½	Total	241.50
Labor		@ $ 19.00	Hrs. worked 10½	Total	199.50
Roustabout	Timothy Fabela	Hrs. worked 10½		Sub Total	543.50
Roustabout		Hrs. worked		Sales Tax	28.53
Roustabout		Hrs. worked		TOTAL	572.03
Roustabout		Hrs. worked			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 141875

AUTHORIZATION FOR WORK

Date 2-23-02

YOUR NO. _____

COMPANY Dynegy LEASE Monument PLANT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cutting up pit liner and rolling it.

Equipment Used	Gary Truck #59	@ $	23.00	Hrs. worked	5	Total 115.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	George Albernundy	@ $	23.00	Hrs. worked	9½	Total 218.50
Labor		@ $	19.00	Hrs. worked	19	Total 361.00
Roustabout	Gabriel Vejar	Hrs. worked	9½			Sub Total 694.50
Roustabout	Timothy Fabela	Hrs. worked	9½			Sales Tax 36.47
Roustabout		Hrs. worked				TOTAL 730.97
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews –:– Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141839

AUTHORIZATION FOR WORK

Date Feb 25, 2002

YOUR NO. 201

COMPANY Dynegy LEASE Monument

MAIL INVOICE TO WELL

DESCRIPTION OF WORK Haul two loads of plastic to lea land fill

Equipment Used	201	@ $	62.00	Hrs. worked	10	Total 620.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Jay Clare	@ $		Hrs. worked	10	Total
Labor		@ $	19.00	Hrs. worked	10	Total 190.00
Roustabout				Hrs. worked		Sub Total 810.00
Roustabout	Mohamnad Farooq			Hrs. worked	10	Sales Tax 42.53
Roustabout				Hrs. worked		TOTAL 852.53
Roustabout				Hrs. worked		

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews –:– Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 143402

AUTHORIZATION FOR WORK

Date 2-25-02

YOUR NO.

COMPANY Dynegy LEASE Monument PLANT

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

cutting up pit liner and rolling it up.

Equipment Used	Gang Truck #59	@ $ 23.00	Hrs. worked ~~10~~ 5	Total	115.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	George A. Hornady	@ $ 23.00	Hrs. worked 10 1/2	Total	241.50
Labor		@ $ 19.00	Hrs. worked 21	Total	399.00
Roustabout	Gabriel Vejar	Hrs. worked 10 1/2		Sub Total	755.50
Roustabout	Timothy Faber	Hrs. worked 10 1/2		Sales Tax	39.67
Roustabout		Hrs. worked		TOTAL	795.17
Roustabout		Hrs. worked			

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 143403

AUTHORIZATION FOR WORK

Date 2-26-02

YOUR NO. _____

COMPANY Dynegy LEASE Monument PLANT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK

Cutting up pit liner and rolling it up.

Equipment Used	Gang Truck #59	@ $ 23.00	Hrs. worked 5	Total	115.00
Equipment Used	MATERIAL	@ $ _____	Hrs. worked _____	Total	9.90
Pusher	George A. Kennedy	@ $ 23.00	Hrs. worked 11	Total	253.00
Labor		@ $ 19.00	Hrs. worked 22	Total	418.00
Roustabout	Gabriel Vejar	Hrs. worked 11		Sub Total	795.90
Roustabout	Timothy Febela	Hrs. worked 11		Sales Tax	41.79
Roustabout		Hrs. worked _____		TOTAL	837.69
Roustabout		Hrs. worked _____			

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141840

AUTHORIZATION FOR WORK

Date Feb 26, 2007

YOUR NO. 201

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Haul Plastic to Lea Land inc

Equipment Used	201	@ $	62.00	Hrs. worked	10	Total 620.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Jay Dare	@ $		Hrs. worked	10	Total
Labor		@ $	19.00	Hrs. worked	10	Total 190.00
Roustabout		Hrs. worked				Sub Total 810.00
Roustabout	Norberto Amaya	Hrs. worked	10			Sales Tax 50.12
Roustabout		Hrs. worked				TOTAL 860.12
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267
Roustabout Crews —:— Winch Trucks
NMSCC #14225

1109 E. Broadway

№ 143404

AUTHORIZATION FOR WORK

Date 2-27-02

YOUR NO.

COMPANY Dynegy LEASE Monument PLANT

MAIL INVOICE TO WELL

DESCRIPTION OF WORK

Finished cutting up pit liner and rolling it up and loaded on truck.

Equipment Used	Gang Truck #59	@ $ 23.00	Hrs. worked 5	Total	115.00
Equipment Used		@ $	Hrs. worked	Total	
Pusher	George A. Young	@ $ 23.00	Hrs. worked 9	Total	207.00
Labor		@ $ 19.00	Hrs. worked 18	Total	342.00
Roustabout	Timothy Febela	Hrs. worked 9		Sub Total	664.00
Roustabout	Christ Williams	Hrs. worked 9		Sales Tax	34.86
Roustabout		Hrs. worked		TOTAL	698.86
Roustabout		Hrs. worked			

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141842

AUTHORIZATION FOR WORK

Date Feb 28, 2002

YOUR NO. 201

COMPANY Dynegy LEASE Monument Plant

MAIL INVOICE TO [illegible] WELL

DESCRIPTION OF WORK Haul Plastic to Lea Land

Equipment Used	201	@ $	62.00	Hrs. worked	4	Total 248.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Jay Mann	@ $		Hrs. worked	4	Total
Labor		@ $	19.00	Hrs. worked	4	Total 76.00
Roustabout				Hrs. worked		Sub Total 324.00
Roustabout	Sal Munoz			Hrs. worked	4	Sales Tax 17.01
Roustabout				Hrs. worked		TOTAL 341.01
Roustabout				Hrs. worked		

Approved by

SUPERIOR-102

P.O. Box 827
398-4960

GANDY CORPORATION

TATUM, NEW MEXICO 88267

Roustabout Crews —:— Winch Trucks

NMSCC #14225

1109 E. Broadway

№ 141520

AUTHORIZATION FOR WORK

Date 3-2-02

YOUR NO. _____

COMPANY Dynegy LEASE Monument RLT

MAIL INVOICE TO _____ WELL _____

DESCRIPTION OF WORK Pick up cat loader & move back to Lovington yard.

Equipment Used	307 - Kenworth	@ $	62.00	Hrs. worked	3	Total 186.00
Equipment Used		@ $		Hrs. worked		Total
Pusher	Mack Sims	@ $		Hrs. worked	3	Total
Labor		@ $		Hrs. worked		Total
Roustabout		Hrs. worked				Sub Total 186.00
Roustabout		Hrs. worked				Sales Tax 9.77
Roustabout		Hrs. worked				TOTAL 195.77
Roustabout		Hrs. worked				

Approved by _____

SUPERIOR-102

APPENDIX B

Appendix B

Laboratory Reports

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project:	Dynegy/ Monument Plant
PO#:	
Order#:	G0305379
Report Date:	01/06/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0305379-01	HA-1 0-1'	SOIL	1/2/03 12:42	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-02	HA-1 2-3'	SOIL	1/2/03 12:50	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-03	HA-2 0-1'	SOIL	1/2/03 13:00	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-04	HA-2 2-3'	SOIL	1/2/03 13:10	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-05	HA-3 0-1'	SOIL	1/2/03 13:15	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-06	HA-3 2-3'	SOIL	1/2/03 13:20	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-07	HA-4 0-1'	SOIL	1/2/03 13:33	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-08	HA-4 2-3'	SOIL	1/2/03 13:40	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0305379-09	HA-5 0-1'	SOIL	1/2/03 13:45	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		
0305379-10	HA-5 2-3'	SOIL	1/2/03 13:50	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 4 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

Lab ID: 0305379-01
Sample ID: HA-1 0-1'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	394	10.0
TOTAL, C6-C35	394	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	79%	70	130
1-Chlorooctadecane	78%	70	130

Lab ID: 0305379-02
Sample ID: HA-1 2-3'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	86%	70	130
1-Chlorooctadecane	87%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

Lab ID: 0305379-03
Sample ID: HA-2 0-1'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**26.2**	10.0
DRO, >C12-C35	**1,190**	10.0
TOTAL, C6-C35	**1,220**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**85%**	**70**	**130**
1-Chlorooctadecane	**86%**	**70**	**130**

Lab ID: 0305379-04
Sample ID: HA-2 2-3'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**18.4**	10.0
DRO, >C12-C35	**280**	10.0
TOTAL, C6-C35	**298**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**82%**	**70**	**130**
1-Chlorooctadecane	**79%**	**70**	**130**

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

Lab ID: 0305379-05
Sample ID: HA-3 0-1'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	81%	70	130
1-Chlorooctadecane	78%	70	130

Lab ID: 0305379-06
Sample ID: HA-3 2-3'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	83%	70	130
1-Chlorooctadecane	80%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

Lab ID: 0305379-07
Sample ID: HA-4 0-1'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**243**	10.0
DRO, >C12-C35	**2,070**	10.0
TOTAL, C6-C35	**2,313**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**92%**	**70**	**130**
1-Chlorooctadecane	**83%**	**70**	**130**

Lab ID: 0305379-08
Sample ID: HA-4 2-3'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**507**	10.0
DRO, >C12-C35	**2,120**	10.0
TOTAL, C6-C35	**2627**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**90%**	**70**	**130**
1-Chlorooctadecane	**88%**	**70**	**130**

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305379
Project: 1-0101
Project Name: Dynegy/ Monument Plant
Location: None Given

Lab ID: 0305379-09
Sample ID: HA-5 0-1'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	107%	70	130

Lab ID: 0305379-10
Sample ID: HA-5 2-3'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/3/03	1	1	RKT	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	84%	70	130
1-Chlorooctadecane	81%	70	130

Approval: Jeanne McMurrey 01-07-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0305379

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0004245-02			<10.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0305379-02	0	952	937	98.4%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0305379-02	0	952	908	95.4%	3.1%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0004245-05		1000	798	79.8%	

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Dynegy
SITE MANAGER: Cindy Crain
PROJECT NO.: 1-0101
PROJECT NAME: Monument Plant
PAGE 1 OF 1
LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TPH -8015 Gro+Dro	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
1/2/03	1242		✓		HA-1 0-1'	1	✓	0305379-01	
↓	1250		✓		HA-1 2-3'	1	✓	02	
	1300		✓		HA-2 0-1'	1	✓	03	
	1310		✓		HA-2 2-3'	1	✓	04	
	1315		✓		HA-3 0-1'	1	✓	05	
	1320		✓		HA-3 2-3'	1	✓	06	
	1333		✓		HA-4 0-1'	1	✓	07	
	1340		✓		HA-4 2-3'	1	✓	08	
	1345		✓		HA-5 0-1'	1	✓	09	
	1350		✓		HA-5 2-3'	1	✓	10	

SAMPLED BY: (Signature) [signature] DATE: 1-2-03 TIME: 1350
RELINQUISHED BY: (Signature) DATE: ____ TIME: ____
RECEIVED BY: (Signature) DATE: ____ TIME: ____

RELINQUISHED BY: (Signature) [signature] DATE: 1-2-03 TIME: 1707
RECEIVED BY: (Signature) DATE: ____ TIME: ____
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: ____ HAND DELIVERED (circled) UPS OTHER: ____

COMMENTS: 4 oz glass Ice / Rec 4°C
TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB (struck through)
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: Elot
ADDRESS: 12600 W. I 20 E
CITY: Odessa STATE: TX ZIP: 79653
CONTACT: ____ PHONE: 563-1800
RECEIVED BY: (Signature) [signature] DATE: 1-02-03 TIME: 1707

SAMPLE CONDITION WHEN RECEIVED:
LA CONTACT PERSON: Cindy Crain
SAMPLE TYPE: Soil

ANALYTICAL REPORT

Prepared for:

Ray Jones
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project:	Dynegy Monument Plant
PO#:	
Order#:	G0306643
Report Date:	06/06/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0306643
Project: 0-0101
Project Name: Dynegy Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306643-01	HA-1 (0-1')	SOIL	6/4/03 14:50	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-02	HA-2 (0-1')	SOIL	6/4/03 15:00	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-03	HA-2 (2'-3')	SOIL	6/4/03 15:10	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-04	HA-2 (5'-6')	SOIL	6/4/03 15:15	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-05	HA-4 (0-1')	SOIL	6/4/03 15:20	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-06	HA-4 (2'-3')	SOIL	6/4/03 15:25	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		
0306643-07	HA-4 (5'-6')	SOIL	6/4/03 15:30	6/5/03 7:50	4 oz glass	Ice
	Lab Testing: 8015M	Rejected: No		Temp: 4.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Ray Jones
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306643
Project: 0-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306643-01
Sample ID: HA-1 (0-1')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	5	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	333	50.0
DRO, >C12-C35	6860	50.0
TOTAL, C6-C35	7193	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	50%	70	130
1-Chlorooctadecane	29%	70	130

Lab ID: 0306643-02
Sample ID: HA-2 (0-1')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	5	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	175	50.0
DRO, >C12-C35	1620	50.0
TOTAL, C6-C35	1795	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	47%	70	130
1-Chlorooctadecane	43%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Ray Jones
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306643
Project: 0-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306643-03
Sample ID: HA-2 (2'-3')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	109	10.0
TOTAL, C6-C35	109	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	101%	70	130

Lab ID: 0306643-04
Sample ID: HA-2 (5'-6')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	113%	70	130
1-Chlorooctadecane	100%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Ray Jones
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306643
Project: 0-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306643-05
Sample ID: HA-4 (0-1')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	48.9	10.0
DRO, >C12-C35	2,620	10.0
TOTAL, C6-C35	2,669	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	125%	70	130
1-Chlorooctadecane	107%	70	130

Lab ID: 0306643-06
Sample ID: HA-4 (2'-3')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	16.1	10.0
DRO, >C12-C35	1,510	10.0
TOTAL, C6-C35	1,526	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	111%	70	130
1-Chlorooctadecane	108%	70	130

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Ray Jones
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306643
Project: 0-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306643-07
Sample ID: HA-4 (5'-6')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		6/5/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	94%	70	130
1-Chlorooctadecane	73%	70	130

Approval: Raland K Tuttle 6-06-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306643

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0005752-02			<10.0		
CONTROL SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0005752-03		952	1096	115.1%	
CONTROL DUP SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0005752-04		952	1075	112.9%	1.9%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0005752-05		1000	1157	115.7%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306643

Project: Dynegy Monument Plant

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
HA-1 (0-1')	0306643-01	SOIL	06/04/2003	06/05/2003
HA-2 (0-1')	0306643-02	SOIL	06/04/2003	06/05/2003
HA-2 (2'-3')	0306643-03	SOIL	06/04/2003	06/05/2003
HA-2 (5'-6')	0306643-04	SOIL	06/04/2003	06/05/2003
HA-4 (0-1')	0306643-05	SOIL	06/04/2003	06/05/2003
HA-4 (2'-3')	0306643-06	SOIL	06/04/2003	06/05/2003
HA-4 (5'-6')	0306643-07	SOIL	06/04/2003	06/05/2003

Surrogate recoveries on 8015 TPH are outside of control limits due to dilution (G03066-01, 02).

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Roland de Leon Date: 6-06-03

Environmental Lab of Texas I, Ltd.

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202 • Midland, TX 79701
Fax: 915-687-0456
915-687-0901

CLIENT NAME: Dynegy

SITE MANAGER: Kay Jones

PROJECT NO.: 0-0101

PROJECT NAME: Dynegy Monument Plant

PAGE 1 OF 1

LAB. PO #

PARAMETERS/METHOD NUMBER: TPH 8015M

	DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
01	6/4/03	14:50		✓		HA-1 (0-1')	1		
02	6/4/03	15:00		✓		HA-2 (0-1')	1		
03	6/4/03	15:10		✓		HA-2 (2-3')	1		
04	6/4/03	15:15		✓		HA-2 (5-6')	1		
05	6/4/03	15:20		✓		HA-4 (0-1')	1		
06	6/4/03	15:25		✓		HA-4 (2-3')	1		
07	6/4/03	15:30		✓		HA-4 (5-6')	1		

0396413

SAMPLED BY: (Signature) Kay Jones DATE: 6/4/03 TIME: 15:30

RELINQUISHED BY: (Signature) DATE: TIME:

RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) Kay Jones DATE: 6/5/03 TIME: 7:30

RECEIVED BY: (Signature) DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: ELOT
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Rec'd
DATE: 6-5-03 TIME: 0750

SAMPLE CONDITION WHEN RECEIVED: Rec'd

LA CONTACT PERSON:

SAMPLE TYPE:

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Dynegy Monument Plant

PO#:

Order#: G0306679

Report Date: 06/10/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306679-01	BH-1 (0-1')	SOIL	6/6/03 9:02	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-02	BH-1 (5-6')	SOIL	6/6/03 9:07	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-03	BH-1 (10-11')	SOIL	6/6/03 9:14	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-04	BH-1 (15-16')	SOIL	6/6/03 9:20	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-05	BH-1 (20-21')	SOIL	6/6/03 9:23	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-06	BH-1 (25-26')	SOIL	6/6/03 9:30	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-07	BH-1 (30-31')	SOIL	6/6/03 9:38	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-08	BH-2 (0-1')	SOIL	6/6/03 9:58	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306679-09	BH-2 (5-6')	SOIL	6/6/03 10:02	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-10	BH-2 (10-11')	SOIL	6/6/03 10:05	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-11	BH-2 (15-16')	SOIL	6/6/03 10:09	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-12	BH-2 (20-21')	SOIL	6/6/03 10:12	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-13	BH-2 (25-26')	SOIL	6/6/03 10:17	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-14	BH-3 (0-1')	SOIL	6/6/03 10:34	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-15	BH-3 (5-6')	SOIL	6/6/03 10:37	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		
0306679-16	BH-3 (10-11')	SOIL	6/6/03 10:40	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	**Rejected:** No		**Temp:** 0.0 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306679-17	BH-3 (15-16')	SOIL	6/6/03 10:44	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	Rejected: No		Temp: 0.0 C		
0306679-18	BH-3 (20-21')	SOIL	6/6/03 10:47	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	Rejected: No		Temp: 0.0 C		
0306679-19	BH-3 (25-26')	SOIL	6/6/03 10:51	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	Rejected: No		Temp: 0.0 C		
0306679-20	BH-3 (30-31')	SOIL	6/6/03 10:58	6/6/03 16:50	4 oz glass	Ice
	Lab Testing: Chloride	Rejected: No		Temp: 0.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306679-01
Sample ID: BH-1 (0-1')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	8270	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-02
Sample ID: BH-1 (5-6')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	2750	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-03
Sample ID: BH-1 (10-11')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	2130	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-04
Sample ID: BH-1 (15-16')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	1200	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-05
Sample ID: BH-1 (20-21')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	780	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-06
Sample ID: BH-1 (25-26')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	1200	mg/kg	1	20	9253	6/10/03	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306679-07
Sample ID: BH-1 (30-31')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	2340	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-08
Sample ID: BH-2 (0-1')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	514	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-09
Sample ID: BH-2 (5-6')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	1060	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-10
Sample ID: BH-2 (10-11')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	922	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-11
Sample ID: BH-2 (15-16')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	993	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-12
Sample ID: BH-2 (20-21')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	922	mg/kg	1	20	9253	6/10/03	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0306679
Project: 1-0101
Project Name: Dynegy Monument Plant
Location: None Given

Lab ID: 0306679-13
Sample ID: BH-2 (25-26')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	922	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-14
Sample ID: BH-3 (0-1')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	815	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-15
Sample ID: BH-3 (5-6')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	319	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-16
Sample ID: BH-3 (10-11')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	177	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-17
Sample ID: BH-3 (15-16')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	276	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-18
Sample ID: BH-3 (20-21')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	336	mg/kg	1	20	9253	6/10/03	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN		Order#:	G0306679
LARSON AND ASSOCIATES, INC.		Project:	1-0101
P.O. BOX 50685		Project Name:	Dynegy Monument Plant
MIDLAND, TX 79710		Location:	None Given

Lab ID: 0306679-19
Sample ID: BH-3 (25-26')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	373	mg/kg	1	20	9253	6/10/03	SB

Lab ID: 0306679-20
Sample ID: BH-3 (30-31')

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	1950	mg/kg	1	20	9253	6/10/03	SB

Approval: Jeanne McMurrey 06-11-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306679

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0005781-01			<20.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0306679-01	8270	500	8840	114.%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0306679-01	8270	500	8820	110.%	0.2%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0005781-04		5000	4960	99.2%	

CHAIN—OF—CUSTODY RECORD

LA Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202 • Midland, TX 79701
Fax: 915-687-0456
915-687-0901

CLIENT NAME: Dynegy

SITE MANAGER: Cindy Crain

PROJECT NO.: 1-0101

PROJECT NAME: Monument Plant

PAGE 1 OF 2

LAB. PO # 030679

	DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
01	6/6/03	0902		✓		BH-1 (0-1')	1	✓		
02	"	0907		✓		" (5-6')	1	✓		
03	"	0914		✓		" (10-11')	1	✓		
04	"	0920		✓		" (15-16')	1	✓		
05	"	0923		✓		" (20-21')	1	✓		
06	"	0930		✓		" (25-26')	1	✓		
07	"	0938		✓		" (30-31')	1	✓		
08	"	0958		✓		BH-2 (0-1')	1	✓		
09	"	1002		✓		" (5-6')	1	✓		
10	"	1005		✓		" (10-11')	1	✓		
11	"	1009		✓		" (15-16')	1	✓		
12	"	1012		✓		" (20-21')	1	✓		
13	"	1017		✓		" (25-26')	1	✓		
14	"	1034		✓		BH-3 (0-1')	1	✓		
15	"	1037		✓		" (5-6')	1	✓		
16	"	1040		✓		" (10-11')	1	✓		
17	"	1044		✓		" (15-16')	1	✓		
18	"	1047		✓		" (20-21')	1	✓		

SAMPLED BY: (Signature) Cindy Crain
DATE: 6/6/03 TIME: 1100

RELINQUISHED BY: (Signature) Cindy Crain
DATE: 6/6/03 TIME: 1650

RECEIVED BY: (Signature) Kim Anderson
DATE: 6/6/03 TIME: 1650

RELINQUISHED BY: (Signature)
DATE: TIME:

RECEIVED BY: (Signature)
DATE: TIME:

RECEIVED BY: (Signature)
DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: C. Crain

SAMPLE TYPE: Soil 0.0°C

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Dynegy

SITE MANAGER: Cindy Crain

PROJECT NO.: 1-0101

PROJECT NAME: Monument Plant

PAGE 2 OF 2

LAB. PO # 0306679

	DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
19	6/6/03	1051		✓		BH-3 (25-26')	1	✓		
20	"	1058		✓		" (30-31')	1	✓		

PARAMETERS/METHOD NUMBER

SAMPLED BY: (Signature) Cindy Crain
DATE: 6/6/03
TIME: 1100

RELINQUISHED BY: (Signature) Cindy Crain
DATE: 6/6/03
TIME: 1650

RECEIVED BY: (Signature) Tom Anderson
DATE: 6/6/03
TIME: 1650

RELINQUISHED BY: (Signature)
DATE:
TIME:

RECEIVED BY: (Signature)
DATE:
TIME:

RECEIVED BY: (Signature)
DATE:
TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON: C. Crain

SAMPLE TYPE: Soil 0.0°C

Appendix C

Geologic Logs

APPENDIX C

Client: Dynegy Midstream Services, L. P.

Project: Monument Gas Plant

Project No: 1-0101

Location: SE/4, SW/4, Sec. 36, T19S, R36E, Lea Co., NM

Log of Borehole: BH-1

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE				
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM) 0.25 0.5 0.75	Lab Analysis
0		Ground Surface					
		Clayey Sand 7.5 YR 4/2, brown quartz sand, fine grained, very poorly sorted, dry.	1			0.1	0 - 1' bgs 8270 mg/kg chloride
5		*Caliche* 7.5 YR 7/3, pink quartz sand, fine grained, very poorly sorted, indurated, dry.	2			0.5	5 - 6' bgs 2750 mg/kg chloride
10			3			0.1	10 - 11' bgs 2130 mg/kg chloride
15			4			0.1	15 - 16' bgs 1200 mg/kg chloride
20		*Silty, Clayey Sand* 5 YR 6/4, light reddish brown quartz sand, fine grained, poorly sorted, damp at 25 feet.	5			0.1	20 - 21' bgs 780 mg/kg chloride
25			6			0.1	25 - 26' 1200 mg/kg chloride
30		*Clayey Sand* 5 YR 6/6, reddish yellow quartz sand, very fine grained, well sorted, wet.	7			0.1	30 - 31' bgs 2340 mg/kg chloride
		End of Borehole at 31 ft					
35							
40							

Drilling Method: Air Rotary

Date Drilled: 6/6/03

Hole Size: 5 5/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Dynegy Midstream Services, L. P.

Project: Monument Gas Plant

Project No: 1-0101

Location: SE/4, SW/4, Sec. 36, T19S, R36E, Lea Co., NM

Log of Borehole: BH-2

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE				
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM) 0.25 0.5 0.75	Lab Analysis
0		Ground Surface					
		Clayey Sand 7.5 YR 4/2, brown quartz sand, fine grained, very poorly sorted, dry.	1			0.1	0 - 1' bgs 514 mg/kg chloride
		Caliche 7.5 YR 7/3, pink quartz sand, fine grained, very poorly sorted, indurated, dry.					
5			2			0.1	5 - 6' bgs 1060 mg/kg chloride
10			3			0.1	10 - 11' bgs 922 mg/kg chloride
15			4			0.1	15 - 16' bgs 993 mg/kg chloride
		Clayey Sand 2.5 YR 5/4, reddish brown quartz sand, very fine grained, poorly sorted, damp at 20 feet, wet at 25 feet..					
20			5			0.1	20 - 21' bgs 922 mg/kg chloride
25			6			0.1	25 - 26' 922 mg/kg chloride
30		End of Borehole at 30 ft					
35							
40							

Drilling Method: Air Rotary

Date Drilled: 6/6/03

Hole Size: 5 5/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Dynegy Midstream Services, L. P.

Project: Monument Gas Plant

Project No: 1-0101

Location: SE/4, SW/4, Sec. 36, T19S, R36E, Lea Co., NM

Log of Borehole: BH-3

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE				
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM) 0.25 0.5 0.75	Lab Analysis
0		Ground Surface					
		Clayey Sand 7.5 YR 4/2, brown quartz sand, fine grained, very poorly sorted, dry.	1			0.1	0 - 1' bgs 815 mg/kg chloride
5		***Caliche*** 7.5 YR 7/3, pink quartz sand, fine grained, very poorly sorted, indurated, dry.	2			0.1	5 - 6' bgs 319 mg/kg chloride
10		***Silty, Clayey Sand*** 5 YR 6/6, reddish yellow quartz sand, fine grained, poorly sorted.	3			0.1	10 - 11' bgs 177 mg/kg chloride
15			4			0.5	15 - 16' bgs 276 mg/kg chloride
20		***Siltstone*** 7.5 YR 8/2, pinkish white, very fine grained, poorly sorted, dense.	5			0.1	20 - 21' bgs 336 mg/kg chloride
25		***Silty, Clayey Sand*** 2.5 YR 5/4, reddish brown quartz sand, very fine grained, poorly sorted, moist at 25 feet, wet at 29 feet.	6			0.1	25 - 26' 373 mg/kg chloride
30			7			0.1	30 - 31' bgs 1950 mg/kg chloride
		End of Borehole at 31 ft					
35							
40							

Drilling Method: Air Rotary

Date Drilled: 6/6/03

Hole Size: 5 5/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling

Larson & Associates, Inc.
Environmental Consultants

July 1, 2003

Mr. Wayne Price
Petroleum Engineer Specialist
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico
87505

Re: Final Remediation Report – Diethanolamine Spill, Dynegy Midstream Services, L.P., Monument Gas Plant (GW-025), U.L. N, Section 36, Township 19 South, Range 36 East, Lea County, New Mexico

Dear Mr. Price:
Dynegy Midstream Services, L.P. (Dynegy) has retained Larson and Associates, Inc. (LA) to remediate a spill involving diethanolamine (DEA) at its Monument Gas Plant (Site) located in Unit Letter N (SE/4, SWE/4), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico. The spill occurred on April 21, 2001, and involved the release of approximately 276 gallons (85%) of DEA. Dynegy quickly recovered as much fluid as possible, and scraped soil from the affected area. The New Mexico Oil Conservation Division (NMOCD) was notified on April 23, 2001, and LA conducted an investigation on June 21, 2001. The results of the investigation were presented to the NMOCD on July 26, 2002, in a report titled, *"Amine Spill Investigation and Remediation Report, Dynegy Midstream Services, L.P., Monument Gas Plant, SE/4, SW/4, Section 36, Township 19 South, Range 36 East, Lea County, New Mexico"*. The DEA was observed in samples from about 0 to 2 feet below ground surface (bgs) at the spill area from 30.2 to 1,330 milligrams per kilogram (mg/kg). The scraped soil reported DEA at 35,400 mg/kg. The report proposed a remediation level of 500 mg/kg, and was approved by the NMOCD on January 17, 2002.

The remediation plan proposed treating the spill area by adding nitrogen fertilizer or organic mulch (i.e., manure and hay) to stimulate microbes to metabolize the residual DEA, and periodic tilling. Several applications of nitrogen fertilizer were made during 2002, and the area was tilled to promote reduction of the DEA. The scraped soil was moved near the southwest corner of the Site, and spread to a uniform thickness of approximately 12 to 18 inches. Organic mulch (hay) and several applications of nitrogen fertilizer were made, and the soil was tilled. Soil samples were collected from the spill area and treated soil on January 2, 2003. Samples were collected from the spill area at two (2) locations (AS-1 and AS-2) where samples were previously collected at approximately 0 to 1 foot below ground surface (bgs). Six (6) soil samples (SS-1 through

SS-6) were collected at the treatment area. All samples were placed in clean sample jars, labeled, chilled in an ice chest, and hand delivered under chain-of-custody control to Environmental Lab of Texas, Inc., located in Odessa, Texas. The samples were analyzed for DEA using method SW-846-8015. Table 1 presents a summary of the laboratory analysis. Appendix A presents the laboratory report.

Referring to Table 1, DEA was not detected in any sample above the test method detection limit of 0.4 mg/kg. Dynegy requests permission from the NMOCD to discontinue remediation, and to use the treated soil for general fill material. Please contact Mr. Cal Wrangham at (432) 688-0542 or myself at (432) 687-0901 if you have questions. I may also be reached by email at mark@LAenvironmental.com.
Sincerely,
Larson and Associates, Inc.

Mark J. Larson, CPG, CGWP
President

Encl.

cc: Cal Wrangham, - Dynegy
Chris Williams – NMOCD District 1

Tables

Table 1: Summary of Laboratory Analysis of Soil Samples
Dynegy Midstream Services, L.P., Monument Gas Plant
U.L. P, Section 36, Township 19 South, Range 36 East
Lea County, New Mexico

Sample Date	Soil Number	Depth Feet (BGS)	DEA (mg/kg)
02-Jan-03	AS-1	0 - 1	<4.0
02-Jan-03	AS-2	0 - 1	<4.0
02-Jan-03	SS-1	0 - 1	<4.0
02-Jan-03	SS-2	0 - 1	<4.0
02-Jan-03	SS-3	0 - 1	<4.0
02-Jan-03	SS-4	0 - 1	<4.0
02-Jan-03	SS-5	0 - 1	<4.0
02-Jan-03	SS-6	0 - 1	<4.0

Note: Samples analyzed bt Environmental Lab of Texas I, Inc., Odessa, Texas

1. BGS: Sample depth in feet below ground surface
2. mg/Kg: Milligrams per kilogram
3. DEA: Diethanolamine
4. <: Below method detection limit

Appendix A

Laboratory Report

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project:	DYNEGY/ MONUMENT PLANT
PO#:	
Order#:	G0305377
Report Date:	01/16/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0305377
Project: 1-0106
Project Name: DYNEGY/ MONUMENT PLANT
Location: NONE GIVEN

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0305377-01	AS-1 0-1'	SOIL	1/2/03 12:10	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-02	AS-2 0-1'	SOIL	1/2/03 12:26	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-03	SS-1 0-1'	SOIL	1/2/03 14:15	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-04	SS-2 0-1'	SOIL	1/2/03 14:25	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-05	SS-3 0-1'	SOIL	1/2/03 14:35	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-06	SS-4 0-1'	SOIL	1/2/03 14:42	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-07	SS-5 0-1'	SOIL	1/2/03 14:48	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		
0305377-08	SS-6 0-1'	SOIL	1/2/03 14:54	1/2/03 17:07	4 oz glass	Ice
	Lab Testing: DEA	**Rejected:** No		**Temp:** 3.5 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305377
Project: 1-0106
Project Name: DYNEGY/ MONUMENT PLANT
Location: NONE GIVEN

Lab ID: 0305377-01
Sample ID: AS-1 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

Lab ID: 0305377-02
Sample ID: AS-2 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

Lab ID: 0305377-03
Sample ID: SS-1 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305377
Project: 1-0106
Project Name: DYNEGY/ MONUMENT PLANT
Location: NONE GIVEN

Lab ID: 0305377-04
Sample ID: SS-2 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 0.40	0.40

Lab ID: 0305377-05
Sample ID: SS-3 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 0.40	0.40

Lab ID: 0305377-06
Sample ID: SS-4 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0305377
Project: 1-0106
Project Name: DYNEGY/ MONUMENT PLANT
Location: NONE GIVEN

Lab ID: 0305377-07
Sample ID: SS-5 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

Lab ID: 0305377-08
Sample ID: SS-6 0-1'

Test Parameters

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004357-01		1/13/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
DEA	< 4.00	4.0

Approval: Jeanne McMurrey 01-16-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305377

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
DEA-mg/kg	0004357-01			< 0.40		
CONTROL SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
DEA-mg/kg	0004357-02		40	50.8	127.%	
CONTROL DUP SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
DEA-mg/kg	0004357-03		40	49.2	123.%	3.2%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
DEA-mg/kg	0004357-04		40	48.2	120.5%	

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Dynegy
SITE MANAGER: Cindy Crain
PROJECT NO.: 01-0106
PROJECT NAME: Monument Plant
PAGE 1 OF 1
LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	SW846-8015M Diethanolamine	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
1/2/03	1210		✓		AS-1 0-1'	1	✓	0305377-01	
1/2/03	1226		✓		AS-2 0-1'	1	✓	02	
1/2/03	1415		✓		SS-1 0-1'	1	✓	03	
1/2/03	1425		✓		SS-2 0-1'	1	✓	04	
1/2/03	1435		✓		SS-3 0-1'	1	✓	05	
1/2/03	1442		✓		SS-4 0-1'	1	✓	06	
1/2/03	1448		✓		SS-5 0-1'	1	✓	07	
1/2/03	1454		✓		SS-6 0-1'	1	✓	08	

SAMPLED BY: (Signature) [signature] DATE: 1-2-03 TIME: 1454
RELINQUISHED BY: (Signature) DATE: TIME:
RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) [signature] DATE: 1-2-03 TIME: 1708
RECEIVED BY: (Signature) DATE: TIME:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED (circled) UPS OTHER:

COMMENTS: 4oz glass Ice/Rec 3.5°C
TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: E Lot
ADDRESS: 12600 W I 20 E
CITY: Odessa STATE: TX ZIP: 79765
CONTACT: PHONE: 563-1800
RECEIVED BY: (Signature) [signature] DATE: 1-02-03 TIME: 1907

SAMPLE CONDITION WHEN RECEIVED:
LA CONTACT PERSON: Cindy Crain
SAMPLE TYPE: Soil

Price, Wayne

From: Price, Wayne
Sent: Thursday, January 17, 2002 3:51 PM
To: Price, Wayne; 'cwwr@dynegy.com'
Cc: 'mark@laenvironmental.com'; Sheeley, Paul; Johnson, Brian
Subject: RE: Amine Spill -Monument Gas Plant GW-025

-----Original Message-----
From: Price, Wayne
Sent: Thursday, January 17, 2002 3:49 PM
To: 'cwwr@dynegy.com'
Cc: 'mark@laenvironmental.com'; Sheeley, Paul; Johnson, Brian
Subject: Amine Spill -Monument Gas Plant GW-025

Dear Mr. Wrangham:

The OCD in in receipt of the Investigation and Remediation report dated July 26, 2001. The OCD hereby approves of the plan.

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

A final and/or interim report shall be submitted by January 2004.

Larson & Associates, Inc.
Environmental Consultants

July 26, 2001

Mr. Wayne Price
Petroleum Engineer Specialist
Environmental Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Amine Spill Investigation and Remediation Report, Dynegy Midstream Services, L.P., Monument Gas Plant, SE/4, SW/4, Section 36, Township 19 South, Range 36 East, Lea County, New Mexico

Dear Mr. Price:
Dynegy Midstream Services, L.P. (Dynegy) has retained Larson and Associates, Inc. (LA) to investigate a spill involving diethanolamine (DEA) at its Monument Gas Plant (Site), located in the southeast quarter (SE/4) of the southwest quarter (SW/4), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map.

Background
On April 21, 2001, a pump seal failed resulting in the release of approximately 276 gallons of DEA (85%) and water. Dynegy personnel used a backhoe to scrape soil from the affected area, and piled the soil near the southwest corner of the area. The affected area measures approximately 100 x 150 feet. On April 23, 2001, Dynegy notified the New Mexico Oil Conservation Commission (NMOCD) of the release, and filed Form C-141 (Release Notification and Corrective Action). Figure 2 presents a Site drawing, and the approximate location of the spill. Appendix A presents a copy of the C-141. Appendix B presents the material safety data sheet (MSDS).

Soil Investigation
On June 21, 2001, LA supervised collection of soil samples from 2 borings (BH-1 and BH-2) drilled in the spill area. Boring BH-1 was advanced to approximately 25 feet below ground surface (BGS), and boring BH-2 was advanced to approximately 15 feet BGS. Environmental Plus, Inc. (EPI) drilled the borings using a trailer-mounted hollowstem auger rig. Soil samples were collected using a 4-foot long stainless steel core barrel advanced in front of the augers. Groundwater was observed at approximately 23 feet BGS in boring BH-1. Figure 3 presents a detailed drawing of the spill area showing the locations of the borings, and soil pile.

The soil samples were placed in clean glass sample jars, sealed, labeled, chilled in an ice chest, and delivered under chain-of-custody control to Environmental Lab of Texas, Inc. A portion of each sample was retained in a clean glass sample jar for headspace analysis. Each headspace jar was filled to approximately ¾ full, and sealed with a layer of aluminum foil before replacing the cap. The headspace samples were set aside to warm to the ambient temperature before a photoionization detector (PID) was used to measure the concentration of hydrocarbon vapors in the container headspace. The PID was equipped with an 11.7 electron volt (eV) lamp, and the probe was inserted into the headspace through the aluminum foil to measure the concentration of hydrocarbon vapors. The PID displays the concentration in parts per million (ppm). The headspace measurement is a qualitative analysis to assess the potential for organic contaminants in the soil. The PID was calibrated to isobutylene (100 ppm) prior to use. The core barrel was equipped with dedicated plastic liners to prevent cross-contamination between core samples. Table 1 presents a summary of the PID measurements. Appendix C presents geologic logs for the soil borings, and graphically displays the PID readings. Appendix D presents photographs.

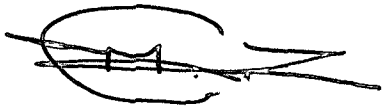
Referring to Table 1, PID readings of samples from boring BH-1 ranged from 5.1 ppm (0 to 2 feet BGS) to 14.0 ppm (20 to 21 feet BGS). The highest reading recorded from samples at location BH-2 was 1.4 ppm. A composite sample consisting of four grab samples was collected from the soil pile. The PID reading from the composite sample was 12.6 ppm. All samples collected from the Site were submitted to the laboratory. The samples from 0 to 2 feet BGS and from approximately 5 feet BGS from each boring, and the composite sample were analyzed for DEA using EPA method SW-846-8015. Table 1 presents a summary of the laboratory analyses. Appendix E presents the laboratory report and quality assurance/quality control (QA/QC) data.

Referring to Table 1, DEA was reported in the sample from boring BH-1 (0 to 2 feet BGS) at 30.2 milligrams per kilogram (mg/kg). DEA was not reported above the test method detection limit of 25 mg/kg in the sample from 5 to 6 feet BGS (BH-1). The DEA concentration in the sample from boring BH-2 (0 to 2 feet BGS) was reported at 1330 mg/kg. DEA was not reported above the test method detection limit of 25 mg/kg in the sample from 5 to 5.2 feet BGS (BH-2). The DEA concentration in the composite sample was reported at 35,400 mg/kg. The laboratory data indicates that remedial actions performed by Dynegy (i.e., fluid recovery and soil scraping) has apparently recovered a significant amount of the DEA.

LA reviewed soil-screening levels developed by the New Mexico Environment Department (NMED) and USEPA (Region 3 and Region 9). Soil-screening levels are risk-based values for certain chemicals that are used to evaluate and clean up contaminated sites. No soil screening levels are available for DEA, therefore, Dynegy proposes to treat the spill area by adding nitrogen-based fertilizer and organic mulch (i.e., manure and hay) to stimulate microbes to metabolize the residual DEA. The soil will be periodically

tilled, and soil samples will be analyzed for DEA to assess that the remediation program. Dynegy also requests that the NMOCD allow Dynegy to treat the soil pile on-site. The soil will be transferred to a level area, and spread to a uniform depth of approximately 12 to 18 inches. The soil will be tilled, and amendments (i.e., nitrogen-based fertilizer and organic mulch) will be added to promote biological degradation of the DEA. The soil will be periodically tilled, and soil samples will be analyzed for DEA to assess that the remediation program. A soil sample will be collected below the treatment area following remediation to verify that the DEA was not leached into the soil below the treatment area. Dynegy proposes a DEA cleanup level of 500 mg/kg. Dynegy will submit a final report including laboratory analysis and QA/QC data following completion of the project.

Please call Mr. Cal Wrangham at (915) 688-0555 or myself at (915) 687-0901 if you have questions.
Sincerely,
Larson and Associates, Inc.



Mark J. Larson, CPG, CGWP
President

Encl.

cc: Cal Wrangham – Dynegy, Midland, Texas
James Lingnau – Dynegy, Eunice, New Mexico

TABLES

Table 1: Summary of Field and Laboratory Analyses of Soil Samples
Dynegy Midstream Services, L.P.
Monument Gas Plant Amine Spill
SE/4, SW/4, Section 36, Township 19 South, Range 36 East
Lea County, New Mexico

Soil Boring	Sample Date	Depth Feet (BGS)	PID (ppm)	Diethanolamine (mg/kg)
BH-1	21-Jun-01	0 - 2	5.1	30.2
		5 - 6	6.5	<25
		10 - 10.7	7.5	--
		15 - 15.2	--	--
		20 - 21	14.0	--
BH-2	21-Jun-01	0 - 2	1.4	1330
		5 - 5.2	--	<25
		10 - 11	1.4	--
Soil Pile	21-Jun-01	N/A	12.6	35400

Notes: Analysis performed by Environmental Lab of Texas, Inc., Odessa, Texas

1. BGS: Sample depth in feet below ground surface
2. PID: Photoionization detector
3. ppm: Parts per million
4. mg/kg: Milligrams per kilogram
5. --: No data available
6. <: Below method detection limit
6. N/A: Not applicable

FIGURES

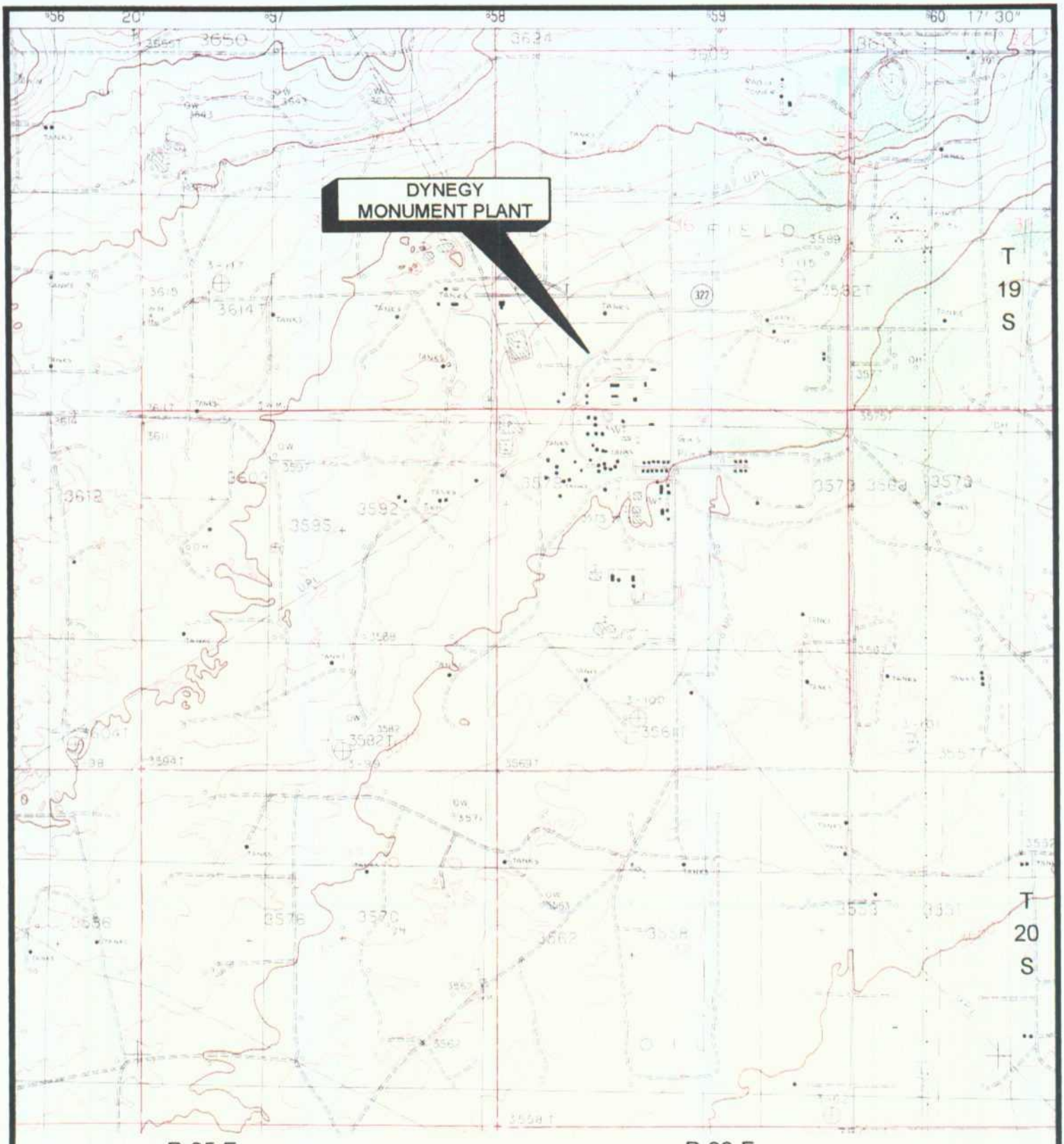


FIGURE #1

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT PLANT

SE/4, SW/4, SEC. 36, T19E,R36S

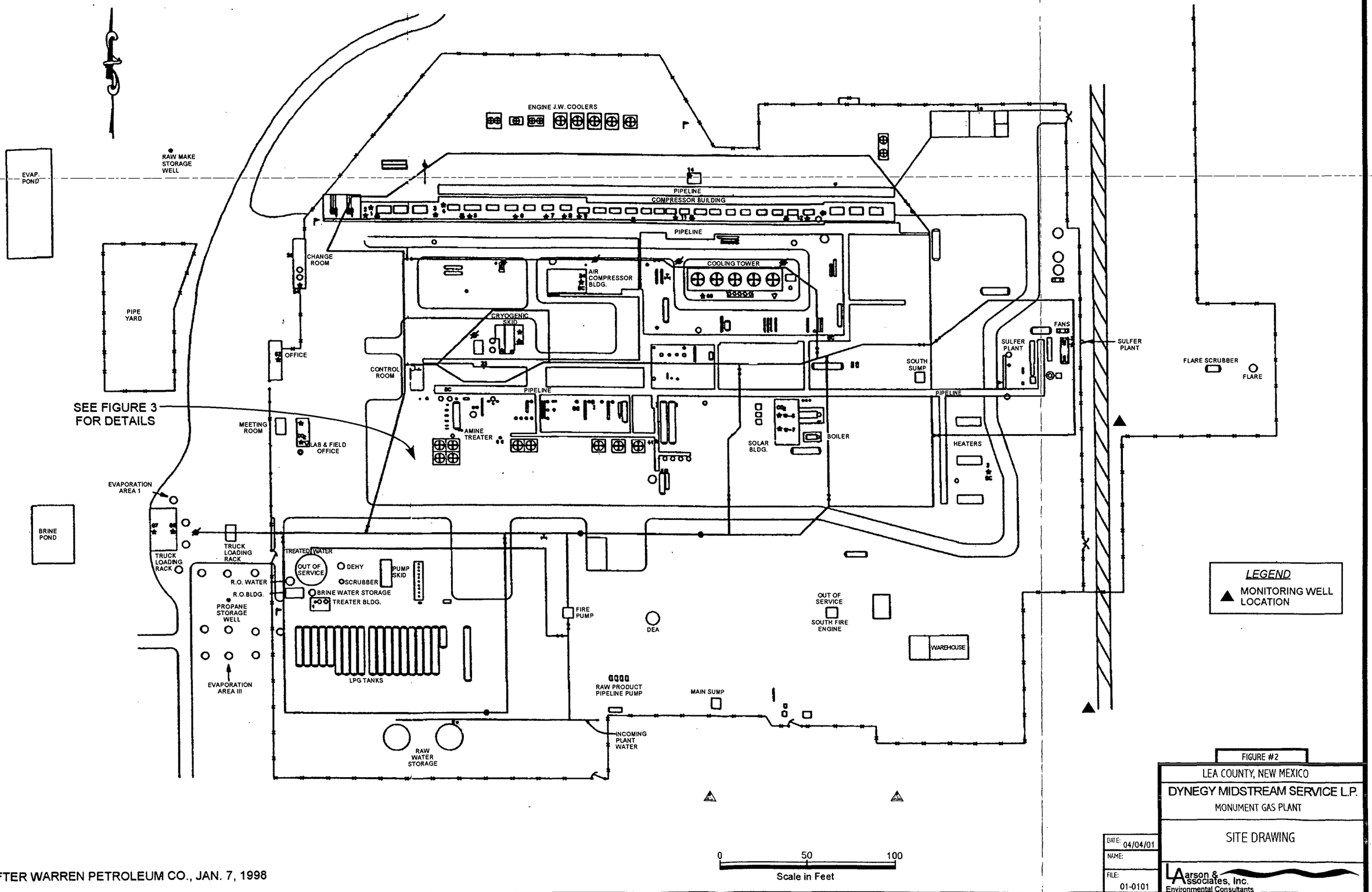
TOPOGRAPHIC MAP

TAKEN FROM U.S.G.S.
MONUMENT SOUTH, NEW MEXICO 1985
7.5' QUADRANGLES

SCALE: 1"=2000'

DATE: 4/30/01
NAME:
FILE: 01-0106

Aarson & Associates, Inc.
Environmental Consultants



AFTER WARREN PETROLEUM CO., JAN. 7, 1998

FIGURE #2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

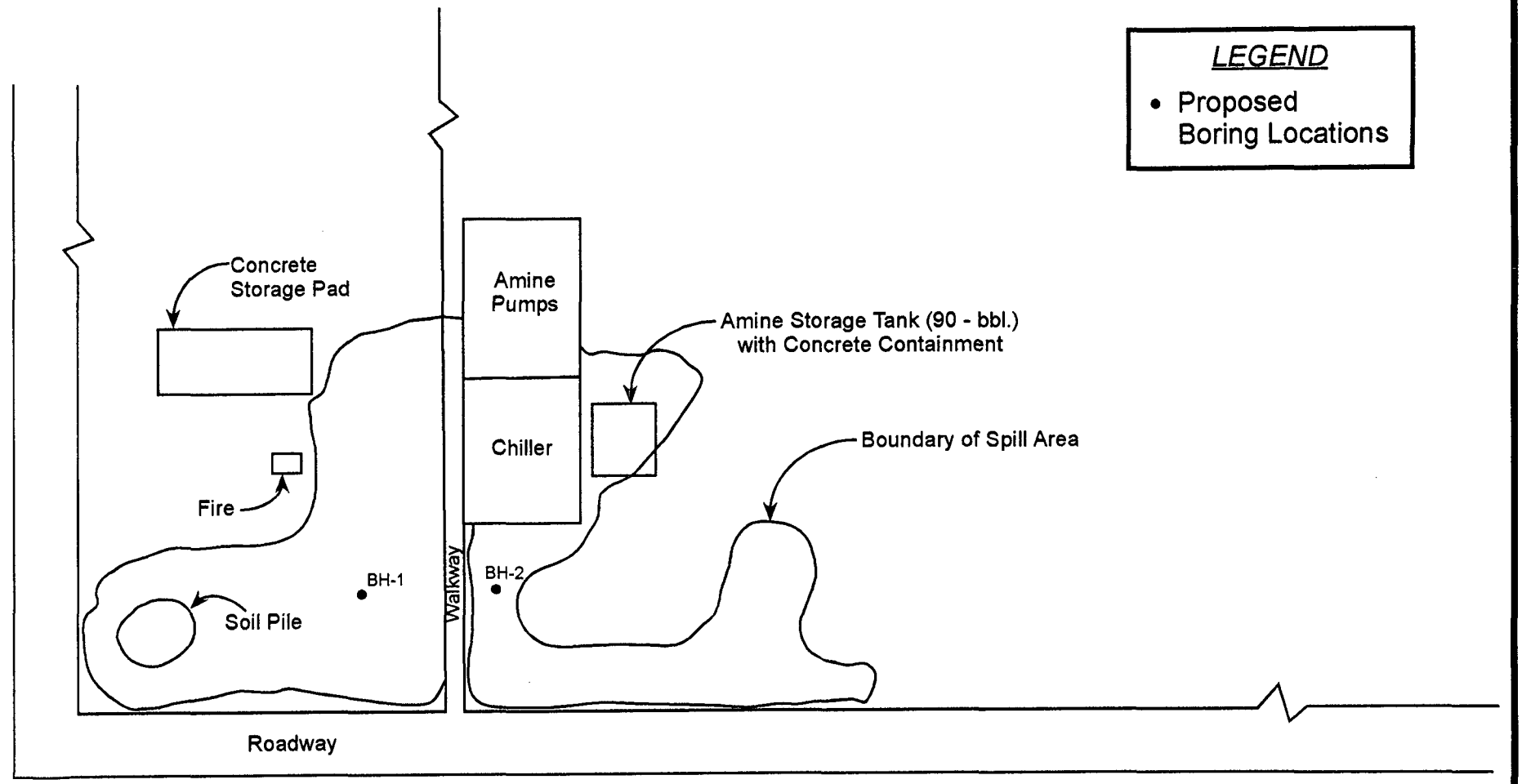
SITE DRAWING

DATE: 04/04/01

NAME:

FILE: 01-0101

Larson & Associates, Inc.
Environmental Consultants



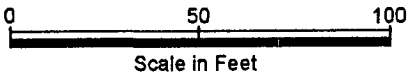


FIGURE #3

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P..
MONUMENT PLANT
SE/4, SW/4, SEC. 36, T19E,R36S

DETAILED DRAWING

DATE: 04/30/01
NAME:
FILE: 01-0106

Larson & Associates, Inc.
Environmental Consultants

APPENDIX A

Form C-141

APPENDIX B

MSDS

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name: Dynegy Midstream Services, L. P.	Contact: Cal Wrangham @ (915) 425-7072
Address: PO Box 67 Monument, NM 88265	Telephone No. (505) 393-2823
Facility Name: Monument Plant	Facility Type: Gas Plant

Surface Owner: Dynegy Midstream Services	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	1	T20S	36E					Lea

NATURE OF RELEASE

Type of Release Amine	Volume of Release 276 gallons	Volume Recovered est. 256 gal.
Source of Release Pump seal	Date and Hour of Occurrence AM of 4/21/01	Date and Hour of Discovery Same
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Pump seal failed. Pump was located on concrete containment but did migrate from containment to soil.
A vacuum truck was used to suck up all free liquid.

Describe Area Affected and Cleanup Action Taken.*
The release is located within the plant in the process area.
The vertical and horizontal impact will be investigated and a remediation plan will be submitted to OCD for approval and area will be remediated per OCD guidelines.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)*
Mid 60 degree daytime temperatures with humid conditions.

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: Cal Wrangham	OIL CONSERVATION DIVISION
Printed Name: Cal Wrangham	Approved by District Supervisor:
Title: ES&H Advisor	Approval Date: / Expiration Date:
Date: 4/23/2001 Phone: 915 688-0542	Conditions of Approval: / Attached ☐

* Attach Additional Sheets If Necessary

APPENDIX B

MSDS

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name	**Diethanolamine 85%**
Supplier	**COASTAL CHEMICAL CO.,L.L.C.** **3520 Veterans Memorial Drive** **ABBEVILLE, LA 70510** **318-893-3862**
Synonym	Not available.
Trade name	Not available.
Material Uses	Not available.
Manufacturer	Coastal Chemical Co., Inc. 3520 Veterans Memorial Drive Abbeville, La.

Code	42011
MSDS#	Not available.
Validation Date	4/6/99
Print Date	7/13/99

In case of Emergency	Transportation Emergency Call CHEMTREC 800-424-9300 Other Information Call Joe Hudman 713-477-6675

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	TLV/PEL	LC_{50}/LD_{50}
Diethanolamine		85		

Section 3. Hazards Identification

Emergency Overview

CAUTION!

MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED.

Routes of Entry

Eye contact. Ingestion.

Potential Acute Health Effects

Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant). Very slightly to slightly dangerous in case of ingestion. This product may irritate eyes and skin upon contact.

Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS** : Not available. Toxicity of the product to the reproductive system: Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Finish by rinsing thoroughly with running water to avoid a possible infection. COLD water may be used.

Skin Contact

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Hazardous Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Hazardous Inhalation

No additional information.

Ingestion

DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Continued on Next Page

Hazardous Ingestion	No additional information.

Section 5. Fire and Explosion Data

Flammability of the Product	Combustible.
Auto-Ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).
Fire Hazards in Presence of Various Substances	Very slightly to slightly flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO2, water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Special Remarks on Fire Hazards	When heated to decomposition, it emits toxics fumes. (Diethanolamine)
Special Remarks on Explosion Hazards	No additional remark.

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Handling	Not available.
Storage	Alkalis may be stored in heavy duty gauge steel containers. Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engeneering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Safety glasses. Lab coat. Gloves (impervious).
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Chemical Name or Product Name	CAS #	Exposure Limits
Diethanolamine		

Continued on Next Page

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.
Molecular Weight	Not applicable.
pH (1% soln/water)	Basic.
Boiling Point	Not available.
Melting Point/Pour Point	Not available.
Critical Temperature	Not available.
Specific Gravity	The only known value is 1.1 (Water = 1) (Diethanolamine).
Vapor Pressure	Not available.
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Evaporation rate	Not available.
Viscosity	Not available.
Water/Oil Dist. Coeff.	The product is much more soluble in water.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, methanol.
Solubility	Soluble in cold water, hot water, methanol. Insoluble in diethyl ether, n-octanol.
Physical Chemical Comments	Not available.

Odor	Not available.
Taste	Not available.
Color	Not available.

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with various substances	Slightly reactive to reactive with acids.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 710 mg/kg (Rat) Acute dermal toxicity (LD50): > 5000 mg/kg (Rabbit.)
Chronic Effects on Humans	Toxicity of the product to the reproductive system: Not available.
Other Toxic Effects on Humans	Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant). Very slightly to slightly dangerous in case of ingestion.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	No additional remark.
Special Remarks on other Toxic Effects on Humans	No additional remark.

Continued on Next Page

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Disposal

Section 14. Transport Information

Propper Shipping Name	Environmentally hazardous substances, liquid, n.o.s.
DOT Classification	DOT CLASS 9: Miscellaneous hazardous material.
DOT Identification Number	UN3082
Packing Group	III
Hazardous Substances Reportable Quantity (kg)	53.524
Special Provisions for Transport	Diethanolamine

Section 15. Regulatory Information

Federal and State Regulations: The following product(s) is (are) listed by the State of Massachusetts: **Diethanolamine**
The following product(s) is (are) listed on TSCA: **Diethanolamine**

Other Classifications	WHMIS (Canada)	Not controlled under WHMIS (Canada).
	DSCL (EEC)	R22- Harmful if ingested.

Section 16. Other Information

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	B

National Fire Protection Association (U.S.A.)

Health
Fire Hazard
Reactivity
Specific hazard

References	Not available.
Other Special Considerations	No additional remark.

Validated by Joe Hudman on 4/6/99.

Verified by Joe Hudman.

Printed 7/13/99.

Transportation Emergency Call
CHEMTREC 800-424-9300
Other Information Call
Joe Hudman
713-477-6675

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

APPENDIX C

Geologic Logs

Client: Dynegy Midstream Services, L.P.

Project: Monument Plant - Amine Spill

Location: Lea County, New Mexico

Project No: 01-0106

Log: BH-1

Geologist: M.J. Larson

SUBSURFACE PROFILE			SAMPLE			PID Readings (ppm)	
Depth	Symbol	Description	Number	Type	Recovery	1 2 3 4	Notes
		Silty Sand 10YR 4/3, brown, very fine to medium grained quartz sand, poorly sorted, mixed with caliche gravel	1		40	>5	
5		10YR 4/1, very dark gray to black from 1.5 to 2.0 feet BGS	2		20	>5	
		Caliche 10YR 6/1, gray, hard					
10		***Sand*** 10YR 6/1, gray to 10YR 7/3, very pale brown, very fine to fine grained quartz sand	3		14	>5	
15		***Sandstone*** 10YR 7/3, very pale brown, very fine grained quartz sand, hard	4		4		
		Sand 10YR 7/3, very pale brown, very fine grained quartz sand, wet at 23 feet BGS	5		20	>5	
20							
25		TD: 25 Feet					
30							
35							

Drilling Method: HSA

Date Drilled: 21-June-01

Hole Diameter: 3.25"

Larson and Associates, Inc.
507 N. Marienfeld St., Suite 202
Midland, Texas 70701
(915) 687-0901

Datum: Ground Surface

Checked by: MJL

Drilled by: EPI

Client: Dynegy Midstream Services, L.P.

Project: Monument Plant - Amine Spill

Location: Lea County, New Mexico

Project No: 01-0106

Log: BH-2

Geologist: M.J. Larson

Depth	Symbol	Description	Sample Number	Sample Type	Recovery	PID Readings (ppm)	Notes
		Silty Sand 10YR 4/3, very finr to medium grained quartz sand, poorly sorted, mixed with caliche gravel 10YR 4/1, dark gray to black from 1.5 to 2.0 feet BGS	1		40	1.4	
5		***Caliche*** 10YR 6/1, gray, hard					
		Sand 10YR 5/4, yellowish brown, very fine to medium grained quartz sand, poorly sorted, interbedded with thin units of sandstone	2		4		
10						1.4	
			3		20		
15		***Sandstone*** 10YR 4/3, brown, very fine to fine grained quartz sand, very well cemented, hard, silicious	4		0		
		TD: 17 Feet Auger Refusal					
20							
25							

Drilling Method: HSA

Date Drilled: 21-June-01

Hole Diameter: 3.25"

Larson and Associates, Inc.
507 N. Marienfeld St., Suite 202
Midland, Texas 70701
(915) 687-0901

Datum: Ground Surface

Checked by: MJL

Drilled by: EPI

APPENDIX D

Photographs

DYNEGY MIDSTREAM SERVICES, L.P.
MONUMENT GAS PLANT
AMINE SPILL

1. Amine Pumps and Spill Origin

2. Amine Spill Area and Soil Pile (Looking Northeast)

DYNEGY MIDSTREAM SERVICES, L.P.
MONUMENT GAS PLANT
AMINE SPILL

3. Amine Spill Area (Looking Northeast)

4. Amine Spill Area (Looking West)

APPENDIX E

Laboratory reports

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 0 deg C
Project #: 01-0106
Project Name: Dynegy-Monument Plant
Project Location: Lea County, N.M.

Sampling Date: 06/21/01
Receiving Date: 06/22/01
Analysis Date: 06/26/01

ELT#	FIELD CODE	Diethanolamine mg/kg
41289	BH-1, 0-2'	30.2
41290	BH-1, 5-6'	<25
41294	BH-2, 0-2'	1330
41295	BH-2, 5-5.2'	<25
41297	Soil Pile	35400

Quality Control	254
True Value	226
% Accuracy	112
BLANK	<25
%Extraction Accuracy	108
RPD	1.65

Methods: EPA SW 846-8015M

Celey Keene — Celey Keene

07/02/01 — Date

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Mark Larson
Company Name: Larson and Associates, Inc.
Company Address: 507 N. Marienfeld, Ste 202
City/State/Zip: Midland, TX 79701
Telephone No: (915) 687-0901 Fax No: (915) 687-0456
Sampler Signature:

Project Name: Dynegy - Monument Pla
Project #: 01-0106
Project Loc: Lea County, NM
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	TOTAL: Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Diethanolamine (DEA)				Hold	RUSH TAT (Pre-Schedule)	Standard TAT
41289	BH-1, 0-2'	21-June	0720	1	✓									✓									✓							
41290	BH-1, 5-6'		0900	1	✓									✓									✓							
41291	BH-1, 10-10.7'		0925	1	✓									✓														✓		
41292	BH-1, 15-15.2'		0900	1	✓									✓														✓		
41293	BH-1, 20-21'		1005	1	✓									✓														✓		
41294	BH-2, 0-2'		1035	1	✓									✓									✓							
41295	BH-2, 5-5.2'		1115	1	✓									✓									✓							
41296	BH-2, 10-11'	↓	1125	1	✓									✓									✓					✓	✓	
41297	Soil Pile	21-June	1145	1	✓									✓									✓							

Special Instructions: Case w/ verbal results as soon as available
50 additional samples may be run, if necessary ML

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 0°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
	4/22/01	0600			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Jeanne McMurray	6-22-01	0730

Larson & Associates, Inc.
Environmental Consultants

July 25, 2001

Mr. Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Groundwater Discharge Plan Renewal, Dynegy Midstream Services, L.P., Monument Gas Plant (GW-025), SE/4, SW/4, Section 36, Township 19 South, Range 36 East, Lea County, New Mexico

Dear Mr. Price:
Dynegy Midstream Services, L.P. (Dynegy) has retained Larson & Associates, Inc. (LA) to prepare responses to several items identified by the New Mexico Oil Conservation Division (NMOCD) during its inspections of the Monument Gas Plant (Facility) on May 10, 2000 and August 24, 2000. The inspections were performed in conjunction with renewal of the Facility's groundwater discharge plan (GW–025). The Facility is located in the southeast quarter (SE/4) of the southwest quarter (SW/4), Section 36, Township 19 South, Range 36 East, Lea County, New Mexico. Figure 1 presents a Facility location and topographic map.

On November 17, 2000, the NMOCD issued Dynegy a letter specifying conditions for approval of the groundwater discharge plan renewal. Dynegy requested LA to prepare responses to four items for submittal to the NMOCD by July 31, 2000. Appendix A presents NMOCD correspondence. The items addressed by LA include:

Item 14 A Provide to OCD for approval a clean-up plan for the area located west of the plant and between the gas storage brine well ponds (Section 1.0).

Item 14 B Investigate and provide the results for the contamination found near the west side of the oil/water tanks secondary containment (Section 2.0).

Item 14 D Provide an action plan for OCD approval for the # 2 Gas Storage Well and Brine Pond. Please identify if the well and brine pond has integrity (Section 3.0).

Item 15 Submit a stormwater run-off plan for OCD by July 31, 2001 (Section 4.0).

Responses for each of these items are addressed below.

1.0 STORAGE AREA CLEAN-UP PLAN

1.1 Introduction

The NMOCD requested a clean-up plan for an area located west of the Facility between the gas storage well brine ponds. The area, identified as Area 1 on Figure 2, is used for storage of out-of-service equipment including vessels and piping, and construction debris such as concrete and wood. Salt removed from the No. 1 brine pond is also temporarily stored on a liner in the area. Some elemental sulfur and asphalt soil is also

present. No natural gas processing occurs in this area, however, some oil and gas production is present.

1.2 Proposed Cleanup Plan

A survey will be performed to determine if any naturally occurring radioactive material (NORM) is present above regulatory thresholds. Soil samples will be collected if NORM readings show levels in excess of twice the background. A laboratory will quantify the level of radionuclides present in the soil from a soil sample. Salt removed from the No. 1 brine pond, and currently stored on a liner in the area will be disposed at a permitted disposal facility. Out-of-service vessels and piping present in the area will be relocated to a used equipment storage area located near the Facility. Construction rubble such as concrete, wood, as well as elemental sulfur will be buried in an area approved by the NMOCD, or disposal offsite. Asphalt soil will be removed to the extent possible, and disposed at a permitted facility. The area will be graded to control drainage, and promote vegetation. Dynegy will submit a report to the NMOCD, including laboratory analysis, following completion of the project.

2.0 SECONDARY CONTAINMENT SPILL INVESTIGATION REPORT

2.1 Introduction

The NMOCD requested that an investigation be performed near the west side of the secondary containment structure for the oil/water tanks (east of the brine pond) to define the extent of contamination. Hydrocarbon staining was noted in photographs taken by the NMOCD its inspections. The area is identified as Area 2 on Figure 2.

2.2 Investigation Results

On July 6 and 18, 2001, LA personnel collected soil samples from five (5) locations on the west and south sides of the secondary containment. Soil samples were collected from locations HA-1 through HA-5 at 0.0 to 0.5 feet below ground surface (BGS), and 1.5 to 2.0 feet BGS on July 6, 2001, using a stainless steel hand auger. The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control Environmental Lab of Texas, Inc., located in Odessa, Texas. Figure 3 presents a detailed drawing of the area.

A portion of each sample was retained in a clean glass sample jar for headspace analysis using the ambient temperature headspace (ATH) method. The sample jars were filled approximately ¾ full, and sealed with a layer of aluminum foil before replacing the cap. The samples were set aside to reach ambient temperature before analyzing the concentration of organic vapors in the sample container headspace. The probe of a MiniRae 2000 photoionization detector (PID) was passed through the aluminum foil, and the concentration of organic vapors in the headspace was recorded in parts per million (ppm) ionizable hydrocarbon. Samples from 0.0 to 0.5 feet BGS that reported PID readings above 100 ppm were HA-2 (379.8 ppm), HA-4 (116.9 ppm) and HA-5 (324.1 ppm). No samples from 1.5 to 2.0 feet BGS recorded PID readings above 100 ppm. Table 1 presents a summary of the headspace analyses. The PID was calibrated to isobutylene (100 ppm). The hand auger was thoroughly washed between sample events using potable water and laboratory-grade detergent, and rinsed with distilled water.

The NMOCD allows a headspace gas measurement to be substituted for a laboratory analysis for benzene and total BTEX (sum of benzene, toluene, ethylbenzene and xylenes) if a PID reading

is below 100 ppm. Soil samples from 0.0 to 0.5 feet BGS that recorded PID readings above 100 ppm were analyzed for BTEX using EPA test method SW-846-8021B, and included HA-2, HA-4 and HA-5. Soil samples from locations HA-1 through HA-5 (0.0 to 0.5 feet BGS) were also analyzed for total petroleum hydrocarbons (TPH), including gasoline range (GRO) and diesel range (DRO) organics, using EPA test method SW-846-8015. No samples from 1.5 to 2.0 feet BGS recorded PID readings above 100 ppm, therefore, no BTEX analysis was performed on these samples. Soil samples from locations HA-1, HA-2, HA-4 and HA-5 (1.5 to 2.0 feet BGS) were analyzed for TPH to define the vertical extent of contamination. Additional samples were also collected from approximately 3.0 to 4.0 feet BGS, and 4.0 to 5.0 feet BGS at location HA-4, and were analyzed for TPH to define the extent of contamination. The PID readings of these samples were below 100 ppm. Table 1 presents a summary of the BTEX and TPH analyses. Appendix B presents the laboratory reports. Appendix C presents photographs.

The NMOCD has established Recommended remediation action levels (RRAL) for benzene, total BTEX, and TPH ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). RRALs for benzene, total BTEX and TPH were calculated using the following criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	<50 Feet	20
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
		Total: 20

The following RRALs have been assigned based on NMOCD criteria:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**100 mg/kg**

Benzene was not detected above the test method detection limit in samples from locations HA-2, HA-4 and HA-5 (0.0 to 0.5 feet BGS). The total BTEX concentrations in these samples were 1.756 milligrams per kilogram (mg/kg) in HA-1, less than the test method detection limit in sample HA4, and 1.768 mg/kg in sample HA-5. The total BTEX concentrations are well below the RRAL of 50 mg/kg (equivalent to ppm).

Concentrations of TPH were generally highest in the samples from 0.0 to 0.5 feet BGS, and ranged from 353 mg/kg (HA-3) to 8072 mg/kg (HA-4). The TPH concentrations decreased significantly in the samples from 1.5 to 2.0 feet BGS, and ranged from less than the test method detection limit at location HA-5, to 247 mg/kg at location HA-2. However, the TPH concentration in the sample from location HA-4 (1.5 to 2.0 feet BGS) was 1,520 mg/kg, and additional samples were collected from 3.0 to 4.0 feet BGS and 4.0 to 5.0 feet BGS (July 18, 2001). The TPH concentrations in the samples from 3.0 to 4.0 feet BGS and 4.0 to 5.0 feet BGS were 508 mg/kg and less than the test method detection limit of 10 mg/kg, respectively. Based on these analyses, the contamination appears to be limited to the upper portion of the soil profile.

2.3 Proposed Remediation

Dynegy proposes to treat the affected area by adding amendments to the soil to promote degradation of the hydrocarbons. A nitrogen-based fertilizer and organic mulch (i.e., manure and hay) will be tilled into the soil to stimulate microbes to metabolize the organic compounds. The soil will be periodically tilled and watered, and soil samples will be analyzed for TPH to assess that the remediation program. Dynegy will submit a summary report to the NMOCD following completion of the project.

3.0 GAS STORAGE WELL AND BRINE POND ACTION PLAN

The NMOCD has requested an action plan for the No. 2 gas storage well and brine pond, and to identify that the well and pond has integrity. The No. 2 gas storage well is not currently in use, and Dynegy will notify the NMOCD before it intends to place the gas storage well into service. At that time a mechanical integrity test will be performed. The pond and well are identified as Area No.3 on Figure 2. Figure 4 presents a detailed map showing the location of the gas storage well and pond.

Dynegy proposes to close the brine storage pond by removing sediment and the liner from the pond. The sediment and liner will be disposed at a NMOCD approved facility. Soil samples will be collected beneath the pond after removing the liner at approximately three (3) locations. Soil samples will be collected to depths of approximately 15 feet BGS using a stainless steel hand auger, or drilling rig. The samples will be placed in laboratory prepared containers, labeled, chilled in an ice chest, and delivered under chain-of-custody control to an environmental laboratory for chloride analysis. A background sample will also be collected and analyzed for chloride for comparison to the pond analyses. Dynegy will submit a summary report to the NMOCD upon completion of the project including laboratory analysis, and quality assurance and quality control (QA/QC) data.

4.0 STORM WATER MANAGEMENT PLAN

Dynegy has developed a comprehensive Spill Prevention Control and Countermeasure (SPCC) Plan that has been incorporated into the groundwater discharge plan as an appendix. The SPCC plan provides mechanisms to prevent potential non-point source discharges of materials used or wastes generated at the Facility, as well as manage storm water. Secondary containment structures have been constructed to collect storm water, and prevent accidental discharge of materials used or wastes generated at the Facility. The capacities of secondary containment structures have generally been designed to impound the capacity of the largest tank plus rainfall from a 25-year, 24-hour storm event. Secondary containment structures of earthen, concrete or fiberglass materials are present at potential source areas to collect and store leaks, drips, spills and storm water. Secondary containment structures are present at the following potential sources:

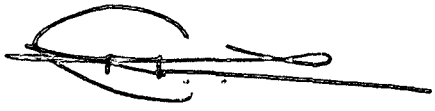
- Diethanol amine storage tank;
- Sulfuric acid storage tank;
- Lube oil and antifreeze storage tanks;
- Diesel and gasoline storage tanks;
- Methanol and solvent storage tanks; and

- Slop oil storage tanks (located east of brine storage pond).

Storm water runoff generally follows the slope of the topography, and flows to the southeast. A storm water retention berm has been constructed near the down gradient (southeast) corner of the Facility. The storm water retention berm is approximately 18 inches in height, and extends approximately 440 feet south and 440 west of the southeast corner of the Facility. The area is designated as Area No. 4 on Figure 2. Figure 5 presents a detailed drawing of the storm water retention berm. Appendix C presents photographs.

According to the SPCC Plan, any oil or product present on storm water at the collection area or secondary containment structures is absorbed with booms or other similar equipment, and returned to the Facility. Storm water is allowed to evaporate or is drained, unless hydrocarbons are present. Storm water containing hydrocarbons, based on visual identification of a sheen or floating layer, is picked up with a vacuum truck and disposed in a permitted well.

Please contact Mr. Cal Wrangham at (915) 688-0555 or myself at (915) 687-0901 if you have questions.
Sincerely
Larson and Associates, Inc.



Mark J. Larson, CGP, CGWP
President

Encl.

cc: Cal Wrangham – Dynegy, Midland, Texas
James Lingnau – Dynegy, Eunice, New Mexico
Chris Williams – NMOCD, District 1, Hobbs, New Mexico

TABLES

Table 3: Summary of Field and Laboratory Analyses of Soil Samples
Dynegy Midstream Services, L.P., Monument Gas Plant
SE/4, SW/4, Section 36, Township 19 South, Range 36 East
Lea County, New Mexico

Soil Location	Depth (Feet BGS)	Sample Date	PID ppm	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	m, p - Xylene mg/kf	o - Xylene mg/kg	BTEX mg/kg	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
HA-1	0.0 - 0.5	06-July-01	44.9	--	--	--	--	--	--	<100	2640	2640
	1.5 - 2.0	06-July-01	12.2	--	--	--	--	--	--	<10	78.9	78.9
HA-2	0.0 - 0.5	06-July-01	379.8	<0.050	0.278	0.370	0.929	0.179	1.756	368	7430	7798
	1.5 - 2.0	06-July-01	11.8	--	--	--	--	--	--	<10	247	247
HA-3	0.0 - 0.5	06-July-01	11.8	--	--	--	--	--	--	<10	353	353
	1.5 - 2.0	06-July-01	9.7	--	--	--	--	--	--	--	--	--
HA-4	0.0 - 0.5	06-July-01	116.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	222	7850	8072
	1.5 - 2.0	06-July-01	12.3	--	--	--	--	--	--	<10	1520	1520
	3.0 - 4.0	18-July-01	15.9	--	--	--	--	--	--	<10	508	508
	4.0 - 5.0	18-July-01	18.4	--	--	--	--	--	--	<10	<10	<20
HA-5	0.0 - 0.5	06-July-01	324.1	<0.100	0.253	0.275	1.24	<0.100	1.768	281	1760	2041
	1.5 - 2.0	06-July-01	12.7	--	--	--	--	--	--	<10	<10	<20

Notes: Analyses performed by Environmental Lab of Texas, Inc., Odessa, Texas

1. BGS: Below ground surface
2. ppm: Parts per million
3. mg/kg: Milligrams per kilogram (equivalent to parts per million)
4. <: Concentration below test method detection limit
5. --: No data available

FIGURES

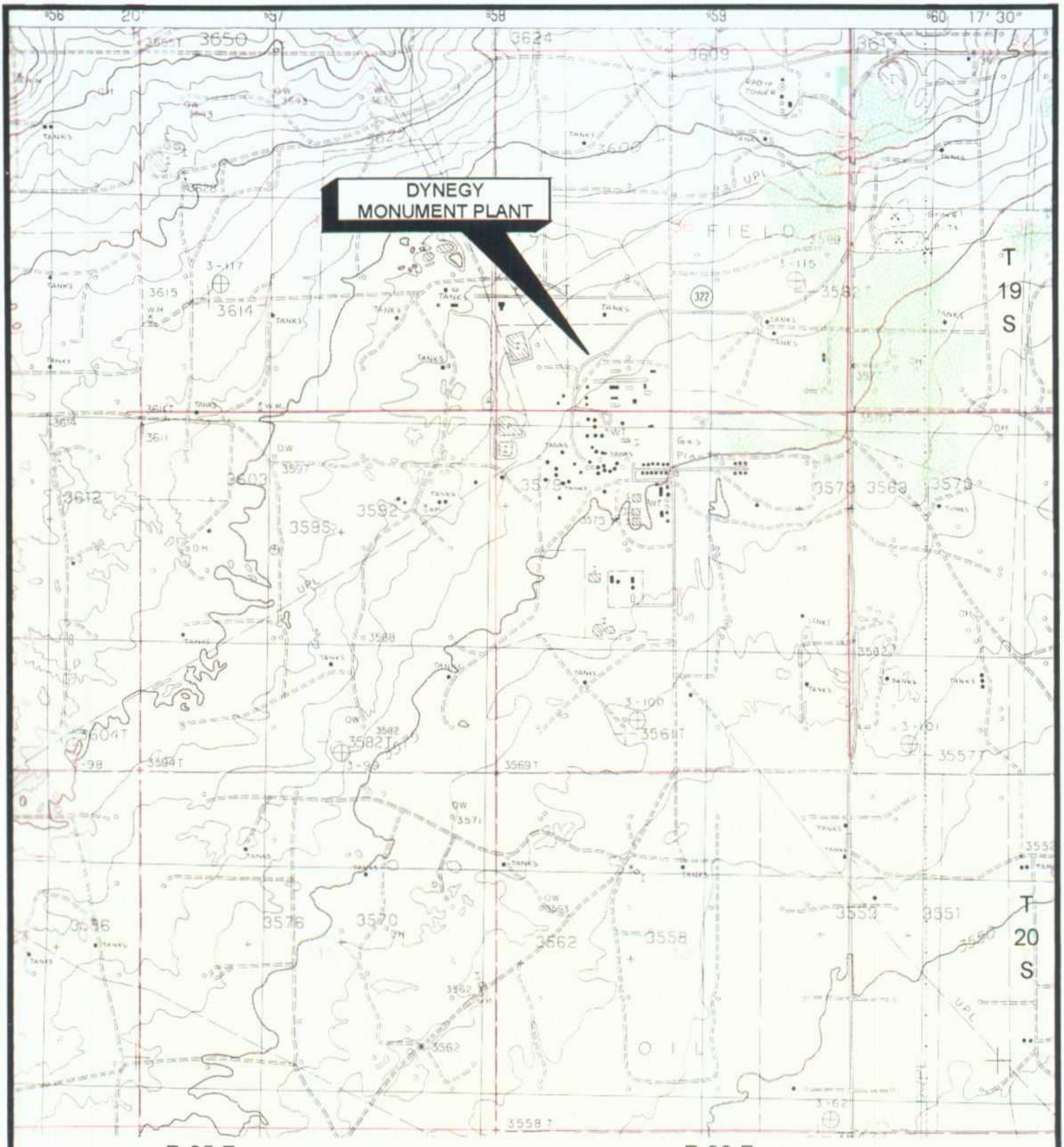


FIGURE #1

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT PLANT

SE/4, SW/4, SEC. 36, T19E,R36S

TOPOGRAPHIC MAP

TAKEN FROM U.S.G.S.
MONUMENT SOUTH, NEW MEXICO 1985
7.5' QUADRANGLES

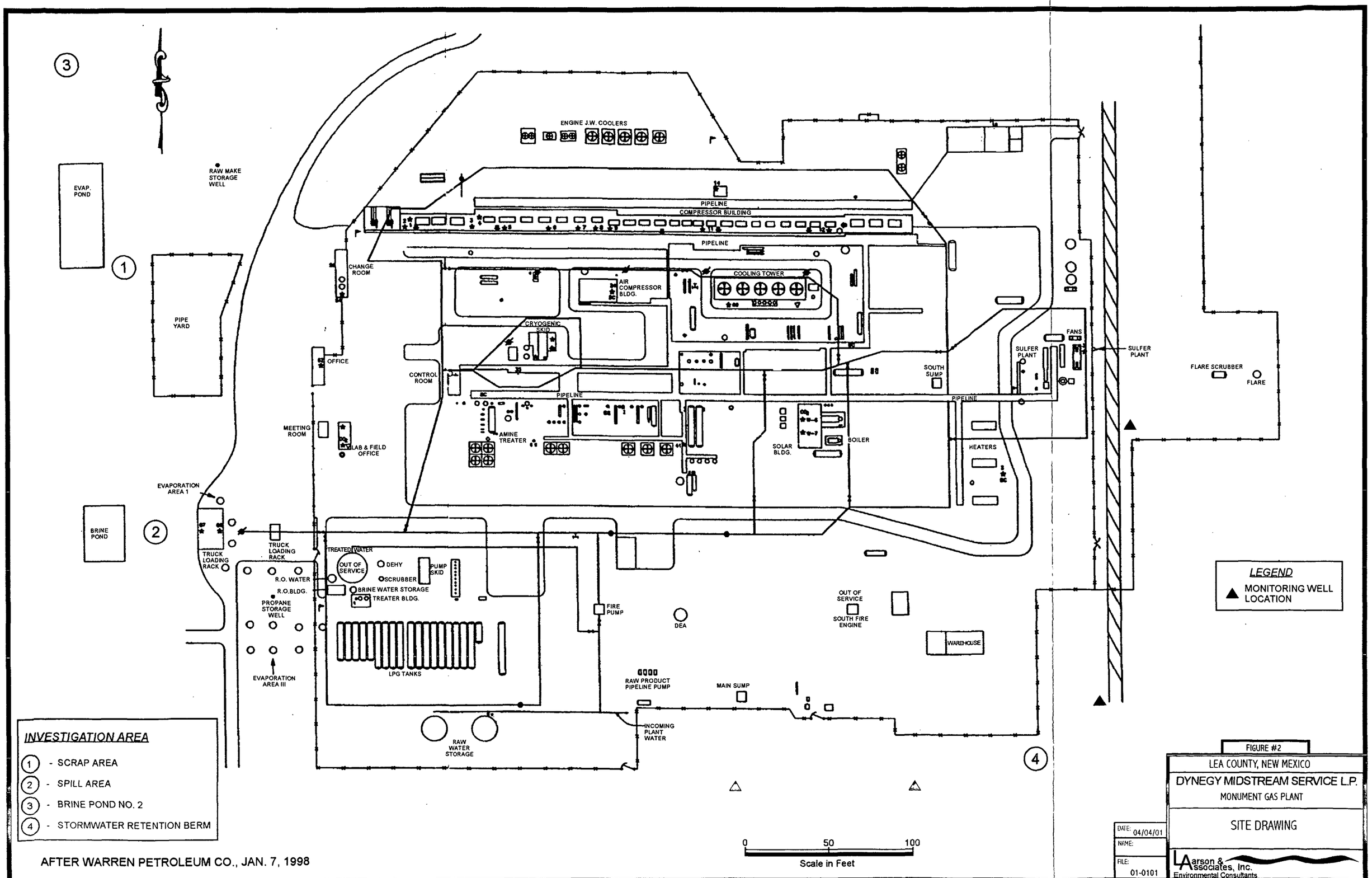
SCALE: 1"=2000'

DATE: 4/30/01

NAME:

JOB #: 01-0106

Larson & Associates, Inc.
Environmental Consultants



AFTER WARREN PETROLEUM CO., JAN. 7, 1998

FIGURE #2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

SITE DRAWING

DATE: 04/04/01

NAME:

FILE: 01-0101

Larson & Associates, Inc.
Environmental Consultants

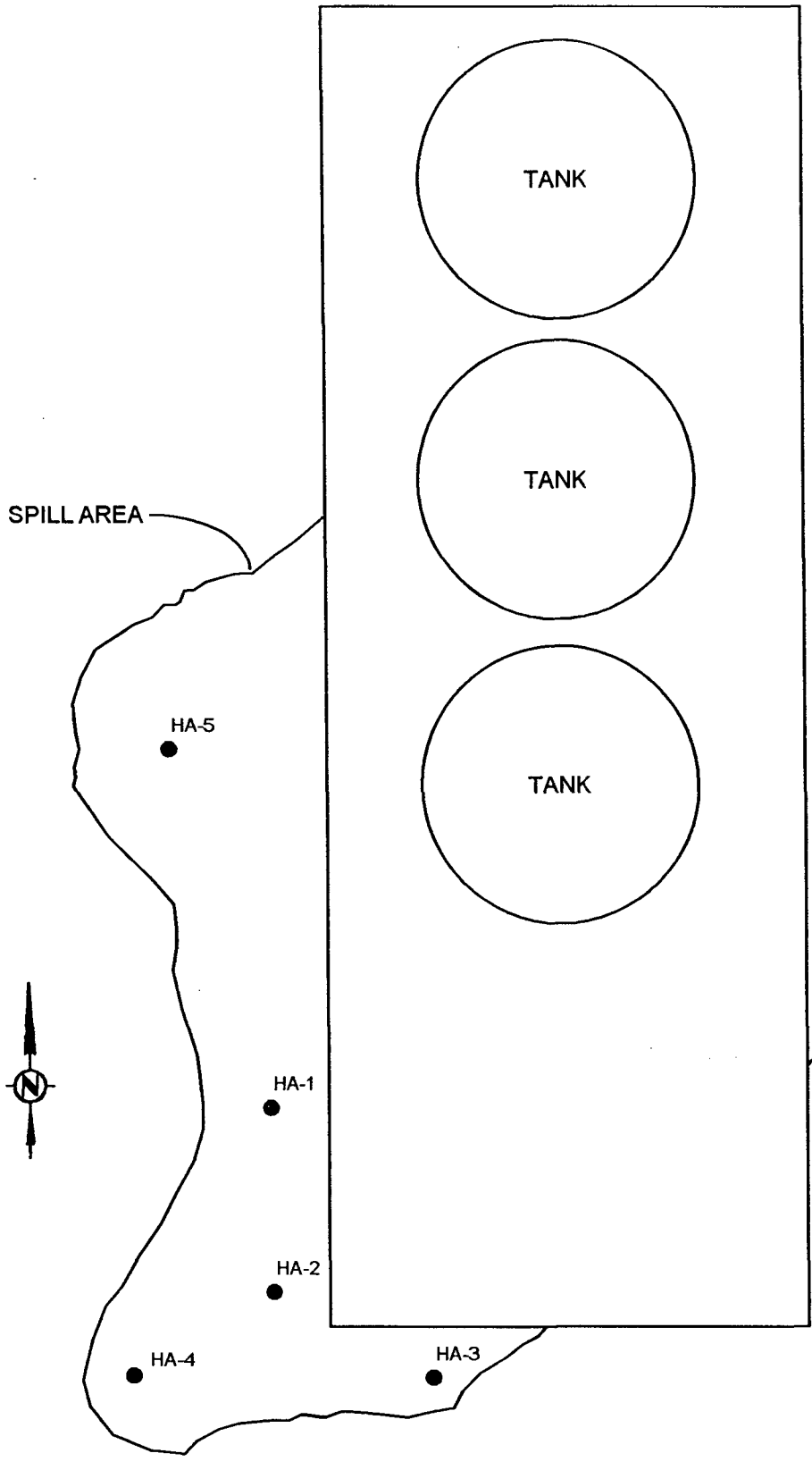


FIGURE #3

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

STORAGE TANK
AREA EAST of BRINE POND

LEGEND

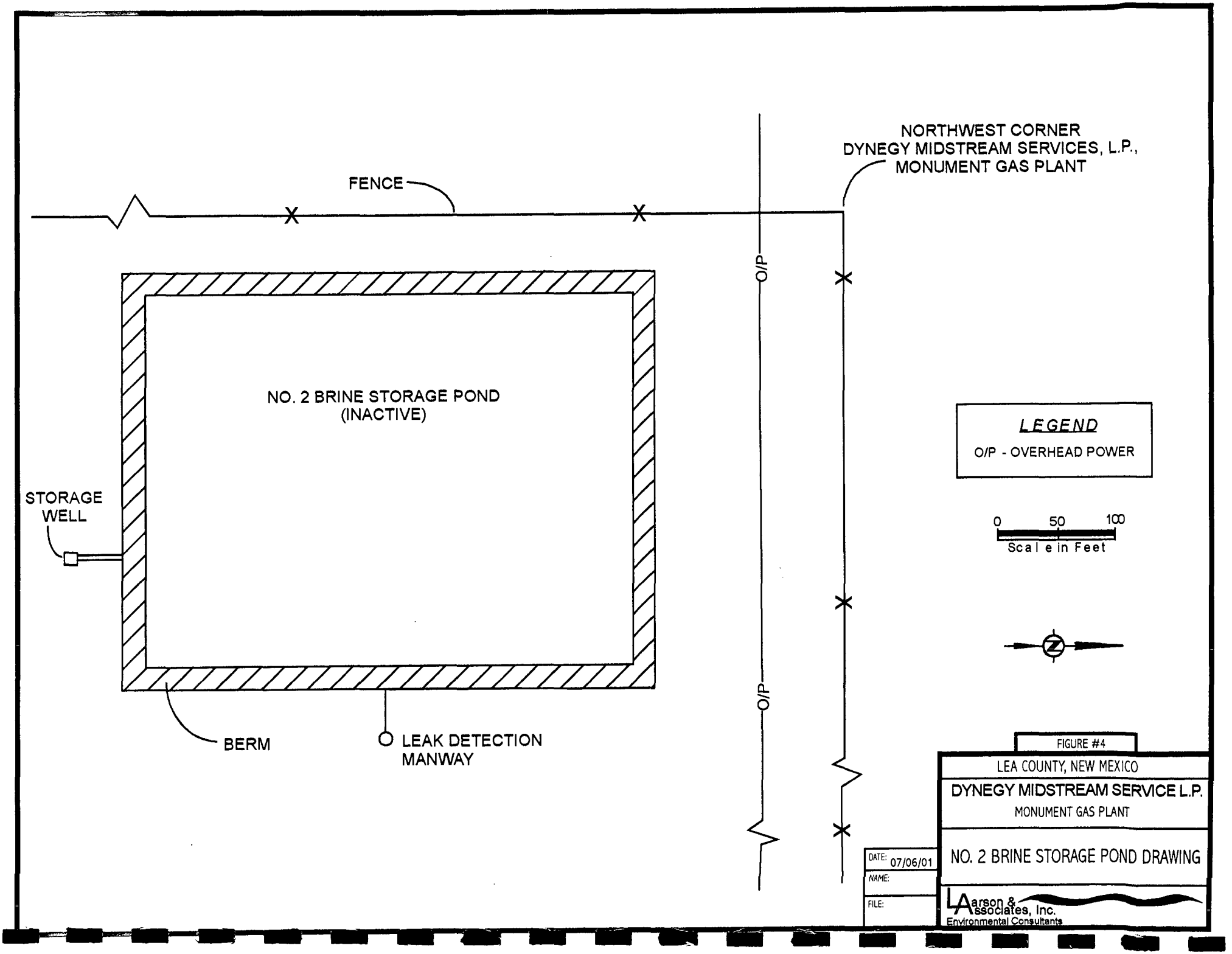
HA-1 ● HAND AUGER SOIL SAMPLE LOCATION

DATE: 07/21/01

NAME:

FILE:

Larson & Associates, Inc.
Environmental Consultants


NORTHWEST CORNER
DYNEGY MIDSTREAM SERVICES, L.P.,
MONUMENT GAS PLANT
FENCE
O/P
O/P
NO. 2 BRINE STORAGE POND
(INACTIVE)
STORAGE
WELL
BERM
LEAK DETECTION
MANWAY
LEGEND
O/P - OVERHEAD POWER
0
50
100
Scale in Feet
N
FIGURE #4
LEA COUNTY, NEW MEXICO
DYNEGY MIDSTREAM SERVICE L.P.
MONUMENT GAS PLANT
NO. 2 BRINE STORAGE POND DRAWING
DATE: 07/06/01
NAME:
FILE:
Larson & Associates, Inc.
Environmental Consultants

Concrete Wall

El Paso Natural Gas
Monument Station

Fence

Cattle Guard

Asphalt Road

Stormwater Retention Berm

Southeast Corner of
Dynegy Midstream
Services, L.P.
Monument Gas Plant

N

0 50 100
Scale in Feet

FIGURE #5

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

MONUMENT GAS PLANT

RETENTION BERM

DATE: 04/04/01

NAME:

FILE: 01-0101

LAarson & Associates, Inc.
Environmental Consultants

APPENDIX A

NMOCD Correspondence

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

November 17, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5086

Mr. Cal Wrangham
Dynegy Midstream Services, L.P.
6 Desta Drive Suite 3300
Midland, Texas 79705

RE: Discharge Plan Renewal GW-025
Dynegy Midstream Services, L.P.
Monument Gas Plant
Lea County, New Mexico

Dear Mr. Wrangham:

The groundwater discharge plan renewal application GW-025 for the Dynegy Midstream Services, L.P. Monument Gas Plant located in the SW/4 of Section 36, Township 19 South, Range 36 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The original discharge plan application was submitted on July 28, 1981 and approved on July 31, 1985 with an expiration date of July 31, 1990. The discharge plan renewal application dated February 03, 2000 submitted pursuant to Section 3106 and 5101.B.3 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Dynegy Midstream Services, L.P. of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Dynegy Midstream Services, L.P. of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104. of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., Dynegy Midstream Services, L.P. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire July 31, 2005** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. and 5101.F of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit plans for, or the results of, an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan application for the Dynegy Midstream Services, L.P.., Monument Gas Plant is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of $50 plus a renewal flat fee of $1667.50 for natural gas processing plants. The OCD has not received the $690.00 flat fee. The flat fee of $690.00 may be paid in a single payment due on the date of the discharge plan approval or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval and subsequent installments due on this date of each calendar year.

Please make all checks payable to: Water Quality Management Fund
C/o: Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-827-7155). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief
RCA/lwp
Attachment-2
xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN GW-025 APPROVAL
Dynegy Midstream Services, L.P., Monument Gas Plant
DISCHARGE PLAN APPROVAL CONDITIONS
November 17, 2000

1. Payment of Discharge Plan Fees: The $50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for natural gas processing plants. The renewal flat fee required for this facility is $1667.50 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval.

2. Commitments: Dynegy Midstream Services, L.P. will abide by all commitments submitted in the discharge plan renewal letter dated February 03, 2000, and these conditions for approval.

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

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

5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.

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

7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.

8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than December 15, 2000 and every year from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD by July 31, 2001.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than December 15, 2000 and every 5 years, from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD by July 31, 2001.

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

11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.

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

13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections. As a result of the inspection conducted by OCD on May 10, 2000 (copy enclosed) and August 24, 2000 (Witness MIT of Gas Storage Well #1) the following action items shall be addressed by July 31, 2001.

    A. Provide to OCD for approval a clean-up plan for the area located west of the plant and between the gas storage brine well ponds. (see photo's 12,13 14 and 16).
    B. Investigate and provide the results for the contamination found near the west side of the oil/water tanks secondary containment. (see picture #18).
    C. Provide to OCD the complete report for the Nitrogen/Brine Interface test conducted in August of this year.
    D. Provide an action plan for OCD approval for the #2 Gas Storage Well and Brine Pond. Please identify if the well and brine pond has integrity.

15. Storm Water Plan: Dynegy Midstream Services, L.P. will submit a stormwater run-off plan for OCD by July 31, 2001.

16. Vadose Zone and Water Pollution: The previously submitted investigation and remediation plans were submitted pursuant to the discharge plan and all future discoveries of contamination will be addressed through the discharge plan process.

17. Underground Gas Storage Systems:

    A. Production Method: Brine water will be injected and withdrawn through the tubing and gas products shall be injected and withdrawn through the casing/tubing annulus. Deviations will be allowed for maintenance reasons once a month for up to 24 hours.

    B. Maximum Injection Pressure: The maximum operating injection and/or test pressure at the well head will be such that the fracture pressure of the injection formation will not be exceeded. Please provide to OCD by July 31, 2001 the surface fracture pressure (psig) for the two gas storage caverns and the maximum operating pressure.

    C. Mechanical Integrity Testing: Dynegy Midstream Services, L.P. will conduct an annual open hole cavern pressure test equal to one and one-half times the normal operating pressure (not to exceed formation fracture pressure) or 300 psi, whichever is greater, for four hours. At least once every five years and during well work overs the cavern formation will be isolated from the casing/tubing annuals and the casing pressure tested at 300 psig for 30 minutes. Other test methods (i.e. Nitrogen/Brine Interface Test) may be utilized in lieu of above test methods if pre-approved by OCD. All pressure test must be witnessed and approved by OCD.

D. Capacity and Cavity Configuration: A test will be conducted to determine the size and configuration of the mined cavities prior to discharge plan renewal (February 27, 2005). The method and time of testing will be approved by the OCD prior to performing the test.

E. Dynegy Midstream Services, L.P. will provide to the OCD the calculated size of the cavities and demonstrate the stability of the salt formation cavities from collapse and/or subsidence. Please include this information in the first annual report due on July 31, 2001.

F. Operation Reports: Monthly operation reports shall be submitted on OCD C-131A forms and Annual operation reports shall be submitted on OCD C-131B forms in the annual report due on July 31, 2001.

G. Analysis of Injection Fluid and Brine: Provide an analysis of the injection fluid and produced brine with each annual report. Analysis will be for General Chemistry (Method 40 CFR 136.3) using EPA methods.

H. Well Work Over Operations: OCD approval will be obtained from the Director prior to performing remedial work, pressure test or any other Work over. Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103.A.) with appropriate copies sent to the OCD Hobbs District Office.

I. Gas Storage Brine Water Ponds: A minimum freeboard will be maintained in the ponds so that no over topping of waste water occurs. Any repairs or modifications to the pond liners and/or leak detection systems must receive prior OCD approval. Leaks and releases shall be reported pursuant to Item 12. (Spill Reporting) of these conditions.

J. Leak Detection Monitor Well(s): The leak detection monitor well(s) for the brine storage pond(s) must be inspected for fluids monthly. Records will be maintained to include quantity of fluid measured, conductivity and chlorides of fluid, date of inspection, and name of inspector. Any fluids found must be reported to the NMOCD Santa Fe office and the appropriate District office within 48 hours of discovery.

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

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

20. Certification: **Dynegy Midstream Services, L.P.** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Dynegy Midstream Services, L.P.** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Dynegy Midstream Services, L.P.**

_____
Company Representative- print name

_____Date_____
Company Representative- Sign

Title_____

APPENDIX B

Environmental Lab of Texas, Inc. Reports

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD ST., STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3 deg C
Project #: 01-0101
Project Name: Dynegy-Monument
Project Location: Lea County, N.M.

Sampling Date: 07/06/01
Receiving Date: 07/06/01
Analysis Date: 07/06/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
0101095-03	HA-2, 0.0-0.5'	<0.050	0.278	0.370	0.929	0.179
0101095-07	HA-4, 0.0-0.5'	<0.025	<0.025	<0.025	<0.025	<0.025
0101095-09	HA-5, 0.0-0.5'	<0.100	0.253	0.275	1.24	<0.100

QUALITY CONTROL	0.101	0.098	0.101	0.199	0.103
TRUE VALUE	0.100	0.100	0.100	0.200	0.100
% INSTRUMENT ACCURACY	101	98	101	100	103
SPIKED AMOUNT	0.100	0.100	0.100	0.200	0.100
ORIGINAL SAMPLE	<0.025	<0.025	<0.025	<0.025	<0.025
SPIKE	*0.091*	*0.088*	*0.092*	*0.179*	*0.093*
SPIKE DUP	0.087	0.082	0.082	0.159	0.083
% EXTRACTION ACCURACY	91	88	92	90	93
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025
RPD	4	6	10	10	10

METHODS: EPA SW 846-8021B ,5030

Raland K Tuttle

Raland K. Tuttle

7-10-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD ST., STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3 deg C
Project #: 01-0101
Project Name: Dynegy-Monument
Project Location: Lea County, N.M.

Sampling Date: 07/06/01
Receiving Date: 07/06/01
Analysis Date: 07/06/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101095-01	HA-1, 0.0-0.5'	<100	2640
0101095-03	HA-2, 0.0-0.5'	368	7430
0101095-04	HA-2, 1.5'-2.0'	<10	247
0101095-05	HA-3, 0.0-0.5'	<10	353
0101095-07	HA-4, 0.0-0.5'	222	7850
0101095-08	HA-4, 1.5'-2.0'	<10	1520
	QUALITY CONTROL	564	520
	TRUE VALUE	500	500
	% INSTRUMENT ACCURACY	113	104
	SPIKED AMOUNT	476	476
	ORIGINAL SAMPLE	<10	<10
	SPIKE	430	417
	SPIKE DUP	426	423
	% EXTRACTION ACCURACY	90	88
	BLANK	<10	<10
	RPD	1	1

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-13-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD ST., STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3 deg C
Project #: 01-0101
Project Name: Dynegy-Monument
Project Location: Lea County, N.M.

Sampling Date: 07/06/01
Receiving Date: 07/06/01
Analysis Date: 07/09/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101095-09	HA-5, 0.0-0.5'	281	1760
0101095-10	HA-5, 1.5'-2.0'	<10	<10
	QUALITY CONTROL	528	528
	TRUE VALUE	500	500
	% INSTRUMENT ACCURACY	106	106
	SPIKED AMOUNT	476	476
	ORIGINAL SAMPLE	<10	<10
	SPIKE	538	506
	SPIKE DUP	548	512
	% EXTRACTION ACCURACY	113	106
	BLANK	<10	<10
	RPD	2	1

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-10-01
Date

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Mark Larson
Company Name: Larson and Associates, Inc.
Company Address: 507 N. Marienfeld St., Ste 202
City/State/Zip: Midland, Texas 79701
Telephone No: (915) 687-0901 Fax No: (915) 687-0456
Sampler Signature:

Project Name: Dynegy - Monument
Project #: 01-0101
Project Loc: Lea County, NM
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TOTAL: TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Hold							RUSH TAT (Pre-Schedule)	Standard TAT
010 1095-01	HA-1, 0.0 - 0.5'	7/6/01	0935	1	✓								✓						✓													
02	" 1.5 - 2.0'		0957	1	✓								✓										✓									
03	HA-2, 0.0 - 0.5'		0840	1	✓								✓						✓													
04	" 1.5 - 2.0'		0903	1	✓								✓						✓													
05	HA-3, 0.0 - 0.5'		0845	1	✓								✓						✓													
06	" 1.5 - 2.0'		0907	1	✓								✓										✓									
07	HA-4, 0.0 - 0.5'		0855	1	✓								✓						✓													
08	" 1.5 - 2.0'		0913	1	✓								✓						✓													
09	HA-5, 0.0 - 0.5'		0938	1	✓								✓						✓													
10	1.5' - 2.0'		0943	1	✓								✓						✓													

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Ice. 3°C

Relinquished by:	Date	Time	Received by:	Date	Time
	7/6/01	1600			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				7/6/01	1645

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD ST., STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3 deg C
Project #: 01-0101
Project Name: Dynegy-Monument
Project Location: Lea County, N.M.

Sampling Date: 07/06/01
Receiving Date: 07/06/01
Analysis Date: 07/16/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101095-02	HA-1, 1.5-2.0'	<10	78.9

QUALITY CONTROL	441	449
TRUE VALUE	500	500
% INSTRUMENT ACCURACY	87	103
SPIKED AMOUNT	476	476
ORIGINAL SAMPLE	<10	<10
SPIKE	443	468
SPIKE DUP	446	479
% EXTRACTION ACCURACY	93	98
BLANK	<10	<10
RPD	1	2

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-17-01
Date

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Mark Larson

Company Name: Larson and Associates Inc.

Company Address: 507 N. Marienfeld St, Ste 202

City/State/Zip: Midland, Texas 79701

Telephone No: (915) 687-0901

Fax No: (915) 687-0456

Sampler Signature: [signature]

Project Name: Dynegy - Monument

Project #: 01-0101

Project Loc: Lea County, NM

PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Water	Sludge	Soil	Other (specify)	TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Hold	RUSH TAT (Pre-Schedule)	Standard TAT
010 1095-01	HA-1 0.0 - 0.5'	7/6/01	0835	1	✓									✓				✓								
02	" 1.5 - 2.0'	↓	0857	1	✓									✓					X					✓		
03	HA-2 0.0 - 0.5'	↓	0840	1	✓									✓				✓					✓			
04	" 1.5 - 2.0'	↓	0903	1	✓									✓				✓								
05	HA-3 0.0 - 0.5'	↓	0845	1	✓									✓				✓								
06	" 1.5 - 2.0'	↓	0907	1	✓									✓										✓		
07	HA-4 0.0 - 0.5'	↓	0855	1	✓									✓				✓					✓			
08	" 1.5 - 2.0'	↓	0913	1	✓									✓				✓								
09	HA-5 0.0 - 0.5'	↓	0938	1	✓									✓				✓					✓			
10	1.5 - 2.0'	↓	0943	1	✓									✓				✓								

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Rec. 3°C
*Add 8015M as per Mark 7-16-01 @ 1530

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	7/6/01	1600			

Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			[signature]	7/6/01	1605

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD, STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3.5 deg C
Project #: 01-0101
Project Name: Dynegy-Monument Plant
Project Location: Lea County, NM

Sampling Date: 07/18/01
Receiving Date: 07/19/01
Analysis Date: 07/19/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101167-01	HA-4, 3-4'	<10	508
	QUALITY CONTROL	452	486
	TRUE VALUE	500	500
	% INSTRUMENT ACCURACY	90	97
	SPIKED AMOUNT	476	476
	ORIGINAL SAMPLE	<10	<10
	SPIKE	513	537
	SPIKE DUP	488	526
	% EXTRACTION ACCURACY	103	111
	BLANK	<10	<10
	RPD	5	2

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-20-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON & ASSOCIATES, INC.
ATTN: MR. MARK LARSON
507 N. MARIENFELD, STE. 202
MIDLAND, TEXAS 79701
FAX: 687-0456

Sample Type: Soil
Sample Condition: Intact/ Iced/ 3.5 deg C
Project #: 01-0101
Project Name: Dynegy-Monument Plant
Project Location: Lea County, NM

Sampling Date: 07/18/01
Receiving Date: 07/19/01
Analysis Date: 07/20/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
0101167-02	HA-4, 4-5'	<10	<10
	QUALITY CONTROL	474	563
	TRUE VALUE	500	500
	% INSTRUMENT ACCURACY	95	113
	SPIKED AMOUNT	476	476
	ORIGINAL SAMPLE	<10	<10
	SPIKE	542	535
	SPIKE DUP	520	556
	% EXTRACTION ACCURACY	114	112
	BLANK	<10	<10
	RPD	4	4

Methods: EPA SW 846-8015M GRO/DRO

Raland K. Tuttle

7-23-01
Date

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Mark Larson

Company Name: Larson and Associates, Inc.

Company Address: 507 N. Marienfeld, Ste. 202

City/State/Zip: Midland, Texas 79701

Telephone No: (915) 687-0901

Fax No: (915) 687-0456

Sampler Signature: [signature]

Project Name: Dynegy - Monument Plan

Project #: 01-0101

Project Loc: Lea County, NM

PO #:

Analyze For: TCLP: / TOTAL:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Hold						RUSH TAT (Pre-Schedule)	Standard TAT
0101167-01	HA-4, 3-4'	7-18-01	1200	1	✓									✓				✓													
↓ -02	HA-4, 4-5'	7-18-01	1205	1	✓									✓					X					✓							

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	7-19-01	0815			
Relinquished by:	Date	Time	Received by ELOT: Jane McMurray	7-19-01	0815

Sample Containers Intact? (Y) N

Temperature Upon Receipt: 3.5°C

Laboratory Comments: Run 8015 on ~~#1~~ HA-4 4-5' as per Mark on 7/20/01. ASAP. cak

APPENDIX C

Photographs

DYNEGY MIDSTREAM SERVICES, L.P.
MONUMENT GAS PLANT
GROUNDWATER DISCHARGE PLAN RENEWAL

1. Oil/Water Tank Secondary Containment Investigation Area

2. Oil/Water Tank Secondary Containment Investigation Area

3. No. 2 Brine Pond

4. No. 2 Brine Pond

5. No. 2 Brine Pond

6. Storm Water Retention Berm (Looking North)

7. Storm Water Retention Berm (Looking West)

SONIC SURVEYS, INC.

DYNEGY

November 27, 2000

Mr. Chris Williams – Oil & Gas Inspector District Supervisor
State of New Mexico
Energy, Minerals, & Natural Resources
Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico, 88240

Re: Propane Storage Well # 1 Mechanical Integrity Test Report

Monument Gas Plant GW-025

Dear Mr. Williams:

Enclosed are two copies of the well # 1 Mechanical Integrity Test Report performed by Sonic Surveys Inc., from the recent work performed at Dynegy's Monument Gas Plant. Please forward one copy of the report to Wayne Price of your Santa Fe office, since he witnessed the test.

If you have any questions or concerns, please don't hesitate to call me at 281-385-3115.

Larry Malloy
Larry Malloy
Regional Well Specialist


Received
Hobbs
OCD

MECHANICAL INTEGRITY TEST REPORT

DYNEGY MIDSTREAM SERVICES, L.P.
STORAGE WELL #1
MONUMENT FIELD
LEA COUNTY, NEW MEXICO
AUGUST 24 THROUGH AUGUST 28, 2000

SONIC SURVEYS, INC.
10601 LANGSTON DR., P.O. BOX 719, MONT BELVIEU, TX 77580 (281)385-6500

RON HICKS - 888-870-6214

TABLE OF CONTENTS

PREFACE

PREFACE

This report details the pressure test of Storage Well #1 operated by Dynegy Midstream Services, L.P. in the Monument Field of Lea County, New Mexico. The purpose of the pressure test was to determine the mechanical integrity of Underground Storage Well #1 in accordance with the guide lines set forth by the State of New Mexico Energy, Minerals, and Natural Resources Department.

Integrity was established utilizing the nitrogen interface pressure test. The weakest link in the cavern/well system is the casing and the cementation of the casing to the formation. Therefore, the nitrogen interface test focuses on the cemented casing seat by injecting a known amount of nitrogen into the casing to below the cemented casing seat at a predetermined test pressure. Storage Well #1 was tested using a .69 psi/foot test gradient.

The test sensitivity of this nitrogen interface test is inversely proportional to the unit volume of borehole below the cemented casing seat filled with nitrogen. This test sensitivity is described as the Minimum Detectable Leak Rate (MDLR). The nitrogen interface test on Storage Well #1 will not detect a leak smaller than the calculated MDLR.

The on-site Supervisor for Dynegy Midstream Services, L.P. was Larry Malloy, the testing contractor supervisor was Ron Hicks, and the State of New Mexico elected not to witness the test.

WRONG!

WAYNE PRICE & BILL OLSON - OCD WITNESSED PART of TEST!

PROCEDURE

DYNEGY MIDSTREAM SERVICES, L.P.
STORAGE WELL #1
MONUMENT FIELD
LEA COUNTY, NEW MEXICO

I. INTRODUCTION

1.1 The purpose of the cavern test is to test the mechanical integrity of the Dynegy Midstream Services, L.P. Well #1 underground storage cavern in accordance with the guide lines set forth by the State of New Mexico.

1.2 The mechanical integrity test is accomplished by injecting nitrogen into the well casing to below the cemented casing seat, at a test pressure predetermined by Dynegy Midstream Services, L.P., and recording the brine pressure, nitrogen pressure, and interface level throughout a given test period.

1.3 Conditions and circumstances unforeseen or beyond the control of Sonic Survey's, Inc. may require altering this procedure during the test.

II. PREPARATION

2.1 The customer provides to Sonic Surveys, Inc. the physical description of the well, the maximum operating pressure at the wellhead and casing seat, and the desired test pressure gradient.

2.2 Customer prepares wellhead to allow nitrogen injection, simultaneous well logging, and attachment of pressure measuring gauges.

2.3 Sonic Surveys, Inc. attaches pressure recorders and dead weight gauges capable of displaying pressure changes of 1 P.S.I. to both brine and product sides of the wellhead. Digital pressure transducers with certified accuracy of .1 psia on the tubing and .2 psia on the annulus are connected to the well head. The calibrated pressure transducer's signals will be sent to a remote data collection and storage device which will allow continuous monitoring and storage of annulus and tubing pressures. The digital, recorded pressures will be retrieved at the test completion and may be used as a basis for test results, calculations, or conclusions.

2.4 An inspection of the wellhead will be performed for external corrosion, faulty valves and packing or gasket leaks. The customer will make repairs as needed.

III. NITROGEN INJECTION

3.1 Temperatures will be recorded from surface to below the expected interface level. A temperature log of the test interval will be recorded.

3.2 A density base log will be run before nitrogen injection begins, a minimum of 50' below expected interface level to a minimum of 50' above cemented casing seat.

3.3 The density logging tool, in time drive mode, is spotted at a point determined by the test supervisor. Nitrogen is injected into the cemented casing at a constant, specified rate and temperature. When the interface is observed by the density logging tool, brine pressure, nitrogen pressure, and time of injection are recorded. The density logging tool is lowered the next point specified by the test supervisor and brine pressure, nitrogen pressure and time of injection are again recorded as the density logging tool indicates the interface. This procedure is repeated until the interface is approximately 50 feet above the final cemented casing seat.

3.4 Nitrogen injection is stopped in order to test the cemented casing string. An initial interface log is recorded of the interface in the cemented casing. Nitrogen and brine pressures are recorded. The wellhead and associated piping and connections are checked for leaks and any leaks repaired. After a time interval determined by the test supervisor but approximately thirty minutes, a second interface log is recorded of the interface in the cemented casing. Nitrogen and brine pressures are recorded. If the nitrogen pressure has maintained constant and the interface in the cemented casing has not moved, the cemented casing string is considered tight and nitrogen injection is resumed. If the interface in the cemented casing moves uphole and the nitrogen pressure drops the well head is again checked for leaks and the casing test is extended. This procedure is repeated until the casing is considered tight or a leak is identified. The test supervisor may waive the pipe test or end the pipe test at any time.

3.5 Nitrogen injection is resumed until the interface reaches the final cemented casing seat. The time, nitrogen and brine pressures, and total volume of nitrogen injected into the well are recorded.

3.6 When the specified test pressure is reached, the time of injection, brine and nitrogen pressures, interface depth, and total volume of nitrogen injected into the well are recorded.

3.7 If necessary, brine is then injected into the brine tubing string to raise the annulus pressure to the desired test pressure. If the annulus pressure reaches the desired test pressure during nitrogen injection, brine is released from the brine tubing string during nitrogen injection to maintain the test pressure.

3.8 A Post Injection interface log will be recorded from a minimum depth of 50' below the interface to a depth no less than 50' above the cemented casing seat. A temperature log of the test interval will be recorded.

3.9 The logging tool will be removed from the well, the valve closed, and the wellhead checked for leaks.

IV. TEST START- INITIALIZATION

4.1 After a stabilization period determined by the test supervisor, Test Start interface and temperature logs are recorded. The nitrogen pressure rate of decay must be less than 10 psi/ 24 hours. The pressure decay rate may be interpolated for stabilization periods less than 24 hours.

4.2 Time and brine and nitrogen pressures will be recorded along with the depth of the interface and this time is designated as the official start of the cavern test.

V. TEST END - FINALIZATION

5.1 At the end of the specified test period, Test Finish interface and temperature logs are recorded. The test period will not be less than 24 hours but will be sufficient time to ensure a sensitive test. Test sensitivity is determined by a minimum detectable leak rate of 1000 barrels or less of nitrogen per year.

5.2 Time and brine and nitrogen dead weight pressures and the interface depth are recorded, and this is designated as the official end of the cavern test.

VI. REPORTS ON TEST RESULTS

A detailed written report of the test procedures, results, and conclusions on the mechanical integrity test will be furnished to Dynegy Midstream Services, L.P. in a timely manner.

SUMMARY

SUMMARY OF NITROGEN INTERFACE TEST

Prior to nitrogen injection on August 24, the brine tubing was at atmosphere and the annulus pressure was 76.4 psia.

Base temperature and density surveys were recorded prior to nitrogen injection. The average brine tubing temperature was 73.7 degrees F. Nitrogen was injected into the cased annulus until the nitrogen interface in the cased annulus was above the bottom of the 7" casing. A thirty minute pressure and interface test of the cemented 7" casing and the 4 1/2" tubing was recorded. The nitrogen pressure decreased .8 psi.

Nitrogen injection resumed, displacing the lpg from the washed out area above and behind the 7" casing, establishing a nitrogen/lpg interface in the borehole below the 7" casing. The interface depth was 1571.8 ft., occupying 266 bbls. of borehole and washed out area as calculated by the 104,488 scf of nitrogen injected into 6.7 vertical feet of borehole and washed out area behind and above the bottom the 7" casing. The nitrogen pressure was 1059.5 psia and brine pressure was 292.7 psia. A lpg/brine interface was identified at 1575 ft.

August 25th was a nitrogen stabilization day and well logs were not recorded. At 09:00 hrs. the nitrogen pressure was 1038.6 psia and the brine pressure was 270.3 psia.

On August 26, the nitrogen pressure was 1027.6 psia and the brine pressure was 260.0 psia. Test Start temperature and interface surveys were recorded, indicating the interface depth to be 1571.8 ft. and an average brine tubing temperature of 74.1 degrees F. During the 39 hour stabilization period, the nitrogen pressure decreased 31.9 psi, while the brine pressure decreased 32.7 psi. During the final 24 hours of nitrogen stabilization, the nitrogen pressure decreased 11.0 psia and the brine pressure decreased 10.3 psia. The interface did not move during the 39 hour stabilization period.

August 27th was a intermediate test day and well logs were not recorded. At 09:00 hrs. the nitrogen pressure was 1021.5 psia and the brine pressure was 253.3 psia.

On August 28, the nitrogen pressure was 1017.2 psia and the brine pressure was 248.7 psia. Test Finish temperature and interface surveys were recorded, indicating the interface depth to be 1571.8 ft. and an average brine tubing temperature of 73.8 degrees F. During the 48 test, the interface did not move. The nitrogen pressure decreased 10.3 psi and the brine pressure decreased 11.3 psi. The nitrogen interface test was concluded. All test equipment was removed and the well returned to Dynegy Midstream Services, L.P.

CHRONOLOGICAL FIELD DATA

CHRONOLOGICAL LOG OF TEST
8/24/00 NITROGEN INJECTION

Sonic Surveys rigged up on Storage Well No. 1 August 24, 2000. The brine tubing was at atmosphere and the annulus pressure was 76.4 psia. The pressures were measured with Sonic's quartz pressure transducers. A temperature survey was recorded from 0 ft. to 1750 ft. The average brine tubing temperature was 73.7° F. A base density log was recorded from 1700 ft. to 1400 ft.

At 11:16 hrs., Dowell Schlumberger nitrogen pump service began injecting nitrogen into the well annulus averaging 312 scf/min. and 89° F. Nitrogen injection stopped at 11:46 hrs. and a thirty minute pressure/interface test was run to check the wellhead, 7" casing, and the 4 1/2" tubing for leaks.

11:55 hrs.	Nitrogen Press 796.4 psia
12:25 hrs.	Nitrogen Press 795.6 psia

At 12:45 hrs. nitrogen injection resumed averaging 892 scf/min. The nitrogen/lpg interface reached the bottom of the 7" cemented casing at 12:47 hrs. and the nitrogen pressure was 814.9 psia. The nitrogen volume to the casing seat was 10,118 scf. Nitrogen injection was halted at 14:27 hrs. and brine injection into the 4 ½" tubing string began at 14:39 hrs. Brine injection stopped at 17:12 hrs. Nitrogen injection resumed at 17:28 hrs.

Nitrogen was pumped below the 7" casing to 1571.8 ft. in the cavern ending injection at 18:08 hrs. The amount of nitrogen injected into the borehole below the 7" casing and into the washed out area above and behind the 7" casing was measured to be 104,488 scf occupying 6.7 vertical feet for an average unit volume of borehole of 39.8 bbls./ft. The nitrogen pressure was 1059.5 psia and the brine pressure was 292.7 psia by digital quartz pressure transducers. A Post Injection interface log was recorded from 1700 ft. to 1450 ft. The Post Injection nitrogen/lpg interface was recorded at 1571.8 ft. at 18:36 hrs. A lpg/brine interface was identified at 1575 ft. The density interface tool was removed from the well, the well shut in and the wellhead and associated piping was checked for leaks.

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
NITROGEN INJECTION DATA RECORDED DIGITALLY

TIME	NITROGEN VOLUME SCF	NITROGEN PRESSURE PSIA	BRINE PRESSURE PSIA	NITROGEN FLOW RAT SCF/MIN	NITROGEN INJ. TEMP DEG F.	DEPTH OF INTERFACE TOOL
11:17	141	119.5	15.6	91	105.6	49
11:18	229	137.7	16.1	89	106.1	49
11:19	478	184.1	17.2	343	104.2	49
11:20	769	234.7	18.5	290	99.8	138
11:21	1046	269.9	19.6	262	97.6	252
11:22	1360	308.7	20.6	380	97.4	426
11:23	1678	339.8	21.6	220	99.2	623
11:24	1994	372.1	22.6	248	97.8	682
11:25	2341	404.7	23.7	415	92	738
11:26	2649	428.2	24.6	415	87.2	790
11:27	3041	460	26	330	85.8	834
11:28	3403	484.5	25.9	313	85.5	906
11:29	3766	510.8	27.1	358	84.9	942
11:30	4141	533.7	27.6	359	84.1	971
11:31	4528	558.9	28.1	378	82.8	1059
11:32	4916	583	28.9	397	81.6	1099
11:33	5299	603.4	29.5	382	81	1136
11:34	5675	625	30.3	368	81	1184
11:35	6035	642.8	30.8	354	81	1219
11:36	6399	662.4	31.4	353	81.2	1253
11:37	6755	678.9	31.9	371	81.3	1297
11:38	7119	697.5	32.2	339	81	1335
11:39	7468	714.8	32.9	352	80.7	1359
11:40	7806	729.2	33.4	334	80.6	1391
11:41	8135	745	33.7	327	80.7	1421
11:42	8468	758.5	34.2	365	80.9	1458
11:43	8808	773.9	34.4	330	80.9	1486
11:44	9137	786.9	35	318	81.2	1535
12:43	9386	795.3	33.8	0	97.7	1550
12:44	9386	795.3	33.8	0	97.8	1550
12:45	9441	795.6	33.8	690	101.8	1550
12:46	10141	814.9	34.6	704	95.4	1570
12:47	10855	815.2	34.9	745	74.1	1570
12:48	11588	815.6	35.3	720	73.2	1570
12:49	12307	815.9	35.6	706	71.1	1570
12:50	13022	816.3	36	719	70.4	1570
12:51	13726	816.7	36.3	700	77	1570
12:52	14425	817	36.7	711	82.3	1570
12:53	15128	817.3	37.1	687	88.3	1570
12:54	15891	817.8	37.5	863	86.5	1570
12:55	16784	818.1	37.9	854	81.3	1570
12:56	17646	818.6	38.4	840	79	1570
12:57	18512	819	38.9	866	77.7	1570
12:58	19382	819.5	39.3	856	76.5	1570

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
NITROGEN INJECTION DATA RECORDED DIGITALLY

12:59	20254	819.9	39.7	880	75.6	1570
13:00	21137	820.3	40.2	880	74.7	1570
13:01	22022	820.8	40.7	878	73.6	1570
13:02	22905	821.2	41.1	860	72.7	1570
13:03	23784	821.7	41.6	890	71.9	1570
13:04	24604	821.9	42	690	71.7	1570
13:05	25308	822.3	42.4	710	72.5	1570

CHRONOLOGICAL LOG OF TEST
8/26/00
TEST START

August 25th was a nitrogen stabilization day and well logs were not recorded. At 09:00 hrs. the nitrogen pressure was 1038.6 psia and the brine pressure was 270.3 psia.

On August 26th, at 07:38 hrs., a Test Start temperature log was recorded from 0 ft. to 1750 ft. The average brine tubing temperature was 74.1° F.

At 08:30 hrs., a Test Start interface log was recorded from 1700 ft. to 1450 ft. The Test Start interface was recorded at 1571.8 ft. at 08:39 hrs. The stabilization period was 39 hours and the interface did not move. The nitrogen pressure was 1027.6 psia, a 31.9 psi decrease. The brine pressure was 260.0 psia, a 32.7 psi decrease. During the final 24 hours of nitrogen stabilization, the nitrogen pressure decreased 11.0 psia and the brine pressure decreased 10.3 psia. Both pressures were digital quartz pressure transducer recorded and verified by dead weight gauge.

Test Start	08:39 hrs.
Interface Depth	1571.8 ft.
Nitrogen Pressure	1027.6 psia
Brine Pressure	260.0 psia
Maximum Temperature	78.6°F
Average Temperature	74.1°F
Ambient Temperature	80.0°F

CHRONOLOGICAL LOG OF TEST
8/28/00
TEST FINISH

August 27th was a intermediate test day and well logs were not recorded. At 09:00 hrs. the nitrogen pressure was 1021.5 psia and the brine pressure was 253.3 psia.

On August 28th at 08:23 hrs., a Test Finish temperature log was recorded from 0 ft. to 1750 ft. The average temperature of the brine tubing was 73.8° F

At 08:57 hrs., a Test Finish interface log was recorded from 1700 ft. to 1450 ft. The Test Finish interface was recorded at 1571.8 ft. at 09:09 hrs. The test period was forty eight hours and the interface did not move. The nitrogen pressure was 1017.2 psia and the brine pressure was 248.7 psia. The nitrogen pressure decreased 10.4 psi and the brine pressure decreased 11.3 psi during the forty eight hour test. Both pressures were digital quartz pressure transducer recorded and verified by dead weight gauge.

Test Finish	09:09 hrs.
Interface Depth	1571.8 ft.
Nitrogen Pressure	1017.2 psia
Brine Pressure	248.7 psia
Maximum Recorded Temperature	78.9° F.
Average Recorded Temperature	73.8° F.
Ambient Temperature	81.9° F

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

DATE & TIME	NITROGEN PRESSURE PSIA	BRINE PRESSURE PSIA	AMBIENT TEMPERATURE DEGREES F.
8/24/00 18:20	1060.7	293.9	94.3
8/24/00 18:25	1060.3	293.7	93.7
8/24/00 18:30	1059.9	293.3	94.4
8/24/00 18:35	1059.5	292.7	94.2
8/24/00 18:40	1059.2	292.3	94.2
8/24/00 18:45	1058.8	291.9	93.6
8/24/00 18:50	1058.5	291.8	93.1
8/24/00 18:55	1058.0	291.8	92.8
8/24/00 19:00	1057.7	291.8	92.2
8/24/00 19:05	1057.4	291.8	91.5
8/24/00 19:10	1057.1	291.8	90.3
8/24/00 19:15	1057.1	291.8	88.8
8/24/00 19:20	1056.5	289.5	87.6
8/24/00 19:25	1056.2	289.1	86.6
8/24/00 19:30	1055.9	288.9	85.8
8/24/00 19:35	1055.6	288.6	85.1
8/24/00 19:40	1055.4	288.3	84.5
8/24/00 19:45	1055.1	288.0	83.9
8/24/00 19:50	1054.9	287.8	83.5
8/24/00 19:55	1054.6	287.5	83.0
8/24/00 20:00	1054.4	287.3	82.5
8/24/00 20:05	1054.2	287.0	81.9
8/24/00 20:10	1053.9	286.8	81.3
8/24/00 20:15	1053.7	286.5	81.1
8/24/00 20:20	1053.5	286.3	80.5
8/24/00 20:25	1053.3	286.1	79.9
8/24/00 20:30	1053.1	285.9	79.4
8/24/00 20:35	1052.9	285.6	79.0
8/24/00 20:40	1052.7	285.4	78.7
8/24/00 20:45	1052.5	285.2	78.5
8/24/00 20:50	1052.3	285.0	78.4
8/24/00 20:55	1052.1	284.8	78.5
8/24/00 21:00	1052.0	284.6	78.5
8/24/00 21:05	1051.8	284.5	78.5
8/24/00 21:10	1051.6	284.3	78.5
8/24/00 21:15	1051.4	284.1	78.3
8/24/00 21:20	1051.3	283.9	78.1
8/24/00 21:25	1051.1	283.7	77.8
8/24/00 21:30	1051.0	283.6	78.0
8/24/00 21:35	1050.8	283.4	78.3
8/24/00 21:40	1050.6	283.2	78.1
8/24/00 21:45	1050.5	283.1	77.9
8/24/00 21:50	1050.3	282.9	77.6
8/24/00 21:55	1050.2	282.7	77.3
8/24/00 22:00	1050.0	282.6	77.2
8/24/00 22:05	1049.9	282.4	77.2

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/24/00 22:10	1049.7	282.2	77.0
8/24/00 22:15	1049.6	282.1	76.9
8/24/00 22:20	1049.5	281.9	76.7
8/24/00 22:25	1049.3	281.8	76.4
8/24/00 22:30	1049.2	281.6	76.0
8/24/00 22:35	1049.0	281.5	75.5
8/24/00 22:40	1048.9	281.3	75.4
8/24/00 22:45	1048.7	281.2	75.0
8/24/00 22:50	1048.6	281.0	74.5
8/24/00 22:55	1048.5	280.9	74.2
8/24/00 23:00	1048.3	280.7	73.8
8/24/00 23:05	1048.2	280.6	73.5
8/24/00 23:10	1048.1	280.4	73.1
8/24/00 23:15	1048.0	280.3	72.6
8/24/00 23:20	1047.8	280.2	72.1
8/24/00 23:25	1047.7	280.0	71.7
8/24/00 23:30	1047.6	279.9	71.5
8/24/00 23:35	1047.5	279.8	71.3
8/24/00 23:40	1047.3	279.6	71.1
8/24/00 23:45	1047.2	279.5	70.9
8/24/00 23:50	1047.1	279.4	70.7
8/24/00 23:55	1047.0	279.2	70.5
8/25/00 0:00	1046.9	279.1	70.4
8/25/00 0:05	1046.7	279.0	70.2
8/25/00 0:10	1046.6	278.9	70.0
8/25/00 0:15	1046.5	278.8	70.0
8/25/00 0:20	1046.4	278.7	70.0
8/25/00 0:25	1046.3	278.5	69.9
8/25/00 0:30	1046.2	278.4	69.7
8/25/00 0:35	1046.1	278.3	69.3
8/25/00 0:40	1046.0	278.2	69.2
8/25/00 0:45	1045.9	278.1	69.3
8/25/00 0:50	1045.8	278.0	69.4
8/25/00 0:55	1045.7	277.9	69.3
8/25/00 1:00	1045.6	277.8	69.2
8/25/00 1:05	1045.5	277.6	69.2
8/25/00 1:10	1045.4	277.5	69.2
8/25/00 1:15	1045.3	277.4	69.2
8/25/00 1:20	1045.2	277.3	69.2
8/25/00 1:25	1045.1	277.2	69.6
8/25/00 1:30	1045.0	277.1	69.8
8/25/00 1:35	1044.9	277.0	70.1
8/25/00 1:40	1044.8	276.9	70.3
8/25/00 1:45	1044.7	276.8	69.8
8/25/00 1:50	1044.6	276.7	69.1
8/25/00 1:55	1044.5	276.6	68.8
8/25/00 2:00	1044.4	276.5	68.6
8/25/00 2:05	1044.3	276.4	68.6
8/25/00 2:10	1044.2	276.3	68.4

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/25/00 2:15	1044.2	276.2	68.3
8/25/00 2:20	1044.1	276.1	68.3
8/25/00 2:25	1044.0	276.0	68.4
8/25/00 2:30	1043.9	275.9	68.4
8/25/00 2:35	1043.8	275.8	68.3
8/25/00 2:40	1043.7	275.7	68.3
8/25/00 2:45	1043.6	275.6	68.3
8/25/00 2:50	1043.5	275.5	68.1
8/25/00 2:55	1043.5	275.5	67.9
8/25/00 3:00	1043.4	275.4	67.8
8/25/00 3:05	1043.3	275.3	67.7
8/25/00 3:10	1043.2	275.2	67.5
8/25/00 3:15	1043.1	275.1	67.7
8/25/00 3:20	1043.0	275.0	68.2
8/25/00 3:25	1042.9	274.9	68.0
8/25/00 3:30	1042.9	274.8	67.9
8/25/00 3:35	1042.8	274.7	67.8
8/25/00 3:40	1042.7	274.6	67.6
8/25/00 3:45	1042.6	274.6	67.5
8/25/00 3:50	1042.5	274.5	67.6
8/25/00 3:55	1042.5	274.4	67.7
8/25/00 4:00	1042.4	274.3	67.9
8/25/00 4:05	1042.3	274.2	67.5
8/25/00 4:10	1042.2	274.1	67.3
8/25/00 4:15	1042.2	274.0	67.2
8/25/00 4:20	1042.1	274.0	67.3
8/25/00 4:25	1042.0	273.9	67.5
8/25/00 4:30	1041.9	273.8	67.2
8/25/00 4:35	1041.8	273.7	67.0
8/25/00 4:40	1041.8	273.6	67.1
8/25/00 4:45	1041.7	273.6	67.3
8/25/00 4:50	1041.6	273.5	67.3
8/25/00 4:55	1041.5	273.4	67.1
8/25/00 5:00	1041.5	273.3	66.9
8/25/00 5:05	1041.4	273.3	66.8
8/25/00 5:10	1041.3	273.2	67.2
8/25/00 5:15	1041.3	273.1	68.0
8/25/00 5:20	1041.2	273.0	67.8
8/25/00 5:25	1041.1	273.0	67.5
8/25/00 5:30	1041.1	272.9	67.2
8/25/00 5:35	1041.0	272.8	67.3
8/25/00 5:40	1040.9	272.7	67.8
8/25/00 5:45	1040.8	272.7	68.1
8/25/00 5:50	1040.8	272.6	68.0
8/25/00 5:55	1040.7	272.5	68.0
8/25/00 6:00	1040.6	272.4	68.1
8/25/00 6:05	1040.6	272.4	67.6
8/25/00 6:10	1040.5	272.3	67.0
8/25/00 6:15	1040.4	272.2	66.6

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/25/00 6:20	1040.3	272.1	66.1
8/25/00 6:25	1040.3	272.1	65.5
8/25/00 6:30	1040.2	272.0	65.3
8/25/00 6:35	1040.1	271.9	65.6
8/25/00 6:40	1040.1	271.8	65.7
8/25/00 6:45	1040.0	271.8	65.8
8/25/00 6:50	1039.9	271.7	66.2
8/25/00 6:55	1039.9	271.6	67.0
8/25/00 7:00	1039.8	271.6	67.8
8/25/00 7:05	1039.8	271.5	68.2
8/25/00 7:10	1039.7	271.5	68.3
8/25/00 7:15	1039.7	271.4	68.4
8/25/00 7:20	1039.6	271.4	68.8
8/25/00 7:25	1039.5	271.3	69.3
8/25/00 7:30	1039.5	271.3	70.3
8/25/00 7:35	1039.5	271.2	71.3
8/25/00 7:40	1039.4	271.2	72.3
8/25/00 7:45	1039.4	271.1	73.3
8/25/00 7:50	1039.4	271.1	74.4
8/25/00 7:55	1039.3	271.1	75.3
8/25/00 8:00	1039.3	271.0	76.1
8/25/00 8:05	1039.2	270.9	76.8
8/25/00 8:10	1039.2	270.9	77.8
8/25/00 8:15	1039.1	270.8	78.5
8/25/00 8:20	1039.0	270.8	79.3
8/25/00 8:25	1039.0	270.7	80.0
8/25/00 8:30	1038.9	270.6	80.9
8/25/00 8:35	1038.9	270.6	81.4
8/25/00 8:40	1038.8	270.5	82.0
8/25/00 8:45	1038.8	270.5	82.6
8/25/00 8:50	1038.7	270.4	83.5
8/25/00 8:55	1038.6	270.4	84.1
8/25/00 9:00	1038.6	270.3	84.5
8/25/00 9:05	1038.5	270.2	84.9
8/25/00 9:10	1038.5	270.2	85.5
8/25/00 9:15	1038.4	270.1	85.9
8/25/00 9:20	1038.4	270.1	86.4
8/25/00 9:25	1038.3	270.0	86.7
8/25/00 9:30	1038.2	269.9	87.0
8/25/00 9:35	1038.2	269.9	87.0
8/25/00 9:40	1038.1	269.8	87.8
8/25/00 9:45	1038.0	269.7	88.4
8/25/00 9:50	1038.0	269.7	88.3
8/25/00 9:55	1037.9	269.6	89.3
8/25/00 10:00	1037.9	269.5	89.1
8/25/00 10:05	1037.8	269.5	89.7
8/25/00 10:10	1037.7	269.4	89.5
8/25/00 10:15	1037.7	269.4	90.0
8/25/00 10:20	1037.6	269.3	90.5

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/25/00 10:25	1037.6	269.2	90.4
8/25/00 10:30	1037.5	269.2	90.5
8/25/00 10:35	1037.5	269.1	91.3
8/25/00 10:40	1037.4	269.1	91.3
8/25/00 10:45	1037.4	269.0	91.5
8/25/00 10:50	1037.3	268.9	92.3
8/25/00 10:55	1037.3	268.9	92.8
8/25/00 11:00	1037.2	268.8	92.9
8/25/00 11:05	1037.2	268.8	93.4
8/25/00 11:10	1037.1	268.7	93.1
8/25/00 11:15	1037.1	268.7	91.1
8/25/00 11:20	1037.0	268.6	91.2
8/25/00 11:25	1036.9	268.5	92.4
8/25/00 11:30	1036.9	268.5	93.3
8/25/00 11:35	1036.8	268.4	94.3
8/25/00 11:40	1036.8	268.4	94.9
8/25/00 11:45	1036.7	268.4	94.7
8/25/00 11:50	1036.7	268.3	93.4
8/25/00 11:55	1036.6	268.2	94.1
8/25/00 12:00	1036.5	268.2	94.2
8/25/00 12:05	1036.4	268.1	95.3
8/25/00 12:10	1036.4	268.1	95.5
8/25/00 12:15	1036.3	268.0	95.0
8/25/00 12:20	1036.3	268.0	94.2
8/25/00 12:25	1036.2	267.9	93.8
8/25/00 12:30	1036.2	267.8	94.5
8/25/00 12:35	1036.1	267.8	95.8
8/25/00 12:40	1036.1	267.8	94.3
8/25/00 12:45	1036.0	267.7	92.9
8/25/00 12:50	1035.9	267.6	94.2
8/25/00 12:55	1035.9	267.6	96.8
8/25/00 13:00	1035.8	267.6	97.7
8/25/00 13:05	1035.8	267.5	98.4
8/25/00 13:10	1035.8	267.5	99.4
8/25/00 13:15	1035.7	267.5	100.6
8/25/00 13:20	1035.7	267.5	98.8
8/25/00 13:25	1035.7	267.4	98.7
8/25/00 13:30	1035.6	267.3	100.7
8/25/00 13:35	1035.5	267.3	102.3
8/25/00 13:40	1035.5	267.2	101.7
8/25/00 13:45	1035.4	267.2	99.7
8/25/00 13:50	1035.4	267.1	100.2
8/25/00 13:55	1035.3	267.1	100.5
8/25/00 14:00	1035.2	267.0	98.7
8/25/00 14:05	1035.2	266.9	96.3
8/25/00 14:10	1035.1	266.8	96.6
8/25/00 14:15	1035.0	266.8	99.0
8/25/00 14:20	1035.0	266.8	99.1
8/25/00 14:25	1035.0	266.7	100.1

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/25/00 14:30	1035.0	266.7	99.4
8/25/00 14:35	1034.9	266.7	97.4
8/25/00 14:40	1034.9	266.6	98.3
8/25/00 14:45	1034.8	266.6	99.1
8/25/00 14:50	1034.8	266.6	99.4
8/25/00 14:55	1034.7	266.6	99.9
8/25/00 15:00	1034.7	266.5	100.5
8/25/00 15:05	1034.7	266.5	100.2
8/25/00 15:10	1034.6	266.4	99.9
8/25/00 15:15	1034.6	266.4	99.6
8/25/00 15:20	1034.5	266.3	101.0
8/25/00 15:25	1034.5	266.3	100.1
8/25/00 15:30	1034.5	266.3	99.7
8/25/00 15:35	1034.4	266.2	98.6
8/25/00 15:40	1034.4	266.1	99.0
8/25/00 15:45	1034.3	266.1	100.4
8/25/00 15:50	1034.3	266.0	101.0
8/25/00 15:55	1034.2	266.0	101.5
8/25/00 16:00	1034.2	265.9	102.0
8/25/00 16:05	1034.1	265.9	101.4
8/25/00 16:10	1034.1	265.8	101.4
8/25/00 16:15	1034.0	265.8	101.5
8/25/00 16:20	1034.0	265.8	100.5
8/25/00 16:25	1034.0	265.7	101.2
8/25/00 16:30	1033.9	265.7	101.7
8/25/00 16:35	1033.9	265.7	101.7
8/25/00 16:40	1033.9	265.7	102.7
8/25/00 16:45	1033.9	265.6	102.5
8/25/00 16:50	1033.8	265.6	101.6
8/25/00 16:55	1033.8	265.6	101.9
8/25/00 17:00	1033.7	265.5	102.1
8/25/00 17:05	1033.7	265.5	102.1
8/25/00 17:10	1033.7	265.4	100.4
8/25/00 17:15	1033.6	265.4	101.2
8/25/00 17:20	1033.6	265.4	102.2
8/25/00 17:25	1033.6	265.4	102.8
8/25/00 17:30	1033.5	265.3	102.3
8/25/00 17:35	1033.5	265.3	101.5
8/25/00 17:40	1033.5	265.2	102.1
8/25/00 17:45	1033.4	265.2	101.4
8/25/00 17:50	1033.4	265.2	98.9
8/25/00 17:55	1033.4	265.1	99.0
8/25/00 18:00	1033.3	265.1	98.4
8/25/00 18:05	1033.3	265.1	97.9
8/25/00 18:10	1033.3	265.0	97.3
8/25/00 18:15	1033.2	265.0	97.8
8/25/00 18:20	1033.2	264.9	97.1
8/25/00 18:25	1033.1	264.9	96.0
8/25/00 18:30	1033.1	264.8	94.9

8/25/00 18:35	1033.0	264.8	94.7
8/25/00 18:40	1033.0	264.7	94.8
8/25/00 18:45	1032.9	264.7	94.5
8/25/00 18:50	1032.9	264.6	94.0
8/25/00 18:55	1032.8	264.6	93.7
8/25/00 19:00	1032.8	264.5	93.4
8/25/00 19:05	1032.7	264.5	92.8
8/25/00 19:10	1032.7	264.5	92.2
8/25/00 19:15	1032.7	264.4	91.5
8/25/00 19:20	1032.6	264.4	90.6
8/25/00 19:25	1032.6	264.3	89.7
8/25/00 19:30	1032.5	264.3	88.9
8/25/00 19:35	1032.5	264.2	88.2
8/25/00 19:40	1032.4	264.2	87.6
8/25/00 19:45	1032.4	264.2	87.0
8/25/00 19:50	1032.3	264.1	86.6
8/25/00 19:55	1032.3	264.1	86.1
8/25/00 20:00	1032.2	264.1	85.5
8/25/00 20:05	1032.2	264.0	85.1
8/25/00 20:10	1032.2	264.0	84.9
8/25/00 20:15	1032.1	263.9	85.0
8/25/00 20:20	1032.1	263.9	84.6
8/25/00 20:25	1032.1	263.9	84.1
8/25/00 20:30	1032.0	263.8	83.3
8/25/00 20:35	1032.0	263.8	83.0
8/25/00 20:40	1032.0	263.8	82.2
8/25/00 20:45	1031.9	263.7	81.7
8/25/00 20:50	1031.9	263.7	81.6
8/25/00 20:55	1031.8	263.7	81.8
8/25/00 21:00	1031.8	263.7	81.8
8/25/00 21:05	1031.8	263.6	81.6
8/25/00 21:10	1031.8	263.6	81.5
8/25/00 21:15	1031.7	263.6	81.6
8/25/00 21:20	1031.7	263.6	81.4
8/25/00 21:25	1031.7	263.5	81.0
8/25/00 21:30	1031.6	263.5	80.7
8/25/00 21:35	1031.6	263.5	80.6
8/25/00 21:40	1031.6	263.4	80.5
8/25/00 21:45	1031.5	263.4	80.5
8/25/00 21:50	1031.5	263.4	80.8
8/25/00 21:55	1031.5	263.3	80.6
8/25/00 22:00	1031.5	263.3	79.4
8/25/00 22:05	1031.4	263.3	78.3
8/25/00 22:10	1031.4	263.2	77.8
8/25/00 22:15	1031.3	263.2	77.5
8/25/00 22:20	1031.3	263.2	77.3
8/25/00 22:25	1031.3	263.1	77.1
8/25/00 22:30	1031.2	263.1	77.1
8/25/00 22:35	1031.2	263.1	77.6

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/25/00 22:40	1031.2	263.0	76.8
8/25/00 22:45	1031.1	263.0	76.5
8/25/00 22:50	1031.1	263.0	75.4
8/25/00 22:55	1031.1	262.9	74.7
8/25/00 23:00	1031.0	262.9	74.1
8/25/00 23:05	1031.0	262.9	73.6
8/25/00 23:10	1030.9	262.8	73.6
8/25/00 23:15	1030.9	262.8	73.5
8/25/00 23:20	1030.9	262.8	73.7
8/25/00 23:25	1030.8	262.8	73.7
8/25/00 23:30	1030.8	262.7	73.3
8/25/00 23:35	1030.8	262.7	73.1
8/25/00 23:40	1030.8	262.7	72.9
8/25/00 23:45	1030.7	262.6	72.8
8/25/00 23:50	1030.7	262.6	72.8
8/25/00 23:55	1030.7	262.6	72.6
8/26/00 0:00	1030.6	262.6	72.5
8/26/00 0:05	1030.6	262.5	72.3
8/26/00 0:10	1030.6	262.5	72.6
8/26/00 0:15	1030.6	262.5	73.9
8/26/00 0:20	1030.5	262.5	75.0
8/26/00 0:25	1030.5	262.5	76.0
8/26/00 0:30	1030.5	262.3	76.0
8/26/00 0:35	1030.5	262.4	75.9
8/26/00 0:40	1030.5	262.4	75.4
8/26/00 0:45	1030.4	262.4	74.8
8/26/00 0:50	1030.4	262.3	74.5
8/26/00 0:55	1030.3	262.3	74.3
8/26/00 1:00	1030.3	262.3	74.1
8/26/00 1:05	1030.3	262.2	73.9
8/26/00 1:10	1030.2	262.2	73.8
8/26/00 1:15	1030.2	262.2	73.8
8/26/00 1:20	1030.2	262.1	73.9
8/26/00 1:25	1030.1	262.1	73.8
8/26/00 1:30	1030.1	262.1	73.5
8/26/00 1:35	1030.1	262.1	72.9
8/26/00 1:40	1030.1	262.0	72.6
8/26/00 1:45	1030.0	262.0	72.5
8/26/00 1:50	1030.0	262.0	72.5
8/26/00 1:55	1030.0	262.0	72.6
8/26/00 2:00	1029.9	261.9	73.0
8/26/00 2:05	1029.9	261.9	73.0
8/26/00 2:10	1029.9	261.9	72.8
8/26/00 2:15	1029.8	261.9	72.4
8/26/00 2:20	1029.8	261.8	72.6
8/26/00 2:25	1029.8	261.8	73.1
8/26/00 2:30	1029.8	261.8	73.4
8/26/00 2:35	1029.7	261.8	73.2
8/26/00 2:40	1029.7	261.7	73.0

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 2:45	1029.7	261.7	72.7
8/26/00 2:50	1029.6	261.7	72.7
8/26/00 2:55	1029.6	261.6	72.7
8/26/00 3:00	1029.6	261.6	72.4
8/26/00 3:05	1029.5	261.6	72.2
8/26/00 3:10	1029.5	261.6	72.2
8/26/00 3:15	1029.5	261.5	72.3
8/26/00 3:20	1029.5	261.5	72.5
8/26/00 3:25	1029.4	261.5	72.5
8/26/00 3:30	1029.4	261.5	72.3
8/26/00 3:35	1029.4	261.4	72.0
8/26/00 3:40	1029.3	261.4	71.7
8/26/00 3:45	1029.3	261.4	71.4
8/26/00 3:50	1029.3	261.4	71.3
8/26/00 3:55	1029.2	261.3	71.2
8/26/00 4:00	1029.2	261.3	71.0
8/26/00 4:05	1029.2	261.3	70.7
8/26/00 4:10	1029.1	261.2	70.5
8/26/00 4:15	1029.1	261.2	70.1
8/26/00 4:20	1029.1	261.2	69.7
8/26/00 4:25	1029.1	261.1	69.5
8/26/00 4:30	1029.0	261.1	69.6
8/26/00 4:35	1029.0	261.1	69.7
8/26/00 4:40	1029.0	261.1	70.0
8/26/00 4:45	1028.9	261.0	70.4
8/26/00 4:50	1028.9	261.0	70.5
8/26/00 4:55	1028.9	261.0	70.1
8/26/00 5:00	1028.9	260.9	69.6
8/26/00 5:05	1028.8	260.9	69.0
8/26/00 5:10	1028.8	260.9	68.6
8/26/00 5:15	1028.8	260.8	68.1
8/26/00 5:20	1028.7	260.8	67.7
8/26/00 5:25	1028.7	260.8	67.6
8/26/00 5:30	1028.7	260.7	67.4
8/26/00 5:35	1028.7	260.7	67.2
8/26/00 5:40	1028.6	260.7	66.9
8/26/00 5:45	1028.6	260.6	66.6
8/26/00 5:50	1028.6	260.6	66.6
8/26/00 5:55	1028.5	260.6	67.2
8/26/00 6:00	1028.5	260.6	67.7
8/26/00 6:05	1028.5	260.5	67.9
8/26/00 6:10	1028.5	260.5	67.9
8/26/00 6:15	1028.4	260.5	67.7
8/26/00 6:20	1028.4	260.4	67.8
8/26/00 6:25	1028.4	260.4	67.3
8/26/00 6:30	1028.3	260.4	66.7
8/26/00 6:35	1028.3	260.3	66.4
8/26/00 6:40	1028.3	260.3	66.4
8/26/00 6:45	1028.3	260.3	66.6

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 6:50	1028.2	260.3	66.7
8/26/00 6:55	1028.2	260.2	66.8
8/26/00 7:00	1028.2	260.2	67.0
8/26/00 7:05	1028.2	260.2	67.6
8/26/00 7:10	1028.1	260.2	68.0
8/26/00 7:15	1028.1	260.2	68.6
8/26/00 7:20	1028.1	260.2	69.3
8/26/00 7:25	1028.1	260.2	70.3
8/26/00 7:30	1028.1	260.2	70.8
8/26/00 7:35	1028.1	260.2	71.2
8/26/00 7:40	1028.1	260.2	71.8
8/26/00 7:45	1028.1	260.2	72.8
8/26/00 7:50	1028.1	260.1	73.5
8/26/00 7:55	1028.1	260.1	74.2
8/26/00 8:00	1028.1	260.0	75.3
8/26/00 8:05	1028.1	260.1	76.6
8/26/00 8:10	1028.0	260.1	77.4
8/26/00 8:15	1027.9	260.1	77.7
8/26/00 8:20	1027.9	260.2	78.2
8/26/00 8:25	1027.8	260.1	78.5
8/26/00 8:30	1027.7	260.1	79.4
8/26/00 8:35	1027.6	260.0	80.0
8/26/00 8:40	1027.6	260.0	80.8
8/26/00 8:45	1027.6	260.0	81.1
8/26/00 8:50	1027.5	260.0	81.8
8/26/00 8:55	1027.4	259.8	82.2
8/26/00 9:00	1027.4	259.8	82.5
8/26/00 9:05	1027.4	259.8	83.2
8/26/00 9:10	1027.4	259.8	83.6
8/26/00 9:15	1027.4	259.5	83.7
8/26/00 9:20	1027.4	259.6	84.6
8/26/00 9:25	1027.4	259.5	85.1
8/26/00 9:30	1027.4	259.5	85.8
8/26/00 9:35	1027.4	259.5	86.5
8/26/00 9:40	1027.4	259.5	86.9
8/26/00 9:45	1027.4	259.5	87.9
8/26/00 9:50	1027.4	259.5	88.2
8/26/00 9:55	1027.4	259.4	88.5
8/26/00 10:00	1027.4	259.4	88.6
8/26/00 10:05	1027.4	259.4	89.4
8/26/00 10:10	1027.4	259.3	90.3
8/26/00 10:15	1027.4	259.3	90.6
8/26/00 10:20	1027.3	259.3	91.2
8/26/00 10:25	1027.3	259.3	91.2
8/26/00 10:30	1027.3	259.2	91.5
8/26/00 10:35	1027.2	259.2	91.9
8/26/00 10:40	1027.2	259.2	92.2
8/26/00 10:45	1027.2	259.2	92.0
8/26/00 10:50	1027.1	259.1	91.7

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 10:55	1027.1	259.1	92.4
8/26/00 11:00	1027.1	259.0	92.7
8/26/00 11:05	1027.1	259.0	93.5
8/26/00 11:10	1027.0	259.0	93.2
8/26/00 11:15	1027.0	258.9	94.6
8/26/00 11:20	1026.9	258.9	94.0
8/26/00 11:25	1026.9	258.9	93.6
8/26/00 11:30	1026.8	258.8	94.1
8/26/00 11:35	1026.8	258.8	93.7
8/26/00 11:40	1026.8	258.8	94.6
8/26/00 11:45	1026.7	258.8	95.6
8/26/00 11:50	1026.7	258.7	95.2
8/26/00 11:55	1026.7	258.7	96.9
8/26/00 12:00	1026.6	258.7	96.3
8/26/00 12:05	1026.6	258.6	96.0
8/26/00 12:10	1026.6	258.6	94.9
8/26/00 12:15	1026.5	258.6	96.0
8/26/00 12:20	1026.5	258.6	96.0
8/26/00 12:25	1026.5	258.5	94.9
8/26/00 12:30	1026.4	258.5	94.4
8/26/00 12:35	1026.4	258.4	95.6
8/26/00 12:40	1026.4	258.4	95.6
8/26/00 12:45	1026.3	258.4	95.0
8/26/00 12:50	1026.3	258.4	96.6
8/26/00 12:55	1026.3	258.4	97.6
8/26/00 13:00	1026.3	258.4	98.9
8/26/00 13:05	1026.3	258.3	98.7
8/26/00 13:10	1026.2	258.3	99.7
8/26/00 13:15	1026.2	258.3	101.4
8/26/00 13:20	1026.2	258.3	100.4
8/26/00 13:25	1026.2	258.3	101.4
8/26/00 13:30	1026.1	258.2	100.6
8/26/00 13:35	1026.1	258.2	101.3
8/26/00 13:40	1026.1	258.1	100.0
8/26/00 13:45	1026.0	258.1	101.1
8/26/00 13:50	1026.0	258.1	101.5
8/26/00 13:55	1025.9	258.0	101.5
8/26/00 14:00	1025.9	258.0	103.3
8/26/00 14:05	1025.9	258.0	101.9
8/26/00 14:10	1025.9	258.0	101.0
8/26/00 14:15	1025.8	257.9	104.4
8/26/00 14:20	1025.8	257.9	103.8
8/26/00 14:25	1025.8	257.9	100.5
8/26/00 14:30	1025.7	257.8	97.9
8/26/00 14:35	1025.7	257.8	102.0
8/26/00 14:40	1025.7	257.7	101.9
8/26/00 14:45	1025.7	257.7	100.2
8/26/00 14:50	1025.6	257.7	101.9
8/26/00 14:55	1025.6	257.7	101.3

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 15:00	1025.6	257.7	99.7
8/26/00 15:05	1025.6	257.6	97.9
8/26/00 15:10	1025.5	257.6	98.6
8/26/00 15:15	1025.5	257.6	99.4
8/26/00 15:20	1025.5	257.6	98.9
8/26/00 15:25	1025.5	257.5	99.0
8/26/00 15:30	1025.5	257.5	97.8
8/26/00 15:35	1025.5	257.5	96.7
8/26/00 15:40	1025.4	257.4	98.8
8/26/00 15:45	1025.4	257.4	99.8
8/26/00 15:50	1025.4	257.4	100.1
8/26/00 15:55	1025.4	257.4	101.4
8/26/00 16:00	1025.4	257.4	101.9
8/26/00 16:05	1025.3	257.4	101.4
8/26/00 16:10	1025.3	257.3	101.4
8/26/00 16:15	1025.3	257.3	101.3
8/26/00 16:20	1025.3	257.3	101.1
8/26/00 16:25	1025.3	257.3	101.3
8/26/00 16:30	1025.3	257.3	101.2
8/26/00 16:35	1025.2	257.2	102.2
8/26/00 16:40	1025.2	257.2	102.5
8/26/00 16:45	1025.2	257.2	102.7
8/26/00 16:50	1025.2	257.2	101.7
8/26/00 16:55	1025.2	257.2	101.5
8/26/00 17:00	1025.1	257.2	103.3
8/26/00 17:05	1025.1	257.2	99.7
8/26/00 17:10	1025.1	257.1	96.6
8/26/00 17:15	1025.1	257.1	98.1
8/26/00 17:20	1025.0	257.0	99.7
8/26/00 17:25	1025.0	257.0	101.0
8/26/00 17:30	1025.0	257.0	100.7
8/26/00 17:35	1025.0	257.0	99.9
8/26/00 17:40	1025.0	257.0	99.0
8/26/00 17:45	1025.0	257.0	98.8
8/26/00 17:50	1025.0	257.0	99.1
8/26/00 17:55	1024.9	256.9	97.1
8/26/00 18:00	1024.9	256.9	95.1
8/26/00 18:05	1024.9	256.8	94.0
8/26/00 18:10	1024.8	256.8	95.0
8/26/00 18:15	1024.8	256.7	96.2
8/26/00 18:20	1024.8	256.7	96.5
8/26/00 18:25	1024.8	256.7	96.6
8/26/00 18:30	1024.7	256.7	96.0
8/26/00 18:35	1024.7	256.7	95.3
8/26/00 18:40	1024.7	256.7	95.1
8/26/00 18:45	1024.7	256.6	94.2
8/26/00 18:50	1024.7	256.6	93.7
8/26/00 18:55	1024.7	256.6	92.8
8/26/00 19:00	1024.6	256.6	92.6

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 19:05	1024.6	256.5	91.9
8/26/00 19:10	1024.5	256.5	91.1
8/26/00 19:15	1024.5	256.4	90.3
8/26/00 19:20	1024.5	256.4	89.6
8/26/00 19:25	1024.4	256.4	89.1
8/26/00 19:30	1024.4	256.3	88.7
8/26/00 19:35	1024.4	256.3	88.1
8/26/00 19:40	1024.4	256.3	87.6
8/26/00 19:45	1024.3	256.3	87.1
8/26/00 19:50	1024.3	256.2	86.6
8/26/00 19:55	1024.3	256.2	86.1
8/26/00 20:00	1024.3	256.2	85.7
8/26/00 20:05	1024.2	256.2	85.3
8/26/00 20:10	1024.2	256.1	84.9
8/26/00 20:15	1024.2	256.1	84.5
8/26/00 20:20	1024.2	256.1	84.0
8/26/00 20:25	1024.1	256.1	83.6
8/26/00 20:30	1024.1	256.1	83.4
8/26/00 20:35	1024.1	256.0	83.5
8/26/00 20:40	1024.1	256.0	83.4
8/26/00 20:45	1024.1	256.0	83.3
8/26/00 20:50	1024.1	256.0	83.2
8/26/00 20:55	1024.0	256.0	83.0
8/26/00 21:00	1024.0	256.0	82.9
8/26/00 21:05	1024.0	255.9	82.7
8/26/00 21:10	1024.0	255.9	82.4
8/26/00 21:15	1024.0	255.9	82.2
8/26/00 21:20	1024.0	255.9	81.7
8/26/00 21:25	1023.9	255.9	81.5
8/26/00 21:30	1023.9	255.8	81.0
8/26/00 21:35	1023.9	255.8	80.8
8/26/00 21:40	1023.9	255.8	80.7
8/26/00 21:45	1023.9	255.8	80.5
8/26/00 21:50	1023.8	255.7	80.6
8/26/00 21:55	1023.8	255.7	80.5
8/26/00 22:00	1023.8	255.7	80.5
8/26/00 22:05	1023.8	255.7	80.4
8/26/00 22:10	1023.8	255.7	80.1
8/26/00 22:15	1023.8	255.7	79.9
8/26/00 22:20	1023.7	255.6	79.7
8/26/00 22:25	1023.7	255.6	79.7
8/26/00 22:30	1023.7	255.6	79.5
8/26/00 22:35	1023.7	255.6	79.3
8/26/00 22:40	1023.7	255.5	78.9
8/26/00 22:45	1023.6	255.5	78.8
8/26/00 22:50	1023.6	255.5	78.9
8/26/00 22:55	1023.6	255.5	78.6
8/26/00 23:00	1023.6	255.5	78.0
8/26/00 23:05	1023.6	255.4	77.4

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/26/00 23:10	1023.5	255.4	77.1
8/26/00 23:15	1023.5	255.4	76.8
8/26/00 23:20	1023.5	255.3	76.7
8/26/00 23:25	1023.5	255.3	76.5
8/26/00 23:30	1023.4	255.3	76.3
8/26/00 23:35	1023.4	255.3	76.3
8/26/00 23:40	1023.4	255.3	76.1
8/26/00 23:45	1023.4	255.2	76.1
8/26/00 23:50	1023.4	255.2	76.6
8/26/00 23:55	1023.4	255.2	76.8
8/27/00 0:00	1023.3	255.2	76.8
8/27/00 0:05	1023.3	255.2	76.8
8/27/00 0:10	1023.3	255.2	76.7
8/27/00 0:15	1023.3	255.2	76.5
8/27/00 0:20	1023.3	255.1	76.4
8/27/00 0:25	1023.3	255.1	76.4
8/27/00 0:30	1023.3	255.1	76.4
8/27/00 0:35	1023.2	255.1	76.4
8/27/00 0:40	1023.2	255.1	76.4
8/27/00 0:45	1023.2	255.0	76.6
8/27/00 0:50	1023.2	255.0	76.7
8/27/00 0:55	1023.2	255.0	76.8
8/27/00 1:00	1023.2	255.0	76.8
8/27/00 1:05	1023.1	255.0	76.8
8/27/00 1:10	1023.1	255.0	76.8
8/27/00 1:15	1023.1	254.9	76.8
8/27/00 1:20	1023.1	254.9	76.7
8/27/00 1:25	1023.1	254.9	76.5
8/27/00 1:30	1023.1	254.9	76.4
8/27/00 1:35	1023.0	254.9	76.2
8/27/00 1:40	1023.0	254.8	76.2
8/27/00 1:45	1023.0	254.8	76.0
8/27/00 1:50	1023.0	254.8	75.8
8/27/00 1:55	1023.0	254.8	75.7
8/27/00 2:00	1022.9	254.7	75.6
8/27/00 2:05	1022.9	254.7	75.4
8/27/00 2:10	1022.9	254.7	75.2
8/27/00 2:15	1022.9	254.7	75.0
8/27/00 2:20	1022.8	254.6	75.0
8/27/00 2:25	1022.8	254.6	74.8
8/27/00 2:30	1022.8	254.6	74.6
8/27/00 2:35	1022.8	254.6	74.5
8/27/00 2:40	1022.8	254.6	74.2
8/27/00 2:45	1022.7	254.5	74.0
8/27/00 2:50	1022.7	254.5	73.9
8/27/00 2:55	1022.7	254.5	73.7
8/27/00 3:00	1022.7	254.5	73.4
8/27/00 3:05	1022.6	254.4	73.3
8/27/00 3:10	1022.6	254.4	73.1

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 3:15	1022.6	254.4	73.0
8/27/00 3:20	1022.6	254.4	73.0
8/27/00 3:25	1022.6	254.4	72.8
8/27/00 3:30	1022.5	254.3	72.5
8/27/00 3:35	1022.5	254.3	72.3
8/27/00 3:40	1022.5	254.3	72.2
8/27/00 3:45	1022.5	254.3	72.1
8/27/00 3:50	1022.5	254.3	72.0
8/27/00 3:55	1022.4	254.2	71.7
8/27/00 4:00	1022.4	254.2	71.4
8/27/00 4:05	1022.4	254.2	71.2
8/27/00 4:10	1022.4	254.2	70.8
8/27/00 4:15	1022.4	254.2	70.5
8/27/00 4:20	1022.3	254.1	70.2
8/27/00 4:25	1022.3	254.1	70.0
8/27/00 4:30	1022.3	254.1	69.7
8/27/00 4:35	1022.3	254.1	69.4
8/27/00 4:40	1022.3	254.0	69.3
8/27/00 4:45	1022.2	254.0	69.1
8/27/00 4:50	1022.2	254.0	68.9
8/27/00 4:55	1022.2	254.0	68.7
8/27/00 5:00	1022.2	254.0	68.6
8/27/00 5:05	1022.2	253.9	68.5
8/27/00 5:10	1022.2	253.9	68.5
8/27/00 5:15	1022.1	253.9	68.5
8/27/00 5:20	1022.1	253.9	68.5
8/27/00 5:25	1022.1	253.9	68.3
8/27/00 5:30	1022.1	253.9	68.2
8/27/00 5:35	1022.1	253.8	68.0
8/27/00 5:40	1022.1	253.8	67.8
8/27/00 5:45	1022.0	253.8	67.6
8/27/00 5:50	1022.0	253.8	67.5
8/27/00 5:55	1022.0	253.8	67.3
8/27/00 6:00	1022.0	253.8	67.1
8/27/00 6:05	1022.0	253.7	67.0
8/27/00 6:10	1022.0	253.7	67.2
8/27/00 6:15	1021.9	253.7	67.2
8/27/00 6:20	1021.9	253.7	67.0
8/27/00 6:25	1021.9	253.7	66.8
8/27/00 6:30	1021.9	253.6	66.6
8/27/00 6:35	1021.9	253.6	66.9
8/27/00 6:40	1021.9	253.6	67.6
8/27/00 6:45	1021.8	253.6	68.0
8/27/00 6:50	1021.8	253.6	68.5
8/27/00 6:55	1021.8	253.6	69.1
8/27/00 7:00	1021.8	253.6	69.5
8/27/00 7:05	1021.8	253.6	69.8
8/27/00 7:10	1021.8	253.6	70.0
8/27/00 7:15	1021.8	253.5	70.5

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 7:20	1021.8	253.5	70.5
8/27/00 7:25	1021.8	253.5	70.5
8/27/00 7:30	1021.8	253.5	70.8
8/27/00 7:35	1021.8	253.5	71.7
8/27/00 7:40	1021.8	253.5	72.3
8/27/00 7:45	1021.8	253.5	72.9
8/27/00 7:50	1021.8	253.5	73.4
8/27/00 7:55	1021.8	253.5	73.9
8/27/00 8:00	1021.8	253.5	74.9
8/27/00 8:05	1021.8	253.5	75.7
8/27/00 8:10	1021.8	253.4	76.5
8/27/00 8:15	1021.7	253.4	77.5
8/27/00 8:20	1021.7	253.4	78.3
8/27/00 8:25	1021.7	253.4	78.6
8/27/00 8:30	1021.7	253.4	78.9
8/27/00 8:35	1021.6	253.4	79.6
8/27/00 8:40	1021.6	253.4	79.6
8/27/00 8:45	1021.6	253.3	80.2
8/27/00 8:50	1021.6	253.3	80.6
8/27/00 8:55	1021.6	253.3	80.9
8/27/00 9:00	1021.5	253.3	81.7
8/27/00 9:05	1021.5	253.3	82.6
8/27/00 9:10	1021.5	253.2	83.0
8/27/00 9:15	1021.5	253.2	83.0
8/27/00 9:20	1021.5	253.2	82.8
8/27/00 9:25	1021.4	253.2	83.2
8/27/00 9:30	1021.4	253.2	83.9
8/27/00 9:35	1021.4	253.1	84.2
8/27/00 9:40	1021.4	253.1	85.2
8/27/00 9:45	1021.4	253.1	85.2
8/27/00 9:50	1021.3	253.1	86.2
8/27/00 9:55	1021.3	253.1	86.6
8/27/00 10:00	1021.3	253.0	86.2
8/27/00 10:05	1021.3	253.0	86.4
8/27/00 10:10	1021.3	253.0	87.0
8/27/00 10:15	1021.2	253.0	86.8
8/27/00 10:20	1021.2	252.9	88.0
8/27/00 10:25	1021.2	252.9	87.7
8/27/00 10:30	1021.2	252.9	88.4
8/27/00 10:35	1021.2	252.9	88.8
8/27/00 10:40	1021.2	252.9	89.0
8/27/00 10:45	1021.2	252.8	89.2
8/27/00 10:50	1021.2	252.8	89.7
8/27/00 10:55	1021.1	252.8	89.0
8/27/00 11:00	1021.1	252.8	89.1
8/27/00 11:05	1021.1	252.7	90.6
8/27/00 11:10	1021.1	252.7	90.2
8/27/00 11:15	1021.1	252.7	91.2
8/27/00 11:20	1021.0	252.7	91.5

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 11:25	1021.0	252.6	92.0
8/27/00 11:30	1021.0	252.6	91.4
8/27/00 11:35	1020.9	252.6	91.4
8/27/00 11:40	1020.9	252.6	92.1
8/27/00 11:45	1020.9	252.6	92.2
8/27/00 11:50	1020.8	252.5	93.1
8/27/00 11:55	1020.8	252.5	92.3
8/27/00 12:00	1020.8	252.5	92.7
8/27/00 12:05	1020.7	252.5	92.9
8/27/00 12:10	1020.7	252.4	93.0
8/27/00 12:15	1020.7	252.4	93.3
8/27/00 12:20	1020.7	252.4	93.1
8/27/00 12:25	1020.6	252.4	94.3
8/27/00 12:30	1020.6	252.4	93.9
8/27/00 12:35	1020.6	252.4	94.7
8/27/00 12:40	1020.6	252.3	94.7
8/27/00 12:45	1020.6	252.3	95.4
8/27/00 12:50	1020.6	252.3	95.5
8/27/00 12:55	1020.5	252.3	94.8
8/27/00 13:00	1020.5	252.3	96.5
8/27/00 13:05	1020.5	252.2	96.1
8/27/00 13:10	1020.5	252.2	97.4
8/27/00 13:15	1020.4	252.2	97.4
8/27/00 13:20	1020.4	252.2	96.8
8/27/00 13:25	1020.4	252.2	96.6
8/27/00 13:30	1020.3	252.1	98.1
8/27/00 13:35	1020.3	252.1	99.6
8/27/00 13:40	1020.3	252.1	98.9
8/27/00 13:45	1020.3	252.1	100.5
8/27/00 13:50	1020.3	252.1	99.4
8/27/00 13:55	1020.3	252.1	99.6
8/27/00 14:00	1020.3	252.0	98.8
8/27/00 14:05	1020.2	252.0	100.9
8/27/00 14:10	1020.2	252.0	97.9
8/27/00 14:15	1020.2	251.9	97.6
8/27/00 14:20	1020.2	251.9	99.7
8/27/00 14:25	1020.1	251.9	98.4
8/27/00 14:30	1020.1	251.9	100.1
8/27/00 14:35	1020.1	251.9	101.8
8/27/00 14:40	1020.1	251.9	101.5
8/27/00 14:45	1020.1	251.9	101.3
8/27/00 14:50	1020.1	251.9	101.3
8/27/00 14:55	1020.1	251.8	100.0
8/27/00 15:00	1020.1	251.8	100.6
8/27/00 15:05	1020.0	251.8	101.3
8/27/00 15:10	1020.0	251.8	100.6
8/27/00 15:15	1020.0	251.8	100.3
8/27/00 15:20	1020.0	251.8	100.3
8/27/00 15:25	1020.0	251.7	98.4

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 15:30	1020.0	251.7	99.4
8/27/00 15:35	1019.9	251.7	99.9
8/27/00 15:40	1019.9	251.6	99.8
8/27/00 15:45	1019.9	251.6	99.3
8/27/00 15:50	1019.9	251.6	99.9
8/27/00 15:55	1019.8	251.6	100.3
8/27/00 16:00	1019.8	251.5	100.1
8/27/00 16:05	1019.8	251.5	100.1
8/27/00 16:10	1019.8	251.5	100.6
8/27/00 16:15	1019.8	251.5	100.3
8/27/00 16:20	1019.8	251.5	99.9
8/27/00 16:25	1019.8	251.5	100.2
8/27/00 16:30	1019.8	251.5	101.2
8/27/00 16:35	1019.8	251.5	100.9
8/27/00 16:40	1019.8	251.5	101.1
8/27/00 16:45	1019.8	251.5	101.2
8/27/00 16:50	1019.7	251.5	100.6
8/27/00 16:55	1019.7	251.5	99.7
8/27/00 17:00	1019.7	251.5	100.2
8/27/00 17:05	1019.7	251.4	100.4
8/27/00 17:10	1019.7	251.4	100.2
8/27/00 17:15	1019.7	251.4	100.1
8/27/00 17:20	1019.7	251.4	100.0
8/27/00 17:25	1019.7	251.4	99.5
8/27/00 17:30	1019.7	251.3	99.1
8/27/00 17:35	1019.6	251.3	98.9
8/27/00 17:40	1019.6	251.3	98.6
8/27/00 17:45	1019.6	251.3	98.2
8/27/00 17:50	1019.6	251.3	97.8
8/27/00 17:55	1019.6	251.3	98.1
8/27/00 18:00	1019.6	251.3	98.2
8/27/00 18:05	1019.6	251.2	97.6
8/27/00 18:10	1019.6	251.2	97.2
8/27/00 18:15	1019.5	251.2	97.0
8/27/00 18:20	1019.5	251.2	97.3
8/27/00 18:25	1019.5	251.2	96.6
8/27/00 18:30	1019.5	251.1	95.6
8/27/00 18:35	1019.5	251.1	95.6
8/27/00 18:40	1019.5	251.1	94.8
8/27/00 18:45	1019.4	251.1	94.3
8/27/00 18:50	1019.4	251.1	94.4
8/27/00 18:55	1019.4	251.0	94.0
8/27/00 19:00	1019.4	251.0	93.3
8/27/00 19:05	1019.4	251.0	92.6
8/27/00 19:10	1019.3	251.0	91.7
8/27/00 19:15	1019.3	250.9	90.6
8/27/00 19:20	1019.3	250.9	89.8
8/27/00 19:25	1019.2	250.9	89.2
8/27/00 19:30	1019.2	250.8	88.6

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 19:35	1019.2	250.8	88.1
8/27/00 19:40	1019.2	250.8	87.7
8/27/00 19:45	1019.1	250.8	87.2
8/27/00 19:50	1019.1	250.8	86.8
8/27/00 19:55	1019.1	250.7	86.5
8/27/00 20:00	1019.1	250.7	86.4
8/27/00 20:05	1019.1	250.7	86.4
8/27/00 20:10	1019.1	250.7	86.1
8/27/00 20:15	1019.1	250.7	85.8
8/27/00 20:20	1019.0	250.7	85.5
8/27/00 20:25	1019.0	250.7	85.4
8/27/00 20:30	1019.0	250.7	85.0
8/27/00 20:35	1019.0	250.6	84.7
8/27/00 20:40	1019.0	250.6	84.6
8/27/00 20:45	1019.0	250.6	84.5
8/27/00 20:50	1019.0	250.6	84.4
8/27/00 20:55	1019.0	250.6	84.1
8/27/00 21:00	1019.0	250.6	83.9
8/27/00 21:05	1018.9	250.6	83.6
8/27/00 21:10	1018.9	250.6	83.5
8/27/00 21:15	1018.9	250.5	83.3
8/27/00 21:20	1018.9	250.5	83.2
8/27/00 21:25	1018.9	250.5	83.0
8/27/00 21:30	1018.9	250.5	83.0
8/27/00 21:35	1018.9	250.5	82.9
8/27/00 21:40	1018.8	250.5	82.7
8/27/00 21:45	1018.8	250.5	82.6
8/27/00 21:50	1018.8	250.4	82.5
8/27/00 21:55	1018.8	250.4	82.4
8/27/00 22:00	1018.8	250.4	82.3
8/27/00 22:05	1018.8	250.4	82.1
8/27/00 22:10	1018.8	250.4	82.0
8/27/00 22:15	1018.8	250.4	81.9
8/27/00 22:20	1018.8	250.4	81.6
8/27/00 22:25	1018.7	250.3	81.4
8/27/00 22:30	1018.7	250.3	81.2
8/27/00 22:35	1018.7	250.3	81.0
8/27/00 22:40	1018.7	250.3	80.9
8/27/00 22:45	1018.7	250.3	80.8
8/27/00 22:50	1018.7	250.2	80.7
8/27/00 22:55	1018.6	250.2	80.5
8/27/00 23:00	1018.6	250.2	80.5
8/27/00 23:05	1018.6	250.2	80.3
8/27/00 23:10	1018.6	250.2	80.2
8/27/00 23:15	1018.6	250.2	80.0
8/27/00 23:20	1018.6	250.2	79.7
8/27/00 23:25	1018.6	250.1	79.6
8/27/00 23:30	1018.5	250.1	79.4
8/27/00 23:35	1018.5	250.1	79.3

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/27/00 23:40	1018.5	250.1	79.2
8/27/00 23:45	1018.5	250.1	79.1
8/27/00 23:50	1018.5	250.1	79.0
8/27/00 23:55	1018.5	250.1	79.0
8/28/00 0:00	1018.5	250.0	78.8
8/28/00 0:05	1018.5	250.0	78.8
8/28/00 0:10	1018.4	250.0	78.6
8/28/00 0:15	1018.4	250.0	78.5
8/28/00 0:20	1018.4	250.0	78.4
8/28/00 0:25	1018.4	250.0	78.3
8/28/00 0:30	1018.4	249.9	78.2
8/28/00 0:35	1018.4	249.9	78.1
8/28/00 0:40	1018.4	249.9	77.9
8/28/00 0:45	1018.3	249.9	77.9
8/28/00 0:50	1018.3	249.9	77.7
8/28/00 0:55	1018.3	249.9	77.6
8/28/00 1:00	1018.3	249.9	77.4
8/28/00 1:05	1018.3	249.8	77.2
8/28/00 1:10	1018.3	249.8	77.0
8/28/00 1:15	1018.3	249.8	76.9
8/28/00 1:20	1018.2	249.8	76.7
8/28/00 1:25	1018.2	249.8	76.4
8/28/00 1:30	1018.2	249.8	76.4
8/28/00 1:35	1018.2	249.7	76.2
8/28/00 1:40	1018.2	249.7	76.0
8/28/00 1:45	1018.2	249.7	75.8
8/28/00 1:50	1018.1	249.7	75.7
8/28/00 1:55	1018.1	249.7	75.5
8/28/00 2:00	1018.1	249.7	75.4
8/28/00 2:05	1018.1	249.7	75.2
8/28/00 2:10	1018.1	249.6	75.1
8/28/00 2:15	1018.1	249.6	74.9
8/28/00 2:20	1018.0	249.6	74.7
8/28/00 2:25	1018.0	249.6	74.6
8/28/00 2:30	1018.0	249.6	74.6
8/28/00 2:35	1018.0	249.6	74.4
8/28/00 2:40	1018.0	249.6	74.3
8/28/00 2:45	1018.0	249.5	74.0
8/28/00 2:50	1018.0	249.5	73.9
8/28/00 2:55	1018.0	249.5	73.8
8/28/00 3:00	1017.9	249.5	73.6
8/28/00 3:05	1017.9	249.5	73.5
8/28/00 3:10	1017.9	249.5	73.4
8/28/00 3:15	1017.9	249.4	73.2
8/28/00 3:20	1017.9	249.4	73.1
8/28/00 3:25	1017.9	249.4	72.9
8/28/00 3:30	1017.9	249.4	72.6
8/28/00 3:35	1017.8	249.4	72.4
8/28/00 3:40	1017.8	249.4	72.2

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/28/00 3:45	1017.8	249.3	72.1
8/28/00 3:50	1017.8	249.3	71.9
8/28/00 3:55	1017.8	249.3	71.8
8/28/00 4:00	1017.8	249.3	71.6
8/28/00 4:05	1017.7	249.3	71.5
8/28/00 4:10	1017.7	249.3	71.6
8/28/00 4:15	1017.7	249.3	71.6
8/28/00 4:20	1017.7	249.2	71.6
8/28/00 4:25	1017.7	249.2	71.6
8/28/00 4:30	1017.7	249.2	71.5
8/28/00 4:35	1017.7	249.2	71.4
8/28/00 4:40	1017.7	249.2	71.2
8/28/00 4:45	1017.7	249.2	71.1
8/28/00 4:50	1017.6	249.2	71.0
8/28/00 4:55	1017.6	249.2	70.8
8/28/00 5:00	1017.6	249.1	70.8
8/28/00 5:05	1017.6	249.1	70.8
8/28/00 5:10	1017.6	249.1	70.8
8/28/00 5:15	1017.6	249.1	70.8
8/28/00 5:20	1017.6	249.1	70.7
8/28/00 5:25	1017.6	249.1	70.6
8/28/00 5:30	1017.5	249.1	70.4
8/28/00 5:35	1017.5	249.0	70.2
8/28/00 5:40	1017.5	249.0	70.2
8/28/00 5:45	1017.5	249.0	70.3
8/28/00 5:50	1017.5	249.0	70.2
8/28/00 5:55	1017.5	249.0	70.1
8/28/00 6:00	1017.5	249.0	70.2
8/28/00 6:05	1017.4	249.0	70.0
8/28/00 6:10	1017.4	248.9	69.8
8/28/00 6:15	1017.4	248.9	69.7
8/28/00 6:20	1017.4	248.9	69.6
8/28/00 6:25	1017.4	248.9	69.5
8/28/00 6:30	1017.4	248.9	69.6
8/28/00 6:35	1017.4	248.9	69.8
8/28/00 6:40	1017.4	248.9	69.9
8/28/00 6:45	1017.3	248.9	70.1
8/28/00 6:50	1017.3	248.8	70.2
8/28/00 6:55	1017.3	248.8	70.6
8/28/00 7:00	1017.3	248.8	70.9
8/28/00 7:05	1017.3	248.8	70.9
8/28/00 7:10	1017.3	248.8	70.7
8/28/00 7:15	1017.3	248.8	70.9
8/28/00 7:20	1017.3	248.8	71.4
8/28/00 7:25	1017.3	248.8	71.8
8/28/00 7:30	1017.3	248.8	72.3
8/28/00 7:35	1017.3	248.8	73.0
8/28/00 7:40	1017.3	248.8	73.3
8/28/00 7:45	1017.3	248.8	73.5

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
SURFACE PRESSURES RECORDED DIGITALLY

8/28/00 7:50	1017.3	248.8	73.6
8/28/00 7:55	1017.3	248.8	74.2
8/28/00 8:00	1017.2	248.8	74.6
8/28/00 8:05	1017.2	248.8	75.2
8/28/00 8:10	1017.3	248.8	75.9
8/28/00 8:15	1017.3	248.8	76.4
8/28/00 8:20	1017.2	248.8	76.9
8/28/00 8:25	1017.2	248.7	77.6
8/28/00 8:30	1017.2	248.7	78.3
8/28/00 8:35	1017.2	248.7	78.7
8/28/00 8:40	1017.2	248.7	79.5
8/28/00 8:45	1017.3	248.7	80.1
8/28/00 8:50	1017.2	248.7	81.0
8/28/00 8:55	1017.3	248.8	81.3
8/28/00 9:00	1017.2	248.8	81.9
8/28/00 9:05	1017.2	248.7	81.9
8/28/00 9:10	1017.2	248.7	82.0
8/28/00 9:15	1017.2	248.7	82.5
8/28/00 9:20	1017.2	248.7	83.1

WELL DATA AND TEST PARAMETERS

WELL DATA SHEET
AND TEST PARAMETERS

1.0	WELL DESCRIPTION		
1.1	Name	Storage Well #1	
1.2	Operator	Dynegy Midstream Services, L.P.	
1.3	Location	Field	Monument
		County	Lea
		State	New Mexico
1.4	Cemented Casing	Size	7"
		Depth	1570 ft.
		Weight	23 lbs./ft.
1.5	Hanging Tubing String	Size	4 1/2"
		Depth	1892 ft.
		Weight	11.6 lbs./ft.
1.6	Total Depth of Cavern		1898 ft.
2.0	TEST DATA		
2.1	Casing Depth		1570 ft.
2.2	Effective Casing Seat Depth		1565 ft.
2.3	Test Gradient		.69 psi/ft.
2.4	Brine Specific Gravity		1.19 gm/cc.
2.5	Average Nitrogen Injection Temperature		89° F.
2.5	Casing Seat Pressure @ Test Start		1083 psia
2.6	Surface Tubing Pressure @ Test Start		260 psia
2.7	Surface Nitrogen Pressure @ Test Start		1027.6 psia
3.0	VOLUMES		
3.1	Volume of Annulus		33.5 bbls
3.2	Volume of Nitrogen in Annulus		10118 scf
3.3	Volume of Borehole to Interface		266 bbls
3.4	Volume of Nitrogen in Borehole		104488 scf
3.5	Total Volume to Interface		299.5 bbls
3.6	Total Nitrogen to Interface		114606 scf
3.7	Total Cavern Volume		163183 bbls - SMALL CAVERN!
4.0	COMPRESSIBILITY		
4.1	Brine pressure increase with Nitrogen Injection		173 psia
4.2	Compressibility		1.6 bbls/psi

CALCULATIONS

MINIMUM DETECTABLE LEAK RATE CALCULATION

The minimum detectable leak rate was calculated using the following formula:

$$MDLR = \frac{V \times R \times 365}{T}$$

Where:

MDLR = Minimum Detectable Leak Rate (bbls/year)
V = Unit Volume of Borehole (bbls/ft.)
R = Resolution of Interface Tool (ft.)
T = Duration of Test (days)

Utilizing digital recording and computer log processing techniques, the resolution of Sonic Surveys' Interface Log on the well logs recorded during the Test Start and Test Finish of this test is .1 ft.

As calculated by the 104,606 scf of nitrogen injected into the 6.7 vertical feet of borehole and washed out area occupying 266 bbls. of borehole, the unit volume of borehole of Storage Well #1 at 1571 ft. is 39.8 bbls/ft.

The minimum detectable leak rate for Storage Well #1 is:

$$MDLR = \frac{39.8 \times .1 \times 365}{2}$$ = 726 Bbls of nitrogen per year

APPARENT NITROGEN LEAK RATE CALCULATION

The Apparent nitrogen leak rate was calculated using the following formula:

$$NLR = \frac{1}{T}\left[VS - \frac{(VF)(PF)}{(PS)}\right]$$

WHERE:

NLR = Apparent Nitrogen Leak Rate (bbls/day)
VS = Nitrogen volume at test start (bbls)
VF = Nitrogen volume at test finish (bbls)
PS = Wellhead nitrogen pressure at test start (psia)
PF = Wellhead nitrogen pressure at test finish (psia)
T = Duration of Test (days)

The apparent nitrogen Leak Rate for Storage Well #1 is:

$$NLR = \frac{1}{2}\left[266 - \frac{(266)(1017.2)}{(1027.6)}\right]$$

NLR = 1.3 Bbls of nitrogen per day
NLR= 474.5 Bbls of nitrogen per year

CONCLUSION

CONCLUSION OF NITROGEN INTERFACE TEST

Mechanical integrity of Storage Well #1 was established with the nitrogen interface pressure test. The apparent calculated nitrogen leak rate derived from the 48 hour test is 474.5 barrels of nitrogen per year. As shown on the Minimum Detectable Leak Rate calculation, the MDLR of the nitrogen interface pressure test performed on Storage Well #1 is 726 bbls. of nitrogen per year. Since the MDLR is greater than the apparent calculated nitrogen leak rate, this test does not have the sensitivity to detect a leak equal to the apparent calculated nitrogen leak rate.

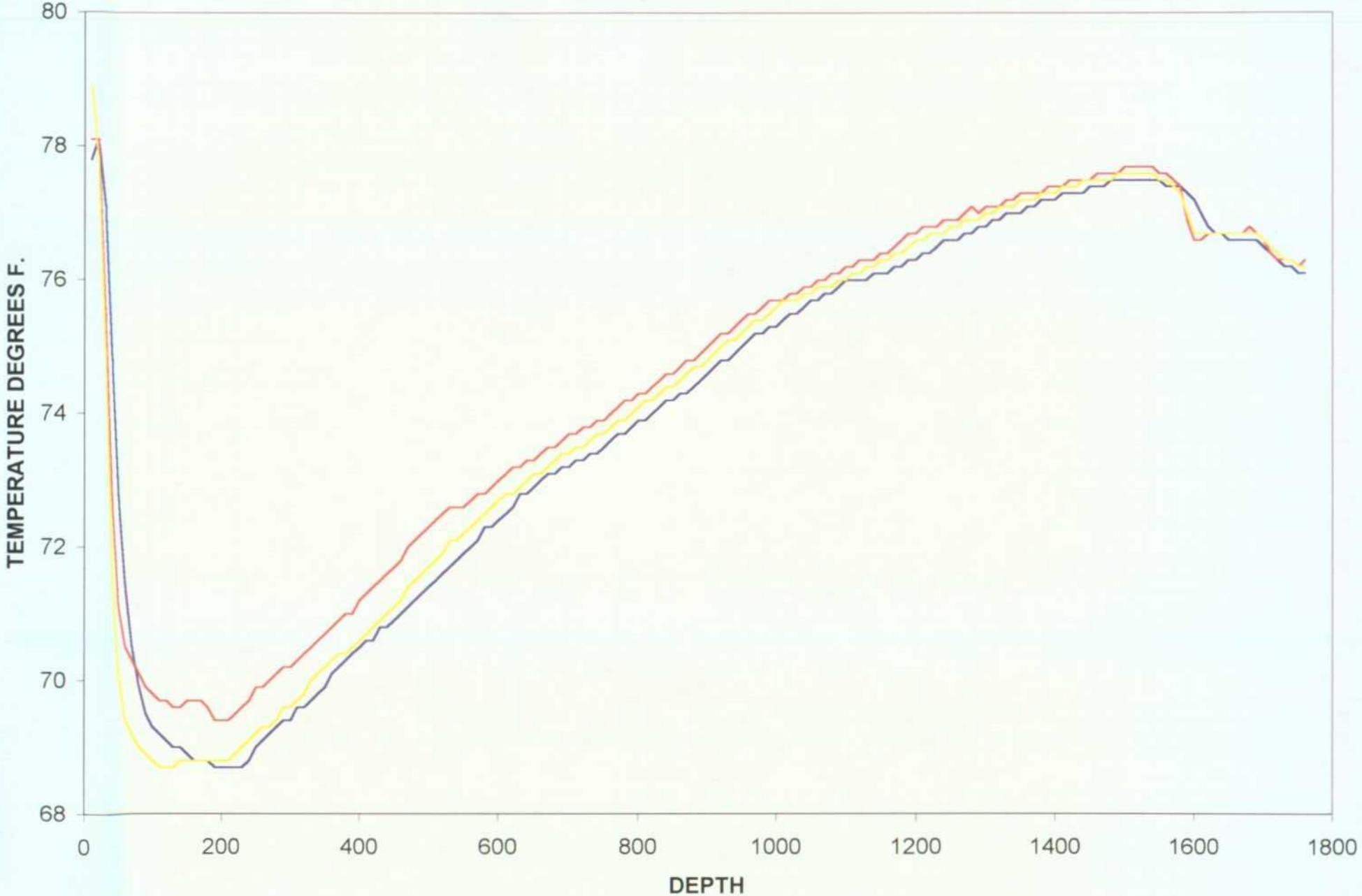
At the time of this test and within the limitations of this test, Storage Well #1 had mechanical integrity as required for liquid product storage in accordance with guidelines set forth by State of New Mexico.

GRAPHS

DYNEGY MIDSTREAM SERVICES, LP

TEMPERATURE VS. DEPTH

STORAGE WELL #1
MONUMENT

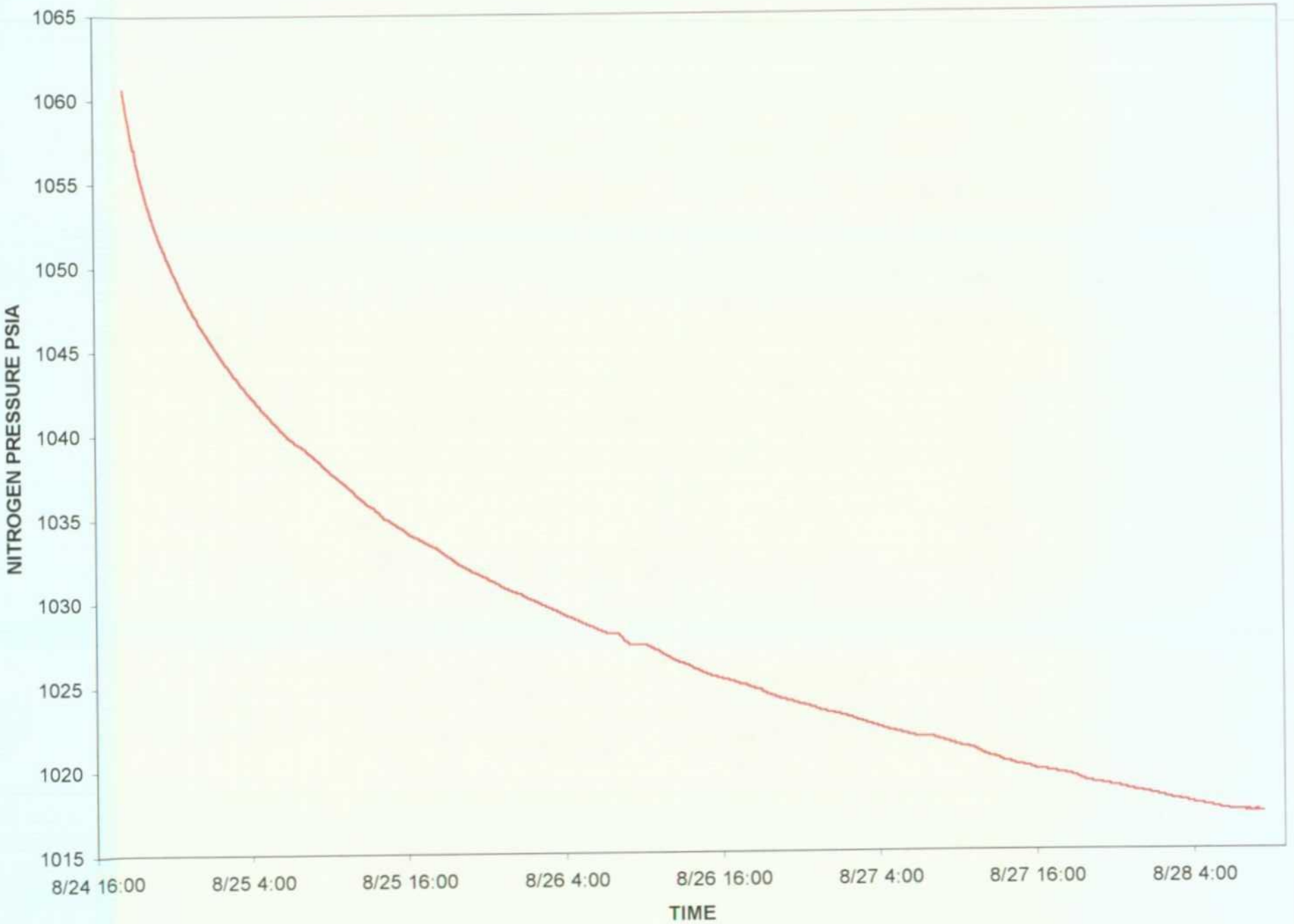


SONIC SURVEYS, INC.

DYNEGY MIDSTREAM SERVICES, LP

NITROGEN PRESSURE VS. TIME
DURING NITROGEN STABILIZATION AND TEST

STORAGE WELL #1

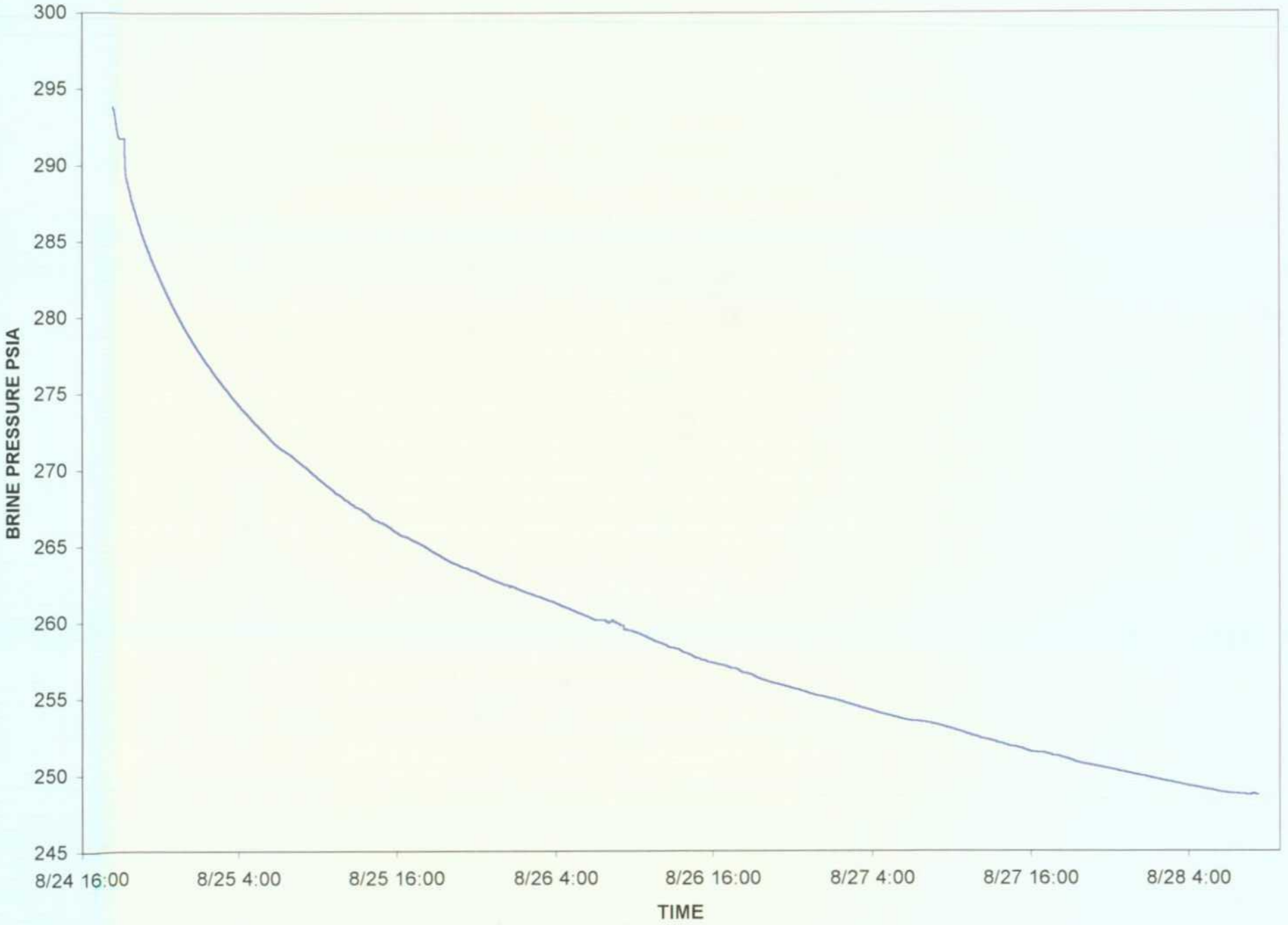


SONIC SURVEYS, INC.

DYNEGY MIDSTREAM SERVICES, LP

BRINE PRESSURE VS. TIME
DURING NITROGEN STABILIZATION AND TEST

STORAGE WELL #1

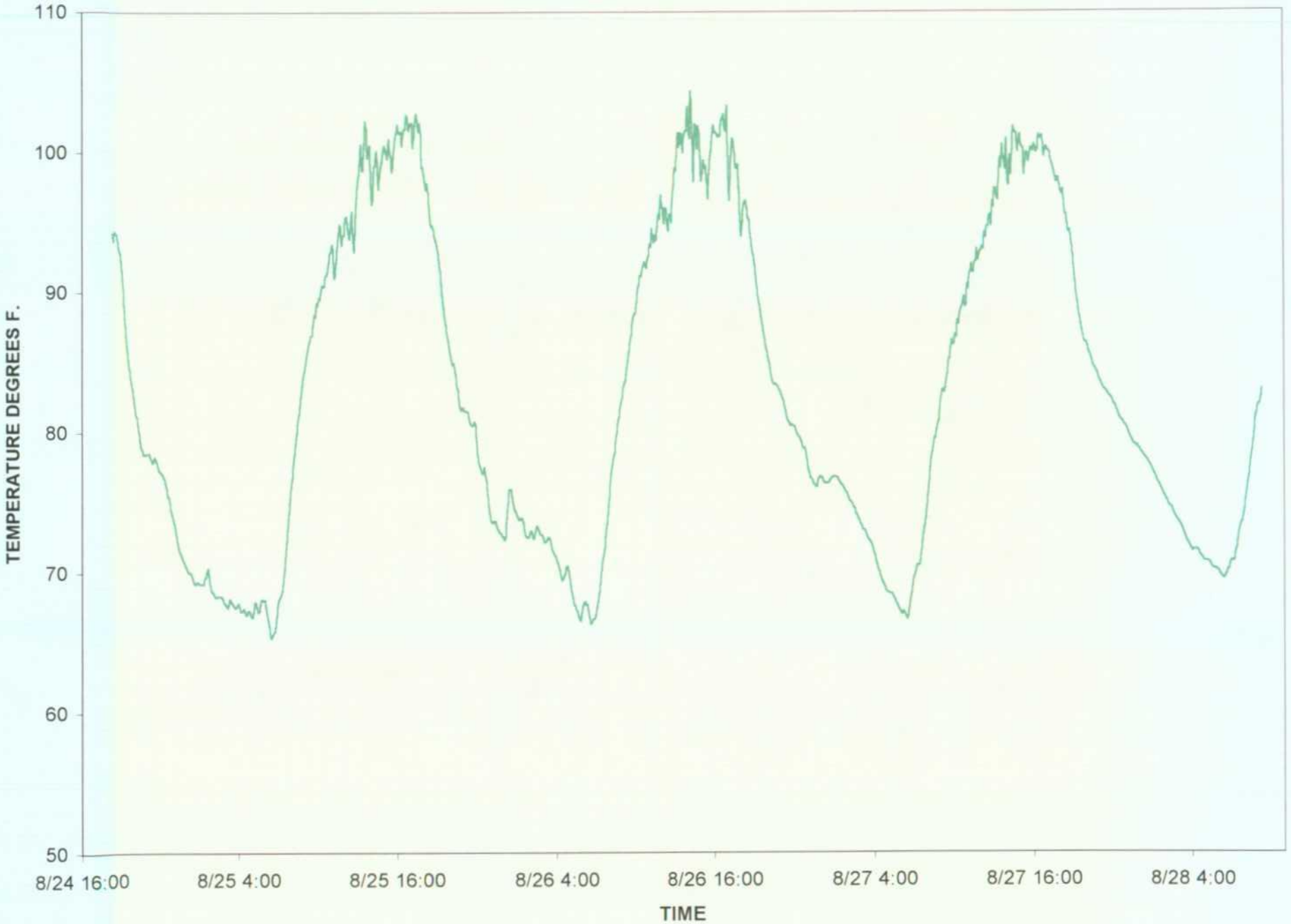


SONIC SURVEYS, INC.

DYNEGY MIDSTREAM SERVICES, LP

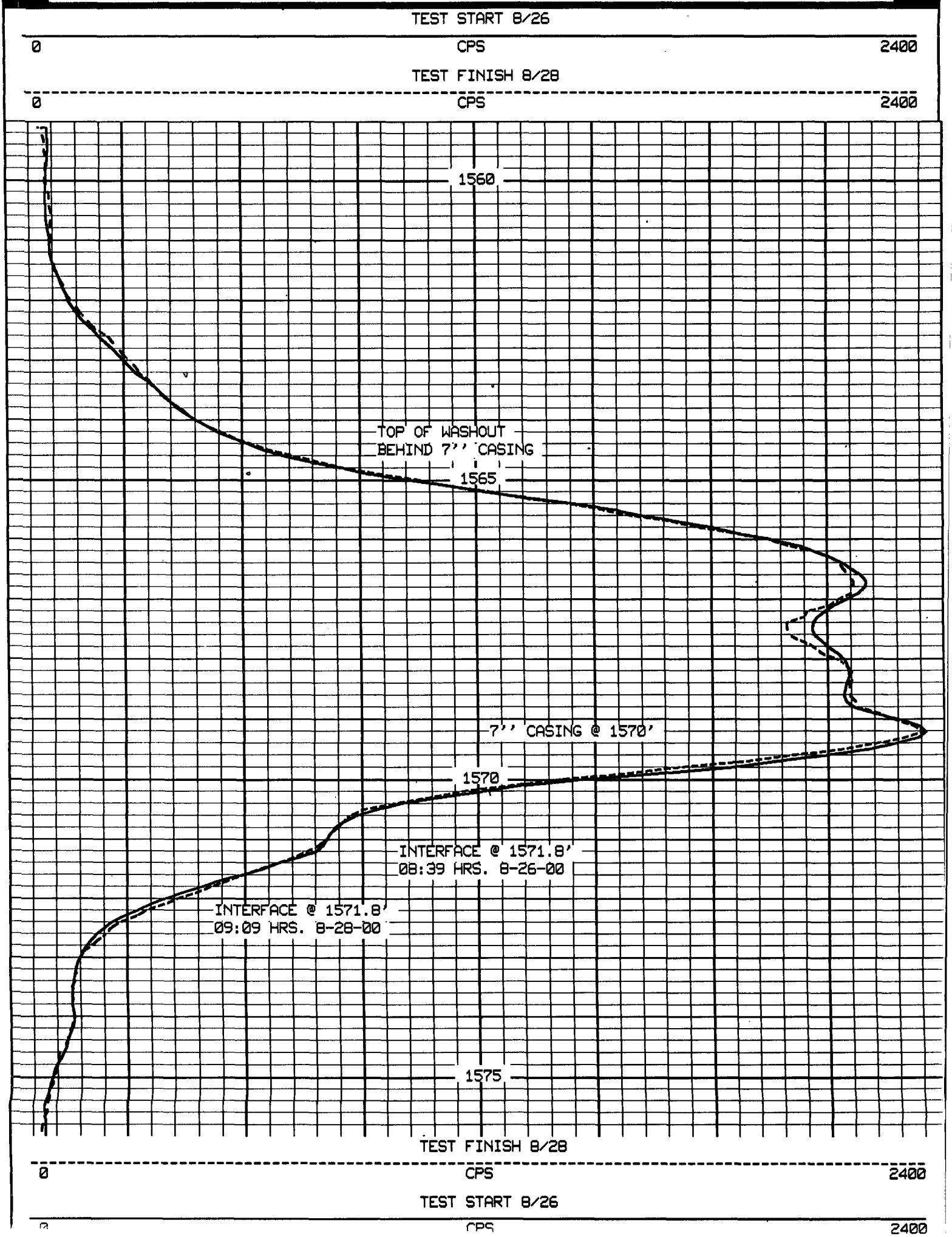
AMBIENT TEMPERATURE VS. TIME
DURING NITROGEN STABILIZATION AND TEST

STORAGE WELL #1



SONIC SURVEYS, INC.

TEST START AND FINISH INTERFACE LOGS OVERLAYED



LOGS

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
DOWN HOLE TEMPERATURES RECORDED DIGITALLY

DEPTH	BASE	START	FINISH
	8/24	8/26	8/28
10	77.8	78.1	78.9
20	78.1	78.1	77.8
30	77.1	75.5	74.9
40	74.8	72.7	71.7
50	72.7	71.1	70.1
60	71.4	70.5	69.4
70	70.5	70.3	69.2
80	69.9	70.1	69
90	69.5	69.9	68.9
100	69.3	69.8	68.8
110	69.2	69.7	68.7
120	69.1	69.7	68.7
130	69	69.6	68.7
140	69	69.6	68.8
150	68.9	69.7	68.8
160	68.8	69.7	68.8
170	68.8	69.7	68.8
180	68.8	69.6	68.8
190	68.7	69.4	68.8
200	68.7	69.4	68.8
210	68.7	69.4	68.8
220	68.7	69.5	68.9
230	68.7	69.6	69
240	68.8	69.7	69.1
250	69	69.9	69.2
260	69.1	69.9	69.3
270	69.2	70	69.3
280	69.3	70.1	69.4
290	69.4	70.2	69.6
300	69.4	70.2	69.6
310	69.6	70.3	69.7
320	69.6	70.4	69.8
330	69.7	70.5	70
340	69.8	70.6	70.1
350	69.9	70.7	70.2
360	70.1	70.8	70.3
370	70.2	70.9	70.4
380	70.3	71	70.4
390	70.4	71	70.5
400	70.5	71.2	70.6
410	70.6	71.3	70.7
420	70.6	71.4	70.8
430	70.8	71.5	70.9
440	70.8	71.6	71
450	70.9	71.7	71.1
460	71	71.8	71.2
470	71.1	72	71.4

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
DOWN HOLE TEMPERATURES RECORDED DIGITALLY

480	71.2	72.1	71.5
490	71.3	72.2	71.6
500	71.4	72.3	71.7
510	71.5	72.4	71.8
520	71.6	72.5	71.9
530	71.7	72.6	72.1
540	71.8	72.6	72.1
550	71.9	72.6	72.2
560	72	72.7	72.3
570	72.1	72.8	72.4
580	72.3	72.8	72.5
590	72.3	72.9	72.6
600	72.4	73	72.7
610	72.5	73.1	72.8
620	72.6	73.2	72.8
630	72.8	73.2	72.9
640	72.8	73.3	73
650	72.9	73.3	73.1
660	73	73.4	73.1
670	73.1	73.5	73.2
680	73.1	73.5	73.3
690	73.2	73.6	73.4
700	73.2	73.7	73.4
710	73.3	73.7	73.5
720	73.3	73.8	73.5
730	73.4	73.8	73.6
740	73.4	73.9	73.7
750	73.5	73.9	73.7
760	73.6	74	73.8
770	73.7	74.1	73.9
780	73.7	74.2	73.9
790	73.8	74.2	74
800	73.9	74.3	74.1
810	73.9	74.3	74.2
820	74	74.4	74.2
830	74.1	74.5	74.3
840	74.2	74.6	74.4
850	74.2	74.6	74.4
860	74.3	74.7	74.5
870	74.3	74.8	74.6
880	74.4	74.8	74.7
890	74.5	74.9	74.7
900	74.6	75	74.8
910	74.7	75.1	74.9
920	74.8	75.2	75
930	74.8	75.2	75.1
940	74.9	75.3	75.1
950	75	75.4	75.2
960	75.1	75.5	75.3

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
DOWN HOLE TEMPERATURES RECORDED DIGITALLY

970	75.2	75.5	75.4
980	75.2	75.6	75.4
990	75.3	75.7	75.5
1000	75.3	75.7	75.6
1010	75.4	75.7	75.7
1020	75.5	75.8	75.7
1030	75.5	75.8	75.7
1040	75.6	75.9	75.8
1050	75.7	75.9	75.8
1060	75.7	76	75.9
1070	75.8	76	75.9
1080	75.8	76.1	75.9
1090	75.9	76.1	76
1100	76	76.2	76
1110	76	76.2	76.1
1120	76	76.3	76.1
1130	76	76.3	76.2
1140	76.1	76.3	76.2
1150	76.1	76.4	76.3
1160	76.1	76.4	76.3
1170	76.2	76.5	76.4
1180	76.2	76.6	76.4
1190	76.3	76.7	76.5
1200	76.3	76.7	76.6
1210	76.4	76.8	76.6
1220	76.4	76.8	76.7
1230	76.5	76.8	76.7
1240	76.6	76.9	76.7
1250	76.6	76.9	76.8
1260	76.6	76.9	76.8
1270	76.7	77	76.9
1280	76.7	77.1	76.9
1290	76.8	77	76.9
1300	76.8	77.1	77
1310	76.9	77.1	77
1320	76.9	77.1	77.1
1330	77	77.2	77.1
1340	77	77.2	77.1
1350	77	77.3	77.2
1360	77.1	77.3	77.2
1370	77.1	77.3	77.2
1380	77.2	77.3	77.3
1390	77.2	77.4	77.3
1400	77.2	77.4	77.3
1410	77.3	77.4	77.4
1420	77.3	77.5	77.4
1430	77.3	77.5	77.4
1440	77.3	77.5	77.5
1450	77.4	77.5	77.5

DYNEGY MIDSTREAM SERVICES, LP
STORAGE WELL #1
MONUMENT, NEW MEXICO
DOWN HOLE TEMPERATURES RECORDED DIGITALLY

1460	77.4	77.6	77.5
1470	77.4	77.6	77.5
1480	77.5	77.6	77.5
1490	77.5	77.6	77.6
1500	77.5	77.7	77.6
1510	77.5	77.7	77.6
1520	77.5	77.7	77.6
1530	77.5	77.7	77.6
1540	77.5	77.7	77.6
1550	77.5	77.6	77.5
1560	77.4	77.6	77.5
1570	77.4	77.5	77.4
1580	77.4	77.4	77.3
1590	77.3	76.9	77
1600	77.2	76.6	76.7
1610	77	76.6	76.7
1620	76.8	76.7	76.7
1630	76.7	76.7	76.7
1640	76.7	76.7	76.7
1650	76.6	76.7	76.7
1660	76.6	76.7	76.7
1670	76.6	76.7	76.7
1680	76.6	76.8	76.7
1690	76.6	76.7	76.7
1700	76.5	76.6	76.6
1710	76.4	76.4	76.5
1720	76.3	76.3	76.4
1730	76.2	76.3	76.3
1740	76.2	76.3	76.3
1750	76.1	76.2	76.2
1760	76.1	76.3	76.2

NM OIL CONSERVATION DEPT

WELL LOG # Storage Well #1

REMOVED FROM FILE

Reports Years

2006 - 2000 **. BOX**

NUMBER 58

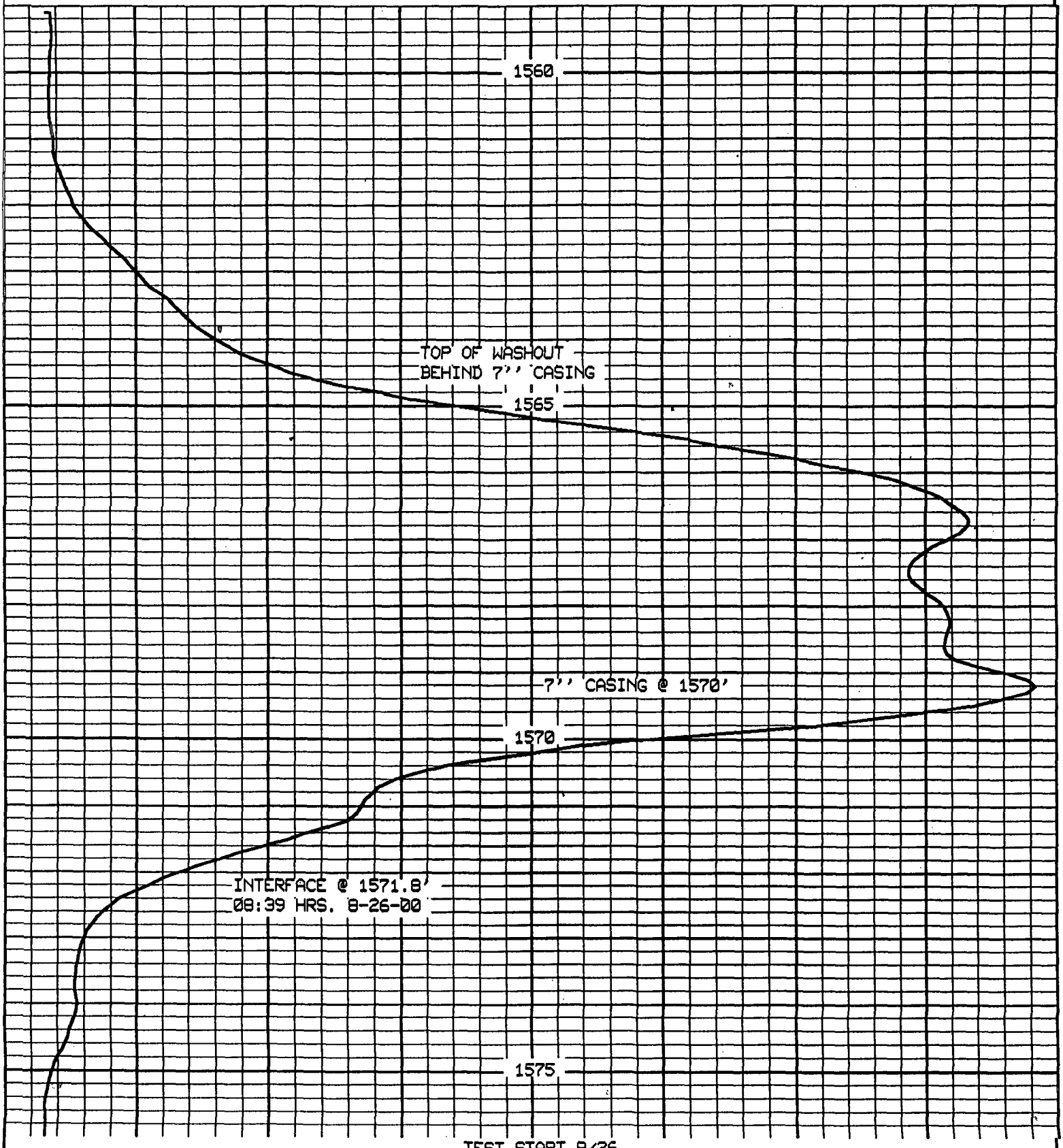
RETURNED TO CUSTOMER

START DEPTH 1559FT DATE: 11-14-0 TIME: 4:48p FILE: SD PLAYBACK PROGRAM

TEST START DETAIL LOG 8-26-00

TEST START 8/26

0 CPS 2400



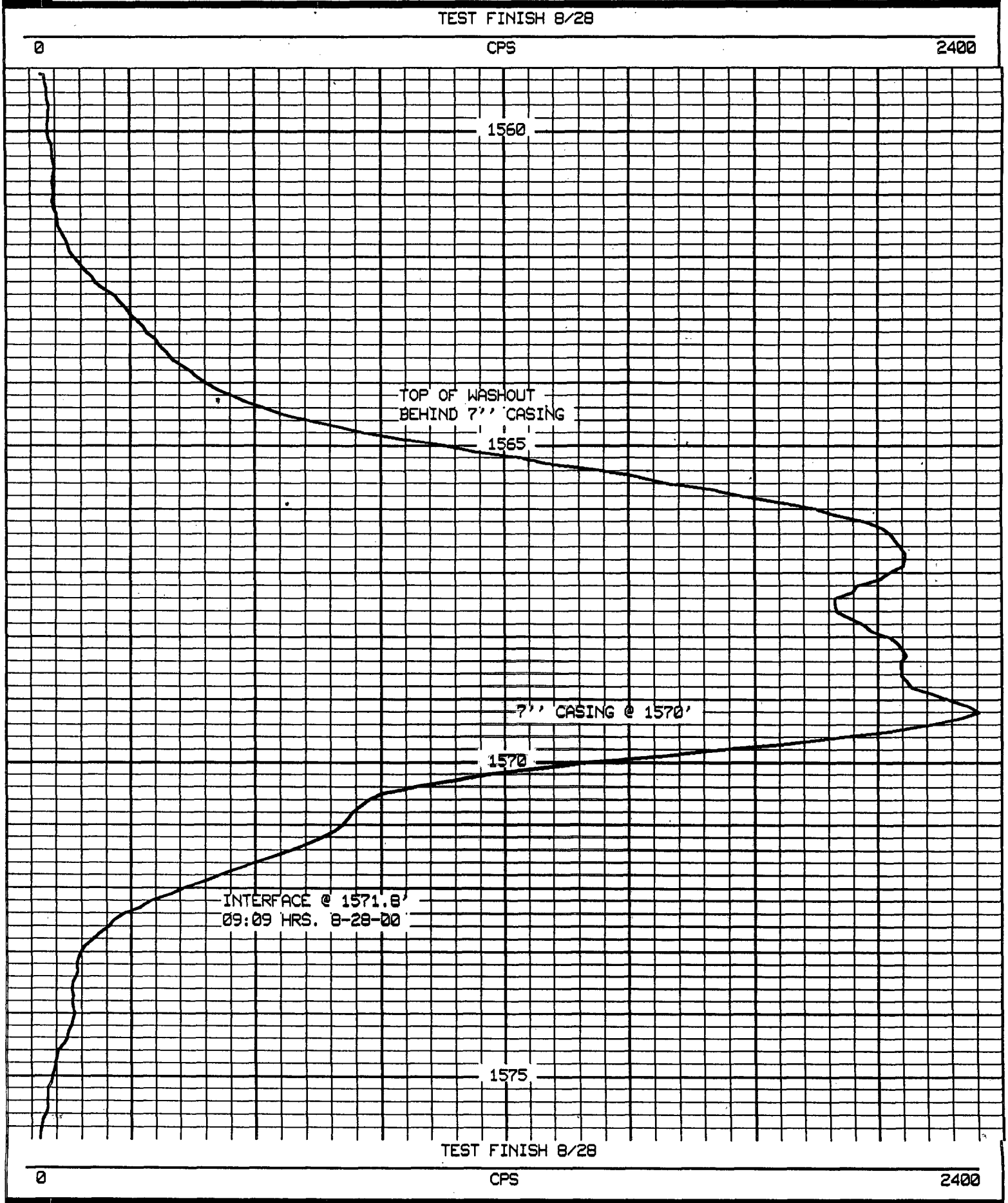
TEST START 8/26

0 CPS 2400

TEST START DETAIL LOG 8-26-00

STOP DEPTH 1576FT DATE: 11-14-0 TIME: 4:48p FILE: SD PLAYBACK PROGRAM

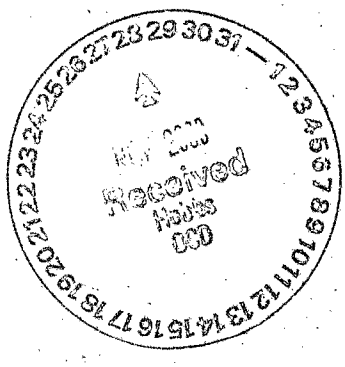
TEST FINISH DETAIL LOG 8-28-00



TEST FINISH DETAIL LOG 8-28-00

STOP DEPTH 1576FT DATE: 11-14-0 TIME: 4:48p FILE: FD PLAYBACK PROGRAM

START DEPTH 1740FT DATE: 08-26-0 TIME: 10:28a FILE: TD PLAYBACK PROGRAM


Received
Hours
OCD

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 **Mike Hicks – 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

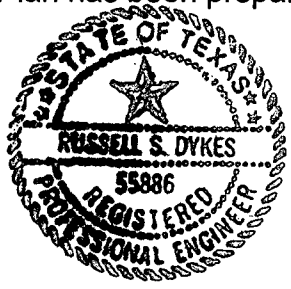
This SPCC Plan will be implemented as herein described. I hereby commit the necessary manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

Area Manager

Signature: Michael Hicks

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:

North Eunice Plant	
Middle Eunice Plant	
South Eunice Plant	Grobe 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
	Dean Compressor Station
	Epperson Compressor Station
	King Compressor Station
	Lehman Compressor Station
	Plains Compressor Station
	Sawyer 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
Shankar	(713)507-6753
Bob Cinq-Mars	(713)507-3993
Russell Dykes	(713)767-0072
Mike Howerton	(713)507-3723
Paul Lankford	(713)507-3729
J.D. Morris	(713)507-6752
Kathy Silva	(713)507-3998
Mike Terrell	(713)507-6755

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.

PART I
GENERAL INFORMATION
Page 6

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.

PART I
GENERAL INFORMATION
Page 7

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**

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

Monument Plant
DATA SHEET

PART I
GENERAL INFORMATION

1. Name of facility: **Monument, New Mexico Plant**

3. Location of facility: **3 miles SW of Monument, New Mexico on state Highway 322.**

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 2-16 (Tank photographs)
Applicability of the Substantial Harm Criteria
Table 2 - Dike Calculations.

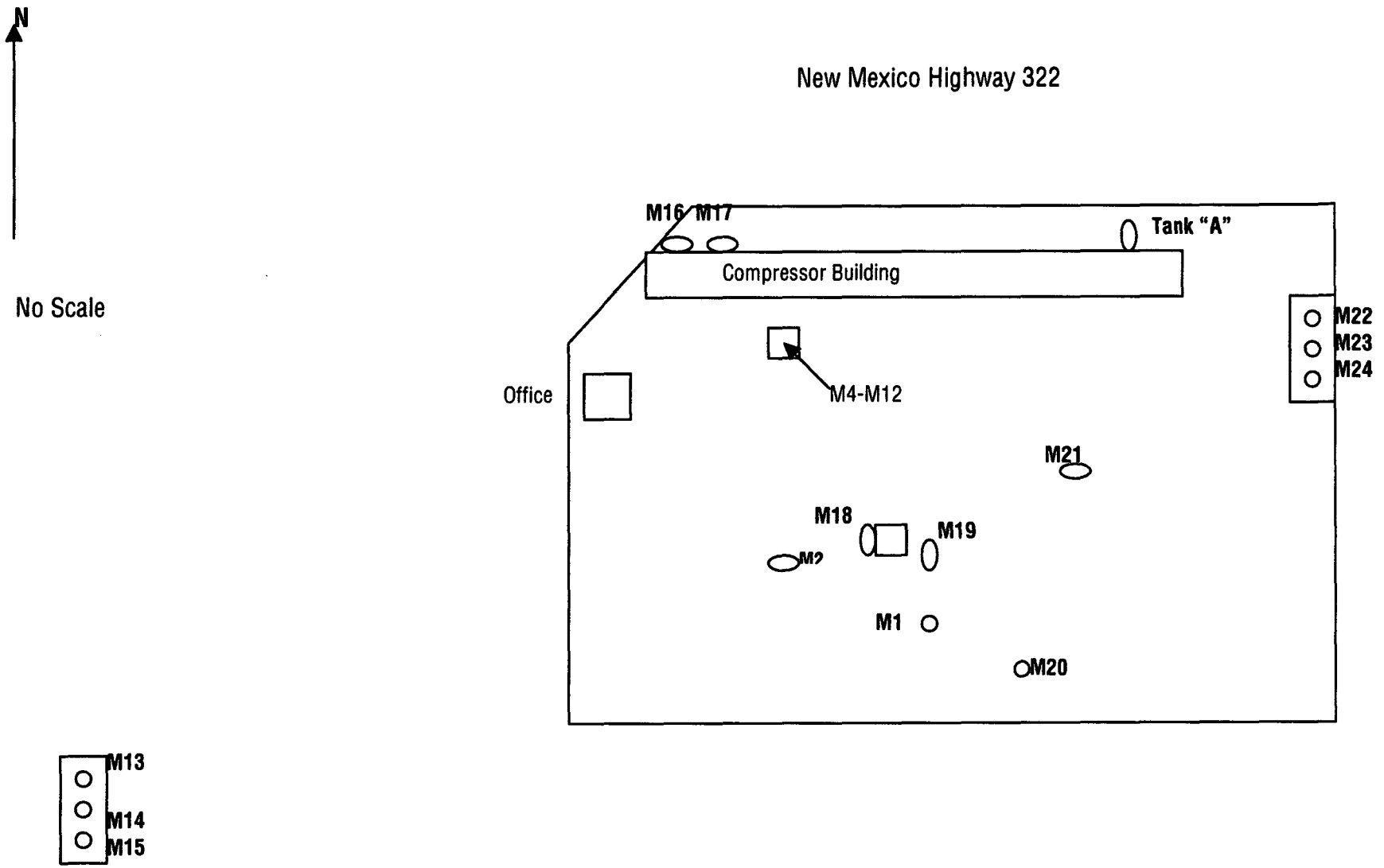


Figure 1
Monument, New Mexico Plant
Site Plan

Table 1
Potential Spills – Prediction and Control

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
M1	Diethanol Amine	Overfill/rupture	8,820	NW	Earthen berm 51' x 51' x 1'6"	15
M2	Hot oil	Overfill/rupture	8,820	W	None	14
M3	Sulfuric Acid	Overfill/rupture	1,470	W	Concrete dike 8' x 24' x 1'6"	13
M4	Lube oil	Overfill/rupture	10,500	W	Concrete dike 51' x 75' x 1'	9
M5	Lube oil	Overfill/rupture	10,500	W	Concrete dike 51' x 75' x 1'	9
M6	Diesel	Overfill/rupture	600	W	Concrete dike 51' x 75' x 1'	9
M7	Gasoline	Overfill/rupture	1,500	W	Concrete dike 51' x 75' x 1'	8
M8	Solvent	Overfill/rupture	600	W	Concrete dike 51' x 75' x 1'	9
M9	Methanol	Overfill/rupture	1,500	W	Concrete dike 51' x 75' x 1'	8
M10	Methanol	Overfill/rupture	500	W	Concrete dike 51' x 75' x 1'	8
M11	Antifreeze	Overfill/rupture	300	W	Concrete dike 51' x 75' x 1'	7
M12	Antifreeze	Overfill/rupture	600	W	Concrete dike 51' x 75' x 1'	7
M13	Slop oil Shell P/L	Overfill/rupture	21,000	E	Earthen dike with poly liner 90' x 48' x1'6"	11
M14	Slop oil Shell P/L	Overfill/rupture	21,000	E	Earthen dike with poly liner 90' x 48' x1'6"	11
M15	Slop oil Shell P/L	Overfill/rupture	21,000	E	Earthen dike with poly liner 90' x 48' x1'6"	11
M16	Lube oil	Overfill/rupture	1,500	N	Concrete dike 75' x 75' x 6"	6
M17	Antifreeze	Overfill/rupture	1,500	N	None (Concrete dike 75' x 75' x 6")	5
M18	Diesel	Overfill/rupture	250	N	Fiberglass 3' x 7' x 1'6"	4
M19	Lube oil	Overfill/rupture	300	N	Fiberglass 8' x 8' x 1'6"	3
M20	Waste oil	Overfill/rupture	8,820	N	None (overflow to oil / water separator)	2
M21	Waste oil	Overfill/rupture	5,000	E	None	10

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
M22	Rice oil	Overfill/rupture	8,820	NE	Concrete dike 27' x 78' x 3'	12
M23	Rice oil	Overfill/rupture	8,820	NE	Concrete dike 27' x 78' x 3'	12
M24	Rice oil	Overfill/rupture	4,200	NE	Concrete dike 27' x 78' x 3'	12
A	Lube Oil	Overfill/rupture	1,127	NE	Concrete curb 50' x 50' x 3"	16

Figure 2 – M20

Figure 3 – M19

Figure 4 – M18

Figure 5 – M17

Figure 6 – M16

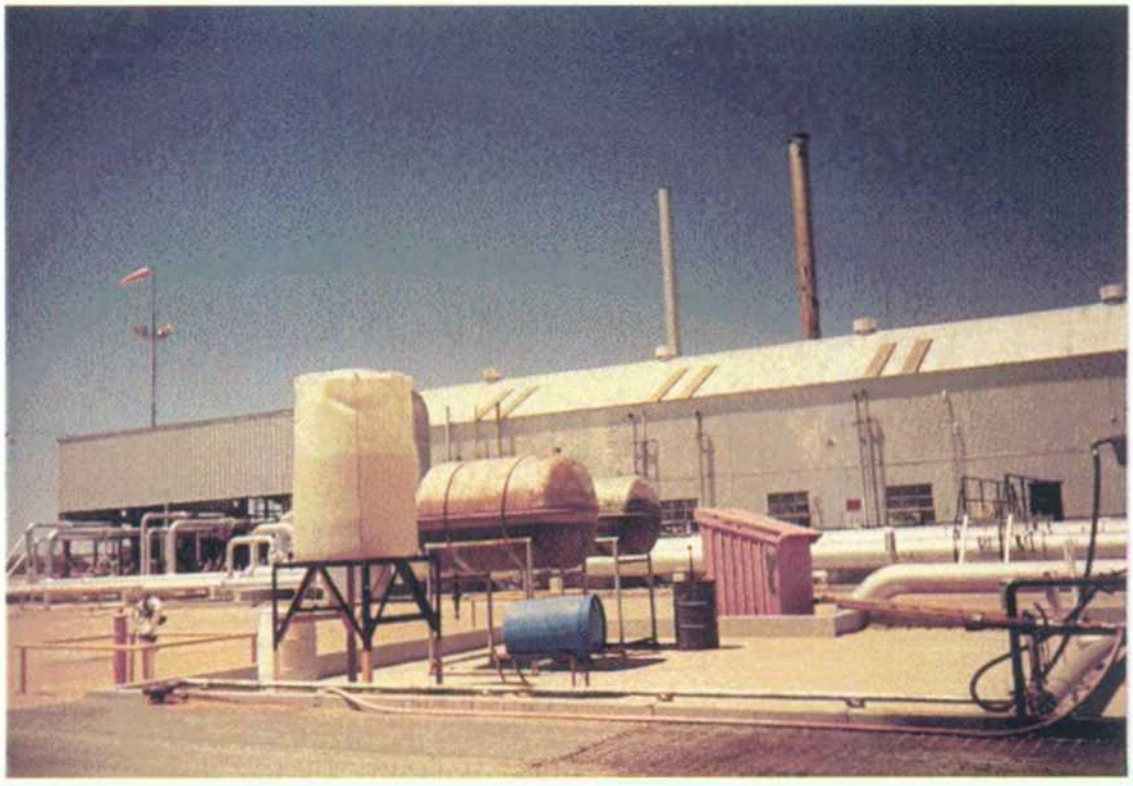


Figure 7 – M11 and M12

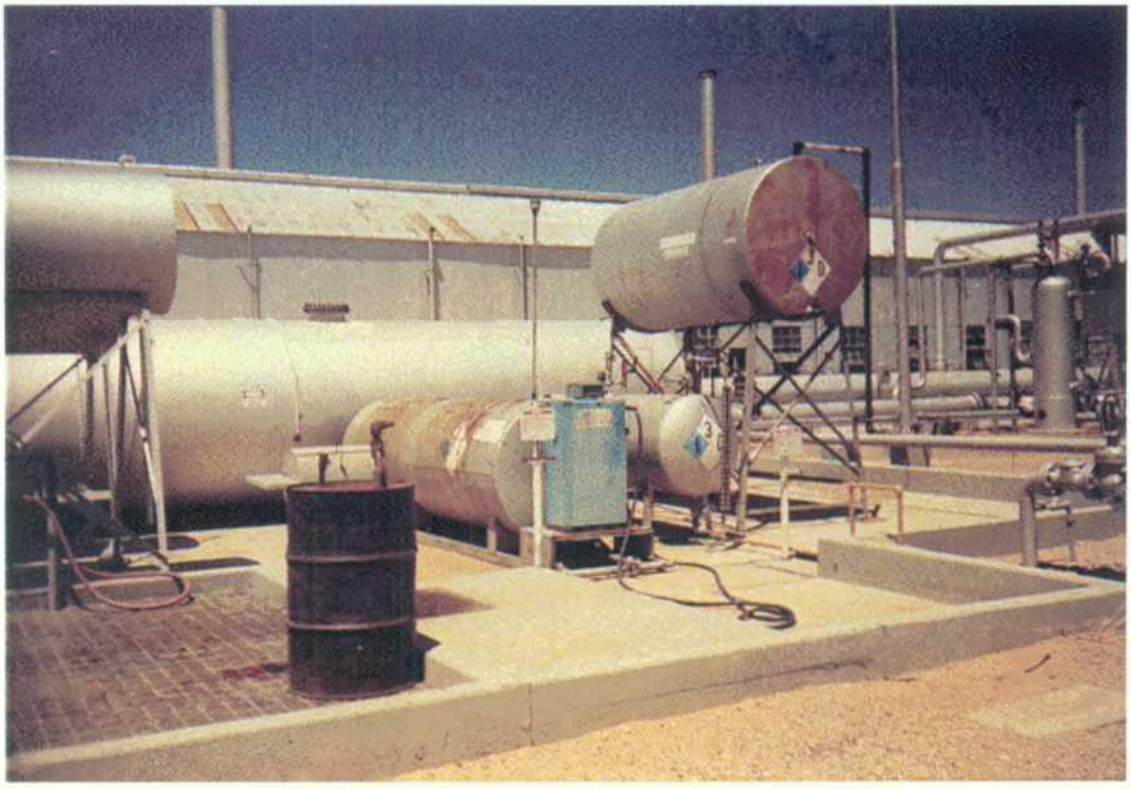


Figure 8 – M7, M9, M10

Figure 9 – M4, M5, M6, M8

Figure 10 – M21

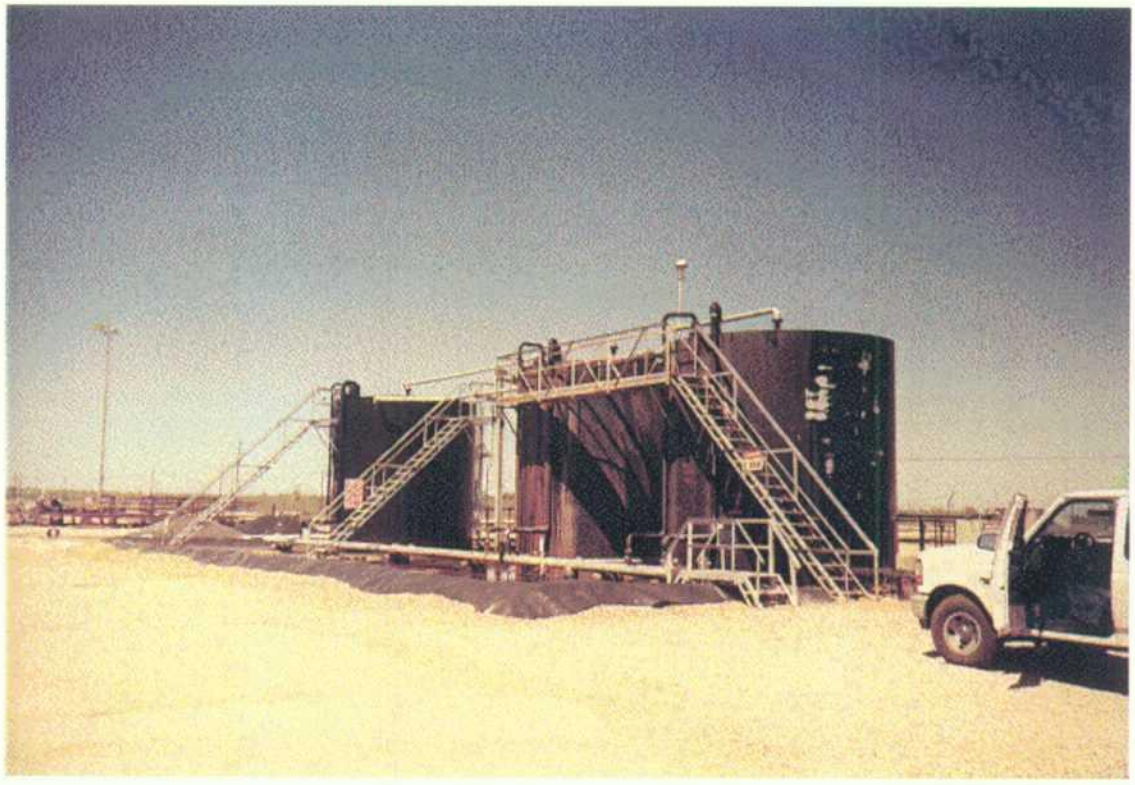


Figure 11 – M13, M14, M15

Figure 12 – M22, M23, M24

Figure 13 – M3

Figure 14 – M2

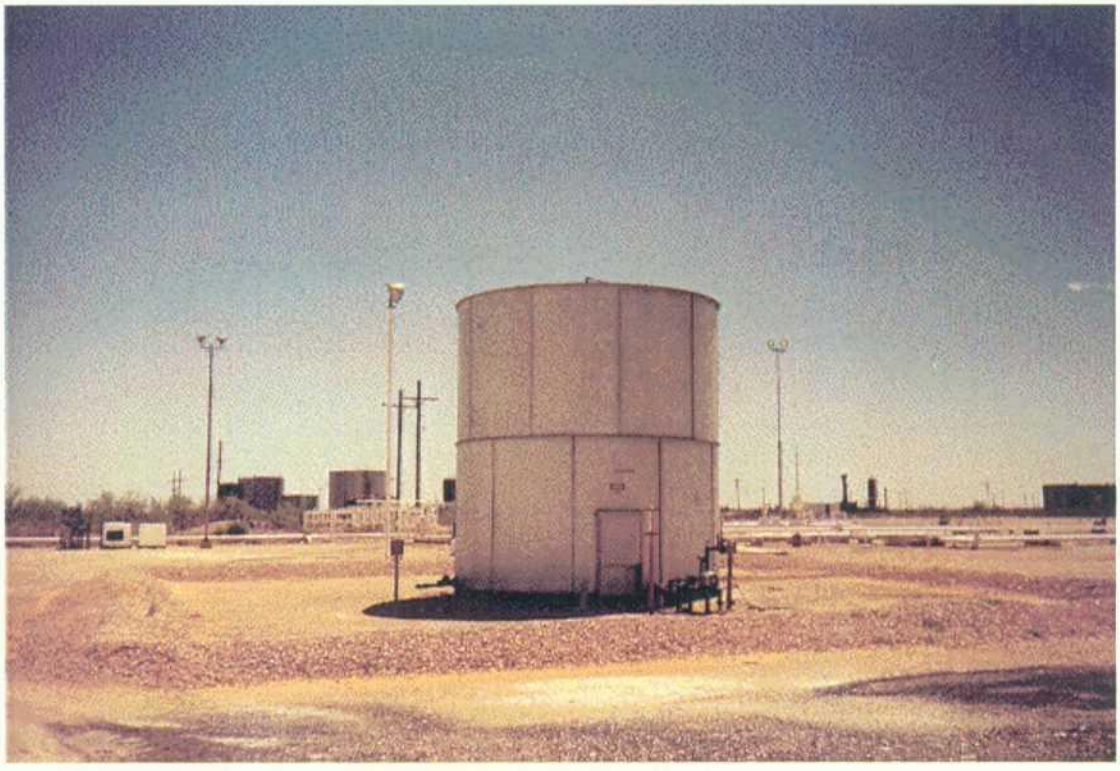


Figure 15 – M1

Figure 16 – "A" Lube Oil Tank

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
Monument Plant

Tank / Dike Combination	Dike Full Storage Volume (see Table 1 for dimensions), gal.	Largest Tank capacity (gal)	Available Dike Full Precipitation Storage (in.)
M1	29,183	8,820	12.5
M3	1,496	1,470	0.4
M4, M5, M6, M7, M8, M9, M10, M11, M12	38,147	8,400	12.4
M13, M14, M15	194,839	21,000	21.4
M16, M17	2,812	1,500	2.8
M18	549	250	11.9
M19	1,371	300	17.2
M22, M23, M24	56,548	8,820	30.3
A	4,675	1,127	2.2

Monument – Buckeye Compressor Station
DATA SHEET

PART I
GENERAL INFORMATION

1. Name of facility: **Monument - Buckeye Compressor Station**

3. Location of facility: **From Hobbs, NM take US 62 west to NM 529 (west). Turn right (north) at NM 238 approximately 5 miles to plant on left..**

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 southeast. 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 2-4 (Tank photographs)
Applicability of the Substantial Harm Criteria
Table 2 - Dike Calculations.

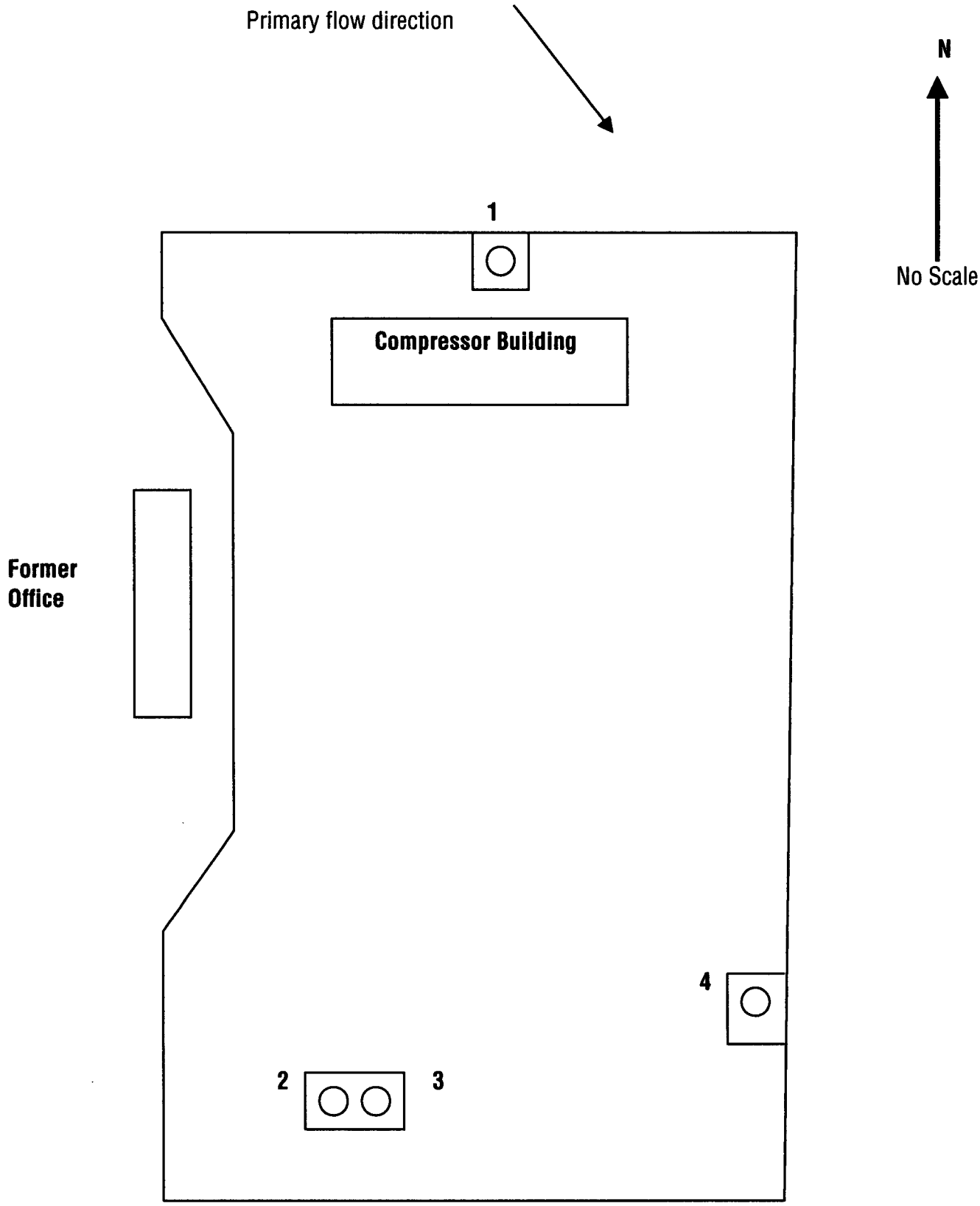


Figure 1
Monument – Buckeye Compressor Station
Site Plan

Table 1
Potential Spills – Prediction and Control

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
1	Lube Oil	Overfill / rupture	21,000	SE	Concrete wall 24' x 29' x 2'7"	2
2	Slop Oil	Overfill / rupture	10,500	SE	Earth berm 60' x 36' x 1'6"	3
3	Slop Oil	Overfill / rupture	8,820	SE	Earth berm 60' x 36' x 1'6"	3
4	Condensate	Overfill / rupture	8,820	SE	Earth berm 52' x 30' x 1'6"	4

Figure 2 – Lube Oil Tank

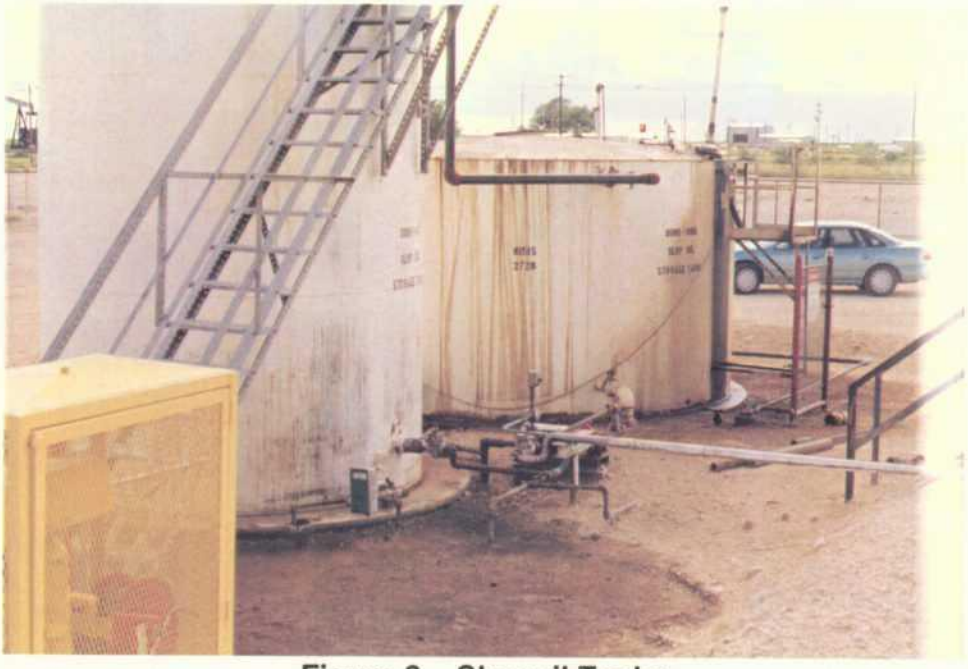


Figure 3 – Slop oil Tanks

Figure 4 – Condensate Tank

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**

Dike Calculations
Monument – Buckeye Compressor Station

Tank / Dike Combination	Dike Full Storage Volume (see Table 1 for dimensions), gal.	Largest Tank capacity (gal)	Available Dike Full Precipitation Storage (in.)
1	13,449	21,000	NA
2,3	24,235	10,500	10.2
4	17,503	8,820	8.9

Monument – Joy Compressor Station
DATA SHEET

PART I
GENERAL INFORMATION

1. Name of facility: **Monument - Joy Compressor Station**

3. Location of facility: **From Skaggs-McGee CS, exit on southeasterly road and go east 0.9 miles. Turn north 0.8 miles. Turn east 0.8 miles. Turn south 0.1 miles. Turn east 0.1 miles to station. Lea County, New Mexico.**

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 2-4 (Tank photographs)
Applicability of the Substantial Harm Criteria
Table 2 - Dike Calculations.

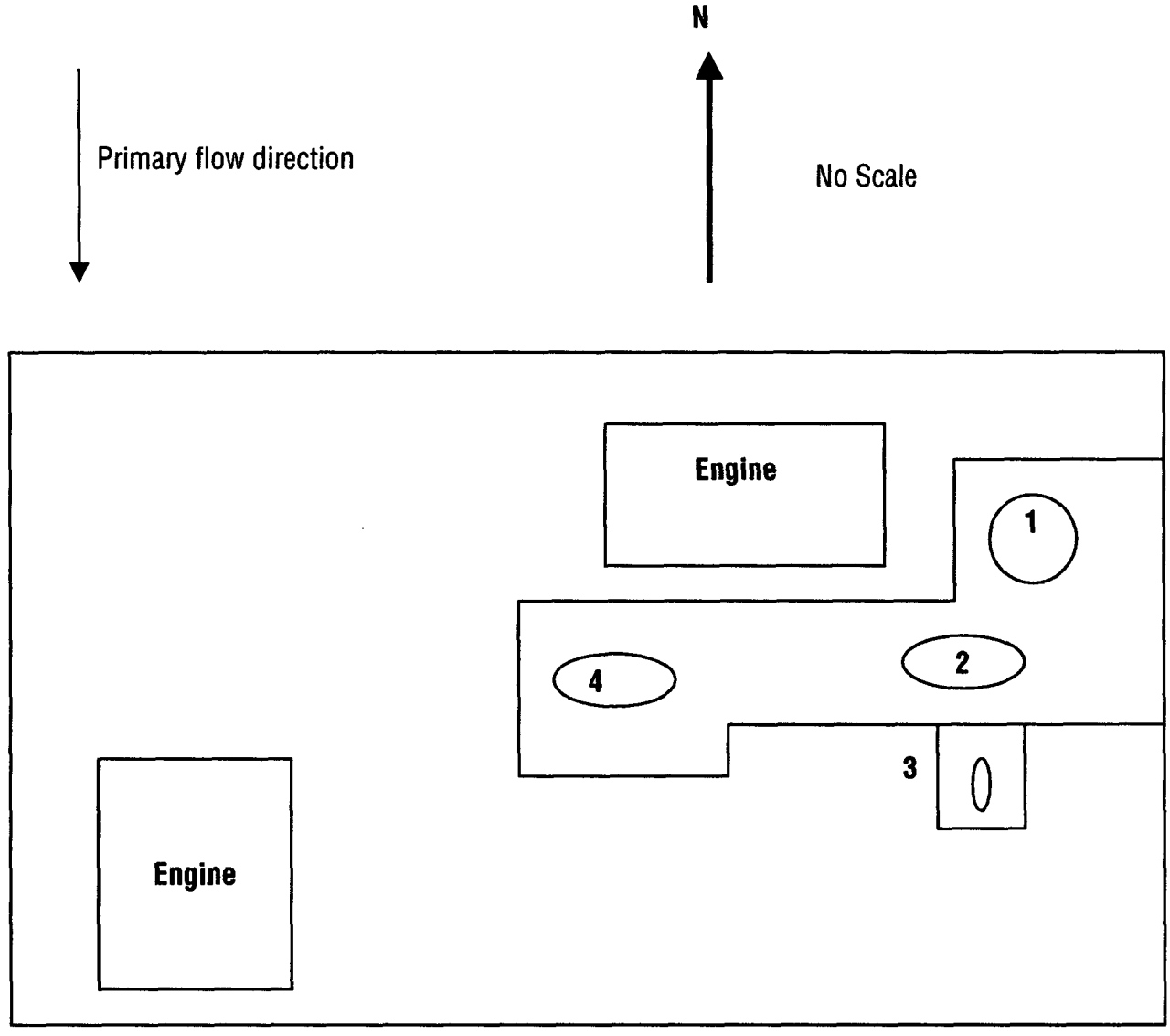


Figure 1
Monument – Joy Compressor Station
Site Plan

Table 1
Potential Spills – Prediction and Control

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
1	Field Oil	Overfill / rupture	750	S	Concrete curb 12' x 9' x 2'	2
2	Lube Oil	Overfill / rupture	8,820	S	Concrete curb 54' x 21' x 4'4"	2
3	Antifreeze	Overfill / rupture	1,033	S	Concrete curb 8'6" x 13'6" x 1'6"	3
4	Waste Oil	Overfill / rupture	8,820	S	Concrete vault 18' x 9' x 8'6"	4

Figure 2 – Field Oil and Lube Oil Tanks

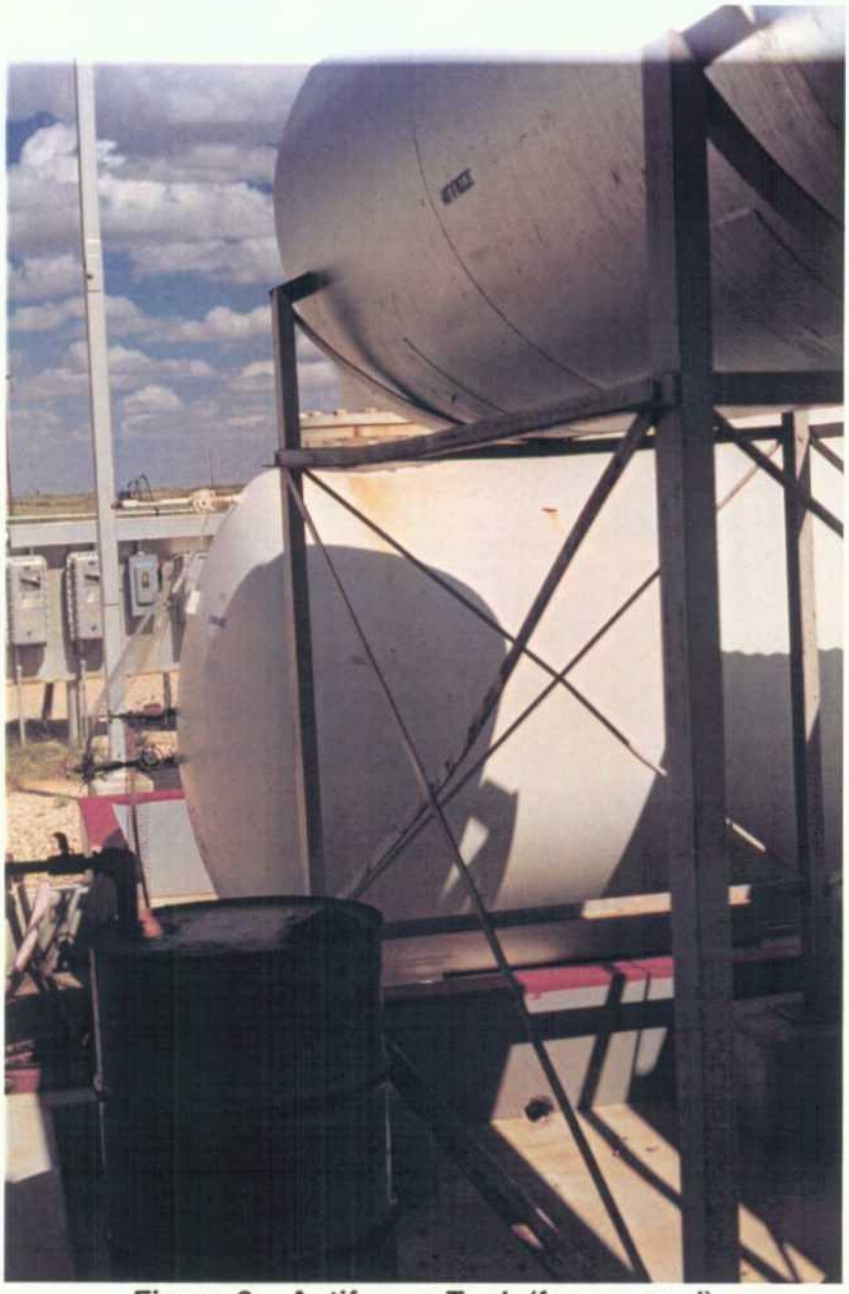


Figure 3 – Antifreeze Tank (foreground)

Figure 4 – Waste Oil Tank

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**

Dike Calculations
Monument – Joy Compressor Station

Tank / Dike Combination	Dike Full Storage Volume (see Table 1 for dimensions), gal.	Largest Tank capacity (gal)	Available Dike Full Precipitation Storage (in.)
1,2,4	12,723	8,820	5.5
3	1,287	1,033	3.5

* - Tanks 1,2 and 3 all eventually drain into the below-grade vault where Tank No. 3 rests.

Monument – Skaggs-McGee Compressor Station
DATA SHEET

PART I
GENERAL INFORMATION

1. Name of facility: **Monument – Skaggs-McGee Compressor Station**

3. Location of facility: **From Monument, NM take NM 8 north approximately 1/2 mile to Skaggs Road. Turn east. Follow signs to "Gulf Oil Co. Skaggs-McGee station"..**

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 northwest. 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 2-3 (Tank photographs)
Applicability of the Substantial Harm Criteria
Table 2 - Dike Calculations.

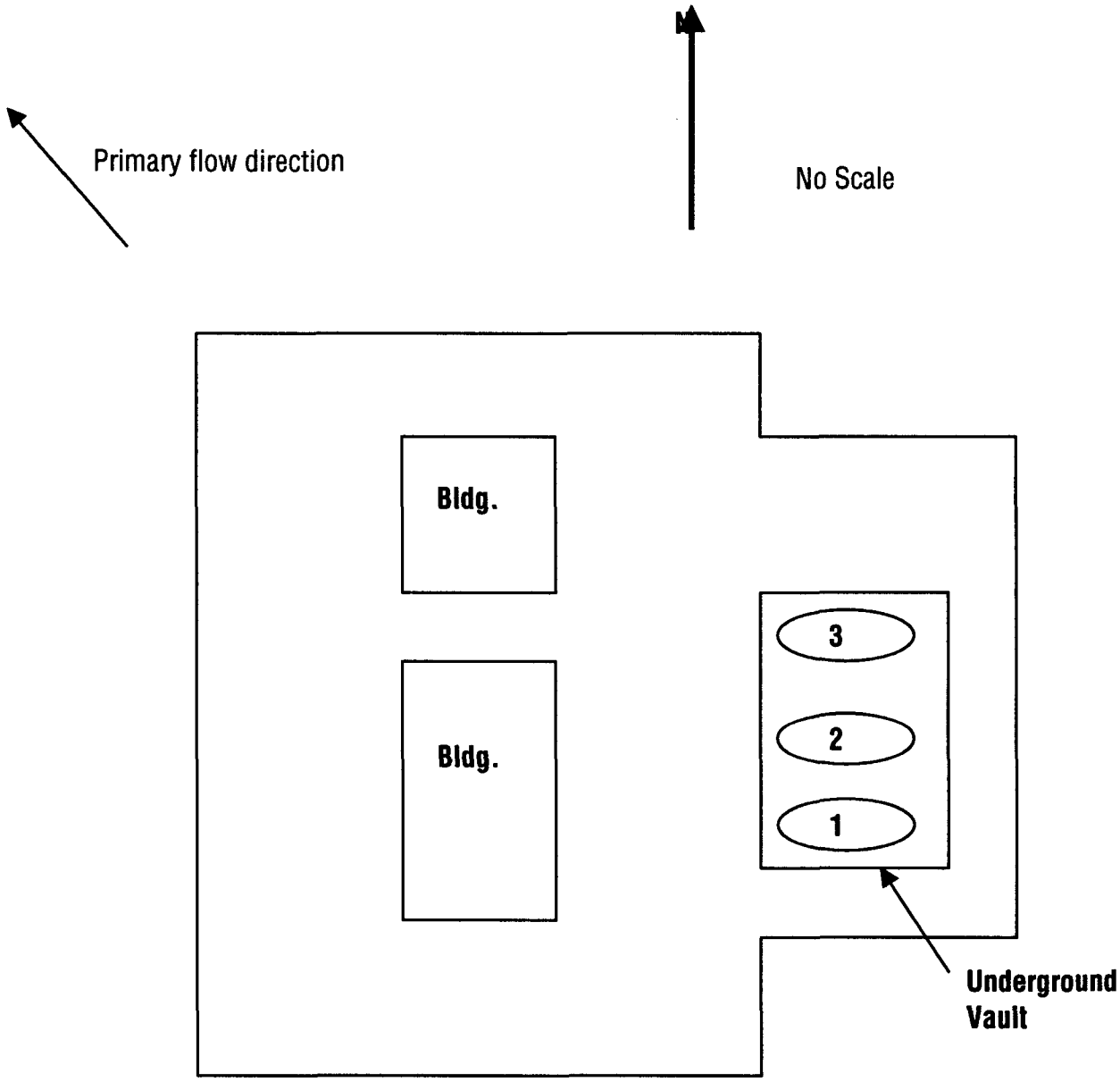


Figure 1
Monument – Skaggs-McGee Compressor Station
Site Plan

Table 1
Potential Spills – Prediction and Control

Vessel Number	Contents	Major Type of Failure	Total Quantity (gal)	Direction of Flow	Secondary Containment	Figure No.
1	Antifreeze	Overfill / rupture	1,800	NW	Concrete vault 27' x 27' x 5'3"'	2
2	Lube Oil	Overfill / rupture	1,800	NW	Concrete vault 27' x 27' x 5'3"'	2
3	Waste Oil	Overfill / rupture	1,000	NW	Concrete vault 27' x 27' x 5'3"'	3

Figure 2 –Lube Oil (left) and Antifreeze Tanks

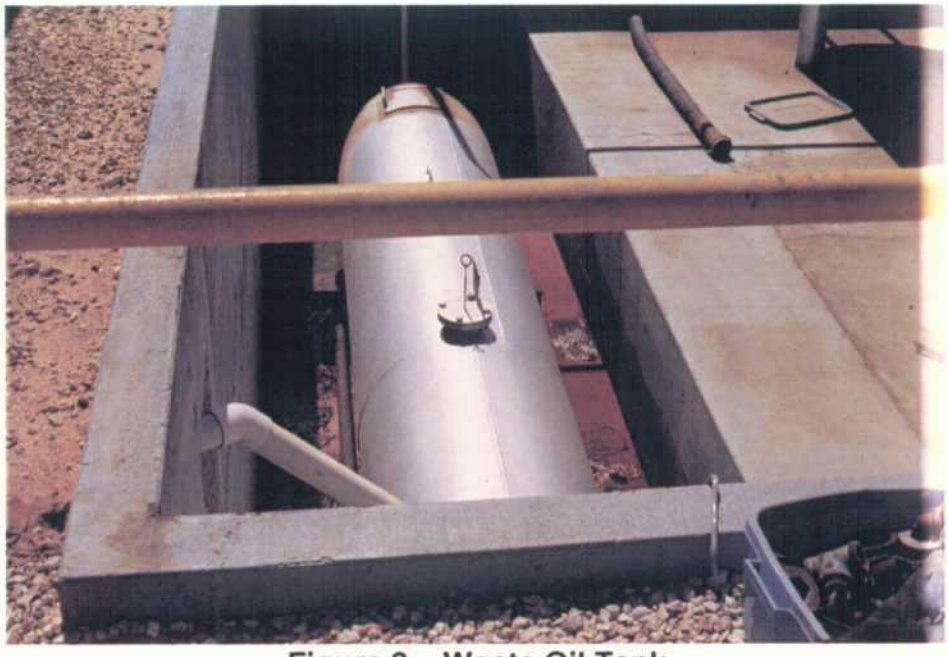


Figure 3 – Waste Oil Tank

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**

Dike Calculations
Monument – Skaggs-McGee Compressor Station

Tank / Dike Combination	Dike Full Storage Volume (see Table 1 for dimensions), gal.	Largest Tank capacity (gal)	Available Dike Full Precipitation Storage (in.)
1,2,3	28,627	1,800	59.0

* - Tanks 1,2 and 3 are all in a below-grade vault.

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Monument Plant Dynegy Midstream Services, L.P.

New Mexico Waste Management Plan

Dynegy Midstream Services, L.P.

FACILITY WASTE MANAGEMENT PLAN- New Mexico

MANAGEMENT SUMMARY

Knowing what your waste is, where it is, and how it's managed may seem insignificant and unimportant. However, each of us must realize that waste management is an integral part of our facility operation. Improper management of our wastes may adversely impact human health and the environment, lead to future liability, or result in lost revenues. With the help of this Plan and your participation, waste management will become an integral part of our daily activities.

PURPOSE

This Plan will help you identify, locate, manage and track your wastes. It has been designed as a working document that will be updated as needed. All facilities in the same state will have the same basic Plan, which will facilitate updating. In addition, the Plan is organized to be user-friendly. Waste stream identification sheets are arranged alphabetically in Section 5.

This Plan is part of Dynegy's overall Waste Management Program and will enable Dynegy as a whole to better understand and manage its waste.

INTRODUCTION

There are three major steps in handling waste at your facility.

Step 1 is to determine if you have a waste and then find out what kind of waste you have. To determine this you must sample and classify the waste. This step is detailed in Sections 4, 5, 6 and 12.

Step 2 is to properly store the waste prior to disposal and then use an authorized transporter and disposal facility to handle the waste. This step is detailed in Section 8.

Finally, ***Step 3*** is required to ensure that complete and proper records of the handling of the waste from "cradle to grave". Sections 9, 10, and 11 contain different types of record keeping instructions and forms to keep accurate records.

This Waste Management Plan is divided into 15 sections:

Section 1 contains a Management Summary of the plan contents,

Section 2 contains a statement of management approval by the facility.

Section 3 contains a summary training guide that contains a discussion of the purpose and scope of the plan and provides an overview of waste management. Waste minimization, recycling, and solid and hazardous waste definitions are discussed to provide the reader with a basic understanding of how the regulations that affect waste management work.

Section 4 contains detailed guidance on how to classify waste. Also included is information that pertains to natural gas waste and the RCRA exemptions for Oil & Gas waste.

Section 5 is the largest part of the plan and includes a Waste Identification Sheet for each waste stream generated at Dynegy facilities. The Waste Identification Sheet presents information on waste classification, minimization, handling, and disposal.

Section 6 contains guidance on how to sample waste streams and prepare for storage and shipment.

Section 7 contains guidance on storage and disposal of waste. The information includes how to store waste in various containers and the proper shipping requirements to dispose of the waste.

Sections 9 through 11 contain instructions and blank forms to maintain proper records of waste. They include a Facility Waste Inventory, Facility Waste Management Summary, Facility Shipment and Disposal Log and a Facility Waste Drum/Container Log Sheet.

Section 12 contains copies of significant State agency regulations that apply to waste in the particular state. Applicable forms and instructions are included.

Section 13 contains names, addresses and phone numbers of applicable State Agencies that handle waste approvals.

Section 14 contains an excellent guidebook on "How To Recognize a Hazardous Waste". This user-friendly book will be of benefit in understanding the complex process dealing with waste.

Section 15 contains a floppy disk that contains Excel spreadsheet files of the internal forms detailed in Sections 9 through 11.

WASTE MANAGEMENT PLAN - New Mexico

FACILITY MANAGEMENT APPROVAL

This Waste Management Plan has the full support and approval of the management at this facility

Mike Hicks
Area Manager

2/16/00
DATE

Cal Wrangham
ES&H Advisor

2/17-2000
DATE

3

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

is the savings to the company. By eliminating a waste stream, it is no longer necessary to devote resources to the handling, storage, analysis, and disposal of that waste stream. Finally, the environmental liability that a company sustains is reduced each time a waste stream is eliminated.

Corporate policy on waste management options is, by order of preference,

1. reduction,
2. recycle/reuse,
3. treatment (including disposal).

Therefore, plant personnel should continually try to identify and evaluate possible waste management alternatives. Information can be obtained from a variety of sources including trade associations (such as the Gas Processors Association), published literature (from the American Petroleum Institute or industry publications), state and federal environmental agencies, and company personnel. Waste minimization may be something as simple as proper maintenance and operation of equipment to prevent generation of excessive volumes of waste, or using corrosion inhibitors in cooling tower water that do not contain chromium.

RECYCLING & REUSE

In situations where waste elimination or reduction may not be possible, recycling or reusing a material is the next alternative. If a material can be used more than once, the overall volume of material purchased and waste generated is reduced as well as disposal costs. Additionally, some states such as Louisiana require certain wastes be recycled instead of disposed. Finally, the following recyclable materials are excluded from hazardous waste regulation:

- Used oil that is recycled in some other way than burning for energy recovery.
- Scrap metal.
- Used batteries returned for regeneration.
- Materials used or reused as ingredients to make a product.
- Wastes used or reused as effective substitutes for chemical products.
- Wastes returned to the original process from which they were generated.

The latter three are excluded only if the wastes are not reclaimed or treated before reusing (such as distillation, ion exchange, dewatering). A complete guide on recycling can be found in Section 14, How to Recognize a Hazardous Waste.

WHAT IS A SOLID WASTE?

The Solid Waste Disposal Act (SWDA) was enacted in 1965 to regulate the disposal of solid waste primarily at municipal landfills. The SWDA was amended in 1976 by the Resource Conservation and Recovery Act (RCRA) to include more stringent regulations of solid waste and a "cradle to grave" regulation of hazardous waste. Hazardous waste is monitored from the point of generation, through storage, transportation, and final disposal. However, the fundamental principle behind RCRA, as indicated in its title, is to minimize the volume of hazardous waste generated through elimination, reduction, or recycling and reuse of solid and hazardous waste and to avoid land disposal of wastes whenever possible. In an effort to promote waste reduction, land disposal restrictions were authorized when RCRA was amended in 1984. In order to understand the solid and hazardous waste programs some critical definitions must be understood.

A solid waste includes *garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, air pollution control facility, and other **discarded** material including solid, liquid, semi-solid, or contained gaseous materials, resulting from industrial, commercial, mining and agriculture activities, and from community activities with the exception of domestic sewage, irrigation return flows, or industrial discharges permitted under the Clean Water Act (Title 40 of the Code of Federal Regulations Part 261.2 (40 CFR 261.2))*. A material must first be discarded to become a waste. **Discarded** is defined as "*any material which is disposed, abandoned, recycled or considered inherently waste-like (40 CFR 261.2(a)(2))*." Several categories of materials are exempt from regulation as solid waste. Two of these exemptions important to the gas processing industry include:

- Industrial wastewater discharges permitted under the Clean Water Act.
- Secondary materials that are reclaimed and returned to the original process from which they were generated.

WHAT IS A HAZARDOUS WASTE?

Hazardous waste is actually a subset of solid waste; discarded material cannot be a hazardous waste unless it first fits the definition of a solid waste. There are two types of hazardous waste as defined in RCRA (40 CFR 261.3), 1) characteristically hazardous, and 2) listed hazardous wastes. Wastes that are characteristically hazardous exhibit one of the following four characteristics: ignitability, corrosivity, reactivity, or toxicity. An ignitible waste is any solid, liquid or compressed gas with a flashpoint less than 140° F such as Varsol (40 CFR 261.21). A corrosive waste is any liquid that has a pH less than or equal to 2, or greater than or equal to 12.5 such as spent acid or spent caustic (40 CFR 261.22). Reactive wastes are those that are normally unstable, react violently with water (sometimes releasing hydrogen sulfide (H_2S) or cyanide (CN), if present in the waste, as gases), form potentially explosive mixtures with water, are capable of detonation or explosion reaction if subjected to a strong initiating source or heated under confinement, capable of detonation or explosive decomposition or reaction at standard temperature and pressure, or meets the DOT definition of forbidden explosive (40 CFR 261.23). Cooling tower sludge might be a reactive waste due to its potential to contain hydrogen sulfide. Toxic wastes contain concentrations of regulated metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), organic compounds (26 compounds including benzene and trichloroethylene), and insecticides/herbicides above allowable limits (40 CFR 261.24). For example, soil in meter sheds are sometimes toxic due to elevated concentrations of mercury.

Listed wastes are those which have been identified as "typically or frequently" hazardous because they exhibit a characteristic or they threaten human health or the environment. Listed wastes include material used in non-specific sources such as spent solvents (40 CFR 261.31), from specific processes such as API separator sludge from refining (40 CFR 261.32), commercial chemical products that are off-specification species, or are container or spill residues such as methanol (40 CFR 261.33).

As with the definition of a solid waste there are several exemptions to the definition of hazardous waste. Among the several categories of exempt waste are two that are particularly important, the exclusion of household waste, and the exclusion of drilling fluids, produced waters, and other wastes associated with the exploration, development, and production of crude oil, natural gas, or geothermal energy (known as the petroleum exclusion). The exemption is important because it explicitly states that certain wastes unique to the exploration and production of natural gas and oil are exempt from consideration as a hazardous waste. Therefore, the wastes do not have to be tested to determine if they are hazardous and they can be handled as a solid waste. Many states including Louisiana and Oklahoma have put some limits on the full interpretation of this exemption. In these states, the environmental agencies require these wastes to be tested before they can be disposed in a landfill permitted by that agency. The benefit of this exemption is evident in the disposal of aqueous wastes such as spent amine or cooling tower blowdown in

a Class II disposal well. Because of the complexities, it is important to review the exemption and state requirements (review the memorandum of understanding between the agencies). A copy of the book How to Recognize A Hazardous Waste (Even If Its Wearing Dark Sunglasses) has been included in Section 14 as an additional resource. The book provides an complete analysis of the hazardous waste regulations.

WHO IS A GENERATOR OF HAZARDOUS WASTE?

A generator is "any person, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation." There are three types of generators of hazardous waste; each category is defined by the quantity of waste generated and has specific requirements that must be met (40 CFR 262).

A large quantity generator (LQG) produces more than 1,000 kilograms per month (kg/mo), or 2200 pounds per month (lbs/mo), of hazardous waste. Large quantity generators must comply with the following requirements:

- Obtain an EPA Identification number.
- Store waste onsite for no more than 90 days.
- Manifest the transport and disposal of each waste shipment and comply with all Department of Transportation (DOT) shipping requirements.
- Wastes must be disposed at RCRA-permitted facilities.
- Comply with specific storage requirements.
- Provide complete training for personnel handling wastes.
- Maintain a complete contingency plan.
- Comply with reporting and recordkeeping requirements.

A generator that produces more than 100 kg/mo, or 220 lbs/mo but less than 1,000 kg/mo of hazardous waste is defined as a small quantity generator (SQG). Generators in this category must comply with the following requirements:

- Obtain an EPA Identification number.
- Store no more than 6,000 kg (132,000 lbs) onsite at any time for up to 180 days or up to 270 days if the disposal site is more than 200 miles away.
- Manifest the transport and disposal of each waste shipment and comply with DOT shipping requirements.
- Wastes must be disposed at RCRA-permitted facilities.
- Comply with specific storage requirements.
- Provide basic training for personnel.
- Maintain a basic contingency plan.

A conditionally exempt small quantity generator (CESQG) produces no more than 100 kg/mo (220 lbs/mo) of hazardous waste or no more than 1 kg/mo (2.2 lbs/mo) of acutely hazardous waste and accumulates no more than 1,000 kg of hazardous waste on site at one time. Conditionally exempt generator's hazardous wastes are not subject to many of the requirements that larger generators must meet. They do not have to obtain an EPA Identification number (although most transporters and disposers will not accept waste without a number), manifest waste shipments, provide training to personnel, maintain contingency plans, or comply with storage requirements. However, they must send their hazardous wastes to disposal facilities authorized to accept that waste (40 CFR 261.5). Generators producing less than 100 kg/mo in Louisiana are termed Small Quantity Generators and are required to use shipping manifests, comply with recordkeeping and reporting requirements. Texas, Oklahoma, and New Mexico follow the federal program for CESQGs.

STORAGE PRACTICES

Facilities which store waste prior to disposal should follow a few simple best management practices to ensure wastes are stored in an appropriate manner. Following these practices can also reduce environmental liability caused by spills or leaks from storage containers. These practices include the following:

- Store wastes in containers or tanks that are in good condition.
- Containers should be compatible with the material being stored in them.
- Containers should be stored in covered areas and on impermeable surfaces whenever possible.
- Containers should be always be closed unless the contents are being transferred.
- Always label containers, identifying the contents and the start date of accumulation.
- Never allow accumulation of waste onsite longer than is absolutely necessary.
- Inspect storage areas and containers periodically (at least weekly for LQG and SQG) to ensure they are not leaking.
- Replace or repair immediately any container that is leaking.

RECORDKEEPING

Facilities that generate both hazardous and nonhazardous waste should always maintain records that document waste management practices at their facility. Maintaining copies of records serves four purposes. First, large and small quantity generators are required by regulation, for example, to keep copies of manifests for three years. Second, a generator, whether a CESQG or LQG, must maintain copies of records to document compliance with regulations such as waste analysis, classification, storage, transportation, and disposal practices. These records can be requested by a regulatory agency for review when conducting an inspection of the facility. Third, generators may be subject to monthly, quarterly, or annual reporting requirements including information such as type and volume of waste generated, the transporter, and treatment, storage, or disposal site must be provided to state or federal regulatory agencies. Fourth, maintenance of records can help to determine how effectively the goals of the waste management plan are met. The type of records that should be retained include the type and quantity of waste generated; waste manifests, bills of lading, or run tickets; names, addresses, and contact person for transporters and disposers; any results of waste analysis including how and where samples were collected. It is the responsibility of the generator to be sure that transporters and treatment storage and disposal facilities utilized are registered or certified with the appropriate state and/or federal agencies for those activities. This can minimize the possibility of illegal disposition of wastes generated from the facility.

WASTE SAMPLING AND ANALYTICAL PROCEDURES

The majority of states require that facilities sample and analyze some or all wastes generated at a facility. Different states have different requirements on the number and type of samples that must be collected as well as which specific analytical procedures should be used.

Before collecting samples it is important to ask a few basic questions. What parameters am I trying to analyze? What type and quantity of sample do I need? How and where do I collect the sample? What type of analytical procedure will I use? The answers to these questions will determine how the samples are collected, preserved, and how quickly they must be analyzed. **It is important to coordinate**

sampling activities with a laboratory prior to sample collection. Laboratory personnel can provide assistance with these questions and others. They can also provide the proper sample and shipping containers.

When collecting samples, the facility should always follow proper sampling procedures. Always clean and rinse the sampling equipment between sampling locations to prevent cross-contamination of one sample by another. Always place samples in a clean sample containers. Take great care when packing samples for shipment to the laboratory so that containers are not broken or punctured. Always document the sample locations in a field notebook, and be sure to label the sample containers with the sample identification, the time and date collected, and specify the analytical method to be used. Proper chain-of-custody procedures should be followed to be sure samples have not been tampered with while in transit from the plant to the laboratory. If samples are not handled properly, inaccurate analytical data can be the result.

The Environmental Protection Agency has outlined specific analytical procedures that should be performed when testing for specific compounds in SW-846 Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods. Each analytical test method has been assigned a test number which identifies the specific procedure to be used. In many cases, more than one test method can be used to analyze the same compound. For example, total petroleum hydrocarbons can be analyzed using Method 418.1 or Method 8015 Modified. Therefore, it is important to specify the correct analytical method. The specific test methods necessary for testing wastes are included on the Waste Identification Sheets (Section 5).

4

Environmental Guidance, Waste Classification

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.

Environmental Guidance, Waste Classification

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,
- Comply with applicable Department of Transportation (DOT) requirements for shipping wastes off-site;
- Accumulate waste on-site for no more than 180 days, or 270 days if the waste is being shipped more than 200 miles—unless a hazardous waste storage permit is obtained;
- Never accumulate more than 13,200 lbs (expressed as 6,000 kg in the law) of hazardous waste at any single time; and
- Comply with emergency preparedness requirements.

Large-Quantity Generator Compliance Requirements

The requirements are most stringent if you are a "large-quantity" generator. For those facilities generating greater than 1,000 kg (2,200 pounds or 300 gallons) of hazardous waste per month, you must also:

- Certify on the manifest form that you have a program in place to minimize the volume and toxicity of your hazardous wastes;
- Accumulate waste on-site for no more than 90 days, unless a hazardous waste storage permit is obtained;
- File a biennial report with the EPA and an annual report with the state environmental agency, if applicable;
- Comply with annual RCRA training requirements; and
- Develop and maintain an emergency response "contingency plan."

Under the law any facility that produces or manages a waste must evaluate that waste to determine if It s hazardous.

Are your Wastes Hazardous?

The law's definition of the term "hazardous waste" is quite specific and can be boiled down to one key definition and four words:

A hazardous waste is a discarded substance that is either:

(1) ignitable, (2) corrosive, (3) reactive, or (4) *toxic.*

For example, a hazardous waste can be a solid, liquid, or containerized gas. "Discarded" may mean land-disposed, incinerated, burned, recycled, and even stored. The potential universe of hazardous wastes is limitless. Some substances are mentioned by chemical name. Most are not. Unnamed wastes, such as "spent solvents, "sludges," and "by-products," for example, that exhibit one of the four hazard characteristics mentioned above, are regulated as hazardous.

First, though, you need to thoroughly understand the issues involved with hazardous waste determination.

Here's the logic you should follow in building that understanding:

- Are You a Typical SQG?
- Have You Conducted a Waste Inventory?
- Have You Assembled Raw Material Data?
- What Exemptions are Available?
- Is the Waste Listed?

- Does the Waste Exhibit a Hazardous Characteristic?
- Are You Obeying all the Rules?

Question 1: Have You Conducted a Waste Inventory?

For most SQGs, the easiest inventory approach is to ask production and maintenance personnel about wastes, tour your production and nonproduction areas, and inspect storage areas and dumpsters.

It is important to identify: (1) what wastes you generate, (2) the quantity you generate, and, ultimately, (3) how you discard the wastes.

To help you to inventory your wastes, use the form found in Section 8 of this manual and list your wastes by name and quantity:

You can then proceed to determine what wastes on the list are hazardous.

Question 2: Have You Assembled Data on Your Raw Materials?

Since wastes usually begin with the raw materials you use, information on those materials will greatly assist you in understanding whether your wastes are hazardous.

Often, the right phone call or a look at the appropriate information sheet may rule out the need to have your wastes analyzed by a laboratory. If the raw material was considered a hazardous substance, the waste it creates will likely be so as well. Hazardous waste characterization information may be available from your trade association, your chemical vendor, or your waste hauler.

Such information may also be available on the material safety data sheets that came with many of the materials. You should receive (or you must generate if you are a chemical manufacturer) and 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.

Let's look more closely at how the characteristics are defined (wastes identified as hazardous by characteristic carry the code "D"):

Ignitable. A waste is considered hazardous if it is easily combustible or flammable. Specifically, the wastes must have *a flash point of less than 140 F: A* solid waste is ignitable if it can burn spontaneously and burn persistently. Oxidizers are generally considered ignitable under this definition.

Examples
D00 1 -Spent mineral spirits
D001—Spent lacquers
D00 1—Spent Stoddard solvent

Corrosive. A waste is considered hazardous if it dissolves metals or other materials, or burns the skin. Specifically, the wastes must have a pH of 2 or less (acids) or a pH of 12.5 or more (bases or caustics).

Examples
D002—Spent sulfuric acid
D002—Spent naval jelly
D002—Spent strippers

Reactive. A waste is considered hazardous if it is unstable or undergoes rapid or violent chemical reaction, often explosion, with water or other materials. Reactive wastes also, under certain conditions, can release toxic vapors. Most SQGs will not encounter reactive wastes as often as those with other characteristics.

Examples
D003 - Waste hydrogen cyanide
D003 - Waste hydrogen sulfide

Toxic. A waste is considered toxically hazardous if it is poisonous or can cause cancer, mutations, illness, or death. This could include an enormous universe of chemicals, but it does not. The regulations currently contain a list of just 14 substances that, if present in an extract of the waste stream at threshold concentrations, render the entire waste stream subject to regulation as a hazardous waste.

Testing involves extracting the liquid portion of the waste in such a way that the procedure itself simulates landfill leaching. For this reason, the analytical method is often referred to as the Toxicity Characteristic Leaching Procedure (TCLP or "T-Clip") extraction test. Currently, EPA has set thresholds for 25 toxic constituents, but the Agency should soon finalize standards for many additional toxic metals, and organic and inorganic chemicals.

Examples
D004 Spent arsenicals
DOO 7/DOO Most paints with toxic metals (chromium, lead)
D008—Lead dross/scrap from batteries
DO 11—Spent silverplating waste

Question 6: Are You Complying With Two Special Rules?

At this point, you may be starting to realize that all of the above determination methods are based on the idea that you have, and can isolate, a single specific waste from one process. What if, as is often the case, several kind of wastes are thrown together, as in a single barrel in the comer, waiting for pickup? This turns what may have started out as waste oil (not a regulated substance in most states) into a hazardous waste which can greatly increase the quantity of hazardous waste you generate.

There are two additional rules that SQGs must understand. The first is called the "mixture rule," and the second, the "derived-from rule." Both are relatively easy to understand.

"Mixture rule." Unless permitted to do so by the EPA or the state hazardous-waste management agency, intentionally mixing a hazardous waste with a nonhazardous waste brings *the entire mixture* under regulation as a hazardous waste. For example, when contaminated solvent is mixed with waste oil in the same drum.

A notable exception to this "treatment rule" is altering pH. Check with your hazardous-waste management agency or local treatment plant concerning pH adjustments.

"Derived-from rule." This rule is even more basic:

Any waste derived from a *listed* hazardous waste is a hazardous waste.

An obvious example of this is the incineration of contaminated solvent, a hazardous waste, which leaves a sludge. The sludge was derived from the original waste so it too is hazardous.

In the case of *characteristic* waste mixtures, if the residue continues to exhibit one or more of the characteristics of the original substance, the waste is **classified as hazardous. Thus, the sludge, ash, dust, or leachate from** hazardous **waste reclamation** (e.g., **distillation stills), incineration, or** treatment may be fully regulated as a hazardous waste.

To determine whether your wastes are regulated, ask yourself:

1. Are they in the exempted list above?

2. Are they named on the EPA's lists?

3. If unnamed, do the MSDSs or other information (labels, brochures, spec sheets, correspondence, shipping papers) concerning the raw materials that created the wastes indicate one of RCRA's four hazardous characteristics?

4. Is the waste listed in the Warren Waste Management Plans waste data sheets?

Other Waste' Issues to Address

First, you should be aware that there is a subcategory of listed wastes referred to as "acutely hazardous. " These wastes are so dangerous, even in small amounts, that if you generate more than 1 kg (approximately 2.2 pounds) of these wastes in a calendar month, you are subject to all of the "large-quantity" generator requirements.

These wastes are primarily pesticides and are neither typically generated nor stored by SQGs.

Second, other wastes, must also be addressed—but not under RCRA. For example, wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than 50 ppm are wastes whose disposal is regulated by the Toxic Substance Control Act (TSCA), and appropriate state regulations.

Brake pads and linings containing asbestos must also be disposed of properly. EPA regulations require that asbestos be disposed of in a doublewalled plastic bag marked "Asbestos." While some local landfills will accept these bags, it is increasingly common to have to pay for these wastes to be taken to a special commercial landfill.

Third, check the Warren Waste Management Plans data sheets to review additional wastes.

Summary Checklist

Learning to Identify Wastes as Hazardous

1. Assume that all wastes excluding household garbage and paper wastes are potential hazardous wastes.

2. Make a list of all discarded substances, including wastes that are burned, placed in the trash, or poured down the drain.

3. Ask for assistance. For general compliance and notification assistance, contact the Environmental Department

4. Determine which of your wastes are "listed" wastes by comparing your wastes to the lists found in Part 261.31-.33 of 40 CFR (RCRA).

5. Use MSDS information on the product label, lists in this document, and consultation with the Environmental Department, chemical vendors, or waste haulers to determine which wastes are probable "characteristic" wastes.

Other Hints

Once you have determined which wastes are "listed" and which wastes are probable "characteristic" wastes, your waste hauler or an independent EPA-licensed laboratory canperform a waste characterization on your wastes to answer any uncertainties.

Try to avoid unnecessary and expensive private laboratory analysis. Industry-specificwaste streams are generally similar and can easily be identified by a RCRA compliance expert.

Be sure to test any chemicals that could be contaminated with heavy metals.

Remember, ignorance of a waste's hazard characteristics is not a legal defense. Be sure to identify all hazardous waste streams.

Finally, no matter what the legal status of a waste, and even if it is "exempted" (e.g., lead-acid batteries destined for reclamation), remember that these remain substances dangerous to human health and the environment. Treat them as such.

Specific Help

In Section 5 of this manual, you will find charts of hazardous (and non-hazardous) wastes commonly generated by NGC natural gas and NGL facilities. The following paragraphs discuss wastes typically generated in the natural gas industry.

5

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.

HYDRATION

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:

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

$$(HO - CH_2 - CH_2 - NH_3)\,2\,S + H_2S \leftrightarrows 2\,(HO - CH_2 - CH_2 - NH_2)\,HS + Heat$$

Wastes generated in amine sweetening include spent amine, used filter media, and acid gas which must be flared, incinerated or sent to a sulfur recovery facility.

In the iron sponge treating process, iron oxide reacts with hydrogen sulfide to form iron sulfide. Iron sponge is composed of finely divided iron oxide, coated on a carrier such as wood shavings.

The chemical reaction for the removal of hydrogen sulfide with the iron sponge treating process is as follows:

$3H_2S + Fe_2O_3 \nearrow Fe_2S_3 + 3H_2O$

The iron sponge process is generally used for treating gas at pressures less than 50 psig with total hydrogen sulfide content under 100 grains per 100 standard cubic feet. There is no limit to treating pressure; however, due to inherent gas velocity limitations through the treating bed, most high pressure applications are limited due to the economics of bed size and bed life. Wastes generated in the iron sponge process are iron sulfide and wood shavings.

Small volumes of hydrogen sulfide may also be removed from natural gas and NGLs by contact with a caustic solution which is reused until spent. Most caustic treaters utilize a 15 to 20 percent by weight sodium hydroxide solution wherein the caustic consumption is approximately 2.4 pounds per pound of hydrogen sulfide removed and 1.9 pounds per pound of carbon dioxide removed. Most caustic treaters consist of a simple vessel holding the caustic solution through which gas is allowed to bubble.

The chemical reaction for removal of hydrogen sulfide with caustic is as follows:

$H_2S + NaOH \nearrow Na_2S + 2H_2O$

The primary waste from caustic treating is spent caustic solution. Use of other sulfur converting compounds such as sulfa-check are employed in one-step processes for the removal of low levels of hydrogen sulfide. Here, a direct conversion occurs at ambient temperature that uses a single contact vessel. Natural gas bubbles through the vessel until the sulfur converting compound is spent. The spent material is a nonhazardous slurry of sulfur and salts.

Dedicated sulfur recovery facilities for high hydrogen sulfur content gas or high throughput facilities may use catalytic processes. Here, hydrogen sulfide is removed from sour natural gas using amine or sulfinol solutions.

As part of the regeneration process, hydrogen sulfide is driven out of solution. The hydrogen sulfide is then burned in the presence of oxygen to produce sulfur dioxide. A mixture of hydrogen sulfide and sulfur dioxide, when passed over a heated catalyst, forms elemental sulfur.

This process is known as the Claus process. It uses inert aluminum oxide, in pellet form, as a catalyst. The catalyst does not react in the sulfur making process. The aluminum oxide catalyst simply provides a greater surface area to speed and assist the process.

Molecular sieve absorbents are used to remove hydrogen sulfide, mercaptans, and heavier sulfur compounds from gases and NGLs. Simultaneous sweetening and dehydration may be accomplished in the same unit. Molecular sieve sweetening is a regenerable batch type operation which requires at least two beds for continuous processing. One bed is sweetening gas while the other is being regenerated.

Waste materials generated may include water vapor, which is vented, condensed or contained within the molecular sieve; regeneration gas which is used as a fuel source or recombined and sent to sales; and spent molecular sieve.

NGL RECOVERY

Gas plants provide centralized gas gathering services (such as compression, dehydration, and sweetening) and also recover NGLs which are hydrocarbons heavier than methane which exist as liquids at moderate pressures. NGL recovery is the process by which hydrocarbons such as butane or propane are extracted. NGL extraction may use either compression and/or cooling processes, absorption processes, or cryogenic processes. These processes either absorb heavier molecular compounds from the process stream with an absorption oil that is recycled or use temperature and pressure to separate fractions with different boiling points.

Wastes generated include lubrication oils, spent or degraded absorption oil, waste waters, cooling tower water, and boiler blowdown water.

Plant compression and utility systems (fuel, electrical generators, steam equipment, pump, and sump systems) are necessary to operate gas plants and to raise the pressure of plant residue gas to match sales gas pipeline pressure. Compressors are driven by electric motors, internal combustion or turbine engines. These engines, compressors and utility systems generate used lubrication oils, cooling waters, drips of lubrication and hydraulic oils, wastewaters, varsol used for cleaning equipment, and oily debris such as rags, sorbents and filters.

Liquid wastes should be disposed of via the plant sump system where wash waters, lubrication oils, cooling waters, etc., are typically collected via a series of sumps. Fluids are usually collected from the sumps into a central clarifier/classifier pit where waters are separated for disposal via Class II injection wells, NPDES discharge, or evaporation pits.

Hydrocarbons are recycled by returning them to sales streams or, if sales streams are not available, to waste oil collection and reclamation facilities.

Other solid wastes include filters, which should be disposed of in accordance with applicable regulations

SEPARATORS

Two phase separators isolate produced liquids from gases as they flow from the wells. Three phase separators, with additional float mechanisms, also separate produced water from liquid hydrocarbons and deliver gas, oil or condensate, and water to respective facilities for further processing or sale. The primary waste generated is bottoms, including sand and scale recovered during cleanout operations. A free-water knockout (F WKO) is a vessel which separates free water (water that is not linked to oil in an emulsion) from other produced fluids. Separated produced water then flows into a disposal or injection system. FWKOs are occasionally drained to remove solids and bottom sludges.

HEATER TREATERS

Heater treaters and/or electrostatic treaters separate emulsified oil and water. Occasionally, emulsions which cannot be successfully treated in a single pass ("bad oil") must be placed in a standby oil tank for recycling and further treatment. Produced water which is separated in the treaters goes to a disposal or injection system. As with the FWKO, these vessels are occasionally drained to remove solids and bottom sludges. Vessels which use hay or excelsior sections to absorb minute amounts of oil must be periodically cleaned out and the absorption material replaced.

FILTERS

To improve fluid and water quality, filters are frequently used. Filter media must be replaced or, if permanent, backwashed. Replaceable filters include sock, cartridge, or canister units. Permanent filters may use diatomaceous earth or granular media such as sand or coal.

Permanent filters are periodically backwashed with fresh or produced water sometimes containing a small amount of surfactant. Backwash is circulated to a solids treatment and disposal system where the backwash liquid is then usually returned to the production facilities for reprocessing.

GAS FLOTATION VESSELS

Another type of treatment system utilizes gas flotation. These units are sometimes used to remove small concentrations of insoluble oil and grease from produced water. The units agitate the water by injecting a gas, usually natural gas or air, through the liquid stream. This action flocculates the suspended oil, grease, and dirt. The flocculated materials rise to the surface where they are skimmed off. Depending on the quality of this material, it may be discarded as waste or recovered as oil.

COMPRESSORS

Compressors are used to boost lower pressure gas to sales line pressure, for vapor recovery, or to allow flow into central facilities. Compressors may be electric motor driven or driven by internal combustion or turbine engines.

Wastes generated include engine cooling water and used lubrication oils and filters.

DEHYDRATION AND SWEETENING UNITS

Field dehydration and sweetening units perform the same function as described for gas plants. Wastes include iron sponge, spent glycol, spent amine, spent caustic and filter media.

Scrubbers are used where necessary to separate fluids from gas. After scrubbing, recovered fluids may include condensate, oil and/or produced waters which should be recycled by returning to process facilities.

METHANOL INJECTION AND LINE HEATERS

As gas is produced from a reservoir, its pressure and temperature drop. If sufficient water or water vapor exists in the gas stream hydrates (ice) may form and block flow lines. To prevent hydrate formation, methanol is sometimes injected in low concentrations (ppm) or line heaters are used.

The only waste generated from methanol injection is empty methanol containers. Wastes generated from line heaters include spent thermal fluids (such as glycol, oil or salt mixtures) used to transfer heat from heat sources to the gas stream.

EPA's List of Exempt Exploration and Production Wastes

The following wastes are listed as exempt in EPA's Regulatory Determination submitted to Congress in June 1988:

- Produced water
- Drilling Fluids
- Drill Cuttings

Environmental Guidance, Natural Gas Waste

- Rigwash
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Well completion, treatment, and stimulation fluids
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes
- 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).

6

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.

Monument Plant
Waste Streams
Dynegy Midstream Services, L. P.

ITEM	TYPE	EXPECTED AMOUNT	SOURCE	DISPOSAL METHOD
Filter	Amine, Dust	800 Cartridges/yr	Amine, Oil, Gas filter	Waste Management
	Oil, Product		cases, Air intake	of SE New Mexico
	Charcoal, Air,		cases	
Cooling	Water	700 Bbls/Day	Cooling	Facility Disposal
Tower			Tower	Well
Blowdown				
Boiler	Water	Infrequent, varied	Waste Heat,	Facility Disposal
Blowdown		amounts	Waste Reclaimer	Well
Water			Holman Boiler	
Plant	Paper, Wood,	9 yds/wk	Office, Shop etc	Waste Management
Trash	Cardboard,			of SE New Mexico
	Household items,			
	etc.			
Cooling	Sludge,	2 yards/year	Cooling	Test - Then
Tower	Slurry mix		Tower	Determine.
Basin				Lea Land, Inc.
Sludge				if non-haz.
Oil/Scrubber	Oil sludge, Sand,	Infrequent, varied	Scrubbers, Oil	Test - Then
Tank Bottoms	Dirt, Scrubber	amounts	Tanks	Determine.
				Lea Land, Inc.
				if non-haz.
Solvent	Varsol	200 gals/yr	Parts washing bin	Oil Recovery
				Tank
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
Activated Alumina,		amounts	Plant, Water Treaters	of SE New Mexico
Sulfur Plant, Silica				or
Gel, Catalyst, Ion				Lea Land, Inc.
Exchange, Iron				
Sponge, etc.				
Amine,	DEA	Infrequent negligible	Amine System	Facility Disposal
		amounts		Well
Used Oil	Lub Oils	1500 bbls/yr.	Engines	Added to Scrubber
				Oil Sales
Scrap		Infrequent negligible	Maintenance,	Sold to Scrap
Metals		amounts	Construction	Dealer (Recycled)

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.

SECTION IV

EPA Sampling and Analytical Methods

A detailed EPA sampling guidance document is attached.

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

COMERCIAL SURFACE WASTE MANAGEMENT FACILITIES
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

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
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LF - Landfarm (Solids)
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IN NEW MEXICO

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Hobbs, NM 88241

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Aztec, New Mexico 87410
(505) 325- 6336

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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

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1109 East Broadway
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(505) 398-4960

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Roswell, N.M. 88202
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LOCO HILLS WATER DISPOSAL
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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

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-103
Revised March 25, 1999

WELL API NO. 30-025-13228
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. NA

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: LPG Storage

1. Type of Well: Oil Well ☐ Gas Well ☐ Other LPG Storage
2. Name of Operator: Dynegy Midstream Services, Limited Partnership
8. Well No. 1
3. Address of Operator: 8201 South Highway 322, Monument, New Mexico 88265
9. Pool name or Wildcat: NA
4. Well Location
Unit Letter D : 100 feet from the North line and 100 feet from the West line
Section 1 Township 20 S Range 36 E NMPM County Lea
10. Elevation (Show whether DR, RKB, RT, GR, etc.) BHF

11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☒	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPLETION	☐	CASING TEST AND CEMENT JOB	☐		
OTHER:	☐			OTHER:	☐		

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

Rig up workover rig, pull 4 1/2", 11.35#, N-80 tubing out of well. Run a density log, run a sonar log, then a Gyro Deviation Survey, next a Cement Bond Log, then a Multi-fingered Caliper log, and last a Digital Vertilog. Run new 4 1/2", 11.35#, N-80 tubing back in, while torque-turning & pressure testing each connection. Pressure test wellhead & p-seal, if o.k. rig down workover rig. Perform Nitrogen/Brine Mechanical Integrity Pressure Test, to insure cavern integrity.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Larry W. Malloy TITLE Regional Well Specialist DATE 7/31/00

Type or print name Larry W. Malloy Telephone No. 281-385-3115

(This space for State use)

APPPROVED BY Chris Williams TITLE District Supervisor DATE 8/11/00

Conditions of approval, if any:

TABLE II

PRESSURE FACTOR FOR DETERMINING STANDARD VOLUME OF N_2 IN TUBULARS*

(scf of N_2/ft^3 TUBING/VOLUME)

WELLHEAD PRESSURE IN PSIA	DEPTH IN FEET									
	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
100	6.666	6.678	6.690	6.701	6.712	6.723	6.733	6.744	6.754	6.764
200	13.342	13.363	13.383	13.403	13.423	13.442	13.460	13.478	13.496	13.514
300	20.023	20.051	20.077	20.103	20.128	20.153	20.177	20.200	20.223	20.245
400	26.704	26.736	26.767	26.796	26.824	26.852	26.878	26.904	26.929	26.954
500	33.382	33.416	33.448	33.478	33.507	33.534	33.560	33.586	33.611	33.635
600	40.052	40.085	40.116	40.144	40.171	40.196	40.220	40.242	40.264	40.286
700	46.710	46.740	46.766	46.790	46.812	46.833	46.851	46.869	46.885	46.901
800	53.351	53.375	53.395	53.413	53.428	53.440	53.451	53.461	53.470	53.478
900	59.972	59.987	59.999	60.007	60.012	60.015	60.016	60.015	60.014	60.012
1000	66.567	66.572	66.573	66.569	66.562	66.553	66.541	66.528	66.513	66.499
1100	73.134	73.126	73.112	73.095	73.074	73.049	73.023	72.994	72.965	72.936
1200	79.667	79.643	79.614	79.581	79.543	79.501	79.458	79.412	79.366	79.320
1300	86.162	86.121	86.075	86.022	85.965	85.905	85.842	85.777	85.712	85.647
1400	92.616	92.556	92.489	92.416	92.338	92.256	92.172	92.086	91.999	91.913
1500	99.025	98.943	98.854	98.758	98.657	98.552	98.445	98.335	98.225	98.116
1600	105.386	105.280	105.166	105.046	104.920	104.790	104.656	104.522	104.387	104.254
1700	111.693	111.562	111.422	111.275	111.122	110.965	110.805	110.643	110.481	110.322
1800	117.944	117.785	117.617	117.442	117.261	117.075	116.886	116.696	116.506	116.318
1900	124.135	123.947	123.750	123.545	123.333	123.117	122.897	122.677	122.457	122.240
2000	130.263	130.045	129.816	129.579	129.336	129.088	128.837	128.585	128.334	128.086
2100	136.325	136.074	135.813	135.543	135.267	134.985	134.701	134.416	134.133	133.853
2200	142.317	142.033	141.738	141.434	141.123	140.807	140.489	140.170	139.852	139.540
2300	148.237	147.918	147.587	147.248	146.902	146.550	146.196	145.842	145.490	145.144
2400	154.081	153.726	153.359	152.984	152.601	152.213	151.823	151.432	151.045	150.663
2500	159.848	159.455	159.052	158.638	158.218	157.793	157.366	156.938	156.514	156.097
2600	165.534	165.103	164.662	164.210	163.752	163.289	162.823	162.353	161.897	161.443
2700	171.137	170.668	170.187	169.697	169.200	168.698	168.194	167.691	167.192	166.701
2800	176.654	176.146	175.626	175.097	174.560	174.019	173.476	172.934	172.397	171.869
2900	182.084	181.537	180.977	180.408	179.832	179.251	178.669	178.088	177.513	176.946
3000	187.425	186.837	186.238	185.629	185.013	184.393	183.771	183.151	182.536	181.932
3100	192.674	192.047	191.408	190.759	190.103	189.442	188.781	188.121	187.468	186.826
3200	197.831	197.164	196.484	195.795	195.099	194.399	193.698	192.999	192.307	191.650
3300	202.893	202.186	201.467	200.738	200.002	199.262	198.521	197.780	197.059	196.363
3400	207.860	207.113	206.354	205.585	204.810	204.030	203.224	202.440	201.683	200.953
3500	212.729	211.943	211.145	210.337	209.523	208.654	207.806	206.986	206.196	205.437
3600	217.500	216.675	215.839	214.992	214.068	213.160	212.278	211.428	210.610	209.824
3700	222.172	221.309	220.435	219.473	218.511	217.570	216.659	215.781	214.938	214.128
3800	226.745	225.844	224.892	223.886	222.887	221.915	220.975	220.071	219.203	218.370
3900	231.216	230.404	229.357	228.290	227.246	226.235	225.263	224.330	223.434	222.576
4000	235.587	234.719	233.635	232.539	231.467	230.431	229.435	228.479	227.562	226.682
4100	240.685	239.377	238.130	236.939	235.801	234.715	233.677	232.684	231.735	230.826
4200	244.884	243.548	242.274	241.058	239.896	238.788	237.728	236.714	235.744	234.815
4300	249.026	247.664	246.364	245.123	243.939	242.807	241.725	240.690	239.700	238.751
4400	253.113	251.724	250.399	249.134	247.926	246.775	245.669	244.614	243.604	242.636
4500	257.146	255.730	254.380	253.092	251.862	250.682	249.562	248.486	247.456	246.469
4600	261.126	259.685	258.310	256.998	255.745	254.543	253.404	252.308	251.259	250.253
4700	265.054	263.587	262.188	260.854	259.579	258.361	257.196	256.080	255.012	253.987
4800	268.931	267.439	266.017	264.659	263.363	262.121	260.939	259.804	258.717	257.674
4900	272.758	271.242	269.796	268.416	267.099	265.839	264.635	263.481	262.375	261.314
5000	276.536	274.996	273.527	272.126	270.787	269.508	268.284	267.111	265.987	264.909
5100	280.266	278.702	277.211	275.788	274.429	273.130	271.887	270.696	269.554	268.458
5200	283.949	282.362	280.849	279.405	278.026	276.707	275.445	274.236	273.077	271.963
5300	287.586	285.976	284.441	282.976	281.577	280.240	278.959	277.733	276.556	275.425
5400	291.177	289.545	287.989	286.504	285.085	283.729	282.430	281.186	279.992	278.845
5500	294.724	293.070	291.493	289.988	288.550	287.175	285.859	284.598	283.387	282.224
5600	298.227	296.552	294.954	293.429	291.973	290.580	289.247	287.968	286.741	285.561
5700	301.687	299.991	298.373	296.829	295.354	293.944	292.593	291.298	290.055	288.859
5800	305.106	303.388	301.751	300.188	298.695	297.267	295.900	294.588	293.329	292.118
5900	308.483	306.745	305.088	303.507	301.996	300.551	299.167	297.840	296.565	295.338
6000	311.819	310.062	308.386	306.787	305.258	303.796	302.396	301.053	299.763	298.521

MIT WELL DATA SHEET
AND ESTIMATED TEST PARAMETERS

1.0 WELL DESCRIPTION

1.1 NAME		STORAGE WELL #1	
1.2 OPERATOR		DYNEGY	
1.3 LOCATION	FIELD	MONUMENT	
	COUNTY	LEA	
	STATE	N.M.	
1.4 CEMENTED CASING	SIZE	7	INCHES
	DEPTH	1570	FEET
	WEIGHT	23	LBS/FT
	GRADE		
1.5 HANGING CASING STRING	SIZE	4 1/2	INCHES
	DEPTH	1887	FEET
	WEIGHT	11.6	LBS/FT
	GRADE		
1.6 TOTAL DEPTH		1902	FEET

2.0 TEST PRESSURES

2.1 CASING DEPTH	1570	FEET
2.2 TEST GRADIENT	0.7	PSI/FT
2.3 BRINE SPECIFIC GRAVITY (ASSUMED)	1.19	GM/CC
2.4 NITROGEN TEMPERATURE	90	DEG.F.
2.5 CASING SEAT PRESSURE	1099	PSIA
2.6 SURFACE TUBING PRESSURE	287	PSIA
2.7 SURFACE NITROGEN PRESSURE	1044	PSIA

3.0 VOLUMES

3.1 VOLUME OF ANNULUS	31	BBLS
3.2 VOLUME OF NITROGEN IN ANNULUS	11,200	SCF
3.3 VOLUME OF BOREHOLE TO INTERFACE	300	BBLS
3.4 VOLUME OF NITROGEN IN BOREHOLE	114500	SCF
3.5 TOTAL VOLUME TO INTERFACE	331	BBLS
3.6 TOTAL NITROGEN TO INTERFACE	125700	SCF
3.7 CAVERN VOLUME	163183	BBLS

4.0 COMPRESSIBILITY

4.1 BRINE PRESSURE INCREASE WITH NITROGEN INJECTION	287.0	PSI
4.2 BEGINNING BRINE PRESSURE	0.0	PSIG
4.3 COMPRESSIBILITY	0.5	BBLS/PSI

DYNEGY MIDSTREAM SERVICES, L. P.
STORAGE WELL NO. 1
MONUMENT FIELD
LEA COUNTY, NEW MEXICO

I. INTRODUCTION

1.1 The purpose of the cavern test is to test the mechanical integrity of the Dynegy Midstream Services, L. P. Well No. 1 underground storage cavern in accordance with the guide lines set forth by the State of New Mexico Energy, Minerals, and Natural Resources Department.

1.2 The mechanical integrity test is accomplished by injecting nitrogen into the well casing to below the cemented casing seat, at a given test pressure, and recording the brine pressure, nitrogen pressure and nitrogen/brine interface level throughout a given test period.

1.3 Conditions and circumstances unforeseen or beyond the control of Sonic Survey's, Inc. may require altering this procedure during the test.

II. PREPARATION

2.1 The customer provides to Sonic Surveys, Inc. the physical description of the well, the maximum operating pressure at the wellhead and casing seat, and the desired test pressure gradient.

2.2 Customer prepares wellhead to allow nitrogen injection, simultaneous well logging, and attachment of pressure measuring gauges.

2.3 Sonic Surveys, Inc. attaches pressure recorders and dead weight gauges capable of displaying pressure changes of 1 P.S.I. to both brine and product sides of the wellhead. Digital pressure transducers with certified accuracy of .1 psia on the tubing and .2 psia on the annulus are connected to the well head. The calibrated pressure transducer's signals will be sent to a remote data collection and storage device which will allow continuous monitoring and storage of annulus and tubing pressures. The digital, recorded pressures will be retrieved at the test completion and may be used as a basis for test results, calculations, or conclusions.

2.4 An inspection of the wellhead will be performed for external corrosion, faulty valves and packing or gasket leaks. The customer will make repairs as needed.

III. NITROGEN INJECTION

3.1 Temperatures will be recorded from surface to below the expected nitrogen/brine interface level. A temperature log of the test interval will be recorded.

3.2 A density base log will be run before nitrogen injection begins, a minimum of 50' below expected nitrogen/brine interface level to a minimum of 50' above cemented casing seat.

3.3 The density logging tool, in time drive mode, is spotted at a point determined by the test supervisor. Nitrogen is injected into the cemented casing at a constant, specified rate and temperature. When the nitrogen/brine interface is observed by the density logging tool, brine pressure, nitrogen pressure, and time of injection are recorded. The density logging tool is lowered the next point specified by the test supervisor and brine pressure, nitrogen pressure and time of injection are again recorded as the density logging tool indicates the nitrogen/brine interface. This procedure is repeated until the nitrogen/brine interface is approximately 50 feet or less above the final cemented casing seat.

3.4 Nitrogen injection is stopped in order to test the cemented casing string. An initial interface log is recorded of the interface in the cemented casing. Nitrogen and brine dead weight readings are recorded. The wellhead and associated piping and connections are checked for leaks and any leaks repaired. After a time interval determined by the test supervisor but not less than thirty minutes, a second interface log is recorded of the interface in the cemented casing. Nitrogen and brine dead weight readings are recorded. If nitrogen pressure has maintained constant and the nitrogen/brine interface in the cemented casing has not moved, the cemented casing string is considered tight and nitrogen injection is resumed. If the nitrogen/brine interface in the cemented casing moves uphole and the nitrogen pressure drops the well head is again checked for leaks and the casing test is extended. This procedure is repeated until the casing is considered tight or a leak is identified. The test supervisor may waive the pipe test or end the pipe test at any time.

3.5 Nitrogen injection is resumed until the nitrogen/brine interface reaches the final cemented casing seat. The time, nitrogen and brine pressures, and total volume of nitrogen injected into the well are recorded. During nitrogen injection, brine will be released under pressure through the tubing string as needed to maintain the annulus nitrogen surface pressure at the desired test pressure.

3.6 When the specified test pressure is reached, the time of injection, brine and nitrogen dead weight pressure readings, nitrogen/brine interface depth, and total volume of nitrogen injected into the well are recorded. If the desired annulus nitrogen surface pressure has not been reached, brine will be injected into the tubing in order to raise the surface annulus nitrogen pressure to the desired test pressure.

3.7 A Post Injection density log will be recorded from a minimum depth of 50' below the nitrogen/brine interface to a depth no less than 50' above the cemented casing seat. A temperature log of the test interval will be recorded.

3.8 The logging tool will be removed from the well, the valve closed, and the wellhead checked for leaks.

IV. TEST START- INITIALIZATION

4.1 After a stabilization period determined by the test supervisor, Test Start density and temperature logs are recorded. The nitrogen pressure rate of decay must be less than 10 psi/ 24 hours or Dynegy Midstream Services, L.P. may determine an acceptable rate of decay. The pressure decay rate may be interpolated for stabilization periods less than 24 hours.

4.2 Time and brine and nitrogen dead weight pressure readings will be recorded along with the depth of the nitrogen/brine interface and this time is designated as the official start of the cavern test.

V. TEST END - FINALIZATION

5.1 At the end of the specified test period, Test Finish density and temperature logs are recorded. The test period will not be less than 24 hours but will be sufficient time to ensure a sensitive test. Test sensitivity is determined by a minimum detectable leak rate of 1000 barrels or less of nitrogen per year or a minimum detectable leak rate acceptable to Dynegy Midstream Services, L.P.

5.2 Time and brine and nitrogen dead weight pressures and the nitrogen/brine interface depth are recorded, and this is designated as the official end of the cavern test.

VI. REPORTS ON TEST RESULTS

A detailed written report of the test procedures, results, and conclusions on the mechanical integrity test will be furnished to Dynegy Midstream Services, L. P. in a timely manner.

Run the following wireline logs:

(not necessarily in the following order, depending on tool availability)

1)	Sonar Log:	to determine the cavern shape and size.
2)	Densitv Log:	looking for a trapped product behind cemented casing.
3)	Deviation Log:	looking for a shift in the formation.
4)	Casing Caliper Log:	to determine inside diameter of cemented casing (internal corrosion).
5)	Cement Bond Log:	to determine the bonding of cement to casing.
6)	Corrosion Analysis Log: (Vertilog by Dresser-Atlas	to determine inside and outside corrosion on casing.

After evaluation of the logs two decisions have to be made: one to install a liner if the cemented casing is severely corroded, and the other one to change the hanging depth of the hanging string if the cavern bottom has moved upwards.

Start running casing into hole. Torque each coupling to so many ft/lb, depending on casing size, casing weight and coupling connection. Test same externally to so many psig depending on casing size and casing weight. Test duration should be one minute.

Land casing string with landing spear or landing joint.

Nipple down Hydril, install wellhead spool and master valve. Test spool and casing hanger to so many psig, depending on wellhead design. Test period should be five minutes. Install wing valves and wing lines. Rig down and move rig off location.

Prepare wellhead for nitrogen test.

Rule 95

N_2 1000 ppm/year

AUG 2 1

Wayne,

Per our telephone conversation I revised these waste stream lists for Monument, Saunders, and Vada.

I talked to Larry Gandy and he said his disposal facility is permitted for the wastes we talked about so I replaced Lea-Land with Gandy Marley Inc.

Also I added the contaminated soil as a waste stream.

Thanks, Cal

Cal Wrangham
Environment, Safety and Health Advisor

Dynegy Midstream Services, L.P.
Permian Basin Region
6 Desta Drive, Suite 3300
Midland, Texas 79705
Phone 915.688.0542 • Fax 915.688.0552
Home 915.697.6580 • Cellular 915.425.7072
email cwwr@dynegy.com

DYNEGY

Monument Plant
Waste Streams
Dynegy Midstream Services, L. P.

ITEM	TYPE	EXPECTED AMOUNT	SOURCE	DISPOSAL METHOD
Filter	Amine, Dust	800 Cartridges/yr	Amine, Oil, Gas filter	Waste Management
	Oil, Product		cases, Air intake	of SE New Mexico
	Charcoal, Air,		cases	
Cooling	Water	700 Bbls/Day	Cooling	Facility Disposal
Tower			Tower	Well
Blowdown				
Boiler	Water	Infrequent, varied	Waste Heat,	Facility Disposal
Blowdown		amounts	Waste Reclaimer	Well
Water			Holman Boiler	
Plant	Paper, Wood,	9 yds/wk	Office, Shop etc	Waste Management
Trash	Cardboard,			of SE New Mexico
	Household items,			
	etc.			
Cooling	Sludge,	2 yards/year	Cooling	Gandy Marley, Inc.
Tower	Slurry mix		Tower	
Basin				
Sludge				
Oil/Scrubber	Oil sludge, Sand,	Infrequent, varied	Scrubbers, Oil	Gandy Marley, Inc.
Tank Bottoms	Dirt, Scrubber	amounts	Tanks	
Solvent	Varsol	200 gals/yr	Parts washing bin	Oil Recovery
				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
		amounts		Well
Used Oil	Lub Oils	1500 bbls/yr.	Engines	Added to Scrubber
				Oil Sales
Scrap		Infrequent negligible	Maintenance,	Sold to Scrap
Metals		amounts	Construction	Dealer (Recycled)
Soil contaminated	N/A	Infrequent various	Pipeline Leaks	NMOCD Permitted
with hydrocarbons		amounts	NGL Liquids	Landfarm

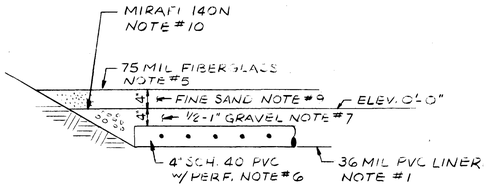
Vada Compressor Station
Waste Streams
Dynegy Midstream Services, L. P.

ITEM	TYPE	EXPECTED AMOUNT	SOURCE	DISPOSAL METHOD
Filter	Amine, Dust	600 Cartridges/yr	Amine, Oil, Gas filter	Waste Management
	Oil, Product		cases, Air intake	of SE New Mexico
	Charcoal, Air,		cases	
Plant	Paper, Wood,	5 tons/yr.	Office, Shop etc	Waste Management
Trash	Cardboard,			of SE New Mexico
	Household items,			
	etc.			
Oil/Scrubber	Oil sludge, Sand,	Infrequent, varied	Scrubbers, Oil	Gandy Marley, Inc.
Tank Bottoms	Dirt, Scrubber	amounts	Tanks	
Solvent	Varsol	100 gals/yr	Parts washing	Oil Recovery
	Cleaning Fluid			Tank (Recycled)
Steel Drums	Lube oil, Antifreeze,	Infrequent, varied	Outside vendors	Emptied and
	Chemicals	amounts		returned to
				vendor.
Concrete		Infrequent, varied	Various in-plant	Waste Management
		amounts		of SE New Mexico
Molecular Sieve,	Solid Particles	Infrequent varied	Dehydrators and	Waste Management
Activated Alumina,		amounts	Treaters	of SE New Mexico
Silica Gel, Ion				
exchange, Iron				
Sponge				
Soil contaminated	N/A	Infrequent varied	Pipeline Leaks	NMOCD Permitted
with hydrocarbons		amounts	NGL Liquids	Landfarm
Used Oil	Lub Oils	1500 bbls/yr.	Engines	Added to Scrubber
				Oil Sales
Scrap		Infrequent varied	Maintenance,	Sold to Scrap
Metals		amounts	Construction	Dealer (Recycled)

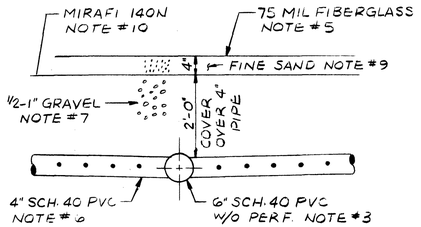
Saunders Plant
Waste Streams
Dynegy Midstream Services, L. P.

ITEM	TYPE	EXPECTED AMOUNT	SOURCE	DISPOSAL METHOD
Filter	Amine, Dust	1600 Cartridges/yr	Amine, Oil, Gas filter	Waste Management
	Oil, Product		cases, Air intake	of SE New Mexico
	Charcoal, Air,		cases	
Cooling	Water	700 Bbls/Day	Cooling	Facility Disposal
Tower			Tower	Well
Blowdown				
Plant	Paper, Wood,	15 tons/yr.	Office, Shop etc	Waste Management
Trash	Cardboard,			of SE New Mexico
	Household items,			
	etc.			
Cooling	Sludge,	2 yards/year	Cooling	Gandy Marley, Inc.
Tower	Slurry mix		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	1500 bbls/yr.	Engines	Added to Scrubber
				Oil Sales
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

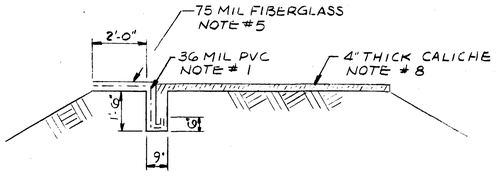
AF 17284



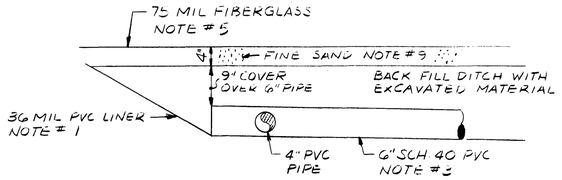
4" PVC DRAIN LATERALS FR. SECTION (A)
DETAIL # 4



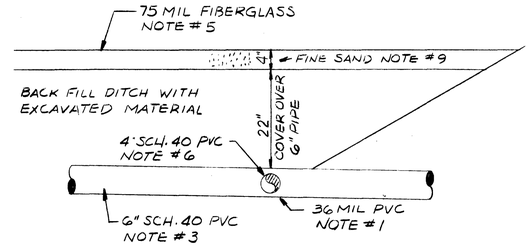
4" PVC DRAIN LATERALS FR. SECTION (A)
DETAIL # 5



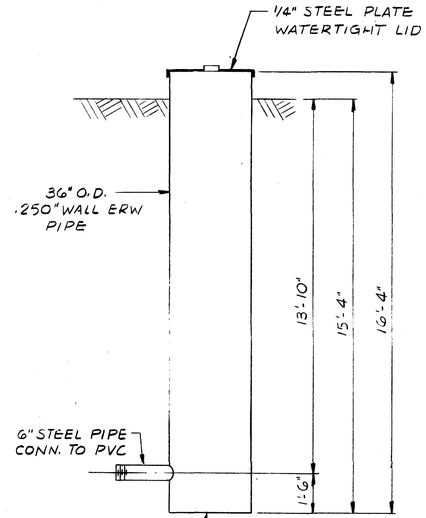
ANCHOR TRENCH DETAIL
DETAIL # 6



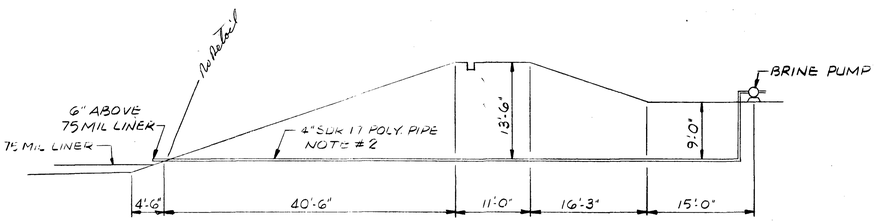
TRUNK LINE DETAIL FR. SECTION (B)
DETAIL # 7



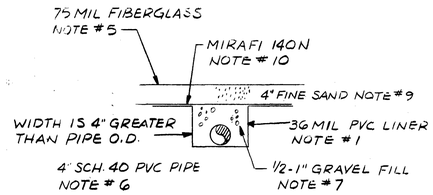
TRUNK LINE DETAIL FR. SECTION (B)
DETAIL # 8



LEAK SUMP
DETAIL # 9



4" SDR 17 POLY. CONNECTION TO BRINE PUMP
DETAIL # 10



TYPICAL DRAIN LATERAL
DETAIL # 11

GENERAL NOTES

GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9006	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE	DATE	PRELIM.	CONST.

WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82349

BRINE POND DETAILS

PLANT NO 118 MONUMENT, N.M.

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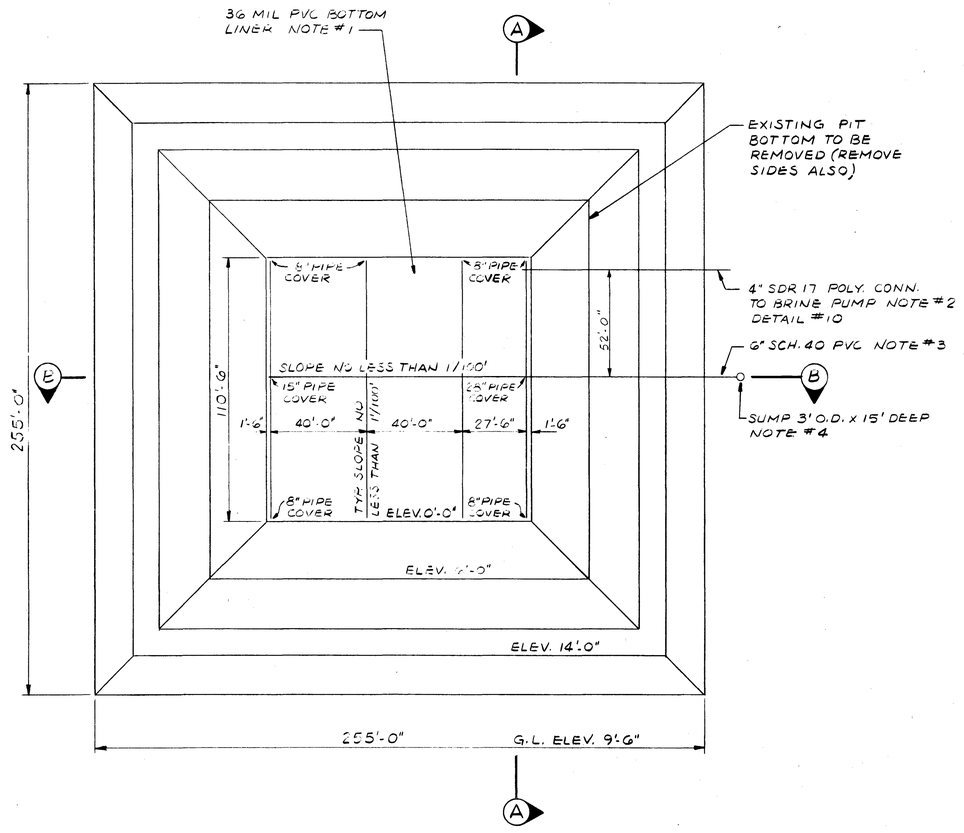
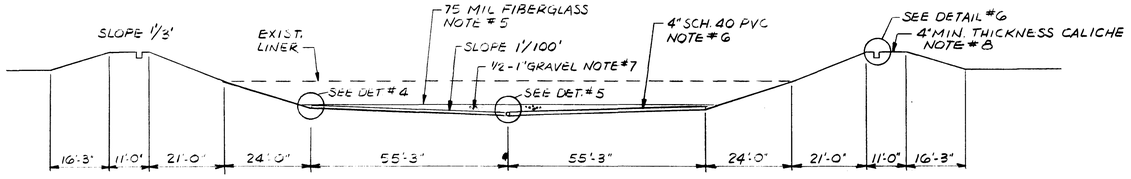
CHECKED	DATE		
APPROVED	DATE	118-9005	

AF 17284



PLAN
SCALE: 1" = 30'



SECTION (A)
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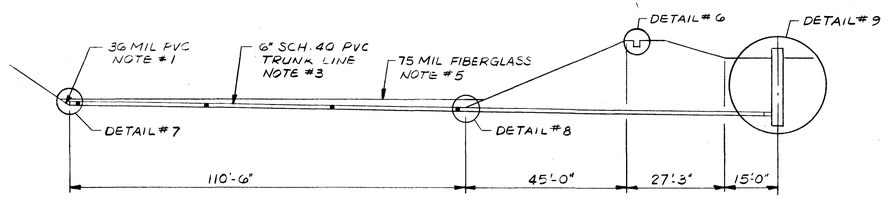

SECTION (B)
SCALE: NONE

NOTES

1. 36 MIL. THICKNESS PVC LINER
2. 4" SDR 17 POLYETHYLENE PIPE ALL JOINTS WELDED.
3. 6" SCH. 40 NON PERFORATED PVC PIPE ALL JOINTS SOLVENT WELDED.
4. SUMP CONSTRUCTED OF 36" ERW PIPE WITH .250" WALL. BOTTOM AND TOP CAPS ARE CONSTRUCTED OF 1/4" STEEL PLATE.
5. 75 MIL MIN. THICKNESS EPA APPROVED FIBERGLASS LINER.
6. 4" SCH. 40 PVC PIPE WITH 5/8" O.D. HOLES DRILLED EVERY 5" SET AT A 120° ANGLE. TOTAL OPEN AREA 1.47 IN^2/FT.
7. 1/2-1" WASHED GRAVEL USED FOR LEAKAGE CANALS.
8. CRUSHED CALICHE 95% PACKED USED TO COVER TOP OF LEVEES.
9. FINE WASHED SAND.
10. MIRAFI 140N SOIL SUPPORT MEDIA.

MATERIAL LIST

ITEM	
36 MIL PVC LINER	44,200 FT^2
75 MIL FIBERGLASS LINER	41,200 FT^2
4" SDR 17 POLY. PIPE	87 FT
4" SCH. 40 PVC PIPE	442 FT
6" SCH. 40 PVC PIPE	198 FT
1/2-1" WASHED GRAVEL	13.6 YD^3
MIRAFI 140N SUPPORT	2,063 FT^2
SAND	114 YD^3
36" .25" WALL ERW PIPE	16'-4"
EXCAVATION	3,251 YD^3
BRINE CAPACITY	2,283,674 GAL.

GENERAL NOTES	GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

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DATE	PRELIM.	CONST.

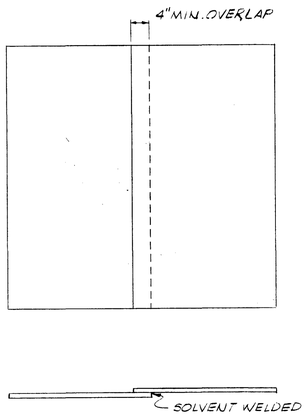
WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82349

BRINE POND PLAN & SECTIONS

PLANT № 118 MONUMENT, N.M.

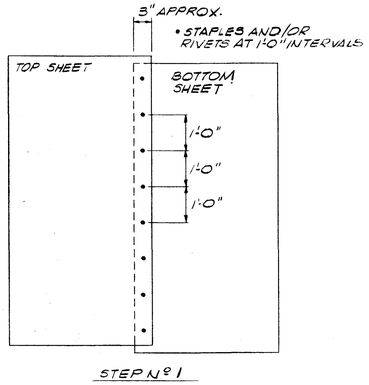
DRAWN KS	DATE 11-3-82	SCALE NOTED	FILE
CHECKED	DATE	118 - 9004	
APPROVED	DATE		

AF 17284

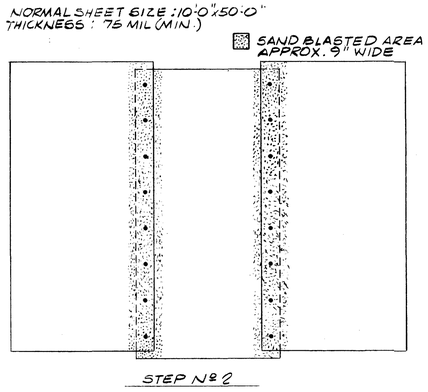


36 MIL PVC LINER SEAM SEALING DETAIL

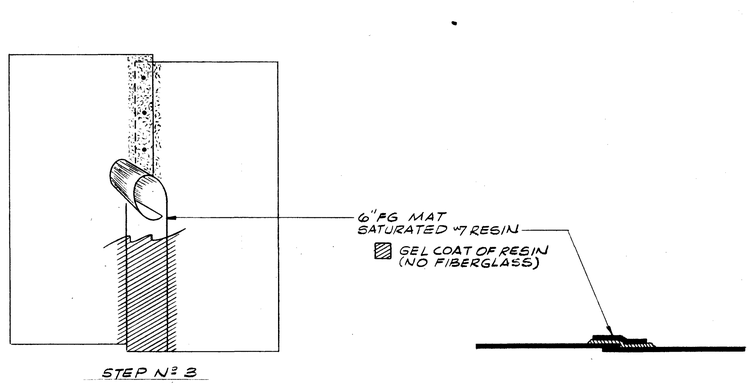
DETAIL #12



STEP Nº 1



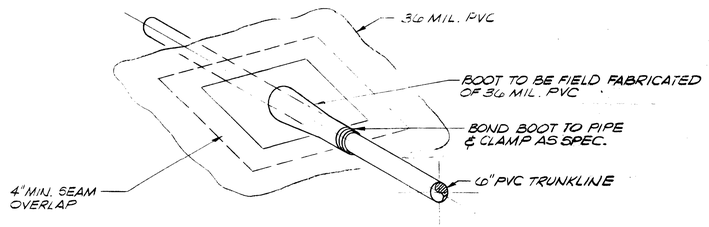
STEP Nº 2



STEP Nº 3

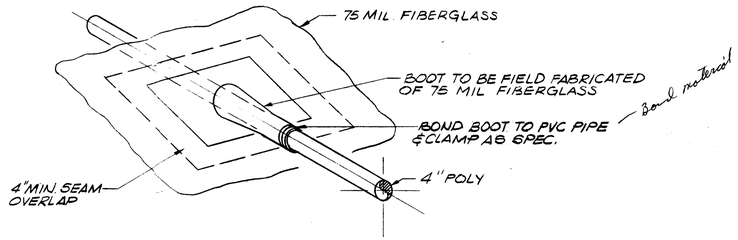
FIBERGLASS LINER SEAM SEALING DETAIL

DETAIL #13



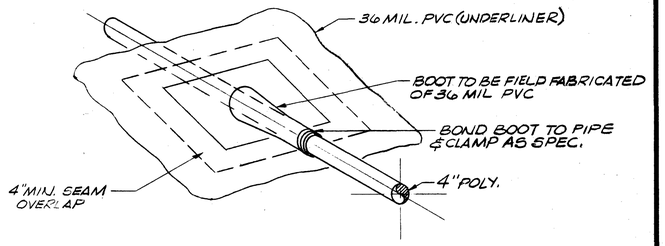
DETAIL OF LINER SEAMS AROUND 6" TRUNKLINE

DETAIL #14



DETAIL OF LINER SEAMS AROUND 4" POLY. LINE

DETAIL #15



DETAIL OF LINER SEAMS AROUND 4" POLY. LINE

DETAIL #16

GENERAL NOTES	GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9005	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE	DATE	PRELIM.	CONST.

WARREN PETROLEUM COMPANY
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GULF 02345

BRINE POND DETAILS

PLANT Nº 118 MONUMENT, N.M.

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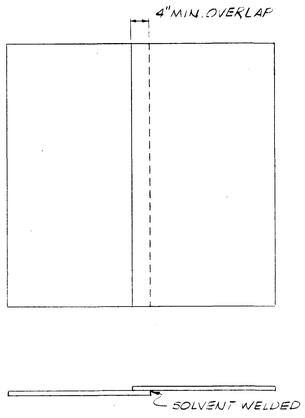
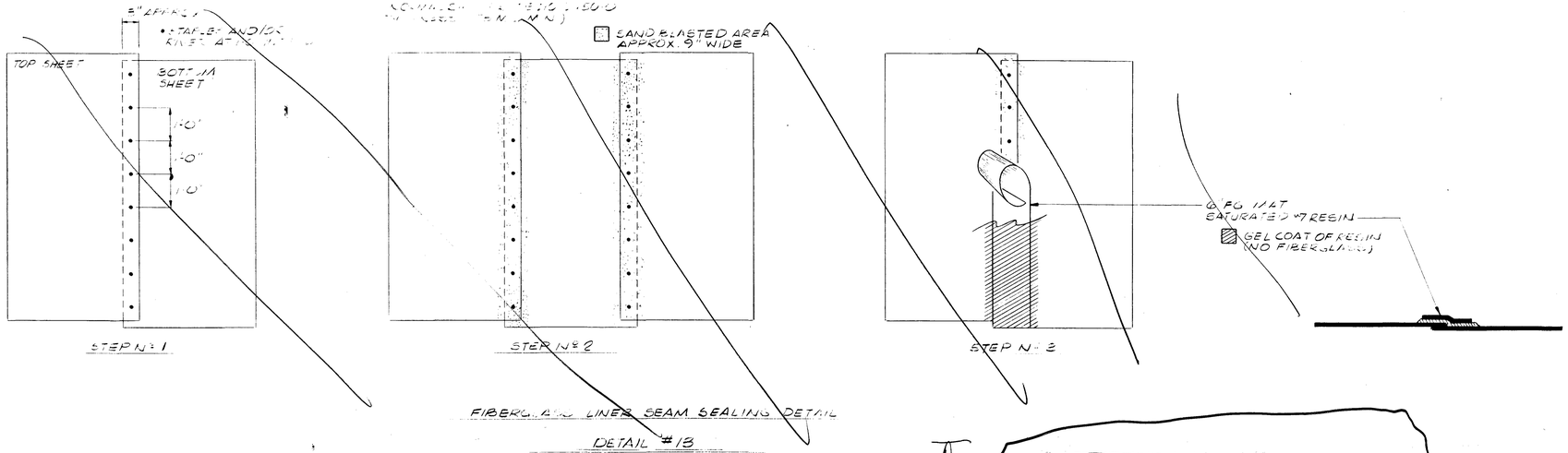
CHECKED	DATE	118-9006	
APPROVED	DATE		

AF 17284



36 MIL PVC LINER SEAM SEALING DETAIL

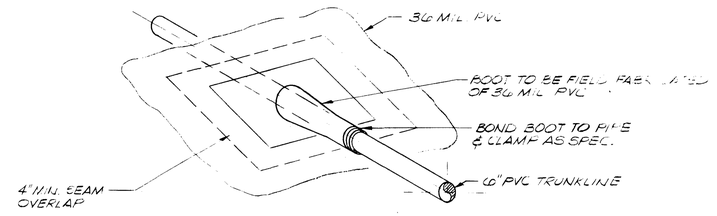
DETAIL #12



FIBERGLASS LINER SEAM SEALING DETAIL

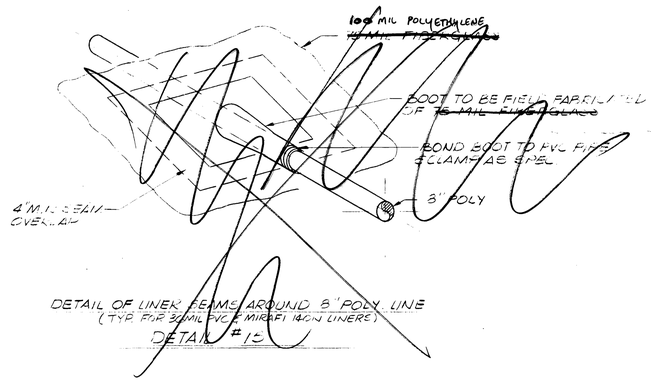
DETAIL #13

PROPOSE USING POLYETHYLENE SEAM TO BE FORMED PER THEIR TECHNIQUE



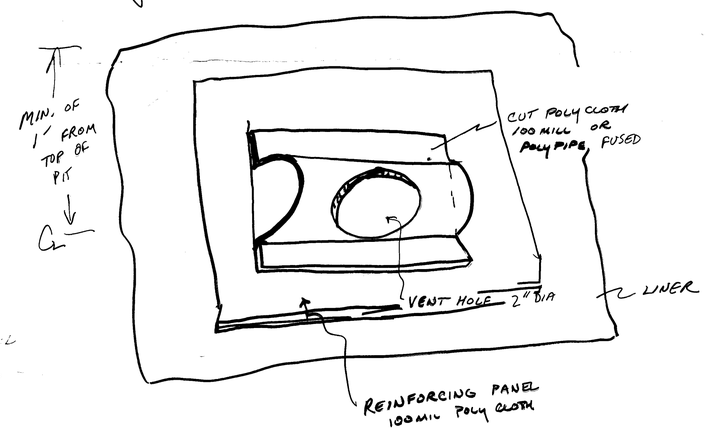
DETAIL OF LINER SEAMS AROUND 6" TRUNKLINE

DETAIL #14



DETAIL OF LINER SEAMS AROUND 3" POLY LINE
(TYP. FOR 30 MIL PVC & MIRAFI 140N LINERS)

DETAIL #15



PROPOSED VENT INSTALLATION SPACING EVERY 50'

GENERAL NOTES

GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9005	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE	DATE	PRELIM.	CONST.

WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82345

BRINE POND DETAILS

PLANT NO 118 MONUMENT, N.M.

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CHECKED	DATE	118-9006	
APPROVED	DATE		

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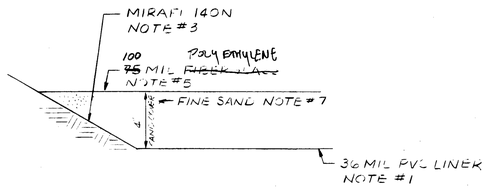
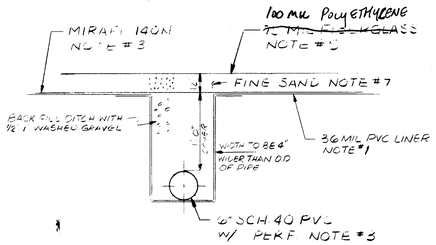
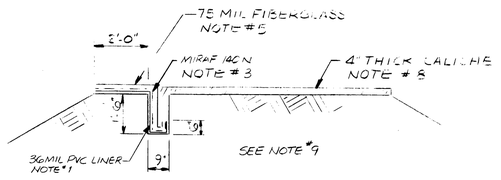


DETAIL # 4



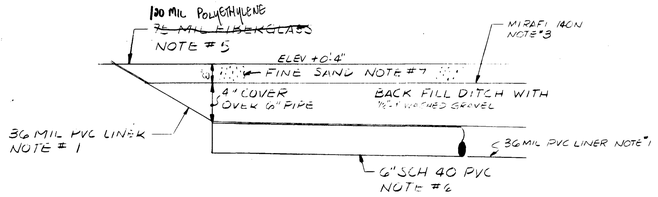
FLOW DIAGRAM FR SECTION (A)

DETAIL # 5



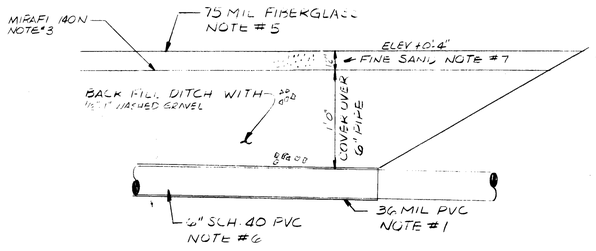
ANCHOR TRENCH DETAIL

DETAIL # 6



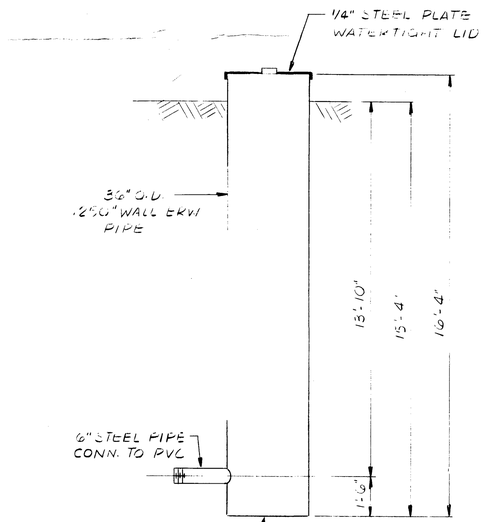
TRUNK LINE DETAIL FR. SECTION (B)

DETAIL # 7



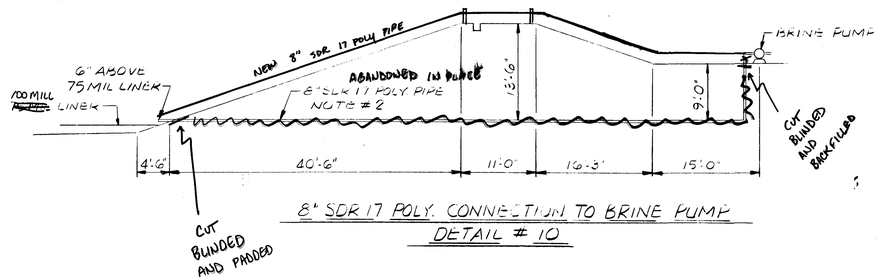
TRUNK LINE DETAIL FR. SECTION (E)

DETAIL # 8



LEAK SUMP

DETAIL # 9



8" SDR 17 POLY. CONNECTION TO BRINE PUMP

DETAIL # 10

GENERAL NOTES

GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9005	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE		
DATE	PRELIM.	CONST.

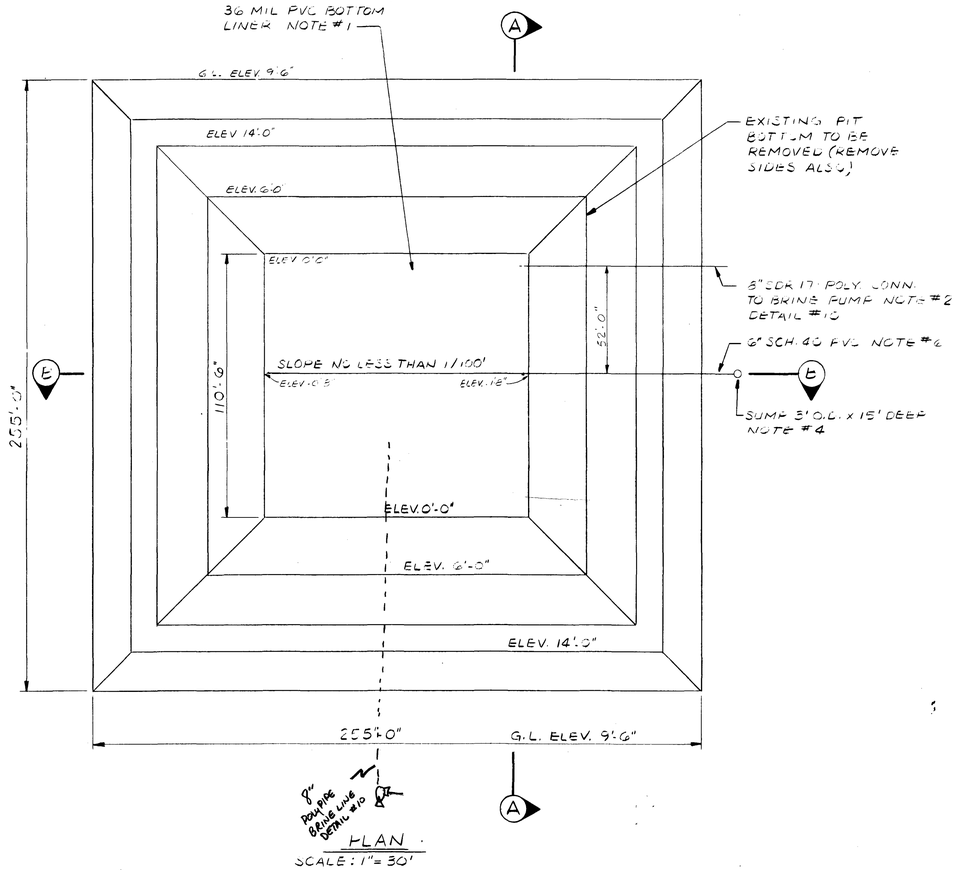
WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82345

BRINE POND DETAILS

PLANT No. 113 MONUMENT, N.M.

DRAWN KS	DATE 11-3-82	SCALE None	FILE
CHECKED	DATE	118-9005	
APPROVED	DATE		

AF 17284



PLAN

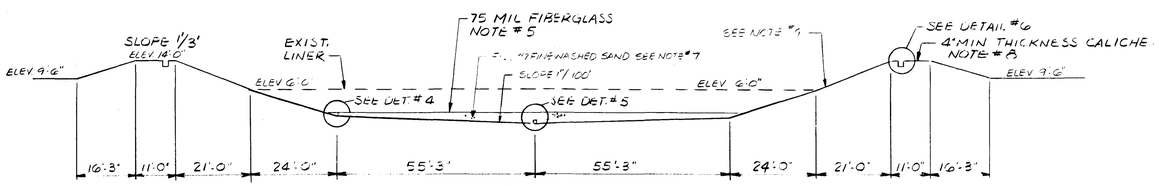
SCALE: 1" = 30'

NOTES

1. 36 MIL. THICKNESS PVC LINER
2. 8" SDR 17 POLYETHYLENE PIPE ALL JOINTS WELDED
3. MIRAFI 140 N SOIL SUPPORT MEDIA
4. SUMP CONSTRUCTED OF 36" ERW PIPE WITH .250" WALL. BOTTOM AND TOP CAPS ARE CONSTRUCTED OF 1/4" STEEL PLATE.
5. ~~75~~ 100 MIL MIN. THICKNESS EPA APPROVED ~~FIBERGLASS~~ POLYETHYLENE LINER
6. 6" SCH. 40 PVC PIPE WITH 5/8" O.D. HOLES DRILLED EVERY 5" SET AT A 120° ANGLE. TOTAL OPEN AREA 1.47 IN²/FT.
7. FINE WASHED SAND USED FOR LEAKAGE CANALS.
8. CRUSHED CALICHE 95% PACKED USED TO COVER TOP OF LEVEES.
9. PVC LINER, MIRAFI SOIL SUPPORT, & ~~FIBERGLASS~~ POLYETHYLENE LINER MUST EXTEND UP SIDES AND ANCHOR INTO DITCH.

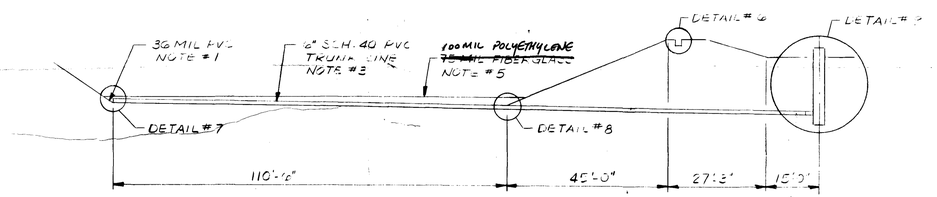
MATERIAL LIST

ITEM	
36 MIL PVC LINER	43,100 FT²
100 MIL POLYETHYLENE ~~75 MIL FIBERGLASS LINER~~	41,200 FT²
8" SDR 17 POLY. PIPE	87 FT
6" SCH. 40 PVC PIPE	198 FT
1/2-1" WASHED GRAVEL	3.7 YD³
MIRAFI 140 N SUPPORT	43,100 FT²
SAND	150 YD³
36" 25' WALL ERW PIPE	16'-4"
EXCAVATION	3,251 YD³
BRINE CAPACITY	2,283,674 GAL.



SECTION (A)

SCALE: NONE



SECTION (B)

SCALE: NONE

WARREN PETROLEUM COMPANY
PROPOSED MODIFICATION OF
SOUTH BRINE STORAGE POND
MONUMENT PLANT

7-18-88 DKC

GENERAL NOTES	GENERAL NOTES	DWG. NO.	REFERENCE DRAWINGS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE		
DATE	PRELIM.	CONST.

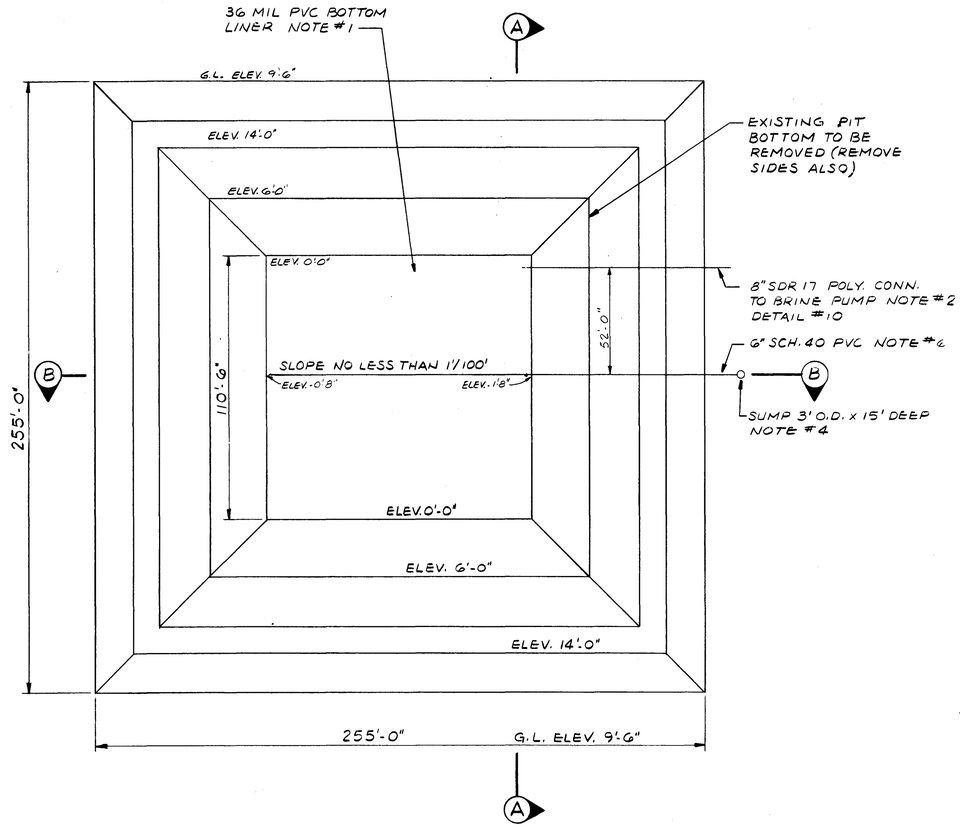
WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82345

BRINE POND PLAN & SECTION

PLANT № 118 MONUMENT, N.M.

DRAWN KS	DATE 11 3 87	SCALE NOTED	FILE
CHECKED	DATE	118-9004	
APPROVED	DATE		

AF. 17284



PLAN
SCALE: 1"= 30'

NOTES

1. 36 MIL. THICKNESS PVC LINER
2. 8" SDR 17 POLYETHYLENE PIPE ALL JOINTS WELDED.
3. MIRAFI 140 N SOIL SUPPORT MEDIA
4. SUMP CONSTRUCTED OF 36" ERW PIPE WITH .250" WALL. BOTTOM AND TOP CAPS ARE CONSTRUCTED OF 1/4" STEEL PLATE.
5. 75 MIL MIN. THICKNESS EPA APPROVED FIBERGLASS LINER.
6. 6" SCH. 40 PVC PIPE WITH 5/8" O.D. HOLES DRILLED EVERY 5" SET AT A 120° ANGLE. TOTAL OPEN AREA 1.47 IN²/FT.
7. FINE WASHED SAND USED FOR LEAKAGE CANALS.
8. CRUSHED CALICHE 95% PACKED USED TO COVER TOP OF LEVEES.
9. PVC LINER, MIRAFI SOIL SUPPORT, & FIBERGLASS LINER MUST EXTEND UP SIDES AND ANCHOR INTO DITCH.

MATERIAL LIST

ITEM	
36 MIL PVC LINER	43,100 FT²
75 MIL FIBERGLASS LINER	41,200 FT²
8" SDR 17 POLY. PIPE	87 FT
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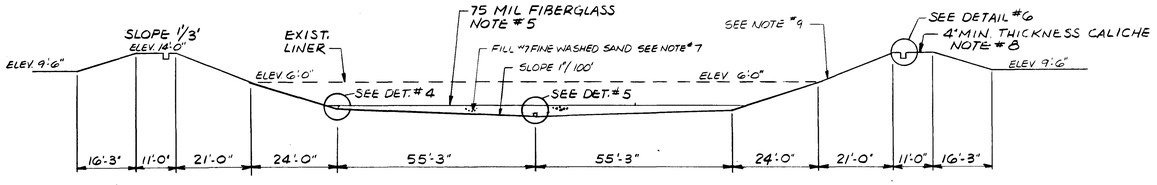
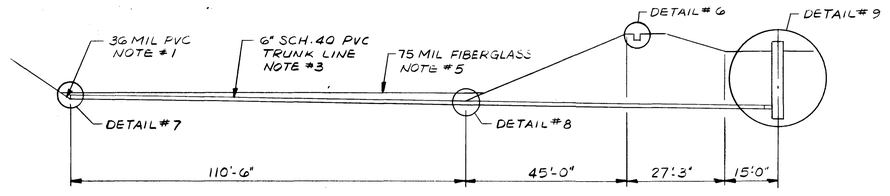
MIRAFI 140 N SUPPORT	43,100 FT²
SAND	150 YD³
36" .25" WALL ERW PIPE	16'-4"
EXCAVATION	3,251 YD³
BRINE CAPACITY	2,283,674 GAL.



SECTION (A)
SCALE: NONE



SECTION (B)
SCALE: NONE

GENERAL NOTES	GENERAL NOTES	DWG. NO.	REFERENCE DRAWINGS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

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DATE	PRELIM.	CONST.

WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 92345

BRINE POND PLAN & SECTIONS

PLANT № 118 MONUMENT, N.M.

DRAWN KS	DATE 11-3-82	SCALE NOTED	FILE
CHECKED	DATE	118 - 9004	
APPROVED	DATE		

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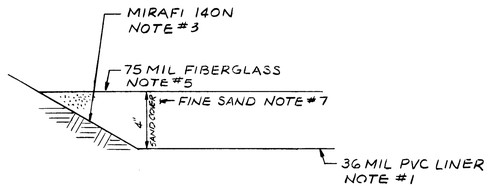
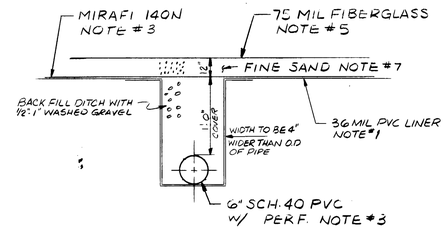
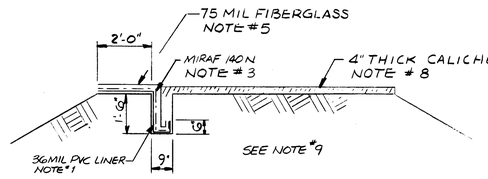


DETAIL # 4



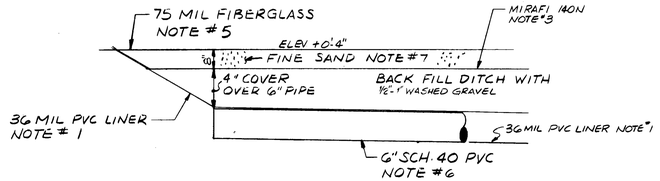
PVC DRAIN LATERAL FR. SECTION (A)

DETAIL # 5



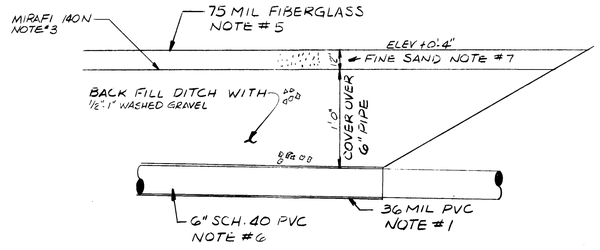
ANCHOR TRENCH DETAIL

DETAIL #6



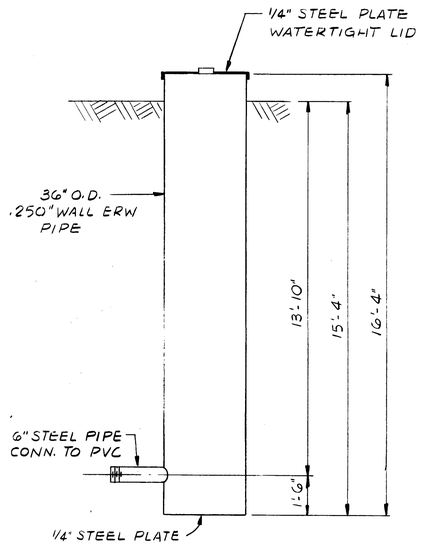
TRUNK LINE DETAIL FR. SECTION (B)

DETAIL # 7



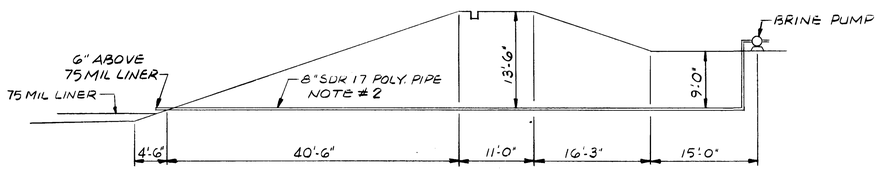
TRUNK LINE DETAIL FR. SECTION (B)

DETAIL # 8



LEAK SUMP

DETAIL # 9



8" SDR 17 POLY. CONNECTION TO BRINE PUMP

DETAIL # 10

GENERAL NOTES

GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9006	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE		
DATE	PRELIM.	CONST.

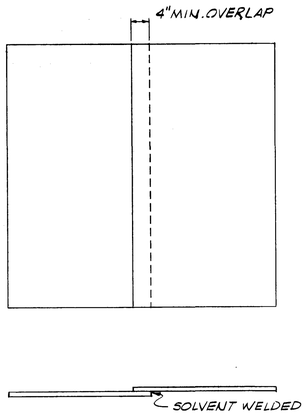
WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82345

BRINE POND DETAILS

PLANT № 118 MONUMENT, N.M.

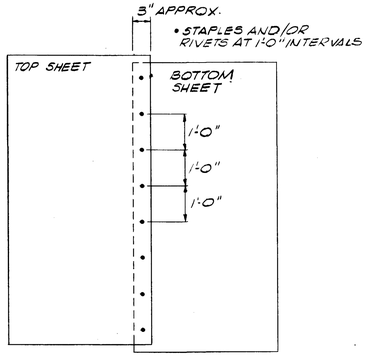
DRAWN KS	DATE 11-3-82	SCALE NONE	FILE
CHECKED	DATE	118-9005	
APPROVED	DATE		

AF 17284

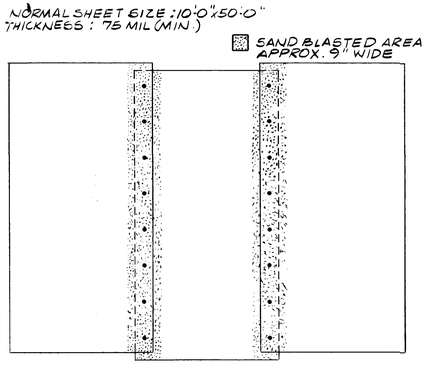


36 MIL PVC LINER SEAM SEALING DETAIL

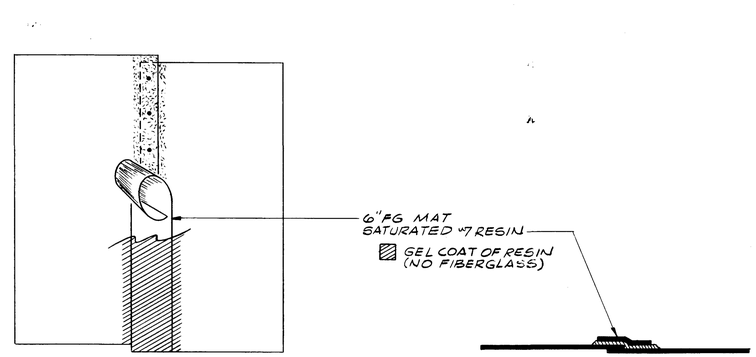
DETAIL #12



STEP Nº 1



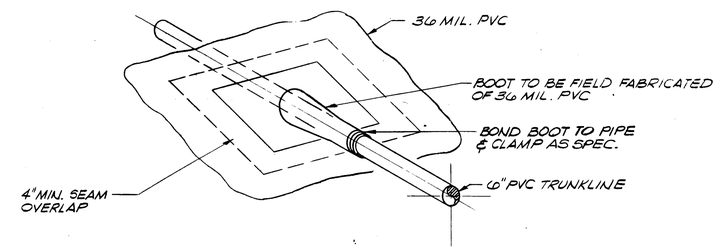
STEP Nº 2



STEP Nº 3

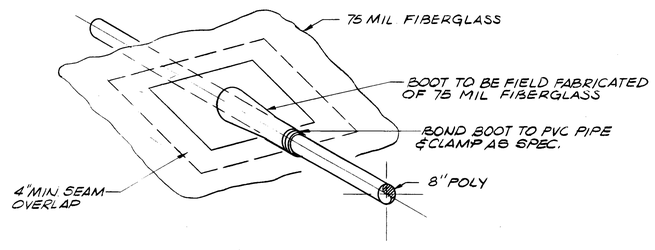
FIBERGLASS LINER SEAM SEALING DETAIL

DETAIL #13



DETAIL OF LINER SEAMS AROUND 6" TRUNKLINE

DETAIL #14



DETAIL OF LINER SEAMS AROUND 8" POLY. LINE
(TYP. FOR 36MIL PVC & MIRAFI 140N LINERS)

DETAIL #15

GENERAL NOTES

GENERAL NOTES

DWG. NO.	REFERENCE DRAWINGS
118-9004	BRINE POND PLAN & SECTIONS
118-9005	BRINE POND DETAILS

NO.	REVISION	BY	DATE	CHK.	APPR.

NO.	REVISION	BY	DATE	CHK.	APPR.

ISSUE		
DATE	PRELIM.	CONST.

WARREN PETROLEUM COMPANY
TULSA, OKLAHOMA
GULF 82345

BRINE POND DETAILS

PLANT Nº 118 MONUMENT, N.M.

DRAWN RWR	DATE 11-3-82	SCALE NONE	FILE
CHECKED	DATE	118-9006	
APPROVED	DATE		