# GW - ____5______

# MONITORING REPORTS

# DATE:
# 2007 to Present

## Chavez, Carl J, EMNRD

**From:** Mark Larson [Mark@laenvironmental.com]
**Sent:** Tuesday, October 19, 2010 6:45 AM
**To:** Chavez, Carl J, EMNRD
**Cc:** VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Johnson, Larry, EMNRD; Leking, Geoffrey R, EMNRD; Wrangham, Calvin W.
**Subject:** Re: Targa Middle Plant (GW-005) Recovery Tables and Graphs
**Attachments:** LNAPL Recovery table and graph 10-4-10.pdf

Carl,
Please find attached tables and graphs in pdf format. Please let me know if I need to mail copies. Sincerely,

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Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/13/2009 | 26.18 | 31.33 | 5.15 | | | | | | | LNAPL Discovered |
| 10/21/2009 | 26.22 | 31.28 | 5.06 | | | | 2.75 | | | LNAPL Recovery Test |
| 11/11/2009 | 26.38 | 31.51 | 5.13 | 27.15 | 2 | 75 | | | | Keck PRS System Installed. Full operation on 11/13/09 |
| 11/19/2009 | 27.26 | 29.16 | 1.90 | 26.5 | 2 | 74 | 21.1 | 27.7 | 1/U | Raised float ~8 inches |
| 11/20/2009 | 27.57 | 27.77 | 0.20 | 26.6 | 2 | 75 | 18.2 | 31.6 | 1/F; 2/U | Well recovery test; 0.20 feet |
| 11/23/2009 | 27.09 | 29.92 | 2.83 | 27.6 | 2 | 75 | 7.4 | 0 | 1/U; 2/E | Lowered Float |
| 12/3/2009 | 27.76 | 28.33 | 0.57 | 28 | 2 | 72 | 13 | 40.1 | 1/U; 2/E | Lowered Float |
| 12/9/2009 | 28.15 | 28.21 | 0.06 | | | | 11.6 | 28.9 | 1/F; 2/U | Shut down system to allow recovery for Bail Down - Recovery testing |
| 12/10/2009 | 26.82 | 30.51 | 3.69 | | | | | | | Allowing stabilization |
| 12/11/2009 | 26.75 | 31.05 | 4.30 | 27 | 2 | 68 | 2.2 | | | Bail Down - Recovery testing |
| 12/14/2009 | | | 0.00 | 27.5 | | | | | 1/F; 2/U | Reset pump, not recovering |
| 12/15/2009 | | | 0.00 | | | | 10.3 | 0 | 1/E; 2/U | |
| 12/16/2009 | | 27.92 | 0.00 | 27.5 | 2 | 72 | 13.75 | 3.7 | 1/E; 2/U | |
| 12/18/2009 | | | 0.00 | 27.5 | 0.66 | 60 | | | 1/E; 2/U | Reset timer for 90 sec. cycle |
| 12/23/2009 | 27.95 | 28.10 | 0.15 | 27.5 | 0.66 | 50 | 20 | | 1/E; 2/U | |
| 12/30/2009 | 27.98 | 28.05 | 0.07 | 27.5 | 0.66 | 50 | 31.82 | 0 | 1/E; 2/U | |
| 1/5/2010 | 28.01 | 28.10 | 0.09 | 27.5 | 0.66 | 50 | 39.5 | 0 | 1/E; 2/F | Moved discharge & overflow check valve to Drum 1 |
| 1/15/2010 | 28.09 | 28.16 | 0.07 | 27.5 | 0.66 | 50 | 8.7 | 0 | 1/U; 2/F | Shut down system to allow recovery for Bail Down - Recovery testing |
| 1/18/2010 | 26.87 | 31.16 | 4.29 | 27.5 | 0.66 | 50 | 0 | 0 | 1/U; 2/E | LNAPL Recovery Test |
| 1/25/2010 | 28.13 | 28.2 | 0.07 | 27.5 | 0.66 | 50 | 18.6 | 0 | 1/U; 2/E | |
| 2/1/2010 | 28.16 | 28.21 | 0.05 | 27.5 | 0.66 | 50 | 24.6 | 1 | 1/U; 2/E | |
| 2/5/2010 | 28.14 | 28.22 | 0.08 | 27.5 | 0.66 | 50 | 28.7 | 1.04 | 1/U; 2/E | |
| 2/8/2010 | 27.96 | 28.01 | 0.05 | 27.5 | 0.66 | 50 | 32.4 | 1.04 | 1/U; 2/E | |
| 2/12/2010 | 27.57 | 27.61 | 0.04 | 27.5 | 0.66 | 50 | 38.8 | 1.04 | 1/F; 2/E | Moved discharge & overflow check valve to Drum 2 |
| 2/15/2010 | 27.18 | 27.23 | 0.05 | 27.5 | 0.66 | 50 | 8.3 | 0 | 1/E;2/U | |
| 2/22/2010 | 26.84 | 26.9 | 0.06 | 27.5 | 0.66 | 50 | 34.5 | 0 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1 |
| 2/26/2010 | 26.98 | 27.00 | 0.02 | 27.5 | 0.66 | 50 | 11.4 | 0 | 1/U;2/E | |
| 3/1/2010 | 27.07 | 27.09 | 0.02 | 27.5 | 0.66 | 50 | 19.2 | 0 | 1/U;2/E | |
| 3/5/2010 | 27.09 | 27.1 | 0.01 | 27.5 | 0.66 | 45 | 26.85 | 0 | 1/U;2/E | Lowered inlet pressure |
| 3/8/2010 | 27.13 | 27.15 | 0.02 | 27.5 | 0.66 | 45 | 31.4 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2 |
| 3/12/2010 | 27.31 | 27.32 | 0.01 | 27.5 | 0.66 | 45 | 3.1 | 0 | 1/E;2U | |
| 3/15/2010 | 27.4 | 27.41 | 0.01 | 27.5 | 0.66 | 45 | 6.4 | 0 | 1/E;2U | |
| 3/19/2010 | 27.38 | 27.39 | 0.01 | 27.5 | 0.66 | 45 | 9.3 | 0 | 1/E;2U | |
| | | | 0.00 | | | | | | 1/E;2U | |
| 3/29/2010 | 27.59 | 27.62 | 0.03 | 27.5 | 0.66 | 45 | 15.9 | 0 | 1/E;2U | |
| 4/1/2010 | 27.61 | 27.64 | 0.03 | 27.5 | 0.66 | 50 | 17.4 | 0 | 1/E;2U | |
| 4/6/2010 | 27.6 | 27.63 | 0.03 | 27.5 | 0.66 | 50 | 18.6 | 0 | 1/E;2U | |
| 4/8/2010 | 27.69 | 27.73 | 0.04 | 27.5 | 0.66 | 50 | 19.8 | 0 | 1/E;2U | |
| 4/12/2010 | 27.78 | 27.81 | 0.03 | 27.5 | 0.66 | 50 | 21.1 | 0 | 1/E;2U | |
| 4/19/2010 | 27.89 | 27.92 | 0.03 | 27.5 | 0.66 | 50 | 23.1 | 0 | 1/E;2U | |
| 4/22/2010 | 27.8 | 27.83 | 0.03 | 27.5 | 0.66 | 45 | 24 | 0 | 1/E;2U | Moved discharge & overflow check valve to Drum 1 |
| 5/3/2010 | 27.98 | 28.01 | 0.03 | 27.5 | 0.66 | 48 | 0 | 0 | 1/U;2/F | |
| 5/14/2010 | 28.06 | 28.09 | 0.03 | 27.5 | 0.66 | 45 | 2.9 | 0 | 1/U;2/F | |
| 5/20/2010 | 28.05 | 28.09 | 0.04 | 27.5 | 0.66 | 50 | 4.5 | 0 | 1/U;2/F | |

Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 5/25/2010 | 28.11 | 28.15 | 0.04 | 27.5 | 0.66 | 50 | 6.2 | 0 | 1/U;2/F | |
| 5/28/2010 | 28.12 | 28.16 | 0.04 | 27.5 | 0.66 | 50 | 6.4 | 0 | 1/U;2/E | |
| 6/4/2010 | 28.08 | 28.13 | 0.05 | 27.5 | 0.66 | 50 | 8.5 | 0 | 1/U;2/E | |
| 6/7/2010 | 28.2 | 28.25 | 0.05 | 27.5 | 0.66 | 50 | 8.9 | 0 | 1/U;2/E | |
| 6/10/2010 | 28.12 | 28.19 | 0.07 | 27.5 | 0.66 | 50 | 10.3 | 0 | 1/U;2/E | |
| 6/11/2010 | 27.87 | 27.93 | 0.06 | 28.5 | 0.66 | 50 | 10.3 | 0 | 1/U;2/E | Lowered float ~12 inches, both drums emptied. |
| 6/14/2010 | 27.69 | 27.7 | 0.01 | 28.5 | 0.66 | 50 | 0 | 0 | 1/E;2/E | Moved discharge & overflow check valve to Drum 1. |
| 6/18/2010 | 27.67 | 27.68 | 0.01 | 28.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 6/21/2010 | 27.7 | 27.72 | 0.02 | 28.5 | 0.66 | 45 | 1.9 | 0 | 1/U;2/E | |
| 6/23/2010 | 27 | 29.23 | 2.23 | 28.5 | 0.66 | 45 | 2.3 | 0 | 1/U;2/E | |
| 6/24/2010 | 26.56 | 28.6 | 2.04 | 28.5 | 0.66 | 45 | 2.9 | 0 | 1/U;2/E | Temporarily fixed leak in air line |
| 6/29/2010 | 23.78 | 24.22 | 0.44 | 27.5 | 0.66 | 50 | 22.7 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2. |
| 7/2/2010 | 23.89 | 23.9 | 0.01 | 27.5 | 0.66 | 50 | 3.7 | 51.6 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1. |
| 7/6/2010 | 21.85 | 21.89 | 0.04 | 21.85 | 0.66 | 50 | 0.82 | 53.9 | 1/F;2/F | |
| 7/7/2010 | | | | | | | | | | Pump down, waiting on check valve replacement. Drums emptied. |
| 7/9/2010 | 20.66 | 20.69 | 0.03 | 21.85 | 0.66 | 50 | | | 1/E;2/E | Replaced check valve. Moved discharge & overflow check valve to Drum 1. |
| 7/12/2010 | 20.28 | 20.32 | 0.04 | 21.85 | 0.66 | 50 | 0.2 | 54.5 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2. |
| 7/14/2010 | 20.58 | 20.59 | 0.01 | 20.85 | 0.66 | 50 | 0 | 34.1 | 1/F;2/F | Waiting on Drums to be emptied. |
| 7/16/2010 | 20.95 | 20.96 | 0.01 | 20.85 | 0.66 | 50 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow check valve to Drum 1. |
| 7/19/2010 | 21.65 | 21.66 | 0.01 | 20.85 | 0.66 | 50 | 0 | 0 | 1/E;2/E | |
| 7/21/2010 | 22.02 | 22.03 | 0.01 | 20.85 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/23/2010 | 22.34 | 22.36 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/26/2010 | 22.87 | 22.89 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/28/2010 | 23.17 | 23.21 | 0.04 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/30/2010 | 23.29 | 23.31 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 8/2/2010 | 23.52 | 23.53 | 0.01 | 23.5 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/9/2010 | 23.98 | 24 | 0.02 | 23.5 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/11/2010 | 24.08 | 24.1 | 0.02 | 24.0 | 0.66 | 45 | 0 | 0 | 1/U;2/E | Parts on order |
| 8/13/2010 | 24.32 | 24.33 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/19/2010 | 24.55 | 24.57 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | Replaced bladder. |
| 8/20/010 | 24.65 | 24.67 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/23/2010 | 24.85 | 24.86 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/25/2010 | 24.92 | 24.93 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/27/2010 | 24.99 | 25.01 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/30/2010 | 25.13 | 25.14 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/1/2010 | 25.16 | 25.17 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/3/2010 | 25.3 | 25.31 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/7/2010 | -- | -- | -- | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/10/2010 | -- | -- | -- | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/16/2010 | 25.53 | 25.54 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/17/2010 | 25.56 | 25.57 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |

Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 9/22/2010 | 25.29 | 25.3 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/24/2010 | 25.16 | 25.16 | 0.00 | 23.9 | 0.66 | 49 | 0 | 17.6 | 1/U;2/E | |
| 10/1/2010 | 22.16 | 22.16 | 0.00 | 23.9 | 0.66 | 49 | 0 | 50.2 | 1/F;2/E | Turned off product recover system |
| 10/4/2010 | 21.67 | 21.67 | 0.00 | 23.9 | 0.66 | 49 | 0 | 50.2 | 1/F;2/E | System off. |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | | | | **Recovery Totals** | **236** | **293** | | |

*Notes*
Depths reported in feet.
Inlet Pressure in Pounds per Square Inch (PSI).
Volumes reported in gallons.
55-gallon drum dimensions = 22.5" ID X 32" Internal height. ~0.206613 gallons per 0.01 feet gauged
Yellow indicates recovery not used in total calculation.

| Quick Calc | Input Feet | Gallons |
|---|---|---|
| **Gauged Drum Thickness** | 2.43 | 50.2 |

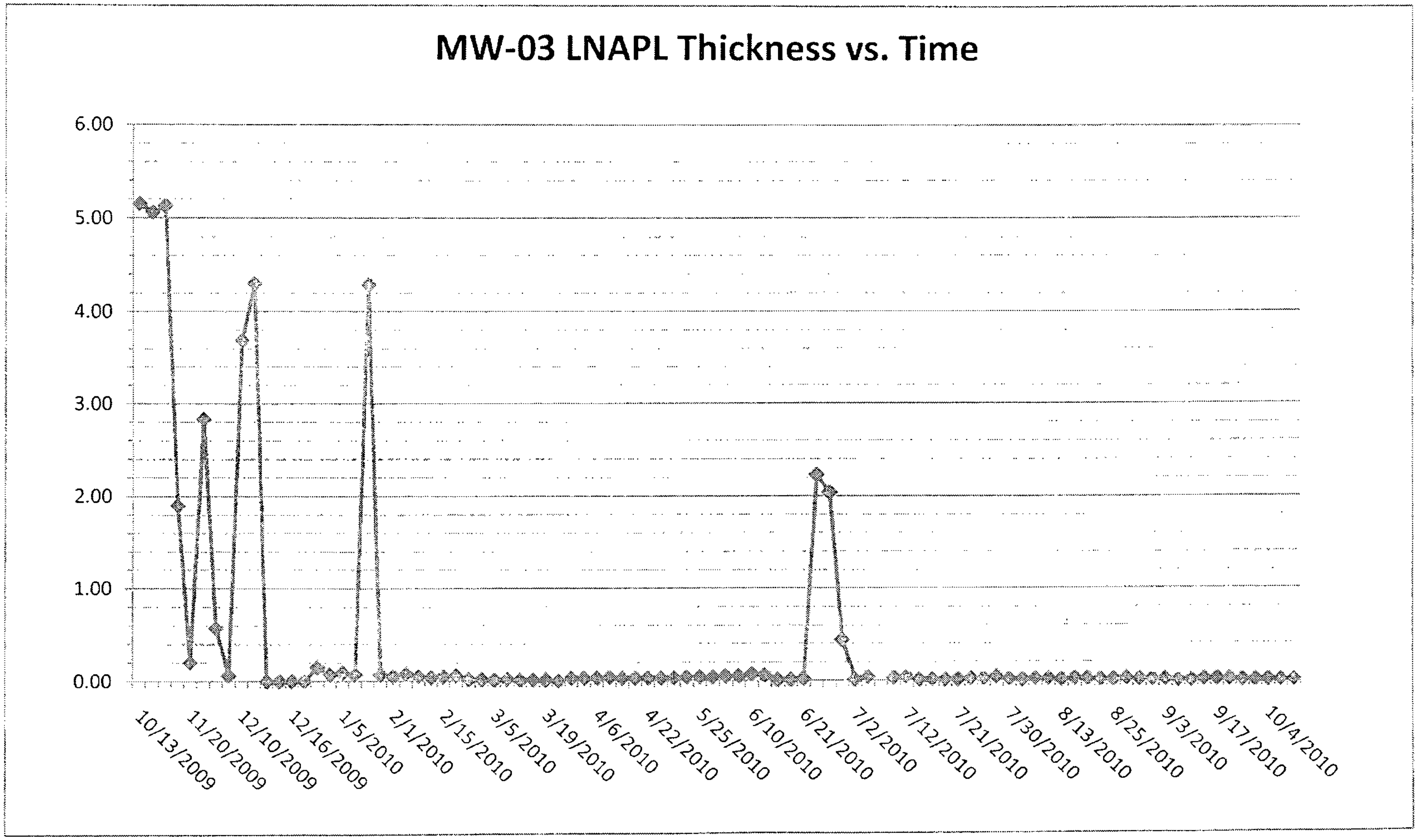

MW-03 LNAPL Thickness vs. Time
6.00
5.00
4.00
3.00
2.00
1.00
0.00
10/13/2009
11/20/2009
12/10/2009
12/16/2009
1/5/2010
2/1/2010
2/15/2010
3/5/2010
3/19/2010
4/6/2010
4/22/2010
5/25/2010
6/10/2010
6/21/2010
7/2/2010
7/12/2010
7/21/2010
7/30/2010
8/13/2010
8/25/2010
9/3/2010
9/17/2010
10/4/2010

Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/19/2010 | 29.13 | 35.17 | 6.04 | | | | | | | *LNAPL Discovered*, Well TD = 35.17 |
| 6/2/2010 | 29.37 | 35.17 | 5.80 | 32.3 | 0.66 | 50 | | | 1/U | Keck PRS System Installed. Full operation on 6/2/10 |
| 6/4/2010 | 29.8 | 34.64 | 4.84 | 32.3 | 0.66 | 50 | 44.4 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2 |
| 6/7/2010 | 29.7 | 35.17 | 5.47 | 29.1 | 0.66 | 50 | 54.8 | 0 | 1/F;2/F | |
| 6/10/2010 | 29.5 | 35.17 | 5.67 | 29.1 | 0.66 | 50 | -- | -- | 1/F;2/F | Drums emptied, discharge & overflow check valve on Drum 2 |
| 6/11/2010 | 29.66 | 35.17 | 5.51 | 29.1 | 0.66 | 50 | 20.7 | 0 | 1/U;2/E | Moved discharge & overflow check valve to Drum 2 |
| 6/14/2010 | 29.58 | 35.17 | 5.59 | 29.1 | 0.66 | 45 | 41.3 | 0 | 1/F;2/F | Drums emptied, discharge & overflow check valve on Drum 2 |
| 6/18/2010 | 29.58 | 35.17 | 5.59 | 29.1 | 0.66 | 45 | 41.5 | 0 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1 |
| 6/21/2010 | 29.56 | 34.64 | 5.08 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/U;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 6/23/2010 | 29.7 | 34.69 | 4.99 | 29.1 | 0.66 | 45 | 36.2 | 0 | 1/U;2/E | Moved discharge & overflow checkvalve to Drum 1 |
| 6/24/2010 | 29.69 | 35.17 | 5.48 | 29.1 | 0.66 | 45 | 15.1 | 0 | 1/U;2/E | |
| 6/29/2010 | 29.56 | 35.17 | 5.61 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/F;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 7/2/2010 | 29.57 | 35.17 | 5.60 | 29.1 | 0.66 | 45 | 8.3 | 0 | 1/F;2/U | |
| 7/6/2010 | 29.63 | 34.54 | 4.91 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/F;2/F | |
| 7/6/2010 | | | 0.00 | | | | 40 | | 1/F;2/F | secondary containment |
| 7/7/2010 | 29.57 | 34.56 | 4.99 | 29.1 | 0.66 | 45 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow checkvalve to Drum 1 |
| 7/9/2010 | 29.59 | 34.27 | 4.68 | 29.1 | 0.66 | 45 | 34.1 | 0 | 1/F;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 7/12/2010 | 30.85 | 33.87 | 3.02 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/E;2/F | Moved discharge & overlow checkvalve to Drum 1 |
| 7/14/2010 | 29.42 | 33.73 | 4.31 | 29.1 | 0.66 | 45 | 34 | 0 | 1/F;2/F | Waiting on Drums to be emptied. |
| 7/16/2010 | 29.25 | 34.06 | 4.81 | 29.1 | 0.66 | 45 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow checkvalve to Drum 1 |
| 7/19/2010 | 29.31 | 33.39 | 4.08 | 29.1 | 0.66 | 45 | 64.8 | 0 | 1/E;2/E | Secondary containment has 10 gallons. Moved discharge & overflow checkvalve to Drum 1 |
| 7/21/2010 | 29.31 | 33.31 | 4.00 | 29.1 | 0.66 | 45 | 34.7 | 0 | 1/U;2/E | Moved discharge & overflow check valve to Drum 2 |
| 7/23/2010 | 29.34 | 33.04 | 3.70 | 29.1 | 0.66 | 45 | 41.7 | 0 | 1/F;2/U;3/E | Moved discharge & overflow checkvalve to Drum 3 |
| 7/26/2010 | 29.29 | 33 | 3.71 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |

Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

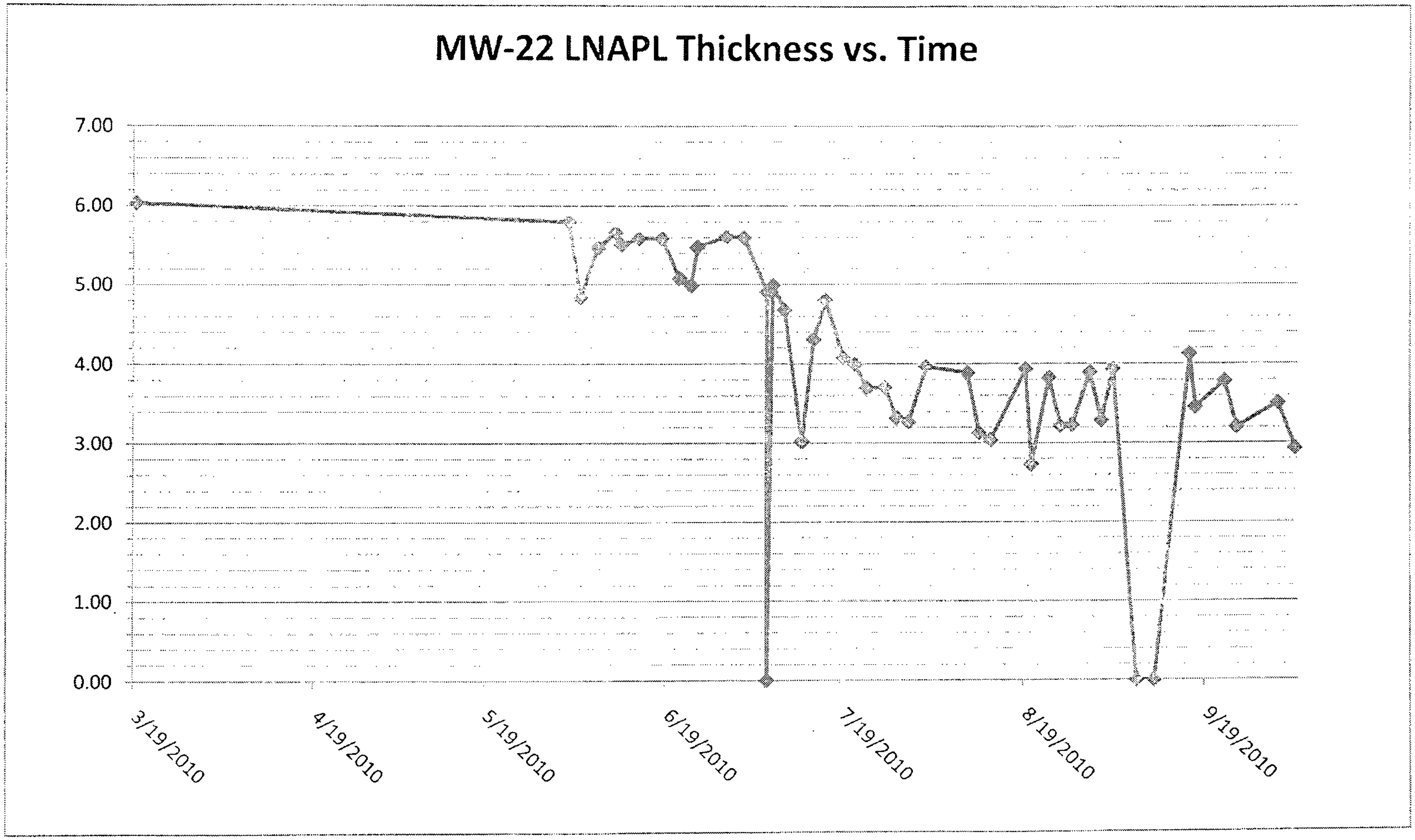
| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 7/28/2010 | 29.28 | 32.6 | 3.32 | 29.1 | E & E | 45 | 44.4 | 0 | 1/U;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 7/30/2010 | 29.29 | 32.56 | 3.27 | 29.1 | E & E | 45 | 53.5 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3 |
| 8/2/2010 | 29.12 | 33.09 | 3.97 | 29.1 | E & E | 45 | 42.6 | 0 | 1/E;2/E;3/F | Moved discharge & overflow checkvalve to Drum 1 |
| 8/9/2010 | 29.09 | 32.98 | 3.89 | 29.1 | E & E | 45 | 44.4 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2 |
| 8/11/2010 | 29.2 | 32.33 | 3.13 | 29.1 | E & E | 45 | 44.4 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 8/13/2010 | 29.14 | 32.18 | 3.04 | 29.1 | E & E | 45 | 42.3 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2 |
| 8/19/2010 | 28.94 | 32.88 | 3.94 | 29.1 | D & D | 45 | 42.3 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 8/20/2010 | 29.2 | 31.93 | 2.73 | 29.7 | F & F | 45 | 42.3 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. Reset float. |
| 8/23/2010 | 29.0 | 32.83 | 3.83 | 29.7 | F & F | 45 | 42.3 | 0 | 1/E;2/E;3/F | Moved discharge & overflow checkvalve to Drum 1. |
| 8/25/2010 | 29.18 | 32.4 | 3.22 | 29.7 | F & F | 45 | 42.1 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 8/27/2010 | 29.13 | 32.36 | 3.23 | 29.7 | F & F | 45 | 43.38 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 8/30/2010 | 28.93 | 32.83 | 3.90 | 29.7 | F & F | 45 | 43.38 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/1/2010 | 29.13 | 32.42 | 3.29 | 29.7 | F & F | 45 | 37.6 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/3/2010 | 29.09 | 33.03 | 3.94 | 29.7 | F & F | 45 | 43.2 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. |
| 9/7/2010 | -- | -- | -- | 29.7 | F & F | 45 | 42.8 | 0 | 1/F;2/F;3/F | Moved discharge & overflow checkvalve to Drum 4. |
| 9/10/2010 | -- | -- | -- | 29.7 | F & F | 45 | 42.4 | 0 | 1/E;2/E;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/16/2010 | 28.99 | 33.12 | 4.13 | 29.7 | F & F | 45 | 53.9 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/17/2010 | 29.12 | 32.58 | 3.46 | 29.7 | F & F | 45 | 25.2 | 0 | 1/E;2/E;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/22/2010 | 28.93 | 32.72 | 3.79 | 29.7 | F & F | 45 | 49.58 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/24/2010 | 28.98 | 32.18 | 3.20 | 29.7 | F & F | 45 | 39.5 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. |

Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/1/2010 | 28.87 | 32.38 | 3.51 | 29.7 | F & F | 45 | 40.5 | 0 | 1/F;2/F;3/F | Moved discharge & overflow checkvalve to Drum 4. |
| 10/4/2010 | 28.94 | 31.87 | 2.93 | 29.7 | F & F | 45 | 6.8 | 0 | 1/F;2/F;3/F | |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | | | | **Recovery Totals** | **1,671** | **0** | | |

*Notes*
Depths reported in feet.
Inlet Pressure in Pounds per Square Inch (PSI).
Volumes reported in gallons.
55-gallon drum dimensions = 22.5" ID X 32" Internal height. ~0.206613 gallons per 0.01 feet gauged
Yellow indicates recovery not used in total calculation.

| Quick Calc | Input Feet | Gallons |
|---|---|---|
| **Gauged Drum Thickness** | 0.33 | 6.8 |



MW-22 LNAPL Thickness vs. Time
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
3/19/2010
4/19/2010
5/19/2010
6/19/2010
7/19/2010
8/19/2010
9/19/2010

## Chavez, Carl J, EMNRD

**From:** Mark Larson [Mark@laenvironmental.com]
**Sent:** Friday, October 15, 2010 12:08 PM
**To:** Chavez, Carl J, EMNRD
**Cc:** VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Johnson, Larry, EMNRD; Leking, Geoffrey R, EMNRD; Wrangham, Calvin W.; gmaricle@targaresources.com; Michelle Green
**Subject:** Re: Targa Middle Plant (GW-005) Condensate Suspected Source of Release Update
**Attachments:** Initial C-141, October 15, 2010.pdf; PA140018.JPG; PA140025.JPG; PA140026.JPG; LNAPL recovery table and graph.xlsx

Dear Mr. Chavez,
This message is submitted to the New Mexico Oil Conservation Division (OCD) environmental bureau on behalf of Targa Midstream Services L.P. (Targa) by Larson & Associates, Inc. (LAI) to provide an update to determine the source for light non-aqueous phase liquid (condensate) discovered in monitoring wells MW-3 and MW-22 near the southeast corner of the Eunice Gas Plant (Facility). On October 13, 2010, Facility personnel discovered a leaking union on a 2-inch scrubber dump line after exposing lines, fittings and valves at a junction about 60 feet north of MW-22. The line was buried about 4 feet below ground and soil surrounding the union was stained and wet with hydrocarbons consistent with condensate. The line was isolated to control the release. Facility personnel will excavate additional soil from the area to make necessary repairs and place contaminated soil on plastic until disposal is arranged. A plan will be submitted to the OCD in Santa Fe to delineate the vertical and lateral extent of the release. Product recovery in wells MW-3 and MW-22 will continue with approximately 236 and 1,671 gallons recovered, respectively, through October 4, 2010. The attached table presents a summary of the LNAPL recovery from MW-3 and MW-22. The initial C-141 for the release is attached. Photographs showing the location of the release relative to monitoring well MW-22 (PA140018.JPG) and leaking union (PA140025.JPG and PA140026JPG) are also attached. Please contact Cal Wrangham with Targa at (432) 688-0542 or myself if you have questions.
Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/13/2009 | 26.18 | 31.33 | 5.15 | | | | | | | LNAPL Discovered |
| 10/21/2009 | 26.22 | 31.28 | 5.06 | | | | 2.75 | | | LNAPL Recovery Test |
| 11/11/2009 | 26.38 | 31.51 | 5.13 | 27.15 | 2 | 75 | | | | Keck PRS System installed. Full operation on 11/13/09 |
| 11/19/2009 | 27.26 | 29.16 | 1.90 | 26.5 | 2 | 74 | 21.1 | 27.7 | 1/U | Raised float ~8 inches |
| 11/20/2009 | 27.57 | 27.77 | 0.20 | 26.6 | 2 | 75 | 18.2 | 31.6 | 1/F; 2/U | Well recovery test; 0.20 feet |
| 11/23/2009 | 27.09 | 29.92 | 2.83 | 27.6 | 2 | 75 | 7.4 | 0 | 1/U; 2/E | Lowered Float |
| 12/3/2009 | 27.76 | 28.33 | 0.57 | 28 | 2 | 72 | 13 | 40.1 | 1/U; 2/E | Lowered Float |
| 12/9/2009 | 28.15 | 28.21 | 0.06 | | | | 11.6 | 28.9 | 1/F; 2/U | Shut down system to allow recovery for Bail Down - Recovery testing |
| 12/10/2009 | 26.82 | 30.51 | 3.69 | | | | | | | Allowing stabilization |
| 12/11/2009 | 26.75 | 31.05 | 4.30 | 27 | 2 | 68 | 2.2 | | | Bail Down - Recovery testing |
| 12/14/2009 | | | 0.00 | 27.5 | | | | | 1/F; 2/U | Reset pump, not recovering |
| 12/15/2009 | | | 0.00 | | | | 10.3 | 0 | 1/E; 2/U | |
| 12/16/2009 | | 27.92 | 0.00 | 27.5 | 2 | 72 | 13.75 | 3.7 | 1/E; 2/U | |
| 12/18/2009 | | | 0.00 | 27.5 | 0.66 | 60 | | | 1/E; 2/U | Reset timer for 90 sec. cycle |
| 12/23/2009 | 27.95 | 28.10 | 0.15 | 27.5 | 0.66 | 50 | 20 | | 1/E; 2/U | |
| 12/30/2009 | 27.98 | 28.05 | 0.07 | 27.5 | 0.66 | 50 | 31.82 | 0 | 1/E; 2/U | |
| 1/5/2010 | 28.01 | 28.10 | 0.09 | 27.5 | 0.66 | 50 | 39.5 | 0 | 1/E; 2/F | Moved discharge & overflow check valve to Drum 1 |
| 1/15/2010 | 28.09 | 28.16 | 0.07 | 27.5 | 0.66 | 50 | 8.7 | 0 | 1/U; 2/F | Shut down system to allow recovery for Bail Down - Recovery testing |
| 1/18/2010 | 26.87 | 31.16 | 4.29 | 27.5 | 0.66 | 50 | 0 | 0 | 1/U; 2/E | LNAPL Recovery Test |
| 1/25/2010 | 28.13 | 28.2 | 0.07 | 27.5 | 0.66 | 50 | 18.6 | 0 | 1/U; 2/E | |
| 2/1/2010 | 28.16 | 28.21 | 0.05 | 27.5 | 0.66 | 50 | 24.6 | 1 | 1/U; 2/E | |
| 2/5/2010 | 28.14 | 28.22 | 0.08 | 27.5 | 0.66 | 50 | 28.7 | 1.04 | 1/U; 2/E | |
| 2/8/2010 | 27.96 | 28.01 | 0.05 | 27.5 | 0.66 | 50 | 32.4 | 1.04 | 1/U; 2/E | |
| 2/12/2010 | 27.57 | 27.61 | 0.04 | 27.5 | 0.66 | 50 | 38.8 | 1.04 | 1/F; 2/E | Moved discharge & overflow check valve to Drum 2 |
| 2/15/2010 | 27.18 | 27.23 | 0.05 | 27.5 | 0.66 | 50 | 8.3 | 0 | 1/E;2/U | |
| 2/22/2010 | 26.84 | 26.9 | 0.06 | 27.5 | 0.66 | 50 | 34.5 | 0 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1 |
| 2/26/2010 | 26.98 | 27.00 | 0.02 | 27.5 | 0.66 | 50 | 11.4 | 0 | 1/U;2/E | |
| 3/1/2010 | 27.07 | 27.09 | 0.02 | 27.5 | 0.66 | 50 | 19.2 | 0 | 1/U;2/E | |
| 3/5/2010 | 27.09 | 27.1 | 0.01 | 27.5 | 0.66 | 45 | 26.85 | 0 | 1/U;2/E | Lowered inlet pressure |
| 3/8/2010 | 27.13 | 27.15 | 0.02 | 27.5 | 0.66 | 45 | 31.4 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2 |
| 3/12/2010 | 27.31 | 27.32 | 0.01 | 27.5 | 0.66 | 45 | 3.1 | 0 | 1/E;2U | |
| 3/15/2010 | 27.4 | 27.41 | 0.01 | 27.5 | 0.66 | 45 | 6.4 | 0 | 1/E;2U | |
| 3/19/2010 | 27.38 | 27.39 | 0.01 | 27.5 | 0.66 | 45 | 9.3 | 0 | 1/E;2U | |
| | | | 0.00 | | | | | | 1/E;2U | |
| 3/29/2010 | 27.59 | 27.62 | 0.03 | 27.5 | 0.66 | 45 | 15.9 | 0 | 1/E;2U | |
| 4/1/2010 | 27.61 | 27.64 | 0.03 | 27.5 | 0.66 | 50 | 17.4 | 0 | 1/E;2U | |
| 4/6/2010 | 27.6 | 27.63 | 0.03 | 27.5 | 0.66 | 50 | 18.6 | 0 | 1/E;2U | |
| 4/8/2010 | 27.69 | 27.73 | 0.04 | 27.5 | 0.66 | 50 | 19.8 | 0 | 1/E;2U | |
| 4/12/2010 | 27.78 | 27.81 | 0.03 | 27.5 | 0.66 | 50 | 21.1 | 0 | 1/E;2U | |
| 4/19/2010 | 27.89 | 27.92 | 0.03 | 27.5 | 0.66 | 50 | 23.1 | 0 | 1/E;2U | |
| 4/22/2010 | 27.8 | 27.83 | 0.03 | 27.5 | 0.66 | 45 | 24 | 0 | 1/E;2U | Moved discharge & overflow check valve to Drum 1 |
| 5/3/2010 | 27.98 | 28.01 | 0.03 | 27.5 | 0.66 | 48 | 0 | 0 | 1/U;2/F | |
| 5/14/2010 | 28.06 | 28.09 | 0.03 | 27.5 | 0.66 | 45 | 2.9 | 0 | 1/U;2/F | |
| 5/20/2010 | 28.05 | 28.09 | 0.04 | 27.5 | 0.66 | 50 | 4.5 | 0 | 1/U;2/F | |

Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 5/25/2010 | 28.11 | 28.15 | 0.04 | 27.5 | 0.66 | 50 | 6.2 | 0 | 1/U;2/F | |
| 5/28/2010 | 28.12 | 28.16 | 0.04 | 27.5 | 0.66 | 50 | 6.4 | 0 | 1/U;2/E | |
| 6/4/2010 | 28.08 | 28.13 | 0.05 | 27.5 | 0.66 | 50 | 8.5 | 0 | 1/U;2/E | |
| 6/7/2010 | 28.2 | 28.25 | 0.05 | 27.5 | 0.66 | 50 | 8.9 | 0 | 1/U;2/E | |
| 6/10/2010 | 28.12 | 28.19 | 0.07 | 27.5 | 0.66 | 50 | 10.3 | 0 | 1/U;2/E | |
| 6/11/2010 | 27.87 | 27.93 | 0.06 | 28.5 | 0.66 | 50 | 10.3 | 0 | 1/U;2/E | Lowered float ~12 inches, both drums emptied. |
| 6/14/2010 | 27.69 | 27.7 | 0.01 | 28.5 | 0.66 | 50 | 0 | 0 | 1/E;2/E | Moved discharge & overflow check valve to Drum 1. |
| 6/18/2010 | 27.67 | 27.68 | 0.01 | 28.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 6/21/2010 | 27.7 | 27.72 | 0.02 | 28.5 | 0.66 | 45 | 1.9 | 0 | 1/U;2/E | |
| 6/23/2010 | 27 | 29.23 | 2.23 | 28.5 | 0.66 | 45 | 2.3 | 0 | 1/U;2/E | |
| 6/24/2010 | 26.56 | 28.6 | 2.04 | 28.5 | 0.66 | 45 | 2.9 | 0 | 1/U;2/E | Temporarily fixed leak in air line |
| 6/29/2010 | 23.78 | 24.22 | 0.44 | 27.5 | 0.66 | 50 | 22.7 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2. |
| 7/2/2010 | 23.89 | 23.9 | 0.01 | 27.5 | 0.66 | 50 | 3.7 | 51.6 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1. |
| 7/6/2010 | 21.85 | 21.89 | 0.04 | 21.85 | 0.66 | 50 | 0.82 | 53.9 | 1/F;2/F | |
| 7/7/2010 | | | | | | | | | | Pump down, waiting on check valve replacement. Drums emptied. |
| 7/9/2010 | 20.66 | 20.69 | 0.03 | 21.85 | 0.66 | 50 | | | 1/E;2/E | Replaced check valve. Moved discharge & overflow check valve to Drum 1. |
| 7/12/2010 | 20.28 | 20.32 | 0.04 | 21.85 | 0.66 | 50 | 0.2 | 54.5 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2. |
| 7/14/2010 | 20.58 | 20.59 | 0.01 | 20.85 | 0.66 | 50 | 0 | 34.1 | 1/F;2/F | Waiting on Drums to be emptied. |
| 7/16/2010 | 20.95 | 20.96 | 0.01 | 20.85 | 0.66 | 50 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow check valve to Drum 1. |
| 7/19/2010 | 21.65 | 21.66 | 0.01 | 20.85 | 0.66 | 50 | 0 | 0 | 1/E;2/E | |
| 7/21/2010 | 22.02 | 22.03 | 0.01 | 20.85 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/23/2010 | 22.34 | 22.36 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/26/2010 | 22.87 | 22.89 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/28/2010 | 23.17 | 23.21 | 0.04 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 7/30/2010 | 23.29 | 23.31 | 0.02 | 23.5 | 0.66 | 50 | 0 | 0 | 1/U;2/E | |
| 8/2/2010 | 23.52 | 23.53 | 0.01 | 23.5 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/9/2010 | 23.98 | 24 | 0.02 | 23.5 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/11/2010 | 24.08 | 24.1 | 0.02 | 24.0 | 0.66 | 45 | 0 | 0 | 1/U;2/E | Parts on order |
| 8/13/2010 | 24.32 | 24.33 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/19/2010 | 24.55 | 24.57 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | Replaced bladder. |
| 8/20/010 | 24.65 | 24.67 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/23/2010 | 24.85 | 24.86 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/25/2010 | 24.92 | 24.93 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/27/2010 | 24.99 | 25.01 | 0.02 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 8/30/2010 | 25.13 | 25.14 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/1/2010 | 25.16 | 25.17 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/3/2010 | 25.3 | 25.31 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/7/2010 | -- | -- | -- | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/10/2010 | -- | -- | -- | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/16/2010 | 25.53 | 25.54 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/17/2010 | 25.56 | 25.57 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |

Table 1
MW-03 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 9/22/2010 | 25.29 | 25.3 | 0.01 | 23.9 | 0.66 | 45 | 0 | 0 | 1/U;2/E | |
| 9/24/2010 | 25.16 | 25.16 | 0.00 | 23.9 | 0.66 | 49 | 0 | 17.6 | 1/U;2/E | |
| 10/1/2010 | 22.16 | 22.16 | 0.00 | 23.9 | 0.66 | 49 | 0 | 50.2 | 1/F;2/E | Turned off product recover system |
| 10/4/2010 | 21.67 | 21.67 | 0.00 | 23.9 | 0.66 | 49 | 0 | 50.2 | 1/F;2/E | System off. |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | | | | Recovery Totals | 236 | 293 | | |

*Notes*
Depths reported in feet.
Inlet Pressure in Pounds per Square Inch (PSI).
Volumes reported in gallons.
55-gallon drum dimensions = 22.5" ID X 32" Internal height. ~0.206613 gallons per 0.01 feet gauged
Yellow indicates recovery not used in total calculation.

| Quick Calc | Input Feet | Gallons |
|---|---|---|
| Gauged Drum Thickness | 2.43 | 50.2 |

Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/19/2010 | 29.13 | 35.17 | 6.04 | | | | | | | LNAPL Discovered, Well TD = 35.17 |
| 6/2/2010 | 29.37 | 35.17 | 5.80 | 32.3 | 0.66 | 50 | | | 1/U | Keck PRS System Installed. Full operation on 6/2/10 |
| 6/4/2010 | 29.8 | 34.64 | 4.84 | 32.3 | 0.66 | 50 | 44.4 | 0 | 1/F;2/E | Moved discharge & overflow check valve to Drum 2 |
| 6/7/2010 | 29.7 | 35.17 | 5.47 | 29.1 | 0.66 | 50 | 54.8 | 0 | 1/F;2/F | |
| 6/10/2010 | 29.5 | 35.17 | 5.67 | 29.1 | 0.66 | 50 | -- | -- | 1/F;2/F | Drums emptied, discharge & overflow check valve on Drum 2 |
| 6/11/2010 | 29.66 | 35.17 | 5.51 | 29.1 | 0.66 | 50 | 20.7 | 0 | 1/U;2/E | Moved discharge & overflow check valve to Drum 2 |
| 6/14/2010 | 29.58 | 35.17 | 5.59 | 29.1 | 0.66 | 45 | 41.3 | 0 | 1/F;2/F | Drums emptied, discharge & overflow check valve on Drum 2 |
| 6/18/2010 | 29.58 | 35.17 | 5.59 | 29.1 | 0.66 | 45 | 41.5 | 0 | 1/E;2/F | Moved discharge & overflow check valve to Drum 1 |
| 6/21/2010 | 29.56 | 34.64 | 5.08 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/U;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 6/23/2010 | 29.7 | 34.69 | 4.99 | 29.1 | 0.66 | 45 | 36.2 | 0 | 1/U;2/E | Moved discharge & overflow checkvalve to Drum 1 |
| 6/24/2010 | 29.69 | 35.17 | 5.48 | 29.1 | 0.66 | 45 | 15.1 | 0 | 1/U;2/E | |
| 6/29/2010 | 29.56 | 35.17 | 5.61 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/F;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 7/2/2010 | 29.57 | 35.17 | 5.60 | 29.1 | 0.66 | 45 | 8.3 | 0 | 1/F;2/U | |
| 7/6/2010 | 29.63 | 34.54 | 4.91 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/F;2/F | |
| 7/6/2010 | | | 0.00 | | | | 40 | | 1/F;2/F | secondary containment |
| 7/7/2010 | 29.57 | 34.56 | 4.99 | 29.1 | 0.66 | 45 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow checkvalve to Drum 1 |
| 7/9/2010 | 29.59 | 34.27 | 4.68 | 29.1 | 0.66 | 45 | 34.1 | 0 | 1/F;2/E | Moved discharge & overflow checkvalve to Drum 2 |
| 7/12/2010 | 30.85 | 33.87 | 3.02 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/E;2/F | Moved discharge & overlow checkvalve to Drum 1 |
| 7/14/2010 | 29.42 | 33.73 | 4.31 | 29.1 | 0.66 | 45 | 34 | 0 | 1/F;2/F | Waiting on Drums to be emptied. |
| 7/16/2010 | 29.25 | 34.06 | 4.81 | 29.1 | 0.66 | 45 | | | 1/E;2/E | Drums emptied. Moved discharge & overflow checkvalve to Drum 1 |
| 7/19/2010 | 29.31 | 33.39 | 4.08 | 29.1 | 0.66 | 45 | 64.8 | 0 | 1/E;2/E | Secondary containment has 10 gallons. Moved discharge & overflow checkvalve to Drum 1 |
| 7/21/2010 | 29.31 | 33.31 | 4.00 | 29.1 | 0.66 | 45 | 34.7 | 0 | 1/U;2/E | Moved discharge & overflow check valve to Drum 2 |
| 7/23/2010 | 29.34 | 33.04 | 3.70 | 29.1 | 0.66 | 45 | 41.7 | 0 | 1/F;2/U;3/E | Moved discharge & overflow checkvalve to Drum 3 |
| 7/26/2010 | 29.29 | 33 | 3.71 | 29.1 | 0.66 | 45 | 54.8 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |

Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 7/28/2010 | 29.28 | 32.6 | 3.32 | 29.1 | E & E | 45 | 44.4 | 0 | 1/U;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 7/30/2010 | 29.29 | 32.56 | 3.27 | 29.1 | E & E | 45 | 53.5 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3 |
| 8/2/2010 | 29.12 | 33.09 | 3.97 | 29.1 | E & E | 45 | 42.6 | 0 | 1/E;2/E;3/F | Moved discharge & overflow checkvalve to Drum 1 |
| 8/9/2010 | 29.09 | 32.98 | 3.89 | 29.1 | E & E | 45 | 44.4 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2 |
| 8/11/2010 | 29.2 | 32.33 | 3.13 | 29.1 | E & E | 45 | 44.4 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 8/13/2010 | 29.14 | 32.18 | 3.04 | 29.1 | E & E | 45 | 42.3 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2 |
| 8/19/2010 | 28.94 | 32.88 | 3.94 | 29.1 | D & D | 45 | 42.3 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1 |
| 8/20/2010 | 29.2 | 31.93 | 2.73 | 29.7 | F & F | 45 | 42.3 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. Reset float. |
| 8/23/2010 | 29.0 | 32.83 | 3.83 | 29.7 | F & F | 45 | 42.3 | 0 | 1/E;2/E;3/F | Moved discharge & overflow checkvalve to Drum 1. |
| 8/25/2010 | 29.18 | 32.4 | 3.22 | 29.7 | F & F | 45 | 42.1 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 8/27/2010 | 29.13 | 32.36 | 3.23 | 29.7 | F & F | 45 | 43.38 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 8/30/2010 | 28.93 | 32.83 | 3.90 | 29.7 | F & F | 45 | 43.38 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/1/2010 | 29.13 | 32.42 | 3.29 | 29.7 | F & F | 45 | 37.6 | 0 | 1/E;2/F;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/3/2010 | 29.09 | 33.03 | 3.94 | 29.7 | F & F | 45 | 43.2 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. |
| 9/7/2010 | -- | -- | -- | 29.7 | F & F | 45 | 42.8 | 0 | 1/F;2/F;3/F | Moved discharge & overflow checkvalve to Drum 4. |
| 9/10/2010 | -- | -- | -- | 29.7 | F & F | 45 | 42.4 | 0 | 1/E;2/E;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/16/2010 | 28.99 | 33.12 | 4.13 | 29.7 | F & F | 45 | 53.9 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/17/2010 | 29.12 | 32.58 | 3.46 | 29.7 | F & F | 45 | 25.2 | 0 | 1/E;2/E;3/E | Moved discharge & overflow checkvalve to Drum 1. |
| 9/22/2010 | 28.93 | 32.72 | 3.79 | 29.7 | F & F | 45 | 49.58 | 0 | 1/F;2/E;3/E | Moved discharge & overflow checkvalve to Drum 2. |
| 9/24/2010 | 28.98 | 32.18 | 3.20 | 29.7 | F & F | 45 | 39.5 | 0 | 1/F;2/F;3/E | Moved discharge & overflow checkvalve to Drum 3. |

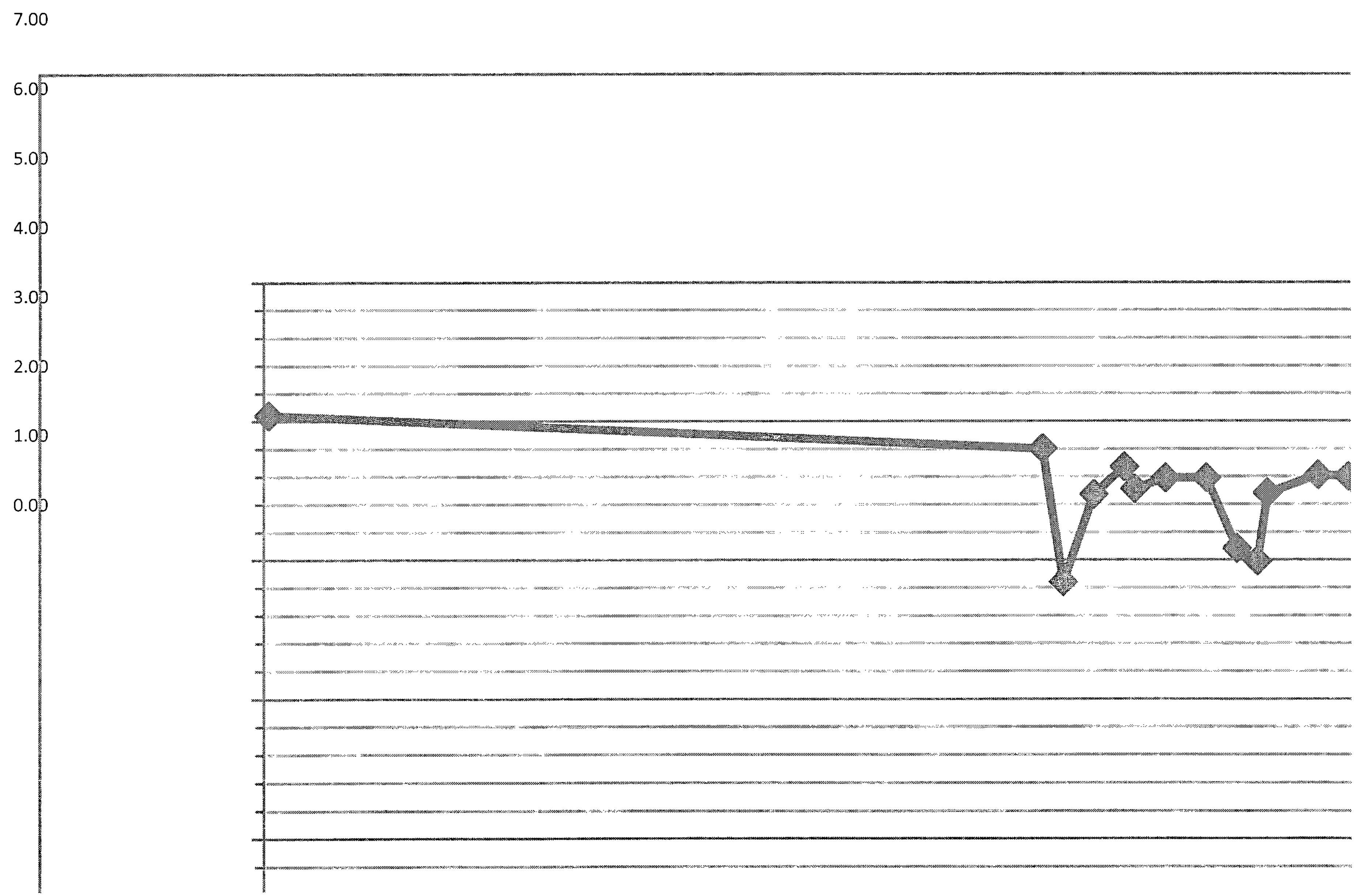
Table 2
MW-22 LNAPL Recovery Summary
Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/1/2010 | 28.87 | 32.38 | 3.51 | 29.7 | F & F | 45 | 40.5 | 0 | 1/F;2/F;3/F | Moved discharge & overflow checkvalve to Drum 4. |
| 10/4/2010 | 28.94 | 31.87 | 2.93 | 29.7 | F & F | 45 | 6.8 | 0 | 1/F;2/F;3/F | |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | | | | **Recovery Totals** | **1,671** | **0** | | |

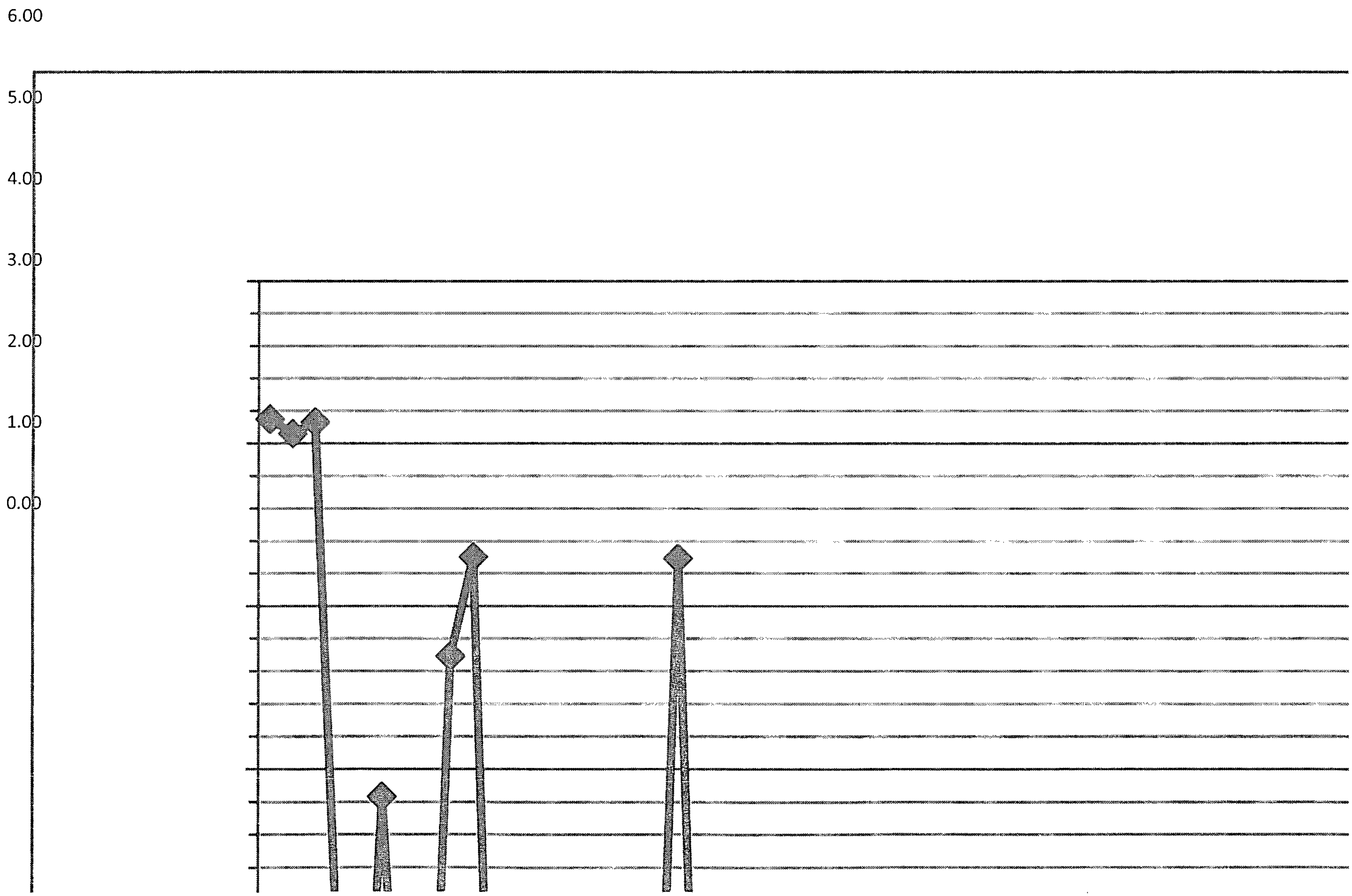
*Notes*
Depths reported in feet.
Inlet Pressure in Pounds per Square Inch (PSI).
Volumes reported in gallons.
55-gallon drum dimensions = 22.5" ID X 32" Internal height. ~0.206613 gallons per 0.01 feet gauged
Yellow indicates recovery not used in total calculation.

| **Quick Calc** | Input Feet | Gallons |
|---|---|---|
| **Gauged Drum Thickness** | 0.33 | 6.8 |

# MW-22 LNAPL Thickness vs. Time



# MW-03 LNAPL Thickness vs. Time



| | | |
|---|---|---|
| District I<br>1625 N. French Dr., Hobbs, NM 88240<br>District II<br>1301 W. Grand Avenue, Artesia, NM 88210<br>District III<br>1000 Rio Brazos Road, Aztec, NM 87410<br>District IV<br>1220 S. St. Francis Dr., Santa Fe, NM 87505 | State of New Mexico<br>Energy Minerals and Natural Resources<br><br>Oil Conservation Division<br>1220 South St. Francis Dr.<br>Santa Fe, NM 87505 | Form C-141<br>Revised October 10, 2003<br><br>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 of Company: Targa Midstream Services, L.P. | Contact: Cal Wrangham |
| Address: 6 Desta Drive, Suite 3300, Midland, TX 79705 | Telephone No.: (432) 688-0542 |
| Facility Name: Eunice Gas Plant (GW-005) | Facility Type: Natural Gas Plant |

| | | |
|---|---|---|
| Surface Owner: Versado Gas Processors | 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 |
|---|---|---|---|---|---|---|---|---|
| H | 3 | 22S | 37E | | | | | Lea |

**Latitude: N 32.424535103 Longitude: W 103.145193605**

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Natural Gas Condensate | Volume of Release: Unknown | Volume Recovered: None |
| Source of Release: Union on 2 inch steel scrubber dump line | Date and Hour of Occurrence: Unknown | Date and Hour of Discovery: October 13, 2010: 15:00 hrs |
| 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.* N/A

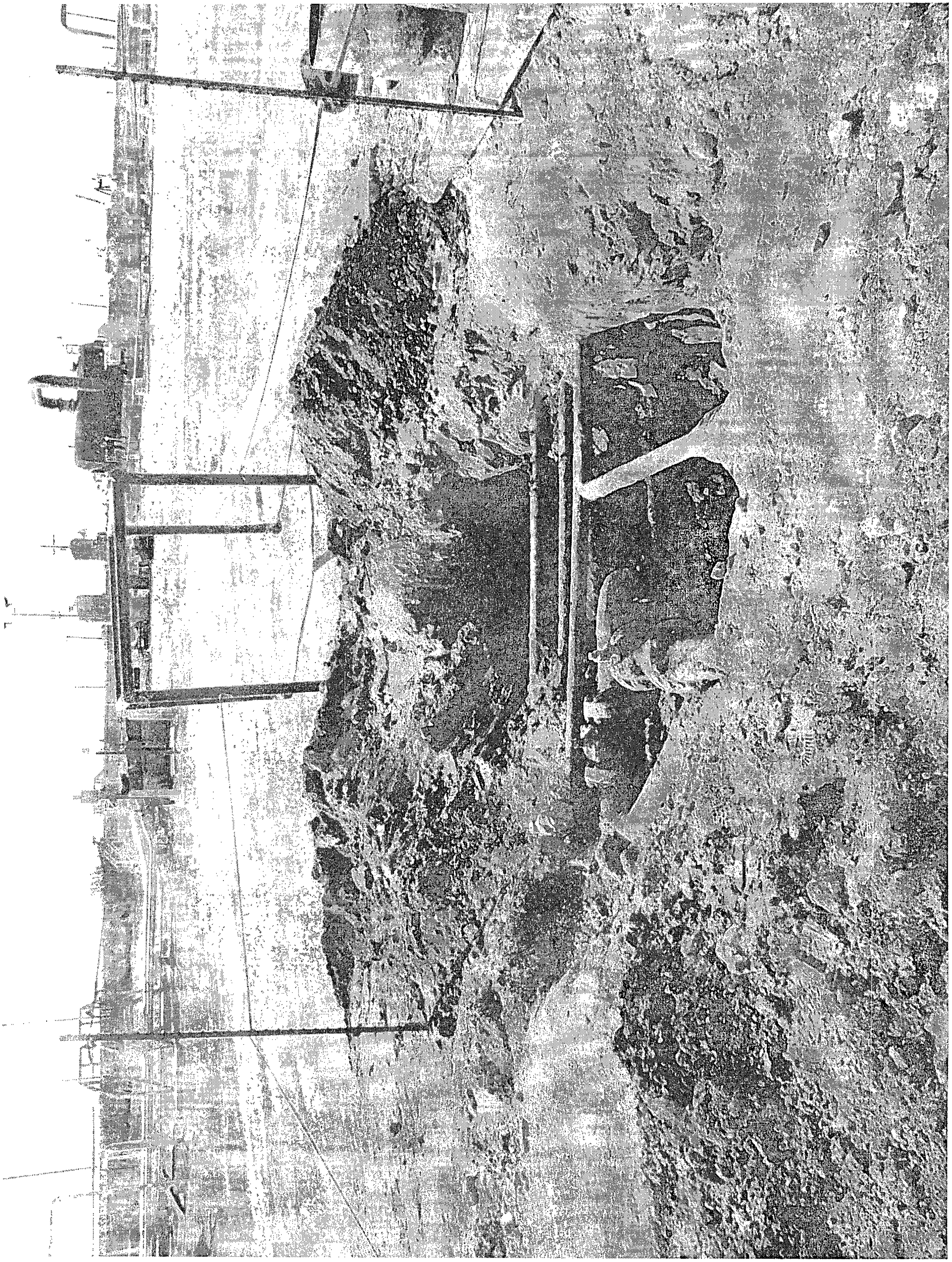
Describe Cause of Problem and Remedial Action Taken.* Union on 2 inch scrubber dump line buried about 4 feet below ground was discovered during investigation to determine source for light non-aqueous phase liquid (condensate) found in 2 monitoring wells (MW-3 and MW-22). Release located about 60 feet north of monitoring well MW-22 near southeast corner of Facility. Line was isolated to control release.

Describe Area Affected and Cleanup Action Taken.* Affected area is estimated to be in immediate vicinity of release and extending to groundwater at approximately 28 feet below ground. Soil will be hand excavated around valves, fittings and piping to allow access to replace leaking union. Contaminated soil will be put on plastic until disposal is arranged. Targa will submit a plan to the OCD to include collecting soil samples from borings to delineate extent of release. Product recovery in wells MW-3 and MW-22 will continue with approximately 236 gallons (MW-3) and 1,671 gallons (MW-22) netted through October 4, 2010.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|---|---|---|
| Signature: | OIL CONSERVATION DIVISION | |
| Printed Name: Mark J. Larson<br>(Consultant to Targa Midstream Services, L.P.) | Approved by Environmental Engineer: | |
| Title: Sr. Project Manager / President, Larson and Associates, Inc. | Approval Date: | Expiration Date: |
| E-mail Address: mark@laenvironmental.com | Conditions of Approval: | Attached ☐ |
| Date: 10/15/2010 Phone: (432) 687-0901 | | |

* Attach Additional Sheets If Necessary



## Chavez, Carl J, EMNRD

| | |
|---|---|
| **From:** | Chavez, Carl J, EMNRD |
| **Sent:** | Thursday, June 10, 2010 3:28 PM |
| **To:** | 'Mark Larson' |
| **Cc:** | VonGonten, Glenn, EMNRD |
| **Subject:** | Targa Midstream Services, L.P., Eunice Gas Plant (GW-005) Former Shell Tanks Excavation Report & Closure Approval Request (June 7, 2010) |
| **Attachments:** | Re: Former Shell Tanks Excavation Report and Closure Approval Request, Targa Midstream Services, L.P., Enice Gas Plant (GW-005), Eunice, New Mexico; Re: Former Shell Tanks Excavation Report and Closure Approval Request, Targa Midstream Services, L.P., Enice Gas Plant (GW-005), Eunice, New Mexico |

Mark:

The OCD is in receipt of your "Closure" request (report) for the above subject facility. The OCD appreciates Targa's efforts in resolving the phase separated hydrocarbon (PSH) contamination at the facility and its efforts to remove the source that may be causing the contamination at the facility.

The OCD has reviewed the report and notes the following key observations:

1) A review of the OSE ground water database the suggest ground water is greater than 50 ft. deep, but less than 100 ft. OCD spill/release cleanup criteria is in the risk-based range of 10 – 19 (B-10 ppm; BTEX- 50 ppm; & TPH-1000 ppm).
2) The report indicates that ~ 1166 cubic yards of soils were excavated in July of 2008. There was also a release estimated at 20 bbls. with 20 bbls. recovered, which typically cannot be achieved in the corrective action phase and may be indicative of more contamination present than originally estimated. This location is also suspected of the PSH ground water contamination in MW-3 and down gradient. OCD is currently working with Targa on identifying the source and the corrective action to remediate ground water PSH and dissolved phase ground water contamination.
3) In Table 1 (excavation boring) the TPH contamination appears to be present from 5 – 16.5 ft.; however, the excavation that was conducted in March of 2010 and appears to be down to only 6 feet in certain areas (i.e., East Wall 4 & 5) of Figure 4 of the report. No C-138 was submitted in the appendices from the most recent excavation in March of 2010.

The OCD recommends the following:

1) More investigation with excavation is required below the Table 1 six ft. depth to delineate the horizontal and vertical extent of soil contamination and to remove the source of hydrocarbon contamination.
2) The warm weather may assist with the remediation of contaminated soils and more contaminated soils are removed during excavation and verification of soil remediation samples can be taken.
3) A fence should be placed around the excavation to prevent trespass and possible injury while the excavation is open.
4) The liner placement may be approved based on the final sampling and/or verification of soils remediation results (OCD is keying on 1000 ppm TPH) after the above required excavation and should be installed consistent with OCD Regulations Part 17 "soil cover designs" where the liner is placed deeper with more clean topsoil placed above the liner.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm

Larson &
Associates, Inc.
Environmental Consultants

RECEIVED OCD
2010 JUN 10 A 11:

June 7, 2010

VIA EMAIL: glenn.vongonten@state.nm.us

Mr. Glenn von Gonten, Acting Chief
Environmental Bureau
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

**RE: Former Shell Tanks Excavation Report and Closure Approval Request
Targa Midstream Services, L.P., Eunice Gas Plant (GW-005)
Unit A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East
Lea County, New Mexico**

Dear Mr. von Gonten:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LAI), Targa's consultant, to report the laboratory results of soil samples and request closure approval for an excavation associated with the former shell (condensate) tanks at the Eunice Gas Plant (Facility). The tanks and associated equipment was located near the southeast corner of the Facility which operates under OCD discharge permit GW-005. The Facility is located in Unit A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East in Lea County, New Mexico. Figure 1 presents a location and topographic map. Figure 2 presents a Facility drawing. Figure 3 presents an aerial image showing the former Shell tanks location.

**Background**

The shell tanks consisted of one 500-barrel (bbl) gun barrel tank, two (2) 500-bbl condensate tanks and an oil and water separator. The tanks were located inside a high density polyethylene (HDPE) lined secondary containment. The oil and water separator received slop oil and water from plant processes. The gun barrel tank received hydrocarbons (condensate) and water from the inlet scrubbers. Waste oil and condensate was transferred to the 500-barrel oil storage tanks and the water was disposed in the Facility's OCD permitted Class II disposal (injection) well. The oil and condensate were sold and trucked off the Facility. Targa replaced the shell tanks with new tanks and containment about 200 feet north of the former shell tank location.

Targa decommissioned the old shell tanks in July 2008. The tanks and equipment were recycled or salvaged and the polyethylene liner was disposed at Controlled Recovery, Inc. (CRI) located between Hobbs and Carlsbad, New Mexico. In July 2008 Watson Construction Company, Inc. (Watson) excavated approximately 1,166 cubic yards of soil from the former shell tanks area. The soil was hauled to Jay-Dan Landfarm LLC located near Lovington, New Mexico.

On July 29, 2008, Tagra reported a release of 20 barrels of natural gas condensate to the OCD District 1 office in Hobbs, New Mexico. The release occurred when a dump line was over pressured during pigging operations and failed at a dresser sleeve located near the open excavation causing some of the liquid to flow into the excavation. Targa recovered 20 bbl and notified the OCD in Hobbs, New Mexico. Form C-141 is presented in Appendix A.

On October 12, 2009, during semi-annual groundwater monitoring activities, LAI personnel observed approximately 5.15 feet of light non aqueous phase liquid (LNAPL), consistent with natural gas condensate, in monitoring well MW-3 which is located east of the former shell tanks.

**Current Investigation**

On March 8, 2010, LAI personnel collected a 5-spot composite soil sample from the excavation bottom and seven discreet samples from the west, north, south and east sidewalls. The composite and discreet samples were collected using a stainless steel hand trowel.

On March 8, 2010, Scarborough Drilling, Inc. used a jam tube sampler to collect soil samples from a borehole (EB) drilled in the bottom and near the center of the excavation. The borehole samples were collected beginning at the bottom of the excavation or approximately eight (8) feet below ground surface (bgs) and every five (5) to approximately 15 feet or 24 feet bgs. The sampling devises were cleaned between uses by washing with a solution of distilled water and laboratory grade detergent and rinsed with distilled water. A drawing of the excavation and sample points are presented in Figure 4.

The samples were collected in clean 4-ounce glass jars that were labeled, placed an ice filled chest and delivered under chain of custody control to Xenco Laboratories Inc. (formerly Environmental Lab of Texas) located in Odessa, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by method SW-8015 for gasoline range organics (GRO) and diesel range organics (DRO) and chloride by EPA method 300. The borehole samples were also analyzed for benzene, toluene, ethylbenzene and xylene (BTEX) by method SW-8021B. A summary of laboratory results is presented in Table 1. Appendix B presents the laboratory report. Photo documentation is presented in Appendix C.

Benzene and total BTEX were below the OCD recommended remediation action level (RRAL) of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively, in the borehole samples. TPH was 3,704 mg/Kg in the borehole sample from 10 to 11.5 feet (18 to 19.5 feet bgs) and decreased to 1,084 mg/Kg in the sample from 15 to 16.5 feet (23 to 24.5 feet bgs). The highest TPH concentration reported in the sidewall samples was 1,594 mg/Kg from the east wall. Chloride was less than 250 mg/Kg in all samples except West Wall-4 (442 mg/Kg) and North Wall-6 (1,100 mg/Kg).

On March 25, 2010, during a meeting in Santa Fe, New Mexico, OCD personnel requested that Targa excavate additional soil from the east side of the excavation to reduce the TPH below 1,000 mg/Kg. Watson excavated approximately 862 cubic yards of soil which was disposed at Sundance Services located east of Eunice, New Mexico. On April 29, 2010, LAI personnel collected 5 discreet soil samples from the east sidewall of the excavation (East Wall-SS1 through East Wall-SS5). The samples were collected using the procedures previously described and analyzed for TPH by method SW-8015 including DRO and GRO. TPH was below the target concentration of 1,000 mg/Kg in all but 2 samples, East Wall-SS-4 and East Wall-SS5. TPH in the East Wall-SS4 and East Wall-SS5 samples was 1,632 mg/Kg and 1,050 mg/Kg, respectively. The excavation at location Eastwall-SS4 is about 5 feet from monitoring well MW-3 which is currently used as a LNAPL recovery well.

**Excavation Closure**

LAI, during the meeting with OCD on March 25, 2010, expressed Targa's desire to permanently close the centralized waste management unit (landfarm) and proposed to use remediated soil from Cell 1 to fill the shell tanks excavation. LAI presented laboratory results of soil samples that were collected from landfarm Cell 1 to demonstrate that the soil has been remediated below the OCD closure concentration for benzene (0.2 mg/Kg), BTEX (50 mg/Kg), TPH by method SW-8015 including DRO and GRO (500 mg/Kg), TPH by method 418.1 (2,500 mg/Kg), volatile organic, semi volatile organic and poly aromatic compounds presented in 20 NMAC 3103A. Chloride is soil samples from Cell 1 ranged from less than the method detection limit (<5.39 mg/Kg) to 283 mg/Kg.

LAI also presented the analytical results of metals samples that were tested using the synthetic precipitation leaching procedure (SPLP) by method SW-1311. Reported concentrations of chromium, copper, lead, manganese, selenium, zinc and mercury were below the human health and domestic water quality standards presented in 20 NMAC 3103A and 3103B. Iron was reported between 1.02 milligrams per liter (mg/L) and 1.91 mg/L and slightly exceeded the domestic water quality standard of 1.0 mg/L. The landfarm sample results were submitted to the OCD on March 8, 2010, in a report titled, *"2009 Surface Waste Management Annual Report, Eunice Gas Plant (GW-005) Lea County, New Mexico"*). A summary of laboratory treatment zone sample and SPLP results is presented in Table 2.

Targa proposes to line the bottom of the excavation with a 20-mil thick polyethylene liner and place a layer of clean "buffer" soil about 1-foot thick over the liner prior to filling the excavation to within 6 inches of ground surface with the soil from landfarm Cell 1. The last 6 inches will be covered with crushed caliche. Targa will provide at least 48-hours notification to the OCD prior to commencing closure activities and submit a final report, including a final C-141, to the OCD offices located in Santa Fe and Hobbs, New Mexico.

Your approval of this closure plan is requested. Please contact Mr. Cal Wrangham with Targa at 432.688.0452 or myself at 432.687.0901, if you have questions. We may also be reached by email at CWrangham@targaresources.com or mark@laenvironmental.com.

Sincerely,
***Larson & Associates, Inc.***

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

Encl.

Cc: Cal Wrangham – Targa
James Lingnau – Targa
Susan Ninan – Targa
Larry Johnson – NMOCD District 1

**Table 1**
**Targa Midstream Services, L.P.**
**Eunice Gas Plant**
**Soil Analytical Data Summary**
**Lea County, New Mexico**

| Sample ID | Depth | Status | Date | Benzene | Toluene | Ethyl benzene | Total Xylenes | Total BTEX | GRO C6-C12 | DRO C12-C28 | TPH C6-C28 | Chlorides |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RAL: | | | | 0.2 | --- | --- | --- | 50 | --- | --- | 1,000 | 250 |
| Excavation Boring | 0 - 1.5 | Insitu | 3/8/2010 | **0.0122** | **0.1139** | **0.2917** | **2.674** | **3.091** | **448** | **501** | **949** | **8.34** |
| | 5 - 6.5 | Insitu | 3/8/2010 | <0.0052 | **0.0271** | **0.2371** | **1.2679** | **1.5321** | **1,590** | **143** | **1,733** | <4.32 |
| | 10 - 11.5 | Insitu | 3/8/2010 | <0.0133 | **0.2708** | **3.405** | **11.778** | **15.454** | **3,450** | **254** | **3,704** | **17.7** |
| | 15 - 16.5 | Insitu | 3/8/2010 | <0.0051 | **0.0214** | **0.1327** | **2.542** | **2.696** | **850** | **234** | **1,084** | **20.8** |
| Excavation Bottom | 8 | Insitu | 3/8/2010 | --- | --- | --- | --- | --- | <16.6 | **25.3** | **25.3** | **13.2** |
| West Wall-2 | 6 | Insitu | 3/8/2010 | --- | --- | --- | --- | --- | <17.0 | <17.0 | <17.0 | <9.50 |
| West Wall-3 | 6 | Insitu | 3/8/2010 | --- | --- | --- | --- | --- | <15.6 | <15.6 | <15.6 | **442** |
| East Wall-4 | 6 | Excavated | 3/8/2010 | --- | --- | --- | --- | --- | **106** | **1260** | **1,366** | **82.5** |
| East Wall-5 | 6 | Excavated | 3/8/2010 | --- | --- | --- | --- | --- | **93.7** | **1500** | **1,594** | **200** |
| East Wall-SS 1 | 6 | Insitu | 4/29/2010 | --- | --- | --- | --- | --- | **41.2** | **234** | **275.2** | --- |
| East Wall-SS 2 | 6 | Insitu | 4/29/2010 | --- | --- | --- | --- | --- | **35.1** | **88.2** | **123.3** | --- |
| East Wall-SS 3 | 6 | Insitu | 4/29/2010 | --- | --- | --- | --- | --- | **199** | **131** | **330** | --- |
| East Wall-SS 4 | 6 | Insitu | 4/29/2010 | --- | --- | --- | --- | --- | **412** | **1220** | **1,632** | --- |
| East Wall-SS 5 | 6 | Insitu | 4/29/2010 | --- | --- | --- | --- | --- | **173** | **877** | **1,050** | --- |
| North Wall-6 | 6 | Insitu | 3/8/2010 | --- | --- | --- | --- | --- | **22.4** | **54.2** | **77.6** | **1,100** |
| South Wall-7 | 6 | Insitu | 3/8/2010 | --- | --- | --- | --- | --- | <16.6 | **22.7** | **22.7** | **95.0** |

***Notes***

RAL - Regulatory Action Level

Total Petroleum Hydrocarbons analyzed via EPA SW Method 8015 Mod.

Chlorides analyzed via EPA Method 300.

All values reported in Milligrams per Kilogram - dry (mg/Kg, parts per million).

Depth reported in feet.

**Bold** indicates the analyte was detected.

**Bold** and blue indicates the value exceeds NMOCD requirements.

**Table 2**
**Soil Closure Constituents - Treatment Zone Surface Waste Management Facility**
**Targa Midstream - Eunice Gas Plant**
**Lea County, New Mexico**

| Parameter | Reporting Units | Closure Constituent | Cell 1A (0-1) 9/29/09 | | Closure Constituent | Cell 1B (0-1) 9/29/09 | | Closure Constituent | Cell 1C (0-1) 9/29/09 | | Cell 1C-1 (0-1) 9/29/09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Petroleum Hydrocartons** | | | | | | | | | | | | |
| TPH - DRO | mg/Kg | -- | 215 | -- | -- | 22.4 | -- | -- | 398 | -- | 274 | -- |
| TPH - GRO | mg/Kg | -- | <0.0968 | -- | -- | <0.0962 | -- | -- | <0.100 | -- | <0.102 | -- |
| TPH - Total (8015B) | mg/Kg | 500 | 215 | -- | 500 | 22.4 | -- | 500 | 398 | -- | 271 | -- |
| TRPH - (418.1) | mg/Kg | 2500 | **2590** | -- | 2500 | 171 | -- | 2500 | 62.5 | -- | 113 | -- |
| **Volatile Organic Compounds** | | | | | | | | | | | | |
| Benzene | mg/Kg | 0.2 | <0.00292 | -- | 0.2 | <0.00304 | -- | 0.2 | <0.00295 | -- | <0.00293 | -- |
| Ethylbenzene | mg/Kg | -- | <0.00487 | -- | -- | <0.00507 | -- | -- | <0.00492 | -- | <0.00488 | -- |
| Toluene | mg/Kg | -- | <0.00487 | -- | -- | <0.00507 | -- | -- | <0.00492 | -- | <0.00488 | -- |
| Total Xylenes | mg/Kg | -- | <0.00487 | -- | -- | <0.00507 | -- | -- | <0.00492 | -- | <0.00488 | -- |
| Total BTEX | mg/Kg | 50 | <0.00292 | -- | 50 | <0.00304 | -- | 50 | <0.00295 | -- | <0.00293 | -- |
| **Inorganic Compounds** | | | | | | | | | | | | |
| Chloride | mg/Kg | 500 | 48.7 | -- | 500 | <5.39 | -- | 500 | 283 | -- | 19.0 | -- |
| **Parameters** | **Reporting Units** | **Cell 1A (3-4) Background 2006** | **Cell 1A (0-1) 10/21/2009** | | **Cell 1B (3-4) Background 2006** | **Cell 1B (0-1) 10/21/2009** | | **Cell 1C (3-4) Background 2006** | **Cell 1C (0-1) 10/21/2009** | | **Cell 1C-1 (0-1) 10/21/2009** | |
| **Volatile Organic Compounds** | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| 1,1,2,2-Tetrachloroethane | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| 1,1,2-Trichloroethane | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| 1,1-Dichloroethane | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| 1,1-Dichloroethene | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| 1,2-Dichloroethane | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| Carbon tetrachloride | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| Chloroform | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| Ethylene dibromide | mg/Kg | -- | <0.00103 | -- | -- | <0.000975 | -- | -- | <0.00106 | -- | <0.00104 | -- |
| Methylene chloride | mg/Kg | <0.025 | <0.00514 | -- | <0.025 | <0.00488 | -- | <0.025 | <0.00528 | -- | <0.00518 | -- |
| Tetrachloroethene | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| Trichloroethene | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| Vinyl chloride | mg/Kg | <0.025 | <0.00103 | -- | <0.025 | <0.000975 | -- | <0.025 | <0.00106 | -- | <0.00104 | -- |
| **Semivolatile & PAH Compounds** | | | | | | | | | | | | |
| Benzo[a]pyrene | mg/Kg | <0.2 | <0.0303 | -- | <0.2 | <0.0306 | -- | <0.2 | <0.0321 | -- | <0.0308 | -- |
| 1-Methylnaphthalene | mg/Kg | 0.13 | <0.0101 | -- | 0.428 | <0.0102 | -- | 0.0479 | <0.0107 | -- | <0.0103 | -- |
| 2-Methylnaphthalene | mg/Kg | -- | <0.0202 | -- | -- | <0.0204 | -- | -- | <0.0214 | -- | <0.0206 | -- |
| Naphthalene | mg/Kg | <0.2 | <0.0101 | -- | <0.2 | <0.0102 | -- | <0.2 | <0.0107 | -- | <0.0103 | -- |
| 2,4,5-Trichlorophenol | mg/Kg | -- | <0.0724 | -- | -- | <0.0757 | -- | -- | <0.0726 | -- | <0.0722 | -- |
| 2,4,6-Trichlorophenol | mg/Kg | -- | <0.0724 | -- | -- | <0.0757 | -- | -- | <0.0726 | -- | <0.0722 | -- |
| 2,4-Dichlorophenol | mg/Kg | -- | <0.062 | -- | -- | <0.0649 | -- | -- | <0.0622 | -- | <0.0619 | -- |
| 2,4-Dimethylphenol | mg/Kg | -- | <0.0827 | -- | -- | <0.0865 | -- | -- | <0.0829 | -- | <0.0825 | -- |
| 2,4-Dinitrophenol | mg/Kg | -- | <0.062 | -- | -- | <0.0649 | -- | -- | <0.0622 | -- | <0.0619 | -- |
| 2-Chlorophenol | mg/Kg | -- | <0.0517 | -- | -- | <0.0541 | -- | -- | <0.0518 | -- | <0.0516 | -- |
| 2-Methylphenol | mg/Kg | -- | <0.0724 | -- | -- | <0.0757 | -- | -- | <0.0726 | -- | <0.0722 | -- |
| 2-Nitrophenol | mg/Kg | -- | <0.0724 | -- | -- | <0.0757 | -- | -- | <0.0726 | -- | <0.0722 | -- |
| 4,6-Dinitro-2-methylphenol | mg/Kg | -- | <0.0827 | -- | -- | <0.0865 | -- | -- | <0.0829 | -- | <0.0825 | -- |
| 4-Chloro-3-methylphenol | mg/Kg | -- | <0.062 | -- | -- | <0.0649 | -- | -- | <0.0622 | -- | <0.0619 | -- |
| 4-Methylphenol | mg/Kg | -- | <0.103 | -- | -- | <0.108 | -- | -- | <0.104 | -- | <0.103 | -- |
| 4-Nitrophenol | mg/Kg | -- | <0.145 | -- | -- | <0.151 | -- | -- | <0.145 | -- | <0.144 | -- |
| Pentachlorophenol | mg/Kg | -- | <0.093 | -- | -- | <0.0974 | -- | -- | <0.0933 | -- | <0.0928 | -- |
| Phenol | mg/Kg | -- | <0.062 | -- | -- | <0.0649 | -- | -- | <0.0622 | -- | <0.0619 | -- |
| Total Phenols | mg/Kg | <0.05 | <0.0517 | -- | <0.05 | <0.0541 | -- | <0.05 | <0.0518 | -- | <0.0516 | -- |
| **PCB Compounds** | | | | | | | | | | | | |
| Aroclor 1016 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1221 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1232 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1242 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1248 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1254 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| Aroclor 1260 | mg/Kg | <0.0321 | <0.0049 | -- | <0.0184 | <0.0528 | -- | <0.0186 | <0.0535 | -- | <0.0542 | -- |
| **Metals** | | | **Total** | **SPLP** | | **Total** | **SPLP** | | **Total** | **SPLP** | **Total** | **SPLP** |
| Arsenic | mg/Kg | 7.02 | 4.12 | -- | 2.94 | 2.65 | -- | 2.87 | 1.90 | -- | 2.34 | -- |
| Barium | mg/Kg | 133 | 84.4 | -- | 157 | 102 | -- | 116 | 59.8 | -- | 48.5 | -- |
| Cadmium | mg/Kg | 0.405 | 0.296 | -- | <0.346 | 0.309 | -- | <0.346 | <0.104 | -- | <0.0978 | -- |
| Chromium | mg/Kg | 4.68 | **16.9** | 0.00443 | 80 | 14.5 | -- | 7.48 | **9.18** | <0.002 | **11.0** | 0.00206 |
| Copper | mg/Kg | 4.9 | **39.4** | 0.0219 | 21.4 | 8.44 | -- | 4.08 | 3.97 | -- | **4.13** | 0.002 |
| Iron | mg/Kg | 3480 | **5880** | 1.48 | 4100 | **5770** | 1.91 | 4910 | **7010** | 0.102 | **7150** | 1.37 |
| Lead | mg/Kg | 4.30 | **13.1** | 0.00363 | 49.1 | 6.04 | -- | 3.16 | **3.86** | <0.0003 | **4.27** | 0.00104 |
| Manganese | mg/Kg | 39 | **63.0** | 0.0183 | 75.7 | 57.3 | -- | 72.8 | 56.8 | -- | **74.2** | 0.00938 |
| Selenium | mg/Kg | 1.93 | 0.493 | -- | 0.506 | **0.526** | <0.002 | <1.50 | 0.544 | -- | 0.611 | -- |
| Silver | mg/Kg | 0.29 | <0.091 | -- | 0.242 | <0.107 | -- | 0.235 | <0.104 | -- | <0.0978 | -- |
| Uranium | mg/Kg | <5 | <0.91 | -- | -- | <1.07 | -- | <5.59 | <1.04 | -- | <0.978 | -- |
| Zinc | mg/Kg | 21.1 | **81.9** | 0.0304 | 50.1 | 28.9 | -- | 20.5 | 15.7 | -- | 17.6 | -- |
| Mercury | mg/Kg | 0.02505 | **1.11** | 0.000357 | 0.1308 | **0.141** | <0.00008 | 0.06681 | 0.0365 | -- | 0.0595 | -- |
| **Inorganic Compounds** | | | | | | | | | | | | |
| Fluoride | mg/Kg | 5.35 | 2.94 | -- | 12.8 | 2.3 | -- | 5.66 | 2.14 | -- | 2.97 | -- |
| Nitrate-N | mg/Kg | 2.47 | **18.4** | -- | 2.66 | <5.39 | -- | 0.835 | <5.39 | -- | <5.26 | -- |
| Sulfate* | mg/Kg | 600 | 205 | -- | 600 | 139 | -- | 600 | **3400** | -- | 255 | -- |
| Cyanide, Total | mg/Kg | <0.09 | <0.204 | -- | <0.09 | <0.2 | -- | <0.09 | <0.204 | -- | <0.209 | -- |
| **Radioactivity** | | | | | | | | | | | | |
| Radium 226 & Radium 228 | pCi/gm | -- | <1.51 | -- | -- | <1.68 | -- | -- | <1.55 | -- | <1.62 | -- |

*Notes*
Analyses performed by DHL Analytical, Round Rock, Texas
Radioactivity analysis was performed by Environmental Laboratory of Texas, Odessa, Texas
mg/Kg - milligrams per kilogram
< - Less than method detection limit
* - Acceptable PQL

Table 2
Soil Closure Constituents - Treatment Zone Surface Waste Management Facility
Targa Midstream - Eunice Gas Plant
Lea County, New Mexico

| Parameters | WQCC | SSL Residential | SSL Industrial | Cell 1A (0-1) 10/21/2009 | | Cell 1B (0-1) 10/21/2009 | | Cell 1C (0-1) 10/21/2009 | | Cell 1C-1 (0-1) 10/21/2009 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Metals | | | | Total | SPLP | Total | SPLP | Total | SPLP | Total | SPLP |
| Chromium | 0.05 | 100,000 | 100,000 | **16.9** | 0.00443 | -- | -- | **9.18** | <0.002 | **11.0** | 0.00206 |
| Copper | 1.0 | 3,130 | 45,400 | **39.4** | 0.0219 | -- | -- | -- | -- | **4.13** | 0.002 |
| Iron | 1.0 | 23,500 | 100,000 | **5,880** | **1.48** | **5,770** | **1.91** | **7,010** | 0.102 | **7,150** | **1.37** |
| Lead | 0.05 | 400 | 800 | **13.1** | 0.00363 | -- | -- | **3.86** | <0.0003 | **4.27** | 0.00104 |
| Manganese | 0.2 | 3,590 | 48,400 | **63.0** | 0.0183 | -- | -- | -- | -- | **74.2** | 0.00938 |
| Selenium | 0.05 | 391 | 5,680 | -- | -- | **0.526** | <0.002 | -- | -- | -- | -- |
| Zinc | 10 | 23,500 | 100,000 | **81.9** | 0.0304 | -- | -- | -- | -- | -- | -- |
| Mercury | 0.002 | 6.11 | 68.4 | **1.11** | 0.000357 | **0.141** | <0.00008 | -- | -- | -- | -- |

*Notes*
Analyses performed by DHL Analytical, Round Rock, Texas
mg/Kg - milligrams per kilogram
mg/L - milligrams per liter
< - Less than method detection limit

JWW

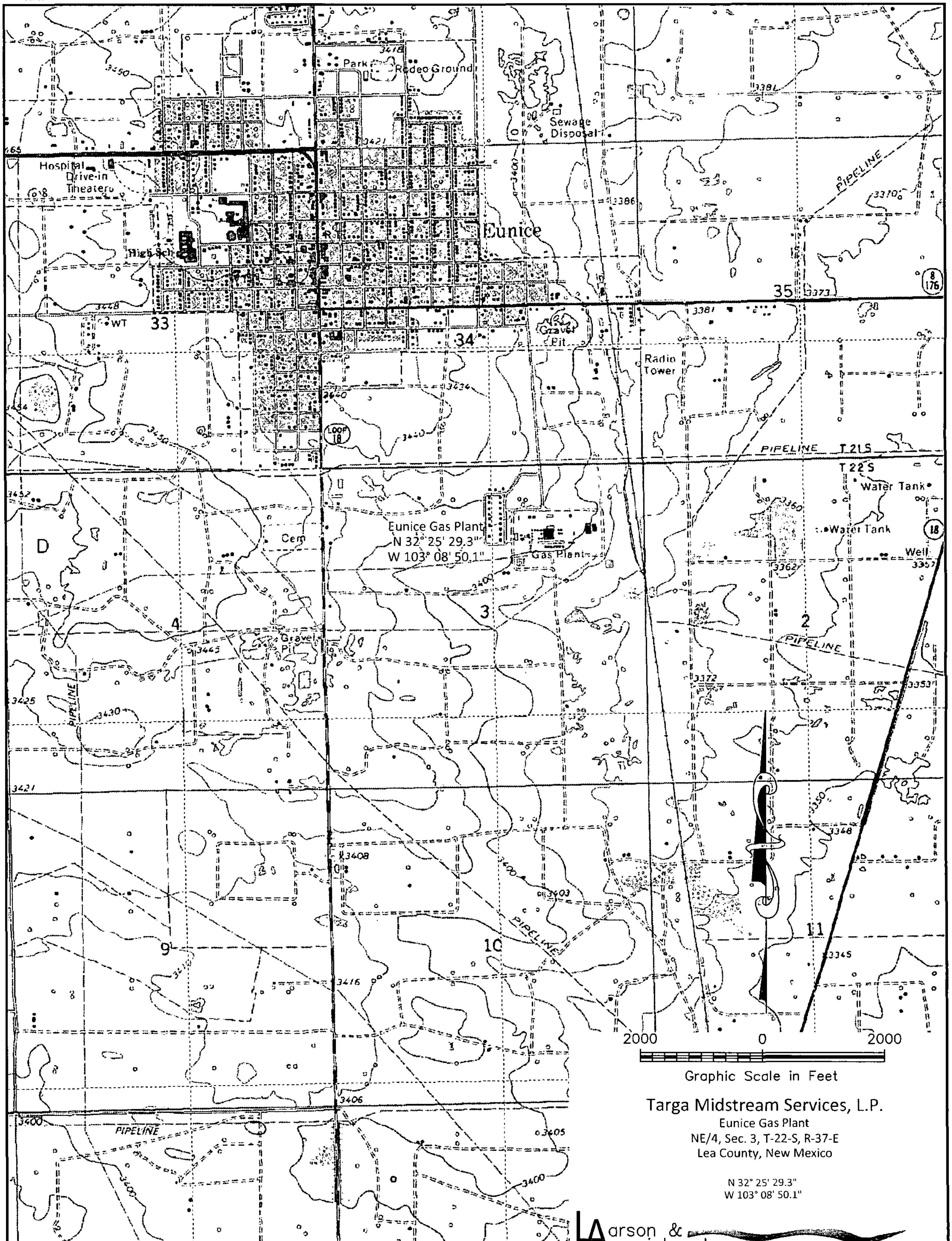
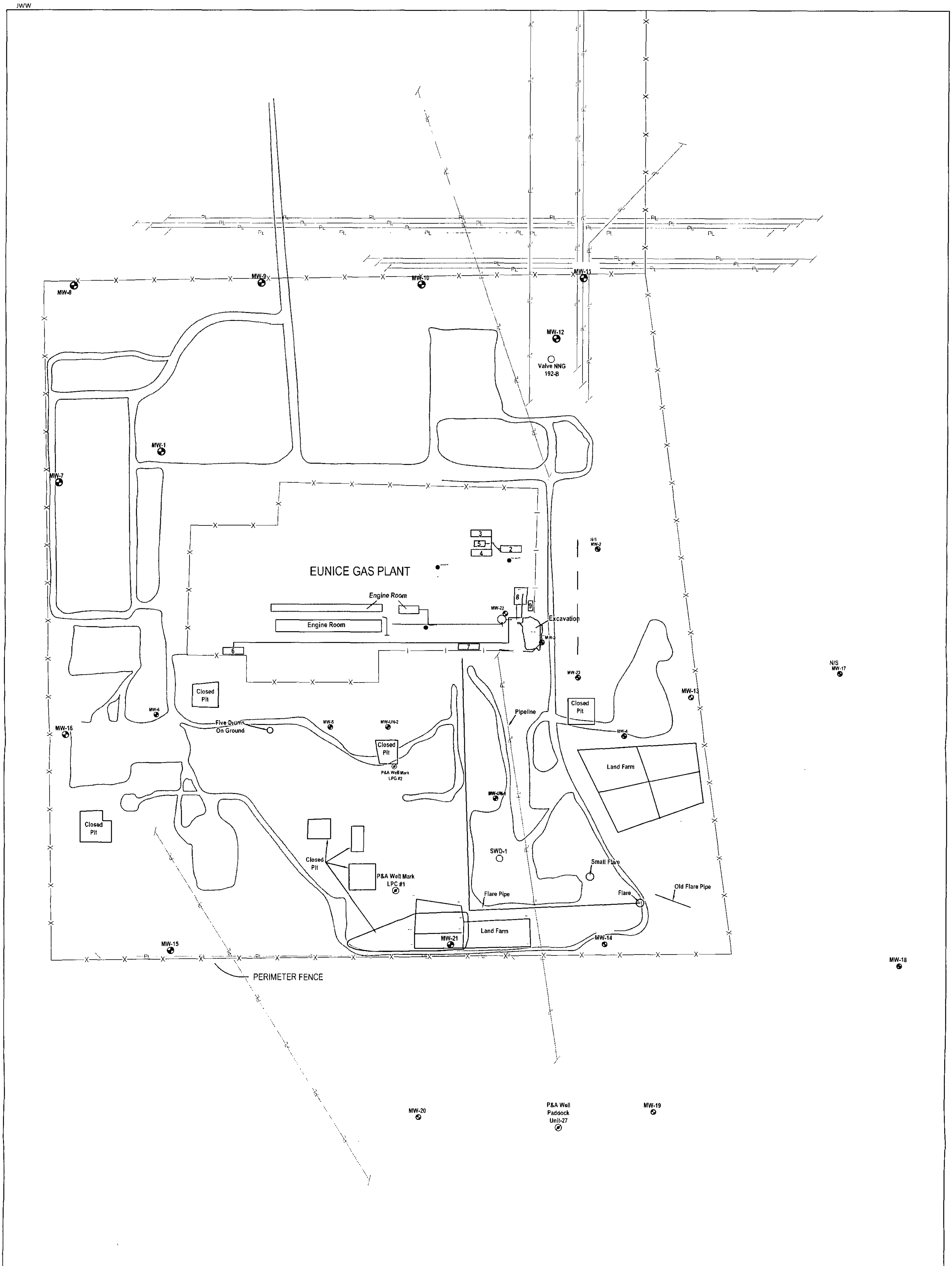



Figure 1 - Topographic Map

JWW




LEGEND

MW-06 - Monitoring Well Location

—x——x— - Fence

N/S - Not Sampled

1 - Closed Drain Scrubber
2 - XTO Scrubber
3 - VRU Sales Tank North
4 - VRU Sales Tank South
5 - 3 Phase Separator
6 - West Inlet Scrubber
7 - East Inlet Scrubber
8 - New Condensate Tanks / Gun BBL / Sump
9 - Lact For Sales

350 0 350

*Graphic Scale in Feet*

Targa Midstream Services, L.P.
Eunice Gas Plant
*NE/4, Sec. 3, T-22-S, R-37-E*
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

FIGURE 2 - Facility Drawing

JWW

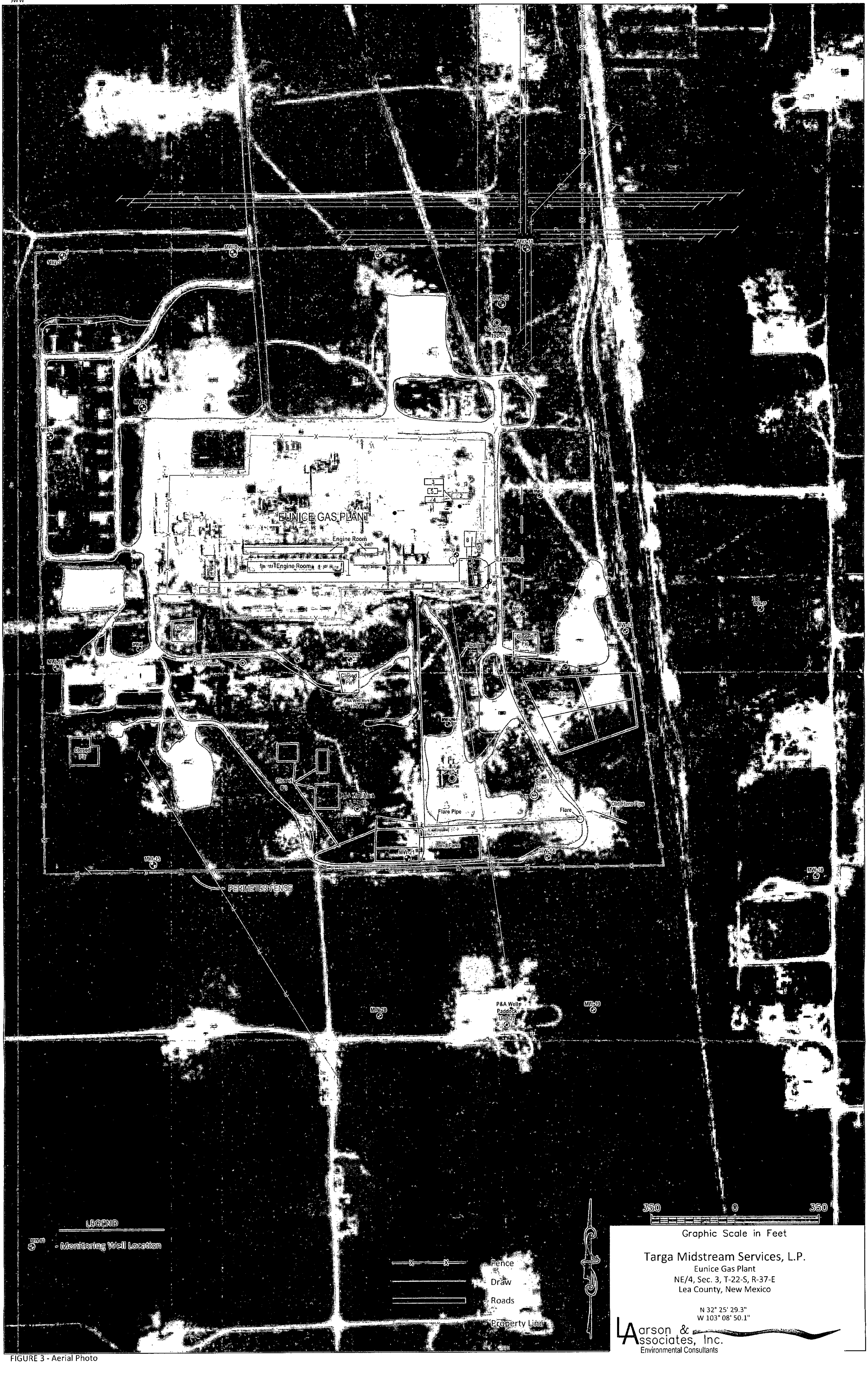



FIGURE 3 - Aerial Photo

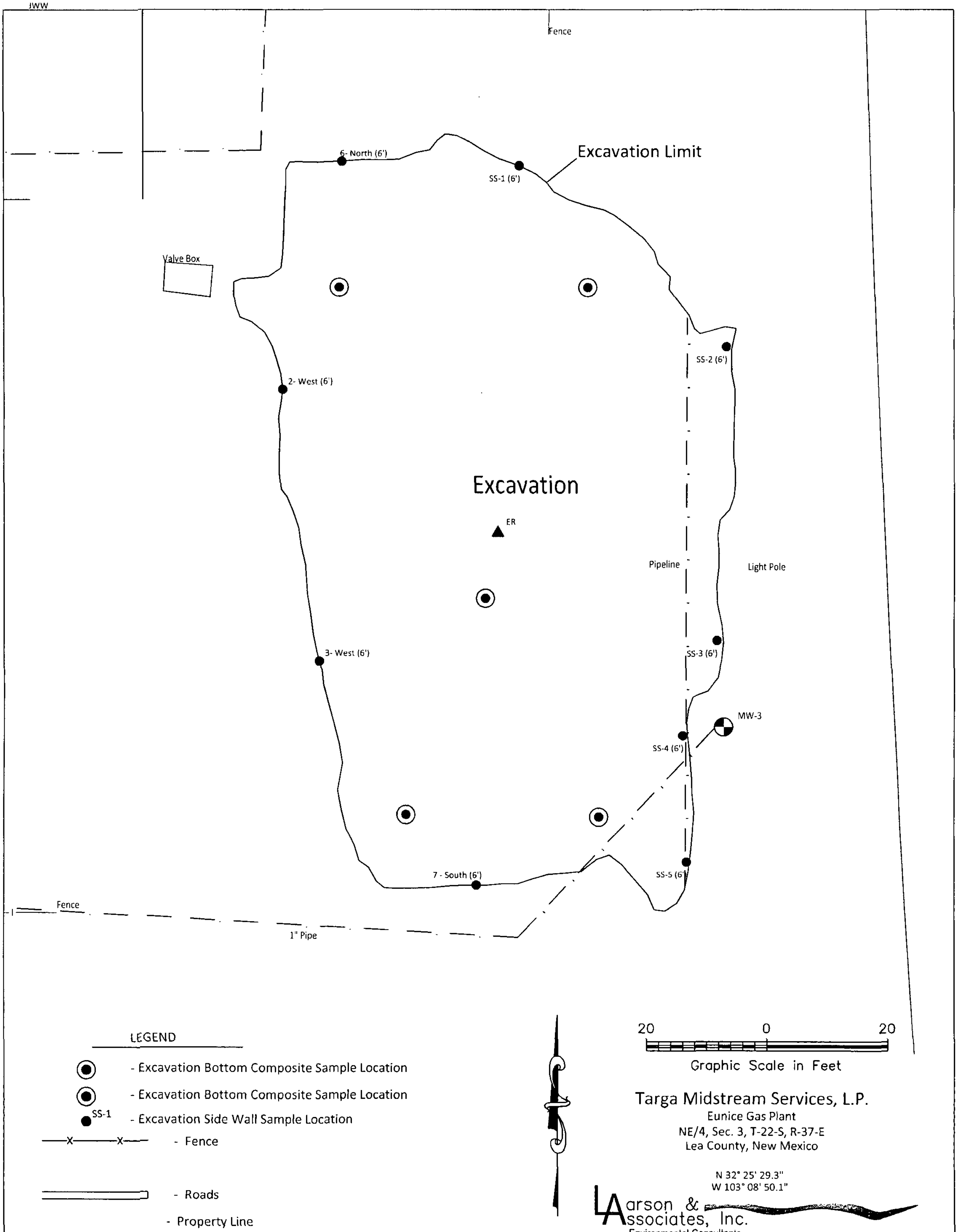



Figure 4 - Excavation and Sample Locations

## Chavez, Carl J, EMNRD

**From:** Chavez, Carl J, EMNRD
**Sent:** Thursday, July 31, 2008 4:22 PM
**To:** Lingnau, James A.
**Cc:** Johnson, Larry, EMNRD
**Subject:** FW: Eunice Plant (GW-005) Separator C 141 Release of Condensate & Water in Plant Condensate Handling Area

James:

FYI.

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

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**From:** Chavez, Carl J, EMNRD
**Sent:** Thursday, July 31, 2008 4:18 PM
**To:** Johnson, Larry, EMNRD; 'Embrey, Donald M'
**Cc:** Price, Wayne, EMNRD
**Subject:** RE: Eunice Plant (GW-005) Separator C 141 Release of Condensate & Water in Plant Condensate Handling Area

Don:

Good afternoon. By receipt of this e-mail, please submit C-141s to the OCD Santa Fe Office (see discharge permit for name of contact) with a copy to the District Office from now on. This C-141 will be filed on OCD Online under the "C-141s" thumbnail at http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pENV000GW00005.

The OCD requires photos of the base of excavation; BTEX and chloride samples from the base of the excavation for verification of remediation; and C-138 confirming the final disposition of the excavated contaminated soil. Targa shall provide a plan for addressing this pigging incident in the future including, which could include installation of a liner system or other approved secondary containment at the separator. Environmental sampling and analytical test methods and data results shall comply with EPA environmental procedures. Submit final C-141 report in 30 days.

Please contact me if you have questions. Thank you.

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

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**From:** Johnson, Larry, EMNRD
**Sent:** Thursday, July 31, 2008 2:51 PM
**To:** Chavez, Carl J, EMNRD
**Subject:** FW: Eunice Plant Separator C 141

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**From:** Embrey, Donald M [mailto:DEmbrey@targaresources.com]
**Sent:** Wednesday, July 30, 2008 6:52 AM
**To:** Johnson, Larry, EMNRD
**Cc:** Wrangham, Calvin W.
**Subject:** Eunice Plant Separator C 141

Larry,
Please find attached the C 141 on the incident we discussed yesterday on the phone. If you have any questions please let me know.
Thanks
Don

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# Analytical Report 364825

## for

## Larson & Associates

**Project Manager: Michelle Green**

**Eunice Gas Plant**

**9-0138**

**19-MAR-10**

XENCO Laboratories

ACCREDITED IN ACCORDANCE WITH nelac

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Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295)

XENCO Laboratories

19-MAR-10

Project Manager: **Michelle Green**
**Larson & Associates**
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **364825**
**Eunice Gas Plant**
Project Address:

**Michelle Green**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 364825. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 364825 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**
Odessa Laboratory Manager

# Sample Cross Reference 364825

**Larson & Associates, Midland, TX**

Eunice Gas Plant

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| 1-Bottom | S | Mar-08-10 12:15 | | 364825-001 |
| 2-West | S | Mar-08-10 11:20 | | 364825-002 |
| 3-West | S | Mar-08-10 10:50 | | 364825-003 |
| 4-East | S | Mar-08-10 11:30 | | 364825-004 |
| 5-East | S | Mar-08-10 11:45 | | 364825-005 |
| 6-North | S | Mar-08-10 10:00 | | 364825-006 |
| 7-South | S | Mar-08-10 10:30 | | 364825-007 |

XENCO Laboratories

# CASE NARRATIVE

***Client Name: Larson & Associates***
***Project Name: Eunice Gas Plant***

*Project ID:* *9-0138*
*Work Order Number:* *364825*

*Report Date:* *19-MAR-10*
*Date Received:* *03/08/2010*

---

***Sample receipt non conformances and Comments:***

*None*

---

***Sample receipt Non Conformances and Comments per Sample:***

*None*

***Analytical Non Conformances and Comments:***

*Batch: LBA-797747 Percent Moisture*
*AD2216A*
*Batch 797747, Percent Moisture RPD is outside the QC limit. This is most likely due to sample non-homogeneity.*
*Samples affected are: 364825-001, -002, -004, -006, -005, -007, -003.*

*Batch: LBA-797950 TPH By SW8015 Mod*
*SW8015MOD_NM*

*Batch 797950, C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike.*
*Samples affected are: 364825-001, -002, -004, -006, -005, -007, -003.*
*The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits*

*SW8015MOD_NM*

*Batch 797950, C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons RPD was outside QC limits.*
*Samples affected are: 364825-001, -002, -004, -006, -005, -007, -003*

*Batch: LBA-798911 Inorganic Anions by EPA 300*
*E300MI*
*Batch 798911, Chloride RPD is outside the QC limit. This is most likely due to sample non-homogeneity.*
*Samples affected are: 364825-001, -002, -004, -006, -005, -007, -003.*

XENCO Laboratories

# Certificate of Analysis Summary 364825

## Larson & Associates, Midland, TX

## Project Name: Eunice Gas Plant

**Project Id:** 9-0138
**Contact:** Michelle Green
**Project Location:**

**Date Received in Lab:** Mon Mar-08-10 04:25 pm
**Report Date:** 19-MAR-10
**Project Manager:** Brent Barron, II

| *Analysis Requested* | | 001 | | 002 | | 003 | | 004 | | 005 | | 006 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 364825-001 | | 364825-002 | | 364825-003 | | 364825-004 | | 364825-005 | | 364825-006 | |
| | *Field Id:* | 1-Bottom | | 2-West | | 3-West | | 4-East | | 5-East | | 6-North | |
| | *Depth:* | | | | | | | | | | | | |
| | *Matrix:* | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | *Sampled:* | Mar-08-10 12:15 | | Mar-08-10 11:20 | | Mar-08-10 10:50 | | Mar-08-10 11:30 | | Mar-08-10 11:45 | | Mar-08-10 10:00 | |
| **Anions by E300** | *Extracted:* | | | | | | | | | | | | |
| | *Analyzed:* | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 13.2 | 4.68 | ND | 9.50 | 442 | 43.8 | 82.5 | 17.4 | 200 | 8.83 | 1100 | 21.8 |
| **Percent Moisture** | *Extracted:* | | | | | | | | | | | | |
| | *Analyzed:* | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | |
| | *Units/RL:* | % | RL | % | RL | % | RL | % | RL | % | RL | % | RL |
| Percent Moisture | | 10.2 | 1.00 | 11.6 | 1.00 | 4.17 | 1.00 | 3.36 | 1.00 | 4.82 | 1.00 | 3.61 | 1.00 |
| **TPH By SW8015 Mod** | *Extracted:* | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | |
| | *Analyzed:* | Mar-12-10 07:53 | | Mar-12-10 08:25 | | Mar-12-10 08:55 | | Mar-12-10 14:59 | | Mar-12-10 15:28 | | Mar-12-10 15:59 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 16.6 | ND | 17.0 | ND | 15.6 | 106 | 77.5 | 93.7 | 79.2 | 22.4 | 15.5 |
| C12-C28 Diesel Range Hydrocarbons | | 25.3 | 16.6 | ND | 17.0 | ND | 15.6 | 1260 | 77.5 | 1500 | 79.2 | 54.2 | 15.5 |
| C28-C35 Oil Range Hydrocarbons | | ND | 16.6 | ND | 17.0 | ND | 15.6 | 232 | 77.5 | 132 | 79.2 | 78.6 | 15.5 |
| Total TPH | | 25.3 | 16.6 | ND | 17.0 | ND | 15.6 | 1598 | 77.5 | 1726 | 79.2 | 155.2 | 15.5 |



Brent Barron, II
Odessa Laboratory Manager



Final Ver. 1.000

# Certificate of Analysis Summary 364825

**Larson & Associates, Midland, TX**

**Project Name: Eunice Gas Plant**

**Project Id:** 9-0138
**Contact:** Michelle Green
**Project Location:**

**Date Received in Lab:** Mon Mar-08-10 04:25 pm
**Report Date:** 19-MAR-10
**Project Manager:** Brent Barron, II

| *Analysis Requested* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 364825-007 | | | | | | |
| | *Field Id:* | 7-South | | | | | | |
| | *Depth:* | | | | | | | |
| | *Matrix:* | SOIL | | | | | | |
| | *Sampled:* | Mar-08-10 10:30 | | | | | | |
| **Anions by E300** | *Extracted:* | | | | | | | |
| | *Analyzed:* | Mar-17-10 15:22 | | | | | | |
| | *Units/RL:* | mg/kg | RL | | | | | |
| Chloride | | 95.0 | 9.32 | | | | | |
| **Percent Moisture** | *Extracted:* | | | | | | | |
| | *Analyzed:* | Mar-10-10 17:00 | | | | | | |
| | *Units/RL:* | % | RL | | | | | |
| Percent Moisture | | 9.84 | 1.00 | | | | | |
| **TPH By SW8015 Mod** | *Extracted:* | Mar-10-10 11:00 | | | | | | |
| | *Analyzed:* | Mar-12-10 16:31 | | | | | | |
| | *Units/RL:* | mg/kg | RL | | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 16.6 | | | | | |
| C12-C28 Diesel Range Hydrocarbons | | 22.7 | 16.6 | | | | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 16.6 | | | | | |
| Total TPH | | 22.7 | 16.6 | | | | | |



Brent Barron, II
Odessa Laboratory Manager

# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the MQL and above the SQL.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.



Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America

| | Phone | Fax |
|---|---|---|
| 4143 Greenbriar Dr, Stafford, Tx 77477 | (281) 240-4200 | (281) 240-4280 |
| 9701 Harry Hines Blvd , Dallas, TX 75220 | (214) 902 0300 | (214) 351-9139 |
| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 2505 North Falkenburg Rd, Tampa, FL 33619 | (813) 620-2000 | (813) 620-2033 |
| 5757 NW 158th St, Miami Lakes, FL 33014 | (305) 823-8500 | (305) 823-8555 |
| 12600 West I-20 East, Odessa, TX 79765 | (432) 563-1800 | (432) 563-1713 |
| 842 Cantwell Lane, Corpus Christi, TX 78408 | (361) 884-0371 | (361) 884-9116 |

# Form 2 - Surrogate Recoveries

**Project Name: Eunice Gas Plant**

**Work Orders :** 364825, **Project ID:** 9-0138

**Lab Batch #:** 797950 **Sample:** 552886-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 06:18

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 101 | 99.6 | 101 | 70-135 | |
| o-Terphenyl | 47.8 | 49.8 | 96 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 552886-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 06:50

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 104 | 100 | 104 | 70-135 | |
| o-Terphenyl | 48.8 | 50.2 | 97 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 552886-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 07:21

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 101 | 99.7 | 101 | 70-135 | |
| o-Terphenyl | 58.3 | 49.9 | 117 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-001 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 07:53

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 75.5 | 99.6 | 76 | 70-135 | |
| o-Terphenyl | 42.9 | 49.8 | 86 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-002 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 08:25

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 70.3 | 100 | 70 | 70-135 | |
| o-Terphenyl | 38.3 | 50.2 | 76 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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# Form 2 - Surrogate Recoveries

**Project Name:** Eunice Gas Plant

**Work Orders :** 364825, **Project ID:** 9-0138

**Lab Batch #:** 797950 **Sample:** 364825-003 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 08:55

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 101 | 99.7 | 101 | 70-135 | |
| o-Terphenyl | 57.8 | 49.9 | 116 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-004 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 14:59

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 92.6 | 99.8 | 93 | 70-135 | |
| o-Terphenyl | 52.8 | 49.9 | 106 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-005 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 15:28

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 84.0 | 101 | 83 | 70-135 | |
| o-Terphenyl | 48.2 | 50.3 | 96 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-006 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 15:59

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 105 | 99.8 | 105 | 70-135 | |
| o-Terphenyl | 60.2 | 49.9 | 121 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-007 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 16:31

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 87.5 | 99.7 | 88 | 70-135 | |
| o-Terphenyl | 50.0 | 49.9 | 100 | 70-135 | |

SURROGATE RECOVERY STUDY

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# Form 2 - Surrogate Recoveries

**Project Name:** Eunice Gas Plant

**Work Orders :** 364825, **Project ID:** 9-0138

**Lab Batch #:** 797950 **Sample:** 364825-001 S / MS **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/13/10 00:28

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | SURROGATE RECOVERY STUDY | | | | |
| 1-Chlorooctane | 70.1 | 99.8 | 70 | 70-135 | |
| o-Terphenyl | 35.3 | 49.9 | 71 | 70-135 | |

**Lab Batch #:** 797950 **Sample:** 364825-001 SD / MSD **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/13/10 01:00

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | SURROGATE RECOVERY STUDY | | | | |
| 1-Chlorooctane | 104 | 100 | 104 | 70-135 | |
| o-Terphenyl | 49.0 | 50.0 | 98 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

# Blank Spike Recovery

**Project Name: Eunice Gas Plant**

**Work Order #:** 364825 **Project ID:** 9-0138

**Lab Batch #:** 798911 **Sample:** 798911-1-BKS **Matrix:** Solid
**Date Analyzed:** 03/17/2010 **Date Prepared:** 03/17/2010 **Analyst:** LATCOR
**Reporting Units:** mg/kg **Batch #:** 1

| Anions by E300 Analytes | Blank Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|---|
| | **BLANK /BLANK SPIKE RECOVERY STUDY** | | | | | |
| Chloride | ND | 10.0 | 10.4 | 104 | 75-125 | |

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

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# BS / BSD Recoveries

## Project Name: Eunice Gas Plant

**Work Order #:** 364825
**Analyst:** BEV
**Lab Batch ID:** 797950  **Sample:** 552886-1-BKS
**Units:** mg/kg

**Date Prepared:** 03/10/2010
**Batch #:** 1

**Project ID:** 9-0138
**Date Analyzed:** 03/12/2010
**Matrix:** Solid

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod<br>Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C6-C12 Gasoline Range Hydrocarbons | ND | 996 | 955 | 96 | 1000 | 959 | 96 | 0 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 996 | 868 | 87 | 1000 | 820 | 82 | 6 | 70-135 | 35 | |

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

# Form 3 - MS Recoveries

## Project Name: Eunice Gas Plant

**Work Order #:** 364825
**Lab Batch #:** 798911
**Project ID:** 9-0138
**Date Analyzed:** 03/17/2010
**Date Prepared:** 03/17/2010
**Analyst:** LATCOR
**QC- Sample ID:** 364841-056 S
**Batch #:** 1
**Matrix:** Soil
**Reporting Units:** mg/kg

| Inorganic Anions by EPA 300 | MATRIX / MATRIX SPIKE RECOVERY STUDY | | | | | |
|---|---|---|---|---|---|---|
| Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Chloride | 857 | 431 | 1280 | 98 | 75-125 | |

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

# Form 3 - MS / MSD Recoveries

## Project Name: Eunice Gas Plant

**Work Order # :** 364825 **Project ID:** 9-0138

**Lab Batch ID:** 797950 **QC- Sample ID:** 364825-001 S **Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 03/13/2010 **Date Prepared:** 03/10/2010 **Analyst:** BEV

**Reporting Units:** mg/kg

| TPH By SW8015 Mod | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1110 | 626 | 56 | 1110 | 1060 | 95 | 51 | 70-135 | 35 | XF |
| C12-C28 Diesel Range Hydrocarbons | 25.3 | 1110 | 474 | 40 | 1110 | 809 | 71 | 52 | 70-135 | 35 | XF |

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

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# Sample Duplicate Recovery

## Project Name: Eunice Gas Plant

**Work Order #:** 364825

**Lab Batch #:** 798911 **Project ID:** 9-0138
**Date Analyzed:** 03/17/2010 **Date Prepared:** 03/17/2010 **Analyst:** LATCOR
**QC- Sample ID:** 364841-056 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** mg/kg

| Anions by E300 Analyte | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
|---|---|---|---|---|---|
| | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
| Chloride | 857 | 871 | 2 | 20 | |

**Lab Batch #:** 797747
**Date Analyzed:** 03/10/2010 **Date Prepared:** 03/10/2010 **Analyst:** JLG
**QC- Sample ID:** 364825-001 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** %

| Percent Moisture Analyte | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
|---|---|---|---|---|---|
| | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
| Percent Moisture | 10.2 | 13.2 | 26 | 20 | F |

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

364825

# CHAIN-OF-CUSTODY

**Larson & Associates, Inc.**
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 3/8/10 PAGE 1 OF 1
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Eunice Gas Plant
LAI PROJECT #: 9-0138 COLLECTOR: R. Brooks

Data Reported to: Michelle Green

TRRP report? ☐ Yes ☐ No

TIME ZONE: Time zone/State: MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

| Field Sample I.D. | Lab # | Date (2010) | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ❑ NaOH ❑ | ICE | UNPRESERVED | BTEX ❑ MTBE ❑ | TRPH 418.1 ❑ TPH 1005 ❑ TPH 1006 ❑ | GASOLINE MOD 8015 ❑ | DIESEL - MOD 8015 ❑ | VOC 8260 ❑ | SVOC 8270 ❑ PAH 8270 ❑ HOLDPAH ❑ | 8081 PESTICIDES ❑ 8151 HERBICIDES ❑ | 8082 PCBS ❑ | TCLP - METALS (RCRA) ❑ TCLP VOC ❑ | TCLP - PEST ❑ HERB ❑ Semi-VOC ❑ | TOTAL METALS (RCRA) ❑ OTHER LIST ❑ | LEAD - TOTAL ❑ D.W. 200.8 ❑ TCLP ❑ | RCI ❑ TOX ❑ FLASHPOINT ❑ | TDS ❑ TSS ❑ % MOISTURE ❑ CYANIDE ❑ | pH ❑ HEXAVALENT CHROMIUM ❑ | EXPLOSIVES ❑ PECHLORATE ❑ | CHLORIDE ❑ ANIONS ❑ ALKALINITY ❑ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-Bottom | -09 | 03/10 | 12:15 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | 5 Part Composite |
| 2-West | -02 | 03/10 | 11:20 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| 3-West | -03 | 03/10 | 10:50 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| 4-East | -04 | 03/10 | 11:30 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| 5-East | -05 | 03/10 | 11:45 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| 6-North | -00 | 03/10 | 10:00 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| 7-South | -01 | 03/10 | 10:30 | S | 2 | | | | X | | | | X | X | | | | | | | | | | | | | X | Grab |
| TOTAL | | | | | 14 | | | | 7 | | | | 7 | 7 | | | | | | | | | | | | | 7 | |

| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| Roger W. Brooks | 3-8-10 4:25P | Andrea Sam |
| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |

**TURN AROUND TIME**
NORMAL ☒
1 DAY ❑
2 DAY ❑
OTHER ❑

**LABORATORY USE ONLY:**
RECEIVING TEMP: 1.6 THERM #: A7
CUSTODY SEALS - ❑ BROKEN ❑ INTACT ☑ NOT USED
❑ CARRIER BILL #
❑ HAND DELIVERED



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# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 3-8-10 16:25

Lab ID #: 364825

Initials: AL

### Sample Receipt Checklist

| | | | | Client Initials |
|---|---|---|---|---|
| #1 Temperature of container/ cooler? | Yes | No | 1.6 °C | |
| #2 Shipping container in good condition? | Yes | No | | |
| #3 Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | |
| #5 Chain of Custody present? | Yes | No | | |
| #6 Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 Chain of Custody signed when relinquished/ received? | Yes | No | | |
| #8 Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont./ Lid | |
| #9 Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 Sample matrix/ properties agree with Chain of Custody? | Yes | No | | |
| #11 Containers supplied by ELOT? | Yes | No | | |
| #12 Samples in proper container/ bottle? | Yes | No | See Below | |
| #13 Samples properly preserved? | Yes | No | See Below | |
| #14 Sample bottles intact? | Yes | No | | |
| #15 Preservations documented on Chain of Custody? | Yes | No | | |
| #16 Containers documented on Chain of Custody? | Yes | No | | |
| #17 Sufficient sample amount for indicated test(s)? | Yes | No | See Below | |
| #18 All samples received within sufficient hold time? | Yes | No | See Below | |
| #19 Subcontract of sample(s)? | Yes | No | Not Applicable | |
| #20 VOC samples have zero headspace? | Yes | No | Not Applicable | |

### Variance Documentation

Contact: ____________ Contacted by: ____________ Date/ Time: ____________

Regarding: ____________

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

# Analytical Report 364842

## for

## Larson & Associates

### Project Manager: Michelle Green

### Targa Eunice Middle Plant

### 9-0138

### 19-MAR-10

**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295)

19-MAR-10

Project Manager: **Michelle Green**
**Larson & Associates**
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **364842**
**Targa Eunice Middle Plant**
Project Address:

**Michelle Green**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 364842. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 364842 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**
Odessa Laboratory Manager

XENCO Laboratories

# Sample Cross Reference 364842

**Larson & Associates, Midland, TX**

Targa Eunice Middle Plant

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| MW-22 (0-1.5') | S | Mar-08-10 11:50 | 0 - 1.5 ft | 364842-001 |
| MW-22 (5-6.5') | S | Mar-08-10 11:55 | 5 - 6.5 ft | 364842-002 |
| MW-22 (10-11.5') | S | Mar-08-10 12:00 | 10 - 11.5 ft | 364842-003 |
| MW-22 (15-16.5') | S | Mar-08-10 12:05 | 15 - 16.5 ft | 364842-004 |
| MW-22 (20-21.5') | S | Mar-08-10 12:15 | 20 - 21.5 ft | 364842-005 |
| MW-22 (23-24.5') | S | Mar-08-10 12:25 | 23 - 24.5 ft | 364842-006 |
| EB (0-1.5') | S | Mar-08-10 14:50 | 0 - 1.5 ft | 364842-007 |
| EB (5-6.5') | S | Mar-08-10 14:55 | 5 - 6.5 ft | 364842-008 |
| EB (10-11.5') | S | Mar-08-10 15:05 | 10 - 11.5 ft | 364842-009 |
| EB (15-16.5') | S | Mar-08-10 15:10 | 15 - 16.5 ft | 364842-010 |

# CASE NARRATIVE

**Client Name: Larson & Associates**
**Project Name: Targa Eunice Middle Plant**

| | | | |
|---|---|---|---|
| Project ID: | 9-0138 | Report Date: | 19-MAR-10 |
| Work Order Number: | 364842 | Date Received: | 03/08/2010 |

**Sample receipt non conformances and Comments:**
None

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-797747 Percent Moisture
AD2216A
Batch 797747, Percent Moisture RPD is outside the QC limit. This is most likely due to sample non-homogeneity.
Samples affected are: 364842-004, -007, -006, -001, -002, -003, -005.

Batch: LBA-797748 Percent Moisture
None

Batch: LBA-797951 TPH By SW8015 Mod
None

Batch: LBA-798277 BTEX by EPA 8021B
SW8021BM

Batch 798277, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 364842-007,364842-008,364842-009,364842-010.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 364842-007,364842-010,364842-009,364842-008.

Batch: LBA-798297 BTEX by EPA 8021B
None

Batch: LBA-798415 TPH By SW8015 Mod
SW8015MOD_NM

Batch 798415, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 364842-009, -010.
The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

# CASE NARRATIVE

**Client Name: Larson & Associates**
**Project Name: Targa Eunice Middle Plant**

| | | | |
|---|---|---|---|
| *Project ID:* | *9-0138* | *Report Date:* | *19-MAR-10* |
| *Work Order Number:* | *364842* | *Date Received:* | *03/08/2010* |

*Batch: LBA-798911 Inorganic Anions by EPA 300*
*E300MI*
*Batch 798911, Chloride RPD is outside the QC limit. This is most likely due to sample non-homogeneity.*
*Samples affected are: 364842-004, -007, -006, -001, -002, -003, -008, -005.*

*Batch: LBA-798914 Anions by E300*
*None*

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# Certificate of Analysis Summary 364842

## Larson & Associates, Midland, TX

## Project Name: Targa Eunice Middle Plant

**Project Id:** 9-0138
**Contact:** Michelle Green
**Project Location:**

**Date Received in Lab:** Mon Mar-08-10 05:10 pm
**Report Date:** 19-MAR-10
**Project Manager:** Brent Barron, II

| Analysis Requested | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 364842-001 | | 364842-002 | | 364842-003 | | 364842-004 | | 364842-005 | | 364842-006 | |
| | *Field Id:* | MW-22 (0-1.5') | | MW-22 (5-6.5') | | MW-22 (10-11.5') | | MW-22 (15-16.5') | | MW-22 (20-21.5') | | MW-22 (23-24.5') | |
| | *Depth:* | 0-1.5 ft | | 5-6.5 ft | | 10-11.5 ft | | 15-16.5 ft | | 20-21.5 ft | | 23-24.5 ft | |
| | *Matrix:* | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | |
| | *Sampled:* | Mar-08-10 11:50 | | Mar-08-10 11:55 | | Mar-08-10 12:00 | | Mar-08-10 12:05 | | Mar-08-10 12:15 | | Mar-08-10 12:25 | |
| **Anions by E300** | *Extracted:* | | | | | | | | | | | | |
| | *Analyzed:* | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-17-10 15:22 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 17.6 | 4.33 | 6.39 | 4.48 | 5.73 | 4.26 | ND | 4.24 | ND | 4.24 | ND | 4.23 |
| **BTEX by EPA 8021B** | *Extracted:* | | | | | | | | | | | Mar-15-10 08:00 | |
| | *Analyzed:* | | | | | | | | | | | Mar-15-10 14:48 | |
| | *Units/RL:* | | | | | | | | | | | mg/kg | RL |
| Benzene | | | | | | | | | | | | ND | 0.0010 |
| Toluene | | | | | | | | | | | | ND | 0.0020 |
| Ethylbenzene | | | | | | | | | | | | ND | 0.0010 |
| m,p-Xylenes | | | | | | | | | | | | ND | 0.0020 |
| o-Xylene | | | | | | | | | | | | ND | 0.0010 |
| Total Xylenes | | | | | | | | | | | | ND | 0.0010 |
| Total BTEX | | | | | | | | | | | | ND | 0.0010 |
| **Percent Moisture** | *Extracted:* | | | | | | | | | | | | |
| | *Analyzed:* | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | |
| | *Units/RL:* | % | RL | % | RL | % | RL | % | RL | % | RL | % | RL |
| Percent Moisture | | 2.96 | 1.00 | 6.27 | 1.00 | 1.51 | 1.00 | ND | 1.00 | ND | 1.00 | ND | 1.00 |
| **TPH By SW8015 Mod** | *Extracted:* | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 11:00 | |
| | *Analyzed:* | Mar-12-10 12:09 | | Mar-12-10 12:36 | | Mar-12-10 13:02 | | Mar-12-10 13:29 | | Mar-12-10 13:56 | | Mar-12-10 14:23 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15.4 | ND | 16.0 | ND | 15.2 | ND | 15.1 | ND | 15.1 | ND | 15.1 |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15.4 | ND | 16.0 | 15.5 | 15.2 | 15.9 | 15.1 | 34.0 | 15.1 | 34.9 | 15.1 |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.4 | ND | 16.0 | ND | 15.2 | ND | 15.1 | ND | 15.1 | ND | 15.1 |
| Total TPH | | ND | 15.4 | ND | 16.0 | 15.5 | 15.2 | 15.9 | 15.1 | 34.0 | 15.1 | 34.9 | 15.1 |



Brent Barron, II
Odessa Laboratory Manager



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# Certificate of Analysis Summary 364842

XENCO Laboratories

## Larson & Associates, Midland, TX

## Project Name: Targa Eunice Middle Plant

**Project Id:** 9-0138
**Contact:** Michelle Green
**Project Location:**

**Date Received in Lab:** Mon Mar-08-10 05:10 pm
**Report Date:** 19-MAR-10
**Project Manager:** Brent Barron, II

| Analysis Requested | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 364842-007 | | 364842-008 | | 364842-009 | | 364842-010 | |
| | *Field Id:* | EB (0-1.5') | | EB (5-6.5') | | EB (10-11.5') | | EB (15-16.5') | |
| | *Depth:* | 0-1.5 ft | | 5-6.5 ft | | 10-11.5 ft | | 15-16.5 ft | |
| | *Matrix:* | SOIL | | SOIL | | SOIL | | SOIL | |
| | *Sampled:* | Mar-08-10 14:50 | | Mar-08-10 14:55 | | Mar-08-10 15:05 | | Mar-08-10 15:10 | |
| **Anions by E300** | *Extracted:* | | | | | | | | |
| | *Analyzed:* | Mar-17-10 15:22 | | Mar-17-10 15:22 | | Mar-18-10 10:52 | | Mar-18-10 10:52 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 8.34 | 4.29 | ND | 4.32 | 17.7 | 5.62 | 20.8 | 4.32 |
| **BTEX by EPA 8021B** | *Extracted:* | Mar-12-10 08:00 | | Mar-12-10 08:00 | | Mar-12-10 08:00 | | Mar-12-10 08:00 | |
| | *Analyzed:* | Mar-13-10 22:11 | | Mar-13-10 23:41 | | Mar-14-10 01:32 | | Mar-14-10 02:39 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | 0.0122 | 0.0102 | ND | 0.0052 | ND | 0.0133 | ND | 0.0051 |
| Toluene | | 0.1139 | 0.0204 | 0.0271 | 0.0103 | 0.2708 | 0.0265 | 0.0214 | 0.0103 |
| Ethylbenzene | | 0.2917 | 0.0102 | 0.2371 | 0.0052 | 3.405 | 0.0133 | 0.1327 | 0.0051 |
| m,p-Xylenes | | 1.969 | 0.0204 | 0.8262 | 0.0103 | 7.925 | 0.0265 | 1.749 | 0.0103 |
| o-Xylene | | 0.7045 | 0.0102 | 0.4417 | 0.0052 | 3.853 | 0.0133 | 0.7925 | 0.0051 |
| Total Xylenes | | 2.674 | 0.0102 | 1.2679 | 0.0052 | 11.778 | 0.0133 | 2.542 | 0.0051 |
| Total BTEX | | 3.091 | 0.0102 | 1.5321 | 0.0052 | 15.454 | 0.0133 | 2.696 | 0.0051 |
| **Percent Moisture** | *Extracted:* | | | | | | | | |
| | *Analyzed:* | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | | Mar-10-10 17:00 | |
| | *Units/RL:* | % | RL | % | RL | % | RL | % | RL |
| Percent Moisture | | 2.06 | 1.00 | 2.70 | 1.00 | 25.3 | 1.00 | 2.73 | 1.00 |
| **TPH By SW8015 Mod** | *Extracted:* | Mar-10-10 11:00 | | Mar-10-10 11:00 | | Mar-10-10 12:00 | | Mar-10-10 12:00 | |
| | *Analyzed:* | Mar-12-10 14:51 | | Mar-12-10 15:18 | | Mar-12-10 20:12 | | Mar-12-10 20:39 | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| C6-C12 Gasoline Range Hydrocarbons | | 448 | 76.3 | 1590 | 77.0 | 3450 | 100 | 850 | 77.1 |
| C12-C28 Diesel Range Hydrocarbons | | 501 | 76.3 | 143 | 77.0 | 254 | 100 | 234 | 77.1 |
| C28-C35 Oil Range Hydrocarbons | | ND | 76.3 | ND | 77.0 | ND | 100 | ND | 77.1 |
| Total TPH | | 949 | 76.3 | 1733 | 77.0 | 3704 | 100 | 1084 | 77.1 |



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Brent Barron, II
Odessa Laboratory Manager



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# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the MQL and above the SQL.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.



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XENCO Laboratories

# Form 2 - Surrogate Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 798277 **Sample:** 558177-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/13/10 18:49 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0290 | 0.0300 | 97 | 80-120 | |
| 4-Bromofluorobenzene | 0.0293 | 0.0300 | 98 | 80-120 | |

**Lab Batch #:** 798277 **Sample:** 558177-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/13/10 19:12 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0296 | 0.0300 | 99 | 80-120 | |
| 4-Bromofluorobenzene | 0.0301 | 0.0300 | 100 | 80-120 | |

**Lab Batch #:** 798277 **Sample:** 558177-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/13/10 20:19 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0243 | 0.0300 | 81 | 80-120 | |
| 4-Bromofluorobenzene | 0.0296 | 0.0300 | 99 | 80-120 | |

**Lab Batch #:** 798277 **Sample:** 364842-007 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/13/10 22:11 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0193 | 0.0300 | 64 | 80-120 | ** |
| 4-Bromofluorobenzene | 0.0666 | 0.0300 | 222 | 80-120 | ** |

**Lab Batch #:** 798277 **Sample:** 364842-008 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/13/10 23:41 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0176 | 0.0300 | 59 | 80-120 | ** |
| 4-Bromofluorobenzene | 0.1905 | 0.0300 | 635 | 80-120 | ** |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# Form 2 - Surrogate Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 798277 **Sample:** 364842-009 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/14/10 01:32 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0202 | 0.0300 | 67 | 80-120 | ** |
| 4-Bromofluorobenzene | 0.1394 | 0.0300 | 465 | 80-120 | ** |

**Lab Batch #:** 798277 **Sample:** 364842-010 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/14/10 02:39 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0201 | 0.0300 | 67 | 80-120 | ** |
| 4-Bromofluorobenzene | 0.2833 | 0.0300 | 944 | 80-120 | ** |

**Lab Batch #:** 798297 **Sample:** 558185-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/15/10 08:18 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0298 | 0.0300 | 99 | 80-120 | |
| 4-Bromofluorobenzene | 0.0323 | 0.0300 | 108 | 80-120 | |

**Lab Batch #:** 798297 **Sample:** 558185-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/15/10 08:41 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0295 | 0.0300 | 98 | 80-120 | |
| 4-Bromofluorobenzene | 0.0312 | 0.0300 | 104 | 80-120 | |

**Lab Batch #:** 798297 **Sample:** 558185-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/15/10 09:48 — SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0243 | 0.0300 | 81 | 80-120 | |
| 4-Bromofluorobenzene | 0.0305 | 0.0300 | 102 | 80-120 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

**XENCO Laboratories**

# Form 2 - Surrogate Recoveries

**Project Name:** Targa Eunice Middle Plant

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 798297 **Sample:** 364842-006 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/15/10 14:48

SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0241 | 0.0300 | 80 | 80-120 | |
| 4-Bromofluorobenzene | 0.0304 | 0.0300 | 101 | 80-120 | |

**Lab Batch #:** 798297 **Sample:** 364842-006 D / MD **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/15/10 15:11

SURROGATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1,4-Difluorobenzene | 0.0244 | 0.0300 | 81 | 80-120 | |
| 4-Bromofluorobenzene | 0.0321 | 0.0300 | 107 | 80-120 | |

**Lab Batch #:** 797951 **Sample:** 552887-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 04:56

SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 124 | 99.6 | 124 | 70-135 | |
| o-Terphenyl | 52.2 | 49.8 | 105 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 552887-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 05:23

SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 119 | 100 | 119 | 70-135 | |
| o-Terphenyl | 50.1 | 50.2 | 100 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 552887-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 05:50

SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 103 | 99.7 | 103 | 70-135 | |
| o-Terphenyl | 54.2 | 49.9 | 109 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# Form 2 - Surrogate Recoveries

**Project Name: Targa Eunice Middle Plant**

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 797951 **Sample:** 364842-001 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 12:09

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | **SURROGATE RECOVERY STUDY** | | | | |
| 1-Chlorooctane | 101 | 99.9 | 101 | 70-135 | |
| o-Terphenyl | 52.3 | 50.0 | 105 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-002 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 12:36

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | **SURROGATE RECOVERY STUDY** | | | | |
| 1-Chlorooctane | 99.4 | 100 | 99 | 70-135 | |
| o-Terphenyl | 52.5 | 50.0 | 105 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-003 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 13:02

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | **SURROGATE RECOVERY STUDY** | | | | |
| 1-Chlorooctane | 108 | 99.7 | 108 | 70-135 | |
| o-Terphenyl | 54.2 | 49.9 | 109 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-004 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 13:29

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | **SURROGATE RECOVERY STUDY** | | | | |
| 1-Chlorooctane | 95.7 | 99.7 | 96 | 70-135 | |
| o-Terphenyl | 49.5 | 49.9 | 99 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-005 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 13:56

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| | **SURROGATE RECOVERY STUDY** | | | | |
| 1-Chlorooctane | 102 | 100 | 102 | 70-135 | |
| o-Terphenyl | 51.1 | 50.0 | 102 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# Form 2 - Surrogate Recoveries

**Project Name: Targa Eunice Middle Plant**

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 797951 **Sample:** 364842-006 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 14:23

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 100 | 100 | 100 | 70-135 | |
| o-Terphenyl | 50.2 | 50.0 | 100 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-007 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 14:51

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 111 | 99.7 | 111 | 70-135 | |
| o-Terphenyl | 54.7 | 49.9 | 110 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364842-008 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 15:18

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 122 | 99.9 | 122 | 70-135 | |
| o-Terphenyl | 62.8 | 50.0 | 126 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364841-013 S / MS **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 15:45

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 116 | 100 | 116 | 70-135 | |
| o-Terphenyl | 49.0 | 50.2 | 98 | 70-135 | |

**Lab Batch #:** 797951 **Sample:** 364841-013 SD / MSD **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 16:11

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 118 | 100 | 118 | 70-135 | |
| o-Terphenyl | 50.2 | 50.2 | 100 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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# Form 2 - Surrogate Recoveries

**Project Name: Targa Eunice Middle Plant**

**Work Orders :** 364842, **Project ID:** 9-0138

**Lab Batch #:** 798415 **Sample:** 558249-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 18:52

| TPH By SW8015 Mod<br>Analytes | SURROGATE RECOVERY STUDY<br>Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 117 | 100 | 117 | 70-135 | |
| o-Terphenyl | 48.9 | 50.1 | 98 | 70-135 | |

**Lab Batch #:** 798415 **Sample:** 558249-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 19:18

| TPH By SW8015 Mod<br>Analytes | SURROGATE RECOVERY STUDY<br>Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 119 | 99.7 | 119 | 70-135 | |
| o-Terphenyl | 48.8 | 49.9 | 98 | 70-135 | |

**Lab Batch #:** 798415 **Sample:** 558249-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 03/12/10 19:46

| TPH By SW8015 Mod<br>Analytes | SURROGATE RECOVERY STUDY<br>Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 95.7 | 99.7 | 96 | 70-135 | |
| o-Terphenyl | 49.1 | 49.9 | 98 | 70-135 | |

**Lab Batch #:** 798415 **Sample:** 364842-009 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 20:12

| TPH By SW8015 Mod<br>Analytes | SURROGATE RECOVERY STUDY<br>Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 109 | 99.8 | 109 | 70-135 | |
| o-Terphenyl | 57.1 | 49.9 | 114 | 70-135 | |

**Lab Batch #:** 798415 **Sample:** 364842-010 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 03/12/10 20:39

| TPH By SW8015 Mod<br>Analytes | SURROGATE RECOVERY STUDY<br>Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 127 | 100 | 127 | 70-135 | |
| o-Terphenyl | 54.4 | 50.0 | 109 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

# Form 2 - Surrogate Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Orders :** 364842,  **Project ID:** 9-0138

**Lab Batch #:** 798415  **Sample:** 364894-001 S / MS  **Batch:** 1  **Matrix:** Soil

**Units:** mg/kg  **Date Analyzed:** 03/13/10 03:55  SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 105 | 99.8 | 105 | 70-135 | |
| o-Terphenyl | 54.9 | 49.9 | 110 | 70-135 | |

**Lab Batch #:** 798415  **Sample:** 364894-001 SD / MSD  **Batch:** 1  **Matrix:** Soil

**Units:** mg/kg  **Date Analyzed:** 03/13/10 04:22  SURROGATE RECOVERY STUDY

| TPH By SW8015 Mod<br>Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 98.4 | 100 | 98 | 70-135 | |
| o-Terphenyl | 50.4 | 50.0 | 101 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

# Blank Spike Recovery

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842 **Project ID:** 9-0138

**Lab Batch #:** 798911 **Sample:** 798911-1-BKS **Matrix:** Solid
**Date Analyzed:** 03/17/2010 **Date Prepared:** 03/17/2010 **Analyst:** LATCOR
**Reporting Units:** mg/kg **Batch #:** 1

| Anions by E300 Analytes | Blank Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|---|
| | BLANK /BLANK SPIKE RECOVERY STUDY | | | | | |
| Chloride | ND | 10.0 | 10.4 | 104 | 75-125 | |

**Lab Batch #:** 798914 **Sample:** 798914-1-BKS **Matrix:** Solid
**Date Analyzed:** 03/18/2010 **Date Prepared:** 03/18/2010 **Analyst:** LATCOR
**Reporting Units:** mg/kg **Batch #:** 1

| Anions by E300 Analytes | Blank Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|---|
| | BLANK /BLANK SPIKE RECOVERY STUDY | | | | | |
| Chloride | ND | 11.0 | 11.3 | 103 | 75-125 | |

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

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# BS / BSD Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842
**Project ID:** 9-0138
**Analyst:** ASA
**Date Prepared:** 03/12/2010
**Date Analyzed:** 03/13/2010
**Lab Batch ID:** 798277
**Sample:** 558177-1-BKS
**Batch #:** 1
**Matrix:** Solid
**Units:** mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.1000 | 0.0975 | 98 | 0.1 | 0.1034 | 103 | 6 | 70-130 | 35 | |
| Toluene | ND | 0.1000 | 0.0924 | 92 | 0.1 | 0.0977 | 98 | 6 | 70-130 | 35 | |
| Ethylbenzene | ND | 0.1000 | 0.0942 | 94 | 0.1 | 0.1002 | 100 | 6 | 71-129 | 35 | |
| m,p-Xylenes | ND | 0.2000 | 0.1807 | 90 | 0.2 | 0.1922 | 96 | 6 | 70-135 | 35 | |
| o-Xylene | ND | 0.1000 | 0.0899 | 90 | 0.1 | 0.0949 | 95 | 5 | 71-133 | 35 | |

**Analyst:** ASA
**Date Prepared:** 03/15/2010
**Date Analyzed:** 03/15/2010
**Lab Batch ID:** 798297
**Sample:** 558185-1-BKS
**Batch #:** 1
**Matrix:** Solid
**Units:** mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

| BTEX by EPA 8021B Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.1000 | 0.1020 | 102 | 0.1 | 0.1005 | 101 | 1 | 70-130 | 35 | |
| Toluene | ND | 0.1000 | 0.0968 | 97 | 0.1 | 0.0956 | 96 | 1 | 70-130 | 35 | |
| Ethylbenzene | ND | 0.1000 | 0.0995 | 100 | 0.1 | 0.0981 | 98 | 1 | 71-129 | 35 | |
| m,p-Xylenes | ND | 0.2000 | 0.1919 | 96 | 0.2 | 0.1886 | 94 | 2 | 70-135 | 35 | |
| o-Xylene | ND | 0.1000 | 0.0940 | 94 | 0.1 | 0.0923 | 92 | 2 | 71-133 | 35 | |

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

# BS / BSD Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842 **Project ID:** 9-0138
**Analyst:** BEV **Date Prepared:** 03/10/2010 **Date Analyzed:** 03/12/2010
**Lab Batch ID:** 797951 **Sample:** 552887-1-BKS **Batch #:** 1 **Matrix:** Solid
**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod<br>Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C6-C12 Gasoline Range Hydrocarbons | ND | 996 | 1080 | 108 | 1000 | 1030 | 103 | 5 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 996 | 790 | 79 | 1000 | 776 | 78 | 2 | 70-135 | 35 | |

**Analyst:** BEV **Date Prepared:** 03/10/2010 **Date Analyzed:** 03/12/2010
**Lab Batch ID:** 798415 **Sample:** 558249-1-BKS **Batch #:** 1 **Matrix:** Solid
**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

| TPH By SW8015 Mod<br>Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C6-C12 Gasoline Range Hydrocarbons | ND | 1000 | 1040 | 104 | 997 | 1080 | 108 | 4 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 1000 | 1060 | 106 | 997 | 829 | 83 | 24 | 70-135 | 35 | |

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

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# Form 3 - MS Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842

**Lab Batch #:** 798911 **Project ID:** 9-0138

**Date Analyzed:** 03/17/2010 **Date Prepared:** 03/17/2010 **Analyst:** LATCOR

**QC- Sample ID:** 364841-056 S **Batch #:** 1 **Matrix:** Soil

**Reporting Units:** mg/kg

| Inorganic Anions by EPA 300 | MATRIX / MATRIX SPIKE RECOVERY STUDY | | | | | |
|---|---|---|---|---|---|---|
| Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Chloride | 857 | 431 | 1280 | 98 | 75-125 | |

**Lab Batch #:** 798914

**Date Analyzed:** 03/18/2010 **Date Prepared:** 03/18/2010 **Analyst:** LATCOR

**QC- Sample ID:** 364842-009 S **Batch #:** 1 **Matrix:** Soil

**Reporting Units:** mg/kg

| Inorganic Anions by EPA 300 | MATRIX / MATRIX SPIKE RECOVERY STUDY | | | | | |
|---|---|---|---|---|---|---|
| Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Chloride | 17.7 | 147 | 166 | 101 | 75-125 | |

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

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# Form 3 - MS / MSD Recoveries

## Project Name: Targa Eunice Middle Plant

**Work Order # :** 364842 **Project ID:** 9-0138

**Lab Batch ID:** 797951 **QC- Sample ID:** 364841-013 S **Batch #:** 1 **Matrix:** Soil
**Date Analyzed:** 03/12/2010 **Date Prepared:** 03/10/2010 **Analyst:** BEV
**Reporting Units:** mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C6-C12 Gasoline Range Hydrocarbons | ND | 1060 | 1060 | 100 | 1060 | 1080 | 102 | 2 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | 62.4 | 1060 | 759 | 66 | 1060 | 747 | 65 | 2 | 70-135 | 35 | X |

**Lab Batch ID:** 798415 **QC- Sample ID:** 364894-001 S **Batch #:** 1 **Matrix:** Soil
**Date Analyzed:** 03/13/2010 **Date Prepared:** 03/10/2010 **Analyst:** BEV
**Reporting Units:** mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

| TPH By SW8015 Mod Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C6-C12 Gasoline Range Hydrocarbons | ND | 1040 | 1130 | 109 | 1050 | 1070 | 102 | 5 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | 244 | 1040 | 711 | 45 | 1050 | 659 | 40 | 8 | 70-135 | 35 | X |

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

# Sample Duplicate Recovery

XENCO Laboratories

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842

**Lab Batch #:** 798911 **Project ID:** 9-0138
**Date Analyzed:** 03/17/2010 **Date Prepared:** 03/17/2010 **Analyst:** LATCOR
**QC- Sample ID:** 364841-056 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** mg/kg

| Anions by E300 Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|---|---|---|---|---|
| | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
| Chloride | 857 | 871 | 2 | 20 | |

**Lab Batch #:** 798914
**Date Analyzed:** 03/18/2010 **Date Prepared:** 03/18/2010 **Analyst:** LATCOR
**QC- Sample ID:** 364842-009 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** mg/kg

| Anions by E300 Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|---|---|---|---|---|
| | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
| Chloride | 17.7 | 16.3 | 8 | 20 | |

**Lab Batch #:** 798297
**Date Analyzed:** 03/15/2010 **Date Prepared:** 03/15/2010 **Analyst:** ASA
**QC- Sample ID:** 364842-006 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** mg/kg

| BTEX by EPA 8021B Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|---|---|---|---|---|
| | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
| Benzene | ND | ND | NC | 35 | |
| Toluene | ND | ND | NC | 35 | |
| Ethylbenzene | ND | ND | NC | 35 | |
| m,p-Xylenes | ND | ND | NC | 35 | |
| o-Xylene | ND | ND | NC | 35 | |

**Lab Batch #:** 797747
**Date Analyzed:** 03/10/2010 **Date Prepared:** 03/10/2010 **Analyst:** JLG
**QC- Sample ID:** 364825-001 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** %

| Percent Moisture Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|---|---|---|---|---|
| | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
| Percent Moisture | 10.2 | 13.2 | 26 | 20 | F |

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

 Final Ver. 1.000

# Sample Duplicate Recovery

## Project Name: Targa Eunice Middle Plant

**Work Order #:** 364842

**Lab Batch #:** 797748 **Project ID:** 9-0138

**Date Analyzed:** 03/10/2010 **Date Prepared:** 03/10/2010 **Analyst:** JLG

**QC- Sample ID:** 364894-001 D **Batch #:** 1 **Matrix:** Soil

**Reporting Units:** %

| Percent Moisture | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
|---|---|---|---|---|---|
| Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
| Percent Moisture | 4.35 | 5.27 | 19 | 20 | |

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

364842

# CHAIN-OF-CUSTODY

**Larson & Associates, Inc.**
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Michelle Green

DATE: 3/8/2010 PAGE 1 OF 1

PO #: LAB WORK ORDER #:

PROJECT LOCATION OR NAME: Targa Eunice Middle Plant

LAI PROJECT #: ~~8-0172~~ JE 9-0138 COLLECTOR:

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST/NM

PRESERVATION: HCl, $HNO_3$, $H_2SO_4$ ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐, TRPH 418.1 ☐, TPH 1005 ☐ TPH 1006 ☐, GASOLINE MOD 8015 ☒, DIESEL - MOD 8015 ☒, VOC 8260 ☐, SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐, 8081 PESTICIDES ☐ 8151 HERBICIDES ☐, 8082 PCBS ☐, TCLP - METALS (RCRA) ☐ TCLP VOC ☐, TCLP - PEST ☐ HERB ☐ Semi-VOC ☐, TOTAL METALS (RCRA) ☐ OTHER LIST ☐, LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐, RCI ☐ TOX ☐ FLASHPOINT ☐, TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐, pH ☐ HEXAVALENT CHROMIUM ☐, EXPLOSIVES ☐ PECHLORATE ☐, CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ / NaOH | ICE | UNPRESERVED | BTEX | TRPH 418.1 | GASOLINE MOD 8015 | DIESEL - MOD 8015 | CHLORIDE | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-22 (0-1.5') | -01 | 3/8/10 | 1150 | S | 1 | | | | ✓ | | JF | ✗ | ✓ | ✓ | ✓ | |
| MW-22 (5-6.5') | -02 | 3/8/10 | 1155 | S | 1 | | | | ✓ | | | | ✓ | ✓ | ✓ | |
| MW-22 (10-11.5') | -03 | 3/8/10 | 1200 | S | 1 | | | | ✓ | | | | ✓ | ✓ | ✓ | |
| MW-22 (15-16.5') | -04 | 3/8/10 | 1205 | S | 1 | | | | ✓ | | | | ✓ | ✓ | ✓ | |
| MW-22 (20-21.5') | -05 | 3/8/10 | 1215 | S | 1 | | | | ✓ | | | | ✓ | ✓ | ✓ | |
| MW-22 (23-24.5') | -06 | 3/8/10 | 1225 | S | 1 | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | |
| EB (0-1.5') | -07 | 3/8/10 | 1450 | S | 1 | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | Excavation Boring |
| EB (5-6.5') | -08 | 3/8/10 | 1455 | S | 1 | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | " |
| EB (10-11.5') | -09 | 3/8/10 | 1505 | S | 1 | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | " |
| EB (15-16.5') | -10 | 3/8/10 | 1510 | S | 1 | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ | " |

TOTAL

| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| [signature] | 3/8/10 1710 | |
| RELINQUISHED BY: (Signature) | DATE/TIME | RECEIVED BY: (Signature) |
| | | |
| RELINQUISHED BY: (Signature) [signature] | DATE/TIME 3/8/10 1710 | RECEIVED BY: (Signature) [signature] |

**TURN AROUND TIME**
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 4.5 THERM #: A7
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 3.8.10 17:10

Lab ID # : 364842

Initials: BB/ AL

## Sample Receipt Checklist

| | | | | | Client Initials |
|---|---|---|---|---|---|
| #1 | Temperature of container/ cooler? | Yes | No | 4.5 °C | |
| #2 | Shipping container in good condition? | Yes | No | | |
| #3 | Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 | Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | |
| #5 | Chain of Custody present? | Yes | No | | |
| #6 | Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 | Chain of Custody signed when relinquished/ received? | Yes | No | | |
| #8 | Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont./ Lid | |
| #9 | Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 | Sample matrix/ properties agree with Chain of Custody? | Yes | No | | |
| #11 | Containers supplied by ELOT? | Yes | No | | |
| #12 | Samples in proper container/ bottle? | Yes | No | See Below | |
| #13 | Samples properly preserved? | Yes | No | See Below | |
| #14 | Sample bottles intact? | Yes | No | | |
| #15 | Preservations documented on Chain of Custody? | Yes | No | | |
| #16 | Containers documented on Chain of Custody? | Yes | No | | |
| #17 | Sufficient sample amount for indicated test(s)? | Yes | No | See Below | |
| #18 | All samples received within sufficient hold time? | Yes | No | See Below | |
| #19 | Subcontract of sample(s)? | Yes | No | Not Applicable | |
| #20 | VOC samples have zero headspace? | Yes | No | Not Applicable | |

## Variance Documentation

Contact: ______ Contacted by: ______ Date/ Time: ______

Regarding: ______

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

# Analytical Report 370872

## for

## Larson & Associates

### Project Manager: Michelle Green

### Targa Middle Plant
### 9-0138

### 03-MAY-10

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295)

**XENCO Laboratories**

03-MAY-10

Project Manager: **Michelle Green**
**Larson & Associates**
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **370872**
**Targa Middle Plant**
Project Address:

**Michelle Green**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 370872. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 370872 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**
Odessa Laboratory Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***
*Certified and approved by numerous States and Agencies.*
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*
Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

# Sample Cross Reference 370872

## Larson & Associates, Midland, TX

Targa Middle Plant

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---|---|---|---|---|
| SS-1 | S | Apr-29-10 10:00 | | 370872-001 |
| SS-2 | S | Apr-29-10 10:10 | | 370872-002 |
| SS-3 | S | Apr-29-10 10:20 | | 370872-003 |
| SS-4 | S | Apr-29-10 10:30 | | 370872-004 |
| SS-5 | S | Apr-29-10 10:45 | | 370872-005 |

## CASE NARRATIVE

XENCO Laboratories

*Client Name: Larson & Associates*
*Project Name: Targa Middle Plant*

| | | | |
|---|---|---|---|
| *Project ID:* | *9-0138* | *Report Date:* | *03-MAY-10* |
| *Work Order Number:* | *370872* | *Date Received:* | *04/29/2010* |

---

***Sample receipt non conformances and Comments:***

*None*

---

***Sample receipt Non Conformances and Comments per Sample:***

*None*

***Analytical Non Conformances and Comments:***

*Batch: LBA-804652 Percent Moisture*
*None*

*Batch: LBA-804658 TPH By SW8015 Mod*
*SW8015MOD_NM*

*Batch 804658, C12-C28 Diesel Range Hydrocarbons RPD was outside QC limits.*
*Samples affected are: 370872-004, -001, -003, -002, -005*

XENCO Laboratories

# Certificate of Analysis Summary 370872

## Larson & Associates, Midland, TX

## Project Name: Targa Middle Plant

**Project Id:** 9-0138
**Contact:** Michelle Green
**Project Location:**

**Date Received in Lab:** Thu Apr-29-10 01:45 pm
**Report Date:** 03-MAY-10
**Project Manager:** Brent Barron, II

| *Analysis Requested* | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Lab Id:* | 370872-001 | | 370872-002 | | 370872-003 | | 370872-004 | | 370872-005 | | |
| | *Field Id:* | SS-1 | | SS-2 | | SS-3 | | SS-4 | | SS-5 | | |
| | *Depth:* | | | | | | | | | | | |
| | *Matrix:* | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | |
| | *Sampled:* | Apr-29-10 10:00 | | Apr-29-10 10:10 | | Apr-29-10 10:20 | | Apr-29-10 10:30 | | Apr-29-10 10:45 | | |
| **Percent Moisture** | *Extracted:* | | | | | | | | | | | |
| | *Analyzed:* | Apr-29-10 17:00 | | Apr-29-10 17:00 | | Apr-29-10 17:00 | | Apr-29-10 17:00 | | Apr-29-10 17:00 | | |
| | *Units/RL:* | % | RL | % | RL | % | RL | % | RL | % | RL | |
| Percent Moisture | | 10.5 | 1.00 | 9.59 | 1.00 | 11.3 | 1.00 | 3.68 | 1.00 | 3.01 | 1.00 | |
| **TPH By SW8015 Mod** | *Extracted:* | Apr-29-10 15:10 | | Apr-29-10 15:10 | | Apr-29-10 15:10 | | Apr-29-10 15:10 | | Apr-29-10 15:10 | | |
| | *Analyzed:* | Apr-30-10 11:12 | | Apr-30-10 00:42 | | Apr-30-10 01:11 | | Apr-30-10 01:40 | | Apr-30-10 02:09 | | |
| | *Units/RL:* | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | |
| C6-C12 Gasoline Range Hydrocarbons | | 41.2 | 16.7 | 35.1 | 16.6 | 199 | 17.0 | 412 | 77.9 | 173 | 76.9 | |
| C12-C28 Diesel Range Hydrocarbons | | 234 | 16.7 | 88.2 | 16.6 | 131 | 17.0 | 1220 | 77.9 | 877 | 76.9 | |
| C28-C35 Oil Range Hydrocarbons | | 149 | 16.7 | 24.7 | 16.6 | 60.1 | 17.0 | ND | 77.9 | ND | 76.9 | |
| Total TPH | | 424 | 16.7 | 148.0 | 16.6 | 390 | 17.0 | 1632 | 77.9 | 1050 | 76.9 | |



Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager



Final Ver. 1.000

# Flagging Criteria

**X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

**B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

**D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

**E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

**F** RPD exceeded lab control limits.

**J** The target analyte was positively identified below the MQL and above the SQL.

**U** Analyte was not detected.

**L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

**H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

**K** Sample analyzed outside of recommended hold time.

**JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.




| | Phone | Fax |
|---|---|---|
| 4143 Greenbriar Dr, Stafford, Tx 77477 | (281) 240-4200 | (281) 240-4280 |
| 9701 Harry Hines Blvd , Dallas, TX 75220 | (214) 902 0300 | (214) 351-9139 |
| 5332 Blackberry Drive, San Antonio TX 78238 | (210) 509-3334 | (210) 509-3335 |
| 2505 North Falkenburg Rd, Tampa, FL 33619 | (813) 620-2000 | (813) 620-2033 |
| 5757 NW 158th St, Miami Lakes, FL 33014 | (305) 823-8500 | (305) 823-8555 |
| 12600 West I-20 East, Odessa, TX 79765 | (432) 563-1800 | (432) 563-1713 |
| 842 Cantwell Lane, Corpus Christi, TX 78408 | (361) 884-0371 | (361) 884-9116 |

XENCO Laboratories

# Form 2 - Surrogate Recoveries

**Project Name:** Targa Middle Plant

**Work Orders :** 370872, **Project ID:** 9-0138

**Lab Batch #:** 804658 **Sample:** 562059-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 04/29/10 15:17

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 169 | 199 | 85 | 70-135 | |
| o-Terphenyl | 86.9 | 99.5 | 87 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 562059-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 04/29/10 15:47

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 99.8 | 100 | 100 | 70-135 | |
| o-Terphenyl | 44.4 | 50.1 | 89 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 562059-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

**Units:** mg/kg **Date Analyzed:** 04/29/10 16:17

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 88.3 | 99.8 | 88 | 70-135 | |
| o-Terphenyl | 47.3 | 49.9 | 95 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370872-002 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 00:42

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 93.3 | 99.8 | 93 | 70-135 | |
| o-Terphenyl | 49.8 | 49.9 | 100 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370872-003 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 01:11

| TPH By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 93.2 | 100 | 93 | 70-135 | |
| o-Terphenyl | 55.1 | 50.2 | 110 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# Form 2 - Surrogate Recoveries

**Project Name:** Targa Middle Plant

**Work Orders :** 370872, **Project ID:** 9-0138

**Lab Batch #:** 804658 **Sample:** 370872-004 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 01:40

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 90.4 | 100 | 90 | 70-135 | |
| o-Terphenyl | 49.0 | 50.0 | 98 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370872-005 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 02:09

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 81.1 | 99.5 | 82 | 70-135 | |
| o-Terphenyl | 45.3 | 49.8 | 91 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370803-004 S / MS **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 02:39

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 105 | 99.9 | 105 | 70-135 | |
| o-Terphenyl | 47.7 | 50.0 | 95 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370803-004 SD / MSD **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 03:08

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 104 | 99.8 | 104 | 70-135 | |
| o-Terphenyl | 46.7 | 49.9 | 94 | 70-135 | |

**Lab Batch #:** 804658 **Sample:** 370872-001 / SMP **Batch:** 1 **Matrix:** Soil

**Units:** mg/kg **Date Analyzed:** 04/30/10 11:12

| TPH By SW8015 Mod Analytes | SURROGATE RECOVERY STUDY Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
|---|---|---|---|---|---|
| 1-Chlorooctane | 87.9 | 99.7 | 88 | 70-135 | |
| o-Terphenyl | 48.4 | 49.9 | 97 | 70-135 | |

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

# BS / BSD Recoveries

## Project Name: Targa Middle Plant

**Work Order #:** 370872
**Analyst:** BEV
**Lab Batch ID:** 804658 **Sample:** 562059-1-BKS
**Units:** mg/kg

**Date Prepared:** 04/29/2010
**Batch #:** 1

**Project ID:** 9-0138
**Date Analyzed:** 04/29/2010
**Matrix:** Solid

| TPH By SW8015 Mod | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| C6-C12 Gasoline Range Hydrocarbons | ND | 995 | 1020 | 103 | 1000 | 1020 | 102 | 0 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 995 | 968 | 97 | 1000 | 723 | 72 | 29 | 70-135 | 35 | |

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

XENCO Laboratories

# Form 3 - MS / MSD Recoveries

## Project Name: Targa Middle Plant

**Work Order # :** 370872 **Project ID:** 9-0138

**Lab Batch ID:** 804658 **QC- Sample ID:** 370803-004 S **Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/30/2010 **Date Prepared:** 04/29/2010 **Analyst:** BEV

**Reporting Units:** mg/kg

| TPH By SW8015 Mod | MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| C6-C12 Gasoline Range Hydrocarbons | ND | 1070 | 1100 | 103 | 1060 | 1070 | 101 | 3 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | ND | 1070 | 1070 | 100 | 1060 | 747 | 70 | 36 | 70-135 | 35 | F |

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO Laboratories

# Sample Duplicate Recovery

## Project Name: Targa Middle Plant

**Work Order #:** 370872

**Lab Batch #:** 804652 **Project ID:** 9-0138
**Date Analyzed:** 04/29/2010 **Date Prepared:** 04/29/2010 **Analyst:** JLG
**QC- Sample ID:** 370803-001 D **Batch #:** 1 **Matrix:** Soil
**Reporting Units:** %

| Percent Moisture<br>Analyte | Parent Sample Result [A] | Sample Duplicate Result [B] | RPD | Control Limits %RPD | Flag |
|---|---|---|---|---|---|
| | SAMPLE / SAMPLE DUPLICATE RECOVERY | | | | |
| Percent Moisture | 3.82 | 3.51 | 8 | 20 | |

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

# CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: MICHELLE GREEN

DATE: 4/29/10 PAGE 1 OF 1
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: TARGA MIDDLE PLANT
LAI PROJECT #: 9-0138 COLLECTOR: R. BROOKS

TRRP report? ☐ Yes ☐ No

TIME ZONE: Time zone/State: NM/MST

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

370872

2009

| Field Sample I.D. | Lab # | Date | Time | Matrix | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE - MOD 8015 X | DIESEL - MOD 8015 X | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SS-1 | 01 | 4/29 | 10:00 | S | 1 | | | | X | | | | X | X | | | | | | | | | | | | | | EAST WALL |
| SS-2 | 02 | | 10:10 | S | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| SS-3 | 03 | | 10:20 | S | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| SS-4 | 04 | | 10:30 | S | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| SS-5 | 05 | | 10:45 | S | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | 5 | | | | 5 | | | | 5 | 5 | | | | | | | | | | | | | | |

| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
|---|---|---|
| R.W. Brooks | 4/29/10 1:45 pm | Andrea Sam |
| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |
| RELINQUISHED BY:(Signature) | DATE/TIME | RECEIVED BY: (Signature) |

**TURN AROUND TIME**
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

**LABORATORY USE ONLY:**
RECEIVING TEMP: 3.6 THERM #:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☑ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED 9oz glass

# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 4·29·10 13:45

Lab ID # : 370872

Initials: AL

## Sample Receipt Checklist

| | | | | | Client Initials |
|---|---|---|---|---|---|
| #1 | Temperature of container/ cooler? | Yes | No | 3.6 °C | |
| #2 | Shipping container in good condition? | Yes | No | | |
| #3 | Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 | Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | |
| #5 | Chain of Custody present? | Yes | No | | |
| #6 | Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 | Chain of Custody signed when relinquished/ received? | Yes | No | | |
| #8 | Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont./ Lid | |
| #9 | Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 | Sample matrix/ properties agree with Chain of Custody? | Yes | No | | |
| #11 | Containers supplied by ELOT? | Yes | No | | |
| #12 | Samples in proper container/ bottle? | Yes | No | See Below | |
| #13 | Samples properly preserved? | Yes | No | See Below | |
| #14 | Sample bottles intact? | Yes | No | | |
| #15 | Preservations documented on Chain of Custody? | Yes | No | | |
| #16 | Containers documented on Chain of Custody? | Yes | No | | |
| #17 | Sufficient sample amount for indicated test(s)? | Yes | No | See Below | |
| #18 | All samples received within sufficient hold time? | Yes | No | See Below | |
| #19 | Subcontract of sample(s)? | Yes | No | Not Applicable | |
| #20 | VOC samples have zero headspace? | Yes | No | Not Applicable | |

## Variance Documentation

Contact: ______ Contacted by: ______ Date/ Time: ______

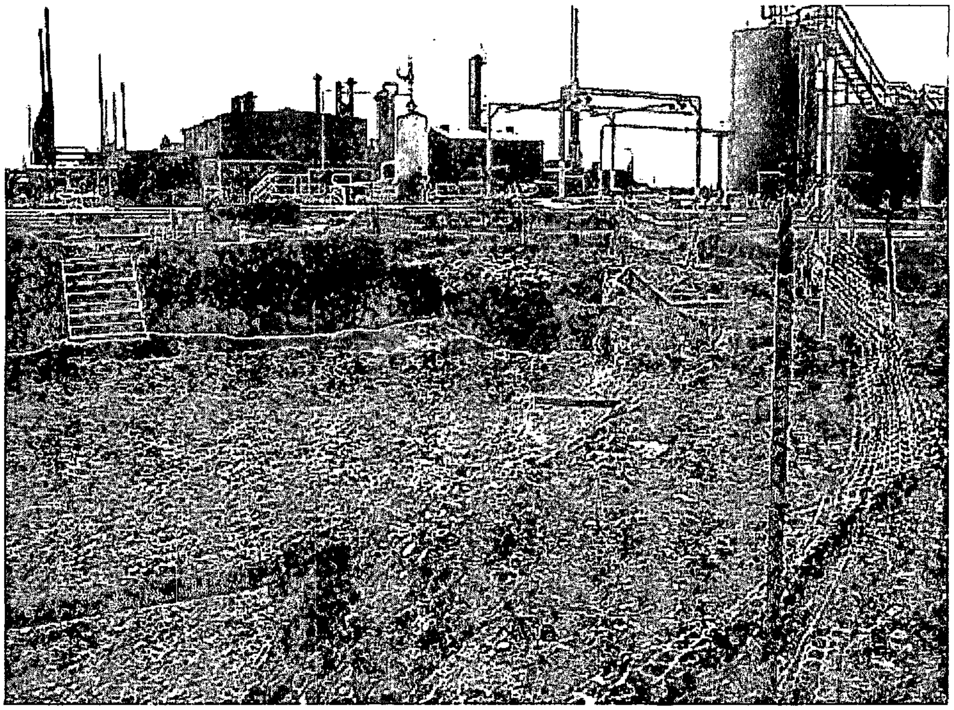
Regarding: ______

Corrective Action Taken:

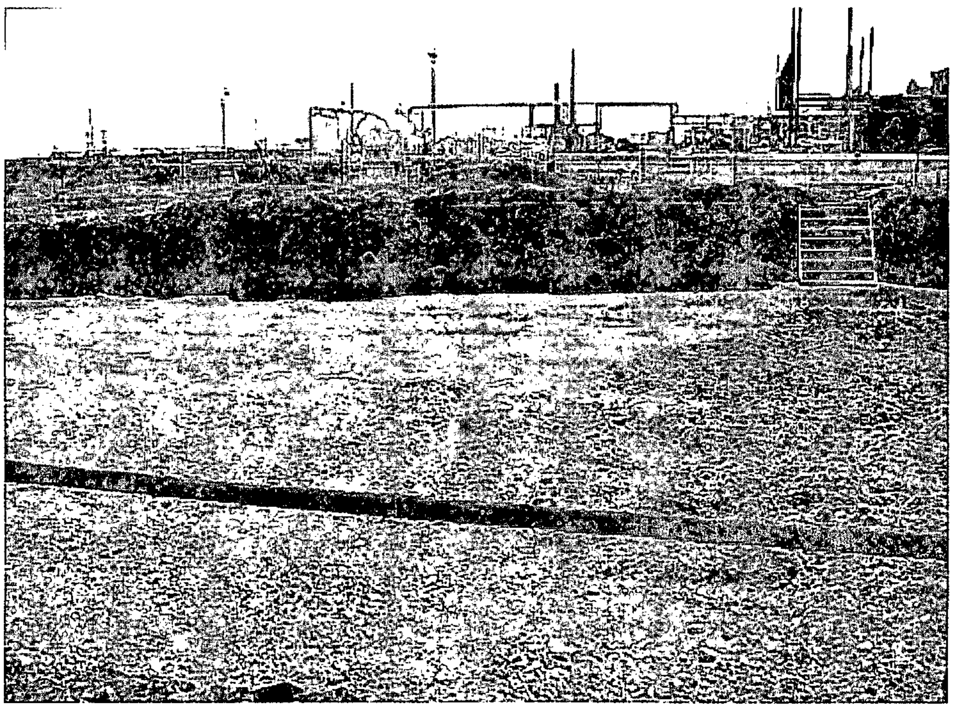
Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

**Photo Documentation**

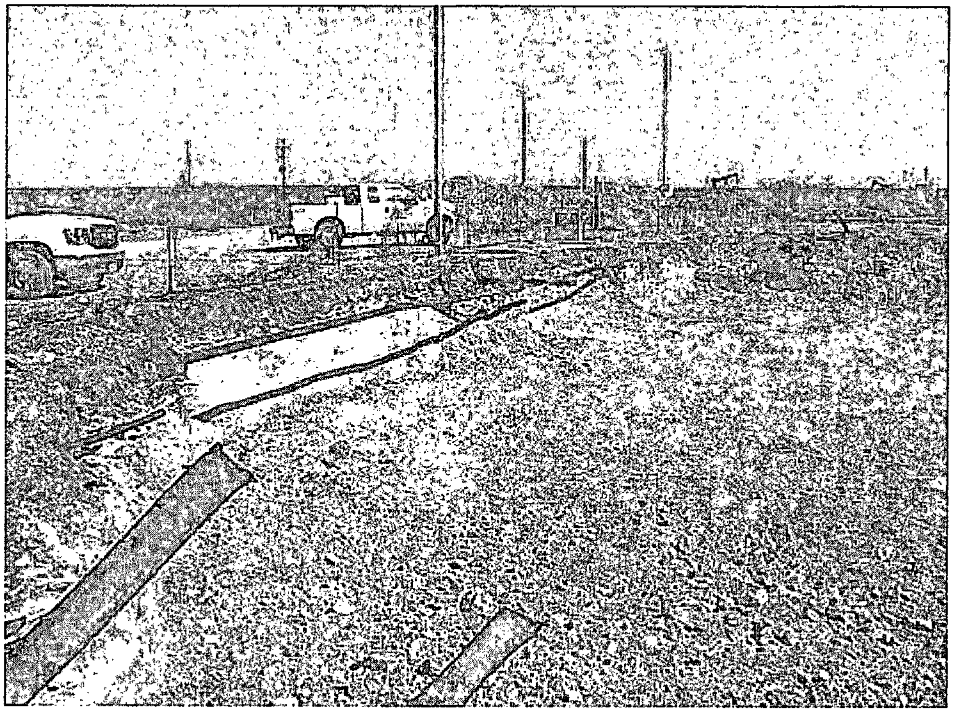


Shell Tanks Excavation Looking North from East Side, June 2, 2010

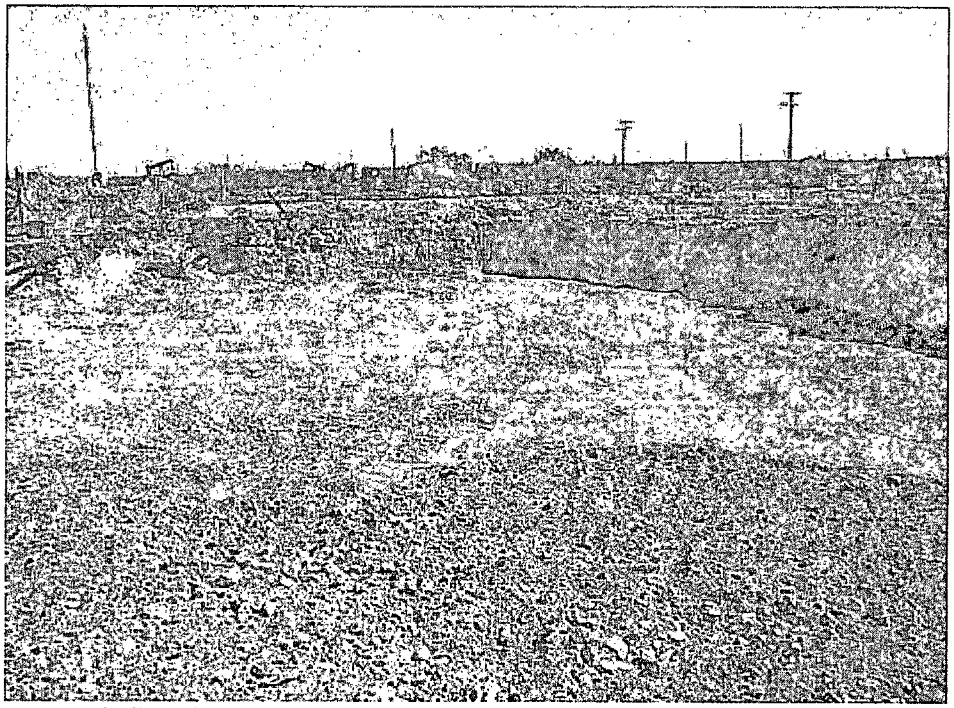


Shell Tanks Excavation Looking West from East Side, June 2, 2010

**Photo Documentation**



Shell Tanks Excavation Looking Southeast from North End, June 2, 2010



Shell Tanks Excavation Looking South from North End, June 2, 2010

Larson & Associates, Inc.
Environmental Consultants

RECEIVED

2009 DEC 22 AM 11 38

December 18, 2009

**VIA EMAIL: Carl.Chavez@state.nm.us**

Mr. Carl Chavez
Environmental Engineer
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Free Product Assessment and Recovery Update - Targa Midstream Services, L.P., Eunice Gas Plant (GW-005), Unit Letter A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Chavez:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LAI), Targa's consultant, to update the OCD, since November 17, 2009, on source evaluation and recovery of light non-aqueous phase liquids (LNAPL or condensate) discovered in monitoring well MW-3 at the Eunice Gas Plant (Facility). The Facility operates under OCD discharge permit GW-005 and is located in Unit A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East in Lea County, New Mexico. Figure 1 presents a location and topographic map. Figure 2 presents a Facility drawing.

**Hydrocarbon Product Recovery**

On November 13, 2009, LAI personnel began recovering LNAPL from well MW-3 using a Keck pneumatic product recovery system (PRS) supplied by GeoTech, Inc., Denver, Colorado.

The PRS is a stainless steel bladder pump equipped with a floating hydrophobic filter to skim LNAPL. The condensate is discharged into a 55-gallon polyethylene drum positioned inside secondary containment. The tank full sensor is positioned inside the polyethylene drum to signal the controller to shut off the pump once the drum level is full. Between November 13 and December 16, 2009, approximately 80.4 gallons of LNAPL and 132 gallons of water have been recovered from MW-3. Recovered product is removed by Targa personnel, and recycled in plant operations. Table 1 summarizes MW-3 gauging, pump operating parameters, recovery volumes, and operation notes.

On December 11, 2009, LAI personnel performed a second bail-out test in well MW-3 to evaluate system operation effectiveness. The bail-out test is performed by measuring the static water and product level in the well, then hand bailing LNAPL with a disposable polyethylene bailer. Water and product recovery is monitored until an inflection point is observed. The inflection point occurs when the product thickness in the well equalizes with the product thickness in the formation and is based on the method outlined by Gruszczenski (1987, NGWA). The apparent hydrocarbon product thickness prior to the bail-out test was 4.30 feet, down from 5.06 feet recorded October 21st. During this second test the inflection point was delayed until

507 North Marienfeld, Suite 200 ◆ Midland, Texas 79701 ◆ Ph. (432) 687-0901 ◆ Fax (432) 687-0456

approximately 120 minutes after recovery started, a time increase of 25 minutes when compared with the previous test. The calculated product thickness for this test was 0.90 feet (previously 1.44 feet) and the capillary fringe height was 3.40 feet (previously 3.62 feet). The bail-out test results indicate a 60% reduction in LNAPL, and a 6.5% capillary fringe reduction. Copies of the October and December bail-out tests are presented in Appendix A.

Observed product thickness in well MW-3 during pumping has been reduced to sheen, but does substantially recover when the pump is turned off. During the next site visit, LAI will be reducing the pump cycle frequency to approximately once per every five minutes; a length of time that should allow about 0.10 feet of LNAPL to recovery in MW-3 between cycles, enhancing recovery efforts.

**Source Evaluation**

On October 12, 2009, Targa personnel collected liquid samples from the XTO inlet scrubber, closed drain scrubber and monitoring well MW-3. On October 15, 2009, Targa personnel collected a product sample from the condensate ("Shell") tank. The samples were delivered under chain of custody control to Cardinal Laboratories (Cardinal) located in Hobbs, New Mexico, and analyzed by Caprock Laboratories (Caprock) located in Midland, Texas. Caprock analyzed the samples for total sulfur, API gravity and extended hydrocarbons by gas chromatography (GC). The sample from the XTO inlet scrubber was a water solution that contained no phase-separated hydrocarbons for fingerprint analysis. Based on the GC, gravity and weight-percent sulfur data, Caprock concluded that the three samples (closed drain scrubber, MW-3, Shell Tanks) were not from the same origin. The laboratory report for the Shell Tank sample was not available for inclusion in the submittal on November 17, 2009, and is presented in Appendix B.

At the OCD's request, LAI prepared two (2) geological cross sections (A to A' and B to B') from geological logs of monitoring wells MW-2A, MW-3, MW-4, MW-5, MW-6, MW-11, MW-12, MW-13, MW-14, MW-16 and MW-19. Geological logs of monitoring wells MW-16, MW-6, MW-5, MW-3 and MW-13 were used to prepare cross section A to A' which transects the Facility from west to east (Figure 3). Geological logs of monitoring wells MW-11, MW-12, MW-2A, MW-3, MW-4, MW-14 and MW-19 were used to prepare cross section B to B' which transects the Facility from north to south (Figure 4). Figure 2 presents the cross section locations.

Referring to Figure 3, the groundwater elevation is highest in the vicinity of well MW-3 where the groundwater and LNAPL occur in a sandstone unit between approximately 22 and 33 feet below ground surface (bgs). The sandstone grades vertically into clayey sand and is laterally discontinuous. The sandstone was not observed at well MW-13 located approximately 295 feet east. The groundwater elevation decreases west of MW-3.

Figure 4 shows that the surface elevation and groundwater elevation is highest in the vicinity of well MW-3. Groundwater and LNAPL occur in the sandstone unit that is laterally discontinuous to the north and south. The groundwater elevation decreases gradually to the north and south of well MW-3. The geological cross sections show possible groundwater mounding in the area of MW-3. The groundwater mounding may be due to an open excavation located about 25 feet west of the well. The excavation is the result of soil removal following construction of the new "Shell" tanks north of the former location.

On July 29, 2008, Targa reported a spill to the OCD District 1 office in Hobbs, New Mexico. The spill occurred near the closed drain scrubber that was previously located near the open excavation. The release involved about 20 barrels of condensate when a dresser sleeve on a line failed due to over pressuring from pigging operations causing the condensate to flow into the open excavation. Although condensate was recovered the spill is considered a source for the LNAPL in MW-3.

Targa will continue recovering LNAPL from MW-3 using the pneumatic product recovery pump. If you have any questions or comments, please contact Mr. Cal Wrangham at 432.688.0452 or CWrangham@targaresources.com, or myself at 432.687.0901 or mark@laenvironmental.com.

Sincerely,

Larson & Associates, Inc.

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

Encl.

Cc: Cal Wrangham, Targa
James Lingnau, Targa
Susan Ninan, Targa
Larry Johnson, OCD – Hobbs

## TABLES

Table 1

MW-03 LNAPL Recovery Summary

Targa Midstream Services, L.P., Eunice Plant

| Date | Depth LNAPL | Depth $H_2O$ | LNAPL Thickness | Filter/Float Depth Set | Cycles/ Minute | Inlet Pressure | LNAPL Recovered | $H_2O$ Recovered | Drum/ Used, Full, Empty (#/U,F,E) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/13/2009 | 26.18 | 31.33 | 5.15 | | | | | | | LNAPL Discovered |
| 10/21/2009 | 26.22 | 31.28 | 5.06 | | | | 2.75 | | | LNAPL Recovery Test |
| 11/11/2009 | 26.38 | 31.51 | 5.13 | 27.15 | 2 | 75 | | | | Keck PRS System Installed. Full operation on 11/13/09 |
| 11/19/2009 | 27.26 | 29.16 | 1.90 | 26.5 | 2 | 74 | 21.1 | 27.7 | 1/U | Raised float ~8 inches |
| 11/20/2009 | 27.57 | 27.77 | 0.20 | 26.6 | 2 | 75 | 18.2 | 31.6 | 1/F; 2/U | Well recovery test; 0.20 feet |
| 11/23/2009 | 27.09 | 29.92 | 2.83 | 27.6 | 2 | 75 | 7.4 | 0 | 1/U; 2/E | Lowered Float |
| 12/3/2009 | 27.76 | 28.33 | 0.57 | 28 | 2 | 72 | 13 | 40.1 | 1/U; 2/E | Lowered Float |
| 12/9/2009 | 28.15 | 28.21 | 0.06 | | | | 11.6 | 28.9 | 1/F; 2/U | Shut down system to allow recovery for Bail Down - Recovery testing |
| 12/10/2009 | 26.82 | 30.51 | 3.69 | | | | | | | Allowing stabilization |
| 12/11/2009 | 26.75 | 31.05 | 4.30 | 27 | 2 | 68 | 2.2 | | | Bail Down - Recovery testing |
| 12/14/2009 | | | 0.00 | 27.5 | | | | | 1/F; 2/U | Reset pump, not recovering |
| 12/15/2009 | | | 0.00 | | | | 10.3 | 0 | 1/E; 2/U | |
| 12/16/2009 | | 27.92 | 0.00 | 27.5 | 2 | 72 | 13.75 | 3.7 | 1/E; 2/U | |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | 0.00 | | | | | | | |
| | | | | | | **Recovery Totals** | **80.4** | **132** | | |

*Notes*

Depths reported in feet.

Inlet Pressure in Pounds per Square Inch (PSI).

Volumes reported in gallons.

55-gallon drum dimensions = 22.5" ID X 32" Internal height. ~0.206613 gallons per 0.01 feet gauged

Yellow indicates recovery not used in total calculation.

| **Quick Calc** | Input Feet | Gallons |
|---|---|---|
| **Gauged Drum Thickness** | | 0.0 |

# FIGURES

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 12/18/2009 3:23:18 PM

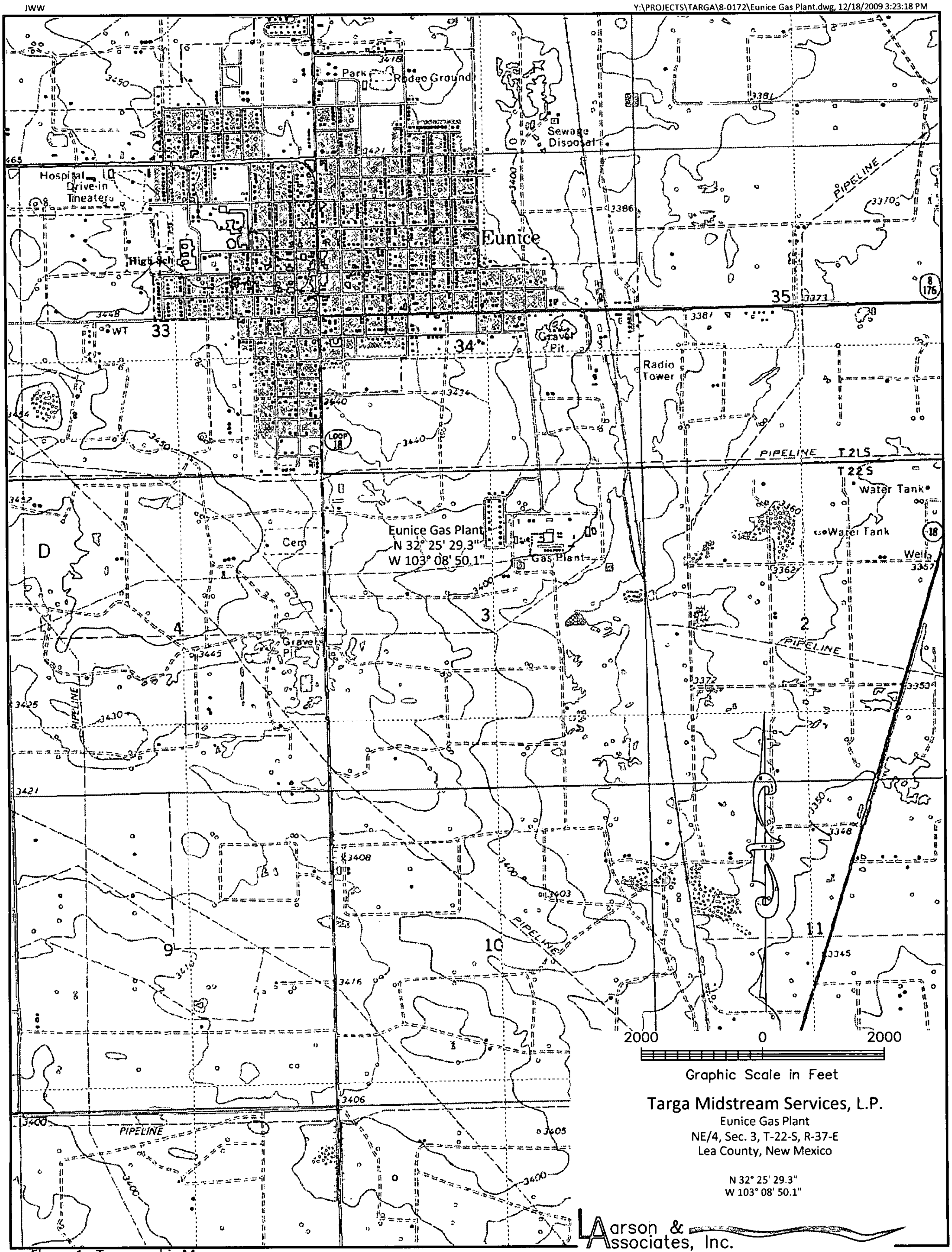



Figure 1 - Topographic Map

JWW

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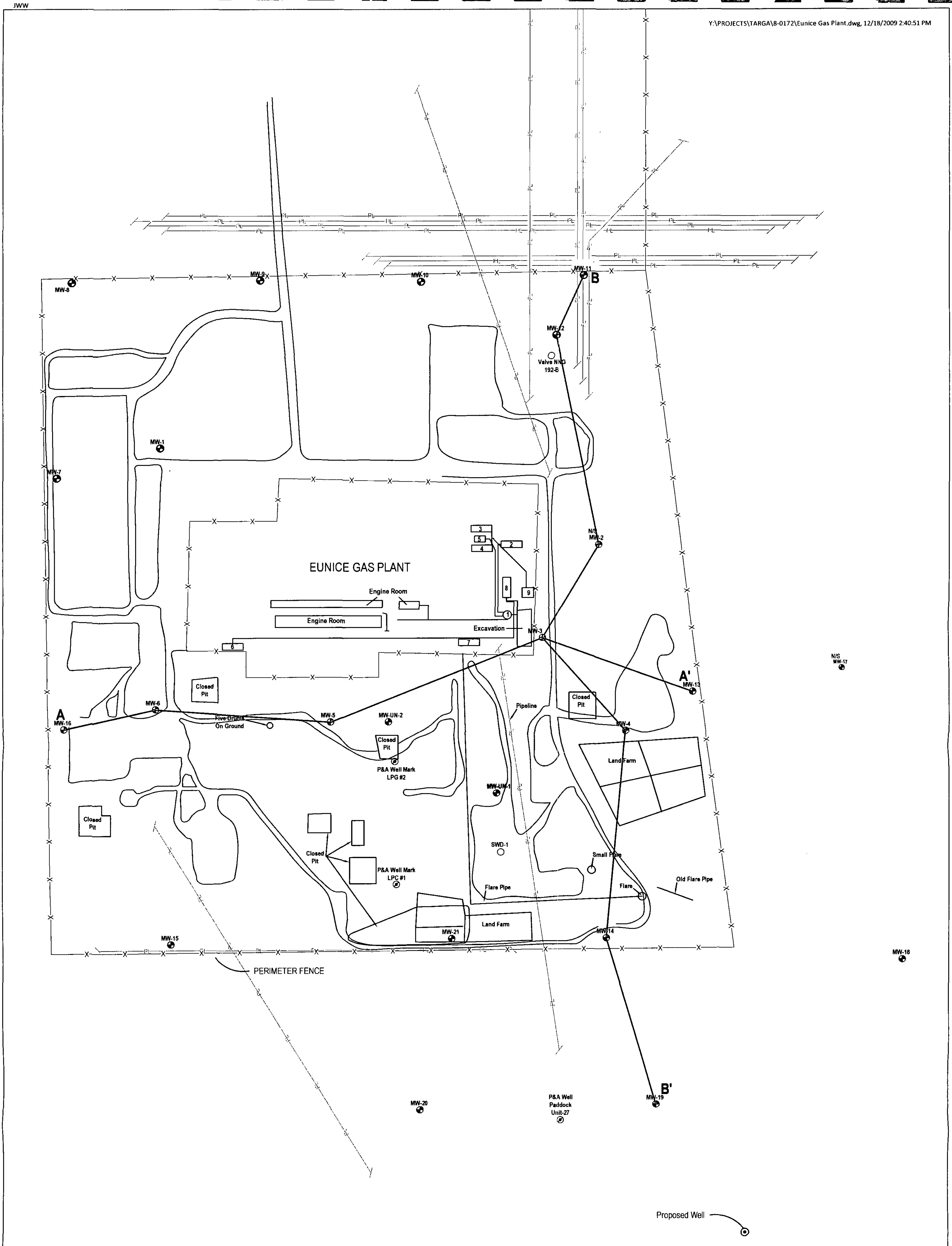



LEGEND

MW-06 - Monitoring Well Location

—x—x— - Fence

N/S - Not Sampled

A ——— A' - Cross Section Line

1 - Closed Drain Scrubber
2 - XTO Scrubber
3 - VRU Sales Tank North
4 - VRU Sales Tank South
5 - 3 Phase Separator
6 - West Inlet Scrubber
7 - East Inlet Scrubber
8 - New Condensate Tanks / Gun BBL / Sump
9 - Lact For Sales

350 0 350

Graphic Scale in Feet

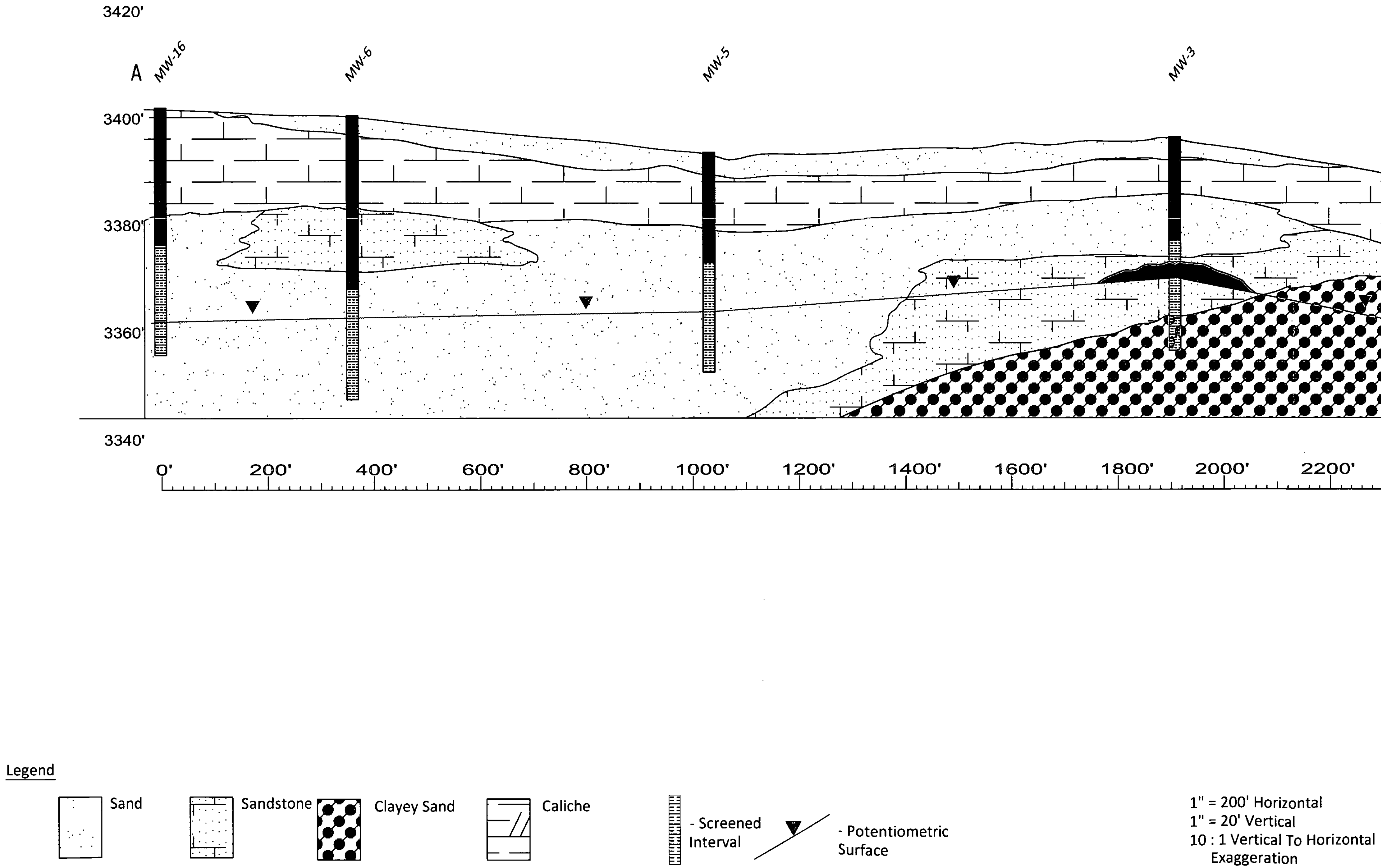
**Targa Midstream Services, L.P.**

Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Facility Drawing and Geological Cross Section Locations




Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

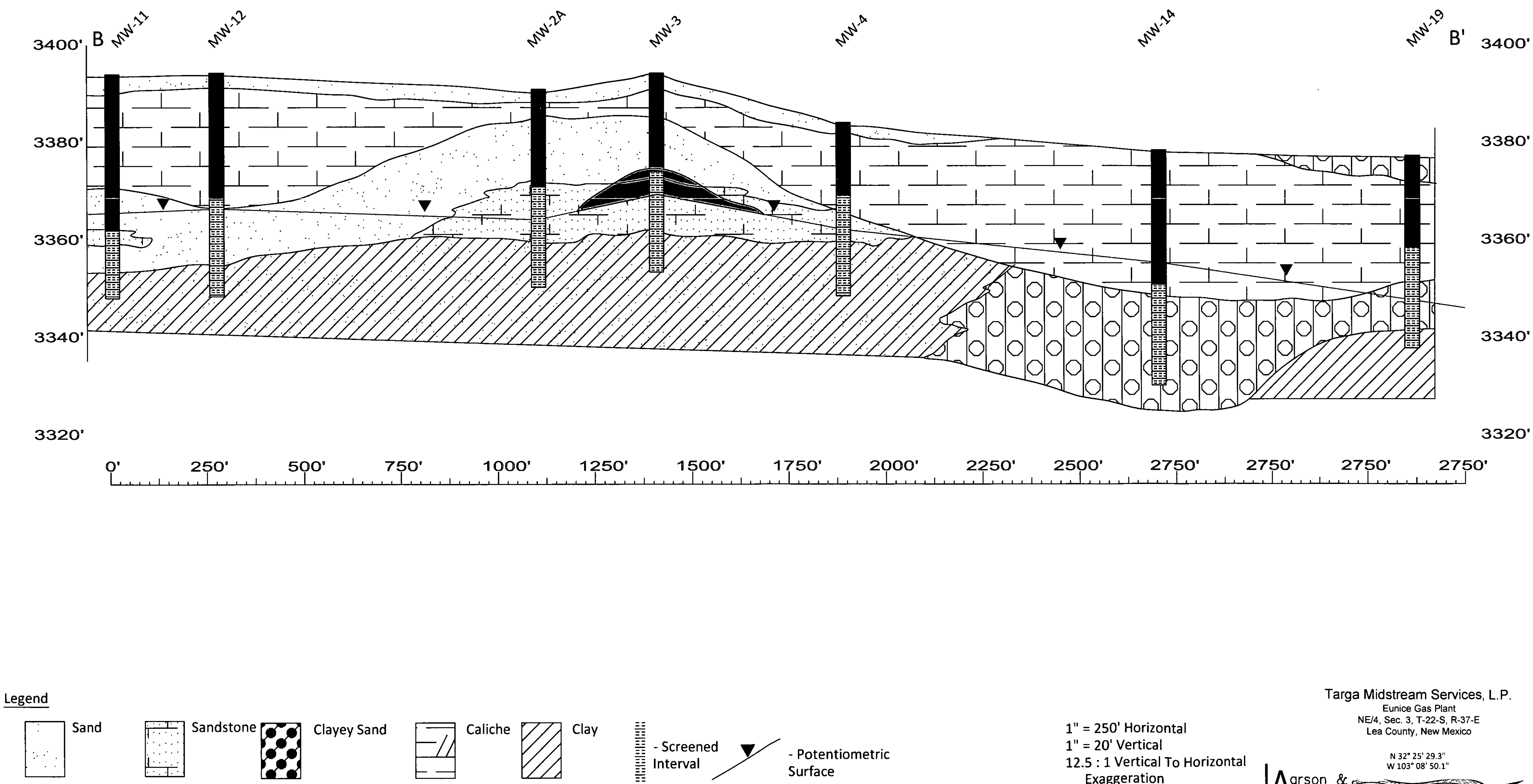
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - West to East Geological Cross Section A to A'

JWW

Y:\PROJECTS\TARGA\9-0138 Targa Eunice MW-3 Free Phase Product\Cross Section B.dwg, 12/18/2009 3:02:37 PM




1" = 250' Horizontal
1" = 20' Vertical
12.5 : 1 Vertical To Horizontal Exaggeration

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

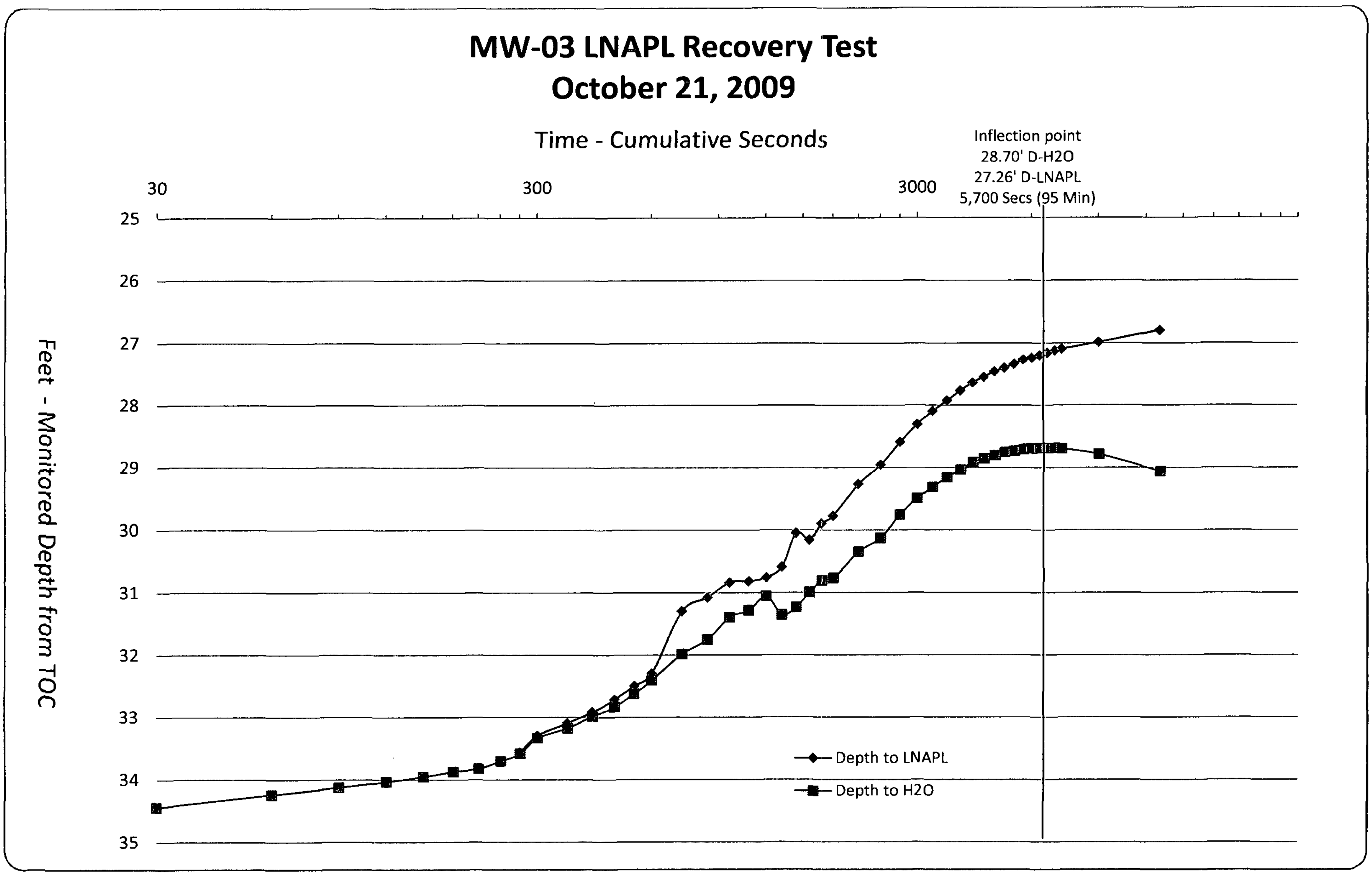
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 4 - North to South Geological Cross Section B to B'

# APPENDIX A

## Bailout Test Results




| Obs. No. | Time Sec | Depth to LNAPL | Depth to $H_2O$ |
|---|---|---|---|
| 1 | 30 | | 34.44 |
| 2 | 60 | | 34.24 |
| 3 | 90 | | 34.12 |
| 4 | 120 | | 34.03 |
| 5 | 150 | | 33.95 |
| 6 | 180 | | 33.87 |
| 7 | 210 | | 33.82 |
| 8 | 240 | | 33.70 |
| 9 | 270 | 33.56 | 33.58 |
| 10 | 300 | 33.29 | 33.33 |
| 11 | 360 | 33.09 | 33.17 |
| 12 | 420 | 32.91 | 32.98 |
| 13 | 480 | 32.71 | 32.83 |
| 14 | 540 | 32.49 | 32.62 |
| 15 | 600 | 32.29 | 32.40 |
| 16 | 720 | 31.29 | 31.98 |
| 17 | 840 | 31.07 | 31.75 |
| 18 | 960 | 30.83 | 31.39 |
| 19 | 1080 | 30.81 | 31.28 |
| 20 | 1200 | 30.75 | 31.05 |
| 21 | 1320 | 30.58 | 31.35 |
| 22 | 1440 | 30.04 | 31.23 |
| 23 | 1560 | 30.15 | 30.99 |
| 24 | 1680 | 29.89 | 30.80 |
| 25 | 1800 | 29.77 | 30.76 |
| 26 | 2100 | 29.26 | 30.34 |
| 27 | 2400 | 28.95 | 30.12 |
| 28 | 2700 | 28.58 | 29.75 |
| 29 | 3000 | 28.30 | 29.49 |
| 30 | 3300 | 28.09 | 29.31 |
| 31 | 3600 | 27.92 | 29.15 |
| 32 | 3900 | 27.76 | 29.03 |
| 33 | 4200 | 27.63 | 28.91 |
| 34 | 4500 | 27.54 | 28.85 |
| 35 | 4800 | 27.45 | 28.80 |
| 36 | 5100 | 27.39 | 28.75 |
| 37 | 5400 | 27.33 | 28.73 |
| 38 | 5700 | 27.26 | 28.70 |
| 39 | 6000 | 27.23 | 28.69 |
| 40 | 6300 | 27.19 | 28.68 |
| 41 | 6600 | 27.15 | 28.68 |
| 42 | 6900 | 27.12 | 28.68 |
| 43 | 7200 | 27.09 | 28.69 |
| 44 | 9000 | 26.98 | 28.78 |
| 45 | 13020 | 26.79 | 29.06 |

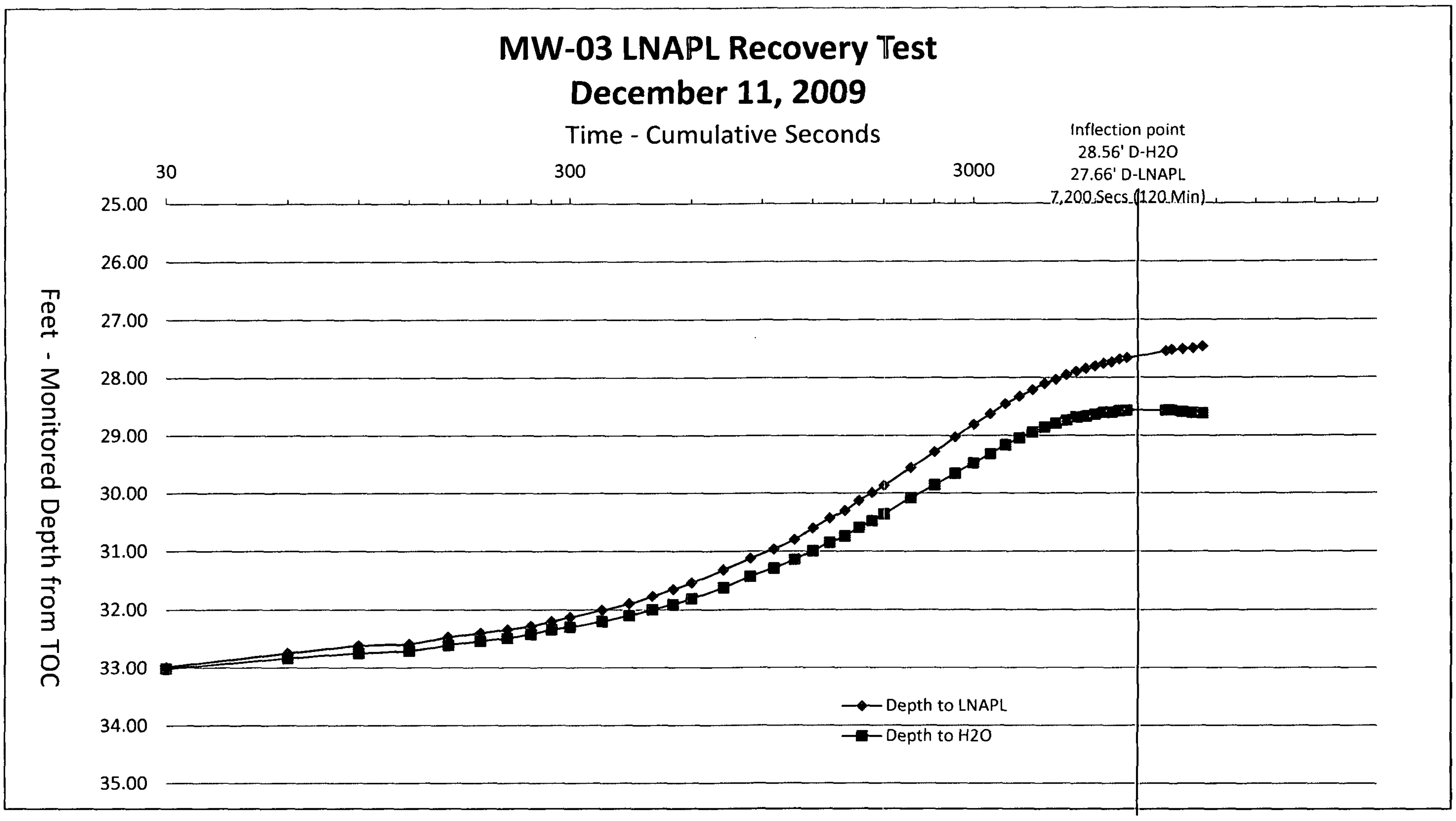
| **Static D-LNAPL** | **Static D-H2O** | **Corrected D-GW** |
|---|---|---|
| 26.22 | 31.28 | 27.64 |

Specific Gravity Estimated at 0.72 g/cm$^3$

Charting and calculation based upon *Determination of a Realistic Estimate of Formation Product Thickness Using Monitor Wells: A Field Bailout Test* by Thomas S. Gruszczenski (1987, NGWA)

**Step Number**

| | |
|---|---|
| 5 – Inflection Point | 5700 sec |
| 6 – S.G. corrected | 27.64 |
| 7 – Measured Product Thickness | 5.06 |
| **8 – Inflection Product Thickness** | **1.44** |
| **9 – Capillary Fringe Height** | **3.62** |




| Static D-LNAPL | Static D-H2O | Corrected D-GW |
|---|---|---|
| 26.75 | 31.05 | 27.95 |

Specific Gravity Estimated at 0.72 g/cm$^3$

Charting and calculation based upon *Determination of a Realistic Estimate of Formation Product Thickness Using Monitor Wells: A Field Bailout Test* by Thomas S. Gruszczenski (1987, NGWA)

| Step Number | |
|---|---|
| 5 – Inflection Point | 7,200 sec |
| 6 – S.G. corrected | 27.95 |
| 7 – Measured Product Thickness | 4.3 |
| **8 – Inflection Product Thickness** | **0.90** |
| **9 – Capillary Fringe Height** | **3.40** |

| Obs. No. | Time Sec | Time Min | Depth to LNAPL | Depth to $H_2O$ |
|---|---|---|---|---|
| 1 | 30 | 0.5 | 32.98 | 33.01 |
| 2 | 60 | 1 | 32.74 | 32.83 |
| 3 | 90 | 1.5 | 32.61 | 32.74 |
| 4 | 120 | 2 | 32.58 | 32.70 |
| 5 | 150 | 2.5 | 32.46 | 32.60 |
| 6 | 180 | 3 | 32.39 | 32.53 |
| 7 | 210 | 3.5 | 32.33 | 32.48 |
| 8 | 240 | 4 | 32.27 | 32.41 |
| 9 | 270 | 4.5 | 32.19 | 32.33 |
| 10 | 300 | 5 | 32.12 | 32.29 |
| 11 | 360 | 6 | 32.00 | 32.19 |
| 12 | 420 | 7 | 31.89 | 32.09 |
| 13 | 480 | 8 | 31.76 | 31.99 |
| 14 | 540 | 9 | 31.64 | 31.90 |
| 15 | 600 | 10 | 31.53 | 31.80 |
| 16 | 720 | 12 | 31.31 | 31.61 |
| 17 | 840 | 14 | 31.11 | 31.42 |
| 18 | 960 | 16 | 30.95 | 31.28 |
| 19 | 1080 | 18 | 30.79 | 31.13 |
| 20 | 1200 | 20 | 30.59 | 30.98 |
| 21 | 1320 | 22 | 30.42 | 30.84 |
| 22 | 1440 | 24 | 30.29 | 30.73 |
| 23 | 1560 | 26 | 30.12 | 30.58 |
| 24 | 1680 | 28 | 29.99 | 30.47 |
| 25 | 1800 | 30 | 29.86 | 30.35 |
| 26 | 2100 | 35 | 29.55 | 30.07 |
| 27 | 2400 | 40 | 29.28 | 29.85 |
| 28 | 2700 | 45 | 29.02 | 29.65 |
| 29 | 3000 | 50 | 28.80 | 29.47 |
| 30 | 3300 | 55 | 28.62 | 29.31 |
| 31 | 3600 | 60 | 28.45 | 29.16 |
| 32 | 3900 | 65 | 28.32 | 29.04 |
| 33 | 4200 | 70 | 28.21 | 28.94 |
| 34 | 4500 | 75 | 28.10 | 28.85 |
| 35 | 4800 | 80 | 28.03 | 28.78 |
| 36 | 5100 | 85 | 27.95 | 28.73 |
| 37 | 5400 | 90 | 27.89 | 28.68 |
| 38 | 5700 | 95 | 27.84 | 28.66 |
| 39 | 6000 | 100 | 27.80 | 28.63 |
| 40 | 6300 | 105 | 27.76 | 28.60 |
| 41 | 6600 | 110 | 27.73 | 28.59 |
| 42 | 6900 | 115 | 27.68 | 28.57 |
| 43 | 7200 | 120 | 27.66 | 28.56 |
| 44 | 9000 | 150 | 27.54 | 28.56 |
| 45 | 9300 | 155 | 27.52 | 28.56 |
| 46 | 9900 | 165 | 27.50 | 28.58 |
| 47 | 10500 | 175 | 27.49 | 28.60 |
| 48 | 11100 | 185 | 27.46 | 28.61 |

# APPENDIX B

## Laboratory Report

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

November 23, 2009

Roger Holland
Targa Resources
6 Desta Drive, Suite 3300
Midland, TX 79705

Re: Middle Plant Shell Tanks

Enclosed are the results of analyses for sample number H18505, received by the laboratory on 10/15/09 at 12:40 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

| | |
|---|---|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005 | Total Petroleum Hydrocarbons |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.2 | Regulated VOCs (V2, V3) |

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 10 (includes Chain of Custody)

Sincerely,

Celey D. Keene

Celey D. Keene
Laboratory Director

# Caprock Laboratories, Inc.

3312 Bankhead Highway
Midland, Texas 79701
(432) 689 – 7252


November 20, 2009

Cardinal Laboratories
101 East Marland
Hobbs, New Mexico 88240

Attention: Celey Keene

Subject: Hydrocarbon Fingerprint

Gentlemen

Presented in this report are the final results of analyses performed to help determine if the samples submitted on October 22, 2009 and November 20, 2009 were from the same origin. The sample identified as H18479-2 was a water solution and contained only a trace amount of hydrocarbons and could not be included in the fingerprint analyses.

The other three samples (H18479-1, H18479-3 & H18505-1) were analyzed to determine Total Sulfur by X-Ray Fluorescence, API Gravity and Extended Hydrocarbons by Gas Chromatography. The data from the Extended Chromatographic analysis was calculated and the ratio of the weight percent of each component between N-Decane to N-Eicosane was calculated as a function of weight percent N-Tridecane. The resulting data was then graphed to serve as a fingerprint of each hydrocarbon. The ratio of three biomarkers, Farnesane:N-Tetradecane, Pristane:N-Heptadecane, and Phytane:N-Octadecane were also calculated and compared.

In general, based on the fingerprint, gravity and weight % sulfur data, these three samples probably are not from the same origin.

It has been a pleasure to perform this study for you and we look forward to being of service in the future. Please do not hesitate to call if you should have any questions about the analytical procedures used, the results obtained, or if we may be of further assistance.

Respectfully,

James L. Pritchard, Lab Manager
Caprock Laboratories, Inc.

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(432) 698-7252

COMPANY: CARDINAL LABORATORIES
SAMPLE: AS NOTED

JOB NUMBER: 0911008
DATE RECEIVED: NOV. 03, 200
DATE REPORTED: NOV. 20, 200
REPORTED TO: CELEY KEENE

## SUMMARY OF CRUDE OIL ANALYSIS

| SAMPLE IDENTIFICATION | H18479-1 | H18479-3 | H18505-1 |
|---|---|---|---|
| LAB NUMBER | 10089-01 | 10089-03 | 11008-01 |
| WEIGHT % SULFUR | 1.2967 | 0.3096 | 0.2208 |
| SPECIFIC GRAVITY, 60/60F | 0.7389 | 0.7632 | 0.7428 |
| API GRAVITY @ 60 F | 60.0 | 53.9 | 59.0 |

* SAMPLE WAS A WATER SOLUTION, NOT HYDROCARBONS

METHODS: WEIGHT % SULFUR - ASTM D4294
GRAVITY - ASTM D287
SAMPLE: CRUDE OIL

ANALYST:
JAMES L. PRITCHARD, LAB MANAGER

CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H 18505-1
OCTOBER 15, 2009

JOB NUMBER: 0911008
DATE RECIEVED: 11-03-0(
DATE REPORTED: 11-20-0(
REPORTED TO: C, KEENE

SAMPLE #: 0911008-01

| COMPONENT | | WEIGHT % |
|---|---|---|
| Methane - Ethane | | 0.0016 |
| Propane | C-3 | 0.0432 |
| Iso-Butane | | 0.1231 |
| N-Butane | C-4 | 0.6037 |
| Iso-Pentane | | 1.3273 |
| N-Pentane | C-5 | 1.9286 |
| Neo-Hexane | | 0.0592 |
| Cyclopentane | | 0.5926 |
| 2-Methylpentane | | 2.2436 |
| 3-Methylpentane | | 1.7063 |
| N-Hexane | C-6 | 4.2889 |
| Methylcyclopentane | | 2.6162 |
| Benzene | | 1.1082 |
| Cyclohexane | | 3.3494 |
| 2-Methylhexane | | 2.2788 |
| 3-Methylhexane | | 3.1064 |
| Dimethylcyclopentanes | | 4.8079 |
| Heptanes | | 1.9542 |
| N-Heptane | C-7 | 6.9411 |
| Methylcyclohexane | | 7.9502 |
| Toluene | | 3.9979 |
| Octanes | | 17.3277 |
| N-Octane | C-8 | 5.8225 |
| Ethylbenzene | | 1.7087 |
| P-M-Xylene | | 1.8782 |
| O-Xylene | | 0.5853 |
| Nonanes | | 12.3183 |
| N-Nonane | C-9 | 1.8710 |
| Decanes | | 4.8846 |
| N-Decane | C-10 | 0.6301 |
| Undecanes | | 1.2545 |
| N-Undecane | C-11 | 0.1871 |
| Dodecanes | | 0.3294 |
| N-Dodecane | C-12 | 0.0472 |
| Tridecanes | | 0.0959 |
| N-Tridecane | C-13 | 0.0040 |
| Tetradecanes | | 0.0272 |
| N-Tetradecane | C-14 | 0.0000 |
| Pentadecanes | | 0.0000 |
| N-Pentadecane | C-15 | 0.0000 |
| Hexadecanes | | 0.0000 |
| N-Hexadecane | C-16 | 0.0000 |
| Heptadecanes | | 0.0000 |
| N-Heptadecane | C-17 | 0.0000 |
| Octadecanes | | 0.0000 |
| N-Octadecane | C-18 | 0.0000 |
| Nonadecanes | | 0.0000 |
| N-Nonadecane | C-19 | 0.0000 |
| Eicosanes | | 0.0000 |
| N-Eicosane | C-20 | 0.0000 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 157.525 |
| 11 | 46.775 |
| 12 | 11.800 |
| 13 | 1.000 |
| 14 | 0.000 |
| 15 | 0.000 |
| 16 | 0.000 |
| 17 | 0.000 |
| 18 | 0.000 |
| 19 | 0.000 |
| 20 | 0.000 |

BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 0.000 |
| Pristane/C-17 | 0.000 |
| Phytane/C-18 | 0.000 |

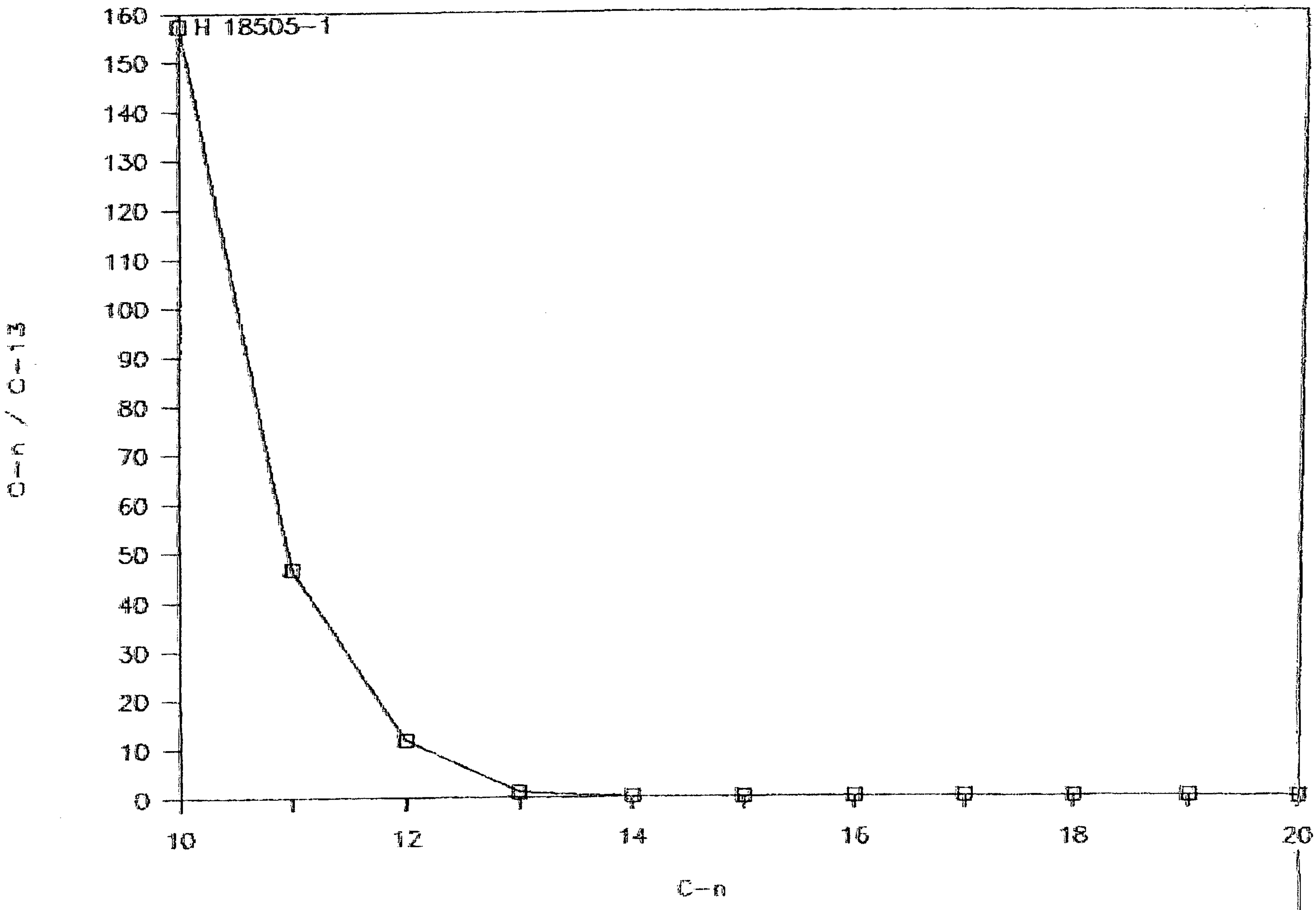
WEIGHT % S 0.2208

GRAVITY, API @ 60 F 59.0

Analyst: James L. Pritchard
James L. Pritchard,
Lab Manager

# CAPROCK LABORATORIES, INC.

CRUDE OIL FINGERPRINT



CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

| | | | |
|---|---|---|---|
| COMPANY: | CARDINAL LABORATORIES | JOB NUMBER: | 0910089 |
| SAMPLE ID: | H18479-1 | DATE RECIEVED: | 10-22-09 |
| | | DATE REPORTED: | 10-30-09 |
| | | REPORTED TO: | C. KEENE |

SAMPLE #: 10089-01

| COMPONENT | | WEIGHT % |
|---|---|---|
| Methane = Ethane | | 0.0000 |
| Propane | C-3 | 0.0057 |
| Iso-Butane | | 0.0114 |
| N-Butane | C-4 | 0.0740 |
| Iso-Pentane | | 0.4781 |
| N-Pentane | C-5 | 0.8367 |
| Neo-Hexane | | 0.0374 |
| Cyclopentane | | 0.3765 |
| 2-Methylpentane | | 1.4929 |
| 3-Methylpentane | | 1.1466 |
| N-Hexane | C-6 | 2.9060 |
| Methylcyclopentane | | 1.7295 |
| Benzene | | 0.8017 |
| Cyclohexane | | 1.9702 |
| 2-Methylhexane | | 1.5408 |
| 3-Methylhexane | | 2.1068 |
| Dimethylcyclopentanes | | 3.3159 |
| Heptanes | | 1.3221 |
| N-Heptane | C-7 | 5.3527 |
| Methylcyclohexane | | 5.1226 |
| Toluene | | 3.4768 |
| Octanes | | 15.4848 |
| N-Octane | C-8 | 0.6163 |
| Ethylbenzene | | 3.9314 |
| P-M-Xylene | | 4.1810 |
| O-Xylene | | 1.4855 |
| Nonanes | | 22.9573 |
| N-Nonane | C-9 | 3.8728 |
| Decanes | | 9.2133 |
| N-Decane | C-10 | 1.1018 |
| Undecanes | | 1.8701 |
| N-Undecane | C-11 | 0.2195 |
| Dodecanes | | 0.4781 |
| N-Dodecane | C-12 | 0.0122 |
| Tridecanes | | 0.2204 |
| N-Tridecane | C-13 | 0.0236 |
| Tetradecanes | | 0.1000 |
| N-Tetradecane | C-14 | 0.0146 |
| Pentadecanes | | 0.0724 |
| N-Pentadecane | C-15 | 0.0089 |
| Hexadecanes | | 0.0268 |
| N-Hexadecane | C-16 | 0.0049 |
| Heptadecanes | | 0.0000 |
| N-Heptadecane | C-17 | 0.0000 |

| COMPONENT | | WEIGHT % |
|---|---|---|
| Octadecanes | | 0.0000 |
| N-Octadecane | C-18 | 0.0000 |
| Nonadecanes | | 0.0000 |
| N-Nonadecane | C-19 | 0.0000 |
| Eicosanes | | 0.0000 |
| N-Eicosane | C-20 | 0.0000 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 46.686 |
| 11 | 9.301 |
| 12 | 0.617 |
| 13 | 1.000 |
| 14 | 0.619 |
| 15 | 0.377 |
| 16 | 0.208 |
| 17 | 0.000 |
| 18 | 0.000 |
| 19 | 0.000 |
| 20 | 0.000 |

BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 0.170 |
| Pristane/C-17 | N.A. |
| Phytane/C-18 | N.A. |

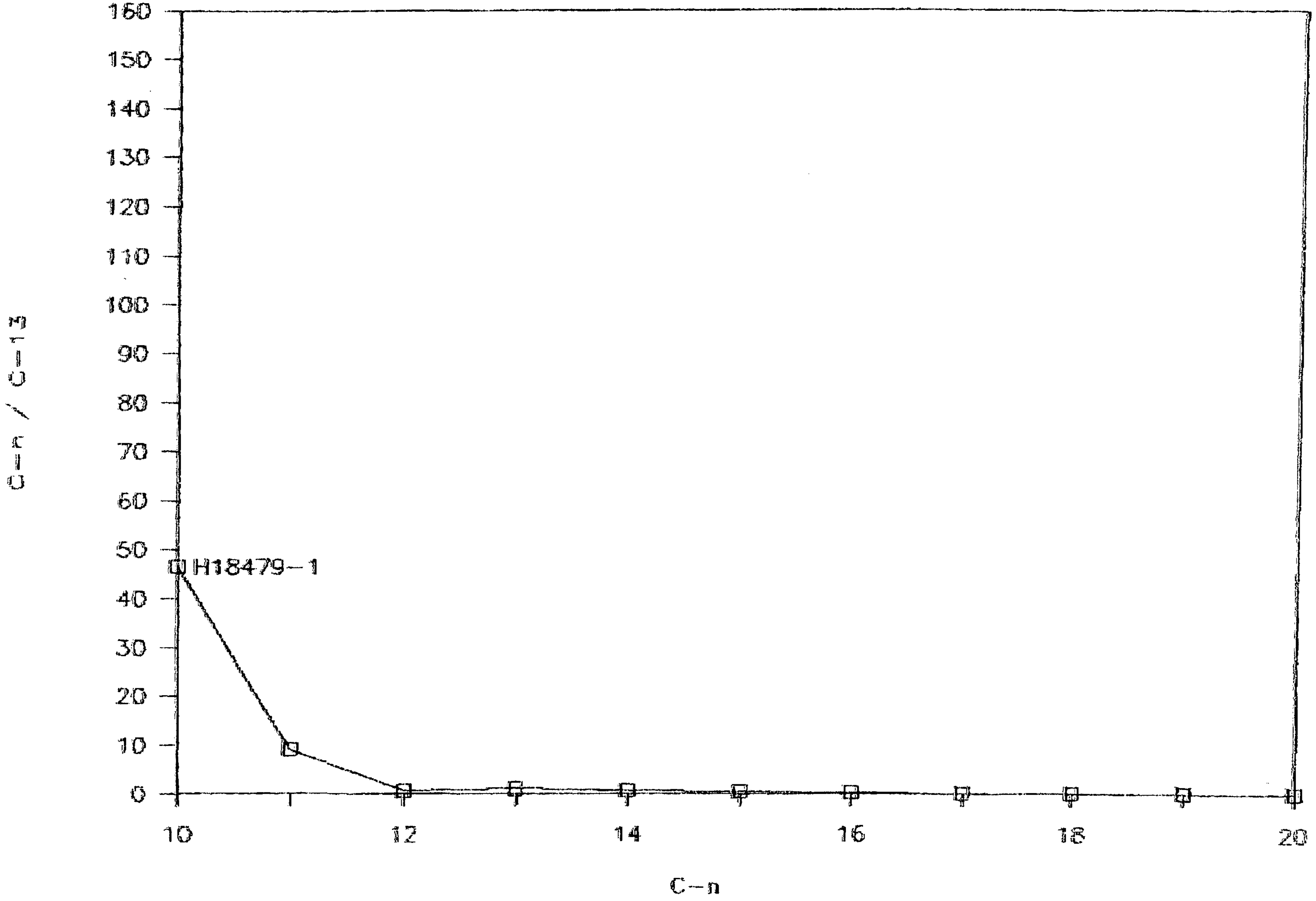
WEIGHT % S 1.2967

GRAVITY, API @ 60 F 60.0

Analyst: James L. Pritchard,
Lab Manager

# CAPROCK LABORATORIES, INC.

CRUDE OIL FINGERPRINT



CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H18479-3

SAMPLE #: 10089-03

JOB NUMBER: 0910089
DATE RECIEVED: 10-22-09
DATE REPORTED: 10-30-09
REPORTED TO: C. KEENE

| COMPONENT | | WEIGHT % |
|---|---|---|
| Methane - Ethane | | 0.0000 |
| Propane | C-3 | 0.0025 |
| Iso-Butane | | 0.0049 |
| N-Butane | C-4 | 0.0233 |
| Iso-Pentane | | 0.1449 |
| N-Pentane | C-5 | 0.1571 |
| Neo-Hexane | | 0.0135 |
| Cyclopentane | | 0.1350 |
| 2-Methylpentane | | 0.4812 |
| 3-Methylpentane | | 0.4873 |
| N-Hexane | C-6 | 0.9354 |
| Methylcyclopentane | | 0.8875 |
| Benzene | | 0.1878 |
| Cyclohexane | | 1.3430 |
| 2-Methylhexane | | 0.8900 |
| 3-Methylhexane | | 1.3233 |
| Dimethylcyclopentanes | | 2.3864 |
| Heptanes | | 0.8986 |
| N-Heptane | C-7 | 3.3378 |
| Methylcyclohexane | | 4.6820 |
| Toluene | | 1.7554 |
| Octanes | | 14.7408 |
| N-Octane | C-8 | 6.4902 |
| Ethylbenzene | | 2.3091 |
| P-M-Xylene | | 2.7927 |
| O-Xylene | | 0.8777 |
| Nonanes | | 19.3283 |
| N-Nonane | C-9 | 4.6390 |
| Decanes | | 15.2134 |
| N-Decane | C-10 | 2.2993 |
| Undecanes | | 5.5425 |
| N-Undecane | C-11 | 0.8605 |
| Dodecanes | | 1.7947 |
| N-Dodecane | C-12 | 0.3560 |
| Tridecanes | | 0.8409 |
| N-Tridecane | C-13 | 0.1559 |
| Tetradecanes | | 0.4779 |
| N-Tetradecane | C-14 | 0.0466 |
| Pentadecanes | | 0.4149 |
| N-Pentadecane | C-15 | 0.0540 |
| Hexadecanes | | 0.1682 |
| N-Hexadecane | C-16 | 0.0098 |
| Heptadecanes | | 0.1559 |
| N-Heptadecane | C-17 | 0.0172 |

| COMPONENT | | WEIGHT % |
|---|---|---|
| Octadecanes | | 0.1436 |
| N-Octadecane | C-18 | 0.0160 |
| Nonadecanes | | 0.0872 |
| N-Nonadecane | C-19 | 0.0319 |
| Eicosanes | | 0.0516 |
| N-Eicosane | C-20 | 0.0073 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 14.749 |
| 11 | 5.520 |
| 12 | 2.284 |
| 13 | 1.000 |
| 14 | 0.299 |
| 15 | 0.346 |
| 16 | 0.063 |
| 17 | 0.110 |
| 18 | 0.103 |
| 19 | 0.205 |
| 20 | 0.047 |

BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 2.110 |
| Pristane/C-17 | 4.860 |
| Phytane/C-18 | 1.880 |

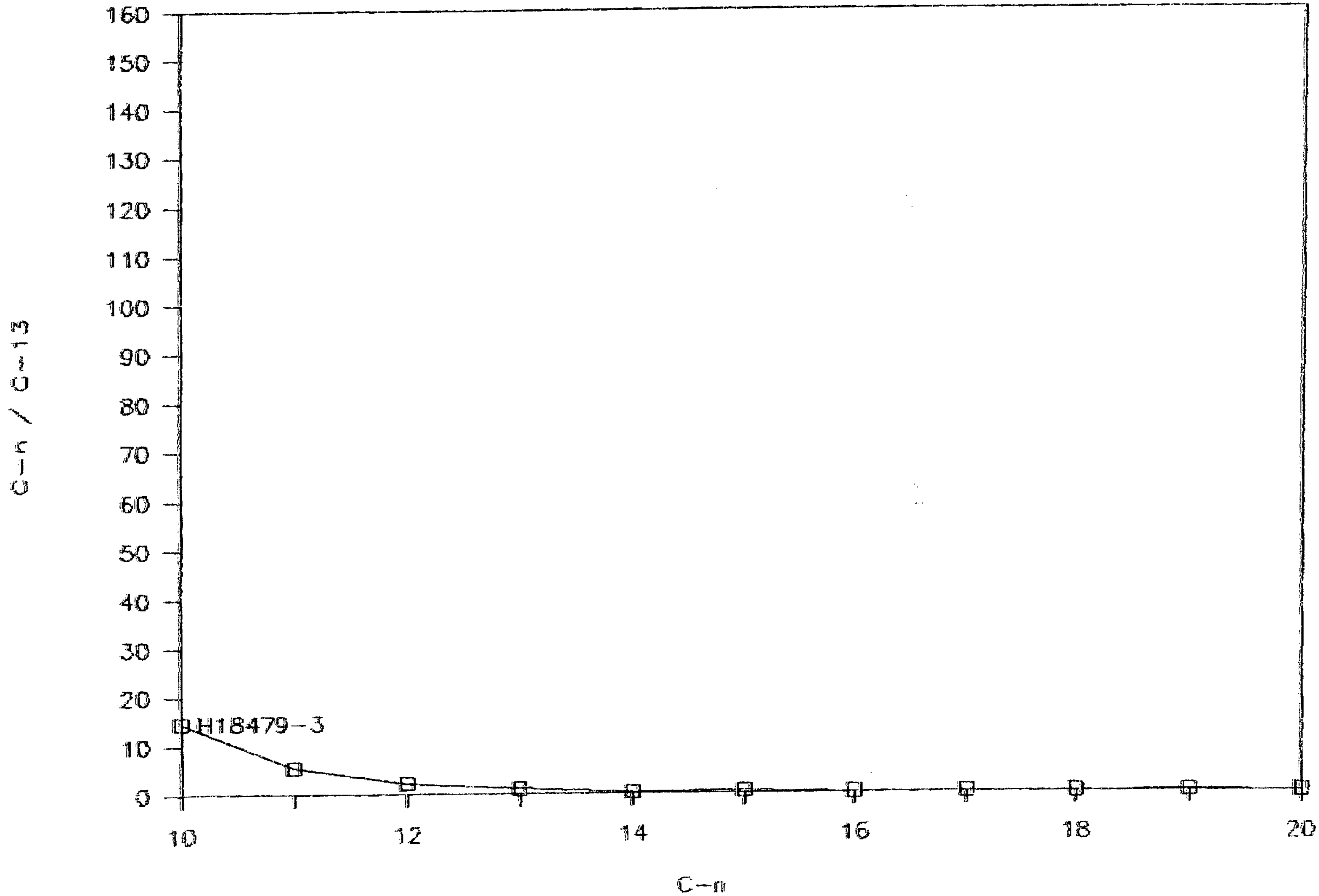
WEIGHT % S 0.3096

GRAVITY, API @ 60 F 53.9

Analyst: James L. Pritchard
James L. Pritchard,
Lab Manager

# CAPROCK LABORATORIES, INC.

## CRUDE OIL FINGERPRINT



CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Page____ of ____

| | |
|---|---|
| Company Name: TargA | **BILL TO** |
| Project Manager: | P.O. #: |
| Address: Box 1929 | Company: |
| City: Eunice State: NM Zip: 88231 | Attn: |
| Phone #: 575-394-2534 Fax #: 575-394-1514 | Address: |
| Project #: Project Owner: | City: |
| Project Name: Middle Plt Shell Tanks | State: Zip: |
| Project Location: | Phone #: |
| Sampler Name: Rager Holland | Fax #: |

| Lab I.D. (FOR LAB USE ONLY) | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX: GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: Condensate | PRESERV: ACID/BASE: | ICE / COOL | OTHER: | SAMPLING: DATE | TIME | ANALYSIS REQUEST: Finger Print |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TargA | Shell Tanks | | | | | | | | ✓ | | | | 10/15/09 | | X |
| | H18505-1 | | | | | | | | | | | | | | |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

| | | | |
|---|---|---|---|
| Sampler Relinquished: Roger Holland | Date: 10/15/09 Time: 12:40pm | Received By: CB | Phone Result: ☐ No Add'l Phone #: |
| Relinquished By: | Date: Time: | Received By: | Fax Result: ☐ No Add'l Fax #: |
| Delivered By: (Circle One) Sampler - UPS - Bus - Other: | Temp. #76 2.1°C | Sample Condition: Cool ☐ Yes ☑ No; Intact ☑ Yes ☐ No | CHECKED BY: (Initials) CB |
| REMARKS: | | | |

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

Larson & Associates, Inc.
Environmental Consultants

November 17, 2009

**VIA EMAIL: Carl.Chavez@state.nm.us**

Mr. Carl Chavez
Environmental Engineer
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED OCD
2009 NOV 23 A 9:29

**Re: Free Product Assessment and Recovery Update**
**Targa Midstream Services, L.P., Eunice Gas Plant (GW-005)**
**Unit Letter A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East**
**Lea County, New Mexico**

Dear Mr. Chavez:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LA), its consultant, to update the OCD on source evaluation and recovery of free phase petroleum hydrocarbons (condensate) recently discovered in monitoring well MW-3 at the Eunice Gas Plant (Facility). The Facility is located in unit A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East, in Lea County, New Mexico. The geodetic position is 32.42237196 degrees north and 103.1453015 degrees west. Figure 1 presents a location and topographic map. Figure 2 presents a Facility drawing.

**Chronology**

October 12, 2009 — Free phase petroleum hydrocarbons (condensate) was discovered in monitoring well MW-3 during semi-annual groundwater monitoring activities and immediately reported to client, whom notified the OCD in Santa Fe, New Mexico;

Targa collected samples from well MW-3 and possible sources including the XTO inlet scrubber and closed drain scrubber, for sulfur and fingerprint analysis. The samples were submitted to Cardinal Laboratories, located in Hobbs, New Mexico;

Targa pressure tested underground lines in the vicinity of well MW-3;

| | |
|---|---|
| October 21, 2009 | LAI performed a bail-out test of the free phase hydrocarbons in MW-3 to determine the formation thickness of the hydrocarbons; |
| November 13, 2009 | Recovery of free phase product began in well MW-3 using a pneumatic pumping system. |

**Fingerprint Analysis**

On September 12, 2009, Targa personnel collected liquid samples from the XTO inlet scrubber, closed drain scrubber and monitoring well MW-3. The samples were delivered under chain of custody control to Cardinal Laboratories (Cardinal) located in Hobbs, New Mexico. Cardinal transferred the samples to Caprock Laboratories (Caprock) located in Midland, Texas, which were analyzed for total sulfur, API gravity and extended hydrocarbons by gas chromatography (GC). A condensate sample from the waste oil (Shell) tank was also collected but results were not available for this report. The liquid sample from the XTO inlet scrubber was a water solution that contained no phase-separated hydrocarbons for fingerprint analysis. Caprock reported concentrations for three (3) biomarker parameters in the closed drain samples that were either not present or present at lower concentrations in the sample from MW-3. The biomarker parameters included farnesane (C-14), pristane (C-17) and phytane (C-18). Neither pristine or phytane were reported in the sample from MW-3, but constituted 4.86% and 1.88% of the closed drain sump sample. Farnesane was 0.170% in the sample from MW-3 and 2.11% in the closed drain sump sample. The closed drain sump is not considered a source for the hydrocarbons based on the fingerprint analysis. Targa will submit the results for the waste oil (Shell) tank sample upon receipt from the laboratory. Figure 3 presents a detailed schematic showing the locations for the XTO Inlet Scrubber, Closed Drain Scrubber and monitoring well MW-3. Appendix A presents the laboratory report.

**Underground Line Testing**

Targa personnel performed short-term (15 minute) pressure tests on nine (9) underground lines in the vicinity of monitoring well MW-3, including the closed drain scrubber, XTO inlet scrubber, north and south vapor recovery unit (VRU) sales tanks, 3-phase separator, west and east inlet scrubbers, new condensate (Shell) tanks, gunbarrel tank, sump and lease automatic custody transfer (LACT) for sales lines. The lines were blocked, pressurized above operating pressure and manually observed for about 15 minutes for pressure decreases. No pressure decreases were observed concluding that the tested lines are not sources for the hydrocarbons in well MW-3. Figure 3 presents a detailed schematic for the locations of tested lines.

**Bailout Test**

On October 23, 2009, LAI personnel performed a bail-out test in well MW-3 to determine the thickness of product in the formation. The bail-out test was performed by measuring the static water and product level in the well prior to removing hydrocarbons by hand bailing with a disposable polyethylene bailer. The rate of water and product recovery was monitored until an inflection point was observed. The inflection point occurs when the product thickness in the well equalizes with the product thickness in the formation and is based on the method by Gruszczenski (1987, NGWA). The apparent hydrocarbon product thickness, prior to the bail-out test, was 5.06 feet. An inflection point was observed at approximately 95 minutes after recovery began. The calculated product thickness was 1.44 feet and the capillary fringe height was 3.62 feet. On Appendix B presents the bail-out test results.

On July 29, 2008, Targa personnel reported a spill to the OCD District 1 office in Hobbs, New Mexico. The spill occurred near the closed drain scrubber that was previously located near an excavation where the waste oil (Shell) tanks were located about 100 feet northwest (upgradient) of well MW-3. The release involved about 20 barrels of condensate when a dresser sleeve on a line failed due to over pressuring from pigging operations. The condensate ran into the excavation of the former waste oil (Shell) tanks and was collected using a vacuum truck. A track hoe was used to remove contaminated soil from the bottom of the excavation and placed in the on-site OCD permitted landfarm. The spill is considered a possible source for the hydrocarbons in well MW-3. Appendix C presents form C-141.

**Hydrocarbon Product Recovery**

On November 13, 2009, LAI personnel began recovering hydrocarbon product from well MW-3 using a Keck pneumatic product recovery system (PRS) manufactured by GeoTech, Inc., Denver, Colorado. The PRS is designed to efficiently collect free floating hydrocarbons in monitoring wells, and consists of a control panel, down-hole stainless steel bladder pump, floating skimmer attachment and pneumatic tank full sensor. Air is supplied via a stainless steel line from the compressor building and a pressure regulator is located near the well. The product is discharged into a 55-gallon polyethylene drum positioned inside secondary containment. The tank full sensor is positioned inside the polyethylene drum to signal the controller to shut off the pump once the drum level is full. Approximately 50 gallons of hydrocarbon product was recovered from well MW-3 between November 13 and 16, 2009.

LAI will record the volume of hydrocarbon product recovered from the well by tracking the drums of hydrocarbon product filled by the pump. The drums will be emptied by

Targa personnel and placed into the condensate (Shell) tanks. LAI will monitor the rate of product recovery to determine if there is an active source for the hydrocarbons and report these results to the OCD. Targa will continue recovering free product from well MW-3 using the pneumatic pump, unless otherwise directed by the OCD.
Appendix D presents the PRS specifications.

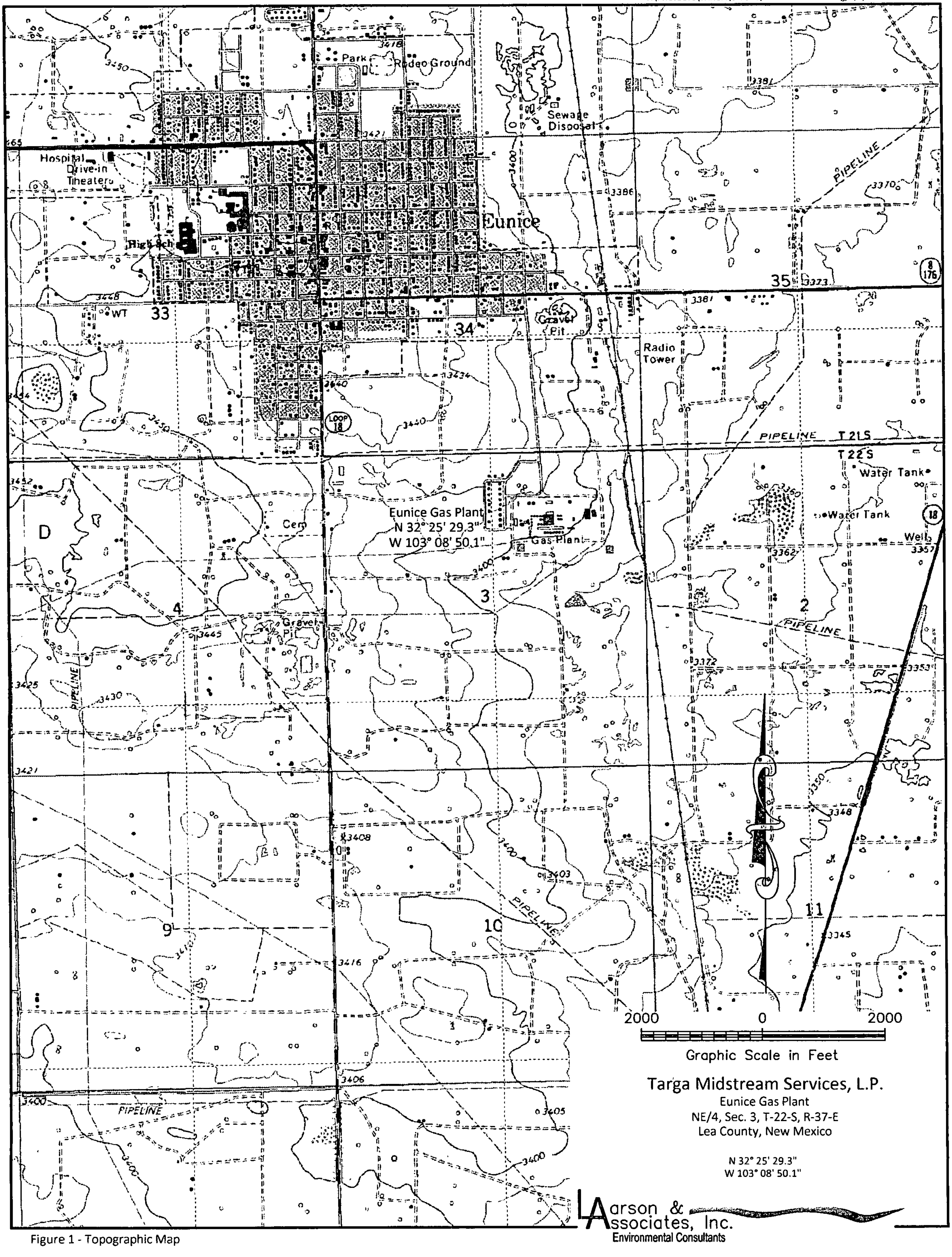
The results of line pressure testing and fingerprint analysis conclude that none of the t4ested lines or the closed drain sump is the source for the hydrocarbons. Targa will submit to the OCD the results of the fingerprint analysis of the condensate (Shell) tank samples upon receipt from the laboratory. A report summarizing the recovery of hydrocarbon product and determination of an active source will be submitted to the OCD on or before December 21, 2009. Please contact myself at (432) 687-0901 or Cal Wrangham at (432) 688-0452, if you have questions. We may also be reached by emailing mark@laenvironmental.com or CWrangham@targaresources.com.

Sincerely,
***Larson & Associates, Inc.***

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

Encl.

cc: Cal Wrangham, Targa
James Lingnau, Targa
Susan Ninan, Targa
Larry Johnson, OCD - Hobbs

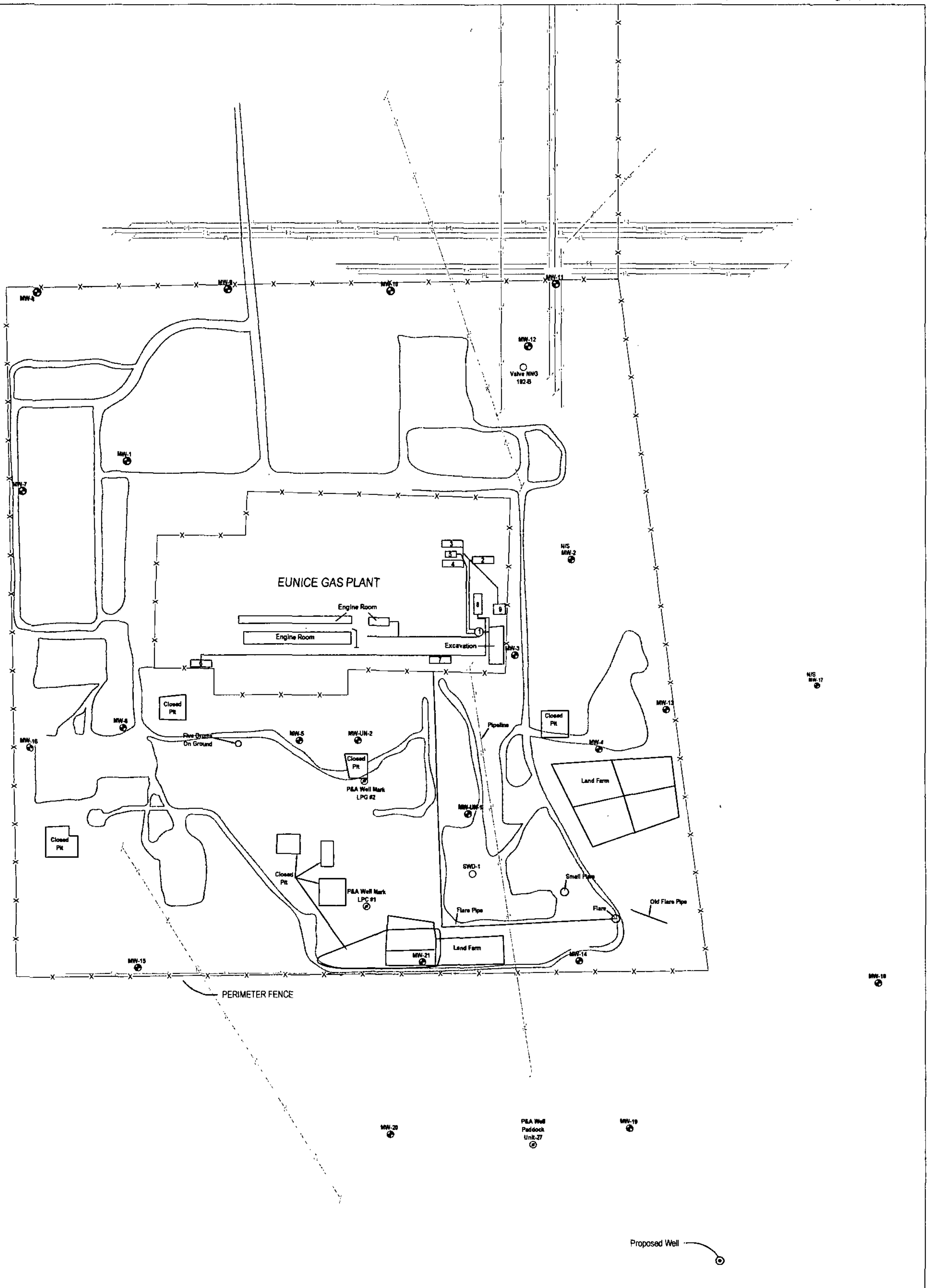



Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 1 - Topographic Map




LEGEND

- Monitoring Well Location
- Fence
N/S - Not Sampled

1 - Closed Drain Scrubber
2 - XTO Scrubber
3 - VRU Sales Tank North
4 - VRU Sales Tank South
5 - 3 Phase Separator
6 - West Inlet Scrubber
7 - East Inlet Scrubber
8 - New Condensate Tanks / Gun BBL / Sump
9 - Lact For Sales

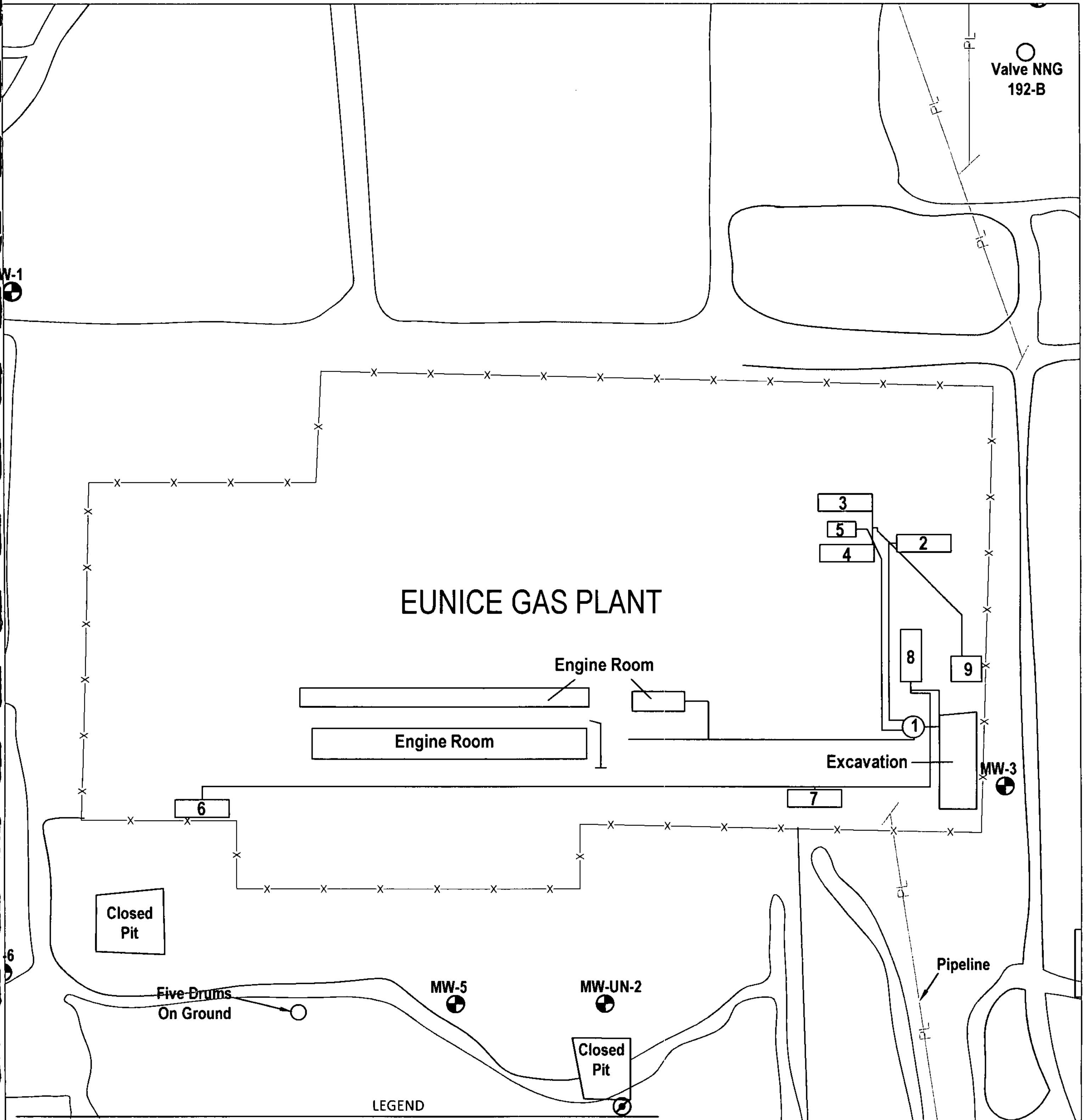
350 0 350
Graphic Scale in Feet

**Targa Midstream Services, L.P.**
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Facility Drawing




LEGEND

- Monitoring Well Location
- Fence
N/S - Not Sampled

1 - Closed Drain Scrubber
2 - XTO Scrubber
3 - VRU Sales Tank North
4 - VRU Sales Tank South
5 - 3 Phase Separator
6 - West Inlet Scrubber
7 - East Inlet Scrubber
8 - New Condensate Tanks / Gun BBL / Sump
9 - Lact For Sales

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - Detailed Piping Schematic and Pressure Test Areas

CARDINAL LABORATORIES
PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 20, 2009

Roger Holland
Targa Resources
6 Desta Drive, Suite 3300
Midland, TX 79705

Re: Middle Plant

Enclosed are the results of analyses for sample number H18479, received by the laboratory on 10/12/09 at 4:00 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

| | |
|---|---|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005 | Total Petroleum Hydrocarbons |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.2 | Regulated VOCs (V2, V3) |

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene

Celey D. Keene
Laboratory Director

# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Page____ of ____

| | |
|---|---|
| Company Name: Targa | **BILL TO** |
| Project Manager: | P.O. #: |
| Address: P.O. Box 1929 | Company: Same |
| City: Eunice State: NM Zip: 88231 | Attn: |
| Phone #: 575-394-2534 Fax #: 575-394-1514 | Address: |
| Project #: ~~Middle Plt~~ Project Owner: Roger Holland | City: |
| Project Name: Middle Plt. | State: Zip: |
| Project Location: | Phone #: |
| Sampler Name: Roger Holland | Fax #: |

ANALYSIS REQUEST

| Lab I.D. (FOR LAB USE ONLY) | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER: | ACID/BASE: | ICE / COOL | OTHER: | DATE | TIME | Sulfur | ~~gravity~~ | ~~distillation~~ | Fingerprint Comparison to #1 *added 10/22/09 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H18479-1 | M.W. #3 | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ | | | | | | | | |
| -2 | X.T.O. Inlet | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ | | | | | | | | |
| -3 | Closed Drain Scrubber | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ | | | | | | | | |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Sampler Relinquished: Roger Holland — Date: 10/12/09 Time: 2:00 pm — Received By: Misty LeBert

Relinquished By: — Date: — Time: — Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Temp.

Sample Condition: Cool ☐ Yes ☑ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) MCB

Phone Result: ☐ No Add'l Phone #:
Fax Result: ☐ No Add'l Fax #:
REMARKS:

*added as per Roger 10/22/09 ck

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(432) 698-7252

COMPANY: CARDINAL LABORATORIES
SAMPLE: AS NOTED

JOB NUMBER: 0910089
DATE RECEIVED: OCT. 22, 2009
DATE REPORTED: OCT. 30, 2009
REPORTED TO: CELEY KEENE

SUMMARY OF CRUDE OIL ANALYSIS

| SAMPLE IDENTIFICATION | H18479-1 | H18479-2* | H18479-3 |
|---|---|---|---|
| LAB NUMBER | 10089-01 | 10089-02 | 10089-03 |
| WEIGHT % SULFUR | 1.2967 | 0.2706 | 0.3096 |
| SPECIFIC GRAVITY, 60/60F | 0.7389 | 1.0126 | 0.7632 |
| API GRAVITY @ 60 F | 60.0 | N. A. | 53.9 |

* SAMPLE WAS A WATER SOLUTION, NOT HYDROCARBONS

METHODS: WEIGHT % SULFUR - ASTM D4294
GRAVITY - ASTM D287
SAMPLE: CRUDE OIL

ANALYST: James L. Pritchard
JAMES L. PRITCHARD, LAB MANAGER

CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H18479-1

SAMPLE #: 10089-01

JOB NUMBER: 0910089
DATE RECIEVED: 10-22-09
DATE REPORTED: 10-30-09
REPORTED TO: C. KEENE

| COMPONENT | | WEIGHT % |
|---|---|---|
| ~~Methane -~~ Ethane | | 0.0000 |
| Propane | C-3 | 0.0057 |
| Iso-Butane | | 0.0114 |
| N-Butane | C-4 | 0.0740 |
| Iso-Pentane | | 0.4781 |
| N-Pentane | C-5 | 0.8367 |
| Neo-Hexane | | 0.0374 |
| Cyclopentane | | 0.3765 |
| 2-Methylpentane | | 1.4929 |
| 3-Methylpentane | | 1.1465 |
| N-Hexane | C-6 | 2.9060 |
| Methylcyclopentane | | 1.7295 |
| Benzene | | 0.8017 |
| Cyclohexane | | 1.9702 |
| 2-Methylhexane | | 1.5408 |
| 3-Methylhexane | | 2.1068 |
| Dimethylcyclopentanes | | 3.3159 |
| Heptanes | | 1.3221 |
| N-Heptane | C-7 | 5.3527 |
| Methylcyclohexane | | 5.1226 |
| Toluene | | 3.4768 |
| Octanes | | 15.4848 |
| N-Octane | C-8 | 0.6163 |
| Ethylbenzene | | 3.9314 |
| P-M-Xylene | | 4.1810 |
| O-Xylene | | 1.4855 |
| Nonanes | | 22.9573 |
| N-Nonane | C-9 | 3.8728 |
| Decanes | | 9.2133 |
| N-Decane | C-10 | 1.1018 |
| Undecanes | | 1.8701 |
| N-Undecane | C-11 | 0.2195 |
| Dodecanes | | 0.4781 |
| N-Dodecane | C-12 | 0.0122 |
| Tridecanes | | 0.2204 |
| N-Tridecane | C-13 | 0.0236 |
| Tetradecanes | | 0.1000 |
| N-Tetradecane | C-14 | 0.0146 |
| Pentadecanes | | 0.0724 |
| N-Pentadecane | C-15 | 0.0089 |
| Hexadecanes | | 0.0268 |
| N-Hexadecane | C-16 | 0.0049 |
| Heptadecanes | | 0.0000 |
| N-Heptadecane | C-17 | 0.0000 |

| COMPONENT | | WEIGHT % |
|---|---|---|
| Octadecanes | | 0.0000 |
| N-Octadecane | C-18 | 0.0000 |
| Nonadecanes | | 0.0000 |
| N-Nonadecane | C-19 | 0.0000 |
| Eicosanes | | 0.0000 |
| N-Eicosane | C-20 | 0.0000 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 46.686 |
| 11 | 9.301 |
| 12 | 0.517 |
| 13 | 1.000 |
| 14 | 0.619 |
| 15 | 0.377 |
| 16 | 0.208 |
| 17 | 0.000 |
| 18 | 0.000 |
| 19 | 0.000 |
| 20 | 0.000 |

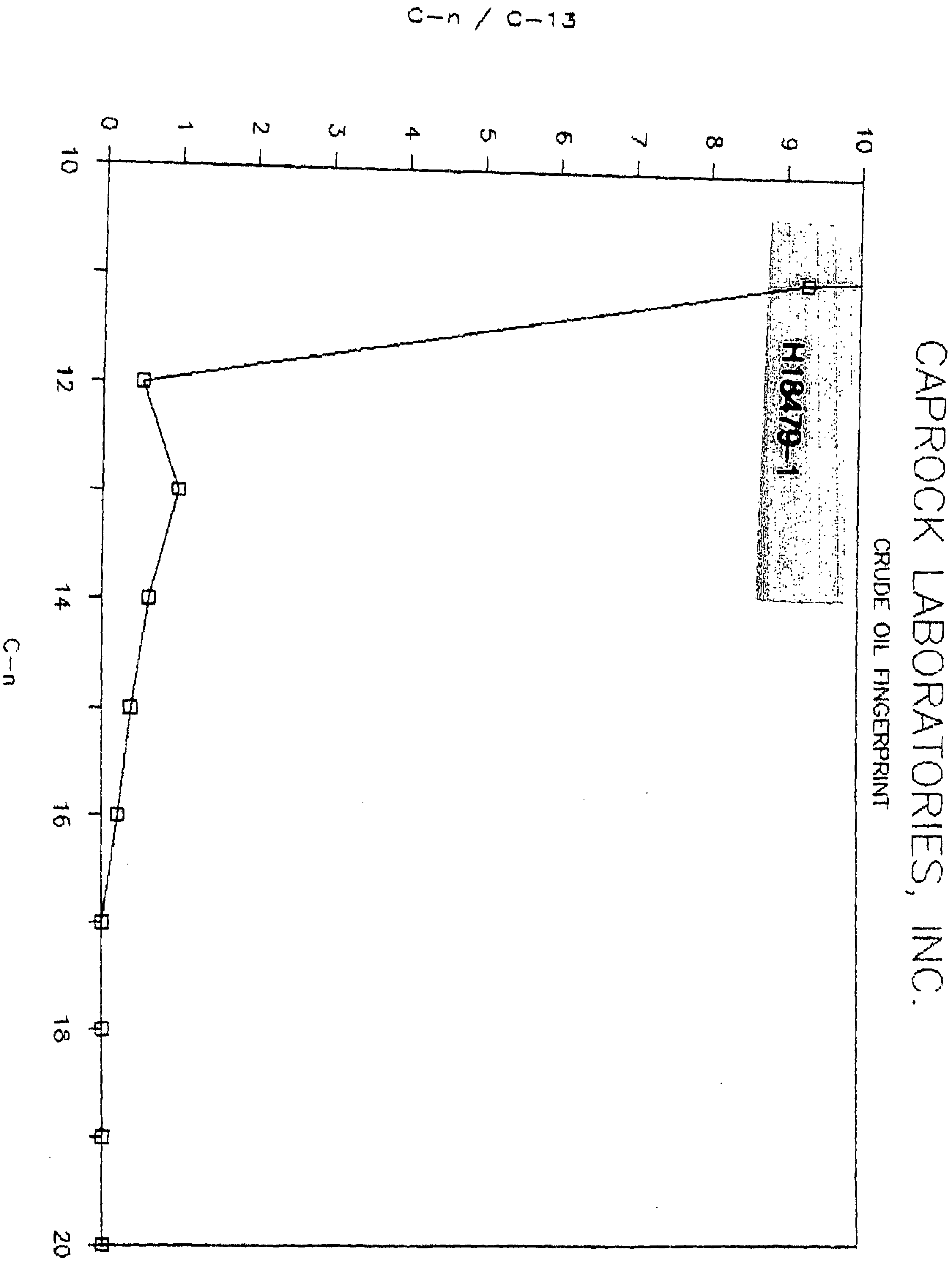
BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 0.170 |
| Pristane/C-17 | N.A. |
| Phytane/C-18 | N.A. |

WEIGHT % S 1.2967

GRAVITY, API @ 60 F 60.0

Analyst: James L. Pritchard
James L. Pritchard,
Lab Manager


CAPROCK LABORATORIES, INC.
CRUDE OIL FINGERPRINT
H18479-1
C-n / C-13
0
1
2
3
4
5
6
7
8
9
10
C-n
10
12
14
16
18
20

CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H18479-3

SAMPLE #: 10089-03

JOB NUMBER: 0910089
DATE RECIEVED: 10-22-09
DATE REPORTED: 10-30-09
REPORTED TO: C. KEENE

| COMPONENT | | WEIGHT % |
|---|---|---|
| Methane - Ethane | | 0.0000 |
| Propane | C-3 | 0.0025 |
| Iso-Butane | | 0.0049 |
| N-Butane | C-4 | 0.0233 |
| Iso-Pentane | | 0.1449 |
| N-Pentane | C-5 | 0.1571 |
| Neo-Hexane | | 0.0135 |
| Cyclopentane | | 0.1350 |
| 2-Methylpentane | | 0.4812 |
| 3-Methylpentane | | 0.4873 |
| N-Hexane | C-6 | 0.9364 |
| Methylcyclopentane | | 0.8875 |
| Benzene | | 0.1878 |
| Cyclohexane | | 1.3430 |
| 2-Methylhexane | | 0.8900 |
| 3-Methylhexane | | 1.3233 |
| Dimethylcyclopentanes | | 2.3864 |
| Heptanes | | 0.8986 |
| N-Heptane | C-7 | 3.3378 |
| Methylcyclohexane | | 4.6820 |
| Toluene | | 1.7554 |
| Octanes | | 14.7408 |
| N-Octane | C-8 | 6.4902 |
| Ethylbenzene | | 2.3091 |
| P-M-Xylene | | 2.7927 |
| O-Xylene | | 0.8777 |
| Nonanes | | 19.3283 |
| N-Nonane | C-9 | 4.6390 |
| Decanes | | 15.2134 |
| N-Decane | C-10 | 2.2993 |
| Undecanes | | 5.5425 |
| N-Undecane | C-11 | 0.8605 |
| Dodecanes | | 1.7947 |
| N-Dodecane | C-12 | 0.3560 |
| Tridecanes | | 0.8409 |
| N-Tridecane | C-13 | 0.1559 |
| Tetradecanes | | 0.4779 |
| N-Tetradecane | C-14 | 0.0466 |
| Pentadecanes | | 0.4149 |
| N-Pentadecane | C-15 | 0.0540 |
| Hexadecanes | | 0.1682 |
| N-Hexadecane | C-16 | 0.0098 |
| Heptadecanes | | 0.1559 |
| N-Heptadecane | C-17 | 0.0172 |
| Octadecanes | | 0.1436 |
| N-Octadecane | C-18 | 0.0160 |
| Nonadecanes | | 0.0872 |
| N-Nonadecane | C-19 | 0.0319 |
| Eicosanes | | 0.0516 |
| N-Eicosane | C-20 | 0.0073 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 14.749 |
| 11 | 5.520 |
| 12 | 2.284 |
| 13 | 1.000 |
| 14 | 0.299 |
| 15 | 0.346 |
| 16 | 0.063 |
| 17 | 0.110 |
| 18 | 0.103 |
| 19 | 0.205 |
| 20 | 0.047 |

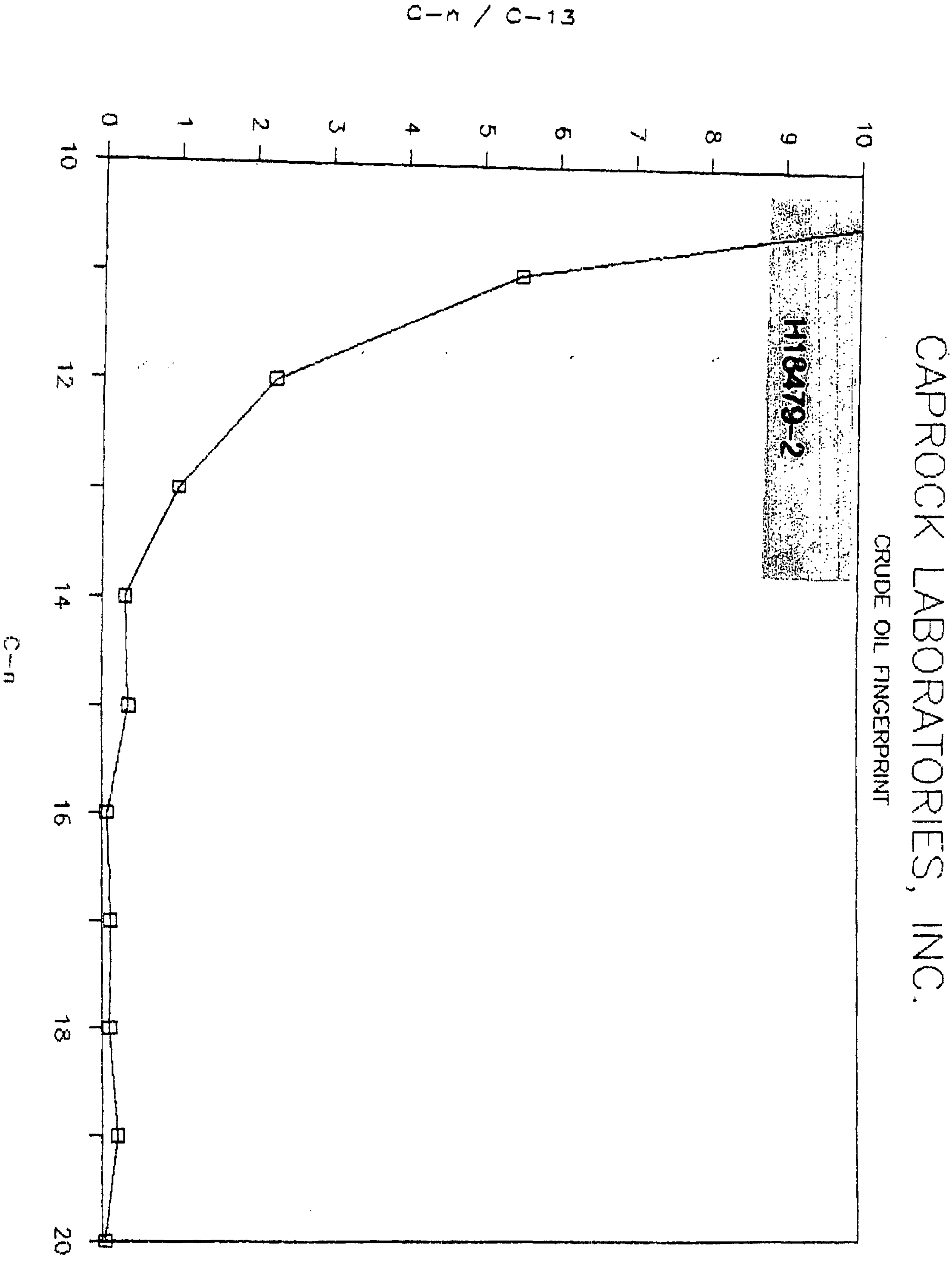
BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 2.110 |
| Pristane/C-17 | 4.860 |
| Phytane/C-18 | 1.880 |

WEIGHT % S 0.3096

GRAVITY, API @ 60 F 53.9

Analyst: James L. Pritchard
James L. Pritchard,
Lab Manager


CAPROCK LABORATORIES, INC.
CRUDE OIL FINGERPRINT
H18479-2
C-n / C-13
C-n
0
1
2
3
4
5
6
7
8
9
10
10
12
14
16
18
20

**Caprock Laboratories, Inc.**
3312 Bankhead Highway
Midland, Texas 79701
(432) 689 – 7252

October 30, 2009

Cardinal Laboratories
101 East Marland
Hobbs, New Mexico 88240

Attention: Celey Keene

Subject: Hydrocarbon Fingerprint

Gentlemen

Presented in this report are the final results of analyses performed to help determine if the samples submitted on October 22, 2009 were from the same origin. The sample identified as H18479-2 was a water solution and contained only a trace amount of hydrocarbons and could not be included in the fingerprint analyses.

The other two samples (H18479-1 & H18479-3) were analyzed to determine Total Sulfur by X-Ray Fluorescence, API Gravity and Extended Hydrocarbons by Gas Chromatography. The data from the Extended Chromatographic analysis was calculated and the ratio of the weight percent of each component between N-Decane to N-Eicosane was calculated as a function of weight percent N-Tridecane. The resulting data was then graphed to serve as a fingerprint of each hydrocarbon. The ratio of three biomarkers, Farnesane:N-Tetradecane, Pristane:N-Heptadecane, and Phytane:N-Octadecane were also calculated and compared.

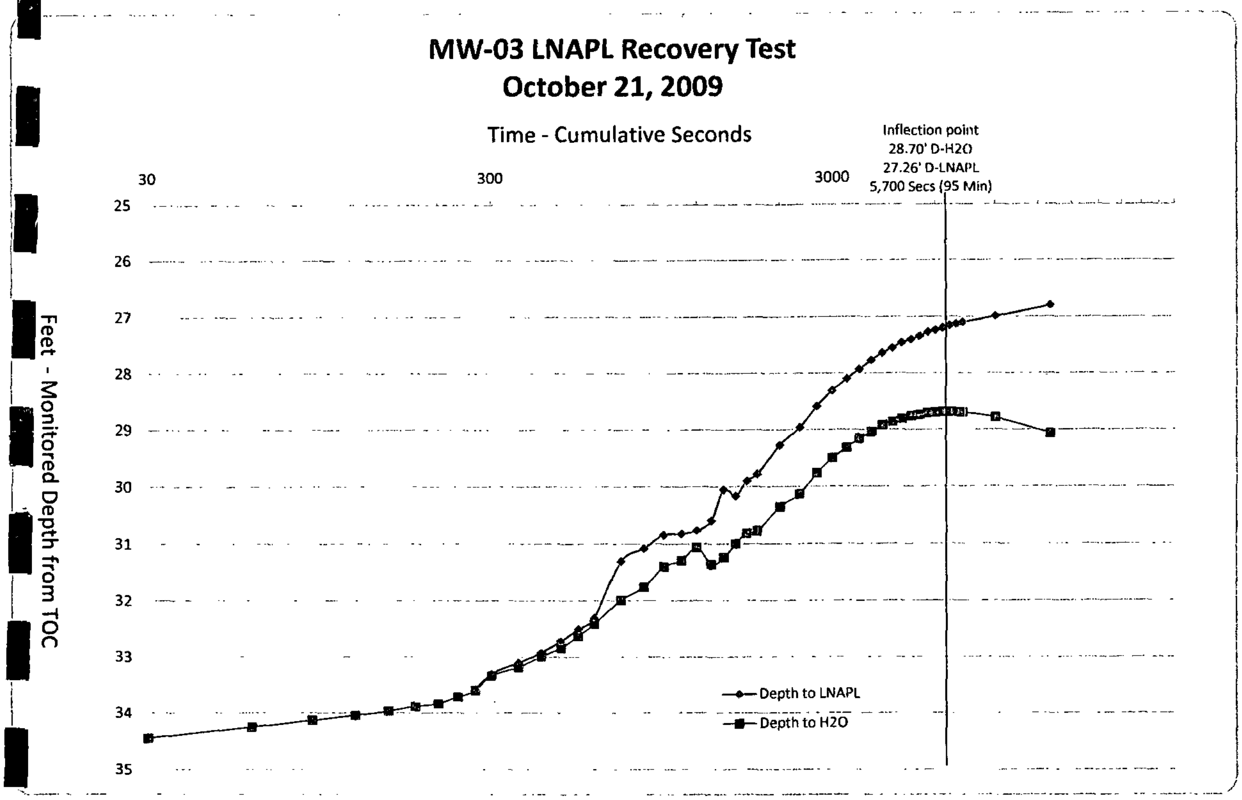
In general, the fingerprint data indicate that the hydrocarbons from the tested samples are not from the same origin.

It has been a pleasure to perform this study for you and we look forward to being of service in the future. Please do not hesitate to call if you should have any questions about the analytical procedures used, the results obtained, or if we may be of further assistance.

Respectfully,

James L. Pritchard

James L. Pritchard, Lab Manager
Caprock Laboratories, Inc.




| Obs. No. | Time Sec | Depth to LNAPL | Depth to $H_2O$ |
|---|---|---|---|
| 1 | 30 | | 34.44 |
| 2 | 60 | | 34.24 |
| 3 | 90 | | 34.12 |
| 4 | 120 | | 34.03 |
| 5 | 150 | | 33.95 |
| 6 | 180 | | 33.87 |
| 7 | 210 | | 33.82 |
| 8 | 240 | | 33.70 |
| 9 | 270 | 33.56 | 33.58 |
| 10 | 300 | 33.29 | 33.33 |
| 11 | 360 | 33.09 | 33.17 |
| 12 | 420 | 32.91 | 32.98 |
| 13 | 480 | 32.71 | 32.83 |
| 14 | 540 | 32.49 | 32.62 |
| 15 | 600 | 32.29 | 32.40 |
| 16 | 720 | 31.29 | 31.98 |
| 17 | 840 | 31.07 | 31.75 |
| 18 | 960 | 30.83 | 31.39 |
| 19 | 1080 | 30.81 | 31.28 |
| 20 | 1200 | 30.75 | 31.05 |
| 21 | 1320 | 30.58 | 31.35 |
| 22 | 1440 | 30.04 | 31.23 |
| 23 | 1560 | 30.15 | 30.99 |
| 24 | 1680 | 29.89 | 30.80 |
| 25 | 1800 | 29.77 | 30.76 |
| 26 | 2100 | 29.26 | 30.34 |
| 27 | 2400 | 28.95 | 30.12 |
| 28 | 2700 | 28.58 | 29.75 |
| 29 | 3000 | 28.30 | 29.49 |
| 30 | 3300 | 28.09 | 29.31 |
| 31 | 3600 | 27.92 | 29.15 |
| 32 | 3900 | 27.76 | 29.03 |
| 33 | 4200 | 27.63 | 28.91 |
| 34 | 4500 | 27.54 | 28.85 |
| 35 | 4800 | 27.45 | 28.80 |
| 36 | 5100 | 27.39 | 28.75 |
| 37 | 5400 | 27.33 | 28.73 |
| 38 | 5700 | 27.26 | 28.70 |
| 39 | 6000 | 27.23 | 28.69 |
| 40 | 6300 | 27.19 | 28.68 |
| 41 | 6600 | 27.15 | 28.68 |
| 42 | 6900 | 27.12 | 28.68 |
| 43 | 7200 | 27.09 | 28.69 |
| 44 | 9000 | 26.98 | 28.78 |
| 45 | 13020 | 26.79 | 29.06 |

| **Static D-LNAPL** | **Static D-H2O** | **Corrected D-GW** |
|---|---|---|
| 26.22 | 31.28 | 27.64 |

Specific Gravity Estimated at 0.72 g/cm$^3$

Charting and calculation based upon *Determination of a Realistic Estimate of Formation Product Thickness Using Monitor Wells: A Field Bailout Test* by Thomas S. Gruszczenski (1987, NGWA)

| **Step Number** | |
|---|---|
| 5 – Inflection Point | 5700 sec |
| 6 – S.G. corrected | 27.64 |
| 7 – Measured Product Thickness | 5.06 |
| **8 – Inflection Product Thickness** | **1.44** |
| **9 – Capillary Fringe Height** | **3.62** |

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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 of Company: Targa Midstream Services L P | Contact: James Lingnau 505.394.2534, Chuck Tolsma 505.631.6026 |
| Address: PO Box 1909 Eunice, NM 88231 | Telephone No. (505) 394-2534 |
| Facility Name: Eunice Gas Plant | Facility Type |

| | | |
|---|---|---|
| Surface Owner: TARGA RESOURCES | 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 |
|---|---|---|---|---|---|---|---|---|
| | 3 | 21S | 37E | | | | | Lea |

**Latitude** 32.25.16.9N **Longitude** 103..08.47.8W

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Gas and Produced Liquids | Volume of Release: Approximately 20 barrels of liquid | Volume Recovered: Recovered approximately 20 barrels of liquid. |
| Source of Release: Dresser Sleeve separated on dump line from Separator in plant condensate handling area. | Date and Hour of Occurrence: 12 Midnight 7/29/2008 | Date and Hour of Discovery 12 Midnight 7/29/2008 |
| Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required | If YES, To Whom? Larry Johnson OCD in Hobbs by phone | |
| By Whom? Don Embrey | Date and Hour 11:30 AM 7/29/2008 | |
| 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. *
Pig pushed maximum amount of liquid into separator and caused overpressure of dump line and dresser sleeve on line separated. Liquid was contained in containment around separator and clean up excavation. Drip truck was called out and liquid recovered. Line was shut in and dresser sleeve repaired.

Describe Area Affected and Cleanup Action Taken.*
The liquid was contained in containment and clean up excavation. Track hoe brought in to remove contaminated soil in bottom of excavation. The contaminated soil will be taken to an OCD approved landfarm. The area will be sampled to insure cleanup to meet OCD guidelines.

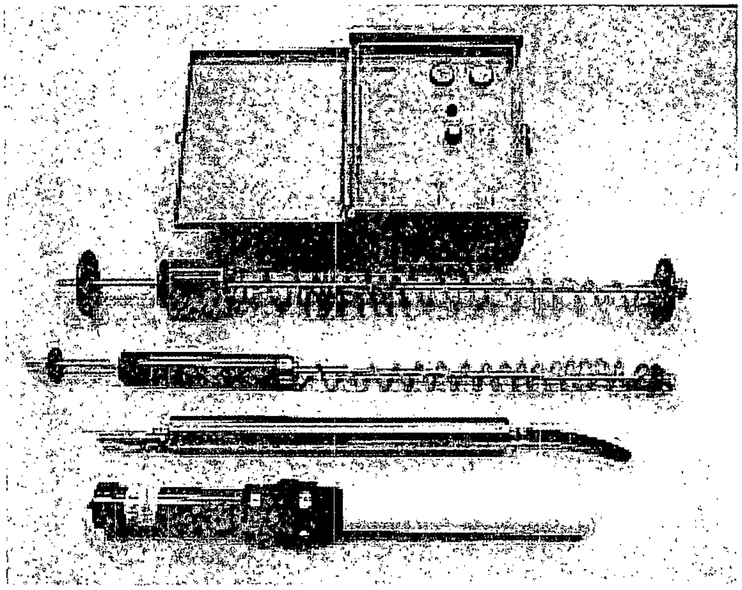
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|---|---|---|
| Signature: Don Embrey | OIL CONSERVATION DIVISION | |
| Printed Name: Don Embrey | Approved by District Supervisor: | |
| Title: Advisor | Approval Date: | Expiration Date: |
| E-mail Address: dembrey@targaresources.com | Conditions of Approval: | Attached ☐ |
| Date: July 29, 2008 Phone: (432) 688-0546 | | |

* Attach Additional Sheets If Necessary

# PRS - Product Recovery System

**Installation and Operation Manual**



26600008 Rev. 6 10/19/05

# Table of Contents

# DOCUMENTATION CONVENTIONS

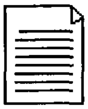
**This uses the following conventions to present information:**

**WARNING**

An exclamation point icon indicates a **WARNING** of a situation or condition that could lead to *personal injury or death. You should not proceed* until you read and thoroughly understand the **WARNING** message.

**CAUTION**

A raised hand icon indicates **CAUTION** information that relates to a situation or condition that could lead *to equipment malfunction or damage. You should not* proceed until you read and thoroughly understand the **CAUTION** message.



**NOTE**

A note icon indicates **NOTE** information. Notes provide additional or supplementary information about an activity or concept.

# Chapter 1: System Description

## Function and Theory

The Keck PRS Product Recovery System has been designed to efficiently collect free floating hydrocarbons in 2 inch or larger monitoring wells. The system consists of a floating skimmer attachment, a control panel that can be mounted indoors or out, a stainless steel bladder pump, a pneumatic tank full sensor, and an optional air compressor (not included).

The PRS' unique product intake assembly incorporates both a density float and a hydrophobic filter which differentiates between floating hydrocarbons and water. The intake assembly follows water table fluctuations and places the screen intake at the water/product interface. As the system cycles, product is drawn through the hydrophobic filter and transferred to the pump through a coiled hose and the skimmer's transfer shaft.

The pneumatic control panel regulates the system and features two timers which vary the cycle time and flow rate of the skimmer pump. The control panel also contains a pneumatic tank full shut off sensor which shuts off the pump when the recovery tank is filled.

The automatic stainless steel bladder pump has a two-phase pumping cycle. During the first phase, or pump intake phase, pressurized air is vented from the pump, thus creating a vacuum. This vacuum closes the top discharge check valve and opens the bottom intake check valve, causing product to be drawn through the skimmer's product intake assembly and into the pump.

During the second phase, or pump discharge phase, pressurized air is directed into the pump bladder, causing it to expand within the pump body. This action closes the bottom intake check valve and opens the top discharge check valve, thus forcing the recovered product from the pump up to the surface.

The tank-full shut-off sensor system consists of a sensor tube and a switching valve. The sensor tube is installed in the recovery tanks 2 inch bung opening. As the recovery tank fills, the rising pressure is transmitted to the switching valve located in the control panel. When the pressure reaches the activation point (an indication of a filled recovery tank) the switching valve stops the air supply to the timers and disables the pump from recovering product or overfilling the recovery tank. After the tank is emptied, the tank full shut off valve must be manually reset, allowing the system to resume normal operation.

## System Components

### Pump

The Keck PRS Product Recovery System utilizes an air driven bladder pump. The pump consists of a stainless steel outer housing, top and bottom check valves, and a flexible inner bladder. The pump is designed for pumping liquids only; any solids (silt, dirt, etc.) may reduce its performance or cause the pump to malfunction.

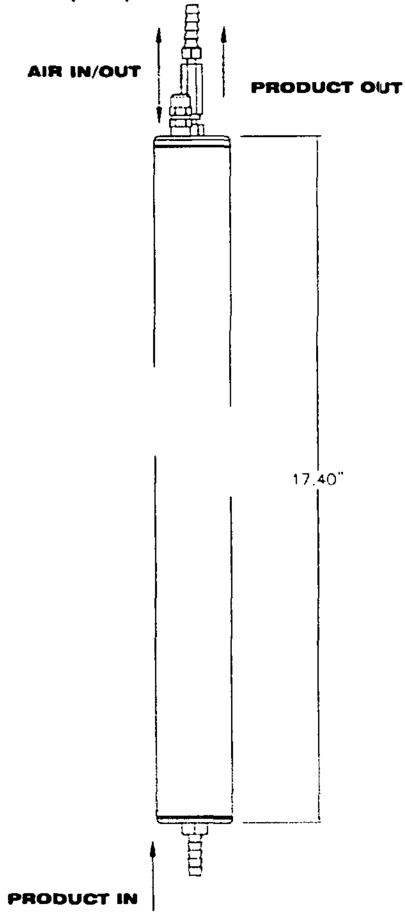



**Figure 1 - Pump**

## Optional High-Capacity Pump

The Keck PRS Product Recovery System also offers an optional high-capacity pump. The pump is constructed the same as the standard PRS pump, but gives twice the flow rate of recovery.

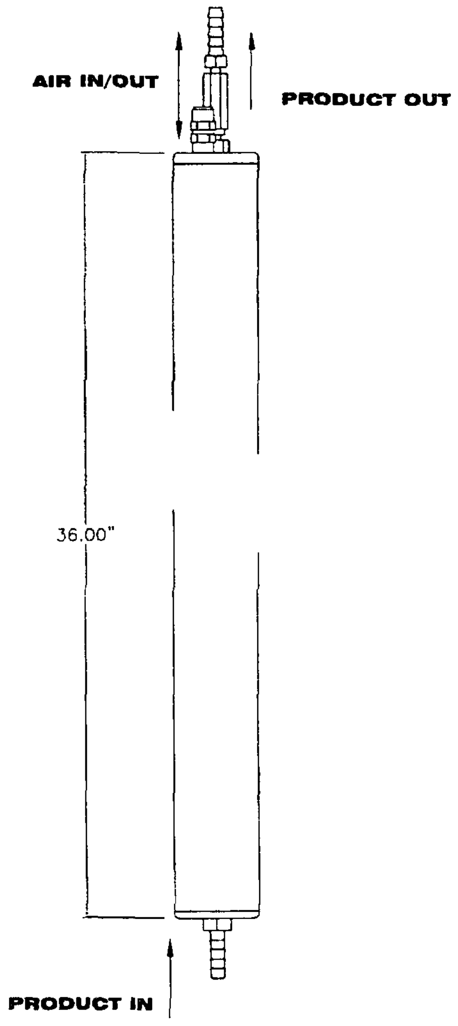



**Figure 2 – Optional High-Capacity Pump**

## Standard Skimmer Attachment

The PRS' standard skimmer attachment is designed to recover floating hydrocarbons, skimming down to a sheen over a 2 foot travel range (1 foot travel for the 2 inch skimmer), and will not pump water unless forcibly submerged. Up to 5 feet of travel (4 inch skimmer only) is available on a custom order basis. The skimmer is connected to the bottom of the pump, and consists of a product intake assembly, a coiled product transfer hose, and a transfer shaft with well centralizers placed at the top and bottom.

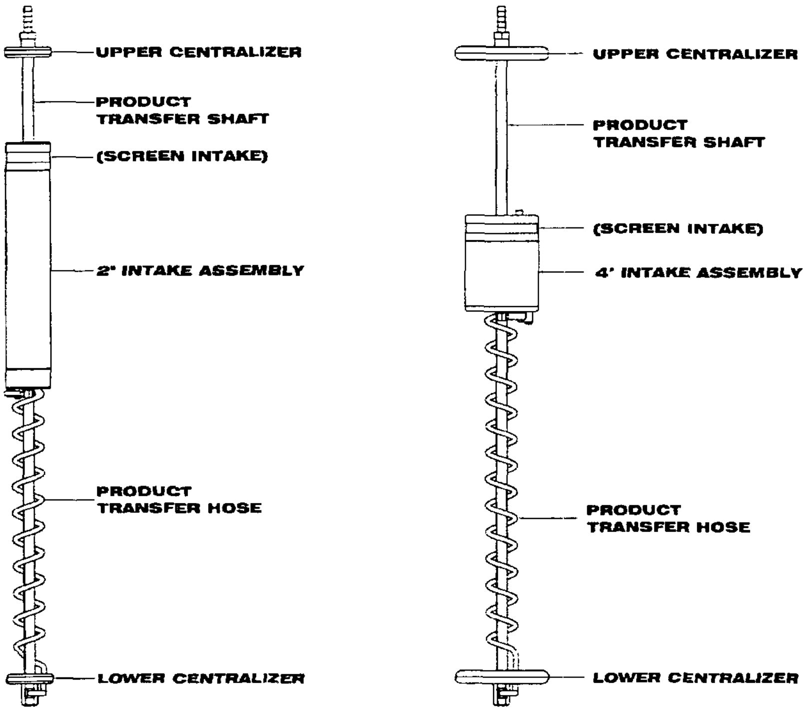



**Figure 3 - 2" and 4" Standard Skimmer Attachments**

## Optional Oil Skimmer Attachment

The PRS' optional oil skimmer attachment is designed to recover a range of fluids from gasoline to gear oil, skimming down to .01 feet in 4 inch and larger wells. The skimmer is connected to the bottom of the pump, and consists of a product intake assembly, a coiled product transfer hose, and a transfer shaft with well centralizers placed at the top and bottom. The buoy can travel a distance of 2 feet between these centralizers. The skimmer intake can be fine tuned by adjusting the intake fitting on the buoy: turn the fitting clockwise to lower the intake relative to the product/water interface, or turn it counter-clockwise to raise the intake away from the interface.

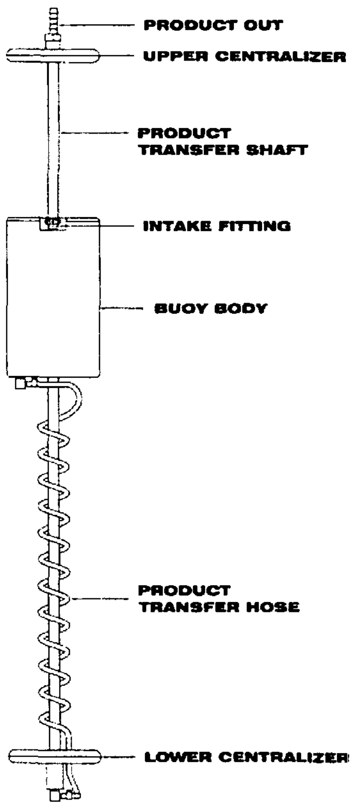



**Figure 4 – Oil Skimmer Attachment (optional)**

## PRS System Control Panel

The air-driven pump controller is the "heart" of the PRS Product Recovery System. The controller uses two timers to vary the pumping rate of the system, independently controlling the discharge time and the recharge time of the pump. **A clean, dry air source that can deliver one cubic foot per minute (CFM) at 90 psi will adequately allow the controller to drive one pump.** Up to four pumps can be run from one controller with a commercial air supply of at least 4 CFM at 90 psi. The PRS Control Panel comes equipped with a tank full shut off. The Tank Full Shut Off incorporates a manual reset button, as an additional safety feature. The reset button must be pushed and the system reset to resume operation.

The tankfull indicator is green when the system is operational and is black when the system is shut off. The recovery tank must be emptied and the reset button pushed before the system can be reactivated, and the indicator to show green.

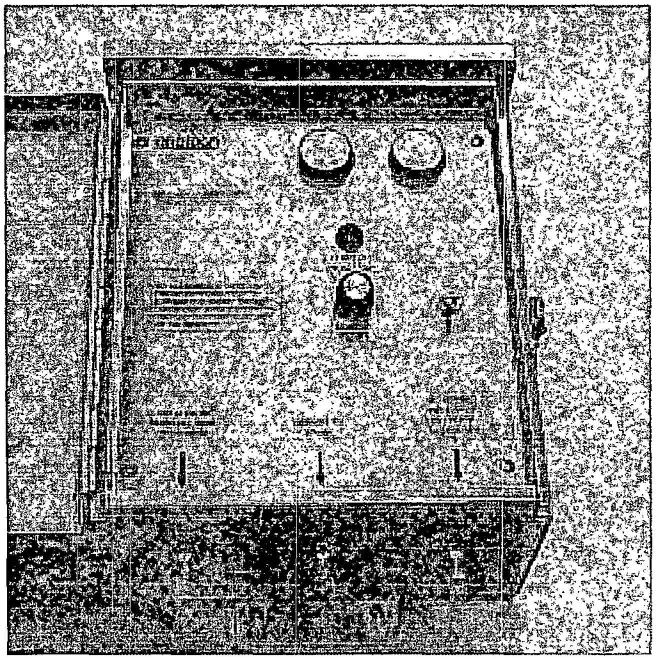


**Figure 5 – PRS System Control Panel**

## Air Supply

The standard single or dual pump PRS system can be supplied with a 115V 2 hp "oil-less" air compressor. Larger multiple well head systems typically use a 1.5 hp or larger oil lubricated air compressor.

Oil lubricated air compressors usually require the installation of the intake air filter and the filling of the oil sump before operation. The filter and appropriate oil are provided with the compressor. Refer to the instructions provided with the air compressor for set-up procedures. The oil-less air compressors require a 115V 15 amp circuit, and the oil lubricated air compressors require at least a 115V 20 amp circuit (depending on the model). To avoid electrical overload, do not use an extension cord or plug any other equipment into the same circuit as the compressor.

An automatic tank drain and an air dryer may be required for the air compressor if the system is operating in humid conditions.

Bottled air may be used to operate the PRS if operating an air compressor is not feasible. A high pressure regulator must be used to reduce the air pressure to the range of 45 - 125 psi. Pressures outside of this range may cause the system to malfunction.

The air compressor must be kept as cool as possible. If placing the compressor in an enclosure, it must be well ventilated and a fan may be required for proper cooling.

## Product Recovery Tank

A product recovery tank is not provided with the PRS system. A tank with a 2 inch bung opening for the overfill sensor tube, a product inlet opening, and a vent are required for proper operation -- typically a 55 gallon drum or other suitable container. Check local and state regulations regarding fuel storage before selecting a recovery tank

## Air Line and Discharge Hoses

Protect the supplied air lines and hoses for the pump, controller, and recovery tank from damage. Conduit or PVC pipe buried below grade will provide adequate line protection. Check local and state regulations regarding fuel transmission lines before installation of product discharge lines. The dimensions of air-line and hose to the listed devices are as follows:

| | |
|---|---|
| Compressor | ⅜" O.D. x 50 ft / 9.5mm x 15m |
| Pump Air Line | ¼" O.D. x 100 ft. / 6mm x 30m |
| Product Discharge Line | ⅝" O.D. x 100 ft. / 16mm x 30m |
| Controller to Tank Full Shut off Sensor | ¼" O.D. x 50 ft / 6mm x 15m |

**To successfully plan the installation of the PRS System, use the following guidelines to determine a suitable location for the air compressor and recovery tank (also refer to page 20, figure 10, System Schematic):**

1) Do not locate the compressor in an area where there may be explosive vapors. Compliance with Chapter 5 of the National Electric Code Handbook and any local codes is essential for an electrically safe installation. The compressor requires a cool, well ventilated environment to operate efficiently, and may require an air dryer in freezing or humid conditions.

2) Run all air and discharge lines through pipe or conduit to protect the lines from damage.

3) All air line connections must be installed properly for the system to function correctly. When cutting the air line, the cut must be clean and square. When inserting the air lines into the compression fittings, push the air line firmly into the fitting, hand tighten the compression nut, and then tighten one more full turn with a wrench.

## Chapter 2: System Installation

Prior to installation, it is best if the screen intake is "conditioned". Use diesel fuel or similar hydrocarbon to saturate the screen portion of the intake. The optimum fluid would be the downwell hydrocarbons to be recovered. Take care to avoid damaging the screen intake.

1) Install control panel vertically on hard surface or post.

2) Remove the inner ring of the well cap, and secure it to the well casing using the three set screws located on the perimeter of the ring.

3) Cut a length of the provided air line and connect it from the output of the air compressor to the port labeled "INPUT FROM AIR SUPPLY" *on the control panel.*

4) To calculate the amount of air line and discharge hose required to suspend the pump and skimmer in the well, first determine the static water level, in the well, and then subtract 46 inches (38 inches for the 2 inch skimmer) from the reading. Next, measure out this amount of air line and discharge hose. For the optional high-capacity pump, subtract 63 inches (55 inches for the 2" skimmer) from the reading. Do not make any cuts to tubing until all measurements between controller and well head and well height to recovery tank are made. Last, pull the measured lengths of air line and discharge hose through the fittings on the well cap. Fully tighten the compression fittings. The well cap will suspend the pump and skimmer by the discharge hose, setting the intake assembly at the midpoint of its travel range.

5) Attach the air line and discharge hose to the pump using the provided compression fitting and hose clamp respectively, and set the pump and skimmer in the well.

6) Connect the free end of the pump air line to the controller fitting labeled "OUTPUT TO PUMP" (see page 8, figure 5).

7) Connect the free end of the product discharge hose to the product recovery tank.

8) Install the tank full shut off sensor air line between the tank full shut off sensor tube and the controller fitting labeled "INPUT FROM TANK-FULL SHUT OFF SENSOR" (see page 8, figure 5).

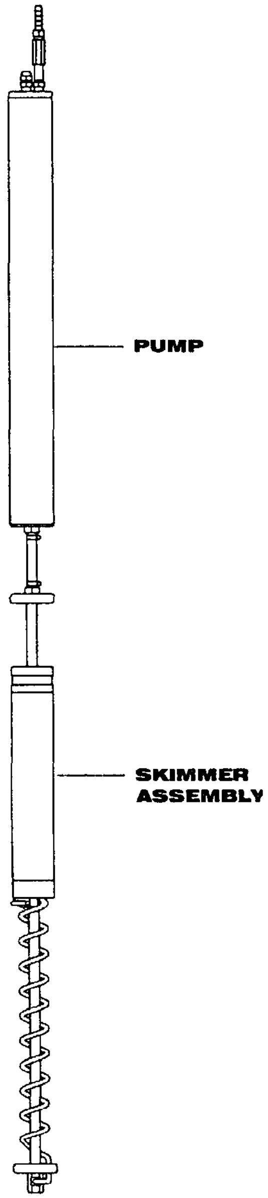



**Figure 6 – Pump and Skimmer Assembly**

# Chapter 3: System Operation

1) Start the air compressor. If the air compressor was supplied by Geotech, two pressure gauges, a pressure switch, an air valve, and a pressure regulator are located on the top of the compressor air tank(s). The main pressure gauge shows the total tank pressure, and the outlet pressure gauge (figure 7) shows the outlet air pressure set by the regulator. The pressure switch has a lever with two positions. Move the lever to the "AUTO" (down) position, and the compressor will run until the tank pressure reaches 125 psi. Turn the air valve on and verify that the pressure shown on the outlet pressure gauge reads between 75 and 95 psi. If the setting is outside of this range, adjust the pressure by rotating the knob on the regulator.

2) Verify that the controller's pump intake and pump discharge timers are on the "C" setting as indicated on the controller faceplate. Turn the air valve on the control panel to the "ON" position. The system will now begin to cycle and recover product.

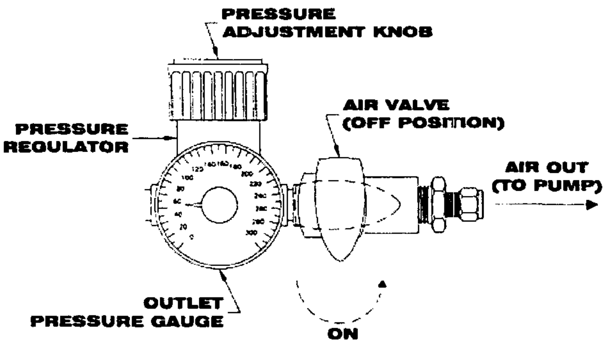
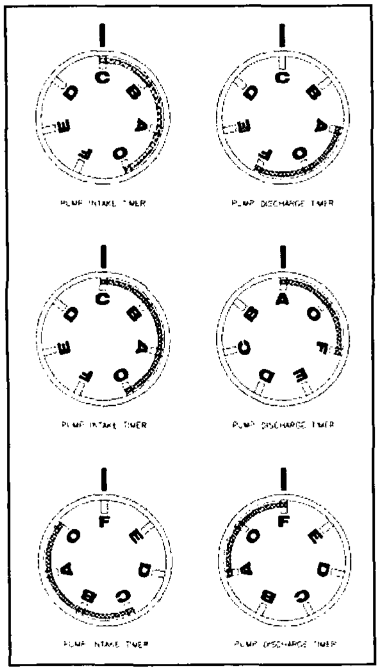



**Figure 7 – Air Supply Controls**

3) Test the tank full shut off system by immersing the sensor tube in a pail of water (at least 12 inches deep) while the system is cycling. Within one cycle, the sensor will shut off the air supply to the control panel. When you remove the sensing tube from the water, test to be sure the system remains off until the reset is pressed. If the system does not function as described, check the fittings at both the controller and sensing tube, and check for kinks in the sensor air line. Install the sensing tube in the 2 inch bung opening on the discharge tank.

4) The pumping rate can be adjusted based on product volume. If there is a large volume of product, or a minimal amount of product in the well, the pumping rate may be adjusted by referring to the following illustrations. DO NOT USE THE SETTINGS IN THE LIGHTLY SHADED AREA ON THE DIALS.



A. Normal (default) setting

B. Maximum pumping rate

C. Minimum pumping rate
The pumping rate may be further reducing the system air pressure (45 psi minimum).

**Figure 8**

# Chapter 4: System Maintenance

## Weekly Maintenance

1) Turn the air compressor off and drain the air tank(s). On air compressors without an optional automatic condensate drain, open the drain fitting on the bottom of the compressor tank(s) and drain any accumulated water. The tank(s) must be drained regularly to avoid compressor malfunction.

2) Check and adjust the compressor oil level (not applicable to all systems). Verify that the oil is at the proper level. Refer to the compressor manual for service intervals and procedures. It is very important that the oil level is maintained properly. If the oil level is too low or too high, the compressor may fail, or the pump may malfunction due to excess oil in the air stream.

3) Inspect the compressor for loose fittings. Over time, vibration may cause bolts to loosen or air leaks to develop. If uncorrected, excess air consumption and shortened compressor life will result.

4) Verify pump settings and fluid levels in well. Make sure that the pump and skimmer are set at the correct interval for collection of free product.

## Monthly Maintenance

1) Turn the air compressor off and drain the air tank(s). On air compressors without an optional automatic condensate drain, open the drain fitting(s) on the bottom of the compressor tank(s) and drain any accumulated water. The tanks must be drained regularly to avoid compressor malfunction.

2) If the supplied compressor is oil lubricated, change the compressor oil. Fully drain and replace the compressor oil using a quality non-detergent compressor oil as specified in the compressor's operating instructions.

3) Inspect the compressor's air filter. Remove and clean the air intake filter, blowing from the inside out with compressed air. If the filter is very dirty, or you are unable to clean it, replace the filter.

4) Inspect the product skimmer. Visually inspect the skimmer, making sure that the coiled hose is not tangled and that the intake assembly moves freely over its travel range. Inspect the intake assembly and clean or replace it as needed using the methods described in the section of this manual on product skimmer cleaning (see page 16).
5) Check to make sure the tank full shut off is operating properly as described on page 14.
6) Verify pump settings and fluid levels in the well. Make sure that the pump and skimmer are set at the correct interval for collection of free product, and that the cycling rate of the system is correct for the amount of product available. If the well is slow to recharge and/or there is only a small volume of product to pump, the pumping rate should be decreased to conserve air and minimize compressor wear.

7) *For technical assistance, call Geotech Environmental Equipment, Inc.
8) at 1-800-833-7958 or in Michigan at 1-800-275-5325.

## Product Skimmer Cleaning

1) Inspect the product skimmer assembly for signs of physical damage. Scrapes or dents in the screen intake may cause the skimmer to take on water. If such damage is found, a new 2" or 4" intake assembly may be necessary (see page 28 or 30).

2) Inspect the tubing coil for physical damage or obstructions, such as kinks. Replace the tubing coil as necessary.

3) To clean the intake assembly screen intake, use a very soft bristle paint brush and fresh diesel fuel or the type of product being recovered. Typically, this type of maintenance should only be performed when the screen intake is obstructed with emulsified product or other debris. Take care not to dent or scratch the screen intake.

4) Rinse the product intake assembly with clean water and make sure it is completely dry before reconditioning screen intake.

5) Use diesel fuel or similar hydrocarbon to saturate the screen portion of the intake. The optimum fluid would be the downwell hydrocarbons to be recovered. Take care to avoid damaging the screen intake.

## Bladder Replacement

The pump is fitted with a field replaceable bladder for easy repair on the job site (see page 26, figure 15, item 1).

1) Unscrew the top cap from the pump body and pull the top cap off. *Slide* assembly out.

2) Unscrew the old bladder and screw on the new one

3) Re-assemble the pump.

## Chapter 5: System Troubleshooting

**Problem:** **the pump discharges water only.**

Solutions:

1) The water level has risen above the travel range of the skimmer.
   - Pull the pump and skimmer out of the well and purge water out of the intake assembly and pump by allowing the system to cycle for several minutes. Refer to page 11, and then reset the pump and skimmer.

2) The pump setting has slipped, or has been installed below the water level.
   - Refer to step "A" solution and then reset the pump and skimmer.

3) Loose hose/tubing at fitting
   - *Check all fitting connections.*

**Problem:** **the pump discharges air only, no product.**

Solutions:

1) Product has been removed.
   - Reduce the pumping rate (pg. 14), or decrease the air pressure (45 psi minimum) to conserve air.

2) The Product layer is below the bottom of the skimmer's travel range.
   - Refer to page 11, and then reset the pump and skimmer.

3) The pump bladder has ruptured.
   - Replace the pump bladder. Refer to page 26, figure 15 or contact Geotech Environmental Equipment, Inc. for further information.

**Problem: the pump cycles but does not discharge product.**
Solutions:
1) One or both of the pump check valves are malfunctioning.
   - Refer to page 26, figure 15. Remove and clean, or replace the check valves (items 6 & 9).

2) *The viscosity of the product is too* thick for the skimmer.
   - Contact Geotech Environmental Equipment Inc. for other skimmer options.

3) The intake assembly is obstructed or the coiled product hose is kinked.
   - Verify that the intake assembly moves freely over its travel range, and adjust the coiled hose if needed. Refer to step "A" solution and then reset the pump and skimmer.

# Chapter 6: System Specifications

## Pump

| | |
|---|---|
| Size: | 23.5"L x 1.75" O.D. |
| Weight: | 4.5Lbs. |
| Materials: | 303 and 304 Stainless Steel, flexible PVC and Brass |

## Skimmer

| | 2" Model | 4"Model |
|---|---|---|
| Effective travel range: | 12" | 24" |
| Size: | 35.5" L x1.75" O.D. | 35.5" L x 3.75" O.D. |
| Weight: | 1.75 lbs. | 2.25 lbs. |
| Operating Temperature: | 32° to 100° F | |
| Materials: | 304 Stainless Steel, Polyethylene, PVC Polypropylene, Brass | |

## Controller

| | |
|---|---|
| Size: | 12" H x 10" W x 6" D |
| Weight: | 18 Lbs. |
| Temperature: | 32° to 100° F |
| Min. Pressure: | 45 psi |
| Max. Pressure: | 125 psi |
| Max. CFM: | 8 cfm @ 90 psi |

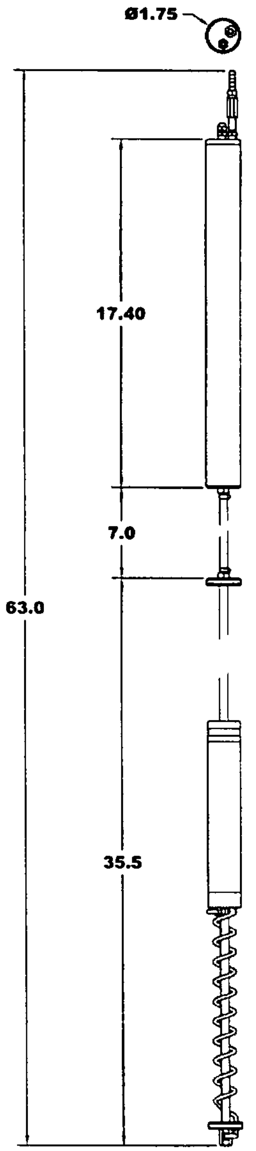



Figure 9 – Dimensions in Inches

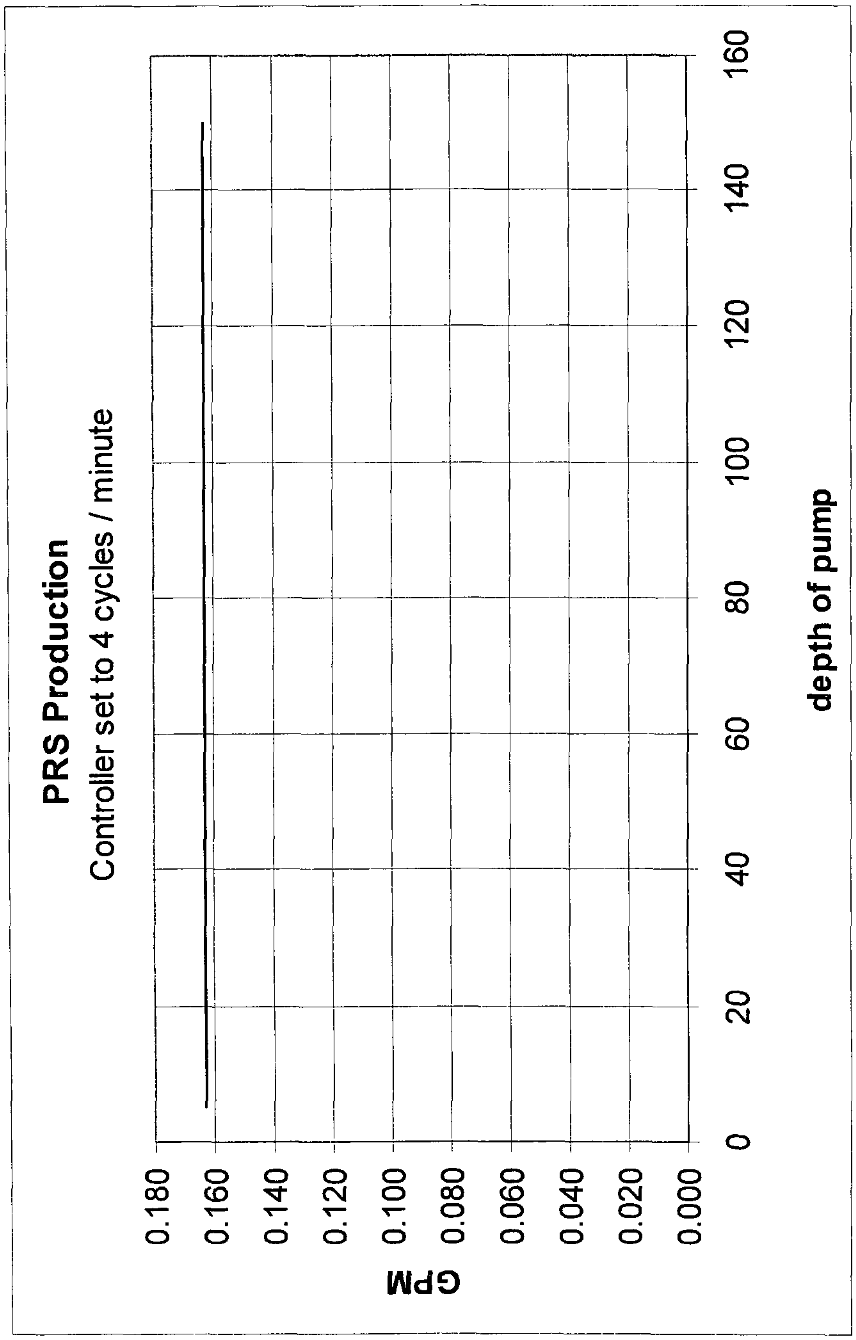

PRS Production
Controller set to 4 cycles / minute
GPM
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
0
20
40
60
80
100
120
140
160
depth of pump

**Figure 10**

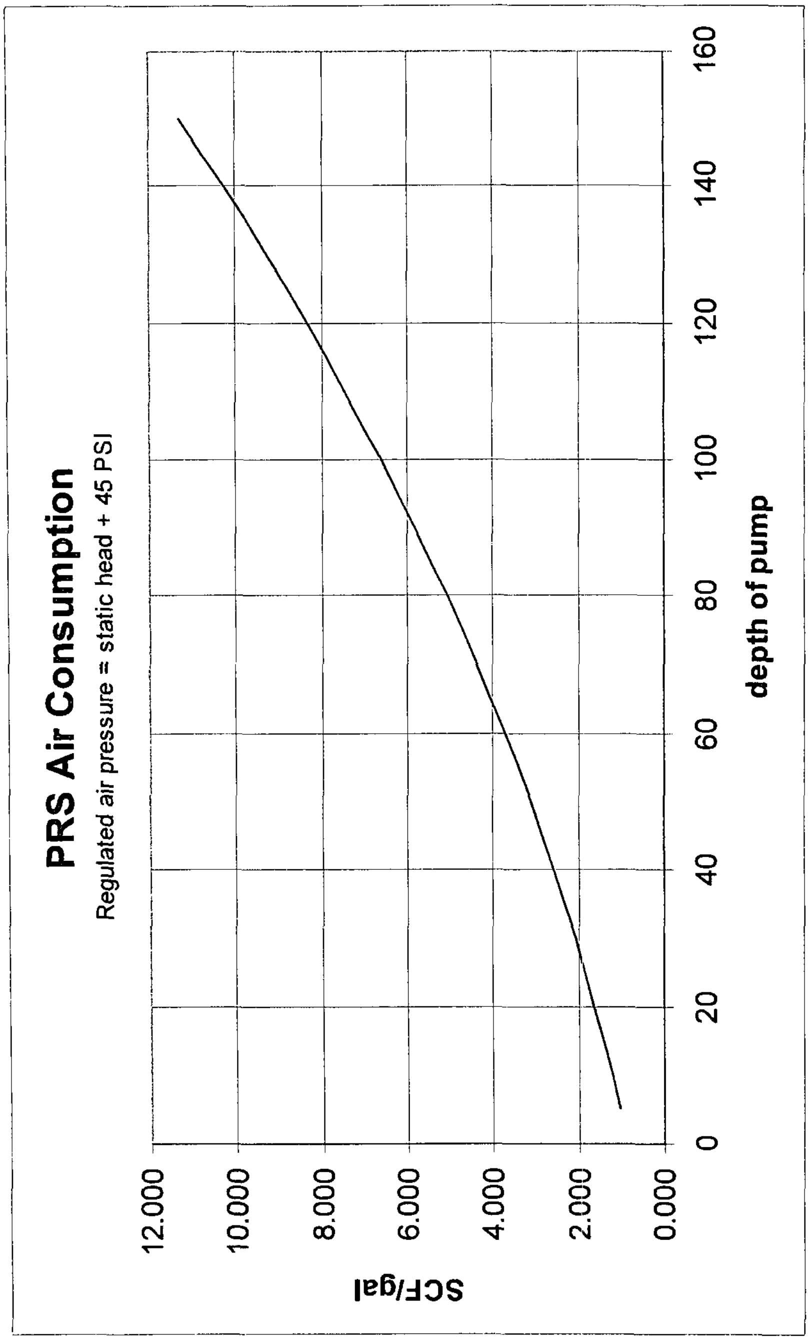

PRS Air Consumption
Regulated air pressure = static head + 45 PSI
SCF/gal
12.000
10.000
8.000
6.000
4.000
2.000
0.000
0
20
40
60
80
100
120
140
160
depth of pump

**Figure 11**

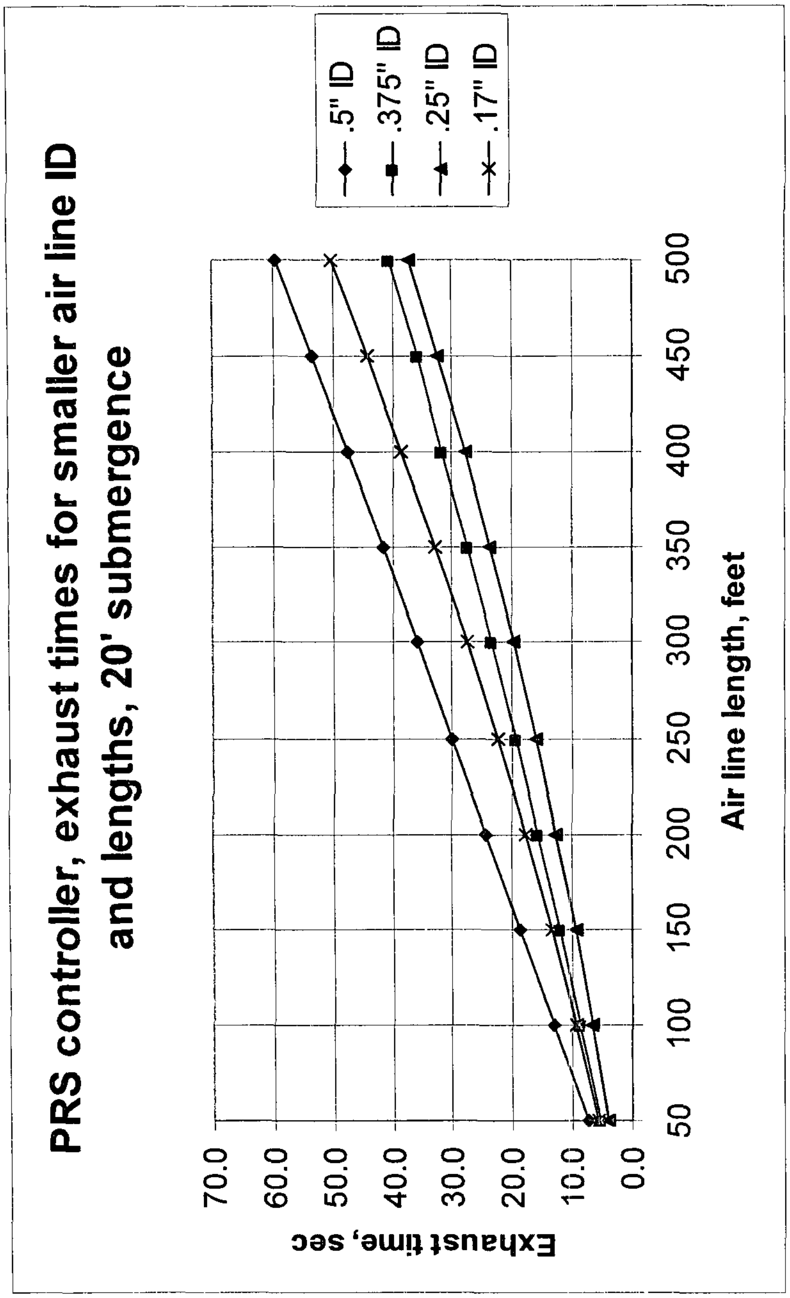

PRS controller, exhaust times for smaller air line ID and lengths, 20' submergence
.5" ID
.375" ID
.25" ID
.17" ID
Exhaust time, sec
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
50
100
150
200
250
300
350
400
450
500
Air line length, feet

**Figure 12**

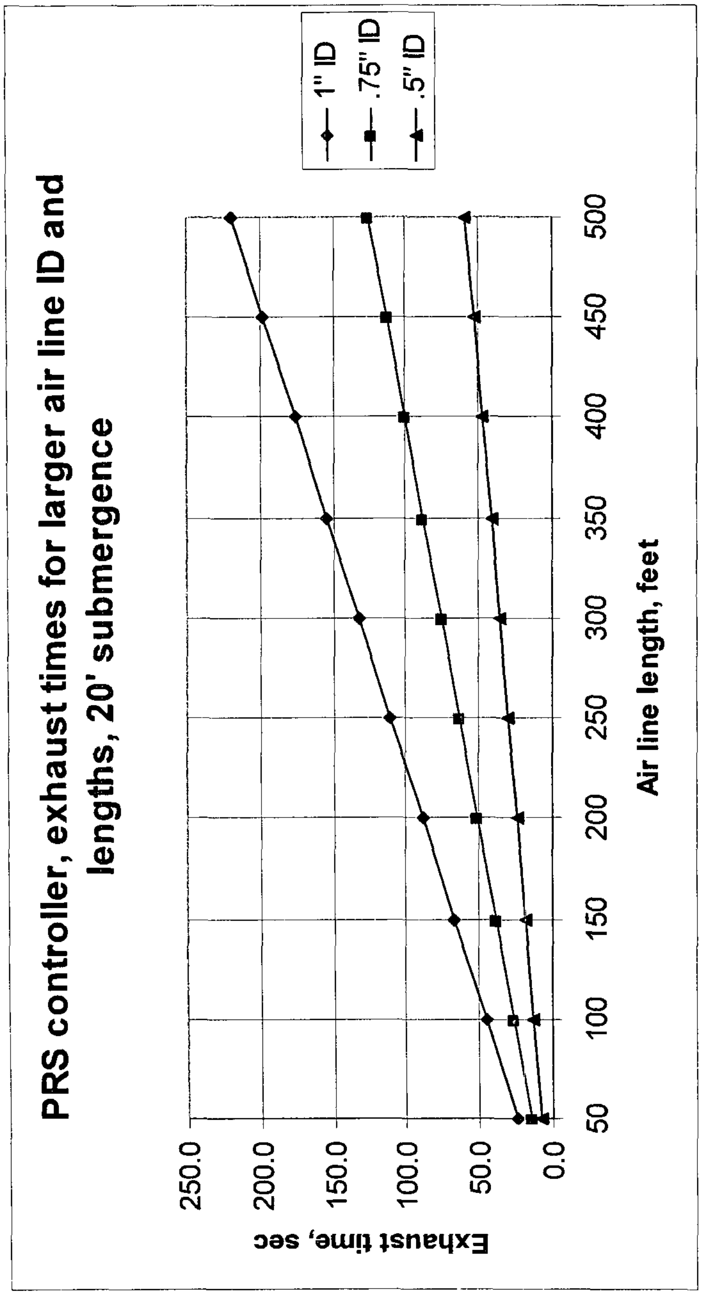

PRS controller, exhaust times for larger air line ID and lengths, 20' submergence
Exhaust time, sec
250.0
200.0
150.0
100.0
50.0
0.0
50
100
150
200
250
300
350
400
450
500
Air line length, feet
1" ID
.75" ID
.5" ID

Figure 13

# Chapter 7: System Schematic

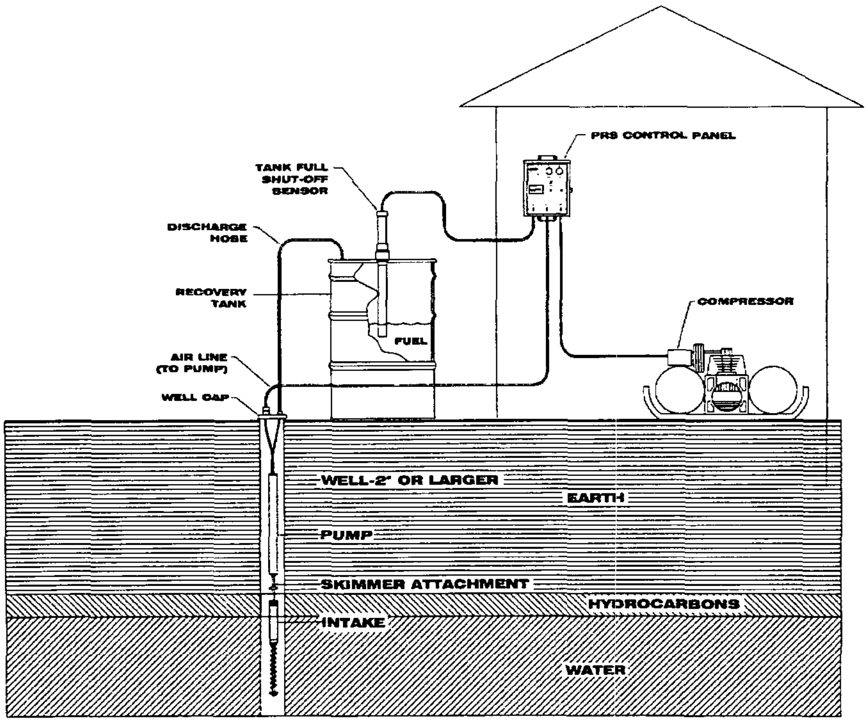



Figure 14 – System Schematic

# Chapter 8:  Replacement Parts List

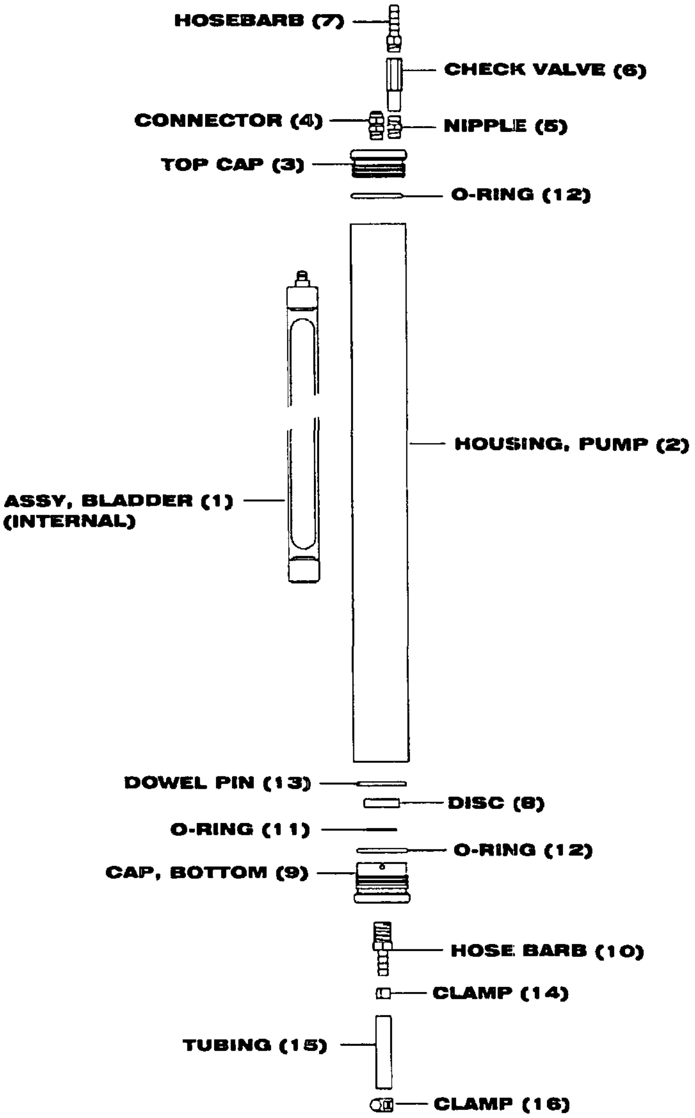



Figure 15 – PRS Pump

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | ASSY, BLADDER, CRS/PRS | 56600013 |
| 2 | HOUSING, PUMP, SS, CRS/PRS | 26600013 |
| 3 | CAP, TOP, SS | 26600012 |
| 4 | CONNECTOR, 1/4 X 1/8 MPT, POLYTITE | 16600037 |
| 5 | NIPPLE, BRS, 1/8, HEX, NPT | 17500151 |
| 6 | CHECK VALVE, 1/8 NPT, 2.5 PSI, 1/8 FPT X 1/8 FPT | 16600003 |
| 7 | HOSEBARB, BRS, 1/8 MPT X 3/8 | 16650310 |
| 8 | DISC, PVC, CHECK, CRS/PRS | 26600017 |
| 9 | CAP, BOTTOM, SS, CRS/PRS | 26600018 |
| 10 | HOSEBARB, BRS, 1/4 MPT X 3/8 | 16650323 |
| 11 | O-RING, VITON, #208 | 16600023 |
| 12 | O-RING, VITON, #128 | 16600030 |
| 13 | PIN, DOWEL, SS8, 1/8 X 1-3/4 | 16600026 |
| 14 | CLAMP, SS, STEPLESS EAR, 17MM | 16600004 |
| 15 | TUBING, RBR, 3/8 X 5/8 FT PRODUCT DISCHARGE | 16600019 |
| 16 | CLAMP, SS, WORM, 5/8" | 16600063 |

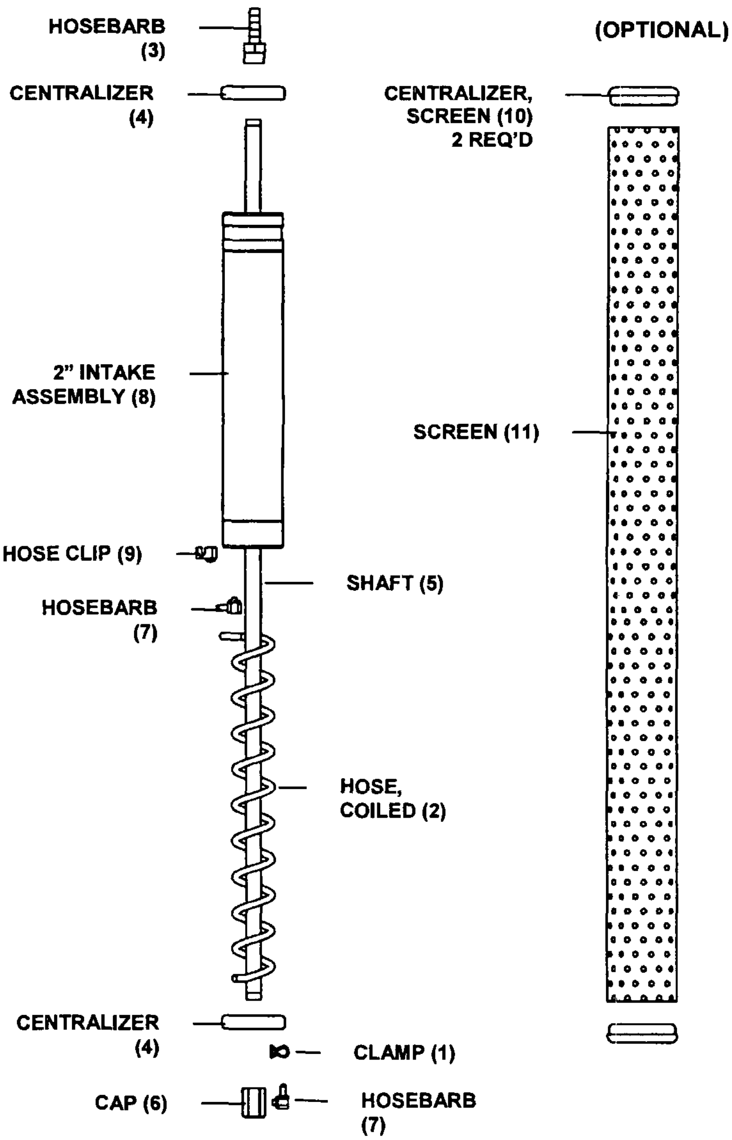



Figure 16 – Standard 2" Skimmer Parts list

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | CLAMP, SS, STEPLESS EAR | 16600005 |
| 2 | HOSE, COILED, 2" SKIMMER | 26650304 |
| 3 | HOSEBARB, BRASS | 16650308 |
| 4 | CENTRALIZER, PVC, 2" SKIMMER | 26650306 |
| 5 | SHAFT, SS, SKIMMER, 33.5", PRC | 26600002 |
| 6 | CAP, BRASS | 16600064 |
| 7 | HOSEBARB, BRASS, 90° | 17500149 |
| 8 | ASSEMBLY, 2" INTAKE | 56650309 |
| 9 | HOSE CLIP, PVC | 26650028 |
| OPTIONAL | | |
| 10 | CENTRALIZER, SCREEN, PR2 | 26600186 |
| 11 | SCREEN, SS, 1.88" OD X 32.7" | 26600188 |

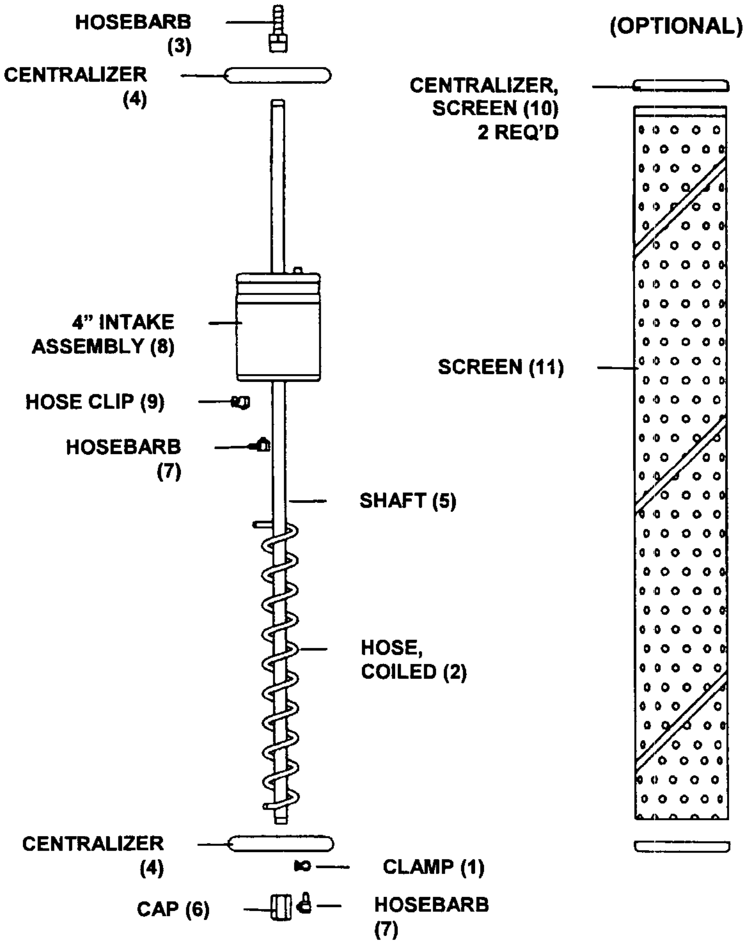



**Figure 17 – Standard 4" Skimmer Parts List**

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | CLAMP, SS, STEPLESS EAR | 16600005 |
| 2 | HOSE, COILED, 4" SKIMMER | 16650312 |
| 3 | HOSEBARB, BRASS | 16650308 |
| 4 | CENTRALIZER, PVC, 4" SKIMMER | 26600187 |
| 5 | SHAFT, SS, SKIMMER, 33.5" PRC | 26600002 |
| 6 | CAP, BRASS , 90º | 16600064 |
| 7 | HOSEBARB, BRASS, 90º | 17500149 |
| 8 | ASSEMBLY, 4" INTAKE | 56650310 |
| 9 | HOSE CLIP, PVC | 26650028 |

OPTIONAL

| | | |
|---|---|---|
| 10 | CENTRALIZER, SCREEN, PR4 | 26600187 |
| 11 | SCREEN, SS, 3.67" OD X 32.7" | 26600189 |

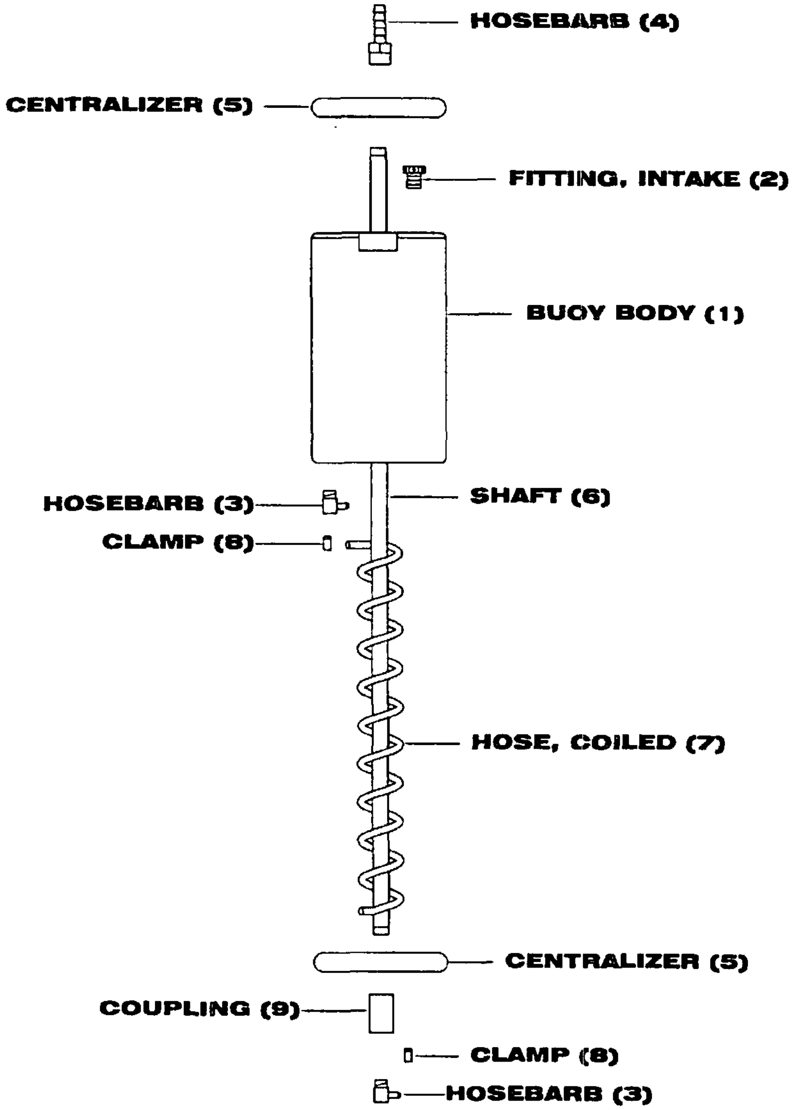



Figure 18 – Oil Skimmer Attachment Parts List

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | BUOY, POLY, OIL | 26600004 |
| 2 | FITTING, INTAKE, OIL BUOY | 26600005 |
| 3 | HOSEBARB, 90°, 1/8 NPT X 3/16 | 17500148 |
| 4 | HOSEBARB, BRS. 3/8 X 1/8 FPT | 16650308 |
| 5 | CENTRALIZER, SKIMMER, PR4 | 16600048 |
| 6 | SHAFT, SS, OIL SKIMMER, 38", PR4 | 26600006 |
| 7 | HOSE, COILED | 26600007 |
| 8 | HOSECLAMP, SS, 5/16, 2 EAR | 11200273 |
| 9 | COUPLING, SS, 1/8 NPT | 16600006 |

# Notes

## The Warranty

For a period of one (1) year from date of first sale, product is warranted to be free from defects in materials and workmanship. Geotech agrees to repair or replace, at Geotech's option, the portion proving defective, or at our option to refund the purchase price thereof. Geotech will have no warranty obligation if the product is subjected to abnormal operating conditions, accident, abuse, misuse, unauthorized modification, alteration, repair, or replacement of wear parts. User assumes all other risk, if any, including the risk of injury, loss, or damage, direct or consequential, arising out of the use, misuse, or inability to use this product. User agrees to use, maintain and install product in accordance with recommendations and instructions. User is responsible for transportation charges connected to the repair or replacement of product under this warranty.

## Equipment Return Policy

A Return Material Authorization number (RMA #) is required prior to return of any equipment to our facilities, please call 800 number for appropriate location. An RMA # will be issued upon receipt of your request to return equipment, which should include reasons for the return. Your return shipment to us must have this RMA # clearly marked on the outside of the package. Proof of date of purchase is required for processing of all warranty requests.

This policy applies to both equipment sales and repair orders.

FOR A RETURN MATERIAL AUTHORIZATION, PLEASE CALL OUR SERVICE DEPARTMENT AT 1-800-833-7958 OR 1-800-275-5325.

Model Number: ________________

Serial Number: ________________

Date: ________________

## Equipment Decontamination

Prior to return, all equipment must be thoroughly cleaned and decontaminated. Please make note on RMA form, the use of equipment, contaminants equipment was exposed to, and decontamination solutions/methods used.
Geotech reserves the right to refuse any equipment not properly decontaminated. Geotech may also choose to decontaminate equipment for a fee, which will be applied to the repair order invoice.

**Geotech Environmental Equipment, Inc**
2650 East 40th Avenue Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

## Chavez, Carl J, EMNRD

| | |
|---|---|
| **From:** | Mark Larson [Mark@laenvironmental.com] |
| **Sent:** | Friday, November 20, 2009 9:07 AM |
| **To:** | Chavez, Carl J, EMNRD |
| **Cc:** | VonGonten, Glenn, EMNRD; Wrangham, Calvin W.; jlingnau@targaresources.com; Johnson, Larry, EMNRD |
| **Subject:** | Re: Phase-Separated Product Recovery, Targa Midstream Services, L.P., Eunice Gas Plant (GW-005), Lea County, New Mexico |

Carl,
This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LAI), its consultant, is response to the conference call on November 19, 2009, with OCD, Targa and LAI personnel to update the OCD on actions performed by Targa to investigate and recover free phase hydrocarbon product (product) recently discovered in monitoring well MW-3 at the Eunice Gas Plant (Facility). The Facility is located in Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East in Lea County, New Mexico. The product was discovered while gauging the well in conjunction with semi-annual groundwater monitoring activities during the week of October 12, 2009. Targa notified the OCD shortly after being notified by LAI personnel. On October 27, 2009, LAI, on behalf of Targa, submitted to the OCD in an emailed summary of activities performed by Targa and LIA personnel immediately after discovering the product, including conducting pressure tests of lines in the vicinity of well MW-3, performing a product bailout test in well MW-3 and product recovery from MW-3 to determine if there is an active source. The results of these activities were also submitted to the OCD in a letter report on November 19, 2009.

During the conference call on November 19, 2009, Targa and LAI representatives provided an update to the OCD on activities performed to date for assessing and recovering the product in MW-3, including the results of subsurface line tests and initial results of product recovery. OCD personnel suggested that a shallow sand unit observed in well MW-3 may be a shallow water bearing zone and requested geological cross sections that include well MW-3 to examine the shallow sand unit. LAI suggested that geological cross sections may have been submitted to the OCD in earlier reports and c=omitted to reviewing the reports. If none were found, OCD requested at least 2 geological cross sections (north to south and east to west) through the area of MW-3.

The OCD recommended to Targa that additional investigation would be necessary to identify the lateral extent of the product in the subsurface through installing monitoring wells upgradient of well MW-3, inside the plant, and downgradient (southeast) since existing monitoring wells located a considerable distance from well MW-3. Targa personnel recommended to the OCD that it would like to monitor the product recovery in well MW-3 to determine if there is an active source and submit the results to the OCD on or before December 21, 2009. The report is to include the results of fingerprint analysis of product from the condensate (Shell) tanks that was not available at the time the report was submitted to the OCD, volume of product recovered in well MW-3, recovery tests in well MW03 after removing the pump and observing the rate and thickness of product recovery in the well, geological cross sections through well MW-3 and recommendations for additional investigation as to the extent of the product in the subsurface. Please contact Cal Wrangham with Targa at (432) 688-0542 or myself at (432) 687-0901, if you have questions.
Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

I am using the Free version of SPAMfighter.
We are a community of 6 million users fighting spam.
SPAMfighter has removed 4995 of my spam emails to date.
The Professional version does not have this message.

## Chavez, Carl J, EMNRD

| | |
|---|---|
| **Subject:** | Targa Middle Plant (GW-5) MW-3 Free-Product Well Meeting 11/19/2009 Note to File |
| **Location:** | TBD |
| **Start:** | Tue 11/17/2009 8:15 AM |
| **End:** | Tue 11/17/2009 8:45 AM |
| **Recurrence:** | (none) |
| **Meeting Status:** | Meeting organizer |
| **Organizer:** | Chavez, Carl J, EMNRD |
| **Required Attendees:** | VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Lowe, Leonard, EMNRD; Chavez, Carl J, EMNRD; Wrangham, Calvin W.; Mark Larson |

Note to file 11/19/2009:

OCD held a telephone conference call with Targa (Cal Wrangham and James Lingnau) and their consultant Mark Larson at 2:00 p.m. yesterday, November 19, 2009. Targa sent a report to the OCD on November 19, 2009 from Larson & Associates for the meeting.

Targa mentioned a condensate release from C-141 release (SWL ~ 20 ft. bgl) form that occurred ~ 40 W of MW-3 at the former tank battery location while tanks were excavated, but the release was side gradient from MW-3 and they quickly remediated the contamination. The release was from an over pressured line that flowed into the excavated former tank battery from dresser sleeve for an estimated loss of 20 bbls. Targa was in the final stages of relocating the tanks to the new Tank Battery location about 150 ft. N of MW-3.

The trend in [Benzene] at MW-3 has been upward, since 1992. Nine underground lines were tested and passed the pressure tests.

Targa started removing free-product into drums last Friday, November 13, 2009 and had pumped ~ 50 gallons. Their pneumatic pump is on a timer when it pumps down to a sheen. Targa would like to continue free-product removal to determine if the source is finite or there is an ongoing leak. From bail-off test, they estimate the actual product thickness on water table to be at ~ 1.5 ft thick.

OCD recommendations:

- Gauge barrels for % condensate to water volumes every couple of hours to determine the efficiency of the free-product pump they are using. Targa thought this was a good idea. They will recycle the condensate through their plant.

- Conduct soil boring (4" dia. for recovery well installation if necessary) work (2 downgradient & 1 upgradient) around MW-3 to assess soil contamination and to determine the source of the free product. Targa request to continue pumping free product for the next 2 weeks to determine if the source is ongoing before doing the soil boring work. OCD was ok with this. Targa said they'd update us next Friday.

- Cross sections needed transecting MW-3. Targa will look for any historical cross-sections that may address this, if not they will provide. This may help understand the significant static water differential (20 ft. to 80 ft.) noticed from MWs at each side of the plant. Probably a perched aquifer there somewhere. An anomalous sandstone unit was also noticed at MW-3, which could be a conduit for discharge into MW-3?

- OCD requested that Targa follow-up with meeting conclusion items for OCD records. Ok.

End........

*************************************************************************************

Meet to discuss path forward on free-product well discovery and to get back with Targa on this discovery.......

History of Free-Product Discovery

10-28-09

Mark:

Good morning. Based on your corrective action plan (highlighted below), do you think this can be done safely? The OCD understands Targa is attempting to assess the magnitude of free product or condensate on the water table to better assess the situation and to determine further corrective action(s). What will Targa do with hazardous waste (condensate contains BTEX?) in drums? Targa apparently feels that the volume is minimal right now based on the recent discovery from ground water monitoring....

There are small diameter portable intrinsically safe automated free-product recovery pumps that can be installed and can recover free-product into smaller size tank units that may be safer (explosion hazard) than what has been proposed. The OCD recommends that a safer active automated free-product intrinsically safe recovery system be installed or used to assess the volume of free product at the MW-3 location over time. The OCD does want the source of contamination removed to expedite remediation of ground water and any dissolved phase contaminants that are forming and migrating in ground water.

The water table elevation may have risen causing the water table to interface with a smear zone(s) or there may be an active leaky pipeline source? It may be prudent to core sample down in a triangular pattern near MW-3 to profile or characterize any free product or condensate hung up in the unsaturated zone to determine if the source is from a smeared zone(s) above the water table. Targa should evaluate static water level conditions to see if the water table has risen near MW-3 that may indicate a smear zone scenario. If not, the source may likely be a leaky line? Any pressure test information from MITs performed on lines should be included in your report along with pipelines (type of pipeline) transecting the facility.

Not sure what the static water level is at MW-3, but Targa should address any soil contamination near impacted MW-3. If there is free product in soil, Targa will need to excavate and dispose of contaminated soils or propose corrective actions (quick response to remove source of contamination) or remediation (long-term ground water abatement).

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

**From:** Mark Larson [mailto:Mark@laenvironmental.com]
**Sent:** Tuesday, October 27, 2009 1:10 PM
**To:** Chavez, Carl J, EMNRD
**Cc:** VonGonten, Glenn, EMNRD; Lowe, Leonard, EMNRD; Johnson, Larry, EMNRD; Wrangham, Calvin W.; jlingnau@targaresources.com; susan.ninan@targaresources.com; Michelle Green; William Green; Leking, Geoffrey R, EMNRD
**Subject:** FW: Re: Phase-Separated Product Recovery, Targa Midstream Services, L.P., Eunice Gas Plant (GW-005), Lea County, New Mexico

Carl,
This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LAI), its consultant, to update the OCD on hydrocarbon product (product) that was discovered in monitoring well MW-3 at the Eunice Gas Plant located in Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East in Lea County, New Mexico. The product was discovered while gauging the well in conjunction

with semi-annual groundwater monitoring activities during the week of October 12, 2009. Targa notified the OCD shortly after being notified by LAI personnel and conducted pressure testing of lines in the vicinity of well MW-3. The line testing did not identify a source for the product. On October 21, 2009, LAI personnel conducted a bailout test in well MW-3 to determine the thickness of product in the formation. An inflection point was observed about 95 minutes into the recovery phase of the test and calculated product thickness was 1.44 feet. The apparent product thickness in well MW-3 was 5.06 feet prior to the bailout test. LAI will begin recovering the product by pumping well MW-3 to determine if an active source exists. A pneumatic or equivalent pump will be installed in well MW-3 and recovered product will be placed in 55-gallon drums and processed by the Facility. The well will be pumped for a sufficient time to determine if there is an active source. A report will be submitted to the OCD upon completion of the recovery operation proposing additional actions, if necessary. Please contact Cal Wrangham with Targa at (432) 688-0542 or myself at (432) 687-0901, if you have questions.
Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

**OCD Message 10/13/2009**

Carl, I did talk to Jim this morning. The sampling indicated 5.2 feet of gas/condensate appearing liquid. There has not been any free product in these wells in the past. Last sample of #3 was 0.159 ppm of benzene. We have pressure tested any potential source in that area of the plant with not leaks detected (3 lines). There are 2 gas/oil wells in the area that we are checking on. We sent a sample of the plant condensate and the liquid from the well to the lab yesterday to try and identify it or see if it was consistent. No results yet. Will keep you posted.

Thanks, Cal.

---

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
**Sent:** Tuesday, October 13, 2009 9:50 AM
**To:** Wrangham, Calvin W.
**Cc:** VonGonten, Glenn, EMNRD
**Subject:** Targa Eunice Middle Plant (GW-005) MW-3 Detection of Free Product Notification

Cal:

Thanks for the telephone message notification of free-product detected for the first time in MW-3 yesterday. What is the thickness of free product in the well?

Has free-product ever been detected at the facility? Could mounding of the water table due to leakage have raised the water table up to a smear zone? What are Targa's thoughts? The OCD notices that MW-3 appears to sit on top of a ground water recharge area or area of mounding of the water table with GW flow direction easterly. It has displayed higher concentration of TDS and chlorides in the past....

Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

## Chavez, Carl J, EMNRD

**From:** Wrangham, Calvin W. [CWrangham@targaresources.com]
**Sent:** Thursday, November 19, 2009 9:46 AM
**To:** Chavez, Carl J, EMNRD
**Subject:** FW: Free Product Assessment and Recovery Update, November 17, 2009
**Attachments:** Free Product Assessment and Recovery Update, Targa Midstream Services, LP, Eunice Gas Plant (GW-005), November 17, 2009.pdf

Please see attachment on our progress with MW #3. Can we set a time after lunch, or later this PM to discuss on a phone conference? That would give you time to review this info. Maybe around 2pm your time zone?

---

**From:** Mark Larson [mailto:Mark@laenvironmental.com]
**Sent:** Thursday, November 19, 2009 10:27 AM
**To:** Wrangham, Calvin W.
**Subject:** Re: Free Product Assessment and Recovery Update, November 17, 2009

Cal,
Please find the attached letter report for the free product assessment and recovery for the Eunice Gas Plant (GW-005) attached. The document will be bound and mailed today to the New Mexico Oil Conservation Division (OCD) in Santa Fe and Hobbs, New Mexico. Please contact me if you have questions.
Sincerely,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

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Larson & Associates, Inc.
Environmental Consultants

November 17, 2009

**VIA EMAIL: Carl.Chavez@state.nm.us**

Mr. Carl Chavez
Environmental Engineer
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Free Product Assessment and Recovery Update**
**Targa Midstream Services, L.P., Eunice Gas Plant (GW-005)**
**Unit Letter A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East**
**Lea County, New Mexico**

Dear Mr. Chavez:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf Targa Midstream Services, L.P. (Targa) by Larson & Associates, Inc. (LA), its consultant, to update the OCD on source evaluation and recovery of free phase petroleum hydrocarbons (condensate) recently discovered in monitoring well MW-3 at the Eunice Gas Plant (Facility). The Facility is located in unit A (NE/4, NE/4), Section 3, Township 22 South, Range 37 East, in Lea County, New Mexico. The geodetic position is 32.42237196 degrees north and 103.1453015 degrees west. Figure 1 presents a location and topographic map. Figure 2 presents a Facility drawing.

**Chronology**

October 12, 2009 — Free phase petroleum hydrocarbons (condensate) was discovered in monitoring well MW-3 during semi-annual groundwater monitoring activities and immediately reported to client, whom notified the OCD in Santa Fe, New Mexico;

Targa collected samples from well MW-3 and possible sources including the XTO inlet scrubber and closed drain scrubber, for sulfur and fingerprint analysis. The samples were submitted to Cardinal Laboratories, located in Hobbs, New Mexico;

Targa pressure tested underground lines in the vicinity of well MW-3;

| | |
|---|---|
| October 21, 2009 | LAI performed a bail-out test of the free phase hydrocarbons in MW-3 to determine the formation thickness of the hydrocarbons; |
| November 13, 2009 | Recovery of free phase product began in well MW-3 using a pneumatic pumping system. |

**Fingerprint Analysis**

On September 12, 2009, Targa personnel collected liquid samples from the XTO inlet scrubber, closed drain scrubber and monitoring well MW-3. The samples were delivered under chain of custody control to Cardinal Laboratories (Cardinal) located in Hobbs, New Mexico. Cardinal transferred the samples to Caprock Laboratories (Caprock) located in Midland, Texas, which were analyzed for total sulfur, API gravity and extended hydrocarbons by gas chromatography (GC). A condensate sample from the waste oil (Shell) tank was also collected but results were not available for this report. The liquid sample from the XTO inlet scrubber was a water solution that contained no phase-separated hydrocarbons for fingerprint analysis. Caprock reported concentrations for three (3) biomarker parameters in the closed drain samples that were either not present or present at lower concentrations in the sample from MW-3. The biomarker parameters included farnesane (C-14), pristane (C-17) and phytane (C-18). Neither pristine or phytane were reported in the sample from MW-3, but constituted 4.86% and 1.88% of the closed drain sump sample. Farnesane was 0.170% in the sample from MW-3 and 2.11% in the closed drain sump sample. The closed drain sump is not considered a source for the hydrocarbons based on the fingerprint analysis. Targa will submit the results for the waste oil (Shell) tank sample upon receipt from the laboratory. Figure 3 presents a detailed schematic showing the locations for the XTO Inlet Scrubber, Closed Drain Scrubber and monitoring well MW-3. Appendix A presents the laboratory report.

**Underground Line Testing**

Targa personnel performed short-term (15 minute) pressure tests on nine (9) underground lines in the vicinity of monitoring well MW-3, including the closed drain scrubber, XTO inlet scrubber, north and south vapor recovery unit (VRU) sales tanks, 3-phase separator, west and east inlet scrubbers, new condensate (Shell) tanks, gunbarrel tank, sump and lease automatic custody transfer (LACT) for sales lines. The lines were blocked, pressurized above operating pressure and manually observed for about 15 minutes for pressure decreases. No pressure decreases were observed concluding that the tested lines are not sources for the hydrocarbons in well MW-3. Figure 3 presents a detailed schematic for the locations of tested lines.

**Bailout Test**

On October 23, 2009, LAI personnel performed a bail-out test in well MW-3 to determine the thickness of product in the formation. The bail-out test was performed by measuring the static water and product level in the well prior to removing hydrocarbons by hand bailing with a disposable polyethylene bailer. The rate of water and product recovery was monitored until an inflection point was observed. The inflection point occurs when the product thickness in the well equalizes with the product thickness in the formation and is based on the method by Gruszczenski (1987, NGWA). The apparent hydrocarbon product thickness, prior to the bail-out test, was 5.06 feet. An inflection point was observed at approximately 95 minutes after recovery began. The calculated product thickness was 1.44 feet and the capillary fringe height was 3.62 feet. On Appendix B presents the bail-out test results.

On July 29, 2008, Targa personnel reported a spill to the OCD District 1 office in Hobbs, New Mexico. The spill occurred near the closed drain scrubber that was previously located near an excavation where the waste oil (Shell) tanks were located about 100 feet northwest (upgradient) of well MW-3. The release involved about 20 barrels of condensate when a dresser sleeve on a line failed due to over pressuring from pigging operations. The condensate ran into the excavation of the former waste oil (Shell) tanks and was collected using a vacuum truck. A track hoe was used to remove contaminated soil from the bottom of the excavation and placed in the on-site OCD permitted landfarm. The spill is considered a possible source for the hydrocarbons in well MW-3. Appendix C presents form C-141.

**Hydrocarbon Product Recovery**

On November 13, 2009, LAI personnel began recovering hydrocarbon product from well MW-3 using a Keck pneumatic product recovery system (PRS) manufactured by GeoTech, Inc., Denver, Colorado. The PRS is designed to efficiently collect free floating hydrocarbons in monitoring wells, and consists of a control panel, down-hole stainless steel bladder pump, floating skimmer attachment and pneumatic tank full sensor. Air is supplied via a stainless steel line from the compressor building and a pressure regulator is located near the well. The product is discharged into a 55-gallon polyethylene drum positioned inside secondary containment. The tank full sensor is positioned inside the polyethylene drum to signal the controller to shut off the pump once the drum level is full. Approximately 50 gallons of hydrocarbon product was recovered from well MW-3 between November 13 and 16, 2009.

LAI will record the volume of hydrocarbon product recovered from the well by tracking the drums of hydrocarbon product filled by the pump. The drums will be emptied by

Targa personnel and placed into the condensate (Shell) tanks. LAI will monitor the rate of product recovery to determine if there is an active source for the hydrocarbons and report these results to the OCD. Targa will continue recovering free product from well MW-3 using the pneumatic pump, unless otherwise directed by the OCD.
Appendix D presents the PRS specifications.

The results of line pressure testing and fingerprint analysis conclude that none of the t4ested lines or the closed drain sump is the source for the hydrocarbons. Targa will submit to the OCD the results of the fingerprint analysis of the condensate (Shell) tank samples upon receipt from the laboratory. A report summarizing the recovery of hydrocarbon product and determination of an active source will be submitted to the OCD on or before December 21, 2009. Please contact myself at (432) 687-0901 or Cal Wrangham at (432) 688-0452, if you have questions. We may also be reached by emailing mark@laenvironmental.com or CWrangham@targaresources.com.

Sincerely,

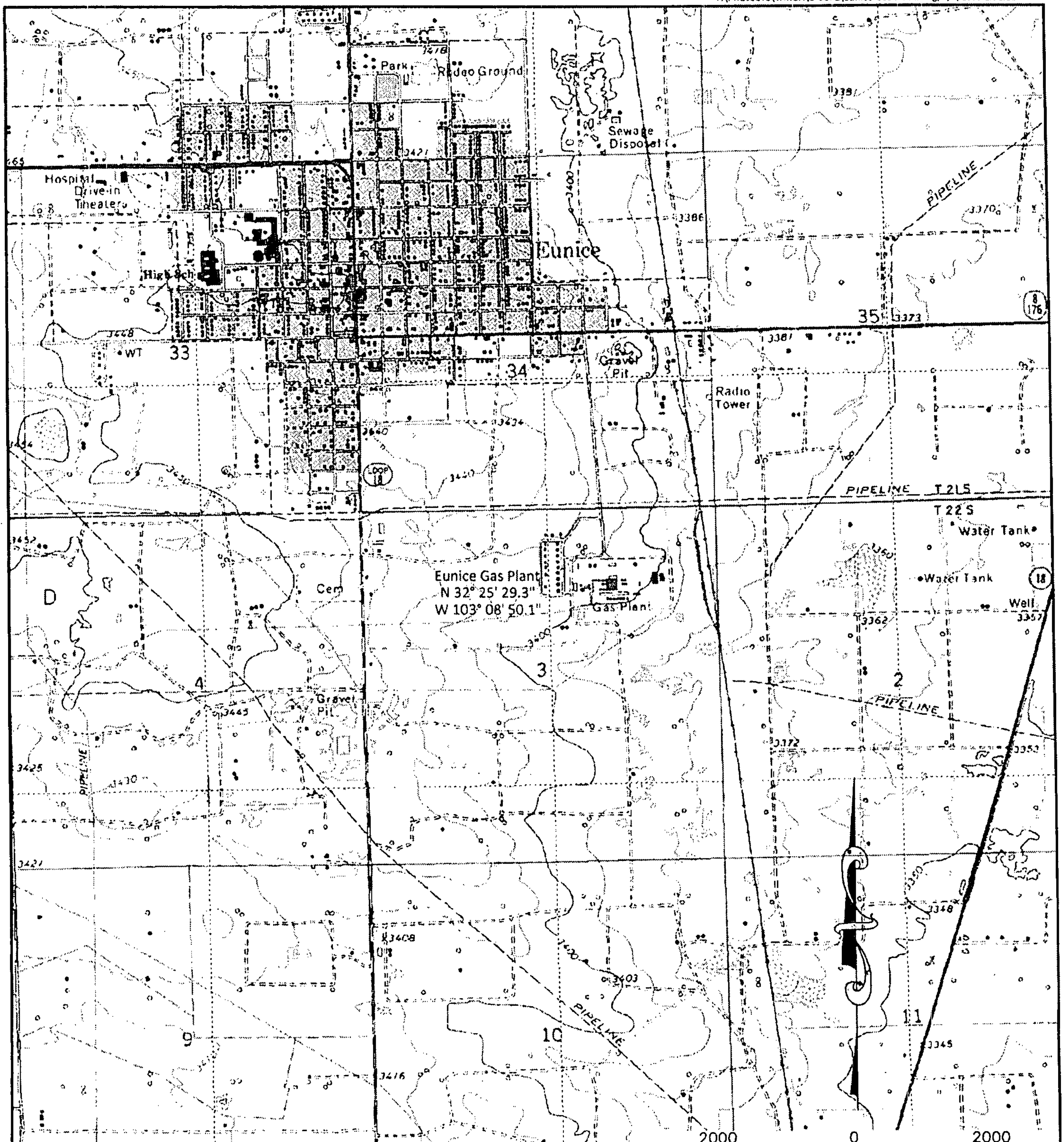
***Larson & Associates, Inc.***

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

Encl.

cc: Cal Wrangham, Targa
James Lingnau, Targa
Susan Ninan, Targa
Larry Johnson, OCD - Hobbs

**FIGURES**




Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

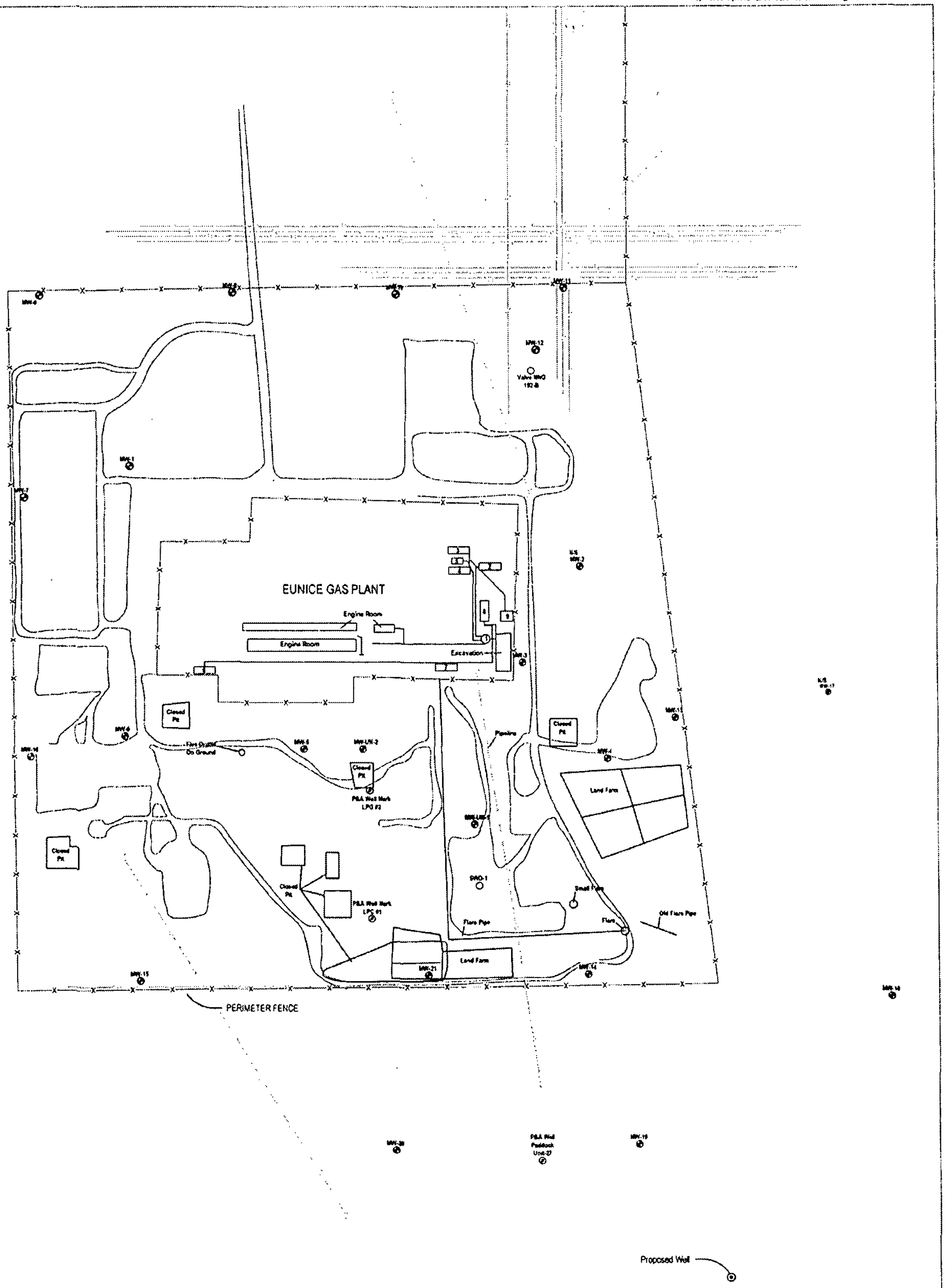
N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 1 - Topographic Map

JWW

Y:\PROJECTS\TARGA\8-0172\Eunice Gas Plant.dwg, 11/17/2009 9:22:15 AM




LEGEND

- Monitoring Well Location
- Fence
N/S - Not Sampled

1 - Closed Drain Scrubber
2 - XTO Scrubber
3 - VRU Sales Tank North
4 - VRU Sales Tank South
5 - 3 Phase Separator
6 - West Inlet Scrubber
7 - East Inlet Scrubber
8 - New Condensate Tanks / Gun BBL / Sump
9 - Lact For Sales

350 0 350
Graphic Scale in Feet

Targa Midstream Services, L.P.
Eunice Gas Plant
NE/4, Sec. 3, T-22-S, R-37-E
Lea County, New Mexico

N 32° 25' 29.3"
W 103° 08' 50.1"

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Facility Drawing

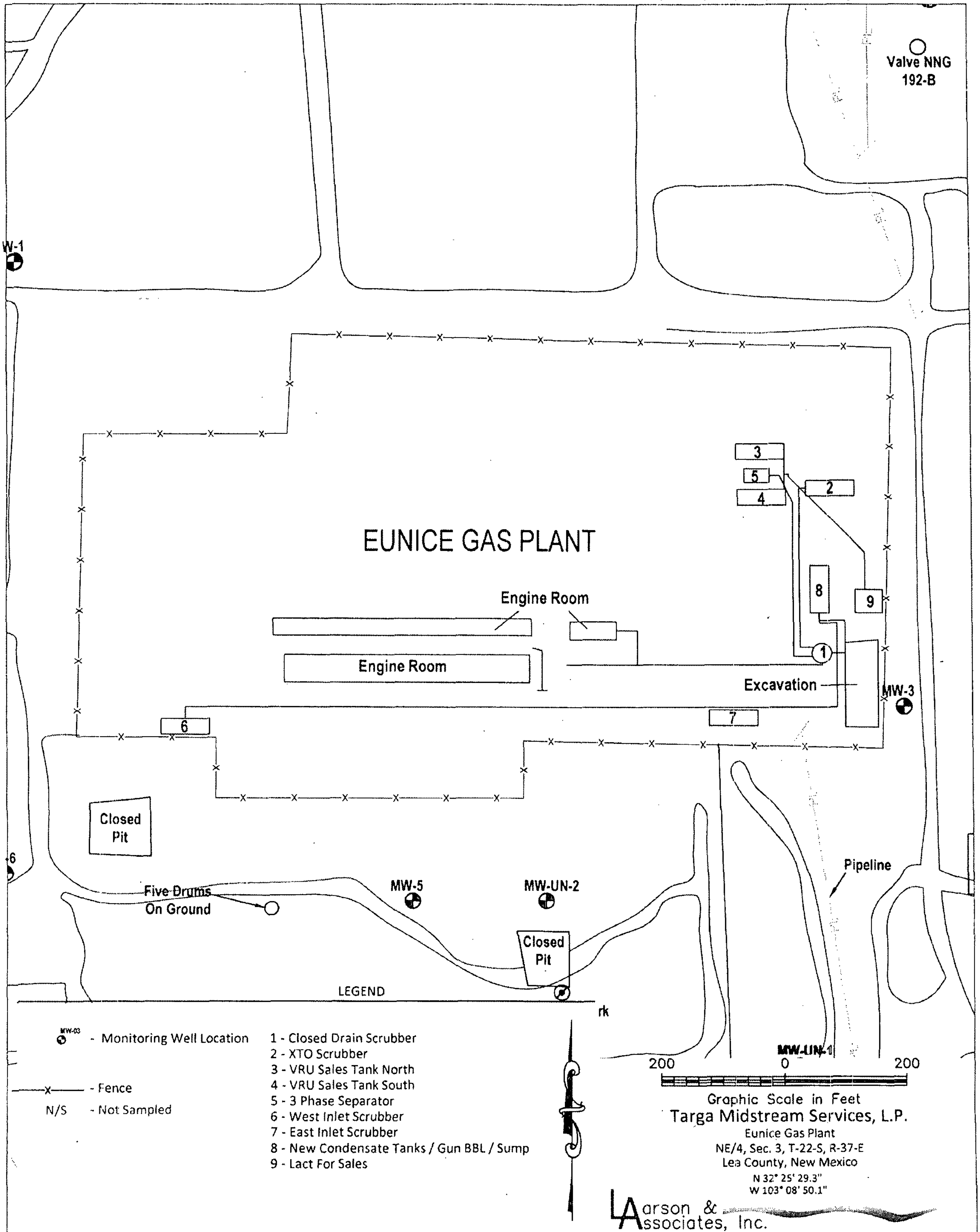



Figure 3 - Detailed Piping Schematic and Pressure Test Areas

## APPENDIX A

## Laboratory Report

**CARDINAL LABORATORIES**

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 20, 2009

Roger Holland
Targa Resources
6 Desta Drive, Suite 3300
Midland, TX 79705

Re: Middle Plant

Enclosed are the results of analyses for sample number H18479, received by the laboratory on 10/12/09 at 4:00 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

| | |
|---|---|
| Method SW-846 8021 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method SW-846 8260 | Benzene, Toluene, Ethyl Benzene, and Total Xylenes |
| Method TX 1005 | Total Petroleum Hydrocarbons |

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

| | |
|---|---|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.2 | Regulated VOCs (V2, V3) |

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene

Celey D. Keene
Laboratory Director

# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476



Company Name: Targa
Project Manager:
Address: P.O. Box 1929
City: Eunice State: NM Zip: 88231
Phone #: 575-394-2534 Fax #: 575-394-1514
Project #: ~~Middle PH~~ Project Owner: Roger Holland
Project Name: Middle PH
Project Location:
Sampler Name: Roger Holland

**BILL TO**

P.O. #:
Company: Same
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

**ANALYSIS REQUEST**: Sulfur; ~~Sulfide~~; ~~distillation~~; Fingerprint Comparison #1 / * added 10/22/09

| FOR LAB USE ONLY Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER | ACID/BASE | ICE / COOL | OTHER | DATE | TIME | Sulfur | ~~Sulfide~~ | ~~distillation~~ | Fingerprint Comparison #1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H18479-1 | M.W. #3 | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ |
| -2 | KTO Inlet | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ |
| -3 | Closed Drain Scrubber | | 1 | | | | ✓ | | | | | | 10/12/09 | | ✓ | | | ✓ |



Sampler Relinquished: Roger Holland Date: 10/12/09 Time: 4:05 PM Received By: [signature]
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Temp.
Sample Condition Cool: ☐ Yes ☒ No; Intact: ☒ Yes ☐ No
CHECKED BY: (Initials) MCB

Phone Result: ☐ No Add'l Phone #:
Fax Result: ☐ No Add'l Fax #:
REMARKS:

* added as per Roger 10/22/09 ck

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CAPROCK LABORATORIES, INC.
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701
(432) 698-7252

COMPANY: CARDINAL LABORATORIES
SAMPLE: AS NOTED

JOB NUMBER: 0910089
DATE RECEIVED: OCT. 22, 2009
DATE REPORTED: OCT. 30, 2009
REPORTED TO: CELEY KEENE

SUMMARY OF CRUDE OIL ANALYSIS

| | | | |
|---|---|---|---|
| SAMPLE IDENTIFICATION | H18479-1 | H18479-2* | H18479-3 |
| LAB NUMBER | 10089-01 | 10089-02 | 10089-03 |
| WEIGHT % SULFUR | 1.2967 | 0.2706 | 0.3096 |
| SPECIFIC GRAVITY, 60/60F | 0.7389 | 1.0126 | 0.7632 |
| API GRAVITY @ 60 F | 60.0 | N. A. | 53.9 |

* SAMPLE WAS A WATER SOLUTION, NOT HYDROCARBONS

METHODS: WEIGHT % SULFUR - ASTM D4294
GRAVITY - ASTM D287
SAMPLE: CRUDE OIL

ANALYST: James L. Pritchard
JAMES L. PRITCHARD, LAB MANAGER

CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H18479-1
SAMPLE #: 10089-01

JOB NUMBER: 0910089
DATE RECIEVED: 10-22-09
DATE REPORTED: 10-30-09
REPORTED TO: C. KEENE

| COMPONENT | | WEIGHT % |
|---|---|---|
| ~~Methane - Ethane~~ | | 0.0000 |
| Propane | C-3 | 0.0057 |
| Iso-Butane | | 0.0114 |
| N-Butane | C-4 | 0.0740 |
| Iso-Pentane | | 0.4781 |
| N-Pentane | C-5 | 0.8367 |
| Neo-Hexane | | 0.0374 |
| Cyclopentane | | 0.3765 |
| 2-Methylpentane | | 1.4929 |
| 3-Methylpentane | | 1.1465 |
| N-Hexane | C-6 | 2.9060 |
| Methylcyclopentane | | 1.7295 |
| Benzene | | 0.8017 |
| Cyclohexane | | 1.9702 |
| 2-Methylhexane | | 1.5408 |
| 3-Methylhexane | | 2.1068 |
| Dimethylcyclopentanes | | 3.3159 |
| Heptanes | | 1.3221 |
| N-Heptane | C-7 | 5.3527 |
| Methylcyclohexane | | 5.1226 |
| Toluene | | 3.4768 |
| Octanes | | 15.4848 |
| N-Octane | C-8 | 0.6163 |
| Ethylbenzene | | 3.9314 |
| P-M-Xylene | | 4.1810 |
| O-Xylene | | 1.4855 |
| Nonanes | | 22.9573 |
| N-Nonane | C-9 | 3.8728 |
| Decanes | | 9.2133 |
| N-Decane | C-10 | 1.1018 |
| Undecanes | | 1.8701 |
| N-Undecane | C-11 | 0.2195 |
| Dodecanes | | 0.4781 |
| N-Dodecane | C-12 | 0.0122 |
| Tridecanes | | 0.2204 |
| N-Tridecane | C-13 | 0.0236 |
| Tetradecanes | | 0.1000 |
| N-Tetradecane | C-14 | 0.0146 |
| Pentadecanes | | 0.0724 |
| N-Pentadecane | C-15 | 0.0089 |
| Hexadecanes | | 0.0268 |
| N-Hexadecane | C-16 | 0.0049 |
| Heptadecanes | | 0.0000 |
| N-Heptadecane | C-17 | 0.0000 |

| COMPONENT | | WEIGHT % |
|---|---|---|
| Octadecanes | | 0.0000 |
| N-Octadecane | C-18 | 0.0000 |
| Nonadecanes | | 0.0000 |
| N-Nonadecane | C-19 | 0.0000 |
| Eicosanes | | 0.0000 |
| N-Eicosane | C-20 | 0.0000 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 46.686 |
| 11 | 9.301 |
| 12 | 0.517 |
| 13 | 1.000 |
| 14 | 0.619 |
| 15 | 0.377 |
| 16 | 0.208 |
| 17 | 0.000 |
| 18 | 0.000 |
| 19 | 0.000 |
| 20 | 0.000 |

BIO-MARKER SUMMARY

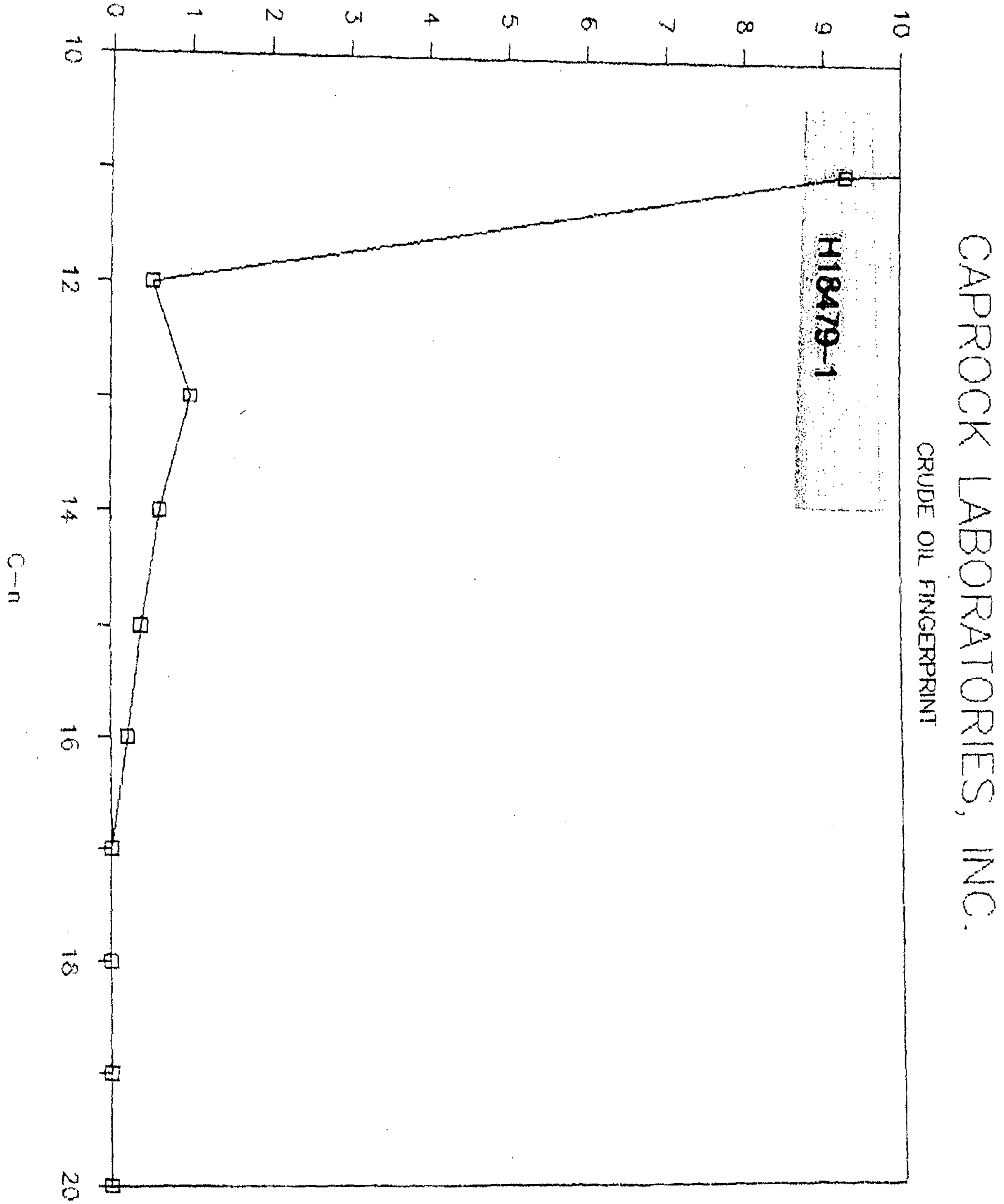
| | |
|---|---|
| Farnesane/C-14 | 0.170 |
| Pristane/C-17 | N.A. |
| Phytane/C-18 | N.A. |

WEIGHT % S 1.2967

GRAVITY, API @ 60 F 60.0

Analyst: James L. Pritchard
James L. Pritchard,
Lab Manager

C-n / C-13


CAPROCK LABORATORIES, INC.
CRUDE OIL FINGERPRINT
H18479-1
C-n

CAPROCK LABORATORIES, INC
3312 BANKHEAD HIGHWAY
MIDLAND, TEXAS 79701

COMPANY: CARDINAL LABORATORIES
SAMPLE ID: H18479-3

JOB NUMBER: 0910089
DATE RECIEVED: 10-22-09
DATE REPORTED: 10-30-09
REPORTED TO: C. KEENE

SAMPLE #: 10089-03

| COMPONENT | | WEIGHT % |
|---|---|---|
| Methane - Ethane | | 0.0000 |
| Propane | C-3 | 0.0025 |
| Iso-Butane | | 0.0049 |
| N-Butane | C-4 | 0.0233 |
| Iso-Pentane | | 0.1449 |
| N-Pentane | C-5 | 0.1571 |
| Neo-Hexane | | 0.0135 |
| Cyclopentane | | 0.1350 |
| 2-Methylpentane | | 0.4812 |
| 3-Methylpentane | | 0.4873 |
| N-Hexane | C-6 | 0.9364 |
| Methylcyclopentane | | 0.8875 |
| Benzene | | 0.1878 |
| Cyclohexane | | 1.3430 |
| 2-Methylhexane | | 0.8900 |
| 3-Methylhexane | | 1.3233 |
| Dimethylcyclopentanes | | 2.3864 |
| Heptanes | | 0.8986 |
| N-Heptane | C-7 | 3.3378 |
| Methylcyclohexane | | 4.6820 |
| Toluene | | 1.7554 |
| Octanes | | 14.7408 |
| N-Octane | C-8 | 6.4902 |
| Ethylbenzene | | 2.3091 |
| P-M-Xylene | | 2.7927 |
| O-Xylene | | 0.8777 |
| Nonanes | | 19.3283 |
| N-Nonane | C-9 | 4.6390 |
| Decanes | | 15.2134 |
| N-Decane | C-10 | 2.2993 |
| Undecanes | | 5.5425 |
| N-Undecane | C-11 | 0.8605 |
| Dodecanes | | 1.7947 |
| N-Dodecane | C-12 | 0.3560 |
| Tridecanes | | 0.8409 |
| N-Tridecane | C-13 | 0.1559 |
| Tetradecanes | | 0.4779 |
| N-Tetradecane | C-14 | 0.0466 |
| Pentadecanes | | 0.4149 |
| N-Pentadecane | C-15 | 0.0540 |
| Hexadecanes | | 0.1682 |
| N-Hexadecane | C-16 | 0.0098 |
| Heptadecanes | | 0.1559 |
| N-Heptadecane | C-17 | 0.0172 |

| COMPONENT | | WEIGHT % |
|---|---|---|
| Octadecanes | | 0.1436 |
| N-Octadecane | C-18 | 0.0160 |
| Nonadecanes | | 0.0872 |
| N-Nonadecane | C-19 | 0.0319 |
| Eicosanes | | 0.0516 |
| N-Eicosane | C-20 | 0.0073 |
| Heneicosane + | C-21+ | 0.0000 |
| Total | | 100.0000 |

C-n / C-13 SUMMARY

| C-n | C-n/C-13 |
|---|---|
| 10 | 14.749 |
| 11 | 5.520 |
| 12 | 2.284 |
| 13 | 1.000 |
| 14 | 0.299 |
| 15 | 0.346 |
| 16 | 0.063 |
| 17 | 0.110 |
| 18 | 0.103 |
| 19 | 0.205 |
| 20 | 0.047 |

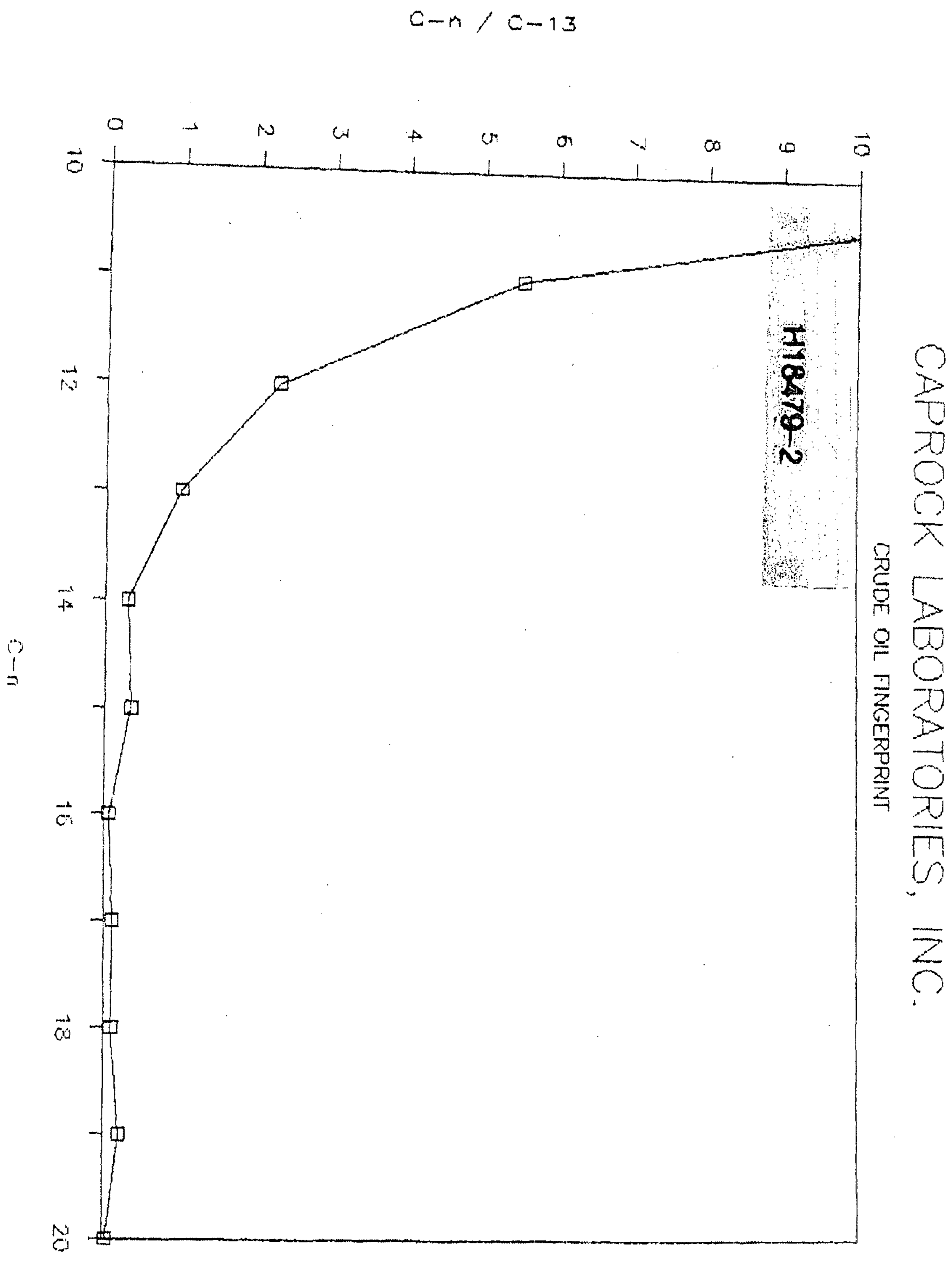
BIO-MARKER SUMMARY

| | |
|---|---|
| Farnesane/C-14 | 2.110 |
| Pristane/C-17 | 4.860 |
| Phytane/C-18 | 1.880 |

WEIGHT % S 0.3096

GRAVITY, API @ 60 F 53.9

Analyst: [signature]
James L. Pritchard,
Lab Manager


CAPROCK LABORATORIES, INC.
CRUDE OIL FINGERPRINT
H18479-2
C-n / C-13
C-n
0
1
2
3
4
5
6
7
8
9
10
10
12
14
16
18
20

**Caprock Laboratories, Inc.**
3312 Bankhead Highway
Midland, Texas 79701
(432) 689 – 7252

October 30, 2009

Cardinal Laboratories
101 East Marland
Hobbs, New Mexico 88240

Attention: Celey Keene

Subject: Hydrocarbon Fingerprint

Gentlemen

Presented in this report are the final results of analyses performed to help determine if the samples submitted on October 22, 2009 were from the same origin. The sample identified as H18479-2 was a water solution and contained only a trace amount of hydrocarbons and could not be included in the fingerprint analyses.

The other two samples (H18479-1 & H18479-3) were analyzed to determine Total Sulfur by X-Ray Fluorescence, API Gravity and Extended Hydrocarbons by Gas Chromatography. The data from the Extended Chromatographic analysis was calculated and the ratio of the weight percent of each component between N-Decane to N-Eicosane was calculated as a function of weight percent N-Tridecane. The resulting data was then graphed to serve as a fingerprint of each hydrocarbon. The ratio of three biomarkers, Farnesane:N-Tetradecane, Pristane:N-Heptadecane, and Phytane:N-Octadecane were also calculated and compared.

In general, the fingerprint data indicate that the hydrocarbons from the tested samples are not from the same origin.

It has been a pleasure to perform this study for you and we look forward to being of service in the future. Please do not hesitate to call if you should have any questions about the analytical procedures used, the results obtained, or if we may be of further assistance.

Respectfully,

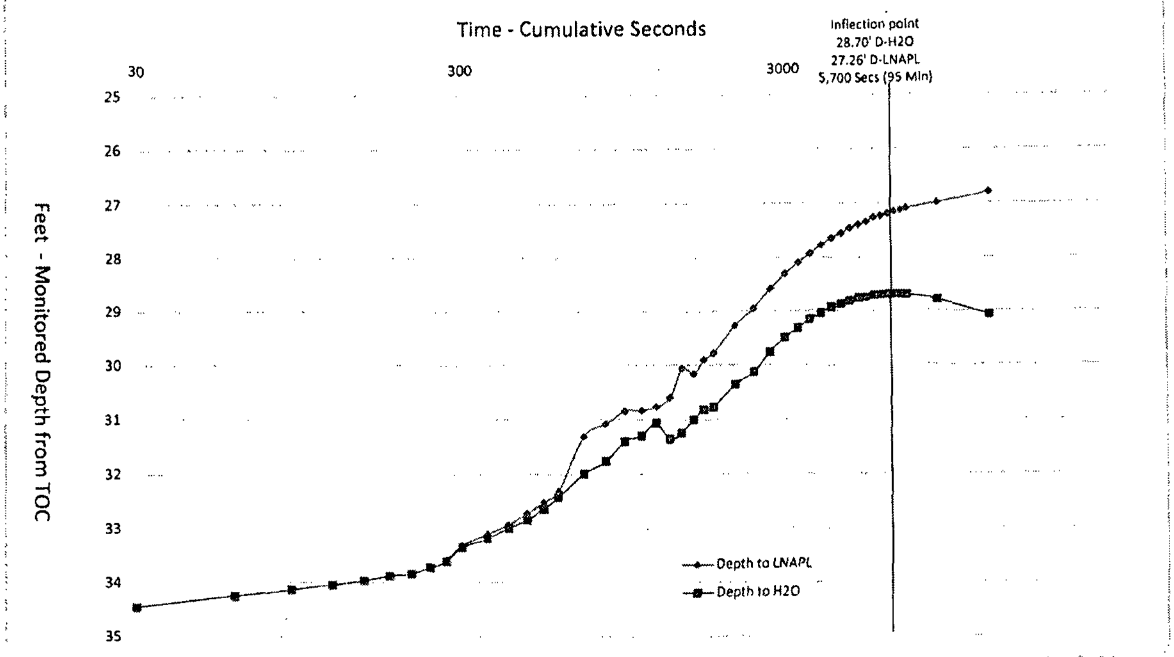
James L. Pritchard

James L. Pritchard, Lab Manager
Caprock Laboratories, Inc.

**APPENDIX B**

**Bail-Out Test Results**

# MW-03 LNAPL Recovery Test
# October 21, 2009




| Obs. No. | Time Sec | Depth to LNAPL | Depth to $H_2O$ |
|---|---|---|---|
| 1 | 30 | | 34.44 |
| 2 | 60 | | 34.24 |
| 3 | 90 | | 34.12 |
| 4 | 120 | | 34.03 |
| 5 | 150 | | 33.95 |
| 6 | 180 | | 33.87 |
| 7 | 210 | | 33.82 |
| 8 | 240 | | 33.70 |
| 9 | 270 | 33.56 | 33.58 |
| 10 | 300 | 33.29 | 33.33 |
| 11 | 360 | 33.09 | 33.17 |
| 12 | 420 | 32.91 | 32.98 |
| 13 | 480 | 32.71 | 32.83 |
| 14 | 540 | 32.49 | 32.62 |
| 15 | 600 | 32.29 | 32.40 |
| 16 | 720 | 31.29 | 31.98 |
| 17 | 840 | 31.07 | 31.75 |
| 18 | 960 | 30.83 | 31.39 |
| 19 | 1080 | 30.81 | 31.28 |
| 20 | 1200 | 30.75 | 31.05 |
| 21 | 1320 | 30.58 | 31.35 |
| 22 | 1440 | 30.04 | 31.23 |
| 23 | 1560 | 30.15 | 30.99 |
| 24 | 1680 | 29.89 | 30.80 |
| 25 | 1800 | 29.77 | 30.76 |
| 26 | 2100 | 29.26 | 30.34 |
| 27 | 2400 | 28.95 | 30.12 |
| 28 | 2700 | 28.58 | 29.75 |
| 29 | 3000 | 28.30 | 29.49 |
| 30 | 3300 | 28.09 | 29.31 |
| 31 | 3600 | 27.92 | 29.15 |
| 32 | 3900 | 27.76 | 29.03 |
| 33 | 4200 | 27.63 | 28.91 |
| 34 | 4500 | 27.54 | 28.85 |
| 35 | 4800 | 27.45 | 28.80 |
| 36 | 5100 | 27.39 | 28.75 |
| 37 | 5400 | 27.33 | 28.73 |
| 38 | 5700 | 27.26 | 28.70 |
| 39 | 6000 | 27.23 | 28.69 |
| 40 | 6300 | 27.19 | 28.68 |
| 41 | 6600 | 27.15 | 28.68 |
| 42 | 6900 | 27.12 | 28.68 |
| 43 | 7200 | 27.09 | 28.69 |
| 44 | 9000 | 26.98 | 28.78 |
| 45 | 13020 | 26.79 | 29.06 |

| Static D-LNAPL | Static D-H2O | Corrected D-GW |
|---|---|---|
| 26.22 | 31.28 | 27.64 |

Specific Gravity Estimated at 0.72 $g/cm^3$

Charting and calculation based upon *Determination of a Realistic Estimate of Formation Product Thickness Using Monitor Wells: A Field Bailout Test* by Thomas S. Gruszczenski (1987, NGWA)

**Step Number**

| | |
|---|---|
| | 5700 |
| 5 – Inflection Point | sec |
| 6 – S.G. corrected | 27.64 |
| 7 – Measured Product Thickness | 5.06 |
| ***8 – Inflection Product Thickness*** | **1.44** |
| **9 – Capillary Fringe Height** | **3.62** |

**APPENDIX C**

**Form C-141**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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 of Company: Targa Midstream Services L P | Contact: James Lingnau 505.394.2534, Chuck Tolsma 505.631.6026 |
| Address: PO Box 1909 Eunice, NM 88231 | Telephone No. (505) 394-2534 |
| Facility Name: Eunice Gas Plant | Facility Type |

| | | |
|---|---|---|
| Surface Owner: TARGA RESOURCES | 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 |
|---|---|---|---|---|---|---|---|---|
| | 3 | 21S | 37E | | | | | Lea |

**Latitude** 32.25.16.9N **Longitude** 103..08.47.8W

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Gas and Produced Liquids | Volume of Release: Approximately 20 barrels of liquid | Volume Recovered: Recovered approximately 20 barrels of liquid. |
| Source of Release: Dresser Sleeve separated on dump line from Separator in plant condensate handling area. | Date and Hour of Occurrence: 12 Midnight 7/29/2008 | Date and Hour of Discovery 12 Midnight 7/29/2008 |
| Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required | If YES, To Whom? Larry Johnson OCD in Hobbs by phone | |
| By Whom? Don Embrey | Date and Hour 11:30 AM 7/29/2008 | |
| 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. *
Pig pushed maximum amount of liquid into separator and caused overpressure of dump line and dresser sleeve on line separated. Liquid was contained in containment around separator and clean up excavation. Drip truck was called out and liquid recovered. Line was shut in and dresser sleeve repaired.

Describe Area Affected and Cleanup Action Taken.*
The liquid was contained in containment and clean up excavation. Track hoe brought in to remove contaminated soil in bottom of excavation. The contaminated soil will be taken to an OCD approved landfarm. The area will be sampled to insure cleanup to meet OCD guidelines.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | |
|---|---|
| Signature: Don Embrey | OIL CONSERVATION DIVISION |
| Printed Name: Don Embrey | Approved by District Supervisor: |
| Title: Advisor | Approval Date: Expiration Date: |
| E-mail Address: dembrey@targaresources.com | Conditions of Approval: Attached ☐ |
| Date: July 29, 2008 Phone: (432) 688-0546 | |

* Attach Additional Sheets If Necessary

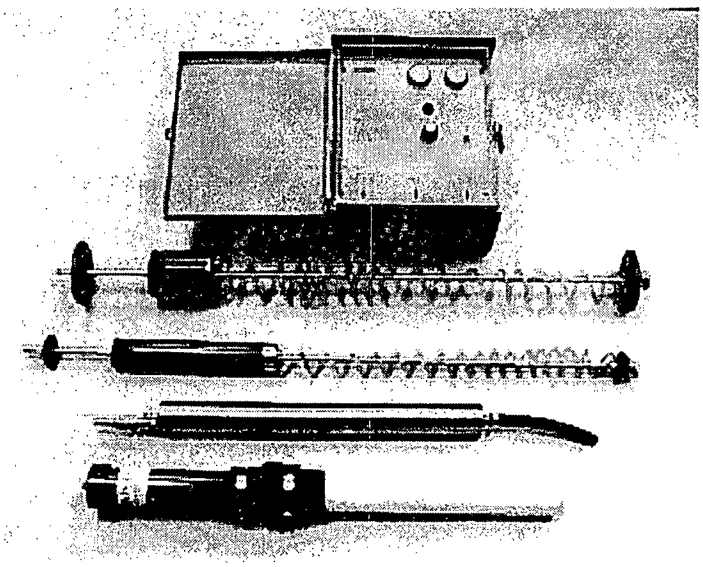
## APPENDIX D

## Keck PRS Specifications

geotech

# PRS - Product Recovery System

**Installation and Operation Manual**

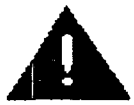


26600008 Rev. 6 10/19/05

# Table of Contents

# DOCUMENTATION CONVENTIONS

**This uses the following conventions to present information:**

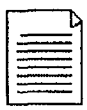


**WARNING**

An exclamation point icon indicates a **WARNING** of a situation or condition that could lead to personal injury or death. You should not proceed until you read and thoroughly understand the **WARNING** message.

**CAUTION**

A raised hand icon indicates **CAUTION** information that relates to a situation or condition that could lead to equipment malfunction or damage. You should not proceed until you read and thoroughly understand the **CAUTION** message.



**NOTE**

A note icon indicates **NOTE** information. Notes provide additional or supplementary information about an activity or concept.

# Chapter 1: System Description

## Function and Theory

The Keck PRS Product Recovery System has been designed to efficiently collect free floating hydrocarbons in 2 inch or larger monitoring wells. The system consists of a floating skimmer attachment, a control panel that can be mounted indoors or out, a stainless steel bladder pump, a pneumatic tank full sensor, and an optional air compressor (not included).

The PRS' unique product intake assembly incorporates both a density float and a hydrophobic filter which differentiates between floating hydrocarbons and water. The intake assembly follows water table fluctuations and places the screen intake at the water/product interface. As the system cycles, product is drawn through the hydrophobic filter and transferred to the pump through a coiled hose and the skimmer's transfer shaft.

The pneumatic control panel regulates the system and features two timers which vary the cycle time and flow rate of the skimmer pump. The control panel also contains a pneumatic tank full shut off sensor which shuts off the pump when the recovery tank is filled.

The automatic stainless steel bladder pump has a two-phase pumping cycle. During the first phase, or pump intake phase, pressurized air is vented from the pump, thus creating a vacuum. This vacuum closes the top discharge check valve and opens the bottom intake check valve, causing product to be drawn through the skimmer's product intake assembly and into the pump.

During the second phase, or pump discharge phase, pressurized air is directed into the pump bladder, causing it to expand within the pump body. This action closes the bottom intake check valve and opens the top discharge check valve, thus forcing the recovered product from the pump up to the surface.

The tank-full shut-off sensor system consists of a sensor tube and a switching valve. The sensor tube is installed in the recovery tanks 2 inch bung opening. As the recovery tank fills, the rising pressure is transmitted to the switching valve located in the control panel. When the pressure reaches the activation point (an indication of a filled recovery tank) the switching valve stops the air supply to the timers and disables the pump from recovering product or overfilling the recovery tank. After the tank is emptied, the tank full shut off valve must be manually reset, allowing the system to resume normal operation.

### System Components

#### Pump

The Keck PRS Product Recovery System utilizes an air driven bladder pump. The pump consists of a stainless steel outer housing, top and bottom check valves, and a flexible inner bladder. The pump is designed for pumping liquids only; any solids (silt, dirt, etc.) may reduce its performance or cause the pump to malfunction.

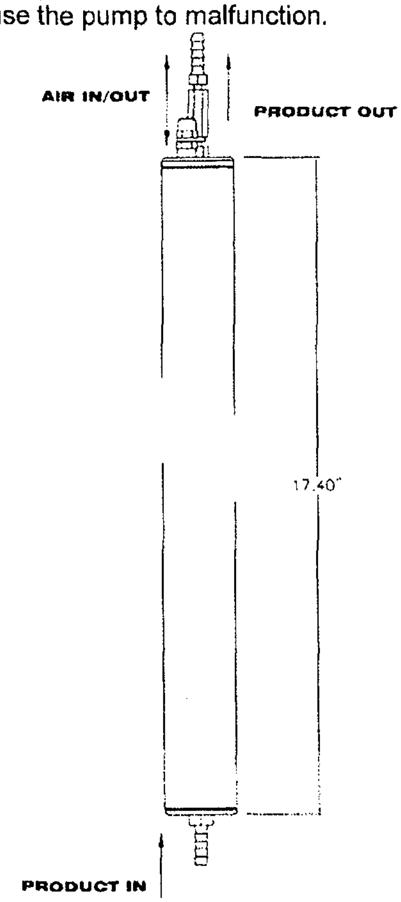



**Figure 1 - Pump**

## Optional High-Capacity Pump

The Keck PRS Product Recovery System also offers an optional high-capacity pump. The pump is constructed the same as the standard PRS pump, but gives twice the flow rate of recovery.

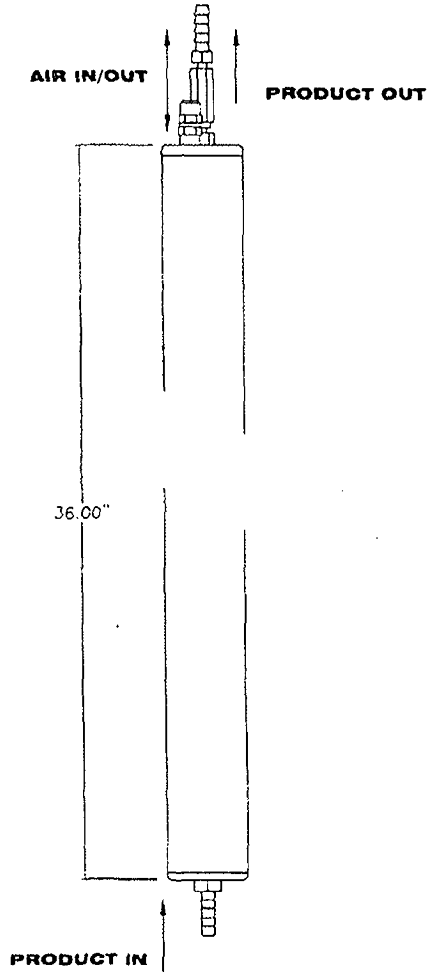



Figure 2 – Optional High-Capacity Pump

## Standard Skimmer Attachment

The PRS' standard skimmer attachment is designed to recover floating hydrocarbons, skimming down to a sheen over a 2 foot travel range (1 foot travel for the 2 inch skimmer), and will not pump water unless forcibly submerged. Up to 5 feet of travel (4 inch skimmer only) is available on a custom order basis. The skimmer is connected to the bottom of the pump, and consists of a product intake assembly, a coiled product transfer hose, and a transfer shaft with well centralizers placed at the top and bottom.

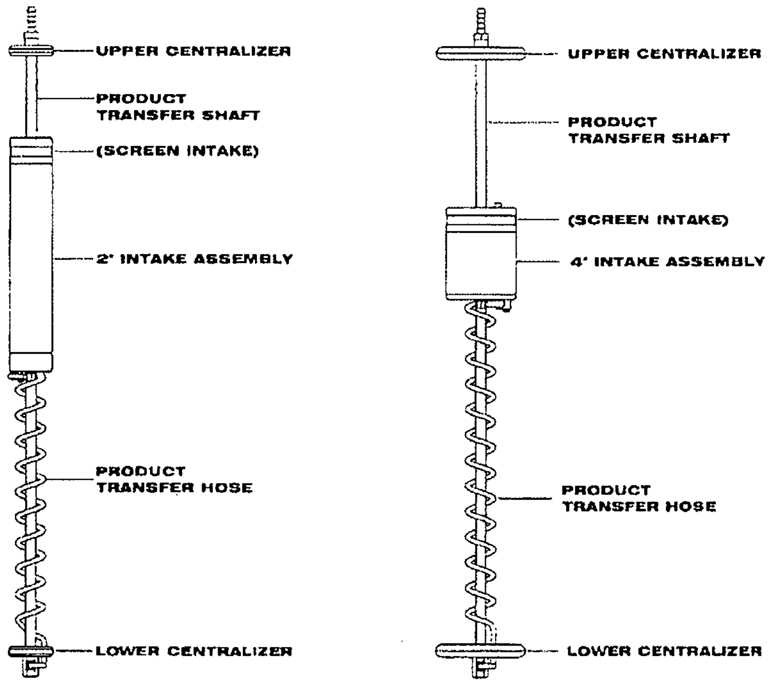



Figure 3 - 2" and 4" Standard Skimmer Attachments

## Optional Oil Skimmer Attachment

The PRS' optional oil skimmer attachment is designed to recover a range of fluids from gasoline to gear oil, skimming down to .01 feet in 4 inch and larger wells. The skimmer is connected to the bottom of the pump, and consists of a product intake assembly, a coiled product transfer hose, and a transfer shaft with well centralizers placed at the top and bottom. The buoy can travel a distance of 2 feet between these centralizers. The skimmer intake can be fine tuned by adjusting the intake fitting on the buoy: turn the fitting clockwise to lower the intake relative to the product/water interface, or turn it counter-clockwise to raise the intake away from the interface.

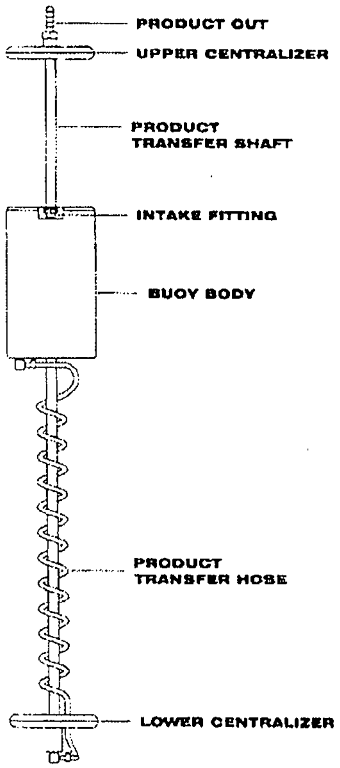



**Figure 4 – Oil Skimmer Attachment (optional)**

## PRS System Control Panel

The air-driven pump controller is the "heart" of the PRS Product Recovery System. The controller uses two timers to vary the pumping rate of the system, independently controlling the discharge time and the recharge time of the pump. **A clean, dry air source that can deliver one cubic foot per minute (CFM) at 90 psi will adequately allow the controller to drive one pump.** Up to four pumps can be run from one controller with a commercial air supply of at least 4 CFM at 90 psi. The PRS Control Panel comes equipped with a tank full shut off. The Tank Full Shut Off incorporates a manual reset button, as an additional safety feature. The reset button must be pushed and the system reset to resume operation.

The tankfull indicator is green when the system is operational and is black when the system is shut off. The recovery tank must be emptied and the reset button pushed before the system can be reactivated, and the indicator to show green.

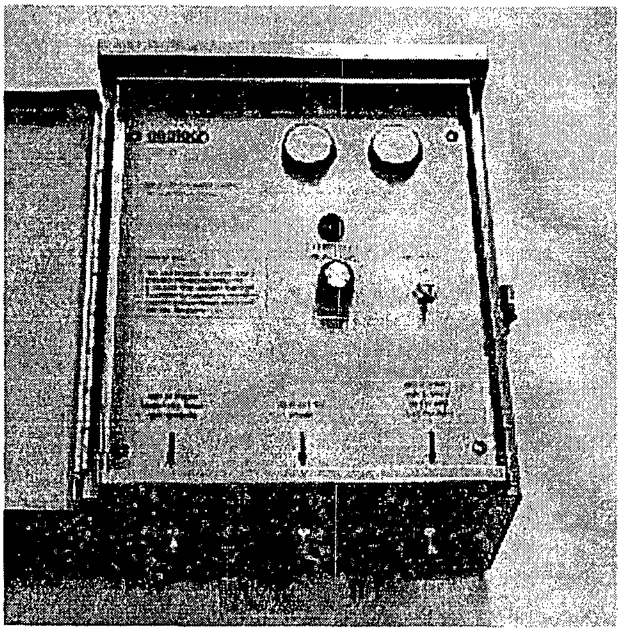


**Figure 5 – PRS System Control Panel**

## Air Supply

The standard single or dual pump PRS system can be supplied with a 115V 2 hp "oil-less" air compressor. Larger multiple well head systems typically use a 1.5 hp or larger oil lubricated air compressor.

Oil lubricated air compressors usually require the installation of the intake air filter and the filling of the oil sump before operation. The filter and appropriate oil are provided with the compressor. Refer to the instructions provided with the air compressor for set-up procedures. The oil-less air compressors require a 115V 15 amp circuit, and the oil lubricated air compressors require at least a 115V 20 amp circuit (depending on the model). To avoid electrical overload, do not use an extension cord or plug any other equipment into the same circuit as the compressor.

An automatic tank drain and an air dryer may be required for the air compressor if the system is operating in humid conditions.

Bottled air may be used to operate the PRS if operating an air compressor is not feasible. A high pressure regulator must be used to reduce the air pressure to the range of 45 - 125 psi. Pressures outside of this range may cause the system to malfunction.

The air compressor must be kept as cool as possible. If placing the compressor in an enclosure, it must be well ventilated and a fan may be required for proper cooling.

## Product Recovery Tank

A product recovery tank is not provided with the PRS system. A tank with a 2 inch bung opening for the overfill sensor tube, a product inlet opening, and a vent are required for proper operation -- typically a 55 gallon drum or other suitable container. Check local and state regulations regarding fuel storage before selecting a recovery tank

## Air Line and Discharge Hoses

Protect the supplied air lines and hoses for the pump, controller, and recovery tank from damage. Conduit or PVC pipe buried below grade will provide adequate line protection. Check local and state regulations regarding fuel transmission lines before installation of product discharge lines. The dimensions of air-line and hose to the listed devices are as follows:

| | |
|---|---|
| Compressor | ⅜" O.D. x 50 ft / 9.5mm x 15m |
| Pump Air Line | ¼" O.D. x 100 ft. / 6mm x 30m |
| Product Discharge Line | ⅝" O.D. x 100 ft. / 16mm x 30m |
| Controller to Tank Full Shut off Sensor | ¼" O.D. x 50 ft / 6mm x 15m |

**To successfully plan the installation of the PRS System, use the following guidelines to determine a suitable location for the air compressor and recovery tank (also refer to page 20, figure 10, System Schematic):**

1) Do not locate the compressor in an area where there may be explosive vapors. Compliance with Chapter 5 of the National Electric Code Handbook and any local codes is essential for an electrically safe installation. The compressor requires a cool, well ventilated environment to operate efficiently, and may require an air dryer in freezing or humid conditions.

2) Run all air and discharge lines through pipe or conduit to protect the lines from damage.

3) All air line connections must be installed properly for the system to function correctly. When cutting the air line, the cut must be clean and square. When inserting the air lines into the compression fittings, push the air line firmly into the fitting, hand tighten the compression nut, and then tighten one more full turn with a wrench.

## Chapter 2: System Installation

Prior to installation, it is best if the screen intake is "conditioned". Use diesel fuel or similar hydrocarbon to saturate the screen portion of the intake. The optimum fluid would be the downwell hydrocarbons to be recovered. Take care to avoid damaging the screen intake.

1) Install control panel vertically on hard surface or post.

2) Remove the inner ring of the well cap, and secure it to the well casing using the three set screws located on the perimeter of the ring.

3) Cut a length of the provided air line and connect it from the output of the air compressor to the port labeled "INPUT FROM AIR SUPPLY" on the control panel.

4) To calculate the amount of air line and discharge hose required to suspend the pump and skimmer in the well, first determine the static water level, in the well, and then subtract 46 inches (38 inches for the 2 inch skimmer) from the reading. Next, measure out this amount of air line and discharge hose. For the optional high-capacity pump, subtract 63 inches (55 inches for the 2" skimmer) from the reading. Do not make any cuts to tubing until all measurements between controller and well head and well height to recovery tank are made. Last, pull the measured lengths of air line and discharge hose through the fittings on the well cap. Fully tighten the compression fittings. The well cap will suspend the pump and skimmer by the discharge hose, setting the intake assembly at the midpoint of its travel range.

5) Attach the air line and discharge hose to the pump using the provided compression fitting and hose clamp respectively, and set the pump and skimmer in the well.

6) Connect the free end of the pump air line to the controller fitting labeled "OUTPUT TO PUMP" (see page 8, figure 5).

7) Connect the free end of the product discharge hose to the product recovery tank.

8) Install the tank full shut off sensor air line between the tank full shut off sensor tube and the controller fitting labeled "INPUT FROM TANK-FULL SHUT OFF SENSOR" (see page 8, figure 5).

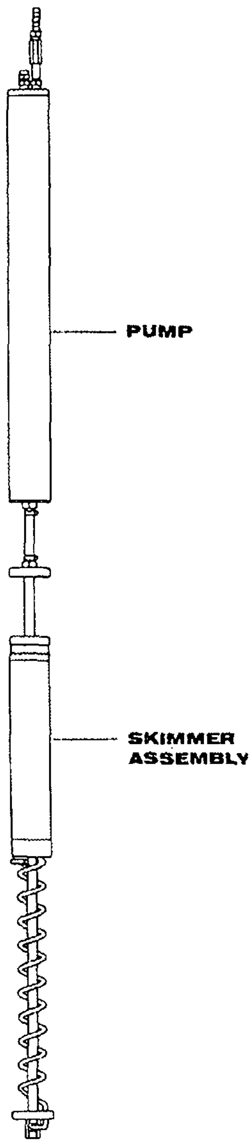



Figure 6 – Pump and Skimmer Assembly

## Chapter 3: System Operation

1) Start the air compressor. If the air compressor was supplied by Geotech, two pressure gauges, a pressure switch, an air valve, and a pressure regulator are located on the top of the compressor air tank(s). The main pressure gauge shows the total tank pressure, and the outlet pressure gauge (figure 7) shows the outlet air pressure set by the regulator. The pressure switch has a lever with two positions. Move the lever to the "AUTO" (down) position, and the compressor will run until the tank pressure reaches 125 psi. Turn the air valve on and verify that the pressure shown on the outlet pressure gauge reads between 75 and 95 psi. If the setting is outside of this range, adjust the pressure by rotating the knob on the regulator.

2) Verify that the controller's pump intake and pump discharge timers are on the "C" setting as indicated on the controller faceplate. Turn the air valve on the control panel to the "ON" position. The system will now begin to cycle and recover product.

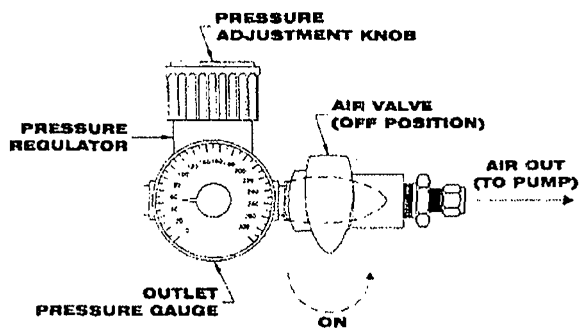
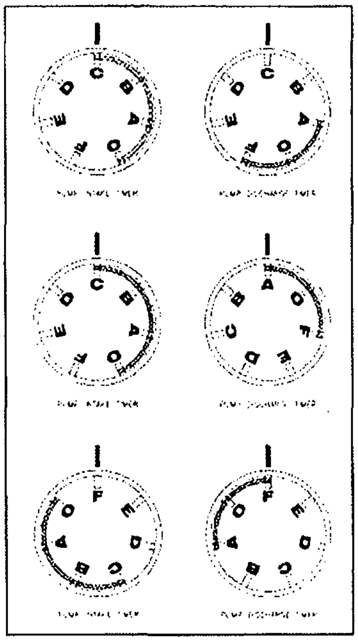



Figure 7 – Air Supply Controls

3) Test the tank full shut off system by immersing the sensor tube in a pail of water (at least 12 inches deep) while the system is cycling. Within one cycle, the sensor will shut off the air supply to the control panel. When you remove the sensing tube from the water, test to be sure the system remains off until the reset is pressed. If the system does not function as described, check the fittings at both the controller and sensing tube, and check for kinks in the sensor air line. Install the sensing tube in the 2 inch bung opening on the discharge tank.

4) The pumping rate can be adjusted based on product volume. If there is a large volume of product, or a minimal amount of product in the well, the pumping rate may be adjusted by referring to the following illustrations. DO NOT USE THE SETTINGS IN THE LIGHTLY SHADED AREA ON THE DIALS.



A. Normal (default) setting

B. Maximum pumping rate

C. Minimum pumping rate
The pumping rate may be further reducing the system air pressure (45 psi minimum).

**Figure 8**

# Chapter 4: System Maintenance

## Weekly Maintenance

1) Turn the air compressor off and drain the air tank(s). On air compressors without an optional automatic condensate drain, open the drain fitting on the bottom of the compressor tank(s) and drain any accumulated water. The tank(s) must be drained regularly to avoid compressor malfunction.

2) Check and adjust the compressor oil level (not applicable to all systems). Verify that the oil is at the proper level. Refer to the compressor manual for service intervals and procedures. It is very important that the oil level is maintained properly. If the oil level is too low or too high, the compressor may fail, or the pump may malfunction due to excess oil in the air stream.

3) Inspect the compressor for loose fittings. Over time, vibration may cause bolts to loosen or air leaks to develop. If uncorrected, excess air consumption and shortened compressor life will result.

4) Verify pump settings and fluid levels in well. Make sure that the pump and skimmer are set at the correct interval for collection of free product.

## Monthly Maintenance

1) Turn the air compressor off and drain the air tank(s). On air compressors without an optional automatic condensate drain, open the drain fitting(s) on the bottom of the compressor tank(s) and drain any accumulated water. The tanks must be drained regularly to avoid compressor malfunction.

2) If the supplied compressor is oil lubricated, change the compressor oil. Fully drain and replace the compressor oil using a quality non-detergent compressor oil as specified in the compressor's operating instructions.

3) Inspect the compressor's air filter. Remove and clean the air intake filter, blowing from the inside out with compressed air. If the filter is very dirty, or you are unable to clean it, replace the filter.

4) Inspect the product skimmer. Visually inspect the skimmer, making sure that the coiled hose is not tangled and that the intake assembly moves freely over its travel range. Inspect the intake assembly and clean or replace it as needed using the methods described in the section of this manual on product skimmer cleaning (see page 16).
5) Check to make sure the tank full shut off is operating properly as described on page 14.
6) Verify pump settings and fluid levels in the well. Make sure that the pump and skimmer are set at the correct interval for collection of free product, and that the cycling rate of the system is correct for the amount of product available. If the well is slow to recharge and/or there is only a small volume of product to pump, the pumping rate should be decreased to conserve air and minimize compressor wear.

7) *For technical assistance, call Geotech Environmental Equipment, Inc.
8) at 1-800-833-7958 or in Michigan at 1-800-275-5325.

**Product Skimmer Cleaning**

1) Inspect the product skimmer assembly for signs of physical damage. Scrapes or dents in the screen intake may cause the skimmer to take on water. If such damage is found, a new 2" or 4" intake assembly may be necessary (see page 28 or 30).

2) Inspect the tubing coil for physical damage or obstructions, such as kinks. Replace the tubing coil as necessary.

3) To clean the intake assembly screen intake, use a very soft bristle paint brush and fresh diesel fuel or the type of product being recovered. Typically, this type of maintenance should only be performed when the screen intake is obstructed with emulsified product or other debris. Take care not to dent or scratch the screen intake.

4) Rinse the product intake assembly with clean water and make sure it is completely dry before reconditioning screen intake.

5) Use diesel fuel or similar hydrocarbon to saturate the screen portion of the intake. The optimum fluid would be the downwell hydrocarbons to be recovered. Take care to avoid damaging the screen intake.

## Bladder Replacement

The pump is fitted with a field replaceable bladder for easy repair on the job site (see page 26, figure 15, item 1).

1) Unscrew the top cap from the pump body and pull the top cap off. Slide assembly out.

2) Unscrew the old bladder and screw on the new one

3) Re-assemble the pump.

## Chapter 5: System Troubleshooting

**Problem:** **the pump discharges water only.**
Solutions:
1) The water level has risen above the travel range of the skimmer.
   - Pull the pump and skimmer out of the well and purge water out of the intake assembly and pump by allowing the system to cycle for several minutes. Refer to page 11, and then reset the pump and skimmer.

2) The pump setting has slipped, or has been installed below the water level.
   - Refer to step "A" solution and then reset the pump and skimmer.

3) Loose hose/tubing at fitting
   - Check all fitting connections.

**Problem:** **the pump discharges air only, no product.**
Solutions:
1) Product has been removed.
   - Reduce the pumping rate (pg. 14), or decrease the air pressure (45 psi minimum) to conserve air.

2) The Product layer is below the bottom of the skimmer's travel range.
   - Refer to page 11, and then reset the pump and skimmer.

3) The pump bladder has ruptured.
   - Replace the pump bladder. Refer to page 26, figure 15 or contact Geotech Environmental Equipment, Inc. for further information.

**Problem:** **the pump cycles but does not discharge product.**

Solutions:

1) One or both of the pump check valves are malfunctioning.
   - Refer to page 26, figure 15. Remove and clean, or replace the check valves (items 6 & 9).

2) The viscosity of the product is too thick for the skimmer.
   - Contact Geotech Environmental Equipment Inc. for other skimmer options.

3) The intake assembly is obstructed or the coiled product hose is kinked.
   - Verify that the intake assembly moves freely over its travel range, and adjust the coiled hose if needed. Refer to step "A" solution and then reset the pump and skimmer.

## Chapter 6: System Specifications

### Pump

| | |
|---|---|
| Size: | 23.5"L x 1.75" O.D. |
| Weight: | 4.5Lbs. |
| Materials: | 303 and 304 Stainless Steel, flexible PVC and Brass |

### Skimmer

| | 2" Model | 4"Model |
|---|---|---|
| Effective travel range: | 12" | 24" |
| Size: | 35.5" L x1.75" O.D. | 35.5" L x 3.75" O.D. |
| Weight: | 1.75 lbs. | 2.25 lbs. |
| Operating Temperature: | 32° to 100° F | |
| Materials: | 304 Stainless Steel, Polyethylene, PVC Polypropylene, Brass | |

### Controller

| | |
|---|---|
| Size: | 12" H x 10" W x 6" D |
| Weight: | 18 Lbs. |
| Temperature: | 32° to 100° F |
| Min. Pressure: | 45 psi |
| Max. Pressure: | 125 psi |
| Max. CFM: | 8 cfm @ 90 psi |

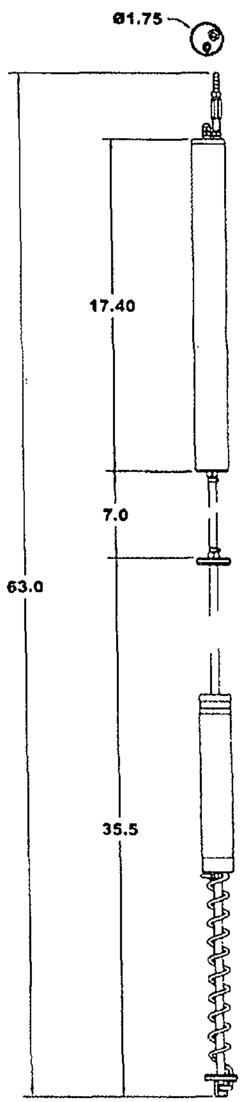



Figure 9 – Dimensions in Inches

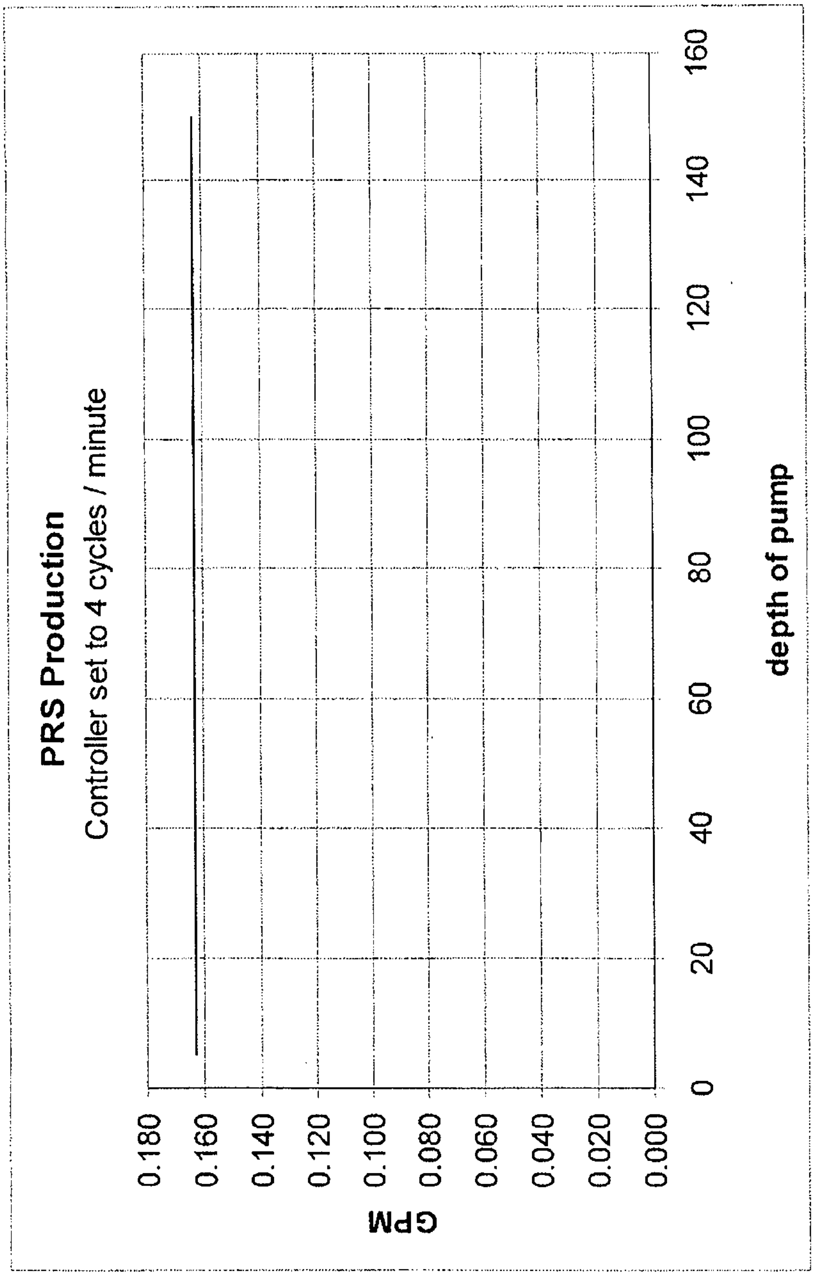

PRS Production
Controller set to 4 cycles / minute
GPM
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
0
20
40
60
80
100
120
140
160
depth of pump

Figure 10

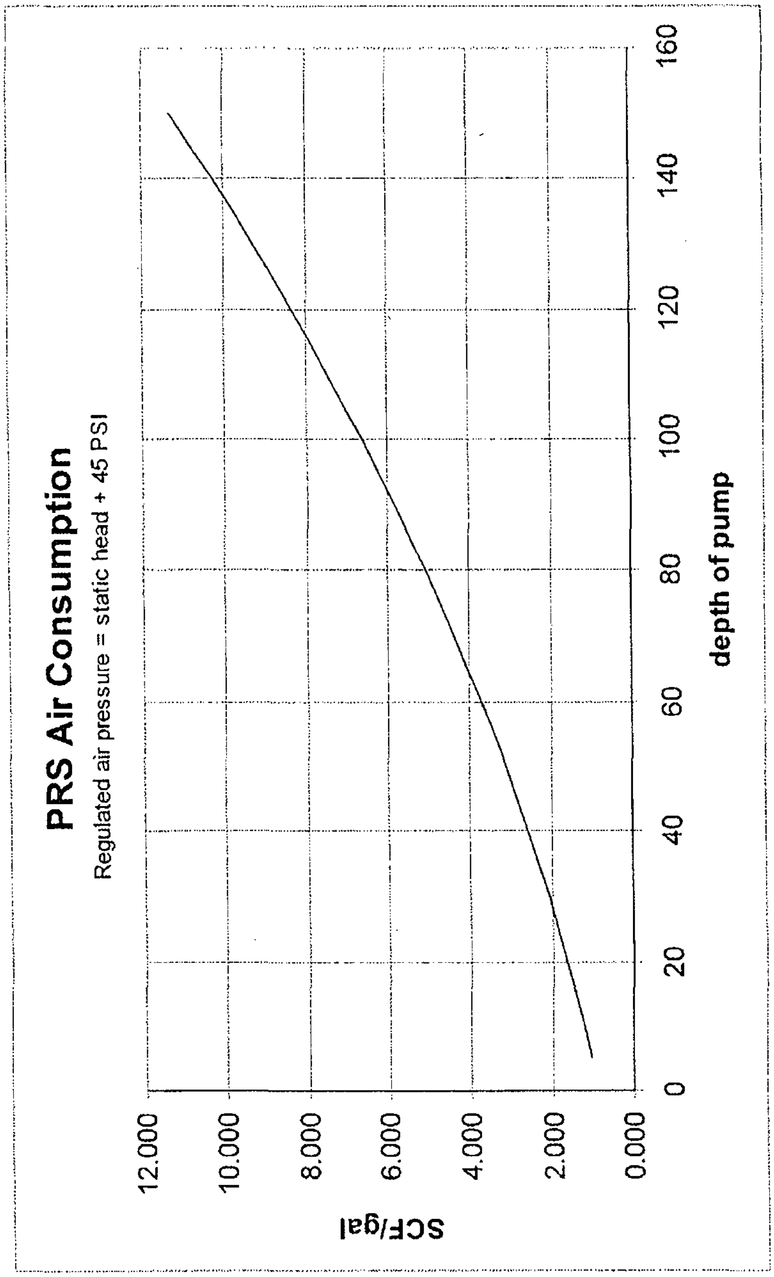

PRS Air Consumption
Regulated air pressure = static head + 45 PSI
SCF/gal
12.000
10.000
8.000
6.000
4.000
2.000
0.000
0
20
40
60
80
100
120
140
160
depth of pump

Figure 11

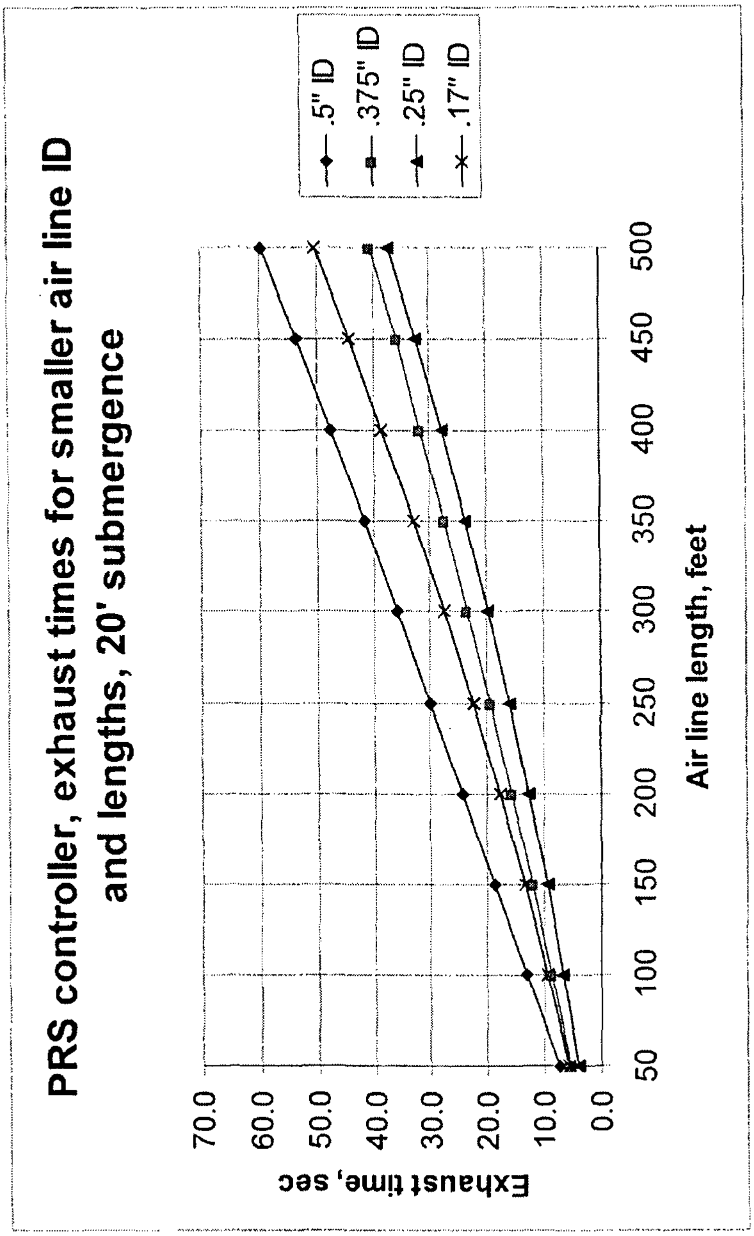

PRS controller, exhaust times for smaller air line ID and lengths, 20' submergence
Exhaust time, sec
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
50
100
150
200
250
300
350
400
450
500
Air line length, feet
.5" ID
.375" ID
.25" ID
.17" ID

Figure 12

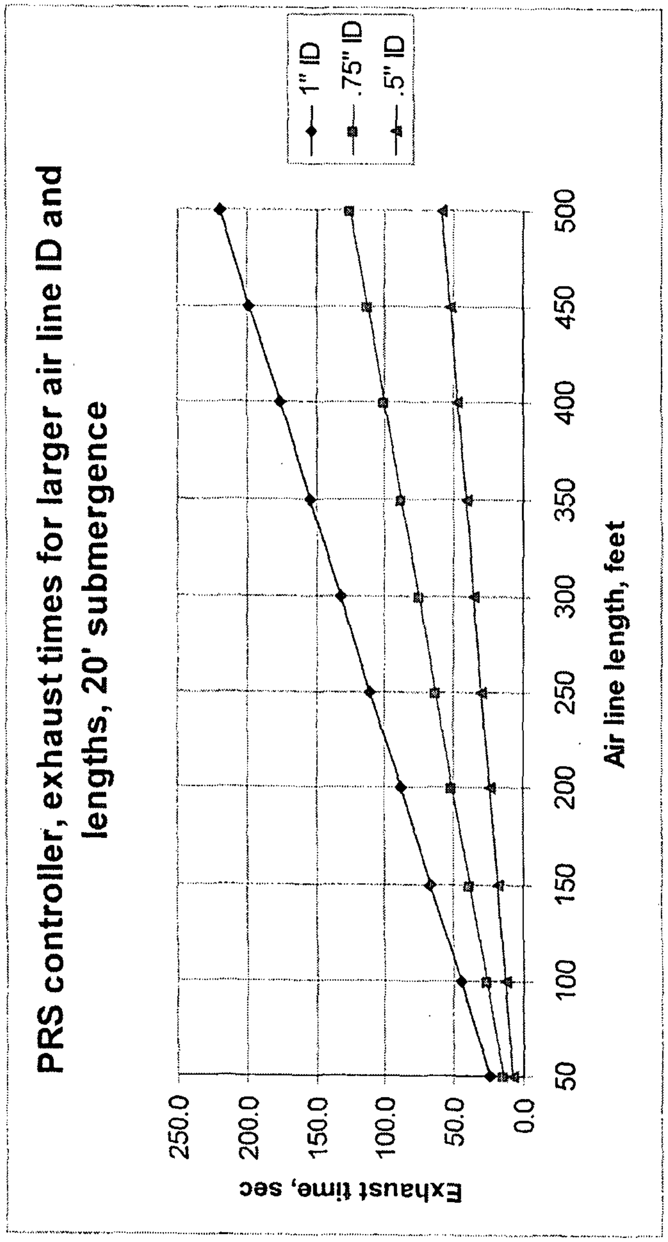

PRS controller, exhaust times for larger air line ID and lengths, 20' submergence
Exhaust time, sec
250.0
200.0
150.0
100.0
50.0
0.0
50
100
150
200
250
300
350
400
450
500
Air line length, feet
1" ID
.75" ID
.5" ID

Figure 13

# Chapter 7: System Schematic

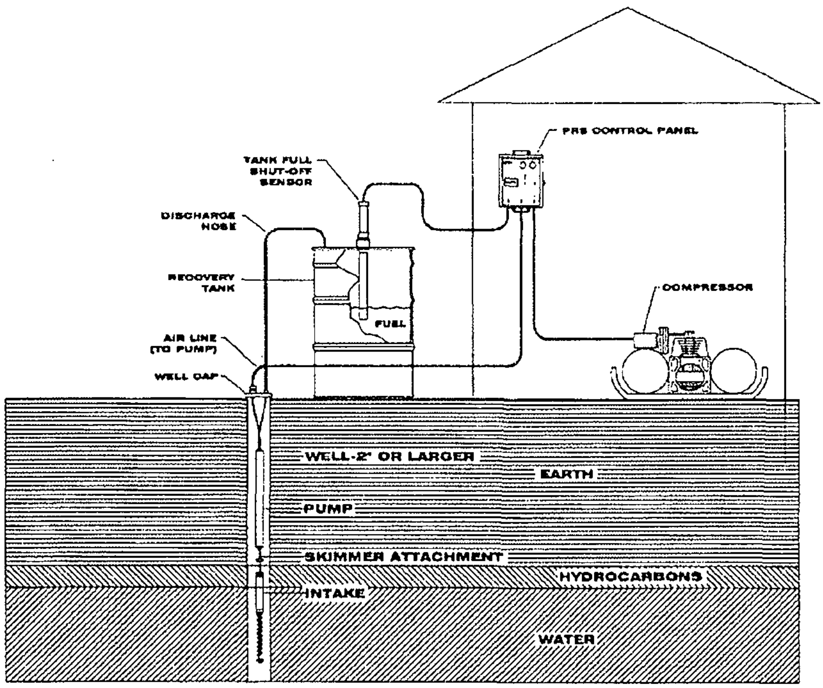



Figure 14 – System Schematic

# Chapter 8: Replacement Parts List

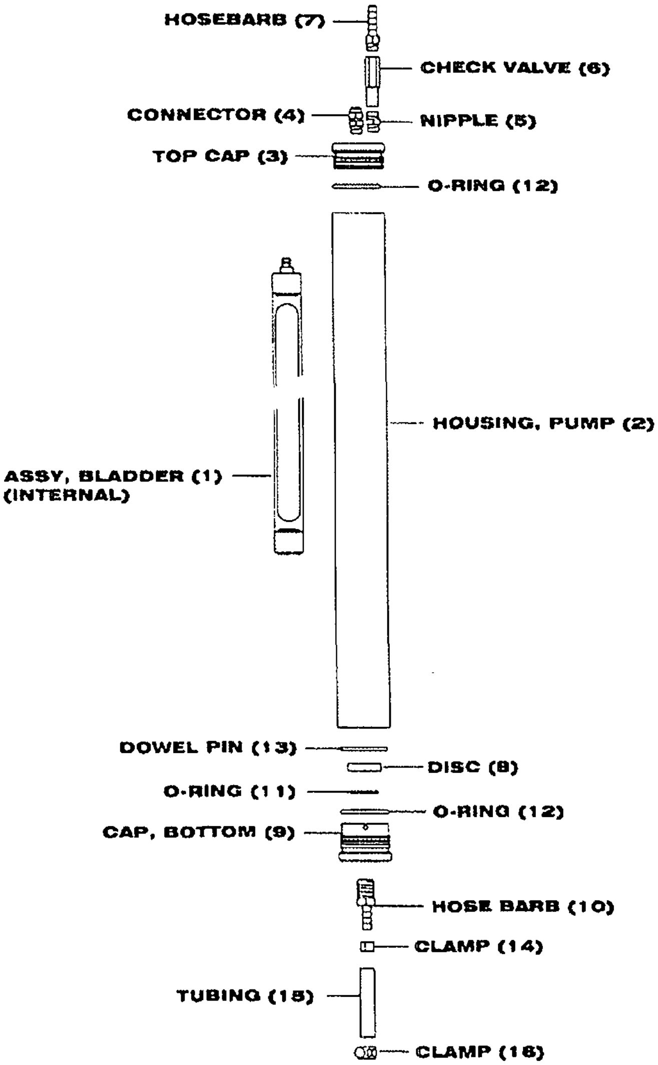



Figure 15 – PRS Pump

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | ASSY, BLADDER, CRS/PRS | 56600013 |
| 2 | HOUSING, PUMP, SS, CRS/PRS | 26600013 |
| 3 | CAP, TOP, SS | 26600012 |
| 4 | CONNECTOR, 1/4 X 1/8 MPT, POLYTITE | 16600037 |
| 5 | NIPPLE, BRS, 1/8, HEX, NPT | 17500151 |
| 6 | CHECK VALVE, 1/8 NPT, 2.5 PSI, 1/8 FPT X 1/8 FPT | 16600003 |
| 7 | HOSEBARB, BRS, 1/8 MPT X 3/8 | 16650310 |
| 8 | DISC, PVC, CHECK, CRS/PRS | 26600017 |
| 9 | CAP, BOTTOM, SS, CRS/PRS | 26600018 |
| 10 | HOSEBARB, BRS, 1/4 MPT X 3/8 | 16650323 |
| 11 | O-RING, VITON, #208 | 16600023 |
| 12 | O-RING, VITON, #128 | 16600030 |
| 13 | PIN, DOWEL, SS8, 1/8 X 1-3/4 | 16600026 |
| 14 | CLAMP, SS, STEPLESS EAR, 17MM | 16600004 |
| 15 | TUBING, RBR, 3/8 X 5/8 FT PRODUCT DISCHARGE | 16600019 |
| 16 | CLAMP, SS, WORM, 5/8" | 16600063 |

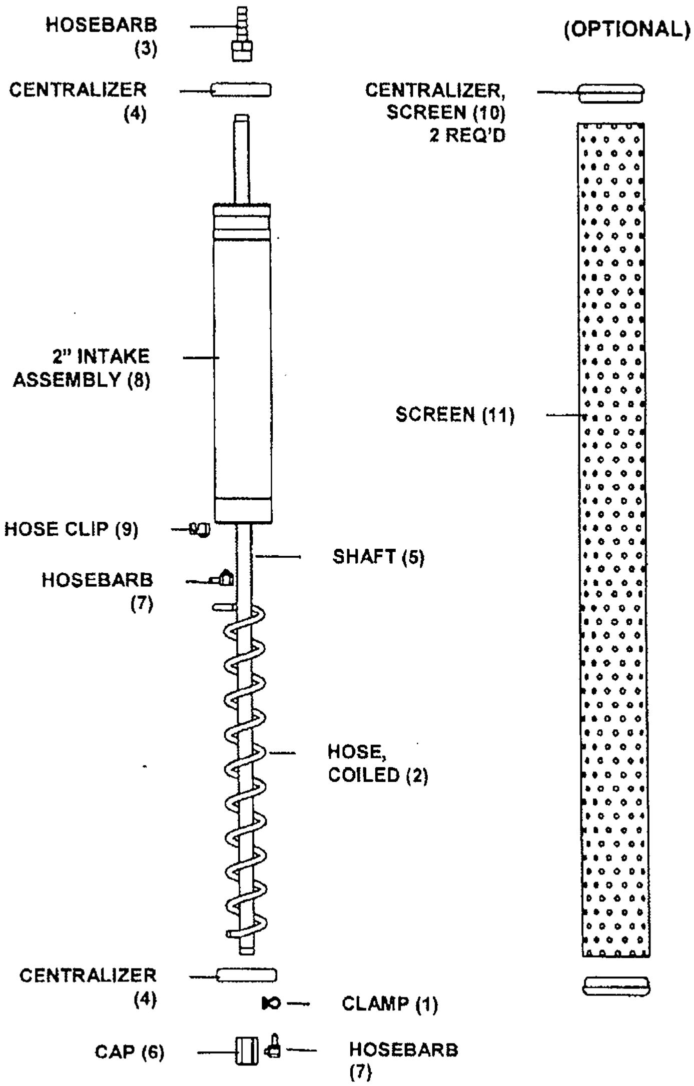



Figure 16 – Standard 2" Skimmer Parts list

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | CLAMP, SS, STEPLESS EAR | 16600005 |
| 2 | HOSE, COILED, 2" SKIMMER | 26650304 |
| 3 | HOSEBARB, BRASS | 16650308 |
| 4 | CENTRALIZER, PVC, 2" SKIMMER | 26650306 |
| 5 | SHAFT, SS, SKIMMER, 33.5", PRC | 26600002 |
| 6 | CAP, BRASS | 16600064 |
| 7 | HOSEBARB, BRASS, 90° | 17500149 |
| 8 | ASSEMBLY, 2" INTAKE | 56650309 |
| 9 | HOSE CLIP, PVC | 26650028 |
| OPTIONAL | | |
| 10 | CENTRALIZER, SCREEN, PR2 | 26600186 |
| 11 | SCREEN, SS, 1.88" OD X 32.7" | 26600188 |

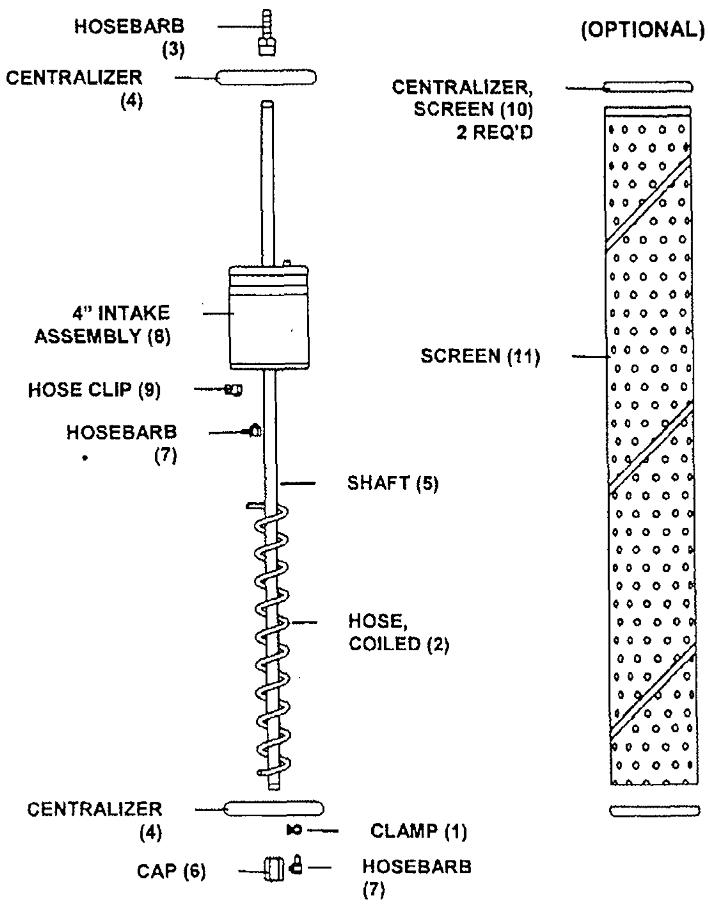



Figure 17 – Standard 4" Skimmer Parts List

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | CLAMP, SS, STEPLESS EAR | 16600005 |
| 2 | HOSE, COILED, 4" SKIMMER | 16650312 |
| 3 | HOSEBARB, BRASS | 16650308 |
| 4 | CENTRALIZER, PVC, 4" SKIMMER | 26600187 |
| 5 | SHAFT, SS, SKIMMER, 33.5" PRC | 26600002 |
| 6 | CAP, BRASS , 90° | 16600064 |
| 7 | HOSEBARB, BRASS, 90° | 17500149 |
| 8 | ASSEMBLY, 4" INTAKE | 56650310 |
| 9 | HOSE CLIP, PVC | 26650028 |

OPTIONAL

| | | |
|---|---|---|
| 10 | CENTRALIZER, SCREEN, PR4 | 26600187 |
| 11 | SCREEN, SS, 3.67" OD X 32.7" | 26600189 |

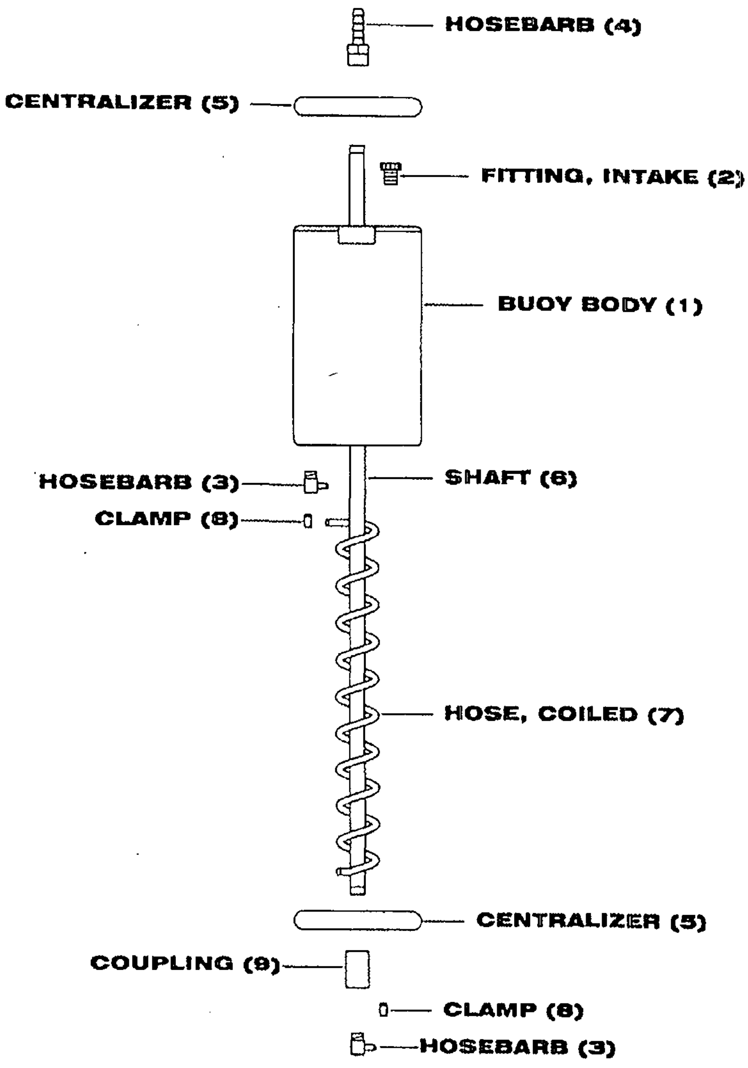



Figure 18 – Oil Skimmer Attachment Parts List

| ITEM # | PARTS DESCRIPTION | PARTS LIST |
|---|---|---|
| 1 | BUOY, POLY, OIL | 26600004 |
| 2 | FITTING, INTAKE, OIL BUOY | 26600005 |
| 3 | HOSEBARB, 90°, 1/8 NPT X 3/16 | 17500148 |
| 4 | HOSEBARB, BRS. 3/8 X 1/8 FPT | 16650308 |
| 5 | CENTRALIZER, SKIMMER, PR4 | 16600048 |
| 6 | SHAFT, SS, OIL SKIMMER, 38", PR4 | 26600006 |
| 7 | HOSE, COILED | 26600007 |
| 8 | HOSECLAMP, SS, 5/16, 2 EAR | 11200273 |
| 9 | COUPLING, SS, 1/8 NPT | 16600006 |

# Notes

## The Warranty

For a period of one (1) year from date of first sale, product is warranted to be free from defects in materials and workmanship. Geotech agrees to repair or replace, at Geotech's option, the portion proving defective, or at our option to refund the purchase price thereof. Geotech will have no warranty obligation if the product is subjected to abnormal operating conditions, accident, abuse, misuse, unauthorized modification, alteration, repair, or replacement of wear parts. User assumes all other risk, if any, including the risk of injury, loss, or damage, direct or consequential, arising out of the use, misuse, or inability to use this product. User agrees to use, maintain and install product in accordance with recommendations and instructions. User is responsible for transportation charges connected to the repair or replacement of product under this warranty.

## Equipment Return Policy

A Return Material Authorization number (RMA #) is required prior to return of any equipment to our facilities, please call 800 number for appropriate location. An RMA # will be issued upon receipt of your request to return equipment, which should include reasons for the return. Your return shipment to us must have this RMA # clearly marked on the outside of the package. Proof of date of purchase is required for processing of all warranty requests.

This policy applies to both equipment sales and repair orders.

FOR A RETURN MATERIAL AUTHORIZATION, PLEASE CALL OUR SERVICE DEPARTMENT AT 1-800-833-7958 OR 1-800-275-5325.

Model Number: ________________

Serial Number: ________________

Date: ________________

## Equipment Decontamination

Prior to return, all equipment must be thoroughly cleaned and decontaminated. Please make note on RMA form, the use of equipment, contaminants equipment was exposed to, and decontamination solutions/methods used.
Geotech reserves the right to refuse any equipment not properly decontaminated. Geotech may also choose to decontaminate equipment for a fee, which will be applied to the repair order invoice.

**Geotech Environmental Equipment, Inc**
2650 East 40th Avenue Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

## Chavez, Carl J, EMNRD

**From:** Wrangham, Calvin W. [CWrangham@targaresources.com]
**Sent:** Tuesday, October 13, 2009 10:41 AM
**To:** Chavez, Carl J, EMNRD
**Cc:** VonGonten, Glenn, EMNRD
**Subject:** RE: Targa Eunice Middle Plant (GW-005) MW-3 Detection of Free Product Notification

Carl, I did talk to Jim this morning. The sampling indicated 5.2 feet of gas/condensate appearing liquid. There has not been any free product in these wells in the past. Last sample of #3 was 0.159 ppm of benzene. We have pressure tested any potential source in that area of the plant with not leaks detected (3 lines). There are 2 gas/oil wells in the area that we are checking on. We sent a sample of the plant condensate and the liquid from the well to the lab yesterday to try and identify it or see if it was consistent. No results yet. Will keep you posted.

Thanks, Cal.

---

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
**Sent:** Tuesday, October 13, 2009 9:50 AM
**To:** Wrangham, Calvin W.
**Cc:** VonGonten, Glenn, EMNRD
**Subject:** Targa Eunice Middle Plant (GW-005) MW-3 Detection of Free Product Notification

Cal:

Thanks for the telephone message notification of free-product detected for the first time in MW-3 yesterday. What is the thickness of free product in the well?

Has free-product ever been detected at the facility? Could mounding of the water table due to leakage have raised the water table up to a smear zone? What are Targa's thoughts? The OCD notices that MW-3 appears to sit on top of a ground water recharge area or area of mounding of the water table with GW flow direction easterly. It has displayed higher concentration of TDS and chlorides in the past....

Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Larson &
Associates, Inc.
Environmental Consultants

RECEIVED
2008 SEP 22 AM 8 17

September 15, 2008

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

**Re: 2007 Annual Groundwater Monitoring Report**
**Targa Midstream Services, L.P., Eunice Gas Plant (GW-005)**
**Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East**
**Lea County, New Mexico**

Dear Mr. Price:
Please enclosed report is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Targa Midstream Services, L. P. (Targa) by Larson and Associates, Inc. (LAI), its consultant, to present the results of groundwater monitoring performed at the Eunice Gas Plant (GW-00%) during 2007. Please call Mr. Cal Wrangham with Targa at (432) 688-0542 or myself at (432) 687-0901 if you have questions. We may also be reached by emailing cwrangham@targaresources.com or john@laenvironmental.com.
Sincerely,
***Larson and Associates, Inc.***

John M Fergerson, PG No. 3231
Texas Professional Geologist
john@laenvironmental.com

Cc: File
Mr. Cal Wrangham, Targa Midstream Services, L.P.
Mr. James Lingnau, Targa Midstream Services, L.P.
Mr. Larry Johnson, OCD – Hobbs Office

# 2007
# GROUNDWATER MONITORING REPORT
# EUNICE GAS PLANT (GW-005)
# LEA COUNTY, NEW MEXICO

**Prepared for:**
**Targa Midstream Services, L.P.**
**6 Desta Drive**
**Suite 3300**
**Midland, Texas 79705**

**Prepared by:**

**Larson & Associates, Inc.**
**507 N. Marienfeld Street, Suite 200**
**Midland, Texas 79701**


**Project No. 2-0103**

**September 2, 2008**

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## 1.0 INTRODUCTION

Targa Midstream Services, L.P. (Targa), as successor-company to Dynegy Midstream Services, L.P. (Dynegy), has retained Larson & Associates, Inc. (LAI) to conduct groundwater monitoring at its Eunice Gas Plant (Facility) located in Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East, in Lea County, New Mexico. The Facility operates under New Mexico Oil Conservation Division (OCD) discharge permit GW-005. This report presents the results of groundwater monitoring conducted at the Facility on June 6 – 7, 2007 and December 3 – 4, 2007. Figure 1 presents a Facility location and topographic map. Figure 2 presents a Facility drawing.

### 1.2 Background

On May 1, 2006, Targa proposed to modify the groundwater monitoring schedule to include the following:

- Semi-annual (twice yearly) collection and analysis of groundwater samples from wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-11, MW-12, MW-13, MW-14, MW-17, MW-18, MW-19 and MW-20;
- Annual (once yearly) collection and analysis of groundwater samples from the semi-annual wells and wells MW-7, MW-8, MW-9, MW-10, MW-15 and MW-16; and
- Laboratory analysis of samples for benzene, toluene, ethylbenzene, xylene (BTEX), dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium, sodium), anions and water quality parameters alkalinity, chloride, sulfate, and total dissolved solids (TDS).

On August 25, 2006, the OCD issued a letter to Targa proposing the following:

- Dig up high density polyethylene liner (HDPE) near MW-3 to help determine the source o contamination;
- MWs 19 and 20 were installed southeast and southwest of MW-14 with elevated levels of

TDS and chloride being detected, but at significantly lower levels than MW-14. Additional MWs are required southward from MWs 18 – 20 to begin implementing remediation measure to monitor, capture and reduce VOCs, metals, chloride and TDS from migrating off-site in the vicinity of MW-14. The aquifer shall be samples near the water table and at a deeper depth(s) within the aquifer depending on the saturated thickness;

- In addition to contacting "One Call," aerial photos should be used to investigate pipelines in the vicinity of MW-11 to determine whether spills/releases from nearby pipelines, and surface waste facilities have impacted MW-11. In addition, former brine evaporation pits in the vicinity of MWs 3 and other MWs should be investigated as the source(s) for chlorides; and
- Investigate pipelines toward the east to see if they are contributing to the piezometric mound condition beneath the plant. Targa needs to investigate the shallow water table at MW-11 to determine if there was or is a spill area north of MW-11 (100 ft. x 100 ft.) that may explain the shallow water table condition. Investigate the NE Plant for a possible crude oil pipeline release (Eunice & Monument).

Appendix A presents the correspondence from August 25, 2006.

## 2.0 CURRENT ACTIVITIES

### 2.1 Depth to Groundwater and Hydrocarbon Product Measurements

On June 6, 2007 and December 3, 2007, depth to groundwater and phase-separated hydrocarbon (PSH) was measured in all monitoring wells (MW-1 through MW20). Monitoring well MW-17 was dry during both monitoring events. The depth to groundwater and PSH measurements were obtained at the top of the PVC well casing using an electronic interface probe and recorded in a bound field note book. The interface probe was thoroughly cleaned between wells using a solution of laboratory-grade detergent and rinsed with distilled water. The depth-to-groundwater measurements were used to prepare groundwater potentiometric surface maps presented as Figure 3

(June 6, 2007) and Figure 4 (December 3, 2007). Table 1 presents a summary of the depth-to-groundwater measurements. No PSH was observed in the wells during the reporting period.

Referring to Figure 3, the groundwater surface elevation ranged from 3,374.03 feet above mean sea level (AMSL) at well MW-3 to 3,346.87 feet AMSL at well MW-18. Groundwater flow was generally from northwest to southeast, but a groundwater mound was observed beneath the Facility that resulted in radial flow pattern to the west, southwest, south, southeast and east. Referring to Figure 4, the groundwater surface elevation ranged from 3,372.74 feet AMSL at well MW-3 to 3,346.59 feet AMSL at well MW-18. A groundwater mound was also observed beneath the Facility resulting in a similar radial flow pattern as observed during previous monitoring events.

## 2.2 Groundwater Samples

On June 6 – 7, 2007 and December 3 - 4, 2007, groundwater samples were collected from all monitoring wells except MW-17. The samples were collected using dedicated disposable polyethylene bailers after approximately three (3) casing volumes of groundwater was removed from each well or the after the wells had recovered sufficiently after purging. The samples were carefully poured from the dedicated bailers into laboratory prepared containers, labeled, chilled in an ice chest and delivered via Lonestar Overnight services under custody seal and chain-of-custody control to Severn Trent Laboratories, located in Corpus Christi, Texas.

The laboratory analyzed the samples for BTEX, dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium and sodium), anions and water quality parameters alkalinity, chloride, sulfate, and TDS. The laboratory also analyzed quality assurance and quality control (QA/QC) samples from wells MW-14 and MW-16 during the June and December 2007 events. Table 2 presents a summary of the BTEX analysis. Table 3 presents a summary of the dissolved metals analysis. Table 4 presents a summary of the inorganic and TDS analysis. Appendix B presents the laboratory reports.

### 2.2.1 Organic Constituents

On June 6 – 7, 2007, benzene was reported above the New Mexico Water Quality Control Commission (WQCC) human health standard of 0.01 milligrams per liter (mg/L) in samples from monitoring wells MW-3 (4.3 mg/L), MW-6 (1.0 mg/L), MW-11 (0.93 mg/L), and MW-14 (0.20 mg//L). On December 3 – 4, 2007, benzene was reported above the WQCC human health standard in samples from monitoring wells MW-2 (0.24 mg/L), MW-3 (0.60 mg/L), MW-6 (0.12 mg/L), MW-11 (2.1 mg/L), and MW-14 (0.40 mg/L). On June 6 – 7, 2007, ethylbenzene (1.7 mg/L) and xylene (1.5 mg/L) were reported above the WQCC human health standards of 0.75 mg/L and 0.62 mg/L, respectively, in samples from well MW-3. Figure 5 and Figure 6 present the benzene concentrations reported by the laboratory in samples collected on June 6 – 7, 2007 and December 3 - 4, 2007, respectively.

A tank battery used for storing slop oil is located near the southeast corner of the Facility and is the suspected source for the benzene reported in the groundwater sample from well MW-3 Targa began to decommission the tank battery in August 2008. Contaminated soil from the tank battery was hauled to the J Dan Commercial Landfarm located near Lovington, New Mexico. Soil samples will be collected from the bottom and sides of the excavation for laboratory analysis, and results will be submitted to the OCD. An aerial photograph revealed a pit northeast of well MW-6 that may be the source for benzene reported in the sample from well MW-6 or possibly releases from pipelines. Targa suspects the benzene in MW-11to be the result of pipeline releases north of well. The Facility is not considered a source for the benzene in well MW-11 since benzene was not detected in the sample from well MW-12. On October 4, 2005, LAI identified an area of crude oil staining about 150 feet north of well MW-11 that measured 50 x 50 feet. The spill was located near a pipeline owned by Link Energy. The suspected source for the benzene in well MW-14 is a pit that was located north and west of the well. The extent of the benzene impact at wells MW-3, MW-6 and MW-14 has been determined from benzene concentrations reported in the down gradient wells. The extent of the benzene impact north and east of well MW-11 has not been determined.

### 2.2.2 Dissolved Metals

On June 6 – 7, 2007, dissolved chromium was reported above the WQCC human health standard of 0.05 mg/L in groundwater samples from wells MW-1 (0.074 mg/L) and MW-4 (0.077 mg/L). On December 3 – 4, 2007, dissolved chromium was reported above the WQCC human health standard in groundwater samples from wells MW-1 (0.074 mg/L) and MW-15 (0.063 mg/L). Targa is not aware of a source for the chromium, but will continue to monitor for chromium in groundwater. Figure 7 and Figure 8 present the dissolved chromium concentrations reported by the laboratory in samples collected on June 6 – 7, 2007 and December 3 - 4, 2007, respectively.

On June 6 – 7, 2007, dissolved barium was reported above the WQCC human health standard of 1 mg/L in groundwater samples from wells MW- 3 (5.1 mg/L) and MW-11 (1.40 mg/L). The barium is known to naturally occur in groundwater from the Ogallala formation and no point-source is known. During the June and December events, dissolved selenium was also reported in samples from well MW-4 at 0.17 mg/L and 0.069 mg/L, respectively, and exceeded the WQCC human health standard of 0.05 mg/L. The source is known for the selenium.

### 2.2.3 Anion and Water Quality Parameters

During the June and December 2007 events, chloride exceeded the WQCC domestic water quality standard of 250 mg/L in samples from all wells, except MW-6, MW-7, MW-9 and MW-11. Well MW-8, considered the background well for the water quality monitoring purposes, reported chloride at 460 mg/L and 750 mg/L during the June and December events, respectively. The highest chloride concentrations were reported in samples from wells MW-13 and MW-14 located east and southeast of the Facility, respectively. On June 6 – 7, 2007, chloride was reported in wells MW-13 and MW-14 at 5800 mg/L and 31,000 mg/L, respectively. On December 3 – 4, 2007, chloride was reported in wells MW-13 and MW-14 at 5,900 mg/L and 42,000 mg/ L, respectively. Chloride concentrations decreased down gradient from well MW-14, but remain above the WQCC standard in wells MW-18 (3,700 mg/L and 4,600 mg/L), MW-19 (4,900 mg/L and 5,300 mg/L), and MW-20 (2,100 mg/L and 2,300 mg/L). Figure 9 and Figure 10 present the isopleths maps showing chloride concentrations in groundwater samples collected on June 6 – 7, 2007 and December 3 - 4, 2007, respectively.

TDS concentrations exceeded the WQCC domestic water quality standard of 1,000 mg/L in groundwater samples from all wells, except MW-9 and MW-11, during the June and December 2007 sample events. On June 6 - 7, 2007 and December 3 – 4, 2007, TDS was reported at in samples from the background well (MW-8) at 1,600 mg/L and 2,000 mg/L, respectively. The highest TDS concentrations reported during the June and December 2007 events occurred in samples from wells MW-13 and MW-14 located east side and southeast of the Facility, respectively. On June 6 – 7, 2007 and December 3 – 4, 2007, TDS was reported in samples from well MW-13 at 16,000 mg/L and 13,000 mg/L, respectively. The TDS concentrations in well MW-14 for the same periods were 56,000 mg/L and 75,000 mg/L, respectively. The extent of the chloride and TDS east of the Facility has not been determined, but Targa proposes to drill a monitoring well adjacent to well MW-17 to determine if groundwater-bearing strata occurs below well MW-17. Targa also proposes to conduct an electromagnetic (EM) terrain conductivity survey down gradient of wells MW-18, MW-19 and MW-20 and install an additional well down gradient to assess the extent of the chloride and TDS. Figure 11 and Figure 12 present the isopleths maps showing TDS concentrations in groundwater samples collected on June 6 – 7, 2007 and December 3 - 4, 2007, respectively.

During June and December 2007, sulfate exceeded the WQCC domestic water quality standard of 600 mg/L in groundwater samples from wells MW-2, MW-4, MW-12, MW-13, MW-14, MW-15, MW-18, MW-19 and MW-20. The background sulfate concentrations of 190 mg/L and 250 mg/L reported in well MW-8 during June and December, respectively, were below the WQCC threshold.

## 3.0 CONCLUSIONS

- During the reporting period groundwater mounding was observed beneath the Facility and created a radial flow pattern.
- During the reporting period benzene exceeded the WQCC human health standard of 0.01 mg/L in samples from five (5) wells: MW-2 (0.24 mg/L), MW-3 (4.3 mg/L and 0.60 mg/L), MW-6 (1.0 mg/L and 0.12 mg/L), MW-11 (0.93 mg/L and 2.1 mg/L) and MW-14 (0.20 mg/L and 0.40 mg/L).
- During June 2007, ethyl benzene (1.7 mg/L) and xylene (1.5 mg/L) exceeded the WQCC human health thresholds for each constituent in samples from well MW-3.
- During the reporting period dissolved chromium was reported above the WQCC human health standard of 0.05 mg/L in samples from wells MW-1 (0.074 mg/L and 0.074mg/L), MW-4 (0.0770 mg/L), and MW-15 (0.063 mg/L). No immediate source of the chromium is known.
- Dissolved barium exceeded the WQCC human health standard of 1.0 mg/L in samples from wells MW-3 (5.1 mg/L) and MW-11 (1.4 mg/L). No immediate source for the barium is known.
- During the reporting period, chloride and TDS concentrations in groundwater from the background well MW-8 exceeded the WQCC domestic water quality limitations of 250 mg/L and 1,000 mg/L, respectively. Chloride and TDS concentrations in groundwater from down gradient monitoring wells were significantly higher than the background concentration confirming that groundwater has been affected from releases of produced and brine waters.

- The extent of chloride and TDS in groundwater is not currently defined, as concentrations in the furthest down gradient wells (MW-18, MW-19 and MW-20) exceed background concentrations.
- During the reporting period, sulfate was reported above the WQCC human health standard of 600 mg/L in samples from wells MW-2 (2,100 mg/L and 870 mg/L), MW-4 (950 mg/L and 1,100 mg/L), MW-12 (690 mg/L and 700 mg/L), MW-13 (2,300 mg/L and 1,700 mg/L), MW-14 (3,200 mg/L and 3,100 mg/L) MW-15 (720 mg/L and 710 mg/L), MW-18 (610 mg/L and 670 mg/L), and MW-19 (1,700 mg/L and 1,200 mg/L). During the December event, sulfate decreased in samples from wells MW-2, MW-13 & MW-19.

## 4.0 PROPOSED INVESTIGATIONS AND REMEDIATION

Targa will continue monitoring groundwater according to the modified schedule presented to the OCD. The samples will be submitted to an accredited laboratory using proper preservation and chain of custody (COC) procedures. Notice will be given to the OCD at least 48-hours prior to each sampling event and results will be reported to the OCD in an annual report to be submitted during the first half of 2009. Any significant changes in groundwater quality will be reported to the OCD as soon as possible.

Targa will perform additional investigations to address OCD proposed actions presented in its correspondence dated August 26, 2006, including:

- Completion of soil remediation, according to OCD guidelines ("Guidelines for Remediation of Spills, Leaks and Release, August 13, 1993"), in the vicinity of the former slop oil ("shell") tanks. Results of the remediation will be reported to the OCD in the next annual report, due during the first half of 2009;
- Review aerial photographs and One-Call records for the area near well MW-11 to evaluate possible sources for benzene in groundwater;
- Performing electromagnetic (EM) terrain conductivity survey south of wells MW-14, MW-

18, MW-19 and MW-20 to qualitatively assess the extent of the elevated chloride and TDS in groundwater. The EM survey will be performed using an EM-34 terrain conductivity meter manufactured by Geonics, Ltd., and measurements will be collected using sample grids measuring approximately 100 x 100 feet. The EM-34 survey will also include the area of the former brine pit located west of well MW-14 to assess the pit as a potential source for the chloride and TDS. The EM-34 conductivity survey results will be used to select a downgradient well location to monitor groundwater quality;

- Install a boring into the former brine pit located west of MW-14 to assess the potential for salt-contaminated material as a potential source for the elevated chloride in groundwater south of the Facility. The boring will be advanced to about 25 feet bgs and soil samples will be collected about every 5 feet for chloride analysis by an accredited laboratory;
- Collect multi-level groundwater samples from wells MW-14, MW-17A, MW-18, MW-19 and MW-20 to assess chemical stratification, depending on the saturated thickness;
- Installing an initial groundwater recovery well (RW-1), based on the EM survey results, near the south property line to initiate remediation of groundwater containing elevated chloride, TDS and benzene near the south property fence. The recovery well will be drilled to the base of the Ogallala aquifer and the well screen will extend across the saturated portion of the aquifer. The recovery well will be constructed using 4-inch diameter PVC screen and casing;
- Conducting a pumping test of sufficient obtain information that can be used to prepare a model to estimate the capture zone for the recovery well and assess the need for additional extraction wells that may be needed for hydraulic control of the contaminant plume. Measurements will also be collected from the adjacent monitoring wells to assess aquifer conditions;
- Conduct in-situ aquifer conductivity (slug tests) will also be performed in about 5 to 8 monitoring wells to augment the pumping test data and to calculate an average horizontal hydraulic conductivity value and range of r the aquifer;

- Install a replacement well (MW-2A) for monitoring well MW-2 which has been inundated with woody vegetation and roots rendering the well unusable. The new well will be drilled within about 20 feet of well MW-2 which will be plugged according to New Mexico State Engineer (NMSE) rules;
- Perform an investigation at well MW-17 to determine if groundwater is present below the current depth of the well. A boring will be advanced to approximately 50 feet below ground surface (bgs) within about 20 feet of well MW-17 to determine if groundwater is present below the current well depth of approximately 35 feet bgs. A replacement well (MW-17A) will be installed, using methods consistent with the construction of MW-17, if groundwater is observed and existing well MW-17 will be plugged according to NMSE rules;
- Resurvey well MW-5 which was repaired after being struck by heavy equipment and the new wells (MW-2A and MW-17A).

# TABLES

**Table 1**
**Monitoring Well Completion and Gauging Summary**
**Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant**
**Lea County, New Mexico**

| Well Information | | | | | | | | | Groundwater Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well ID | Date Drilled | Drilled Depth (bgs) | Well Depth from TOC | Well Diameter (inches) | Surface Elevation | Screen Interval (bgs) | Casing Stickup | TOC Elevation | Date Gauged | Depth to Fluid | Depth to Water | Corrected Water Elevation |
| MW-1 | 4/9/2002 | 60 | 62.05 | 2 | 3,416.39 | 40.17 - 59.79 | 2.05 | 3,418.44 | 6/6/2007 | -- | 49.91 | 3,368.53 |
| | | | | | | | | | 12/3/2007 | -- | 49.96 | 3,368.48 |
| MW-2 | 4/9/2002 | 40 | 42.14 | 2 | 3,392.80 | 19.17 - 38.79 | 2.14 | 3,394.94 | 6/6/2007 | -- | 26.71 | 3,368.23 |
| | | | | | | | | | 12/3/2007 | -- | 27.35 | 3,367.59 |
| MW-3 | 4/9/2002 | 40 | 42.49 | 2 | 3,395.97 | 19.47 - 39.09 | 2.49 | 3,398.46 | 6/6/2007 | -- | 24.43 | 3,374.03 |
| | | | | | | | | | 12/3/2007 | -- | 25.72 | 3,372.74 |
| MW-4 | 8/6/2002 | 35 | 37.48 | 2 | 3,385.73 | 14.87 - 34.49 | 2.48 | 3,388.21 | 6/6/2007 | -- | 17.77 | 3,370.44 |
| | | | | | | | | | 12/3/2007 | -- | 19.36 | 3,368.85 |
| MW-5 | 8/6/2002 | 40 | 42.55 | 2 | 3,394.29 | 19.87 - 39.49 | 2.55 | 3,396.84 | 6/7/2007 | broken | 26.46 | 3,370.38 |
| | | | | | | | | | 12/3/2007 | broken | 26.73 | 3,370.11 |
| MW-6 | 8/6/2002 | 52 | 54.59 | 2 | 3,401.15 | 31.87 - 51.49 | 2.59 | 3,403.74 | 6/6/2007 | -- | 38.74 | 3,365.00 |
| | | | | | | | | | 12/3/2007 | -- | 38.79 | 3,364.95 |
| MW-7 | 8/7/2002 | 60 | 62.46 | 2 | 3,417.25 | 39.87 - 59.49 | 2.46 | 3,419.71 | 6/6/2007 | -- | 52.11 | 3,367.60 |
| | | | | | | | | | 12/3/2007 | -- | 52.13 | 3,367.58 |
| MW-8 | 8/7/2002 | 75 | 77.35 | 2 | 3,428.66 | 54.87 - 74.49 | 2.35 | 3,431.01 | 6/6/2007 | -- | 61.64 | 3,369.37 |
| | | | | | | | | | 12/3/2007 | -- | 61.21 | 3,369.80 |
| MW-9 | 8/7/2002 | 60 | 62.45 | 2 | 3,418.14 | 39.87 - 59.49 | 2.45 | 3,420.59 | 6/6/2007 | -- | 50.86 | 3,369.73 |
| | | | | | | | | | 12/3/2007 | -- | 50.89 | 3,369.70 |
| MW-10 | 8/9/002 | 47 | 49.42 | 2 | 3,403.31 | 26.87 - 46.49 | 2.42 | 3,405.73 | 6/6/2007 | -- | 35.99 | 3,369.74 |
| | | | | | | | | | 12/3/2007 | -- | 35.96 | 3,369.77 |
| MW-11 | 8/8/2002 | 47 | 49.51 | 2 | 3,395.51 | 30.87 - 50.49 | 2.50 | 3,398.01 | 6/6/2007 | -- | 30.27 | 3,367.74 |
| | | | | | | | | | 12/3/2007 | -- | 30.36 | 3,367.65 |
| MW-12 | 6/3/2003 | 45 | 46.97 | 2 | 3,394.81 | 25.00 - 44..49 | 1.97 | 3,396.78 | 6/6/2007 | -- | 28.25 | 3,368.53 |
| | | | | | | | | | 12/3/2007 | -- | 28.46 | 3,368.32 |
| MW-13 | 6/3/2003 | 35 | 36.87 | 2 | 3,385.82 | 25.00 - 34.49 | 1.87 | 3,387.69 | 6/6/2007 | -- | 23.05 | 3,364.64 |
| | | | | | | | | | 12/3/2007 | -- | 24.51 | 3,363.18 |
| MW-14 | 6/3/2003 | 47 | 49.33 | 2 | 3,379.66 | 27.00 - 46.49 | 2.33 | 3,381.99 | 6/6/2007 | -- | 29.59 | 3,358.10 |
| | | | | | | | | | 12/3/2007 | -- | 29.94 | 3,357.75 |
| MW-15 | 6/4/2003 | 45 | 46.94 | 2 | 3,394.67 | 25.00 - 44.49 | 1.94 | 3,396.61 | 6/6/2007 | -- | 37.70 | 3,358.91 |
| | | | | | | | | | 12/3/2007 | -- | 37.66 | 3,358.95 |

**Table 1**
**Monitoring Well Completion and Gauging Summary**
**Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant**
**Lea County, New Mexico**

| Well Information | | | | | | | | | Groundwater Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well ID | Date Drilled | Drilled Depth (bgs) | Well Depth from TOC | Well Diameter (inches) | Surface Elevation | Screen Interval (bgs) | Casing Stickup | TOC Elevation | Date Gauged | Depth to Fluid | Depth to Water | Corrected Water Elevation |
| MW-16 | 6/4/2003 | 45 | 47.03 | 2 | 3,402.48 | 25.00 - 44.49 | 2.03 | 3,404.51 | 6/6/2007 | -- | 40.64 | 3,363.87 |
| | | | | | | | | | 12/3/2007 | -- | 40.68 | 3,363.83 |
| MW-17 | 12/19/2005 | 35 | 37.02 | 2 | 3,372.62 | 19.49 - 34.49 | 2.02 | 3,374.64 | 6/7/2007 | -- | DRY | -- |
| | | | | | | | | | 12/3/2007 | -- | DRY | -- |
| MW-18 | 12/19/2005 | 35 | 37.15 | 2 | 3,373.02 | 19.49 - 34.49 | 2.15 | 3,375.17 | 6/7/2007 | -- | 28.30 | 3,346.87 |
| | | | | | | | | | 12/3/2007 | -- | 28.58 | 3,346.59 |
| MW-19 | 10/31/2005 | 38 | 40.00 | 2 | 3,378.55 | 23.00 - 37.49 | 2.46 | 3,381.01 | 6/6/2007 | -- | 31.71 | 3,349.30 |
| | | | | | | | | | 12/3/2007 | -- | 31.65 | 3,349.36 |
| MW-20 | 10/31/2005 | 48 | 50.00 | 2 | 3,387.68 | 33.00 - 47.41 | 2.41 | 3,390.09 | 6/6/2007 | -- | 38.20 | 3,351.89 |
| | | | | | | | | | 12/3/2007 | -- | 38.07 | 3,352.02 |

*Notes*
All values are in feet, unless otherwise noted.
bgs - below ground surface
TOC - top of casing
Elevations are above mean sea level *(3365)* referenced to 1984 Geodetic Datum.
Wells drilled and installed by Scarbrough Drilling, Inc., Lamesa, Texas. Schedule 40 threaded PVC casing and screen set.

**Table 2**
**Summary of BTEX Analysis of Groundwater Samples**
**Targa Midstream Services, L.P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

| Well Number | Sample Date | Benzene | Toluene | Ethyl benzene | Total Xylenes | Total BTEX |
|---|---|---|---|---|---|---|
| **Standard (NMWQCC)** | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-1 | 06/07/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-2 | 06/07/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | 0.24 | <0.0002 | <0.0002 | <0.0006 | 0.24 |
| MW-3 | 06/06/07 | 4.3 | <0.008 | 1.7 | 1.5 | 7.5 |
| | 12/03/07 | 0.60 | <0.001 | 0.21 | 0.031 | 0.841 |
| MW-4 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | 0.0057 | <0.0002 | 0.0077 | 0.0035 | 0.0169 |
| MW-5 | 06/06/07 | 0.0016 | <0.0002 | <0.0002 | <0.0006 | 0.0016 |
| | 12/04/07 | 0.0069 | <0.0002 | <0.0002 | <0.0006 | 0.0069 |
| MW-6 | 06/07/07 | 1.0 | <0.002 | 0.019 | <0.006 | 1.019 |
| | 12/04/07 | 0.12 | 0.0035 | 0.013 | <0.006 | 0.1365 |
| MW-7 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-8 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-9 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-10 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-11 | 06/06/07 | 0.93 | <0.001 | 0.0049 | 0.012 | 0.9469 |
| | 12/03/07 | 2.1 | <0.004 | <0.004 | <0.012 | 2.1 |
| MW-12 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-13 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/03/07 | 0.0061 | <0.0002 | <0.0002 | <0.0006 | 0.0061 |
| MW-14 | 06/07/07 | 0.20 | 0.00054 | 0.00049 | 0.0025 | 0.2035 |
| | 12/03/07 | 0.40 | <0.0008 | 0.011 | 0.0077 | 0.4187 |
| MW-15 | 06/07/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/04/07 | 0.0028 | <0.0002 | <0.0002 | <0.0006 | 0.0028 |
| MW-16 | 06/07/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/04/07 | 0.0013 | <0.0002 | <0.0002 | <0.0006 | 0.0013 |
| MW-18 | 06/07/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/04/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-19 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/04/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-20 | 06/06/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| | 12/04/07 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| **Duplicates** | | | | | | |
| MW-16 | 6/7/2007 | <0.0002 | <0.0002 | <0.0002 | <0.0006 | <0.0012 |
| MW-14 | 12/3/2007 | 0.41 | <0.0008 | 0.011 | 0.008 | 0.429 |

Notes:
Analyses performed by SevernTrent Laboratories, Corpus Christi, Texas
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: No data available

**Table 3**
**Summary of Dissolved Metals Analyses of Groundwater Samples**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Lea County, New Mexico**

| Monitor Well | Sample Date | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|
| **Standard (NMWQCC)** | | **0.1** | **1.0** | **0.01** | **0.05** | **0.05** | **0.002** | **0.05** | **0.05** |
| MW-1 | 06/07/07 | 0.0053 | 0.082 | <0.001 | 0.074 | <0.001 | 0.00023 | 0.010 | <0.001 |
| | 12/03/07 | 0.0063 | 0.094 | <0.001 | 0.074 | <0.001 | <0.00013 | 0.011 | <0.001 |
| MW-2 | 06/07/07 | 0.023 | 0.053 | <0.001 | <0.0011 | <0.0011 | 0.00022 | 0.025 | <0.001 |
| | 12/03/07 | 0.016 | 0.073 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.025 | <0.001 |
| MW-3 | 06/06/07 | 0.072 | 5.1 | <0.001 | <0.0011 | <0.001 | 0.00019 | <0.001 | <0.001 |
| | 12/03/07 | 0.091 | 0.58 | <0.001 | 0.0099 | 0.0056 | <0.00013 | <0.002 | <0.001 |
| MW-4 | 06/06/07 | 0.029 | 0.036 | <0.001 | 0.0770 | <0.001 | 0.0002 | 0.17 | <0.001 |
| | 12/03/07 | 0.032 | 0.058 | <0.001 | 0.0190 | 0.0022 | 0.00015 | 0.069 | <0.001 |
| MW-5 | 06/07/07 | 0.033 | 0.17 | <0.001 | 0.0051 | 0.0015 | 0.00025 | 0.0044 | <0.001 |
| | 12/04/07 | 0.038 | 0.067 | <0.001 | 0.0050 | 0.0022 | 0.00016 | 0.0049 | <0.001 |
| MW-6 | 06/07/07 | 0.038 | 0.20 | <0.001 | 0.0030 | 0.0012 | 0.00019 | 0.0016 | <0.001 |
| | 12/04/07 | 0.04 | 0.14 | <0.001 | <0.002 | <0.001 | <0.00013 | <0.002 | <0.001 |
| MW-7 | 06/06/07 | 0.0061 | 0.0540 | <0.001 | 0.0013 | <0.001 | 0.00016 | 0.0067 | <0.001 |
| | 12/03/07 | 0.009 | 0.10 | <0.001 | 0.0025 | <0.001 | <0.00013 | 0.0093 | <0.001 |
| MW-8 | 06/06/07 | 0.012 | 0.079 | <0.001 | <0.0011 | <0.001 | 0.00017 | 0.0066 | <0.001 |
| | 12/03/07 | 0.012 | 0.082 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.0065 | <0.001 |
| MW-9 | 06/06/07 | 0.0096 | 0.069 | <0.001 | <0.0011 | <0.001 | 0.00018 | <0.001 | <0.001 |
| | 12/03/07 | 0.0089 | 0.072 | <0.001 | <0.0020 | <0.001 | <0.00013 | <0.002 | <0.001 |
| MW-10 | 06/06/07 | 0.0067 | 0.37 | <0.001 | 0.0019 | <0.001 | 0.00021 | 0.0032 | <0.001 |
| | 12/03/07 | 0.0074 | 0.31 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.0035 | <0.001 |
| MW-11 | 06/06/07 | 0.014 | 1.4 | <0.001 | <0.0011 | <0.001 | 0.00019 | <0.001 | <0.001 |
| | 12/03/07 | 0.011 | 0.81 | <0.001 | <0.002 | <0.001 | <0.00013 | <0.002 | <0.001 |
| MW-12 | 06/06/07 | 0.012 | 0.049 | <0.001 | <0.0011 | <0.001 | 0.00021 | 0.018 | <0.001 |
| | 12/03/07 | 0.031 | 0.30 | <0.001 | 0.044 | 0.014 | <0.00013 | 0.018 | <0.001 |
| MW-13 | 06/06/07 | 0.0089 | 0.092 | <0.001 | <0.0011 | <0.001 | 0.00021 | 0.020 | <0.001 |
| | 12/03/07 | 0.01 | 0.14 | <0.001 | 0.0035 | <0.001 | <0.00013 | 0.023 | <0.001 |
| MW-14 | 06/07/07 | 0.024 | 0.30 | <0.001 | 0.018 | 0.0055 | <0.00013 | 0.0019 | <0.001 |
| | 12/03/07 | 0.023 | 0.20 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.0038 | <0.001 |
| MW-15 | 06/07/07 | 0.017 | 0.17 | <0.001 | 0.046 | <0.001 | 0.00028 | 0.0085 | <0.001 |
| | 12/04/07 | 0.019 | 0.37 | <0.001 | 0.063 | 0.0012 | 0.00013 | 0.0052 | <0.001 |

**Table 3**
**Summary of Dissolved Metals Analyses of Groundwater Samples**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Lea County, New Mexico**

| Monitor Well | Sample Date | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|
| **Standard (NMWQCC)** | | **0.1** | **1.0** | **0.01** | **0.05** | **0.05** | **0.002** | **0.05** | **0.05** |
| MW-16 | 06/07/07 | 0.011 | 0.82 | <0.001 | 0.011 | 0.0029 | 0.00095 | <0.001 | <0.001 |
| | 12/04/07 | 0.0083 | 0.18 | <0.001 | <0.002 | <0.001 | 0.00016 | <0.002 | <0.001 |
| MW-18 | 06/07/07 | 0.0091 | 0.12 | <0.001 | 0.0019 | <0.001 | 0.00027 | 0.0043 | <0.001 |
| | 12/04/07 | 0.0091 | 0.11 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.0030 | <0.001 |
| MW-19 | 06/06/07 | 0.014 | 0.052 | <0.001 | 0.0045 | <0.001 | 0.00039 | 0.0056 | <0.001 |
| | 12/04/07 | 0.014 | 0.058 | <0.001 | 0.0052 | <0.001 | <0.00013 | 0.0060 | <0.001 |
| MW-20 | 06/06/07 | 0.061 | 0.024 | <0.001 | 0.0059 | <0.001 | 0.00019 | 0.0076 | <0.001 |
| | 12/04/07 | 0.058 | 0.044 | <0.001 | 0.0070 | <0.001 | <0.00013 | 0.0076 | <0.001 |
| **Duplicates** | | | | | | | | | |
| MW-16 | 06/07/07 | 0.0079 | 0.51 | <0.001 | 0.0047 | 0.0012 | 0.00065 | <0.001 | <0.001 |
| MW-14 | 12/03/07 | 0.023 | 0.21 | <0.001 | <0.002 | <0.001 | <0.00013 | 0.004 | <0.001 |

Notes:
Analyses performed by SevernTrent Laboratories, Corpus Christi, Texas
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: No data available

**Table 4**
**Summary of Inorganic Analysis of Groundwater Samples from Monitoring Wells**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

| Monitor Well | Sample Date | Alkalinity | Chloride | Sulfate | Calcium | Magnesium | Potassium | Sodium | TDS |
|---|---|---|---|---|---|---|---|---|---|
| **Standard (NMWQCC)** | | -- | **250** | **600** | -- | -- | -- | -- | **1,000** |
| MW-1 | 06/07/07 | 380 | 740 | 480 | 320 | 120 | 11 | 320 | 2,400 |
| | 12/03/07 | 420 | 810 | 440 | 320 | 120 | 11 | 380 | 2,600 |
| MW-2 | 06/07/07 | 490 | 1,200 | 2,100 | 400 | 160 | 17 | 700 | 6,800 |
| | 12/03/07 | 430 | 470 | 870 | 310 | 120 | 18 | 540 | 2,900 |
| MW-3 | 06/06/07 | 730 | 580 | 64 | 99 | 100 | 3.9 | 240 | 1,900 |
| | 12/03/07 | 660 | 990 | 34 | 240 | 160 | 23 | 790 | 2,600 |
| MW-4 | 06/06/07 | 750 | 190 | 950 | 82 | 13 | 13 | 790 | 3,000 |
| | 12/03/07 | 840 | 210 | 1,100 | 120 | 28 | 14 | 950 | 3,400 |
| MW-5 | 06/07/07 | 710 | 350 | 480 | 85 | 22 | 15 | 600 | 2,200 |
| | 12/04/07 | 790 | 210 | 330 | 72 | 23 | 14 | 550 | 2,000 |
| MW-6 | 06/07/07 | 730 | 240 | 190 | 110 | 42 | 7.3 | 390 | 1,500 |
| | 12/04/07 | 760 | 230 | 200 | 85 | 44 | 7.3 | 410 | 1,700 |
| MW-7 | 06/06/07 | 380 | 210 | 280 | 140 | 50 | 8.1 | 160 | 1,300 |
| | 12/03/07 | 460 | 240 | 250 | 190 | 56 | 8.2 | 180 | 1,300 |
| MW-8 | 06/06/07 | 230 | 460 | 190 | 120 | 52 | 9.0 | 250 | 1,600 |
| | 12/03/07 | 230 | 750 | 250 | 150 | 66 | 8.5 | 410 | 2,000 |
| MW-9 | 06/06/07 | 370 | 55 | 96 | 86 | 33 | 5.3 | 100 | 730 |
| | 12/03/07 | 360 | 50 | 80 | 77 | 30 | 4.4 | 93 | 630 |
| MW-10 | 06/06/07 | 150 | 560 | 120 | 270 | 62 | 4.1 | 50 | 2,400 |
| | 12/03/07 | 160 | 530 | 130 | 280 | 63 | 4.0 | 54 | 1,500 |
| MW-11 | 06/06/07 | 280 | 38 | 7.4 | 42 | 24 | 3.8 | 57 | 1,000 |
| | 12/03/07 | 260 | 36 | 2.0 | 44 | 23 | 4.0 | 57 | 420 |
| MW-12 | 06/06/07 | 200 | 1,500 | 690 | 450 | 200 | 11 | 600 | 4,200 |
| | 12/03/07 | 200 | 1,700 | 700 | 500 | 220 | 20 | 560 | 4,200 |
| MW-13 | 06/06/07 | 210 | 5,800 | 2,300 | 1,900 | 560 | 23 | 1,400 | 16,000 |
| | 12/03/07 | 210 | 5,900 | 1,700 | 2,100 | 590 | 25 | 1,400 | 13,000 |
| MW-14 | 06/07/07 | 440 | 31,000 | 3,200 | 760 | 420 | 91 | 13,000 | 56,000 |
| | 12/03/07 | 490 | 42,000 | 3,100 | 960 | 510 | 230 | 26,000 | 75,000 |
| MW-15 | 06/07/07 | 390 | 1,100 | 720 | 200 | 100 | 23 | 860 | 3,800 |
| | 12/04/07 | 440 | 940 | 710 | 200 | 90 | 24 | 780 | 3,800 |

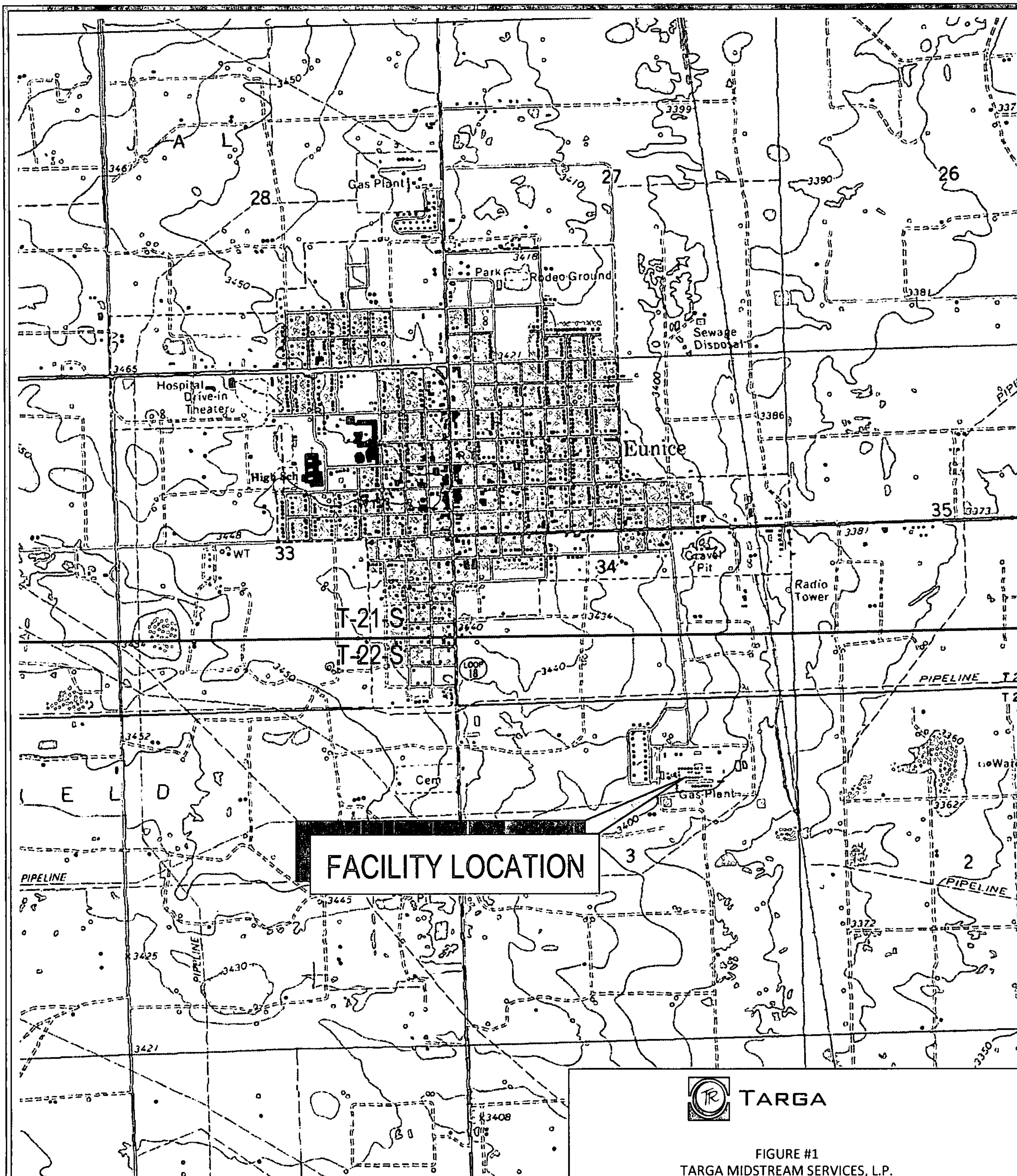
**Table 4**
**Summary of Inorganic Analysis of Groundwater Samples from Monitoring Wells**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

| Monitor Well | Sample Date | Alkalinity | Chloride | Sulfate | Calcium | Magnesium | Potassium | Sodium | TDS |
|---|---|---|---|---|---|---|---|---|---|
| **Standard (NMWQCC)** | | -- | **250** | **600** | -- | -- | -- | -- | **1,000** |
| MW-16 | 06/07/07 | 430 | 790 | 160 | 180 | 52 | 11 | 510 | 2,100 |
| | 12/04/07 | 570 | 500 | 170 | 100 | 33 | 7.9 | 480 | 1,800 |
| MW-18 | 06/07/07 | 420 | 3,700 | 610 | 610 | 260 | 18 | 1,800 | 7,700 |
| | 12/04/07 | 450 | 4,600 | 670 | 710 | 290 | 21 | 2,000 | 9,600 |
| MW-19 | 06/06/07 | 260 | 4,900 | 1,700 | 790 | 380 | 23 | 2,200 | 12,000 |
| | 12/04/07 | 280 | 5,300 | 1,200 | 860 | 400 | 25 | 2,300 | 13,000 |
| MW-20 | 06/06/07 | 530 | 2,100 | 910 | 32 | 18 | 44 | 2,000 | 6,200 |
| | 12/04/07 | 690 | 2,300 | 740 | 38 | 17 | 40 | 1,900 | 5,800 |
| **Duplicates** | | | | | | | | | |
| MW-16 | 06/07/07 | 410 | 790 | 160 | 160 | 50 | 9.4 | 500 | 2,100 |
| MW-14 | 12/03/07 | 490 | 43,000 | 3,200 | 1,000 | 540 | 240 | 27,000 | 75,000 |

Notes:
Analyses performed by SevernTrent Laboratories, Corpus Christi, Texas
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: No data available

# FIGURES

Y:\PROJECTS\TARGA\2-0103-TARGA MIDDLE PLANT-2006\2007 REPORT\FIGURE-1.dwg, 9/18/2008 2:20:29 PM



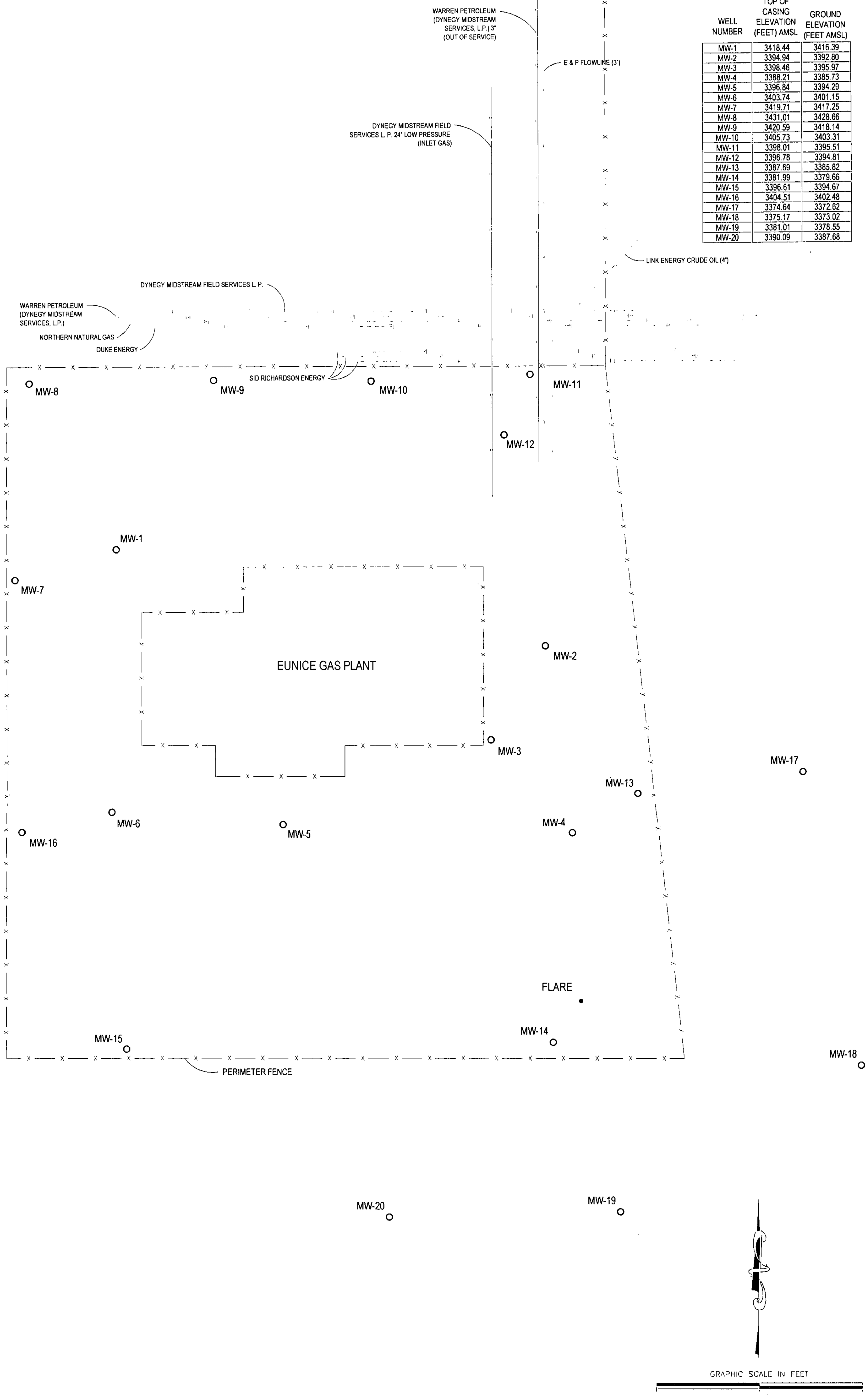

TARGA

FIGURE #1
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO
SITE LOCATION

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |



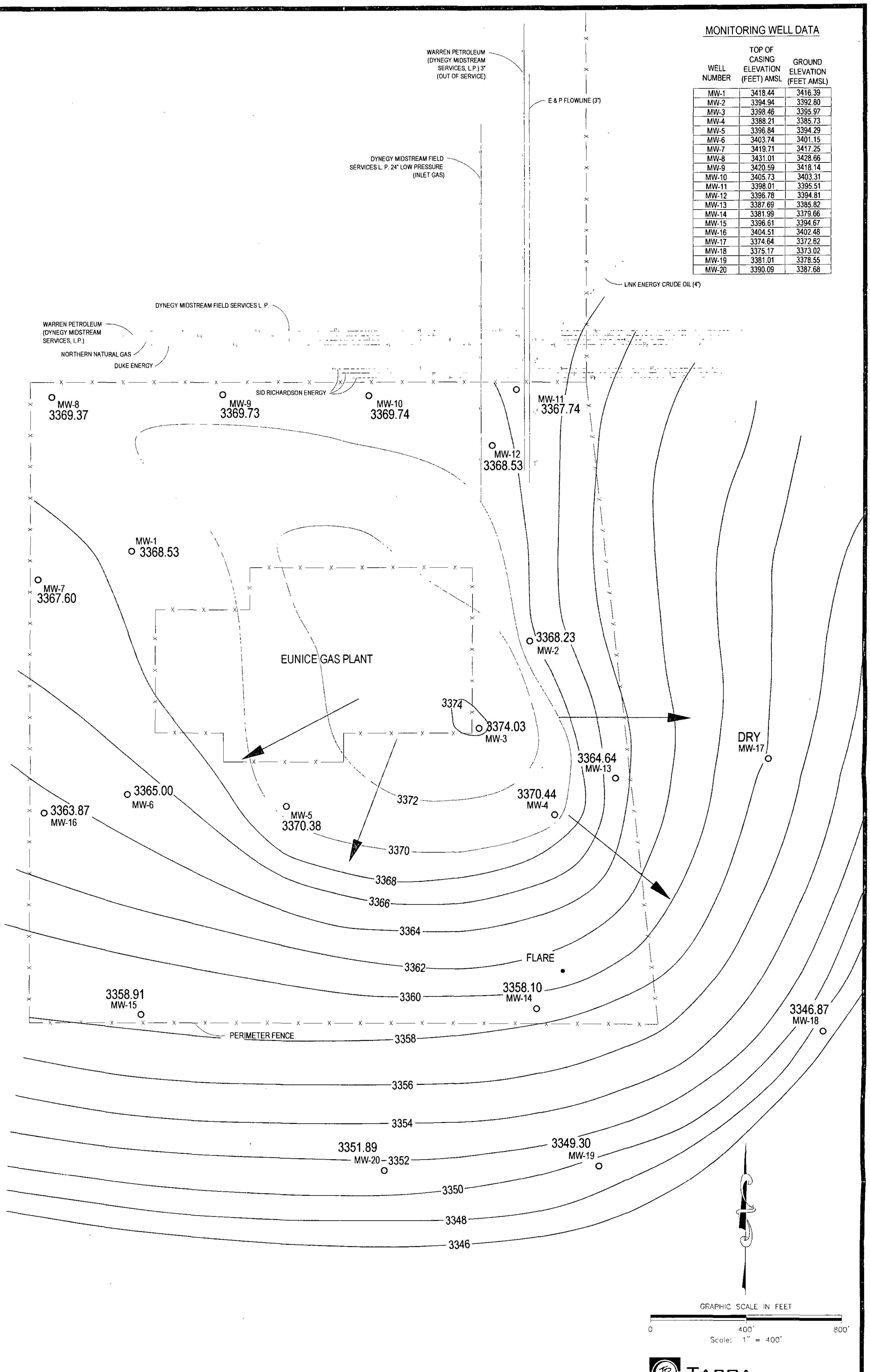

TARGA

FIGURE #2
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO
FACILITY DRAWING

LEGEND

MW-1 O MONITORING WELL LOCATION

Larson & Associates, Inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

### LEGEND

3368.53 MW-1 — MONITORING WELL LOCATION AND GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, JUNE 6-7, 2007

3368 — CONTOUR OF GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, JUNE 6-7, 2006

GROUNDWATER FLOW DIRECTION

TARGA

FIGURE #3
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37E
LEA COUNTY, NEW MEXICO

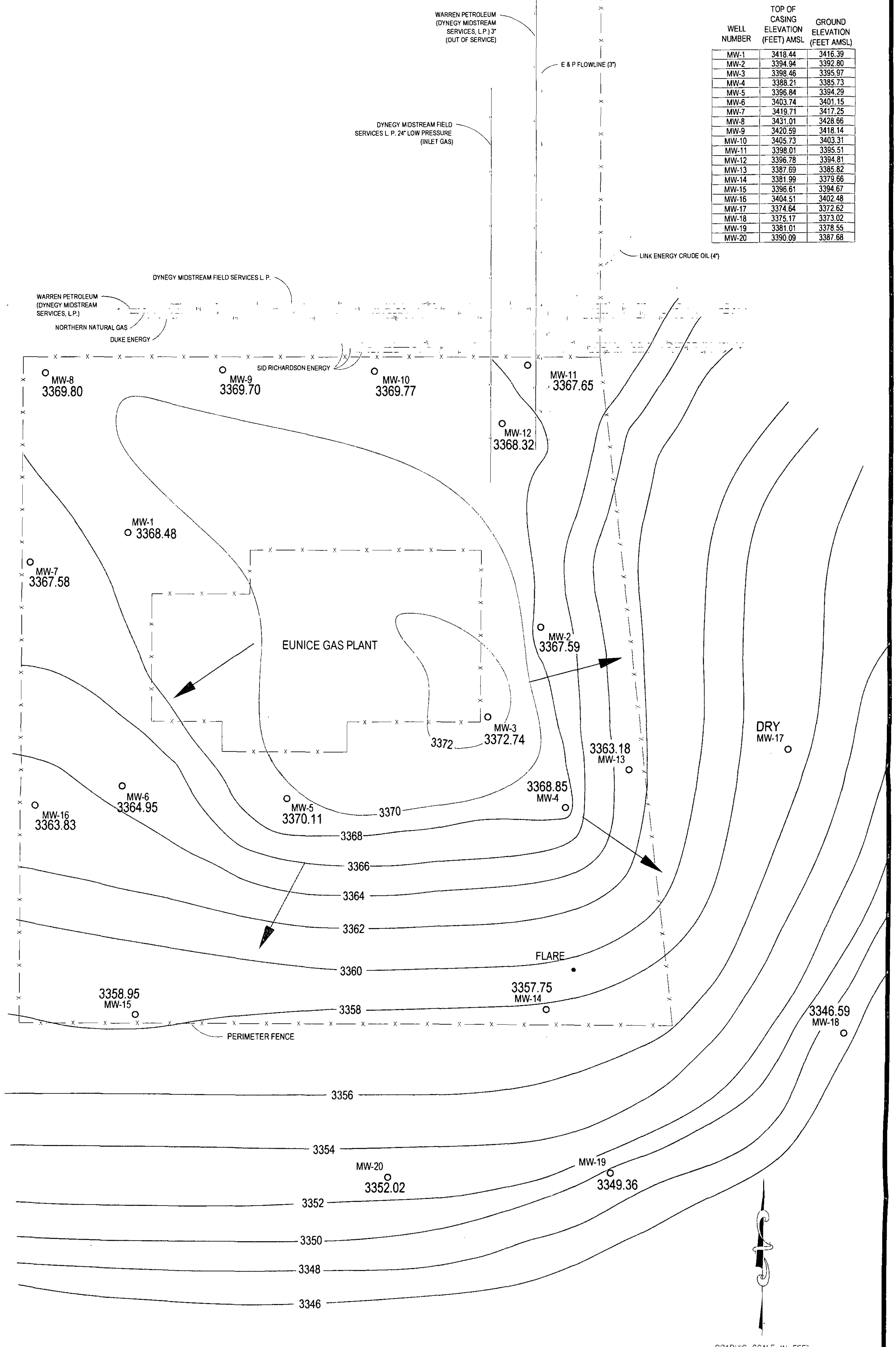
GROUNDWATER POTENTIOMETRIC MAP
JUNE 6-7, 2007

Larson & Associates, Inc.
Environmental Consultants

Y:\PROJECTS\TARGA\2-0103-TARGA MIDDLE PLANT-2006\2007 REPORT\12-3-07 REPORT\FIGURE-4.dwg, 9/18/2008 9:34:50 AM

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

3368.48 MW-1 ○ — MONITORING WELL LOCATION AND GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, DECEMBER 3-4, 2007.

3368 — CONTOUR OF GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, DECEMBER 3-4, 2007.

GROUNDWATER FLOW DIRECTION

TARGA

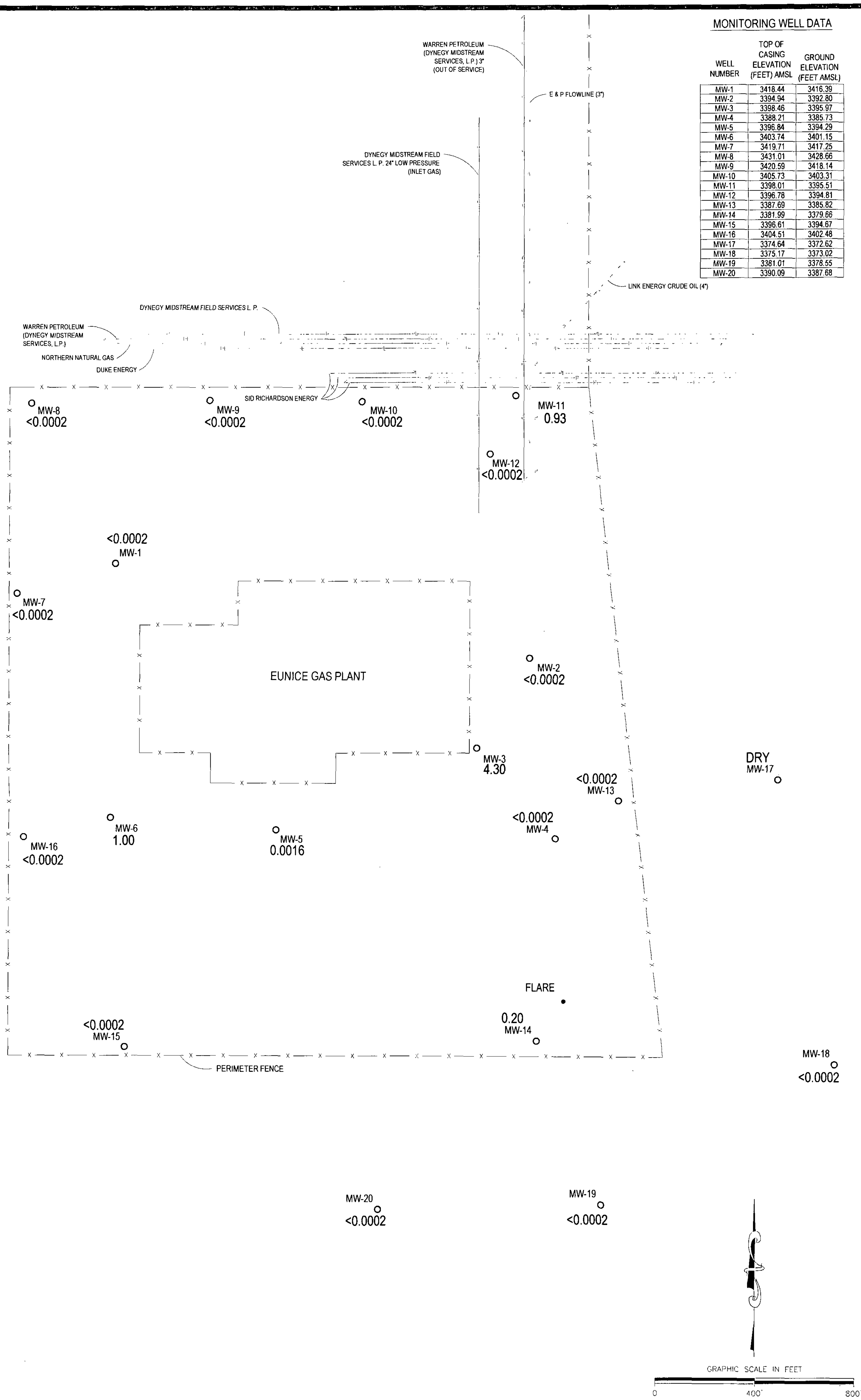
FIGURE #4
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

GROUNDWATER POTENTIOMETRIC MAP
DECEMBER 3-4, 2007

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

| | |
|---|---|
| <0.0002 MW-1 | MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN GROUNDWATER, MG/L, JUNE 6-7, 2007. |
| < | CONCENTRATION NOT OBSERVED AT METHOD DETECTED LIMIT |

NMWQCC HUMAN HEALTH STANDARD: 0.01 MG/L

TARGA

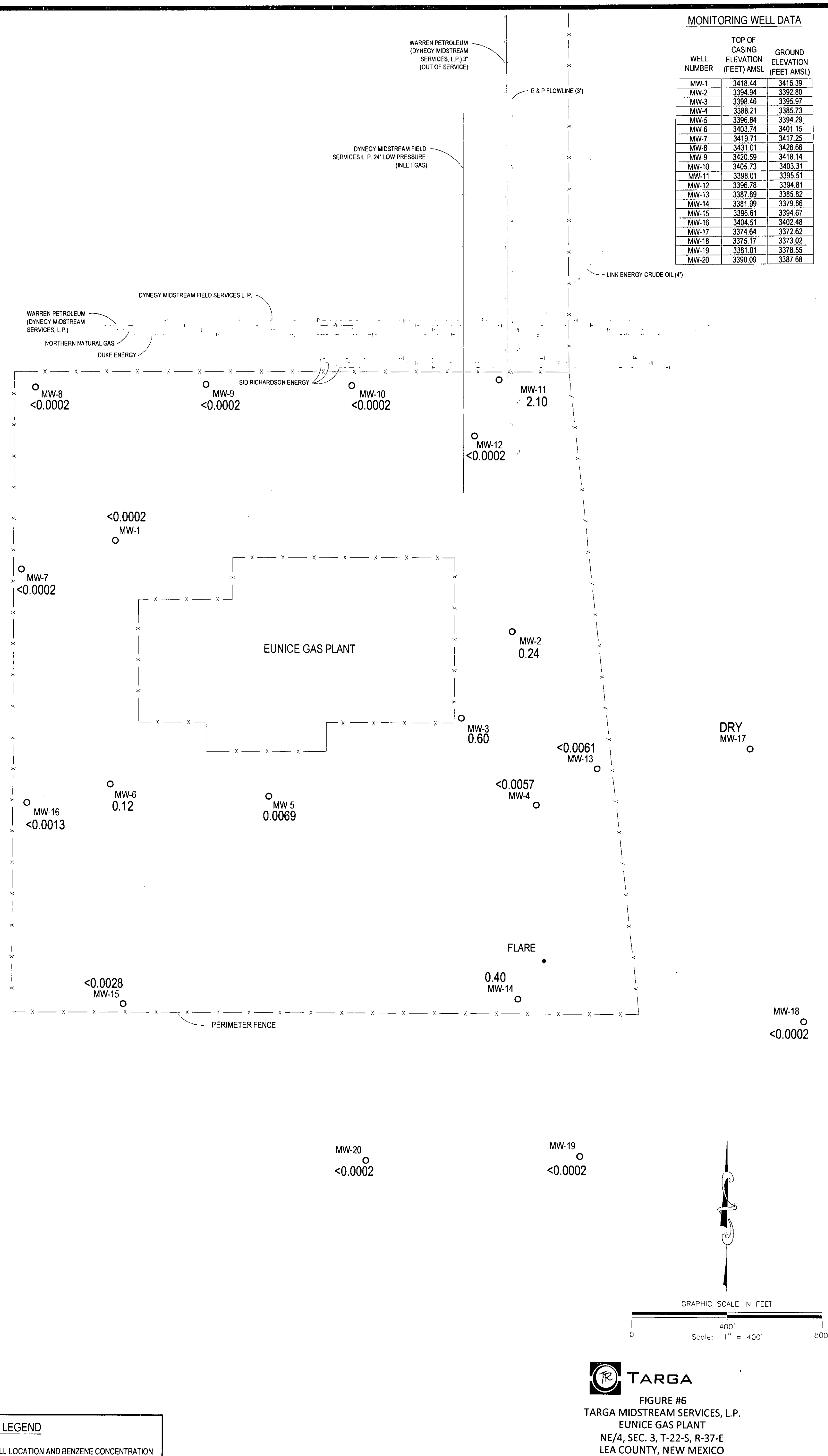
FIGURE #5
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

DISSOLVED BENZENE CONCENTRATIONS
IN GROUND WATER
JUNE 6-7, 2007

Larson & Associates, Inc.

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




LEGEND

<0.0002 MW-1 — MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 3-4, 2007

< — CONCENTRATION NOT OBSERVED AT METHOD DETECTED LIMIT

NMWQCC HUMAN HEALTH STANDARD: 0.01 MG/L

TARGA

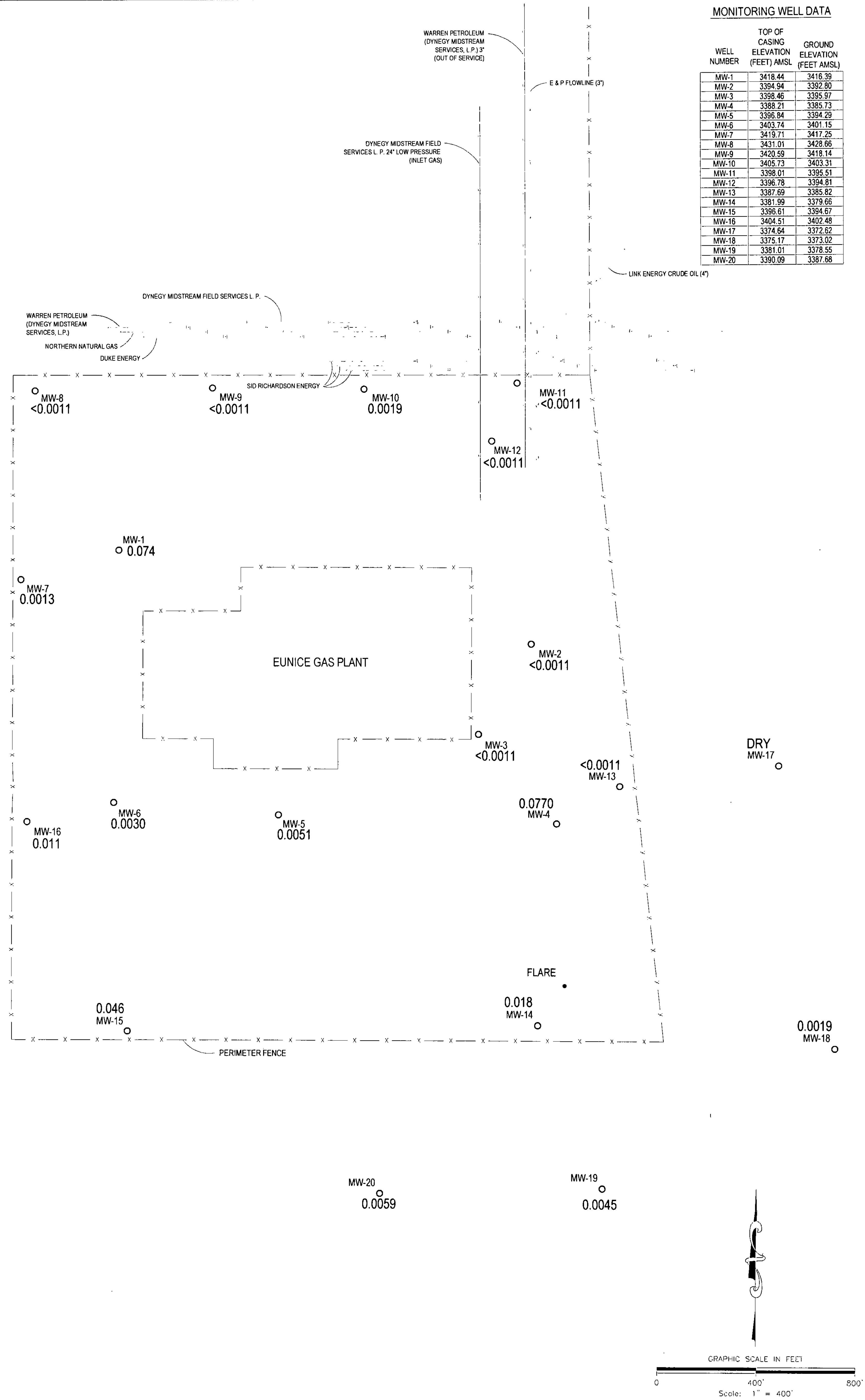
FIGURE #6
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

DISSOLVED BENZENE CONCENTRATIONS
IN GROUND WATER
DECEMBER 3-4, 2007

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




## LEGEND

0.074 MW-1 — MONITORING WELL LOCATION AND DISSOLVED CHROMIUM IN GROUNDWATER, MG/L, JUNE 6-7, 2007.

< BELOW METHOD DETECTED LIMIT

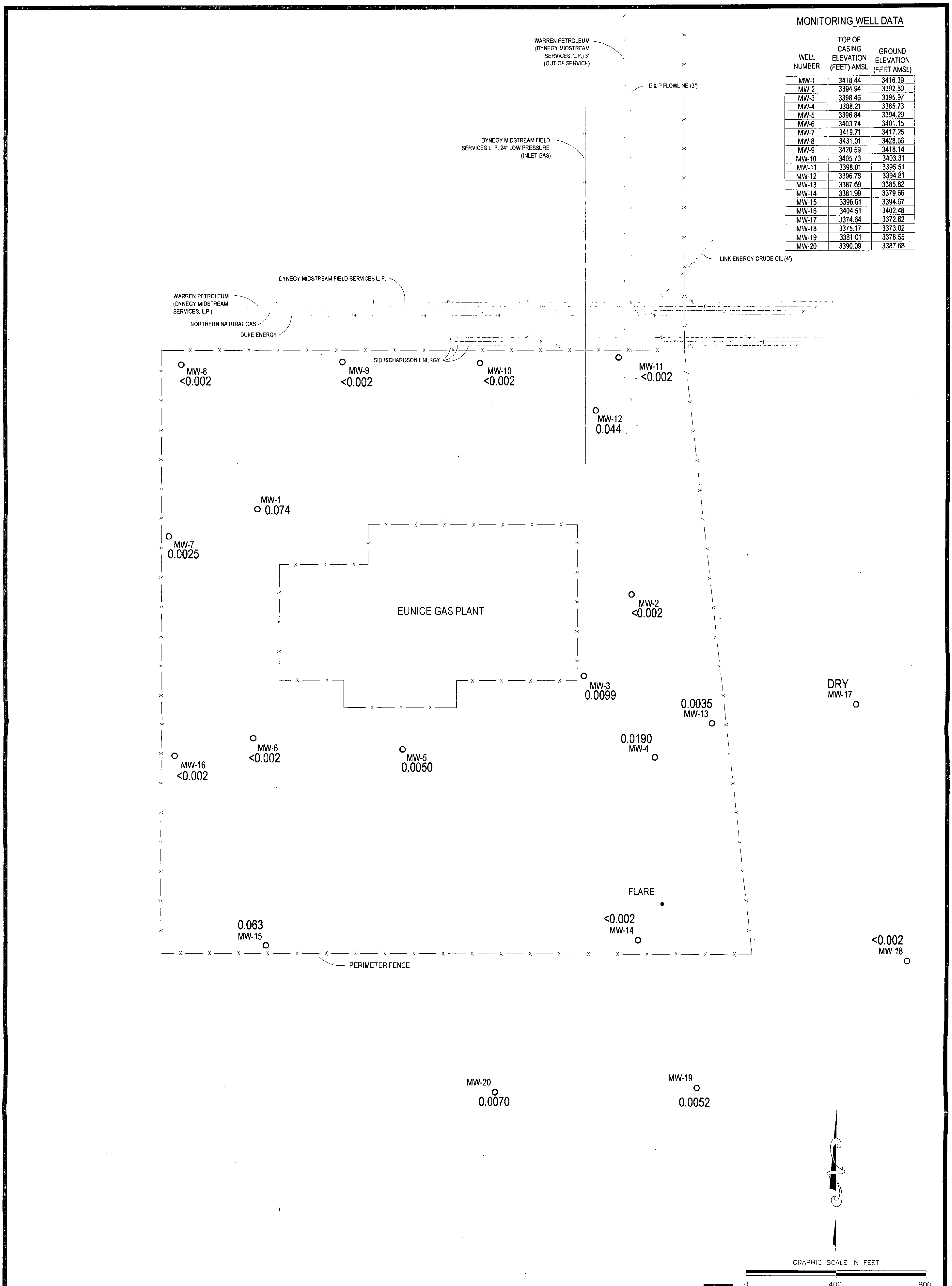
NMWQCC HUMAN HEALTH STANDARD: 0.05 MG/L

TARGA

FIGURE #7
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

DISSOLVED CHROMIUM CONCENTRATIONS
IN GROUND WATER
JUNE 6-7, 2007

Larson & Associates, Inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

TARGA

FIGURE #8
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

DISSOLVED CHROMIUM CONCENTRATIONS
IN GROUND WATER
DECEMBER 3-4, 2007

### LEGEND

0.074 MW-1 — MONITORING WELL LOCATION AND DISSOLVED CHROMIUM IN GROUNDWATER, MG/L, DECEMBER 3-4, 2007.

< — CONCENTRATION NOT OBSERVED AT METHOD DETECTED LIMIT

NMWQCC HUMAN HEALTH STANDARD: 0.05 MG/L

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
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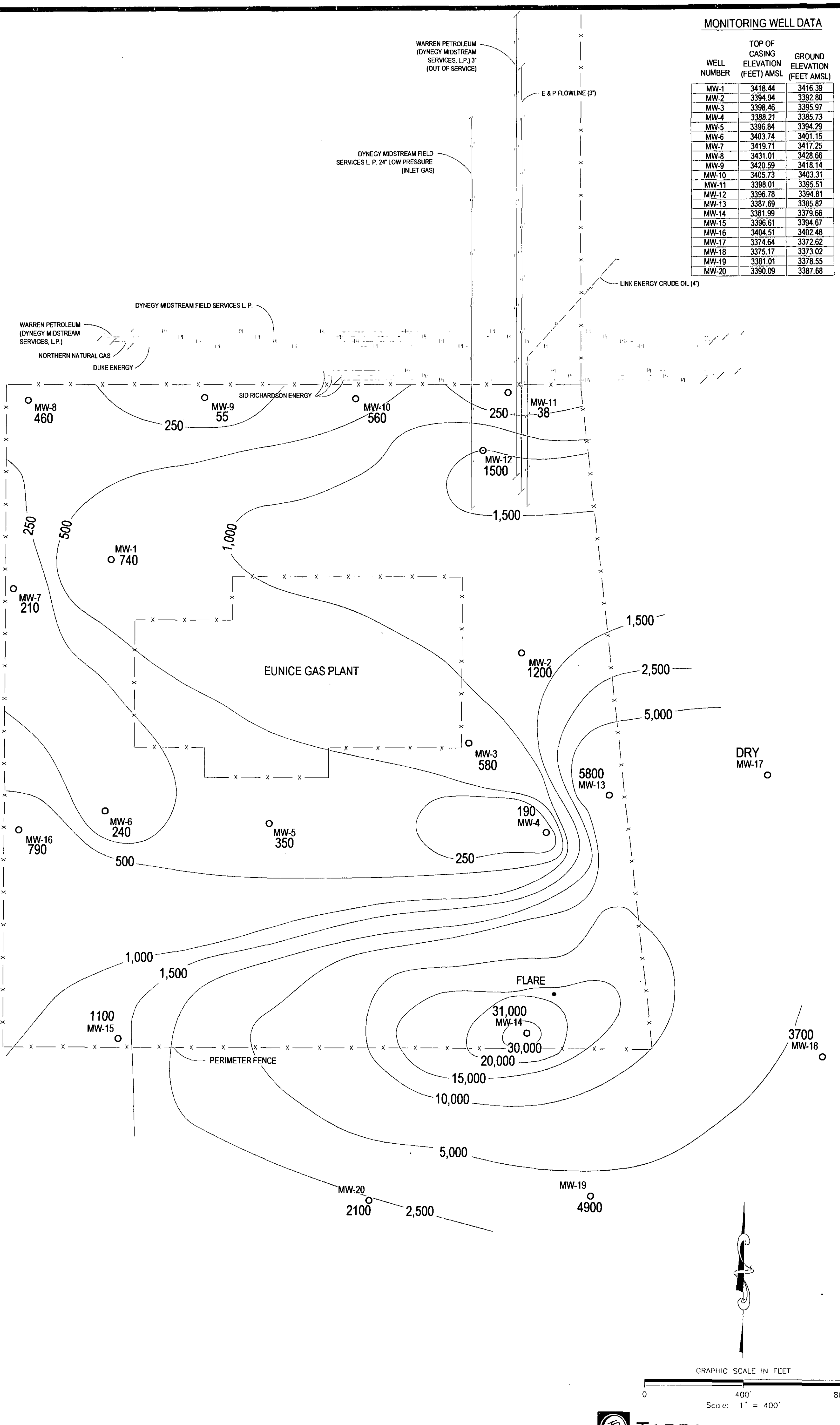
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




## LEGEND

740 MW-1 — MONITORING WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L JUNE 6-7, 2007.

2500 — CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L, JUNE6-7, 2007

NMWQCC DOMESTIC WATER QUALITY STANDARD: 250 MG/L

TARGA

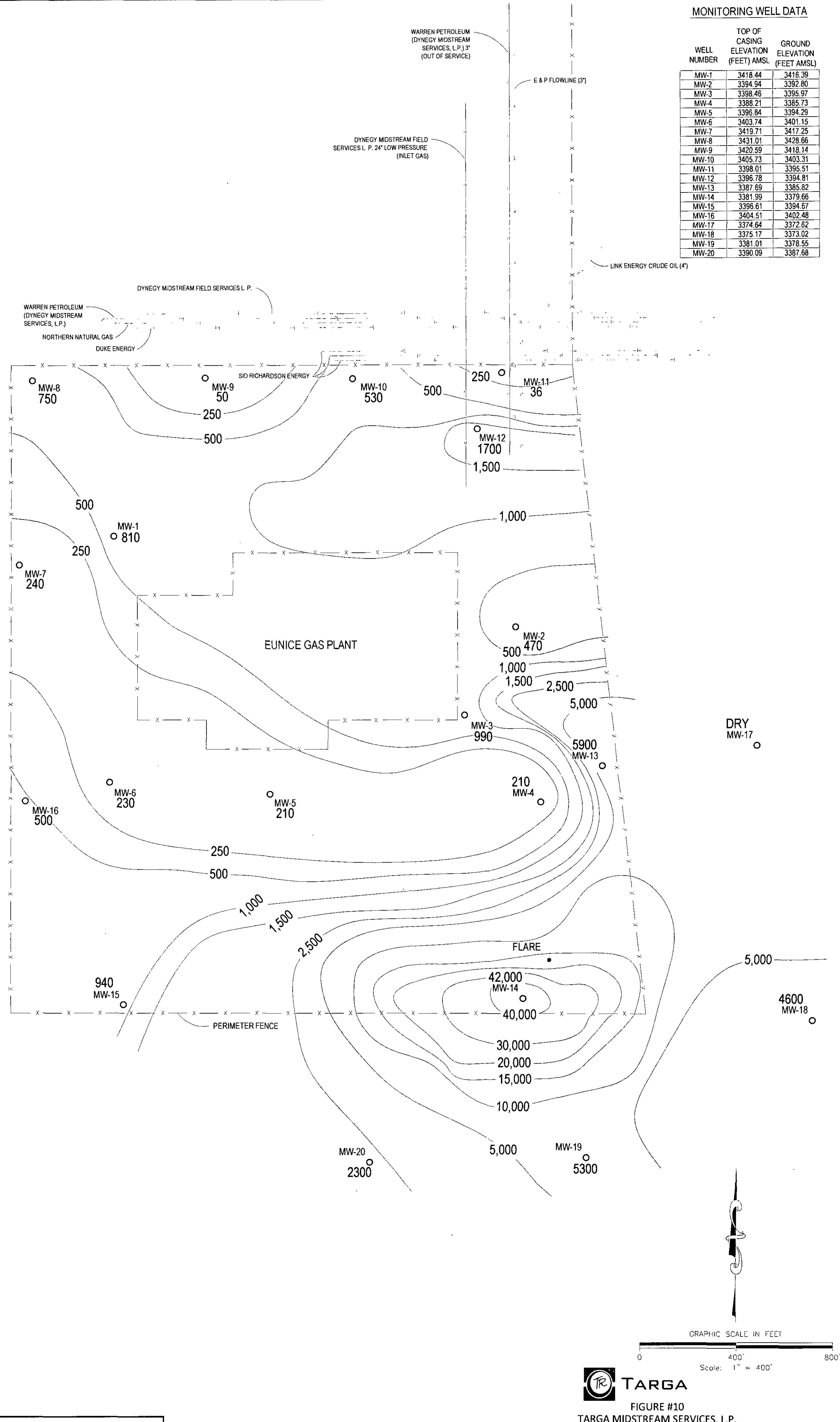
FIGURE #9
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

CHLORIDE CONCENTRATION
IN GROUND WATER
JUNE 6-7, 2007

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




TARGA

FIGURE #10
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

CHLORIDE CONCENTRATION
IN GROUND WATER
DECEMBER 3-4, 2007

### LEGEND

MW-1 810 — MONITORING WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 3-4, 2007

2500 — CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 3-4, 2007

NMWQCC DOMESTIC WATER QUALITY STANDARD: 250 MG/L

Larson & Associates, Inc.
Environmental Consultants

Y:\PROJECTS\TARGA\2-0103-TARGA MIDDLE PLANT-2006\2007 REPORT\6-6-07 REPORT\FIGURE-11.dwg, 9/18/2008 9:46:28 AM

MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
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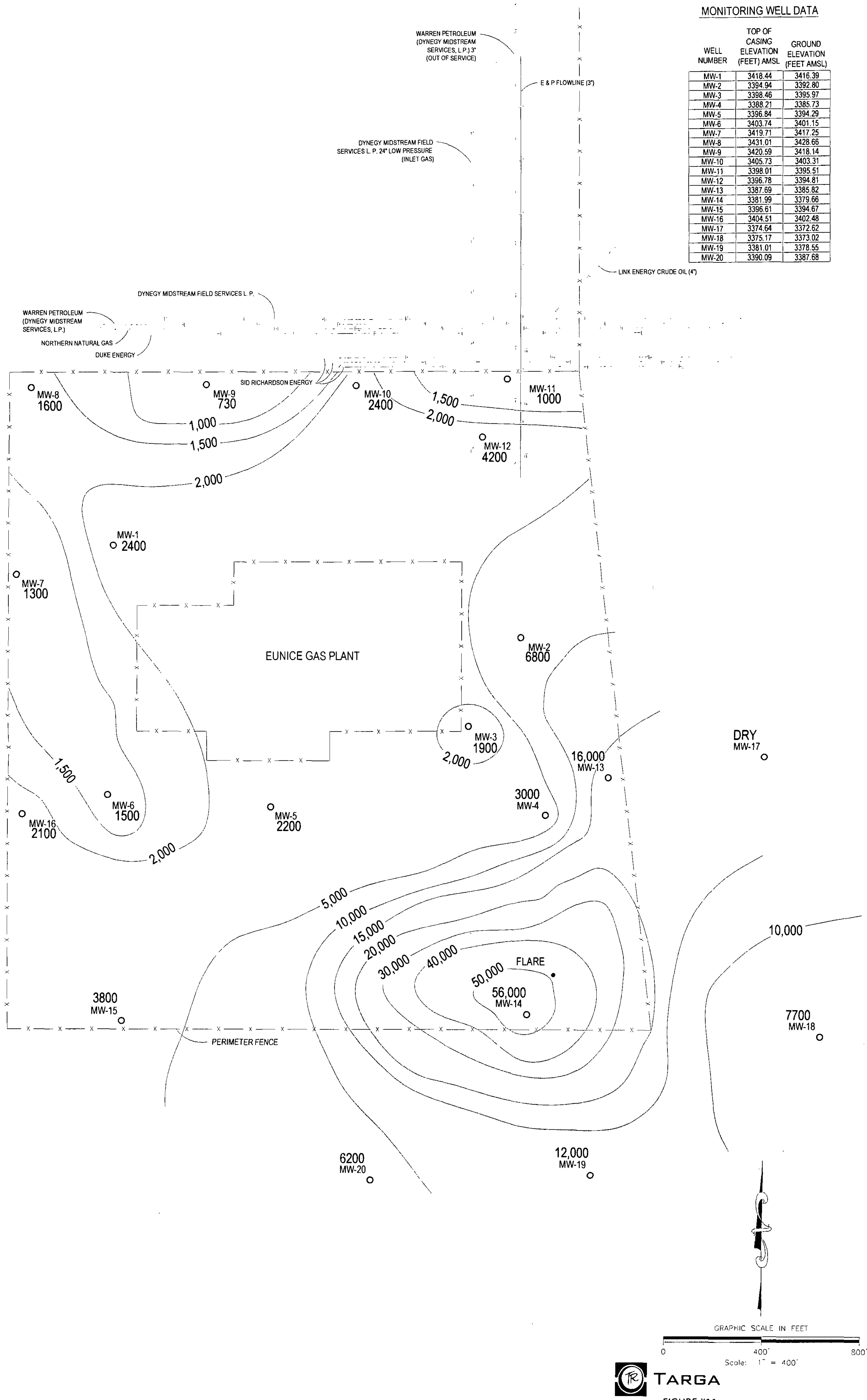
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




LEGEND

MW-1 / 2,400 — MONITORING WELL LOCATION AND TOTAL DISSOVED SOILDS CONCENTRATION IN GROUNDWATER, MG/L, JUNE 6-7, 2007.

2500 — CONTOUR OF TOTAL DISSOLVED SOLIDS CONCENTRATION IN GROUNDWATER, MG/L JUNE6-7, 2007

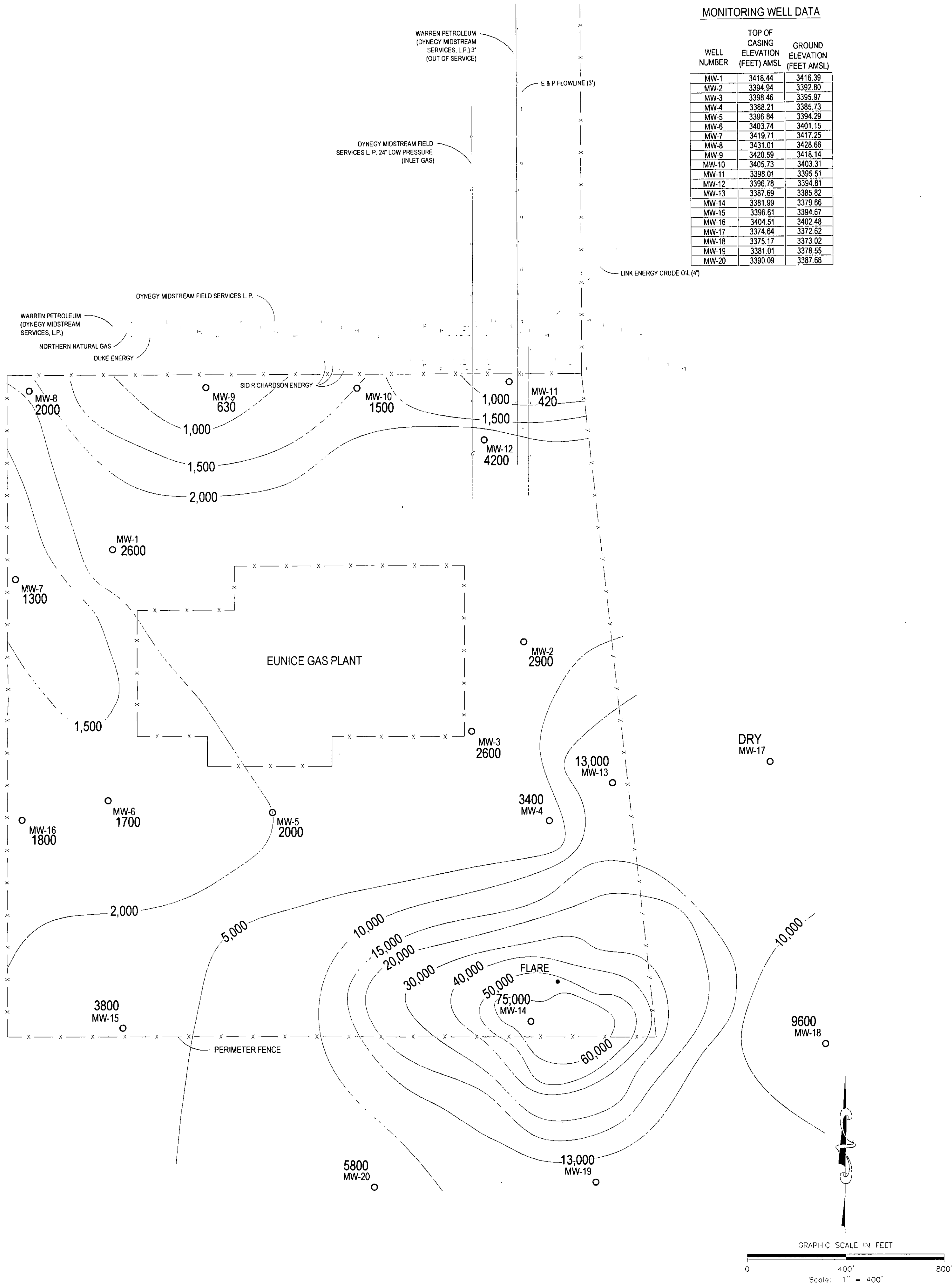
NMWQCC DOMESTIC WATER QUALITY STANDARD: 1,000 MG/L

TARGA

FIGURE #11
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

TOTAL DISSOLVED SOLIDS CONCENTRATION
IN GROUND WATER
JUNE 6-7, 2007

Larson & Associates, Inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
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| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
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| MW-10 | 3405.73 | 3403.31 |
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| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

## LEGEND

2,600 MW-1 — MONITORING WELL LOCATION AND TOTAL DISSOVED SOILDS CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 3-4, 2007.

2500 — CONTOUR OF TOTAL DISSOLVED SOLIDS CONCENTRATION IN GROUNDWATER, MG/L,DECEMBER 3-4, 2007

NMWQCC DOMESTIC WATER QUALITY STANDARD: 1,000 MG/L

TARGA

FIGURE #12
TARGA MIDSTREAM SERVICES, L.P.
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
LEA COUNTY, NEW MEXICO

TOTAL DISSOLVED SOLIDS CONCENTRATION
IN GROUND WATER
DECEMBER 3-4, 2007

Larson & Associates, Inc.
Environmental Consultants

# APPENDIX A

## OCD Correspondence
## August 25, 2006

**BILL RICHARDSON**
Governor
**Joanna Prukop**
Cabinet Secretary

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

August 25, 2006

Mr. Cal Wrangham
Environmental, Safety and Health Advisor
TARGA Resources, Inc.
6 Desta Drive, Suite 3300
Midland, Texas 79705

Re: Discharge Permit Eunice Gas Plant (GW-005)
2005 Annual Groundwater Monitoring Report- May 5, 2006 (report)

Dear Mr. Wrangham:

Pursuant to our June 19, 2006 meeting with Mr. Mark Larson (Larson & Associates, Inc.) in Santa Fe, and subsequent to a review of the above report, the Energy, Minerals and Natural Resources Department- Oil Conservation Division (EMNRD-OCD) has the following comments and/or recommendations on the Eunice Gas Plant for your consideration. A dual monitoring and remediation approach is highly recommended.

The OCD believes that monitoring data to date has identified significant groundwater contamination beneath and surrounding the site. Additional piezometer and monitor wells need to be installed to assist in monitoring of groundwater contamination and the piezometric surface beneath the plant.

The Ogallala Formation (water table aquifer) is about 25 feet below ground level at the plant and ranges in saturated thickness between 5 and 12 feet. Volatile organic hydrocarbons, metals, and inorganics including elevated levels of chlorides, TDS and other contaminants have impacted the aquifer. Based on monitoring data, point sources appear to vary over the plant with contaminants suspected of being caused by nearby pipeline and tank leaks/spills and/or old abandoned unlined brine ponds. Furthermore, contaminant transport beneath the plant is complicated by a piezometric mound and radial groundwater flow with contaminant transport away from the plant in multiple directions. Consequently, the point source of contamination observed at MW-11 may actually be from the plant.

From Section 4 of the report, Targa believes that a leak discovered in a water line from the cooling tower repaired in late 2004 and/or the normal operation of the gas plant is the cause of water table mounding beneath the plant. Also, there is suspicion that the mounding may be associated with old leaking Chevron tanks and Targa is planning to remove them. The mounding indicates to OCD that either there is a natural recharge condition(s) or a significant stready-state stream of artificial recharge water(s) and/or waste(s) infiltrating into the Ogallala. The OCD suspects the latter.

Based on the above, pump and treat with reinfiltration away from the mound and/or disposal into a permitted injection well would help to contain and remediate or dispose of contaminated groundwater beneath the plant. An aquifer pump test of sufficient duration and flow rate as to adequately stress the aquifer would establish draw-down information and how easily the piezometric surface could change from a mound into a trough or depression. In a preferred scenario, groundwater flow and transport of contaminants could be induced to flow into one large cone of depression beneath the plant to be treated and/or disposed via a permitted underground injection well.

Some items discussed with Mark Larson (Larson & Associates, Inc.) on June 19, 2006 are:

1. Dig up HDPE near MW-3 to help determine the source of contamination.

2. MWs 19 and 20 were installed southeast and southwest of MW-14 with elevated levels of TDS and chlorides being detected, but at significantly lower levels than MW-14. Additional MWs are required southward from MWs 18 – 20 to begin implementing remediation measures to monitor, capture and reduce VOCs, metals, chlorides and TDS from migrating off-site in the vicinity of MW-14. The aquifer shall be sampled near the water table and at a deeper depth(s) within the aquifer depending on the saturated thickness.

3. In addition to contacting "One Call," aerial photos should be used to investigate pipelines in the vicinity of MW-11 to determine whether spills/releases from nearby pipelines, and surface waste facilities have impacted MW-11. In addition, former brine evaporation pits in the vicinity of MWs 3 and other MWs should be investigated as the source(s) for chlorides.

4. Investigate pipelines toward the east to see if they are contributing to the piezometric mound condition beneath the plant. Targa needs to investigate the shallow water table at MW-11 to determine if there was or is a spill area north of MW-11 (100 ft. x 100 ft.) that may explain the shallow water table condition. Investigate the NE Plant for a possible crude oil pipeline release (Eunice & Monument).

Additional OCD comments and/or recommendations are as follows:

1. A dual monitoring and remediation approach is needed at the plant to monitor, capture, remediate and prevent the continued migration of contamination in the Ogallala aquifer off-site.

2. An aquifer pump test of sufficient duration and pump rate is required at or in the vicinity of MW-14 to determine aquifer characteristics; assess the cone of depression for capture; etc. Additional piezometer wells will be needed to monitor the piezometric surface throughout the test to help monitor the piezometric surface and capture of groundwater contaminants at the site.

3. An active pump and treat with reinfiltration away from the plume(s) and/or disposal of contaminated groundwater into a permitted injection well is needed to capture and control contaminant migration off-site. Inorganics, metals and organic contamination are present above WQCC standards beneath the plant in the Ogallala aquifer.

4. Another MW in the vicinity of MW-17 is required. MW-17 was installed east of MW-13 and was dry and Mr. Larson feels the Ogallala pinches out toward the east. After reviewing the well record, it appears that the drillers stopped short of tagging the basal clay detected at other nearby MWs. The OCD does not concur with this observation unless deeper drilling is conducted and confirms the lack of a water table.

5. The monitoring schedule proposed in Section 5 of the report may be acceptable if we begin work on a dual track consisting of monitoring and remediation to prevent point source impacts to groundwater or the Ogallala aquifer.

6. The status of removal of the old Chevron tanks suspected of leaking and possibly contributing to contamination and the mounding condition beneath the plant is requested.

7. The OCD inspected the site on Thursday, August 17, 2006 and have some point source concerns based on the photos taken below. Figures 1, 3 and 4 may be potential point sources. Figure 1 depicts trash being stockpiled on site. Figure 2 depicts the steam generator area with runoff draining across and off-site. Figure 3 depicts barrels (some empty) stored on site incorrectly. Figure 4 depicts contaminated soil piles, sulfur piles, etc. being stored on site and clarification is requested on the length of storage and planned disposal date of removal. Figure 5 depicts runoff through the property and off-site from the steam generator area which is recharging the Ogallala aquifer. A sample of the water was collected by the OCD.

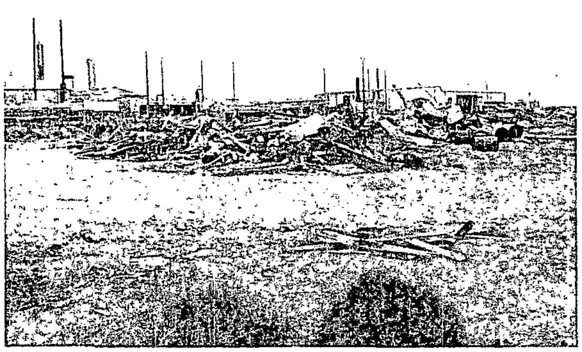

Figure 1. Trash piles west side of plant

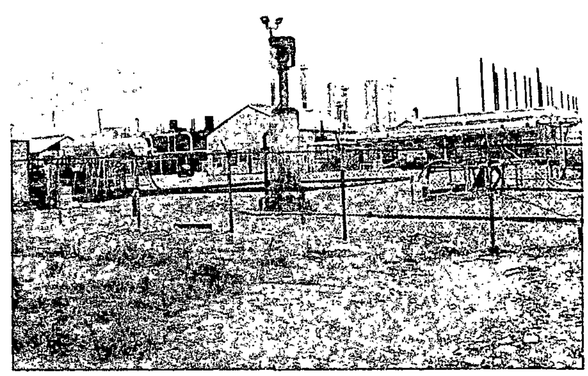

Figure 2. Steam generator source northwest side of plant

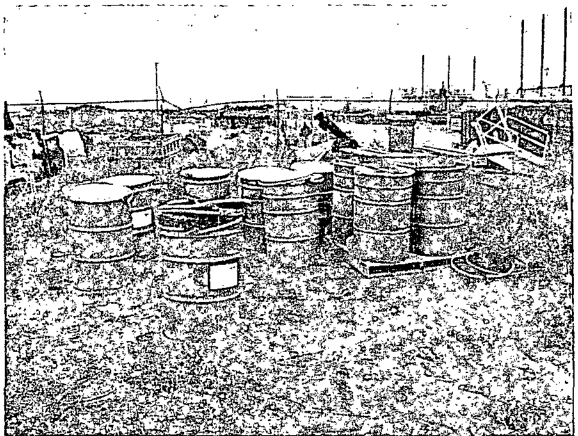

Figure 3. Drums marked "Selectox$^{TM}$ 33" west side of plant

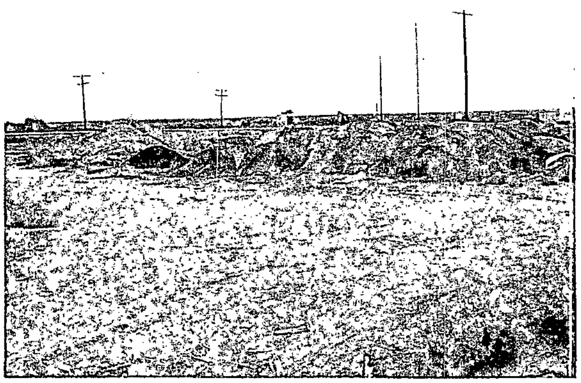

Figure 4. Contaminated soils stockpiled on west side of plant

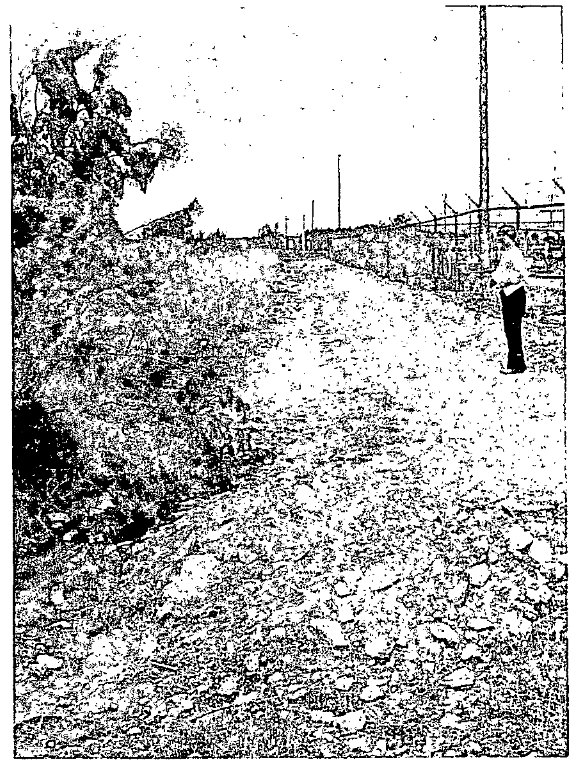

Figure 5. Steam generator runoff (possible stormwater issues & recharge water source for mounding west side of plant

Please contact me at (505) 476-3491 or E-mail me at carlj.chavez@state.nm.us if you have questions or to discuss the above comments and recommendations.

Sincerely,

Carl Chavez
Environmental Bureau

CC/lwp
Attachments-1
xc: OCD District Office

# APPENDIX B

## Laboratory Reports

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

2007 APR 2 PM 12 40

# Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

| | |
|---|---|
| Name of Company: Targa Midstream Services Limited Partnership | Contact: James Lingnau (505) 394-2534 Ext.226<br>Cal Wrangham (432) 688-0542 |
| Address: PO Box 1909 Eunice, NM 88231 | Telephone No. (505) 394-2534 |
| Facility Name: Eunice Middle Plant (GW-005) | Facility Type: Gas Processing Plant |

| | | |
|---|---|---|
| Surface Owner: Targa 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 |
|---|---|---|---|---|---|---|---|---|
| South Booster | 27 | 22S | 37E | | | | | Lea, County |

**Latitude West 103 Degrees, 09' 31.3" Longitude North 32 Degrees, 21' 41.1"**

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Gas Flare | Volume of Release 450 MCF | Volume Recovered: |
| Source of Release: Facility Flares | Date and Hour of Occurrence:<br>3/19/07 7:00 PM | Date and Hour of Discovery<br>Same |
| Was Immediate Notice Given?<br>Yes ☒ No ☐ Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached?<br>☐ Yes ☒ No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken. *
Unit #31 down on panel board problems. A Maintenance technician was called to correct the problem and the unit put back on line.

Describe Area Affected and Cleanup Action Taken.*
Gas flared no cleanup necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|---|---|---|
| Signature: James Lingnau | OIL CONSERVATION DIVISION | |
| Printed Name: James Lingnau | Approved by District Supervisor: | |
| Title: Area Manager | Approval Date: | Expiration Date: |
| E-mail Address: jlingnau@targaresources.com | Conditions of Approval: | Attached ☐ |
| Date: Revised 3/29/07 Phone: (505) 394-2534 Ext. 226 | | |

* Attach Additional Sheets If Necessary

Larson &
Associates, Inc.
Environmental Consultants

RECEIVED

2007 AUG 6 PM 2 22

August 1, 2007

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

**Re: 2006 Groundwater Monitoring Report, Targa Midstream Services, L.P., Eunice Gas Plant (GW-005), UL B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East, Lea County, New Mexico**

Dear Mr. Price:
Please find the enclosed report which is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Targa Midstream Services, L.P. (Targa) by Larson & Associates, inc. (LAI). The report presents the results of groundwater monitoring at the Eunice Gas Plant during 2006. Please call Mr. Cal Wrangham with Targa at (432) 688-0542 or myself at (432) 687-0901 if you have questions. We may also be reached by emailing cwrangham@targaresources.com or mark@laenvironmental.com.
Sincerely,
***Larson and Associates, Inc.***

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

Encl.

Cc: Cal Wrangham – Targa
James Lingnau - Targa
Larry Johnson – OCD District 1

# 2006
# GROUND WATER
# MONITORING REPORT
# EUNICE GAS PLANT (GW-005)
# LEA COUNTY, NEW MEXICO

**Prepared for:**

**Targa Midstream Services, L.P.**
**6 Desta Drive**
**Suite 3300**
**Midland, Texas 79705**

**Prepared by:**


**Larson & Associates, Inc.**
**507 North Marienfeld Street, Suite 202**
**Midland, Texas 79701**
**(432) 687-0901**


**July 31, 2007**

______________________________


**Mark J. Larson**
**Certified Professional Geologist 10490**

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## 1.0 INTRODUCTION

Targa Midstream Services, L.P. (Targa), as successor company to Dynegy Midstream Services, L.P. (Dynegy), has retained Larson & Associates, Inc. (LAI) to conduct groundwater monitoring at its Eunice Gas Plant (Facility), which operates under discharge permit GW-005 administered by the New Mexico Oil Conservation Division (OCD). This report presents the results of groundwater monitoring at the Facility during 2006. The Facility is located in Unit B (NW/4, NE/4), Section 3, Township 22 South, Range 37 East, in Lea County, New Mexico. Figure 1 presents a location and topographic map. Figure 2 presents a Facility drawing.

### 1.2 Background

On May 1, 2006, Targa proposed a modification to the groundwater monitoring schedule to include the following:

- Semi-annual (twice yearly) collection and analysis of groundwater samples from wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-11, MW-12, MW-13, MW-14, MW-17, MW-18, MW-19 and MW-20;
- Annual (once yearly) collection and analysis of groundwater samples from wells MW-7, MW-8, MW-9, MW-10, MW-15 and MW-16; and
- Laboratory analysis of samples for benzene, toluene, ethylbenzene, xylene (BTEX), dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium, sodium), anions and water quality parameters alkalinity, chloride, sulfate, and total dissolved solids (TDS).

## 2.0 CURRENT ACTIVITIES

### 2.1 Depth-Groundwater and Hydrocarbon Product Measurements

Depth to groundwater and phase-separated hydrocarbon (PSH) thickness was measured in all monitoring wells (MW-1 through MW-20) on June 26, 2006 and December 4, 2006. The measurements were collected at the top of the PVC well casing using an electronic interface probe which distinguishes between water and product based on infrared optics and conductivity. The interface probe was thoroughly cleaned between wells using a solution of laboratory-grade detergent and rinsed with distilled water.

No PSH was observed in the wells during the reporting period. The depth-to-groundwater measurements were used to prepare groundwater potentiometric surface maps for June 26, 2006 (Figure 3) and December 4, 2006 (Figure 4). Table 1 presents a summary of the depth-to-groundwater measurements.

During the June event, the groundwater surface elevation ranged from 3,369.00 feet above mean sea level (AMSL) at well MW-8 (northwest) to 3,346.48 feet AMSL at well MW-18 (southeast). Groundwater flow was generally from northwest to southeast at an approximate gradient of 0.005 feet per foot (ft/ft). Groundwater mounding was observed beneath the Facility and created a radial flow pattern. The mounding may have been caused by cooling tower leaks. In 2005, Facility personnel repaired a water line leak near the cooling tower, which is located near the north central area of the Facility. Monitoring well MW-17 was dry during the monitoring event.

During the December event, the groundwater surface elevation ranged from 3,369.15 feet AMSL at well MW-8 (northwest) to 3,346.58 feet AMSL at well MW-18 (southeast). Mounding was also observed beneath the Facility resulting in a radial ground water flow pattern. Monitoring well MW-17 was dry during the December event.

## 2.2 Ground Water Samples

On June 27 – 28, 2006 and December 5 – 12, 2007, groundwater samples were collected according to the modified sampling schedule. Well MW-17 was dry during the events, therefore, no samples were collected from the well. The groundwater samples were collected using dedicated disposable PVC bailers after approximately three (3) casing volumes of groundwater was removed from the wells or the wells were purged dry. The samples were collected using the dedicated disposable PVC bailers and carefully poured into laboratory prepared containers, labeled, chilled in an ice chest and delivered under chain-of-custody control to Environmental Lab of Texas (ELOT) located in Odessa, Texas.

The samples were analyzed for BTEX, dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium and sodium), anions and water quality parameters alkalinity, chloride, sulfate, and TDS. On June 27 – 28, 2006, duplicate samples were collected from monitoring wells MW-13 and MW-19 for quality assurance and quality control (QA/QC) purposes. On December 5 – 12, 2006, duplicate samples were collected from monitoring wells MW-5, MW-15, MW-16 and MW-20. Figure 5 and Figure 6 present benzene concentrations in ground water on June 27 – 28, 2006 and December 5 – 12, 2006, respectively. Figure 7 and Figure 8 present chromium concentrations in ground water on June 27 – 28, 2006 and December 5 – 12, 2006, respectively. Figure 9 and Figure 10, present chloride concentrations in ground water on June 27 – 28, 2006 and December 5 – 12, 2006, respectively. Figure 11 and Figure 12, present TDS concentrations in ground water on June 27 – 28, 2006 and December 5 – 12, 2006, respectively. Table 2 presents a summary of the BTEX analysis. Table 3 presents a summary of the dissolved metals analysis. Table 4 presents a summary of the inorganic and TDS analysis. Appendix A presents the laboratory reports.

### 2.2.1 Organic Constituents

During the June event, benzene was reported in samples from wells MW-3 (1.21 mg/L), MW-6 (0.0533 mg/L), MW-11 (5.37 mg/L) and MW-14 (0.639 mg//L) and exceeded the New Mexico Water Quality Control Commission (WQCC) human health standard of 0.01 milligrams per liter (mg/L). During the December event, samples from wells MW-3 (0.13 mg/L), MW-6 (0.335 mg/L), MW-11 (5.11 mg/L) and MW-14 (0.0271 mg/L) exceeded the WQCC human health standard for benzene.

On October 4, 2005, LAI submitted a letter to the OCD, on behalf of Dynegy, which presented the results of reconnaissance to identify potential sources for the benzene in groundwater. The suspected source for the benzene in well MW-3 is spills and releases from the slop oil "shell" tanks located near the southeast corner of the Facility. Targa is nearing completion of a new tank system and will commence soil remediation following decommissioning of the old tanks. The likely source(s) for benzene in well MW-6 is a pit that was located immediately northeast of the well and/or subsurface release from pipelines. The possible source(s) for benzene in well MW-11 is surface or near subsurface releases of hydrocarbons from pipelines located north of the well. On October 4, 2005, LAI identified an area of crude oil straining about 150 feet north of well MW-11 that measured approximately 50 x 50 feet. The apparent source for the crude oil release was a shipping line owned by Link Energy. The suspected source for the benzene in well MW-14 is a pit that was located north of the well.

The extent of the benzene near MW-3, MW-6 and MW-14 has been determined from down gradient wells. However, the extent of the benzene in groundwater in the vicinity of well MW-11 has not been determined.

### 2.2.2 Dissolved Metals

Historically, dissolved metals (barium, chromium and lead) have been detected above the WQCC human health standards in groundwater from wells MW-1, MW-3, MW-6 and MW-10. During the June and December 2006 events, dissolved chromium was reported at 0.194 mg/L and 0.077 mg/L, respectively, in groundwater from well MW-1. The chromium concentrations exceeded the WQCC human health standard of 0.05 mg/L.

During the June and December events, dissolved barium was reported at 3.42 mg/L and 1.78 mg/L, respectively, in samples from well MW-3. The barium concentrations exceeded the WQCC human health standard of 1.0 mg/L. Dissolved barium (1.17 mg/L) was also reported above the WQCC human health standard in groundwater from well MW-11. The source(s) for the barium is not known.

### 2.2.3 Anion and Water Quality Parameters

During the June and December events, chloride exceeded the WQCC domestic water quality standard of 250 mg/L in groundwater from all wells, except MW-6, MW-7, MW-9 and MW-11. Monitoring well MW-8 is considered the background well for the water quality monitoring, and chloride was reported at 588 mg/L in this well during the December event. The highest chloride concentrations occurred in ground water from wells MW-13 and MW-14 located near the east side and southeast corner of the Facility, respectively. During June and December 2006, chloride was reported at 6,890 mg/L and 6,150 mg/L, respectively, in ground water from well MW-13. During June and December 2006, chloride was reported at 13,700 mg/L and 8,770 mg/ L, respectively, in groundwater from well MW-14. Chloride decreased down gradient from wells MW-13 and MW-14, but remained above the WQCC threshold in samples from wells MW-18 (3,100 mg/L and 2,910 mg/L), MW-19 (3,760 mg/L and 4,510 mg/L) and MW-20 (2,110 mg/L and 2,960 mg/L) during June and December 2006.

TDS exceeded the WQCC domestic water quality standard of 1,000 mg/L in groundwater from all wells except MW-9 and MW-11 during the June and December events. The background TDS concentration (1,220 mg/L) reported in groundwater from well MW-8 during the December event exceeded the WQCC threshold. The highest TDS concentrations were reported in samples from wells MW-13 and MW-14 located near the east side and southeast corner of the Facility. The

TDS concentrations were 20,900 mg/L and 11,700 mg/L in groundwater from well MW-13 during June and December, respectively. The TDS concentrations were 23,700 mg/L and 14,000 mg/L in groundwater from well MW-14 during June and December, respectively. TDS decreased down gradient of wells MW-13 and MW-14, but remained above the WQCC threshold at wells MW-18 (6,710 mg/L and 5,750 mg/L), MW-19 (7,880 mg/L and 7,100 mg/L) and MW-20 (6,010 mg/L and 4,820 mg/L).

During the June and December events, sulfate exceeded the WQCC domestic water quality standard of 600 mg/L in groundwater from wells MW-2, MW-4, MW-5, MW-12, MW-13, MW-14, MW-19 and MW-20. The background sulfate concentration (155 mg/L) reported in groundwater from well MW-8 was below the WQCC threshold. The highest sulfate concentrations were reported in samples from wells MW-4 (985 mg/L and 1,230 mg/L), MW-13 (1,280 mg/L and 970 mg/L) and MW-14 (1,190 mg/L). During the December event, sulfate decreased to 311 mg/L in groundwater from well MW-14.

## 3.0 CONCLUSIONS

- During the reporting period, benzene exceeded the WQCC human health standard of 0.01 mg/L in samples from four (4) wells: MW-3 (1.21 mg/L and 0.13 mg/L), MW-6 (0.0533 mg/L and 0.335 mg/L), MW-11 (5.37 mg/L and 5.11 mg/L) and MW-14 (0.639 mg/L and 0.335 mg/L), MW-11 (5.11 mg/L) and MW-14 (0.639 mg/L and 0.0271 mg/L).
- Ethyl benzene (0.0542 mg/L) and xylene (0.0632 mg/L) were also reported in samples from well MW-3, but were below the WQCC human health thresholds of 0.75 mg/L and 0.62 mg/L, respectively.
- During the reporting period, dissolved chromium (0.194 mg/L and 0.077 mg/L) was identified reported above the WQCC human health standard of 0.05 mg/L in groundwater from well MW-1. The chromium impact appears to be isolated to the northwest area of the

Facility, but the source is not known.

- Dissolved barium exceeded the WQCC human health standard of 1.0 mg/L in samples from wells MW-3 (3.42 mg/L and 1.78 mg/L) and MW-11 (1.17 mg/L). No immediate source for the barium is known.
- During the reporting period, chloride and TDS in the background well (MW-8) exceeded the WQCC domestic water quality limitations of 250 mg/L and 1,000 mg/L, respectively. Concentrations of chloride and TDS in down gradient monitoring wells were significantly higher than the background concentration confirming that groundwater has been affected from releases of produced and brine waters.
- The extent of chloride and TDS in groundwater is not currently defined, as concentrations in the down gradient wells (MW-18, MW-19 and MW-20) exceed the background concentration.

## 4.0 RECOMMENDATIONS

Targa will continue monitoring groundwater according to the modified schedule. The samples will be submitted to a National Environmental Laboratory Accreditation Program (NELAP) qualified laboratory using proper preservation and chain of custody (COC) procedures. The OCD will be given approximately 48-hours notification before sampling and the results will be reported to the NMOCD in an annual report to be submitted during the first half of 2008. Any significant changes in groundwater quality will be reported to the OCD as soon as possible.

Targa will initiate soil remediation following decommissioning of the former slop oil tanks according to OCD guidelines ("Guidelines for Remediation of Spills, Leaks and Release, August 13, 1993"). Targa will perform additional investigation, including an electromagnetic (EM) terrain conductivity survey and monitoring wells, if necessary, to assess the extent of the chloride and TDS in groundwater down gradient (southeast) of the Facility. The results of the soil remediation and additional investigation will be submitted to the OCD in the 2008 annual report.

# Tables

**Table 1**
**Monitoring Well Completion and Gauging Summary**
**Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant**
**Lea County, New Mexico**

| Well Information | | | | | | | | | Groundwater Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well ID | Date Drilled | Drilled Depth (bgs) | Well Depth from TOC | Well Diameter (inches) | Surface Elevation | Screen Interval (bgs) | Casing Stickup | TOC Elevation | Date Gauged | Depth to Fluid | Depth to Water | Corrected Water Elevation |
| MW-1 | 4/9/2002 | 60 | 62.05 | 2 | 3,416.39 | 40.17 - 59.79 | 2.05 | 3,418.44 | 11/30/2005 | -- | 50.06 | 3,368.38 |
| | | | | | | | | | 1/19/2006 | -- | 50.08 | 3,368.36 |
| | | | | | | | | | 6/26/2006 | -- | 50.23 | 3,368.21 |
| | | | | | | | | | 12/4/2006 | -- | 49.90 | 3,368.54 |
| MW-2 | 4/9/2002 | 40 | 42.14 | 2 | 3,392.80 | 19.17 - 38.79 | 2.14 | 3,394.94 | 11/30/2005 | -- | 26.33 | 3,368.61 |
| | | | | | | | | | 1/19/2006 | -- | 26.35 | 3,368.59 |
| | | | | | | | | | 6/26/2006 | -- | 23.27 | 3,371.67 |
| | | | | | | | | | 12/4/2006 | -- | -- | -- |
| MW-3 | 4/9/2002 | 40 | 42.49 | 2 | 3,395.97 | 19.47 - 39.09 | 2.49 | 3,398.46 | 11/30/2005 | -- | 24.64 | 3,373.82 |
| | | | | | | | | | 1/19/2006 | -- | 24.97 | 3,373.49 |
| | | | | | | | | | 6/26/2006 | sheen | 26.21 | 3,372.25 |
| | | | | | | | | | 12/4/2006 | -- | 25.93 | 3,372.53 |
| MW-4 | 8/6/2002 | 35 | 37.48 | 2 | 3,385.73 | 14.87 - 34.49 | 2.48 | 3,388.21 | 11/30/2005 | -- | 18.27 | 3,369.94 |
| | | | | | | | | | 1/19/2006 | -- | 18.62 | 3,369.59 |
| | | | | | | | | | 6/26/2006 | -- | 19.73 | 3,368.48 |
| | | | | | | | | | 12/4/2006 | -- | 18.85 | 3,369.36 |
| MW-5 | 8/6/2002 | 40 | 42.55 | 2 | 3,394.29 | 19.87 - 39.49 | 2.55 | 3,396.84 | 11/30/2005 | -- | 28.75 | 3,368.09 |
| | | | | | | | | | 1/19/2006 | -- | 28.81 | 3,368.03 |
| | | | | | | | | | 6/26/2006 | -- | 29.20 | 3,367.64 |
| | | | | | | | | | 12/4/2006 | -- | 29.01 | 3,367.83 |
| MW-6 | 8/6/2002 | 52 | 54.59 | 2 | 3,401.15 | 31.87 - 51.49 | 2.59 | 3,403.74 | 11/30/2005 | -- | 38.73 | 3,365.01 |
| | | | | | | | | | 1/19/2006 | -- | 38.71 | 3,365.03 |
| | | | | | | | | | 6/26/2006 | -- | 38.81 | 3,364.93 |
| | | | | | | | | | 12/4/2006 | -- | 38.56 | 3,365.18 |
| MW-7 | 8/7/2002 | 60 | 62.46 | 2 | 3,417.25 | 39.87 - 59.49 | 2.46 | 3,419.71 | 11/30/2005 | -- | 52.56 | 3,367.15 |
| | | | | | | | | | 1/19/2006 | -- | 52.46 | 3,367.25 |
| | | | | | | | | | 6/26/2006 | -- | 52.43 | 3,367.28 |
| | | | | | | | | | 12/4/2006 | -- | 52.21 | 3,367.50 |

**Table 1**
**Monitoring Well Completion and Gauging Summary**
**Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant**
**Lea County, New Mexico**

| Well Information | | | | | | | | | Groundwater Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well ID | Date Drilled | Drilled Depth (bgs) | Well Depth from TOC | Well Diameter (inches) | Surface Elevation | Screen Interval (bgs) | Casing Stickup | TOC Elevation | Date Gauged | Depth to Fluid | Depth to Water | Corrected Water Elevation |
| MW-8 | 8/7/2002 | 75 | 77.35 | 2 | 3,428.66 | 54.87 - 74.49 | 2.35 | 3,431.01 | 11/30/2005 | -- | 51.47 | 3,379.54 |
| | | | | | | | | | 1/19/2006 | -- | 51.68 | 3,379.33 |
| | | | | | | | | | 6/26/2006 | -- | 62.01 | 3,369.00 |
| | | | | | | | | | 12/4/2006 | -- | 61.86 | 3,369.15 |
| MW-9 | 8/7/2002 | 60 | 62.45 | 2 | 3,418.14 | 39.87 - 59.49 | 2.45 | 3,420.59 | 11/30/2005 | -- | 51.47 | 3,369.12 |
| | | | | | | | | | 1/19/2006 | -- | 51.68 | 3,368.91 |
| | | | | | | | | | 6/26/2006 | -- | 51.21 | 3,369.38 |
| | | | | | | | | | 12/4/2006 | -- | 51.08 | 3,369.51 |
| MW-10 | 8/9/002 | 47 | 49.42 | 2 | 3,403.31 | 26.87 - 46.49 | 2.42 | 3,405.73 | 11/30/2005 | -- | 36.52 | 3,369.21 |
| | | | | | | | | | 1/19/2006 | -- | 36.47 | 3,369.26 |
| | | | | | | | | | 6/26/2006 | -- | 36.27 | 3,369.46 |
| | | | | | | | | | 12/4/2006 | -- | 36.14 | 3,369.59 |
| MW-11 | 8/8/2002 | 47 | 49.51 | 2 | 3,395.51 | 30.87 - 50.49 | 2.50 | 3,398.01 | 11/30/2005 | -- | 30.84 | 3,367.17 |
| | | | | | | | | | 1/19/2006 | -- | 30.77 | 3,367.24 |
| | | | | | | | | | 6/26/2006 | -- | 30.62 | 3,367.39 |
| | | | | | | | | | 12/4/2006 | -- | 30.50 | 3,367.51 |
| MW-12 | 6/3/2003 | 45 | 46.97 | 2 | 3,394.81 | 25.00 - 44..49 | 1.97 | 3,396.78 | 11/30/2005 | -- | 28.38 | 3,368.40 |
| | | | | | | | | | 1/19/2006 | -- | 28.35 | 3,368.43 |
| | | | | | | | | | 6/26/2006 | -- | 28.60 | 3,368.18 |
| | | | | | | | | | 12/4/2006 | -- | 28.47 | 3,368.31 |
| MW-13 | 6/3/2003 | 35 | 36.87 | 2 | 3,385.82 | 25.00 - 34.49 | 1.87 | 3,387.69 | 11/30/2005 | -- | 22.91 | 3,364.78 |
| | | | | | | | | | 1/19/2006 | -- | 23.21 | 3,364.48 |
| | | | | | | | | | 6/26/2006 | -- | 25.47 | 3,362.22 |
| | | | | | | | | | 12/4/2006 | -- | 24.43 | 3,363.26 |
| MW-14 | 6/3/2003 | 47 | 49.33 | 2 | 3,379.66 | 27.00 - 46.49 | 2.33 | 3,381.99 | 11/30/2005 | -- | 30.07 | 3,351.92 |
| | | | | | | | | | 1/19/2006 | -- | 30.09 | 3,351.90 |
| | | | | | | | | | 6/26/2006 | -- | 30.48 | 3,351.51 |
| | | | | | | | | | 12/4/2006 | -- | 30.14 | 3,351.85 |

**Table 1**
**Monitoring Well Completion and Gauging Summary**
**Targa Midstream Services, L.P., Eunice Middle Plant Gas Plant**
**Lea County, New Mexico**

| Well Information | | | | | | | | | Groundwater Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well ID | Date Drilled | Drilled Depth (bgs) | Well Depth from TOC | Well Diameter (inches) | Surface Elevation | Screen Interval (bgs) | Casing Stickup | TOC Elevation | Date Gauged | Depth to Fluid | Depth to Water | Corrected Water Elevation |
| MW-15 | 6/4/2003 | 45 | 46.94 | 2 | 3,394.67 | 25.00 - 44.49 | 1.94 | 3,396.61 | 11/30/2005 | -- | 37.95 | 3,358.66 |
| | | | | | | | | | 1/19/2006 | -- | 37.90 | 3,358.71 |
| | | | | | | | | | 6/26/2006 | -- | 37.87 | 3,358.74 |
| | | | | | | | | | 12/4/2006 | -- | 37.74 | 3,358.87 |
| MW-16 | 6/4/2003 | 45 | 47.03 | 2 | 3,402.48 | 25.00 - 44.49 | 2.03 | 3,404.51 | 11/30/2005 | -- | 40.96 | 3,363.55 |
| | | | | | | | | | 1/19/2006 | -- | 40.85 | 3,363.66 |
| | | | | | | | | | 6/26/2006 | -- | 40.89 | 3,363.62 |
| | | | | | | | | | 12/4/2006 | -- | 40.73 | 3,363.78 |
| MW-17 | 12/19/2005 | 35 | 37.02 | 2 | 3,372.62 | 19.49 - 34.49 | 2.02 | 3,374.64 | 1/19/2006 | -- | DRY | -- |
| | | | | | | | | | 6/26/2006 | -- | DRY | -- |
| | | | | | | | | | 12/4/2006 | -- | DRY | -- |
| MW-18 | 12/19/2005 | 35 | 37.15 | 2 | 3,373.02 | 19.49 - 34.49 | 2.15 | 3,375.17 | 1/19/2006 | -- | 28.21 | 3,346.96 |
| | | | | | | | | | 6/26/2006 | -- | 28.69 | 3,346.48 |
| | | | | | | | | | 12/4/2006 | -- | 28.59 | 3,346.58 |
| MW-19 | 10/31/2005 | 38 | 40.00 | 2 | 3,378.55 | 23.00 - 37.49 | 2.46 | 3,381.01 | 11/30/2005 | -- | 31.82 | 3,349.19 |
| | | | | | | | | | 1/19/2006 | -- | 31.73 | 3,349.28 |
| | | | | | | | | | 6/26/2006 | -- | 31.54 | 3,349.47 |
| | | | | | | | | | 12/4/2006 | -- | 31.77 | 3,349.24 |
| MW-20 | 10/31/2005 | 48 | 50.00 | 2 | 3,387.68 | 33.00 - 47.41 | 2.41 | 3,390.09 | 11/30/2005 | -- | 38.57 | 3,351.52 |
| | | | | | | | | | 1/19/2006 | -- | 38.47 | 3,351.62 |
| | | | | | | | | | 6/26/2006 | -- | 38.30 | 3,351.79 |
| | | | | | | | | | 12/4/2006 | -- | 38.28 | 3,351.81 |

*Notes*
All values are in feet, unless otherwise noted.
bgs - below ground surface
TOC - top of casing
Elevations are above mean sea level *(3365)* referenced to 1984 Geodetic Datum.
Wells drilled and installed by Scarbrough Drilling, Inc., Lamesa, Texas. Schedule 40 threaded PVC casing and screen set.

**Table 2**
**Summary of BTEX Analysis of Groundwater Samples**
**Targa Midstream Services, L.P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

| Well Number | Sample Date | Benzene | Toluene | Ethyl benzene | Total Xylenes | Total BTEX |
|---|---|---|---|---|---|---|
| **Standard (WQCC)** | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-1 | 11/30/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 06/27/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/05/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-2 | 06/27/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/02/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-3 | 12/02/05 | 3.78 | 0.0117 | 1.52 | 1.4502 | 6.76190 |
| | 06/27/06 | 1.21 | <0.0500 | 0.475 | 0.2660 | 1.951 |
| | 12/06/06 | 0.130 | 0.0116 | 0.0542 | 0.0632 | 0.25900 |
| MW-4 | 12/02/05 | 0.00478 | <0.001 | 0.00348 | 0.00256 | 0.01082 |
| | 06/27/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/06/06 | 0.000519 | 0.000746 | 0.000217 | 0.002166 | 0.003648 |
| MW-5 | 12/02/05 | 0.00108 | <0.001 | 0.000992 | 0.000936 | 0.003008 |
| | 06/27/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/12/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-6 | 12/02/05 | 0.684 | 0.00279 | 0.109 | <0.02 | 0.79579 |
| | 06/27/06 | 0.0533 | <0.001 | <0.001 | <0.002 | 0.05330 |
| | 12/08/06 | 0.335 | 0.0025 | 0.060 | 0.00307 | 0.40027 |
| MW-7 | 12/06/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/05/06 | 0.000989 | 0.0154 | 0.006 | 0.039 | 0.06162 |
| MW-8 | 12/06/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/05/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-9 | 12/06/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/05/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-10 | 12/06/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/05/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-11 | 12/06/05 | 4.87 | <0.100 | <0.100 | <0.200 | 4.87 |
| | 06/28/07 | 5.37 | <0.05 | <0.05 | 0.0586 | 5.4286 |
| | 12/05/06 | 5.11 | <0.001 | <0.001 | 0.055 | 5.2 |
| MW-12 | 12/06/05 | 0.023 | 0.000271 | 0.000658 | 0.000900 | 0.024829 |
| | 06/28/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/08/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-13 | 12/07/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 06/27/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/06/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-14 | 12/07/05 | 0.334 | <0.01 | <0.01 | <0.02 | 0.3340 |
| | 06/27/06 | 0.639 | <0.001 | <0.001 | <0.002 | 0.639 |
| | 12/06/06 | 0.0271 | 0.00707 | 0.0004 | 0.0258 | 0.0604 |
| MW-15 | 12/07/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/08/06 | <0.001 | 0.00121 | 0.000355 | 0.002667 | 0.004232 |
| MW-16 | 12/07/05 | 0.00088 | <0.001 | <0.001 | <0.002 | 0.00088 |
| | 12/12/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-18 | 01/19/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 06/28/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/08/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| MW-19 | 12/07/05 | 0.000812 | <0.001 | <0.001 | <0.002 | 0.000812 |
| | 06/28/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/08/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |

**Table 2**
**Summary of BTEX Analysis of Groundwater Samples**
**Targa Midstream Services, L.P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

| Well Number | Sample Date | Benzene | Toluene | Ethyl benzene | Total Xylenes | Total BTEX |
|---|---|---|---|---|---|---|
| **Standard (WQCC)** | | **0.01** | **0.75** | **0.75** | **0.62** | |
| MW-20 | 12/07/05 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 06/28/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| | 12/08/06 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-7) | 12/6/2005 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-12) | 12/6/2005 | 0.0193 | 0.000273 | 0.000722 | 0.00115 | 0.021445 |
| Duplicate (MW-14) | 12/7/2005 | 0.334 | <0.010 | <0.010 | <0.010 | 0.334 |
| Duplicate (MW-13) | 6/27/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-19) | 6/28/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-20) | 12/8/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-15) | 12/8/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-5) | 12/12/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |
| Duplicate (MW-16) | 12/12/2006 | <0.001 | <0.001 | <0.001 | <0.002 | <0.005 |

Notes:
Analyses of other samples conducted by Environmental Lab of Texas, Ltd., Odessa, Texas
As of June 2007, analyses performed by SevernTrent Laboratories, Corpus Christi, Texas
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: No data available

**Table 3**
**Summary of Dissolved Metals Analyses of Groundwater Samples**
***Targa Midstream Services, L. P., Eunice Middle Gas Plant***
**Lea County, New Mexico**

| Monitor Well | Sample Date | Arsenic | Barium | Cadmium | Calcium | Chromium | Lead | Magnesium | Mercury | Potassium | Selenium | Silver | Sodium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Standard (WQCC)** | | **0.1** | **1.0** | **0.01** | | **0.05** | **0.05** | | **0.002** | | **0.05** | **0.05** | |
| MW-1 | 11/30/05 | <0.020 | 0.101 | <0.0100 | 274 | 0.295 | 0.00679 | 120 | 0.0001 | 18.9 | <0.0525 | <0.0140 | 370 |
| | 06/27/06 | 0.0071 | 0.276 | <0.00692 | 288 | 0.194 | <0.00296 | 124 | 0.0001301 | 13.0 | 0.0145 | <0.00405 | 231 |
| | 12/05/06 | 0.0116 | 0.037 | <0.003 | 360 | 0.077 | <0.000692 | 96.2 | <0.00250 | 13.4 | 0.0100 | 0.0104 | 350 |
| MW-2 | 12/02/05 | <0.020 | 0.0438 | <0.01 | 297 | <0.0125 | 0.0136 | 106 | 0.00008 | 17.8 | 0.00802 | <0.0140 | 619 |
| | 06/27/06 | 0.0386 | 0.0245 | <0.00692 | 296 | <0.00698 | <0.00296 | 123 | 0.00018 | 16.3 | 0.06560 | <0.00405 | 434 |
| MW-3 | 12/02/05 | 0.0223 | 3.040 | <0.0100 | 58.2 | <0.0125 | <0.0300 | 164 | <0.0005 | 12.9 | <0.0525 | 0.00457 | 430 |
| | 06/27/06 | 0.0948 | 3.420 | <0.00692 | 169 | <0.00698 | <0.00296 | 176 | 0.00006 | 13.7 | <0.0300 | <0.00405 | 514 |
| | 12/06/06 | 0.107 | 1.780 | <0.0150 | 288 | 0.0012 | <0.000692 | 246 | <0.00025 | 23.6 | 0.003 | 0.000336 | 707 |
| MW-4 | 12/02/05 | <0.020 | 0.0448 | <0.010 | 23.9 | <0.0125 | <0.030 | 26.6 | 0.00004 | 27.8 | 0.0363 | <0.014 | 1,190 |
| | 06/27/06 | 0.0351 | 0.0228 | <0.00692 | 85 | 0.0068 | <0.00296 | 32.8 | 0.00027 | 17.4 | 0.0402 | <0.00405 | 954 |
| | 12/06/06 | 0.0405 | 0.0297 | <0.0150 | 142 | 0.0162 | <0.000692 | 28.1 | <0.00025 | 22.8 | 0.1080 | <.00148 | 1,060 |
| MW-5 | 12/02/05 | <0.020 | 0.1240 | <0.010 | 59.9 | <0.0125 | <0.030 | 74.6 | <0.0005 | 66.3 | <0.0525 | <0.014 | 957 |
| | 06/27/06 | 0.0203 | 0.0603 | <0.00692 | 122 | <0.00698 | <0.00296 | 54.2 | 0.00008 | 51.6 | <0.0300 | <0.00405 | 1040 |
| | 12/12/06 | 0.0267 | 0.0409 | <0.0150 | 90.3 | 0.00114 | <0.00346 | 33.7 | <0.00025 | 38.2 | 0.0076 | 0.000551 | 1110 |
| MW-6 | 12/02/05 | <0.020 | 0.194 | <0.010 | 18 | 0.054 | 0.1810 | 43.2 | 0.00004 | 12.4 | <0.0525 | <0.0140 | 395 |
| | 06/27/06 | 0.0417 | 0.122 | <0.00692 | 45.5 | <0.00698 | <0.00296 | 30.6 | 0.00014 | 8.9 | <0.0300 | <0.00405 | 376 |
| | 12/08/06 | 0.0353 | 0.144 | <0.0150 | 95.2 | <0.00202 | <0.00346 | 9.2 | <0.00025 | 47.6 | 0.005 | <0.00148 | 385 |
| MW-7 | 12/06/05 | <0.020 | 0.0590 | 0.002 | 141 | <0.0125 | <0.0300 | 52.4 | 0.00004 | 11 | <0.0525 | <0.0140 | 200 |
| | 12/05/06 | 0.0101 | 0.0510 | <0.003 | 141 | 0.00183 | <0.000692 | 76.4 | <0.00025 | 10 | 0.0088 | 0.000163 | 280 |
| MW-8 | 12/06/05 | <0.020 | 0.118 | <0.010 | 103 | 0.0325 | 0.0173 | 60.4 | 0.00006 | 10.4 | <0.0525 | <0.0140 | 214 |
| | 12/05/06 | 0.0156 | 0.067 | <0.003 | 141 | 0.0011 | <0.000692 | 76.4 | <0.00025 | 9.8 | 0.0092 | 0.000575 | 280 |
| MW-9 | 12/06/05 | <0.020 | 0.1130 | <0.0100 | 35.2 | <0.0125 | 0.0152 | 34.9 | 0.00008 | 5.59 | <0.0525 | 0.00566 | 99.4 |
| | 12/05/06 | 0.0114 | 0.0563 | <0.003 | 71.8 | 0.001 | <0.000692 | 31.9 | <0.00025 | 5.12 | 0.00091 | 0.000226 | 79.2 |
| MW-10 | 12/06/05 | <0.020 | 0.467 | <0.010 | 272 | <0.0125 | 0.2090 | 61.0 | 0.00004 | 4.69 | <0.0525 | <0.0140 | 60.8 |
| | 12/05/06 | 0.00934 | 0.303 | <0.003 | 280 | 0.000368 | <0.000692 | 76.5 | <0.00025 | 4.31 | 0.0038 | 0.000464 | 44.7 |
| MW-11 | 12/06/05 | <0.020 | 0.745 | <0.010 | 41.4 | <0.0125 | 0.00959 | 23.5 | 0.00004 | 4.36 | <0.0525 | <0.0140 | 77.2 |
| | 06/28/06 | 0.00348 | 0.583 | <0.00692 | 26.4 | <0.00698 | <0.00296 | 15.9 | 0.0001 | 3.04 | <0.0300 | <0.00405 | 51.1 |
| | 12/05/06 | 0.0127 | 1.17 | <0.003 | 34.9 | 0.000387 | <0.000692 | 21.1 | <0.00025 | 3.15 | 0.001 | <0.000296 | 51.9 |
| MW-12 | 12/06/05 | <0.020 | 0.077 | <0.010 | 354 | <0.0125 | <0.030 | 191 | 0.00006 | 14.5 | <0.0525 | <0.0140 | 514 |
| | 06/28/06 | 0.0116 | 0.046 | <0.00692 | 339 | <0.00698 | <0.00296 | 164 | 0.00027 | 13.6 | 0.0145 | <0.00405 | 520 |
| | 12/08/06 | 0.0195 | 0.047 | <0.0150 | 680 | <0.00202 | <0.000692 | 252.0 | <0.00025 | 13.6 | 0.020 | 0.00151 | 705 |

**Table 3**
**Summary of Dissolved Metals Analyses of Groundwater Samples**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
***Lea County, New Mexico***

| Monitor Well | Sample Date | Arsenic | Barium | Cadmium | Calcium | Chromium | Lead | Magnesium | Mercury | Potassium | Selenium | Silver | Sodium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Standard (WQCC)** | | **0.1** | **1.0** | **0.01** | | **0.05** | **0.05** | | **0.002** | | **0.05** | **0.05** | |
| MW-13 | 12/07/05 | <0.020 | 0.191 | <0.010 | 2,570 | <0.0125 | 0.0329 | 805 | 0.00006 | 33.1 | <0.0525 | <0.0140 | 1,210 |
| | 06/27/06 | 0.0157 | 0.108 | <0.00692 | 2,170 | <0.00698 | <0.00296 | 702 | 0.00009 | 30.3 | 0.0267 | <0.00405 | 860 |
| | 12/06/06 | 0.0325 | 0.117 | <0.0150 | 2,500 | <0.00202 | <0.000692 | 978 | <0.00025 | 40.2 | 0.0246 | 0.00121 | 1,110 |
| MW-14 | 12/07/05 | <0.020 | 0.281 | <0.010 | 1,060 | <0.0125 | 0.0122 | 654 | <0.0005 | 272 | <0.0525 | <0.0140 | 15,200 |
| | 06/27/06 | 0.0306 | 0.232 | <0.00692 | 836 | <0.00698 | <0.00296 | 446 | <0.00025 | 99 | <0.0300 | <0.00405 | 6,480 |
| | 12/06/06 | 0.0339 | 0.238 | <0.0150 | 882 | 0.000826 | <0.000692 | 394 | <0.00025 | 80 | 0.000850 | 0.00102 | 5,350 |
| MW-15 | 12/07/05 | <0.020 | 0.0947 | <0.010 | 55.2 | 0.0112 | 0.00574 | 37.9 | 0.00004 | 32.5 | <0.0525 | <0.0140 | 819 |
| | 12/08/06 | 0.0197 | 0.0471 | <0.0150 | 175 | 0.0356 | <0.00346 | 103 | <0.00025 | 26.8 | 0.0089 | <0.00148 | 773 |
| MW-16 | 12/07/05 | <0.020 | 0.346 | <0.010 | 73.9 | <0.0125 | <0.0300 | 56.6 | 0.0001 | 13.4 | <0.0525 | <0.0140 | 456 |
| | 12/12/06 | 0.0125 | 0.255 | <0.0150 | 171 | <0.00202 | <0.00346 | 46.2 | <0.00025 | 13.0 | 0.0024 | 0.00596 | 760 |
| MW-18 | 01/19/06 | 0.0213 | 0.0952 | 0.00382 | 412 | 0.00370 | 0.0117 | 210 | <0.001 | 23.7 | <0.0210 | <0.0056 | 1,640 |
| | 06/28/06 | 0.0106 | 0.0757 | <0.00692 | 386 | <0.00698 | <0.00296 | 177 | 0.00009 | 22.3 | <0.0300 | 0.00191 | 1,690 |
| | 12/08/06 | 0.0149 | 0.0794 | <0.0150 | 669 | 0.00116 | <0.00346 | 233 | <0.00025 | 29.7 | 0.0059 | 0.00134 | 1,640 |
| MW-19 | 12/07/05 | <0.020 | 0.0598 | <0.010 | 439 | 0.00173 | <0.030 | 204 | 0.00036 | 23.1 | <0.0525 | <0.0140 | 1,460 |
| | 06/28/06 | 0.0155 | 0.0367 | <.00692 | 465 | 0.00460 | <0.00296 | 232 | 0.00011 | 24.9 | <0.0300 | <0.00405 | 1,540 |
| | 12/08/06 | 0.021 | 0.0415 | <0.0150 | 984 | 0.00413 | <0.00346 | 700 | <0.00025 | 38.6 | 0.0080 | 0.00088 | 2,480 |
| MW-20 | 12/07/05 | <0.020 | 0.066 | <0.0100 | 27.7 | <0.0125 | <0.0300 | 36.9 | 0.00004 | 80.6 | <0.0525 | <0.0140 | 2,760 |
| | 06/28/06 | <0.0170 | 0.036 | <0.00692 | 35.2 | 0.00386 | <0.00296 | 20.9 | 0.0002 | 63.2 | 0.0101 | <0.00405 | 2,180 |
| | 12/08/06 | 0.0562 | 0.0205 | <0.0150 | 31.6 | 0.00516 | <0.00346 | 20.4 | <0.00025 | 61.2 | 0.0084 | 0.00087 | 2,910 |
| Duplicate (MW-7) | 12/06/05 | <0.020 | 0.0801 | <0.010 | 144.0 | <0.0125 | <0.030 | 45.0 | 0.00004 | 10.8 | <0.0525 | <0.0140 | 215 |
| Duplicate (MW-12) | 12/06/05 | <0.020 | 0.0784 | <0.010 | 372 | <0.0125 | <0.030 | 194 | 0.00004 | 14 | <0.0525 | <0.0140 | 554 |
| Duplicate (MW-14) | 12/07/05 | <0.020 | 0.229 | <0.010 | 1,010 | <0.0125 | 0.0235 | 660 | <0.0005 | 291 | 0.0433 | <0.0140 | 14,800 |
| Duplicate (MW-13) | 06/27/06 | 0.00823 | 0.105 | <0.00692 | 2,020 | <0.00698 | <0.00296 | 766.00 | 0.00013 | 29.1 | 0.0196 | <0.00405 | 910 |
| Duplicate (MW-19) | 06/28/06 | 0.0144 | 0.041 | <0.00692 | 496.0 | 0.0058 | <0.00296 | 237.00 | 0.00009 | 25.6 | 0.0157 | <0.00405 | 1,520 |
| Duplicate (MW-20) | 12/08/06 | 0.0567 | 0.0208 | <0.0150 | 32.6 | 0.004 | <0.00346 | 16.70 | <0.00025 | 55.0 | 0.00958 | 0.00107 | 2,780 |

**Table 3**
**Summary of Dissolved Metals Analyses of Groundwater Samples**
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Lea County, New Mexico**

| Monitor Well | Sample Date | Arsenic | Barium | Cadmium | Calcium | Chromium | Lead | Magnesium | Mercury | Potassium | Selenium | Silver | Sodium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Standard (WQCC)** | | **0.1** | **1.0** | **0.01** | | **0.05** | **0.05** | | **0.002** | | **0.05** | **0.05** | |
| Duplicate (MW-15) | 12/08/06 | 0.0206 | 0.0476 | <0.0150 | 190 | 0.034 | <0.00346 | 112 | <0.00025 | 27.5 | 0.00972 | 0.000361 | 1,070 |
| Duplicate (MW-5) | 12/12/06 | 0.0259 | 0.044 | <0.00346 | 130 | 0.000 | <0.00148 | 44.80 | <0.00025 | 39.4 | 0.0123 | 0.00522 | 1,200 |
| Duplicate (MW-16) | 12/12/06 | 0.0114 | 0.288 | <0.000692 | 177 | 0.000824 | <0.000296 | 52 | <0.00025 | 14 | 0.00115 | 0.000322 | 728 |

Notes:
Analyses of other samples conducted by Environmental Lab of Texas, Ltd., Odessa, Texas
As of June 2007, analyses performed by SevernTrent Laboratories, Corpus Christi, Texas
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: No data available

Table 4
Summary of Inorganic Analysis of Groundwater Samples from Monitoring Wells
Targa Midstream Services, L. P., Eunice Middle Gas Plant
Eunice, Lea County, New Mexico

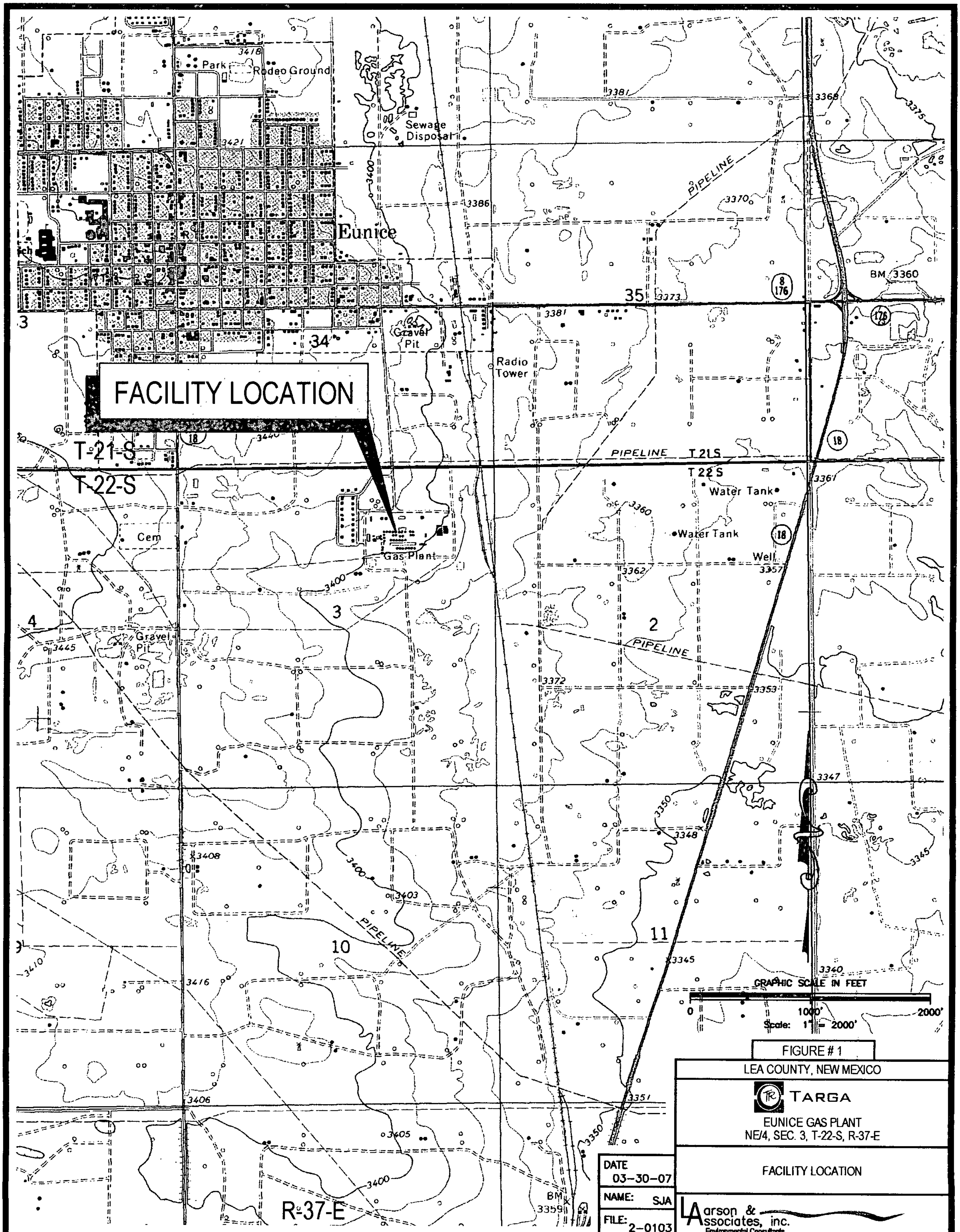
| Monitor Well | Sample Date | Alkalinity | Chloride | Sulfate | TDS |
|---|---|---|---|---|---|
| Standard (WQCC) | | | 250 | 600 | 1,000 |
| MW-1 | 11/30/05 | 292 | 828 | 400 | 2,550 |
| | 06/27/06 | 250 | 808 | 406 | 2,550 |
| | 12/05/06 | 392 | 662 | 402 | 1,920 |
| MW-2 | 12/02/05 | 260 | 531 | 795 | 2,330 |
| | 06/27/06 | 314 | 598 | 913 | 3,230 |
| MW-3 | 12/02/05 | 704 | 915 | 42.5 | 2,260 |
| | 06/27/06 | 656 | 1,190 | 117.0 | 2,970 |
| | 12/06/06 | 680 | 1,340 | 486.0 | 2,700 |
| MW-4 | 12/02/05 | 724 | 292 | 1,050 | 3,460 |
| | 06/27/06 | 732 | 374 | 985 | 3,370 |
| | 12/06/06 | 930 | 259 | 1,230 | 3,100 |
| MW-5 | 12/02/05 | 774 | 568 | 655 | 2,840 |
| | 06/27/06 | 1060 | 682 | 800 | 3,830 |
| | 12/12/06 | 680 | 565 | 960 | 2,750 |
| MW-6 | 12/02/05 | 660 | 241 | 105 | 1,330 |
| | 06/27/06 | 592 | 279 | 115 | 1,420 |
| | 12/08/06 | 710 | 244 | 131 | 1,370 |
| MW-7 | 12/06/05 | 328 | 191 | 215 | 1,230 |
| | 12/05/06 | 388 | 202 | 258 | 1,150 |
| MW-8 | 12/06/05 | 212 | 385 | 133 | 1,000 |
| | 12/05/06 | 260 | 588 | 155 | 1,220 |
| MW-9 | 12/06/05 | 340 | 48.6 | 68.4 | 564 |
| | 12/05/06 | 376 | 45.7 | 63.5 | 564 |
| MW-10 | 12/06/05 | 114 | 444 | 73.1 | 1,320 |
| | 12/05/06 | 160 | 529 | 65.6 | 1,520 |
| MW-11 | 12/06/05 | 206 | 42.4 | 16.0 | 326 |
| | 06/27/06 | 222 | 46.7 | 19.4 | 412 |
| | 12/05/06 | 262 | 29.0 | 5.86 | 338 |
| MW-12 | 12/06/05 | 156 | 1,170 | 418 | 3,020 |
| | 06/28/06 | 198 | 1,490 | 573 | 3,800 |
| | 12/08/06 | 280 | 1,540 | 709 | 3,240 |
| MW-13 | 12/07/05 | 194 | 5,950 | 1,100 | 12,700 |
| | 06/17/06 | 194 | 6,890 | 1,280 | 20,900 |
| | 12/06/06 | 320 | 6,150 | 970 | 11,700 |
| MW-14 | 12/07/05 | 444 | 22,800 | 1,250 | 40,000 |
| | 06/27/06 | 442 | 13,700 | 1,190 | 23,700 |
| | 12/06/06 | 550 | 8,770 | 311 | 14,000 |
| MW-15 | 12/07/05 | 512 | 746 | 381 | 2,430 |
| | 12/08/06 | 440 | 834 | 539 | 2,600 |
| MW-16 | 12/07/05 | 502 | 420 | 67.6 | 1,750 |
| | 12/12/06 | 590 | 863 | 83.3 | 1,820 |
| MW-18 | 01/19/06 | 414 | 2,430 | 350 | 5,610 |
| | 06/28/06 | 434 | 3,100 | 453 | 6,710 |
| | 12/08/06 | 490 | 2,910 | 300 | 5,750 |
| MW-19 | 12/07/05 | 264 | 2,730 | 552 | 5,900 |
| | 06/28/06 | 267 | 3,760 | 638 | 7,880 |
| | 12/08/06 | 390 | 4,510 | 593 | 7,100 |
| MW-20 | 12/07/05 | 644 | 3,110 | 460 | 6,860 |
| | 06/28/06 | 560 | 2,960 | 684 | 6,010 |
| | 12/08/06 | 580 | 2,110 | 564 | 4,820 |

**Table 4**
***Summary of Inorganic Analysis of Groundwater Samples from Monitoring Wells***
**Targa Midstream Services, L. P., Eunice Middle Gas Plant**
**Eunice, Lea County, New Mexico**

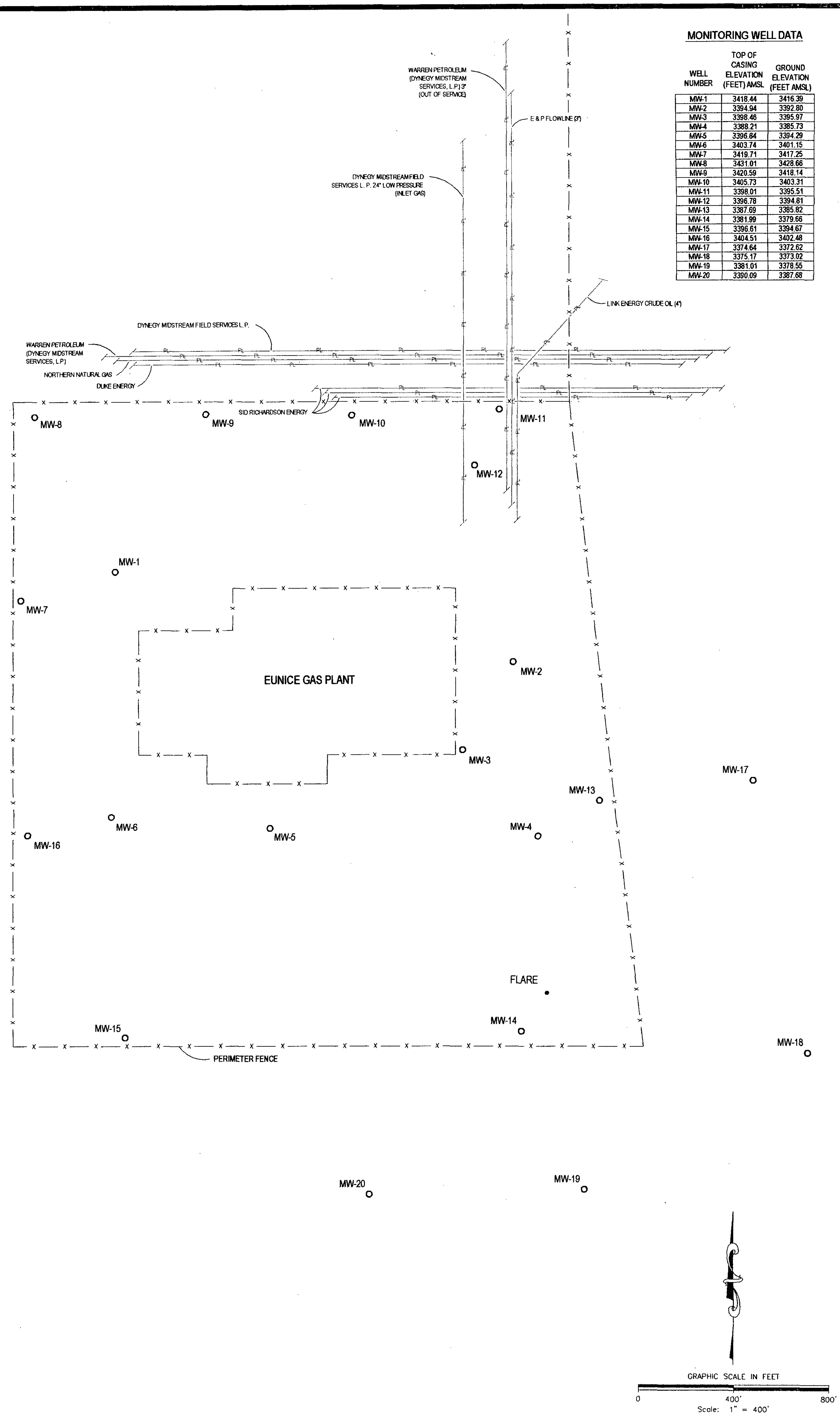
| Monitor Well | Sample Date | Alkalinity | Chloride | Sulfate | TDS |
|---|---|---|---|---|---|
| **Standard (WQCC)** | | | **250** | **600** | **1,000** |
| Duplicate (MW-7) | 12/06/05 | 292 | 185 | 210.0 | 1,300 |
| Duplicate (MW-12) | 12/06/05 | 156 | 1,200 | 445.0 | 3,290 |
| Duplicate (MW-14) | 12/07/05 | 472 | 25,800 | 1,140.0 | 43,300 |
| Duplicate (MW-13) | 06/27/06 | 197 | 6,960 | 1,300 | 19,600 |
| Duplicate (MW-19) | 06/28/06 | 272 | 3,780 | 638.0 | 7,580 |
| Duplicate (MW-20) | 12/08/06 | 600 | 2,020 | 547.0 | 4,720 |
| Duplicate (MW-15) | 12/08/06 | 520 | 769 | 465.0 | 2,340 |
| Duplicate (MW-5) | 12/12/06 | 620 | 546 | 928.0 | 3,110 |
| Duplicate (MW-16) | 12/12/06 | 530 | 997 | 114.0 | 2,290 |

Notes:
Analyses of other samples conducted by Environmental Lab of Texas, Ltd., Odessa, TX
As of June 2007, analyses performed by SevernTrent Laboratories, Corpus Christi, TX
All results reported in milligrams per liter (mg/L)
1. <: Concentration below test method detection limit
2. --: *No data available*

**Figures**



FACILITY LOCATION
Eunice
Park
Rodeo Ground
Sewage Disposal
Gravel Pit
Radio Tower
PIPELINE
T-21-S
T-22-S
T 21 S
T 22 S
Water Tank
Cem
Gas Plant
Well
BM 3360
R-37-E
GRAPHIC SCALE IN FEET
0
1000'
2000'
Scale: 1" = 2000'
FIGURE # 1
LEA COUNTY, NEW MEXICO
TARGA
EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E
FACILITY LOCATION
DATE 03-30-07
NAME: SJA
FILE: 2-0103
Larson & Associates, inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

LEGEND

MW-1 o MONITORING WELL LOCATION

FIGURE # 2

LEA COUNTY, NEW MEXICO

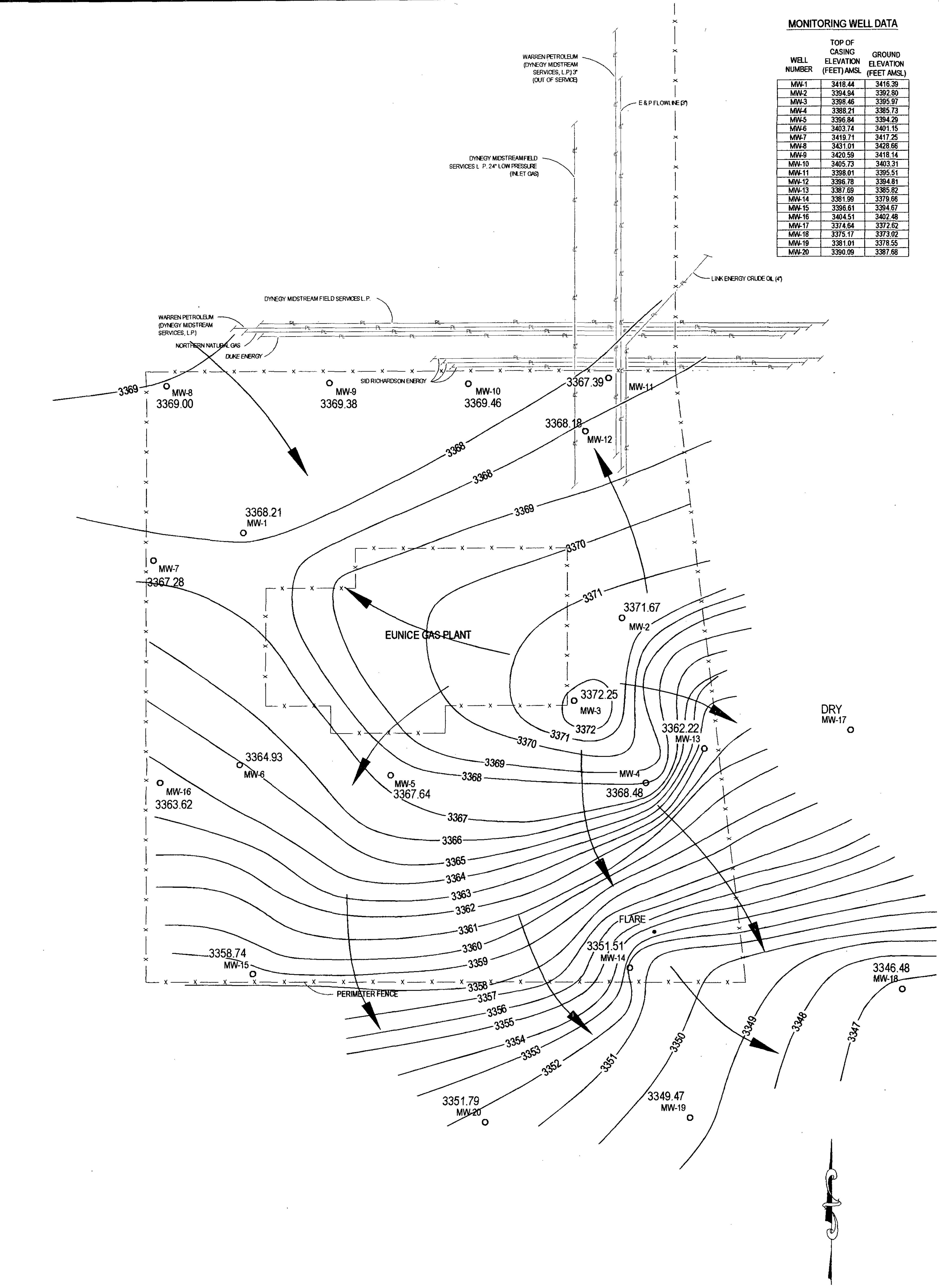
TARGA

EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E

FACILITY DRAWING

DATE 03-23-07
NAME: SJA
FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

## LEGEND

MW-1 3368.21 — MONITORING WELL LOCATION AND GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, JUNE 26, 2006

3368 — CONTOUR OF GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, JUNE 26, 2006

GROUNDWATER FLOW DIRECTION

FIGURE # 3

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E

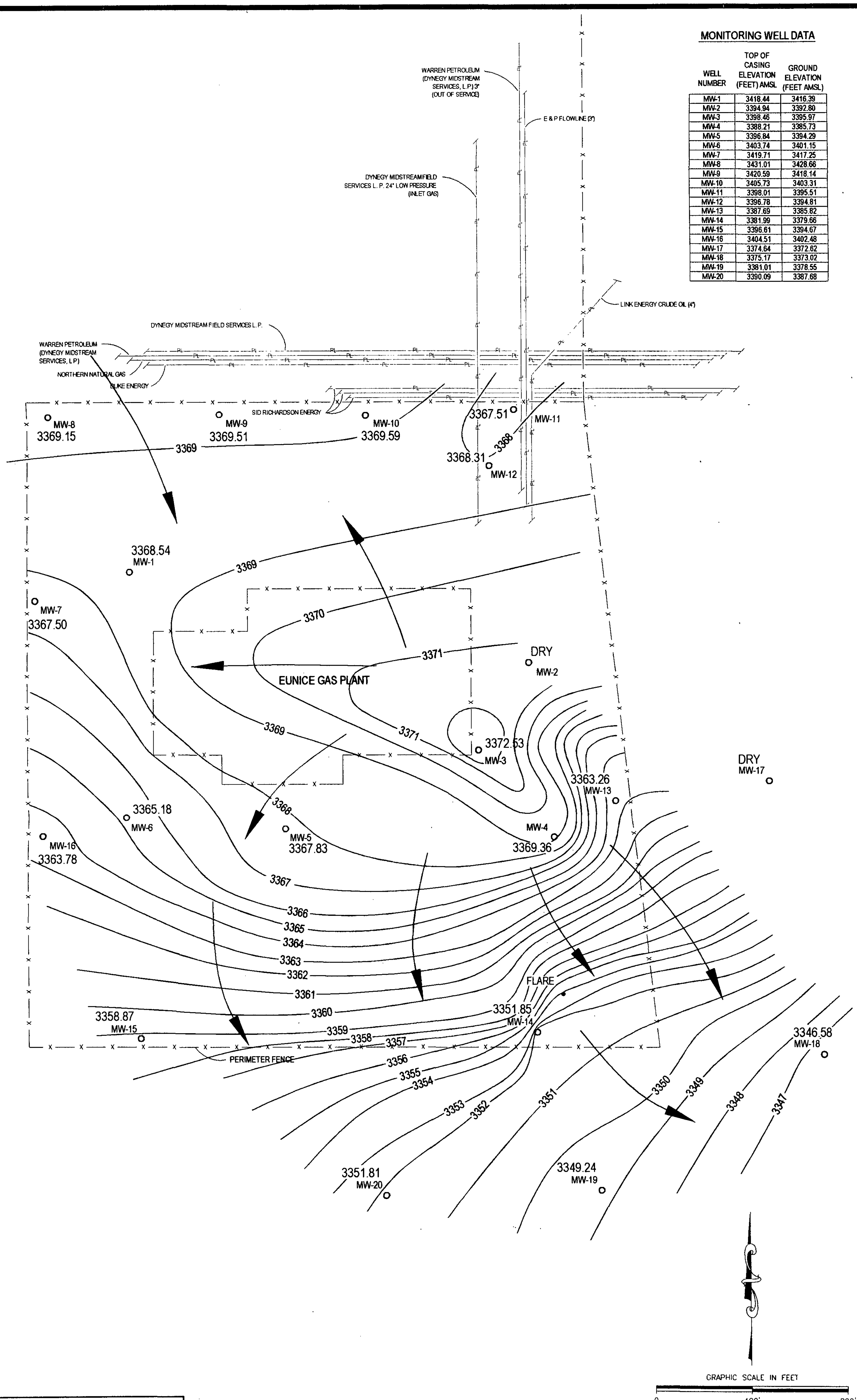
GROUNDWATER POTENTIOMETRIC MAP
JUNE 26, 2006

DATE: 03-30-07
NAME: SJA
FILE: 2-0103

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




## LEGEND

MW-1
3368.54 MONITORING WELL LOCATION AND GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, DECEMBER 04, 2006

3360 CONTOUR OF GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION, FEET AMSL, DECEMBER 04, 2006

GROUNDWATER FLOW DIRECTION

FIGURE # 4

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E

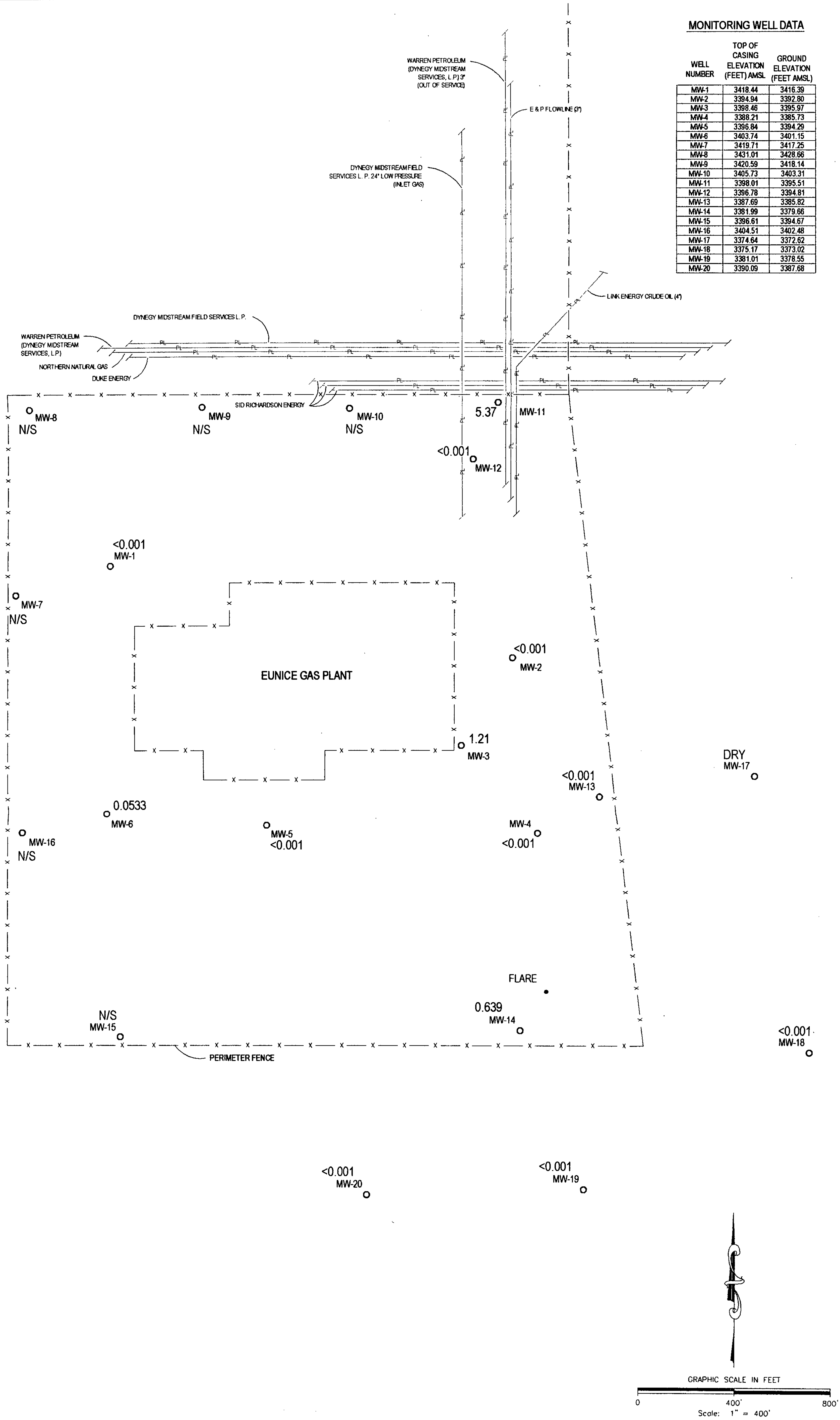
GROUNDWATER POTENTIOMETRIC MAP
DECEMBER 04, 2006

DATE: 03-30-07
NAME: SJA
FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




## LEGEND

| | |
|---|---|
| MW-1 o <0.001 | MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN GROUNDWATER, MG/L, JUNE 27-28, 2006 |
| < | BELOW METHOD DETECTED LIMIT |
| N/S | NOT SAMPLED |
| | NMWQCC HUMAN HEALTH STANDARD: 0.01 MG/L |

FIGURE # 5

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

DISSOLVED BENZENE CONCENTRATIONS IN GROUNDWATER JUNE 27-28, 2006

DATE: 03-30-07

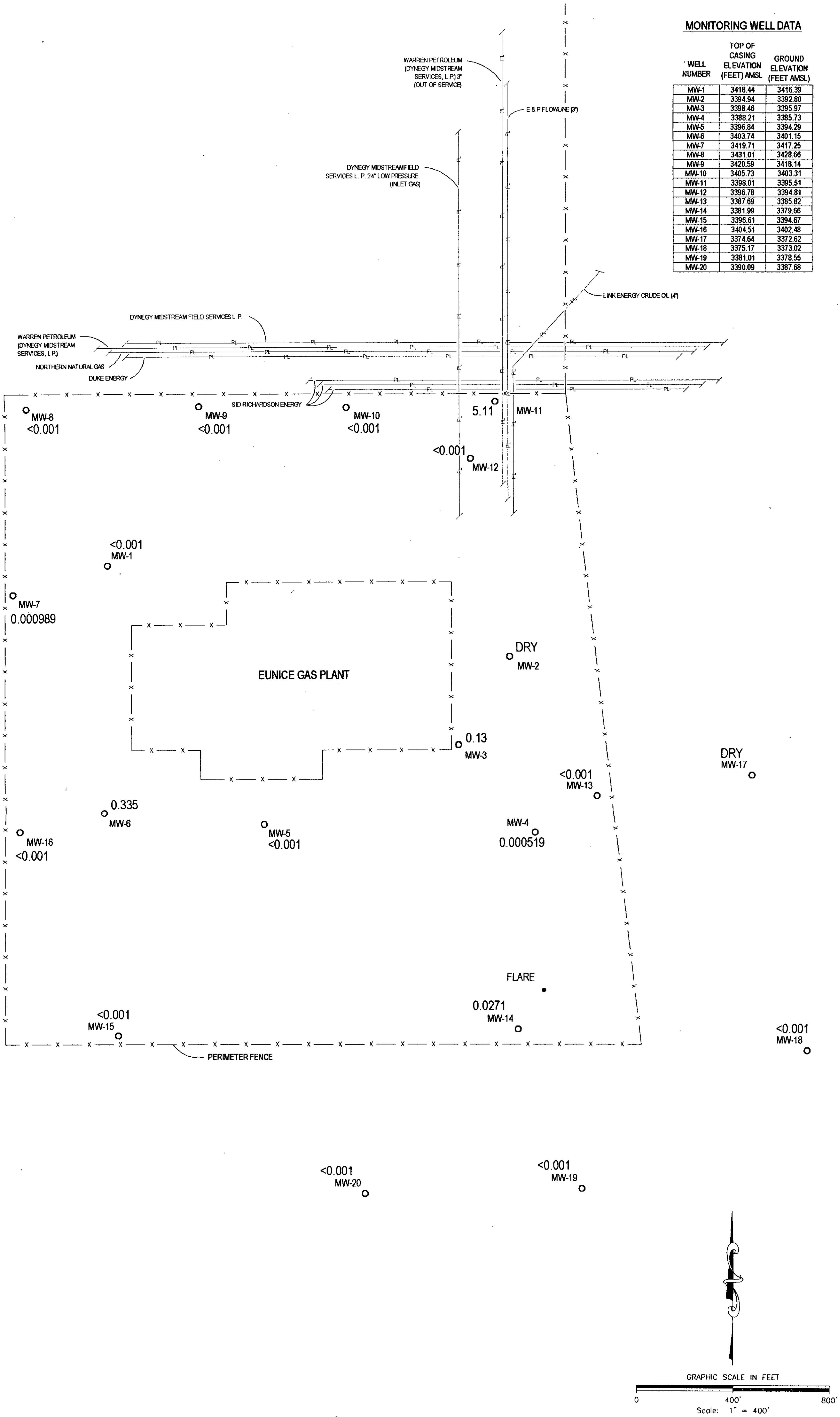
NAME: SJA

FILE: 2-0103

Larson & Associates, inc. Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

MW-1 O <0.001 — MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 05-08, 2006

< — BELOW METHOD DETECTED LIMIT

NMWQCC HUMAN HEALTH STANDARD: 0.01 MG/L

FIGURE # 6

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

DISSOLVED BENZENE CONCENTRATIONS IN GROUNDWATER DECEMBER 5-12, 2006

DATE: 03-30-07

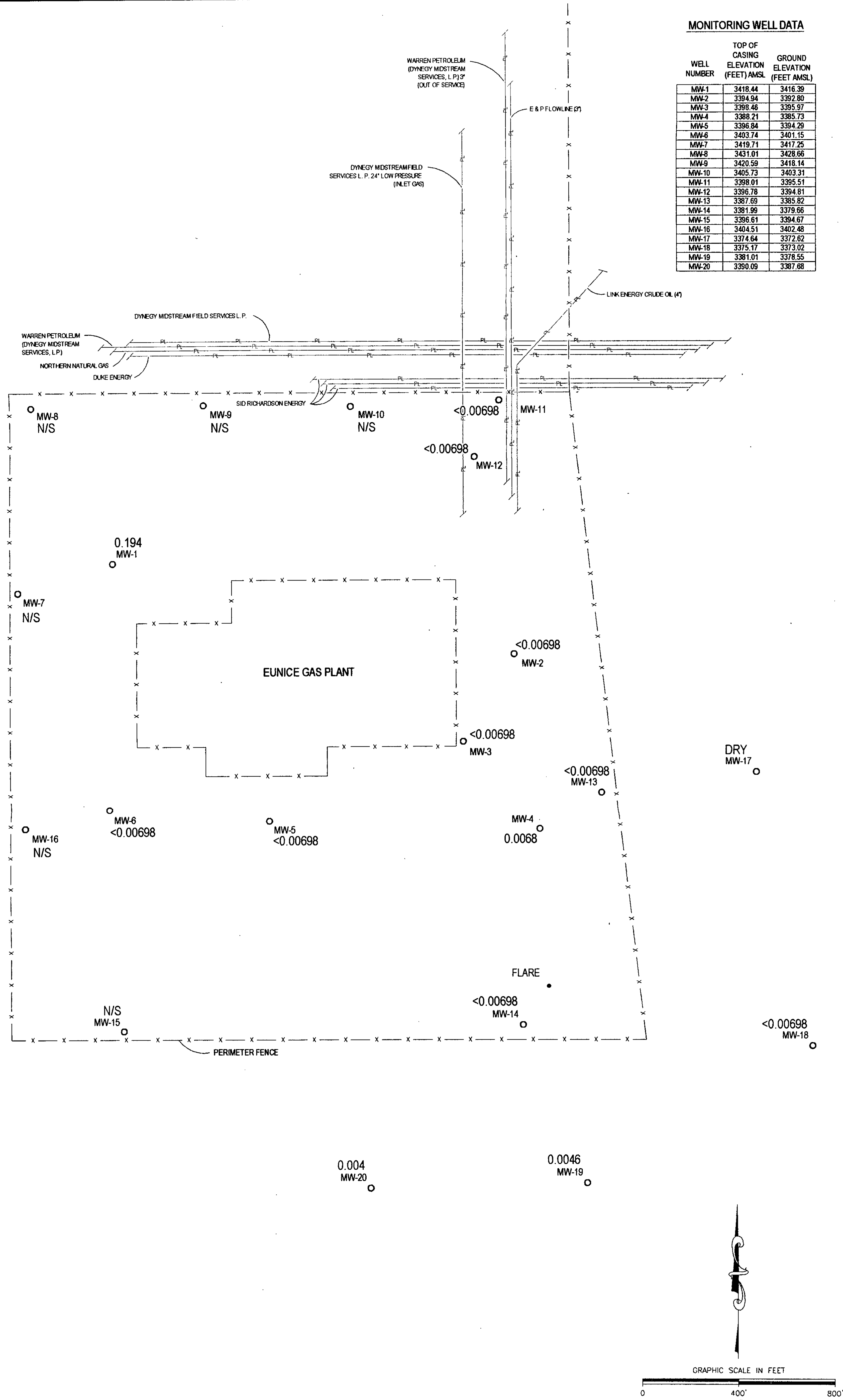
NAME: SJA

FILE: 2-0103

Larson & Associates, inc. Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




## LEGEND

| | |
|---|---|
| MW-1 ○ 0.194 | MONITORING WELL LOCATION AND DISSOLVED CHROMIUM IN GROUNDWATER, MG/L, JUNE 26-27, 2006 |
| < | BELOW METHOD DETECTED LIMIT |
| N/S | NOT SAMPLED |
| | NMWQCC HUMAN HEALTH STANDARD: 0.05 MG/L |

FIGURE # 7

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E

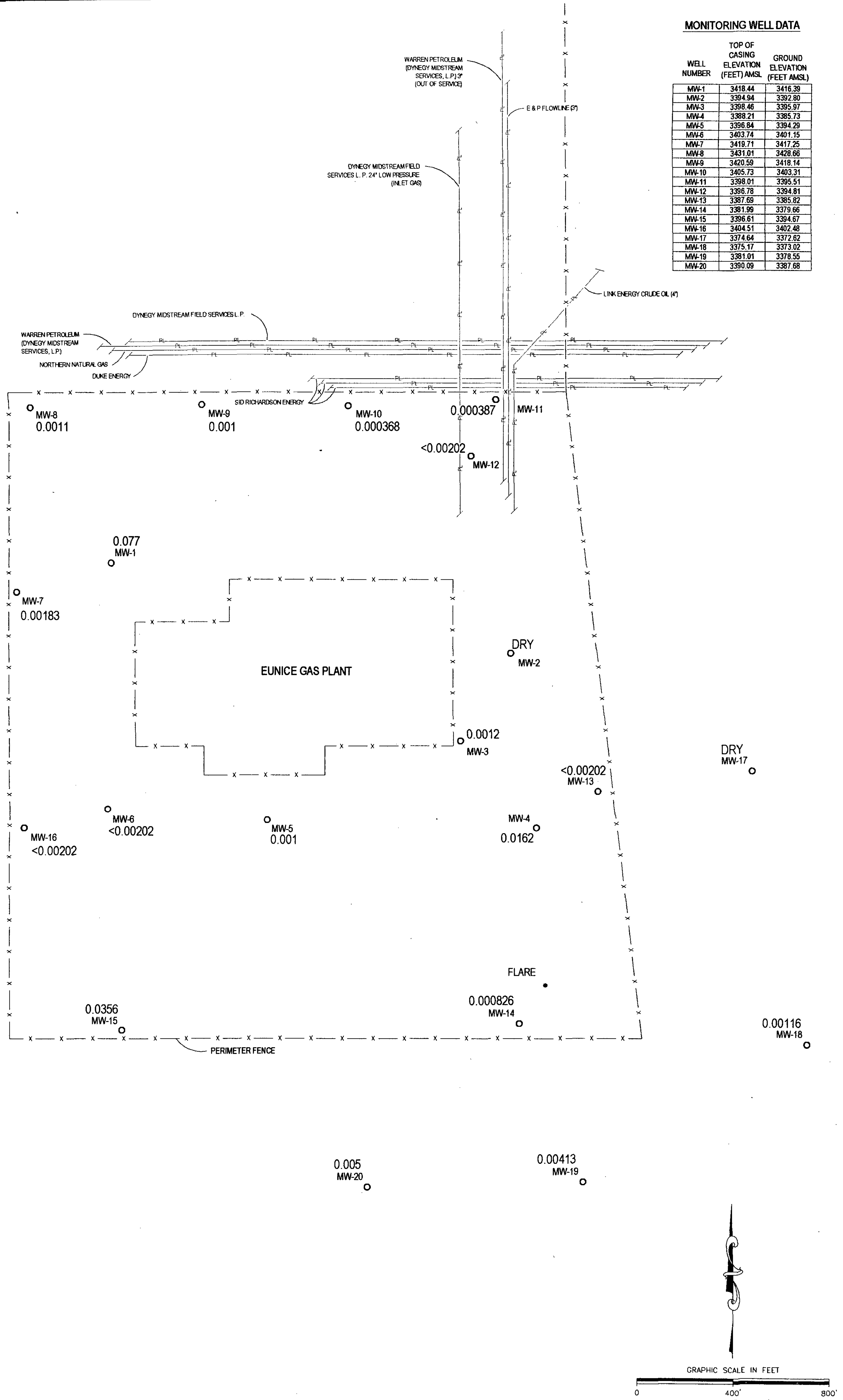
DISSOLVED CHROMIUM CONCENTRATIONS IN GROUNDWATER
JUNE 27-28, 2006

DATE 03-30-07
NAME: SJA
FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

MW-1 / 0.077 — MONITORING WELL LOCATION AND DISSOLVED CHROMIUM IN GROUNDWATER, MG/L, DECEMBER 5-8, 2006

< — BELOW METHOD DETECTED LIMIT

NMWQCC HUMAN HEALTH STANDARD: 0.05 MG/L

FIGURE # 8.

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

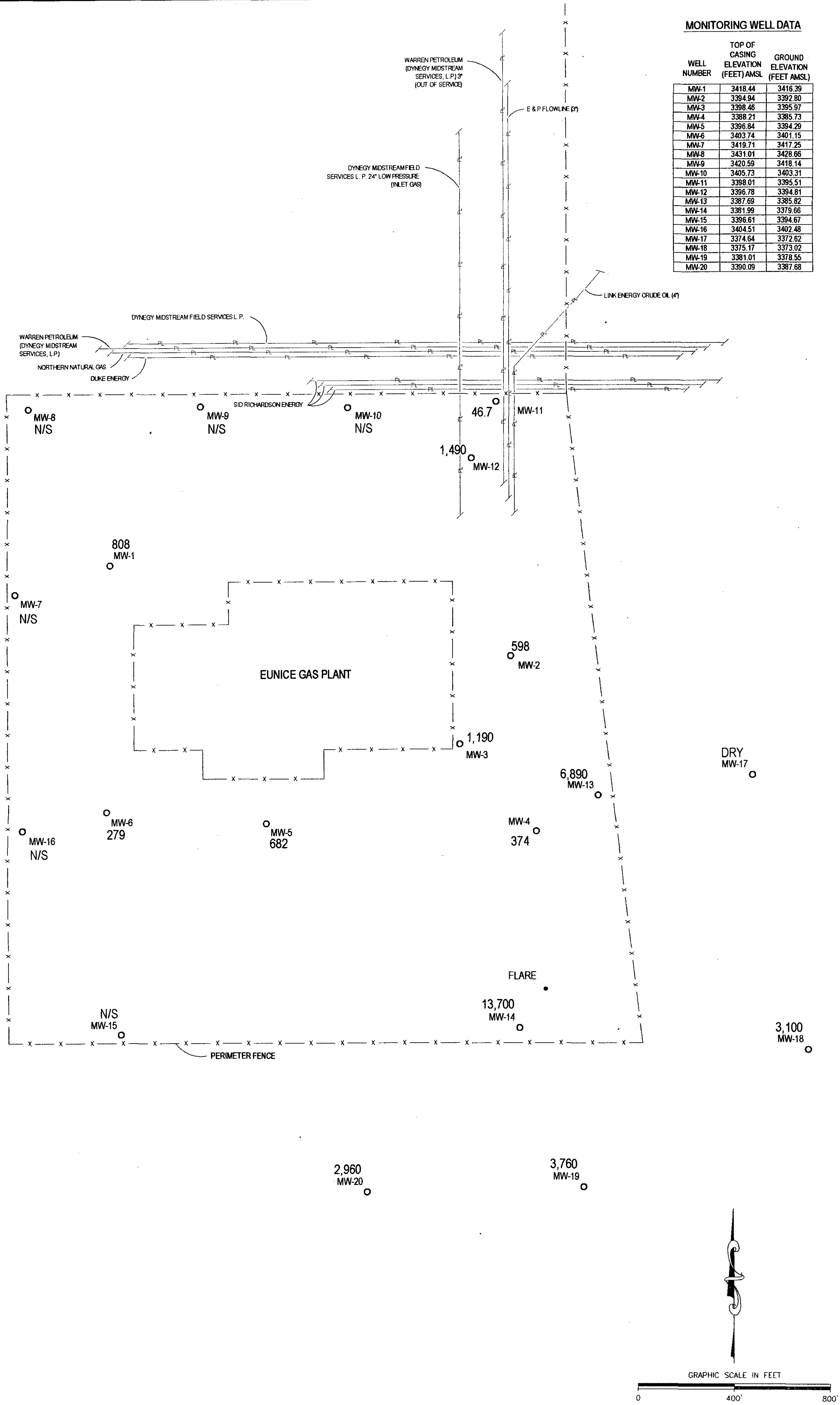
DISSOLVED CHROMIUM CONCENTRATIONS IN GROUNDWATER DECEMBER 5-12, 2006

DATE: 03-30-07

NAME: SJA

FILE: 2-0103

Larson & Associates, Inc.
Environmental Consultants




## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

### LEGEND

MW-1 / 808 — MONITORING WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L, JUNE 27-28, 2006

N/S — NOT SAMPLED

*NMWQCC DOMESTIC WATER QUALITY STANDARD: 250 MG/L*

FIGURE # 9

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

CHLORIDE CONCENTRATION IN GROUNDWATER

JUNE 27-28, 2006

DATE: 03-30-07

NAME: SJA

FILE: 2-0103

Larson & Associates, Inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |

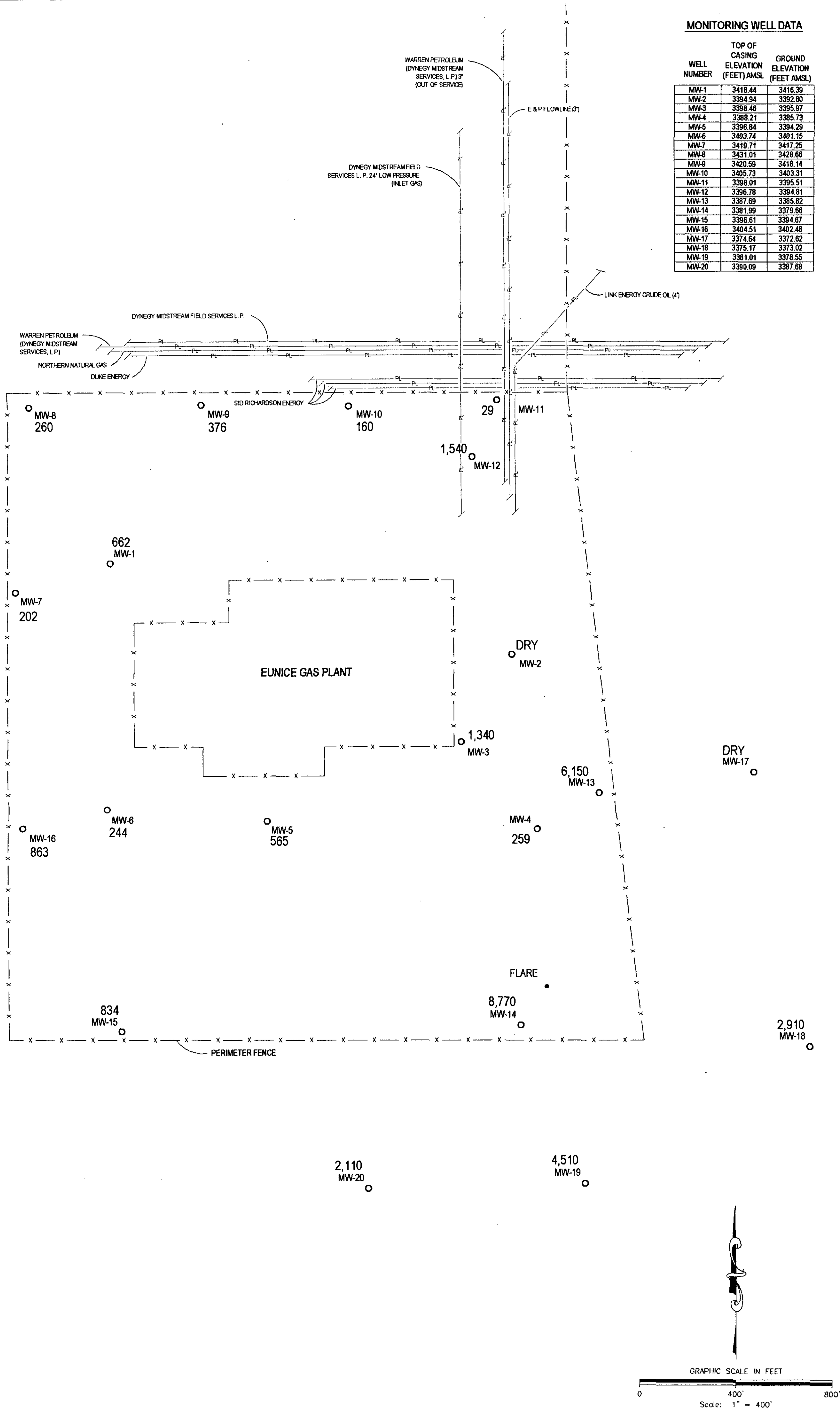



FIGURE # 10

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT
NE/4, SEC. 3, T-22-S, R-37-E

CHLORIDE CONCENTRATION
IN GROUNDWATER
DECEMBER 5-12, 2006

DATE: 03-30-07
NAME: SJA
FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants

### LEGEND

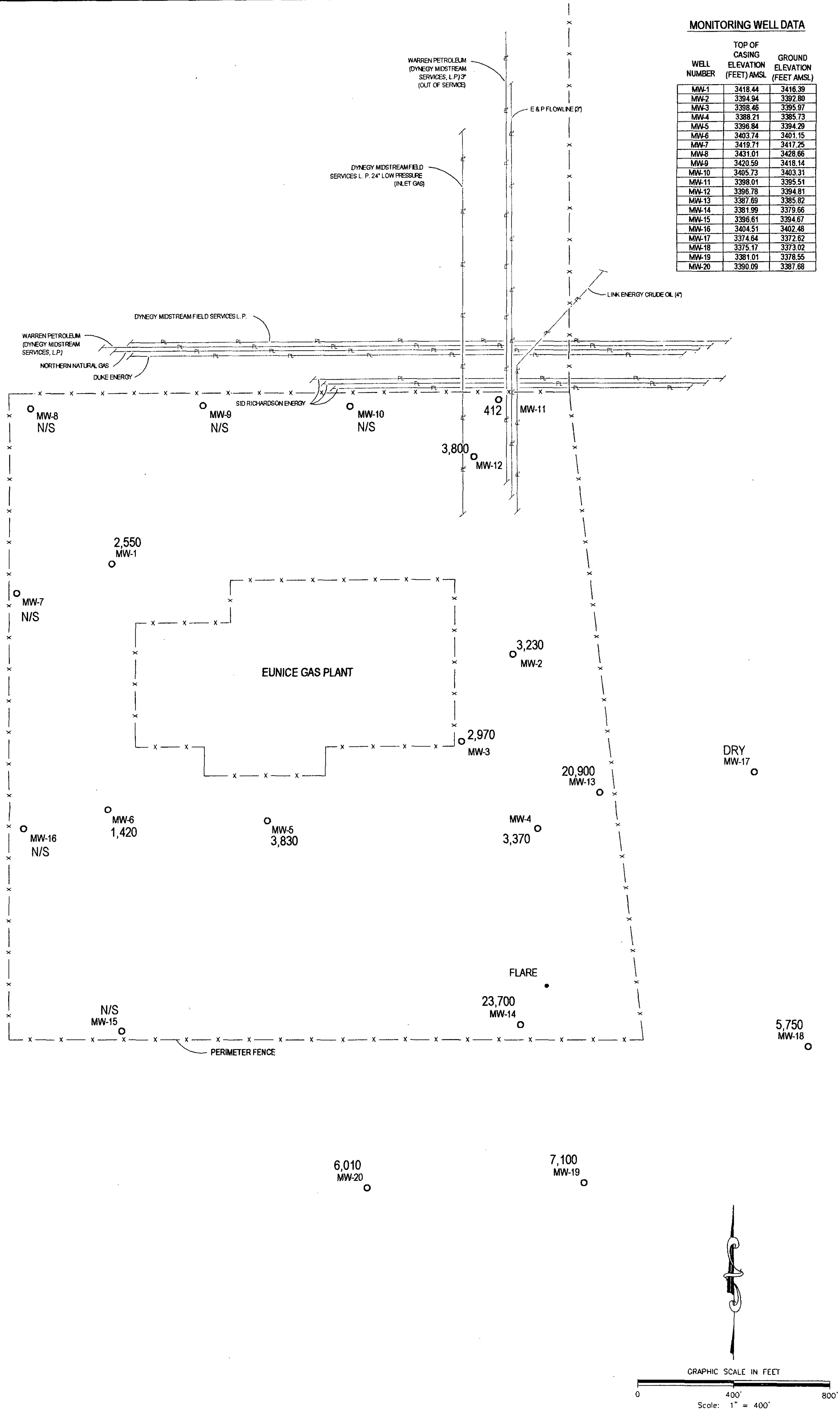
MW-1
662

MONITORING WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 5-8, 2006

NMWQCC DOMESTIC WATER QUALITY STANDARD: 250 MG/L

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

MW-1
O
2,550 — MONITORING WELL LOCATION AND TOTAL DISSOVED SOLIDS CONCENTRATION IN GROUNDWATER, MG/L, JUNE 27-28, 2006

N/S — NOT SAMPLED

*NMWQCC DOMESTIC WATER QUALITY STANDARD: 1,000 MG/L*

FIGURE # 11

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

TOTAL DISSOLVED SOLIDS CONCENTRATION IN GROUNDWATER JUNE 27-28, 2006

DATE: 03-30-07

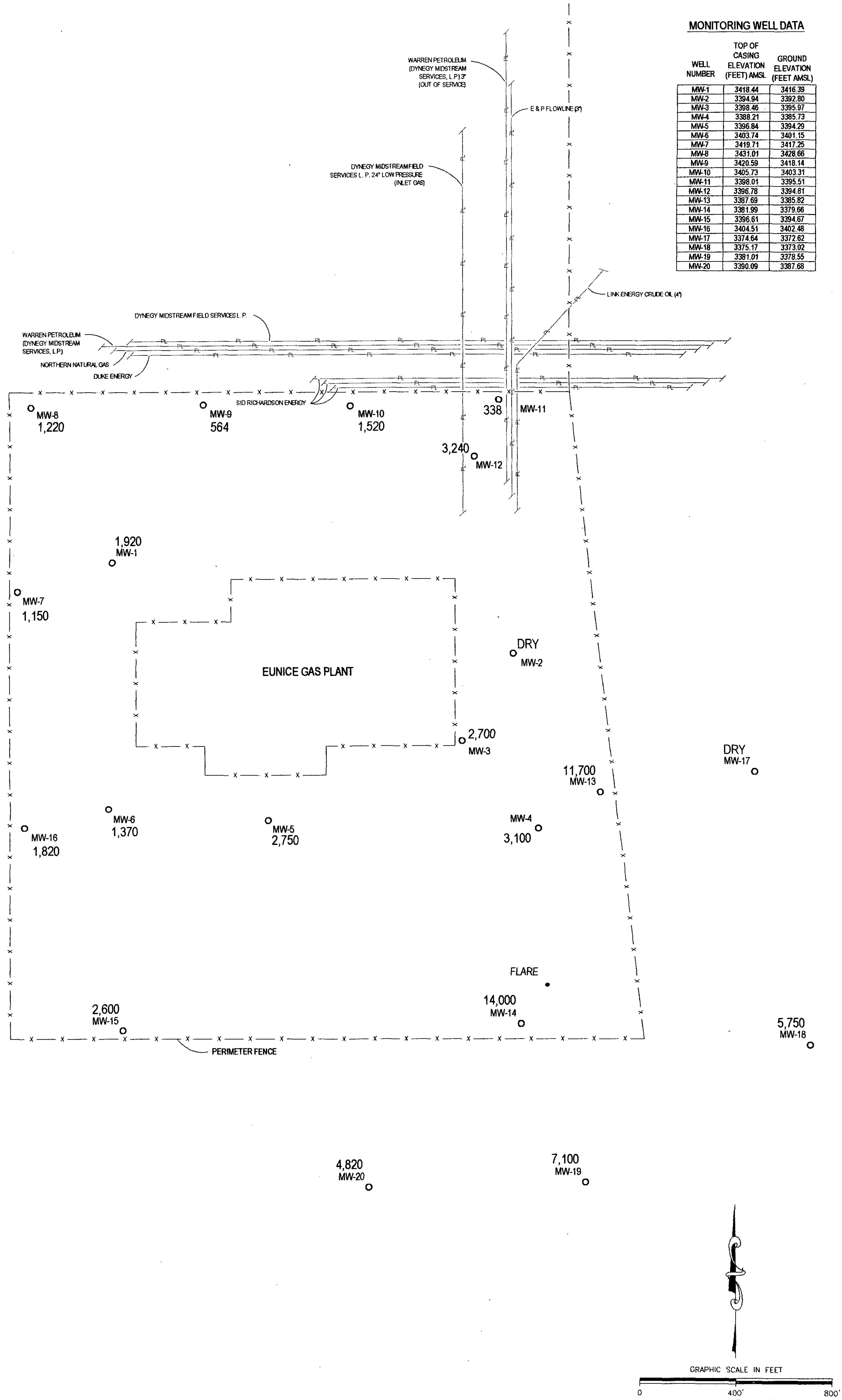
NAME: SJA

FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants

## MONITORING WELL DATA

| WELL NUMBER | TOP OF CASING ELEVATION (FEET) AMSL | GROUND ELEVATION (FEET AMSL) |
|---|---|---|
| MW-1 | 3418.44 | 3416.39 |
| MW-2 | 3394.94 | 3392.80 |
| MW-3 | 3398.46 | 3395.97 |
| MW-4 | 3388.21 | 3385.73 |
| MW-5 | 3396.84 | 3394.29 |
| MW-6 | 3403.74 | 3401.15 |
| MW-7 | 3419.71 | 3417.25 |
| MW-8 | 3431.01 | 3428.66 |
| MW-9 | 3420.59 | 3418.14 |
| MW-10 | 3405.73 | 3403.31 |
| MW-11 | 3398.01 | 3395.51 |
| MW-12 | 3396.78 | 3394.81 |
| MW-13 | 3387.69 | 3385.82 |
| MW-14 | 3381.99 | 3379.66 |
| MW-15 | 3396.61 | 3394.67 |
| MW-16 | 3404.51 | 3402.48 |
| MW-17 | 3374.64 | 3372.62 |
| MW-18 | 3375.17 | 3373.02 |
| MW-19 | 3381.01 | 3378.55 |
| MW-20 | 3390.09 | 3387.68 |




### LEGEND

MW-1 O 1,920 — MONITORING WELL LOCATION AND TOTAL DISSOVED SOILDS CONCENTRATION IN GROUNDWATER, MG/L, DECEMBER 5-8, 2006

N/S — NOT SAMPLED

*NMWQCC DOMESTIC WATER QUALITY STANDARD: 1,000 MG/L*

FIGURE # 12

LEA COUNTY, NEW MEXICO

TARGA

EUNICE GAS PLANT

NE/4, SEC. 3, T-22-S, R-37-E

TOTAL DISSOLVED SOLIDS CONCENTRATION IN GROUNDWATER

DECEMBER 5-12, 2006

DATE: 03-23-07

NAME: SJA

FILE: 2-0103

Larson & Associates, inc.
Environmental Consultants

# Appendices

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

# Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Targa Midstream/ Eunice Mid. Plant

Project Number: 2-0103

Location: None Given

Lab Order Number: 6F28014

Report Date: 07/10/06

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-1 | 6F28014-01 | Water | 06/27/06 07:44 | 06/28/06 16:05 |
| MW-2 | 6F28014-02 | Water | 06/27/06 08:31 | 06/28/06 16:05 |
| MW-13 | 6F28014-03 | Water | 06/27/06 09:20 | 06/28/06 16:05 |
| MW-4 | 6F28014-04 | Water | 06/27/06 09:55 | 06/28/06 16:05 |
| MW-3 | 6F28014-05 | Water | 06/27/06 10:35 | 06/28/06 16:05 |
| MW-14 | 6F28014-06 | Water | 06/27/06 11:12 | 06/28/06 16:05 |
| MW-5 | 6F28014-07 | Water | 06/27/06 11:44 | 06/28/06 16:05 |
| MW-6 | 6F28014-08 | Water | 06/27/06 13:25 | 06/28/06 16:05 |
| MW-11 | 6F28014-09 | Water | 06/28/06 08:38 | 06/28/06 16:05 |
| MW-12 | 6F28014-10 | Water | 06/28/06 09:02 | 06/28/06 16:05 |
| MW-20 | 6F28014-11 | Water | 06/28/06 09:50 | 06/28/06 16:05 |
| MW-19 | 6F28014-12 | Water | 06/28/06 10:42 | 06/28/06 16:05 |
| MW-18 | 6F28014-13 | Water | 06/28/06 12:32 | 06/28/06 16:05 |
| Dup 1 | 6F28014-14 | Water | 06/28/06 00:00 | 06/28/06 16:05 |
| Dup 2 | 6F28014-15 | Water | 06/28/06 00:00 | 06/28/06 16:05 |

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6F28014-01) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *100 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *87.2 %* | *80-120* | | " | " | " | " | |
| **MW-2 (6F28014-02) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *87.0 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.5 %* | *80-120* | | " | " | " | " | |
| **MW-13 (6F28014-03) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *91.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *88.2 %* | *80-120* | | " | " | " | " | |
| **MW-4 (6F28014-04) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *102 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *86.5 %* | *80-120* | | " | " | " | " | |

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Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

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# Organics by GC

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (6F28014-05) Water** | | | | | | | | | |
| **Benzene** | **1.21** | 0.0500 | mg/L | 50 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.0500 | " | " | " | " | " | " | |
| **Ethylbenzene** | **0.475** | 0.0500 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.266** | 0.0500 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.0 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *90.2 %* | *80-120* | | " | " | " | " | |
| **MW-14 (6F28014-06) Water** | | | | | | | | | |
| **Benzene** | **0.639** | 0.0100 | mg/L | 10 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.0100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.0100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.0100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *104 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.5 %* | *80-120* | | " | " | " | " | |
| **MW-5 (6F28014-07) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *92.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *85.8 %* | *80-120* | | " | " | " | " | |
| **MW-6 (6F28014-08) Water** | | | | | | | | | |
| **Benzene** | **0.0533** | 0.0100 | mg/L | 10 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| **Toluene** | **ND** | 0.0100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.0100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.0100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *103 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *92.8 %* | *80-120* | | " | " | " | " | |

## Organics by GC

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-11 (6F28014-09) Water** | | | | | | | | | |
| **Benzene** | **5.37** | 0.0500 | mg/L | 50 | EF62914 | 06/29/06 | 07/05/06 | EPA 8021B | |
| Toluene | ND | 0.0500 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0500 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.0586** | 0.0500 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.0500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *93.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *80.5 %* | *80-120* | | " | " | " | " | |
| **MW-12 (6F28014-10) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *94.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *87.0 %* | *80-120* | | " | " | " | " | |
| **MW-20 (6F28014-11) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF62914 | 06/29/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *99.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *92.2 %* | *80-120* | | " | " | " | " | |
| **MW-19 (6F28014-12) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF63019 | 06/30/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.0 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.2 %* | *80-120* | | " | " | " | " | |

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## Organics by GC
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-18 (6F28014-13) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF63019 | 06/30/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *89.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *85.2 %* | *80-120* | | " | " | " | " | |
| **Dup 1 (6F28014-14) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF63019 | 06/30/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *81.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.5 %* | *80-120* | | " | " | " | " | |
| **Dup 2 (6F28014-15) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EF63019 | 06/30/06 | 06/30/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *97.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *97.0 %* | *80-120* | | " | " | " | " | |

# General Chemistry Parameters by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6F28014-01) Water** | | | | | | | | | |
| **Total Alkalinity** | **250** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **808** | 12.5 | " | 25 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2550** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **406** | 12.5 | " | 25 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-2 (6F28014-02) Water** | | | | | | | | | |
| **Total Alkalinity** | **314** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **598** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3230** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **913** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-13 (6F28014-03) Water** | | | | | | | | | |
| **Total Alkalinity** | **194** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **6890** | 100 | " | 200 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **20900** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **1280** | 100 | " | 200 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-4 (6F28014-04) Water** | | | | | | | | | |
| **Total Alkalinity** | **732** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **374** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3370** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **985** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-3 (6F28014-05) Water** | | | | | | | | | |
| **Total Alkalinity** | **656** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **1190** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2970** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **117** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-14 (6F28014-06) Water** | | | | | | | | | |
| **Total Alkalinity** | **442** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **13700** | 250 | " | 500 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **23700** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **1190** | 250 | " | 500 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |

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## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-5 (6F28014-07) Water** | | | | | | | | | |
| **Total Alkalinity** | **1060** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **682** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3830** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **800** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-6 (6F28014-08) Water** | | | | | | | | | |
| **Total Alkalinity** | **592** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **279** | 10.0 | " | 20 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1420** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **115** | 10.0 | " | 20 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-11 (6F28014-09) Water** | | | | | | | | | |
| **Total Alkalinity** | **222** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **46.7** | 5.00 | " | 10 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **412** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **19.4** | 5.00 | " | 10 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-12 (6F28014-10) Water** | | | | | | | | | |
| **Total Alkalinity** | **198** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **1490** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3800** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **573** | 25.0 | " | 50 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-20 (6F28014-11) Water** | | | | | | | | | |
| **Total Alkalinity** | **560** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **2690** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **6010** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **684** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **MW-19 (6F28014-12) Water** | | | | | | | | | |
| **Total Alkalinity** | **267** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **3760** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **7880** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **638** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |

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## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-18 (6F28014-13) Water** | | | | | | | | | |
| **Total Alkalinity** | **434** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **3100** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **6710** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **453** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Dup 1 (6F28014-14) Water** | | | | | | | | | |
| **Total Alkalinity** | **197** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **6960** | 100 | " | 200 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **19600** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **1300** | 100 | " | 200 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Dup 2 (6F28014-15) Water** | | | | | | | | | |
| **Total Alkalinity** | **272** | 2.00 | mg/L | 1 | EF62904 | 06/29/06 | 06/29/06 | EPA 310.1M | |
| **Chloride** | **3780** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **7580** | 5.00 | " | 1 | EF62902 | 06/29/06 | 06/30/06 | EPA 160.1 | |
| **Sulfate** | **638** | 50.0 | " | 100 | EF62911 | 06/29/06 | 06/30/06 | EPA 300.0 | |

## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6F28014-01) Water** | | | | | | | | | |
| **Calcium** | **288** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **124** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **13.0** | 0.500 | " | 10 | " | " | " | " | |
| **Sodium** | **231** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **J [0.000130]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| **Chromium** | **0.194** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.00710]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **J [0.0145]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.276** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-2 (6F28014-02) Water** | | | | | | | | | |
| **Calcium** | **296** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **123** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **16.3** | 0.500 | " | 10 | " | " | " | " | |
| **Sodium** | **434** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **J [0.000180]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **0.0386** | 0.0170 | " | " | " | " | " | " | |
| **Selenium** | **0.0656** | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0245** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-13 (6F28014-03) Water** | | | | | | | | | |
| **Calcium** | **2170** | 10.0 | mg/L | 1000 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **702** | 0.200 | " | 200 | " | " | " | " | |
| **Potassium** | **30.3** | 2.50 | " | 50 | " | " | " | " | |
| **Sodium** | **860** | 10.0 | " | 1000 | " | " | " | " | |
| **Mercury** | **[0.0000900]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.0157]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **J [0.0267]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-13 (6F28014-03) Water** | | | | | | | | | |
| **Barium** | **0.108** | 0.00489 | mg/L | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-4 (6F28014-04) Water** | | | | | | | | | |
| **Calcium** | **85.0** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **32.8** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **17.4** | 0.500 | " | 10 | " | " | " | " | |
| **Sodium** | **954** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **0.000270** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | |
| **Chromium** | **J [0.00679]** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | J |
| **Arsenic** | **0.0351** | 0.0170 | " | " | " | " | " | " | |
| **Selenium** | **0.0402** | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0228** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-3 (6F28014-05) Water** | | | | | | | | | |
| **Calcium** | **169** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **176** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **13.7** | 0.500 | " | 10 | " | " | " | " | |
| **Sodium** | **514** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **[0.0000600]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **0.0948** | 0.0170 | " | " | " | " | " | " | |
| Selenium | ND | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **3.42** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |

## Total Metals by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-14 (6F28014-06) Water** | | | | | | | | | |
| **Calcium** | **836** | 2.00 | mg/L | 200 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **446** | 0.200 | " | " | " | " | " | " | |
| **Potassium** | **98.5** | 2.50 | " | 50 | " | " | " | " | |
| **Sodium** | **6480** | 10.0 | " | 1000 | " | " | " | " | |
| Mercury | ND | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | |
| **Chromium** | **ND** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **0.0306** | 0.0170 | " | " | " | " | " | " | |
| **Selenium** | **ND** | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.232** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-5 (6F28014-07) Water** | | | | | | | | | |
| **Calcium** | **122** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **54.2** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **51.6** | 2.50 | " | " | " | " | " | " | |
| **Sodium** | **1040** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **[0.0000800]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **0.0203** | 0.0170 | " | " | " | " | " | " | |
| Selenium | ND | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0603** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-6 (6F28014-08) Water** | | | | | | | | | |
| **Calcium** | **45.5** | 0.100 | mg/L | 10 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **30.6** | 0.0100 | " | " | " | " | " | " | |
| **Potassium** | **8.94** | 0.500 | " | " | " | " | " | " | |
| **Sodium** | **376** | 0.500 | " | 50 | " | " | " | " | |
| **Mercury** | **J [0.000140]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **0.0417** | 0.0170 | " | " | " | " | " | " | |
| Selenium | ND | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |

## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-6 (6F28014-08) Water** | | | | | | | | | |
| **Barium** | **0.122** | 0.00489 | mg/L | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-11 (6F28014-09) Water** | | | | | | | | | |
| **Calcium** | **26.4** | 0.100 | mg/L | 10 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **15.9** | 0.0100 | " | " | " | " | " | " | |
| **Potassium** | **3.04** | 0.500 | " | " | " | " | " | " | |
| **Sodium** | **51.1** | 0.100 | " | " | " | " | " | " | |
| **Mercury** | **J [0.000100]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.00348]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **ND** | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.583** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-12 (6F28014-10) Water** | | | | | | | | | |
| **Calcium** | **339** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **164** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **13.6** | 0.500 | " | 10 | " | " | " | " | |
| **Sodium** | **520** | 2.00 | " | 200 | " | " | " | " | |
| **Mercury** | **0.000270** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.0116]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **J [0.0145]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0462** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |

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Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

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## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-20 (6F28014-11) Water** | | | | | | | | | |
| **Calcium** | **35.2** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **20.9** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **63.2** | 2.50 | " | " | " | " | " | " | |
| **Sodium** | **2180** | 5.00 | " | 500 | " | " | " | " | |
| **Mercury** | **J [0.000200]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| **Chromium** | **J [0.00386]** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | J |
| Arsenic | ND | 0.0170 | " | " | " | " | " | " | |
| **Selenium** | **J [0.0101]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0356** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-19 (6F28014-12) Water** | | | | | | | | | |
| **Calcium** | **465** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **232** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **24.9** | 2.50 | " | " | " | " | " | " | |
| **Sodium** | **1540** | 5.00 | " | 500 | " | " | " | " | |
| **Mercury** | **J [0.000110]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| **Chromium** | **J [0.00460]** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | J |
| **Arsenic** | **J [0.0155]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **ND** | 0.0300 | " | " | " | " | " | " | |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0367** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **MW-18 (6F28014-13) Water** | | | | | | | | | |
| **Calcium** | **386** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **177** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **22.3** | 2.50 | " | " | " | " | " | " | |
| **Sodium** | **1690** | 5.00 | " | 500 | " | " | " | " | |
| **Mercury** | **[0.0000900]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| **Chromium** | **ND** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.0106]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **ND** | 0.0300 | " | " | " | " | " | " | |
| **Silver** | **J [0.00191]** | 0.00405 | " | " | " | " | " | " | J |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |

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# Total Metals by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-18 (6F28014-13) Water** | | | | | | | | | |
| **Barium** | **0.0757** | 0.00489 | mg/L | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **Dup 1 (6F28014-14) Water** | | | | | | | | | |
| **Calcium** | **2020** | 5.00 | mg/L | 500 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **766** | 0.250 | " | 250 | " | " | " | " | |
| **Potassium** | **29.1** | 2.50 | " | 50 | " | " | " | " | |
| **Sodium** | **910** | 5.00 | " | 500 | " | " | " | " | |
| **Mercury** | **J [0.000130]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| Chromium | ND | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | |
| **Arsenic** | **J [0.00823]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **J [0.0196]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.105** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |
| **Dup 2 (6F28014-15) Water** | | | | | | | | | |
| **Calcium** | **496** | 0.500 | mg/L | 50 | EG60504 | 07/05/06 | 07/05/06 | EPA 6010B | |
| **Magnesium** | **237** | 0.0500 | " | " | " | " | " | " | |
| **Potassium** | **25.6** | 2.50 | " | " | " | " | " | " | |
| **Sodium** | **1520** | 5.00 | " | 500 | " | " | " | " | |
| **Mercury** | **[0.0000900]** | 0.000250 | " | 1 | EF63007 | 06/29/06 | 06/30/06 | EPA 7470A | J |
| **Chromium** | **J [0.00576]** | 0.00698 | " | 10 | EF63009 | 06/29/06 | 07/06/06 | EPA 6020A | J |
| **Arsenic** | **J [0.0144]** | 0.0170 | " | " | " | " | " | " | J |
| **Selenium** | **J [0.0157]** | 0.0300 | " | " | " | " | " | " | J |
| Silver | ND | 0.00405 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00692 | " | " | " | " | " | " | |
| **Barium** | **0.0412** | 0.00489 | " | " | " | " | " | " | |
| Lead | ND | 0.00296 | " | " | " | " | " | " | |

## Organics by GC - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF62914 - EPA 5030C (GC)** | | | | | | | | | | |
| **Blank (EF62914-BLK1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Benzene | ND | 0.00100 | mg/L | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00100 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *41.9* | | *ug/l* | *40.0* | | *105* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *34.2* | | *"* | *40.0* | | *85.5* | *80-120* | | | |
| **LCS (EF62914-BS1)** | | | | Prepared & Analyzed: 06/29/06 | | | | | | |
| Benzene | 0.0583 | 0.00100 | mg/L | 0.0500 | | 117 | 80-120 | | | |
| Toluene | 0.0578 | 0.00100 | " | 0.0500 | | 116 | 80-120 | | | |
| Ethylbenzene | 0.0541 | 0.00100 | " | 0.0500 | | 108 | 80-120 | | | |
| Xylene (p/m) | 0.119 | 0.00100 | " | 0.100 | | 119 | 80-120 | | | |
| Xylene (o) | 0.0573 | 0.00100 | " | 0.0500 | | 115 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *40.2* | | *ug/l* | *40.0* | | *100* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *42.4* | | *"* | *40.0* | | *106* | *80-120* | | | |
| **Calibration Check (EF62914-CCV1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Benzene | 56.8 | | ug/l | 50.0 | | 114 | 80-120 | | | |
| Toluene | 55.1 | | " | 50.0 | | 110 | 80-120 | | | |
| Ethylbenzene | 57.9 | | " | 50.0 | | 116 | 80-120 | | | |
| Xylene (p/m) | 111 | | " | 100 | | 111 | 80-120 | | | |
| Xylene (o) | 56.2 | | " | 50.0 | | 112 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *37.2* | | *"* | *40.0* | | *93.0* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *40.7* | | *"* | *40.0* | | *102* | *80-120* | | | |
| **Matrix Spike (EF62914-MS1)** | **Source: 6F28011-04** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Benzene | 0.0557 | 0.00100 | mg/L | 0.0500 | ND | 111 | 80-120 | | | |
| Toluene | 0.0544 | 0.00100 | " | 0.0500 | ND | 109 | 80-120 | | | |
| Ethylbenzene | 0.0515 | 0.00100 | " | 0.0500 | ND | 103 | 80-120 | | | |
| Xylene (p/m) | 0.112 | 0.00100 | " | 0.100 | ND | 112 | 80-120 | | | |
| Xylene (o) | 0.0550 | 0.00100 | " | 0.0500 | ND | 110 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *39.0* | | *ug/l* | *40.0* | | *97.5* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *39.0* | | *"* | *40.0* | | *97.5* | *80-120* | | | |

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# Organics by GC - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF62914 - EPA 5030C (GC)** | | | | | | | | | | |
| **Matrix Spike Dup (EF62914-MSD1)** | **Source: 6F28011-04** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Benzene | 0.0555 | 0.00100 | mg/L | 0.0500 | ND | 111 | 80-120 | 0.00 | 20 | |
| Toluene | 0.0548 | 0.00100 | " | 0.0500 | ND | 110 | 80-120 | 0.913 | 20 | |
| Ethylbenzene | 0.0508 | 0.00100 | " | 0.0500 | ND | 102 | 80-120 | 0.976 | 20 | |
| Xylene (p/m) | 0.114 | 0.00100 | " | 0.100 | ND | 114 | 80-120 | 1.77 | 20 | |
| Xylene (o) | 0.0563 | 0.00100 | " | 0.0500 | ND | 113 | 80-120 | 2.69 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *41.5* | | *ug/l* | *40.0* | | *104* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *39.0* | | " | *40.0* | | *97.5* | *80-120* | | | |
| **Batch EF63019 - EPA 5030C (GC)** | | | | | | | | | | |
| **Blank (EF63019-BLK1)** | | | | Prepared & Analyzed: 06/30/06 | | | | | | |
| Benzene | ND | 0.00100 | mg/L | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00100 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *37.2* | | *ug/l* | *40.0* | | *93.0* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *32.9* | | " | *40.0* | | *82.2* | *80-120* | | | |
| **LCS (EF63019-BS1)** | | | | Prepared & Analyzed: 06/30/06 | | | | | | |
| Benzene | 0.0572 | 0.00100 | mg/L | 0.0500 | | 114 | 80-120 | | | |
| Toluene | 0.0562 | 0.00100 | " | 0.0500 | | 112 | 80-120 | | | |
| Ethylbenzene | 0.0548 | 0.00100 | " | 0.0500 | | 110 | 80-120 | | | |
| Xylene (p/m) | 0.118 | 0.00100 | " | 0.100 | | 118 | 80-120 | | | |
| Xylene (o) | 0.0571 | 0.00100 | " | 0.0500 | | 114 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *40.4* | | *ug/l* | *40.0* | | *101* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *44.3* | | " | *40.0* | | *111* | *80-120* | | | |







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Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Organics by GC - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF63019 - EPA 5030C (GC)** | | | | | | | | | | |
| **Calibration Check (EF63019-CCV1)** | | | | Prepared: 06/30/06 Analyzed: 07/03/06 | | | | | | |
| Benzene | 59.5 | | ug/l | 50.0 | | 119 | 80-120 | | | |
| Toluene | 59.9 | | " | 50.0 | | 120 | 80-120 | | | |
| Ethylbenzene | 55.6 | | " | 50.0 | | 111 | 80-120 | | | |
| Xylene (p/m) | 116 | | " | 100 | | 116 | 80-120 | | | |
| Xylene (o) | 56.9 | | " | 50.0 | | 114 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *45.4* | | " | *40.0* | | *114* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *34.6* | | " | *40.0* | | *86.5* | *80-120* | | | |
| **Matrix Spike (EF63019-MS1)** | **Source: 6F30019-01** | | | Prepared: 06/30/06 Analyzed: 07/05/06 | | | | | | |
| Benzene | 0.0562 | 0.00100 | mg/L | 0.0500 | ND | 112 | 80-120 | | | |
| Toluene | 0.0556 | 0.00100 | " | 0.0500 | ND | 111 | 80-120 | | | |
| Ethylbenzene | 0.0517 | 0.00100 | " | 0.0500 | ND | 103 | 80-120 | | | |
| Xylene (p/m) | 0.116 | 0.00100 | " | 0.100 | ND | 116 | 80-120 | | | |
| Xylene (o) | 0.0581 | 0.00100 | " | 0.0500 | ND | 116 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *36.0* | | *ug/l* | *40.0* | | *90.0* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *40.3* | | " | *40.0* | | *101* | *80-120* | | | |
| **Matrix Spike Dup (EF63019-MSD1)** | **Source: 6F30019-01** | | | Prepared: 06/30/06 Analyzed: 07/01/06 | | | | | | |
| Benzene | 0.0532 | 0.00100 | mg/L | 0.0500 | ND | 106 | 80-120 | 5.50 | 20 | |
| Toluene | 0.0563 | 0.00100 | " | 0.0500 | ND | 113 | 80-120 | 1.79 | 20 | |
| Ethylbenzene | 0.0517 | 0.00100 | " | 0.0500 | ND | 103 | 80-120 | 0.00 | 20 | |
| Xylene (p/m) | 0.112 | 0.00100 | " | 0.100 | ND | 112 | 80-120 | 3.51 | 20 | |
| Xylene (o) | 0.0564 | 0.00100 | " | 0.0500 | ND | 113 | 80-120 | 2.62 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *40.6* | | *ug/l* | *40.0* | | *102* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *38.8* | | " | *40.0* | | *97.0* | *80-120* | | | |

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## General Chemistry Parameters by EPA / Standard Methods - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF62902 - Filtration Preparation** | | | | | | | | | | |
| **Blank (EF62902-BLK1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Total Dissolved Solids | ND | 5.00 | mg/L | | | | | | | |
| **Duplicate (EF62902-DUP1)** | **Source: 6F28009-01** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Total Dissolved Solids | 4120 | 5.00 | mg/L | | 4160 | | | 0.966 | 5 | |
| **Duplicate (EF62902-DUP2)** | **Source: 6F28014-10** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Total Dissolved Solids | 3900 | 5.00 | mg/L | | 3800 | | | 2.60 | 5 | |
| **Batch EF62904 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EF62904-BLK1)** | | | | Prepared & Analyzed: 06/29/06 | | | | | | |
| Total Alkalinity | ND | 2.00 | mg/L | | | | | | | |
| **LCS (EF62904-BS1)** | | | | Prepared & Analyzed: 06/29/06 | | | | | | |
| Bicarbonate Alkalinity | 218 | | mg/L | 200 | | 109 | 85-115 | | | |
| **Duplicate (EF62904-DUP1)** | **Source: 6F28014-01** | | | Prepared & Analyzed: 06/29/06 | | | | | | |
| Total Alkalinity | 251 | 2.00 | mg/L | | 250 | | | 0.399 | 20 | |
| **Reference (EF62904-SRM1)** | | | | Prepared & Analyzed: 06/29/06 | | | | | | |
| Total Alkalinity | 97.0 | | mg/L | 100 | | 97.0 | 90-110 | | | |
| **Batch EF62911 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EF62911-BLK1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Chloride | ND | 0.500 | mg/L | | | | | | | |
| Sulfate | ND | 0.500 | " | | | | | | | |

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## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF62911 - General Preparation (WetChem)** | | | | | | | | | | |
| **LCS (EF62911-BS1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Sulfate | 8.85 | | mg/L | 10.0 | | 88.5 | 80-120 | | | |
| Chloride | 10.2 | | " | 10.0 | | 102 | 80-120 | | | |
| **Calibration Check (EF62911-CCV1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Chloride | 9.99 | | mg/L | 10.0 | | 99.9 | 80-120 | | | |
| Sulfate | 10.4 | | " | 10.0 | | 104 | 80-120 | | | |
| **Duplicate (EF62911-DUP1)** | **Source: 6F28014-01** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Sulfate | 403 | 12.5 | mg/L | | 406 | | | 0.742 | 20 | |
| Chloride | 804 | 12.5 | " | | 808 | | | 0.496 | 20 | |
| **Duplicate (EF62911-DUP2)** | **Source: 6F28014-08** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Chloride | 274 | 10.0 | mg/L | | 279 | | | 1.81 | 20 | |
| Sulfate | 115 | 10.0 | " | | 115 | | | 0.00 | 20 | |
| **Matrix Spike (EF62911-MS1)** | **Source: 6F28014-01** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Chloride | 1090 | 12.5 | mg/L | 250 | 808 | 113 | 80-120 | | | |
| Sulfate | 605 | 12.5 | " | 250 | 406 | 79.6 | 75-125 | | | |
| **Matrix Spike (EF62911-MS2)** | **Source: 6F28014-08** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Chloride | 480 | 10.0 | mg/L | 200 | 279 | 100 | 80-120 | | | |
| Sulfate | 257 | 10.0 | " | 200 | 115 | 71.0 | 75-125 | | | S-07 |







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Project Manager: Mark Larson

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## Total Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF63007 - EPA 7470A** | | | | | | | | | | |
| **Blank (EF63007-BLK1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Mercury | ND | 0.000250 | mg/L | | | | | | | |
| **LCS (EF63007-BS1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Mercury | 0.00106 | 0.000250 | mg/L | 0.00100 | | 106 | 85-115 | | | |
| **LCS Dup (EF63007-BSD1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Mercury | 0.00108 | 0.000250 | mg/L | 0.00100 | | 108 | 85-115 | 1.87 | 20 | |
| **Calibration Check (EF63007-CCV1)** | | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Mercury | 0.00110 | | mg/L | 0.00100 | | 110 | 90-110 | | | |
| **Matrix Spike (EF63007-MS1)** | **Source: 6F28014-01** | | | Prepared: 06/29/06 Analyzed: 06/30/06 | | | | | | |
| Mercury | 0.000890 | 0.000250 | mg/L | 0.00100 | 0.000130 | 76.0 | 75-125 | | | |
| **Batch EF63009 - EPA 200.8** | | | | | | | | | | |
| **Blank (EF63009-BLK1)** | | | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | ND | 0.000698 | mg/L | | | | | | | |
| Arsenic | ND | 0.00170 | " | | | | | | | |
| Selenium | ND | 0.00300 | " | | | | | | | |
| Silver | ND | 0.000405 | " | | | | | | | |
| Cadmium | ND | 0.000692 | " | | | | | | | |
| Barium | ND | 0.000489 | " | | | | | | | |
| Lead | ND | 0.000296 | " | | | | | | | |
| **LCS (EF63009-BS1)** | | | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | 0.198 | 0.000698 | mg/L | 0.200 | | 99.0 | 85-115 | | | |
| Arsenic | 0.752 | 0.00170 | " | 0.800 | | 94.0 | 85-115 | | | |
| Selenium | 0.410 | 0.00300 | " | 0.400 | | 102 | 85-115 | | | |
| Silver | 0.100 | 0.000405 | " | 0.100 | | 100 | 85-115 | | | |
| Cadmium | 0.197 | 0.000692 | " | 0.200 | | 98.5 | 85-115 | | | |
| Barium | 0.202 | 0.000489 | " | 0.200 | | 101 | 85-115 | | | |
| Lead | 0.987 | 0.000296 | " | 1.10 | | 89.7 | 85-115 | | | |

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## Total Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF63009 - EPA 200.8** | | | | | | | | | | |
| **LCS Dup (EF63009-BSD1)** | | | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | 0.199 | 0.000698 | mg/L | 0.200 | | 99.5 | 85-115 | 0.504 | 20 | |
| Arsenic | 0.737 | 0.00170 | " | 0.800 | | 92.1 | 85-115 | 2.01 | 20 | |
| Selenium | 0.402 | 0.00300 | " | 0.400 | | 100 | 85-115 | 1.97 | 20 | |
| Silver | 0.0986 | 0.000405 | " | 0.100 | | 98.6 | 85-115 | 1.41 | 20 | |
| Cadmium | 0.196 | 0.000692 | " | 0.200 | | 98.0 | 85-115 | 0.509 | 20 | |
| Barium | 0.206 | 0.000489 | " | 0.200 | | 103 | 85-115 | 1.96 | 20 | |
| Lead | 0.985 | 0.000296 | " | 1.10 | | 89.5 | 85-115 | 0.203 | 20 | |
| **Calibration Check (EF63009-CCV1)** | | | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | 0.0501 | | mg/L | 0.0500 | | 100 | 90-110 | | | |
| Arsenic | 0.0512 | | " | 0.0500 | | 102 | 90-110 | | | |
| Selenium | 0.0500 | | " | 0.0500 | | 100 | 90-110 | | | |
| Silver | 0.0507 | | " | 0.0500 | | 101 | 90-110 | | | |
| Cadmium | 0.0508 | | " | 0.0500 | | 102 | 90-110 | | | |
| Barium | 0.0515 | | " | 0.0500 | | 103 | 90-110 | | | |
| Lead | 0.0501 | | " | 0.0500 | | 100 | 90-110 | | | |
| **Matrix Spike (EF63009-MS1)** | | **Source: 6F28014-01** | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | 0.420 | 0.00698 | mg/L | 0.200 | 0.194 | 113 | 75-125 | | | |
| Arsenic | 0.785 | 0.0170 | " | 0.800 | 0.00710 | 97.2 | 75-125 | | | |
| Selenium | 0.416 | 0.0300 | " | 0.400 | 0.0145 | 100 | 75-125 | | | |
| Silver | 0.0951 | 0.00405 | " | 0.100 | ND | 95.1 | 75-125 | | | |
| Cadmium | 0.202 | 0.00692 | " | 0.200 | ND | 101 | 75-125 | | | |
| Barium | 0.280 | 0.00489 | " | 0.200 | 0.276 | 2.00 | 75-125 | | | MS-3 |
| Lead | 1.10 | 0.00296 | " | 1.10 | ND | 100 | 75-125 | | | |
| **Matrix Spike Dup (EF63009-MSD1)** | | **Source: 6F28014-01** | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Chromium | 0.419 | 0.00698 | mg/L | 0.200 | 0.194 | 112 | 75-125 | 0.238 | 20 | |
| Arsenic | 0.786 | 0.0170 | " | 0.800 | 0.00710 | 97.4 | 75-125 | 0.127 | 20 | |
| Selenium | 0.431 | 0.0300 | " | 0.400 | 0.0145 | 104 | 75-125 | 3.54 | 20 | |
| Silver | 0.0942 | 0.00405 | " | 0.100 | ND | 94.2 | 75-125 | 0.951 | 20 | |
| Cadmium | 0.201 | 0.00692 | " | 0.200 | ND | 100 | 75-125 | 0.496 | 20 | |
| Barium | 0.278 | 0.00489 | " | 0.200 | 0.276 | 1.00 | 75-125 | 0.717 | 20 | MS-3 |
| Lead | 1.10 | 0.00296 | " | 1.10 | ND | 100 | 75-125 | 0.00 | 20 | |

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# Total Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EF63009 - EPA 200.8** | | | | | | | | | | |
| **Post Spike (EF63009-PS1)** | **Source: 6F28014-01** | | | Prepared: 06/29/06 Analyzed: 07/06/06 | | | | | | |
| Barium | 10.7 | 0.0244 | mg/L | 10.0 | 0.276 | 104 | 85-115 | | | |
| **Batch EG60504 - 6010B/No Digestion** | | | | | | | | | | |
| **Blank (EG60504-BLK1)** | | | | Prepared & Analyzed: 07/05/06 | | | | | | |
| Calcium | ND | 0.0100 | mg/L | | | | | | | |
| Magnesium | ND | 0.00100 | " | | | | | | | |
| Potassium | ND | 0.0500 | " | | | | | | | |
| Sodium | ND | 0.0100 | " | | | | | | | |
| **Calibration Check (EG60504-CCV1)** | | | | Prepared & Analyzed: 07/05/06 | | | | | | |
| Calcium | 1.95 | | mg/L | 2.00 | | 97.5 | 85-115 | | | |
| Magnesium | 2.14 | | " | 2.00 | | 107 | 85-115 | | | |
| Potassium | 1.99 | | " | 2.00 | | 99.5 | 85-115 | | | |
| Sodium | 1.94 | | " | 2.00 | | 97.0 | 85-115 | | | |
| **Duplicate (EG60504-DUP1)** | **Source: 6F28014-01** | | | Prepared & Analyzed: 07/05/06 | | | | | | |
| Calcium | 290 | 0.500 | mg/L | | 288 | | | 0.692 | 20 | |
| Magnesium | 127 | 0.0500 | " | | 124 | | | 2.39 | 20 | |
| Potassium | 12.9 | 0.500 | " | | 13.0 | | | 0.772 | 20 | |
| Sodium | 228 | 2.00 | " | | 231 | | | 1.31 | 20 | |

## Notes and Definitions

| | |
|---|---|
| S-07 | Recovery outside Laboratory historical or method prescribed limits. |
| MS-3 | Matrix spike and/or matrix spike duplicate outside 75-125% limits. Serial dilution (x5) outside 10% RPD limits. Post spike for the serial dilution sample was within 75-125% recovery, therefore data accepted based on method requirements. |
| J | Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |
| LCS | Laboratory Control Spike |
| MS | Matrix Spike |
| Dup | Duplicate |

Report Approved By: Raland K. Tuttle Date: 7/10/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

# CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: TARGA MIDSTREAM

SITE MANAGER: MARK LARSON

PROJECT NO.: 2-0103

PROJECT NAME: Eunice Gas Plant

PAGE 1 OF 1

LAB. PO #

| DATE | TIME | WATER | SOIL | OTHER | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | BTEX | CATIONS | ANIONS | TDS | TOTAL METALS | | | | | LAB. I.D. NUMBER (LAB USE ONLY) | REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6/27 | 0744 | X | | | MW-1 | 4 | X | X | X | X | X | | | | | 6F28014-01 | |
| | 0831 | | | | MW-2 | | | | | | | | | | | -02 | |
| | 0920 | | | | MW-13 | | | | | | | | | | | -03 | |
| | 0955 | | | | MW-4 | | | | | | | | | | | -04 | |
| | 1035 | | | | MW-3 | | | | | | | | | | | -05 | |
| | 1112 | | | | MW-14 | | | | | | | | | | | -06 | |
| | 1144 | | | | MW-5 | | | | | | | | | | | -07 | |
| | 1325 | | | | MW-6 | | | | | | | | | | | -08 | |
| 6/28 | 0838 | | | | MW-11 | | | | | | | | | | | -09 | |
| | 0902 | | | | MW-12 | | | | | | | | | | | -10 | |
| | 0950 | | | | MW-20 | | | | | | | | | | | -11 | |
| | 1042 | | | | MW-19 | | | | | | | | | | | -12 | |
| | 1232 | | | | MW-18 | | | | | | | | | | | -13 | |
| | | | | | | | | | | | | | | | | ~~-14~~ | |
| | — | | | | DUP 1 | | | | | | | | | | | -14 ~~-15~~ | |
| | — | | | | DUP 2 | | | | | | | | | | | -15 ~~-16~~ | |

SAMPLED BY: (Signature) DATE: 6/28 TIME: 1305

RELINQUISHED BY: (Signature) DATE: TIME:

RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) DATE: 6/28 TIME: 1605

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: 6/28/06 TIME: 16:05

SAMPLE CONDITION WHEN RECEIVED:
ok 1.0°C ~~1.7~~ w/ label ~~ok~~ glass ok

LA CONTACT PERSON:

SAMPLE TYPE:
1L-poly 2 VOA HCl 500mL-poly $HNO_3$

# Environmental Lab of Texas
## Variance / Corrective Action Report – Sample Log-In

Client: Larson

Date/Time: 6/28/06 11:05

Order #: 6F28014

Initials: CK

### Sample Receipt Checklist

| | | | |
|---|---|---|---|
| Temperature of container/cooler? | Yes | No | 1.0 C |
| Shipping container/cooler in good condition? | Yes | No | |
| Custody Seals intact on shipping container/cooler? | Yes | No | Not present |
| Custody Seals intact on sample bottles? | Yes | No | Not present |
| Chain of custody present? | Yes | No | |
| Sample Instructions complete on Chain of Custody? | Yes | No | |
| Chain of Custody signed when relinquished and received? | Yes | No | |
| Chain of custody agrees with sample label(s) | Yes | No | |
| Container labels legible and intact? | Yes | No | |
| Sample Matrix and properties same as on chain of custody? | Yes | No | |
| Samples in proper container/bottle? | Yes | No | |
| Samples properly preserved? | Yes | No | |
| Sample bottles intact? | Yes | No | |
| Preservations documented on Chain of Custody? | Yes | No | |
| Containers documented on Chain of Custody? | Yes | No | |
| Sufficient sample amount for indicated test? | Yes | No | |
| All samples received within sufficient hold time? | Yes | No | |
| VOC samples have zero headspace? | Yes | No | Not Applicable |

Other observations:

### Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

# Analytical Report

**Prepared for:**

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Targa Midstream/ Eunice Mid. Plant

Project Number: 2-0103

Location: None Given

Lab Order Number: 6L15007

Report Date: 01/02/07

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-1 | 6L15007-01 | Water | 12/05/06 11:30 | 12-15-2006 09:35 |
| MW-7 | 6L15007-02 | Water | 12/05/06 12:20 | 12-15-2006 09:35 |
| MW-8 | 6L15007-03 | Water | 12/05/06 13:00 | 12-15-2006 09:35 |
| MW-9 | 6L15007-04 | Water | 12/05/06 13:45 | 12-15-2006 09:35 |
| MW-10 | 6L15007-05 | Water | 12/05/06 14:15 | 12-15-2006 09:35 |
| MW-11 | 6L15007-06 | Water | 12/05/06 14:40 | 12-15-2006 09:35 |
| MW-14 | 6L15007-07 | Water | 12/06/06 09:00 | 12-15-2006 09:35 |
| MW-4 | 6L15007-08 | Water | 12/06/06 10:00 | 12-15-2006 09:35 |
| MW-3 | 6L15007-09 | Water | 12/06/06 10:40 | 12-15-2006 09:35 |
| MW-13 | 6L15007-10 | Water | 12/06/06 11:10 | 12-15-2006 09:35 |
| MW-12 | 6L15007-11 | Water | 12/08/06 09:10 | 12-15-2006 09:35 |
| MW-18 | 6L15007-12 | Water | 12/08/06 09:40 | 12-15-2006 09:35 |
| MW-20 | 6L15007-13 | Water | 12/08/06 10:40 | 12-15-2006 09:35 |
| MW-19 | 6L15007-14 | Water | 12/08/06 11:55 | 12-15-2006 09:35 |
| MW-15 | 6L15007-15 | Water | 12/08/06 12:40 | 12-15-2006 09:35 |
| MW-6 | 6L15007-16 | Water | 12/08/06 13:50 | 12-15-2006 09:35 |
| MW-5 | 6L15007-17 | Water | 12/12/06 09:30 | 12-15-2006 09:35 |
| MW-16 | 6L15007-18 | Water | 12/12/06 10:30 | 12-15-2006 09:35 |
| DUP #1 | 6L15007-19 | Water | 12/08/06 00:00 | 12-15-2006 09:35 |
| DUP #2 | 6L15007-20 | Water | 12/08/06 00:00 | 12-15-2006 09:35 |
| DUP #3 | 6L15007-21 | Water | 12/12/06 00:00 | 12-15-2006 09:35 |
| DUP #4 | 6L15007-22 | Water | 12/12/06 00:00 | 12-15-2006 09:35 |



12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

## Organics by GC
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-10 (6L15007-05) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61809 | 12/18/06 | 12/18/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *99.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *82.5 %* | *80-120* | | " | " | " | " | |
| **MW-11 (6L15007-06) Water** | | | | | | | | | |
| **Benzene** | **5.11** | 0.100 | mg/L | 100 | EL61809 | 12/18/06 | 12/18/06 | EPA 8021B | |
| Toluene | ND | 0.100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.100 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **J [0.0546]** | 0.100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *107 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.0 %* | *80-120* | | " | " | " | " | |
| **MW-14 (6L15007-07) Water** | | | | | | | | | |
| **Benzene** | **0.0271** | 0.0100 | mg/L | 10 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| **Toluene** | **J [0.00707]** | 0.0100 | " | " | " | " | " | " | |
| **Ethylbenzene** | **J [0.00394]** | 0.0100 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.0175** | 0.0100 | " | " | " | " | " | " | |
| **Xylene (o)** | **J [0.00831]** | 0.0100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *94.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *87.0 %* | *80-120* | | " | " | " | " | |
| **MW-4 (6L15007-08) Water** | | | | | | | | | |
| **Benzene** | **J [0.000519]** | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| **Toluene** | **J [0.000746]** | 0.00100 | " | " | " | " | " | " | |
| **Ethylbenzene** | **J [0.000217]** | 0.00100 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.00140** | 0.00100 | " | " | " | " | " | " | |
| **Xylene (o)** | **J [0.000766]** | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *99.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *91.2 %* | *80-120* | | " | " | " | " | |

Larson & Associates, Inc.
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Midland TX, 79710


Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

# Organics by GC

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (6L15007-09) Water** | | | | | | | | | |
| **Benzene** | **0.130** | 0.0200 | mg/L | 20 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| **Toluene** | **J [0.0116]** | 0.0200 | " | " | " | " | " | " | |
| **Ethylbenzene** | **0.0542** | 0.0200 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.0532** | 0.0200 | " | " | " | " | " | " | |
| **Xylene (o)** | **J [0.0100]** | 0.0200 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *92.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *90.5 %* | *80-120* | | " | " | " | " | |
| **MW-13 (6L15007-10) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *91.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *99.2 %* | *80-120* | | " | " | " | " | |
| **MW-12 (6L15007-11) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *97.0 %* | *80-120* | | " | " | " | " | |
| **MW-18 (6L15007-12) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *102 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *80-120* | | " | " | " | " | |

# Organics by GC

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-20 (6L15007-13) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *103 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *96.0 %* | *80-120* | | " | " | " | " | |
| **MW-19 (6L15007-14) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/19/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *83.2 %* | *80-120* | | " | " | " | " | |
| **MW-15 (6L15007-15) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| **Toluene** | **0.00121** | 0.00100 | " | " | " | " | " | " | |
| **Ethylbenzene** | **J [0.000355]** | 0.00100 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **0.00196** | 0.00100 | " | " | " | " | " | " | |
| **Xylene (o)** | **J [0.000707]** | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *110 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *107 %* | *80-120* | | " | " | " | " | |
| **MW-6 (6L15007-16) Water** | | | | | | | | | |
| **Benzene** | **0.335** | 0.00500 | mg/L | 5 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| **Toluene** | **J [0.00250]** | 0.00500 | " | " | " | " | " | " | |
| **Ethylbenzene** | **0.0597** | 0.00500 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **J [0.00307]** | 0.00500 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00500 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *91.2 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *86.0 %* | *80-120* | | " | " | " | " | |

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Project Number: 2-0103
Project Manager: Mark Larson

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## Organics by GC
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-5 (6L15007-17) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *109 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *80.8 %* | *80-120* | | " | " | " | " | |
| **MW-16 (6L15007-18) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *95.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *94.0 %* | *80-120* | | " | " | " | " | |
| **DUP #1 (6L15007-19) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *94.8 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *101 %* | *80-120* | | " | " | " | " | |
| **DUP #2 (6L15007-20) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| **Xylene (p/m)** | **ND** | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *98.0 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *96.8 %* | *80-120* | | " | " | " | " | |

## Organics by GC

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **DUP #3 (6L15007-21) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *99.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.8 %* | *80-120* | | " | " | " | " | |
| **DUP #4 (6L15007-22) Water** | | | | | | | | | |
| Benzene | ND | 0.00100 | mg/L | 1 | EL61908 | 12/19/06 | 12/20/06 | EPA 8021B | |
| Toluene | ND | 0.00100 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (p/m) | ND | 0.00100 | " | " | " | " | " | " | |
| Xylene (o) | ND | 0.00100 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *88.5 %* | *80-120* | | " | " | " | " | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.8 %* | *80-120* | | " | " | " | " | |

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## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6L15007-01) Water** | | | | | | | | | |
| **Total Alkalinity** | **392** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **662** | 20.0 | " | 40 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1920** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **402** | 20.0 | " | 40 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-7 (6L15007-02) Water** | | | | | | | | | |
| **Total Alkalinity** | **388** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **202** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1150** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **258** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-8 (6L15007-03) Water** | | | | | | | | | |
| **Total Alkalinity** | **260** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **588** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1220** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **155** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-9 (6L15007-04) Water** | | | | | | | | | |
| **Total Alkalinity** | **376** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **45.7** | 5.00 | " | 10 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **564** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **63.5** | 5.00 | " | 10 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-10 (6L15007-05) Water** | | | | | | | | | |
| **Total Alkalinity** | **160** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **529** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1520** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **65.6** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-11 (6L15007-06) Water** | | | | | | | | | |
| **Total Alkalinity** | **262** | 4.00 | mg/L | 2 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **29.0** | 5.00 | " | 10 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **338** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **5.86** | 5.00 | " | 10 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |

## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-14 (6L15007-07) Water** | | | | | | | | | |
| **Total Alkalinity** | **550** | 20.0 | mg/L | 10 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **8770** | 125 | " | 250 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **14000** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **311** | 125 | " | 250 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-4 (6L15007-08) Water** | | | | | | | | | |
| **Total Alkalinity** | **930** | 20.0 | mg/L | 10 | EL61901 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **259** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3100** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **1230** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-3 (6L15007-09) Water** | | | | | | | | | |
| **Total Alkalinity** | **680** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **1340** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2700** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **486** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-13 (6L15007-10) Water** | | | | | | | | | |
| **Total Alkalinity** | **320** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **6150** | 100 | " | 200 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **11700** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **970** | 100 | " | 200 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-12 (6L15007-11) Water** | | | | | | | | | |
| **Total Alkalinity** | **280** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **1540** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3240** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **709** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-18 (6L15007-12) Water** | | | | | | | | | |
| **Total Alkalinity** | **490** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **2910** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **5750** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | O-04 |
| **Sulfate** | **300** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |

Larson & Associates, Inc.
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Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

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## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-20 (6L15007-13) Water** | | | | | | | | | |
| **Total Alkalinity** | **580** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **2110** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **4820** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **564** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-19 (6L15007-14) Water** | | | | | | | | | |
| **Total Alkalinity** | **390** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **4510** | 100 | " | 200 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **7100** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **593** | 100 | " | 200 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-15 (6L15007-15) Water** | | | | | | | | | |
| **Total Alkalinity** | **440** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **834** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2600** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **539** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-6 (6L15007-16) Water** | | | | | | | | | |
| **Total Alkalinity** | **710** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **244** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1370** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **131** | 12.5 | " | 25 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-5 (6L15007-17) Water** | | | | | | | | | |
| **Total Alkalinity** | **680** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **565** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2750** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **960** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **MW-16 (6L15007-18) Water** | | | | | | | | | |
| **Total Alkalinity** | **590** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **863** | 20.0 | " | 40 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **1820** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **83.3** | 20.0 | " | 40 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |

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Project Number: 2-0103
Project Manager: Mark Larson

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## General Chemistry Parameters by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **DUP #1 (6L15007-19) Water** | | | | | | | | | |
| **Total Alkalinity** | **600** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **2020** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **4720** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **547** | 50.0 | " | 100 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **DUP #2 (6L15007-20) Water** | | | | | | | | | |
| **Total Alkalinity** | **520** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **769** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2340** | 10.0 | " | 1 | EL61801 | 12/15/06 | 12/18/06 | EPA 160.1 | |
| **Sulfate** | **465** | 25.0 | " | 50 | EL62107 | 12/21/06 | 12/27/06 | EPA 300.0 | |
| **DUP #3 (6L15007-21) Water** | | | | | | | | | |
| **Total Alkalinity** | **620** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **546** | 25.0 | " | 50 | EL62105 | 12/20/06 | 12/21/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **3110** | 10.0 | " | 1 | EL61530 | 12/18/06 | 12/19/06 | EPA 160.1 | |
| **Sulfate** | **928** | 25.0 | " | 50 | EL62105 | 12/20/06 | 12/21/06 | EPA 300.0 | |
| **DUP #4 (6L15007-22) Water** | | | | | | | | | |
| **Total Alkalinity** | **530** | 20.0 | mg/L | 10 | EL62009 | 12/19/06 | 12/19/06 | EPA 310.1M | B |
| **Chloride** | **997** | 25.0 | " | 50 | EL62105 | 12/20/06 | 12/21/06 | EPA 300.0 | |
| **Total Dissolved Solids** | **2290** | 10.0 | " | 1 | EL61530 | 12/18/06 | 12/19/06 | EPA 160.1 | |
| **Sulfate** | **114** | 25.0 | " | 50 | EL62105 | 12/20/06 | 12/21/06 | EPA 300.0 | |

## Total Metals by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6L15007-01) Water** | | | | | | | | | |
| **Calcium** | **360** | 20.2 | mg/L | 250 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **96.2** | 1.80 | " | 50 | " | " | " | " | |
| **Potassium** | **13.4** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **350** | 10.8 | " | 250 | " | " | " | " | |
| **MW-7 (6L15007-02) Water** | | | | | | | | | |
| **Calcium** | **152** | 4.05 | mg/L | 50 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **47.9** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **8.71** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **191** | 2.15 | " | 50 | " | " | " | " | |
| **MW-8 (6L15007-03) Water** | | | | | | | | | |
| **Calcium** | **141** | 4.05 | mg/L | 50 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **76.4** | 1.80 | " | " | " | " | " | " | |
| **Potassium** | **9.81** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **280** | 2.15 | " | 50 | " | " | " | " | |
| **MW-9 (6L15007-04) Water** | | | | | | | | | |
| **Calcium** | **71.8** | 4.05 | mg/L | 50 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **31.9** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **5.12** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **79.2** | 2.15 | " | 50 | " | " | " | " | |
| **MW-10 (6L15007-05) Water** | | | | | | | | | |
| **Calcium** | **280** | 8.10 | mg/L | 100 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **76.5** | 1.80 | " | 50 | " | " | " | " | |
| **Potassium** | **4.31** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **44.7** | 2.15 | " | 50 | " | " | " | " | |
| **MW-11 (6L15007-06) Water** | | | | | | | | | |
| **Calcium** | **34.9** | 0.810 | mg/L | 10 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **21.1** | 0.360 | " | " | " | " | " | " | |
| **Potassium** | **3.15** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **51.9** | 0.430 | " | " | " | " | " | " | |

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Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

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## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-14 (6L15007-07) Water** | | | | | | | | | |
| **Calcium** | **882** | 40.5 | mg/L | 500 | EL61906 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **394** | 3.60 | " | 100 | " | " | " | " | |
| **Potassium** | **80.1** | 3.00 | " | 50 | " | " | " | " | |
| **Sodium** | **5350** | 108 | " | 2500 | " | " | " | " | |
| **MW-4 (6L15007-08) Water** | | | | | | | | | |
| **Calcium** | **142** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **28.1** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **22.8** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **1060** | 21.5 | " | 500 | " | " | " | " | |
| **MW-3 (6L15007-09) Water** | | | | | | | | | |
| **Calcium** | **288** | 8.10 | mg/L | 100 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **246** | 3.60 | " | " | " | " | " | " | |
| **Potassium** | **23.6** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **707** | 21.5 | " | 500 | " | " | " | " | |
| **MW-13 (6L15007-10) Water** | | | | | | | | | |
| **Calcium** | **2500** | 40.5 | mg/L | 500 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **978** | 18.0 | " | " | " | " | " | " | |
| **Potassium** | **40.2** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **1110** | 21.5 | " | 500 | " | " | " | " | |
| **MW-12 (6L15007-11) Water** | | | | | | | | | |
| **Calcium** | **680** | 40.5 | mg/L | 500 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **252** | 1.80 | " | 50 | " | " | " | " | |
| **Potassium** | **13.6** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **705** | 21.5 | " | 500 | " | " | " | " | |
| **MW-18 (6L15007-12) Water** | | | | | | | | | |
| **Calcium** | **669** | 40.5 | mg/L | 500 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **233** | 1.80 | " | 50 | " | " | " | " | |
| **Potassium** | **29.7** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **1640** | 21.5 | " | 500 | " | " | " | " | |







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| | | |
|---|---|---|
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| P.O. Box 50685 | Project Number: 2-0103 | |
| Midland TX, 79710 | Project Manager: Mark Larson | |


## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-20 (6L15007-13) Water** | | | | | | | | | |
| **Calcium** | **31.6** | 0.810 | mg/L | 10 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **20.4** | 0.360 | " | " | " | " | " | " | |
| **Potassium** | **61.2** | 3.00 | " | 50 | " | " | " | " | |
| **Sodium** | **2910** | 21.5 | " | 500 | " | " | " | " | |
| **MW-19 (6L15007-14) Water** | | | | | | | | | |
| **Calcium** | **984** | 40.5 | mg/L | 500 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **700** | 18.0 | " | " | " | " | " | " | |
| **Potassium** | **38.6** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **2480** | 21.5 | " | 500 | " | " | " | " | |
| **MW-15 (6L15007-15) Water** | | | | | | | | | |
| **Calcium** | **175** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **103** | 1.80 | " | " | " | " | " | " | |
| **Potassium** | **26.8** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **773** | 10.8 | " | 250 | " | " | " | " | |
| **MW-6 (6L15007-16) Water** | | | | | | | | | |
| **Calcium** | **95.2** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **9.22** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **47.6** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **385** | 4.30 | " | 100 | " | " | " | " | |
| **MW-5 (6L15007-17) Water** | | | | | | | | | |
| **Calcium** | **90.3** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **33.7** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **38.2** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **1110** | 10.8 | " | 250 | " | " | " | " | |
| **MW-16 (6L15007-18) Water** | | | | | | | | | |
| **Calcium** | **171** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **46.2** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **13.0** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **760** | 21.5 | " | 500 | " | " | " | " | |

| | | |
|---|---|---|
| Larson & Associates, Inc.<br>P.O. Box 50685<br>Midland TX, 79710 | Project: Targa Midstream/ Eunice Mid. Plant<br>Project Number: 2-0103<br>Project Manager: Mark Larson | Fax: (432) 687-0456 |

## Total Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **DUP #1 (6L15007-19) Water** | | | | | | | | | |
| **Calcium** | **32.6** | 0.810 | mg/L | 10 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **16.7** | 0.360 | " | " | " | " | " | " | |
| **Potassium** | **55.0** | 3.00 | " | 50 | " | " | " | " | |
| **Sodium** | **2780** | 43.0 | " | 1000 | " | " | " | " | |
| **DUP #2 (6L15007-20) Water** | | | | | | | | | |
| **Calcium** | **190** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **112** | 1.80 | " | " | " | " | " | " | |
| **Potassium** | **27.5** | 0.600 | " | 10 | " | " | " | " | |
| **Sodium** | **1070** | 21.5 | " | 500 | " | " | " | " | |
| **DUP #3 (6L15007-21) Water** | | | | | | | | | |
| **Calcium** | **130** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **44.8** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **39.4** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **1200** | 21.5 | " | 500 | " | " | " | " | |
| **DUP #4 (6L15007-22) Water** | | | | | | | | | |
| **Calcium** | **177** | 4.05 | mg/L | 50 | EL61907 | 12/19/06 | 12/19/06 | EPA 6010B | |
| **Magnesium** | **52.2** | 0.360 | " | 10 | " | " | " | " | |
| **Potassium** | **13.6** | 0.600 | " | " | " | " | " | " | |
| **Sodium** | **728** | 21.5 | " | 500 | " | " | " | " | |







12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Dissolved Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-1 (6L15007-01) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0116** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0371** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **0.0767** | 0.000405 | " | " | " | " | " | " | |
| Lead | ND | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.0100** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **0.0104** | 0.000296 | " | " | " | " | " | " | |
| **MW-7 (6L15007-02) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0101** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0510** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **0.00183** | 0.000405 | " | " | " | " | " | " | |
| **Lead** | **ND** | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.00881** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **J [0.000163]** | 0.000296 | " | " | " | " | " | " | J |
| **MW-8 (6L15007-03) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0156** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0672** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **0.00111** | 0.000405 | " | " | " | " | " | " | |
| Lead | ND | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.00921** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **0.000575** | 0.000296 | " | " | " | " | " | " | |
| **MW-9 (6L15007-04) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0114** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0563** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **0.000569** | 0.000405 | " | " | " | " | " | " | |
| Lead | ND | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.000912** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **J [0.000226]** | 0.000296 | " | " | " | " | " | " | J |

Larson & Associates, Inc.
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Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

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## Dissolved Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-10 (6L15007-05) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.00934** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.303** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **J [0.000368]** | 0.000405 | " | " | " | " | " | " | J |
| Lead | ND | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.00376** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **0.000464** | 0.000296 | " | " | " | " | " | " | |
| **MW-11 (6L15007-06) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0127** | 0.000698 | " | " | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **1.17** | 0.00170 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00300 | " | " | " | " | " | " | |
| **Chromium** | **J [0.000387]** | 0.000405 | " | " | " | " | " | " | J |
| Lead | ND | 0.000692 | " | " | " | " | " | " | |
| **Selenium** | **0.000849** | 0.000489 | " | " | " | " | " | " | |
| **Silver** | **ND** | 0.000296 | " | " | " | " | " | " | |
| **MW-14 (6L15007-07) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0339** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.238** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **J [0.000826]** | 0.00202 | " | " | " | " | " | " | J |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **J [0.000850]** | 0.00244 | " | " | " | " | " | " | J |
| **Silver** | **J [0.00102]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-4 (6L15007-08) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0405** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0297** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.0162** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.108** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **ND** | 0.00148 | " | " | " | " | " | " | |

## Dissolved Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (6L15007-09) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.107** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **1.78** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **J [0.00122]** | 0.00202 | " | " | " | " | " | " | J |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00326** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.000336]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-13 (6L15007-10) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0325** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.117** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **ND** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.0246** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.00121]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-12 (6L15007-11) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0195** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0474** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| Chromium | ND | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.0201** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **0.00151** | 0.00148 | " | " | " | " | " | " | |
| **MW-18 (6L15007-12) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0149** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0794** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **J [0.00116]** | 0.00202 | " | " | " | " | " | " | J |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00588** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.00134]** | 0.00148 | " | " | " | " | " | " | J |

## Dissolved Metals by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-20 (6L15007-13) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0562** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0205** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.00516** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00838** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.000870]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-19 (6L15007-14) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0210** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0415** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.00413** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00802** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.000880]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-15 (6L15007-15) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0197** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0471** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.0356** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00887** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **ND** | 0.00148 | " | " | " | " | " | " | |
| **MW-6 (6L15007-16) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0353** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.144** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **ND** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00518** | 0.00244 | " | " | " | " | " | " | |

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## Dissolved Metals by EPA / Standard Methods
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-6 (6L15007-16) Water** | | | | | | | | | |
| **Silver** | **ND** | 0.00148 | mg/L | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **MW-5 (6L15007-17) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0267** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0409** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **J [0.00114]** | 0.00202 | " | " | " | " | " | " | J |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00763** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.000551]** | 0.00148 | " | " | " | " | " | " | J |
| **MW-16 (6L15007-18) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0125** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.255** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **ND** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **J [0.00240]** | 0.00244 | " | " | " | " | " | " | J |
| **Silver** | **0.00596** | 0.00148 | " | " | " | " | " | " | |
| **DUP #1 (6L15007-19) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0567** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0208** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.00447** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00958** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.00107]** | 0.00148 | " | " | " | " | " | " | J |

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## Dissolved Metals by EPA / Standard Methods

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **DUP #2 (6L15007-20) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62011 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0206** | 0.00349 | " | 5 | EL62004 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0476** | 0.00852 | " | " | " | " | " | " | |
| Cadmium | ND | 0.0150 | " | " | " | " | " | " | |
| **Chromium** | **0.0343** | 0.00202 | " | " | " | " | " | " | |
| Lead | ND | 0.00346 | " | " | " | " | " | " | |
| **Selenium** | **0.00972** | 0.00244 | " | " | " | " | " | " | |
| **Silver** | **J [0.000361]** | 0.00148 | " | " | " | " | " | " | J |
| **DUP #3 (6L15007-21) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62012 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0259** | 0.00852 | " | 5 | EL62005 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.0439** | 0.00244 | " | " | " | " | " | " | |
| Cadmium | ND | 0.00346 | " | " | " | " | " | " | |
| **Chromium** | **J [0.00135]** | 0.00349 | " | " | " | " | " | " | J |
| Lead | ND | 0.00148 | " | " | " | " | " | " | |
| **Selenium** | **J [0.0123]** | 0.0150 | " | " | " | " | " | " | J |
| **Silver** | **0.00522** | 0.00202 | " | " | " | " | " | " | |
| **DUP #4 (6L15007-22) Water** | | | | | | | | | |
| Mercury | ND | 0.000250 | mg/L | 1 | EL62012 | 12/19/06 | 12/20/06 | EPA 7470A | |
| **Arsenic** | **0.0114** | 0.00170 | " | " | EL62005 | 12/20/06 | 12/20/06 | EPA 6020A | |
| **Barium** | **0.288** | 0.000489 | " | " | " | " | " | " | |
| Cadmium | ND | 0.000692 | " | " | " | " | " | " | |
| **Chromium** | **0.000824** | 0.000698 | " | " | " | " | " | " | |
| Lead | ND | 0.000296 | " | " | " | " | " | " | |
| **Selenium** | **J [0.00115]** | 0.00300 | " | " | " | " | " | " | J |
| **Silver** | **J [0.000322]** | 0.000405 | " | " | " | " | " | " | J |

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# Organics by GC - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61809 - EPA 5030C (GC)** | | | | | | | | | | |
| **Blank (EL61809-BLK1)** | | | | Prepared & Analyzed: 12/18/06 | | | | | | |
| Benzene | ND | 0.00100 | mg/L | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00100 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *36.6* | | *ug/l* | *40.0* | | *91.5* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *35.8* | | *"* | *40.0* | | *89.5* | *80-120* | | | |
| **LCS (EL61809-BS1)** | | | | Prepared & Analyzed: 12/18/06 | | | | | | |
| Benzene | 0.0456 | 0.00100 | mg/L | 0.0500 | | 91.2 | 80-120 | | | |
| Toluene | 0.0439 | 0.00100 | " | 0.0500 | | 87.8 | 80-120 | | | |
| Ethylbenzene | 0.0452 | 0.00100 | " | 0.0500 | | 90.4 | 80-120 | | | |
| Xylene (p/m) | 0.0825 | 0.00100 | " | 0.100 | | 82.5 | 80-120 | | | |
| Xylene (o) | 0.0420 | 0.00100 | " | 0.0500 | | 84.0 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *32.1* | | *ug/l* | *40.0* | | *80.2* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *32.5* | | *"* | *40.0* | | *81.2* | *80-120* | | | |
| **Calibration Check (EL61809-CCV1)** | | | | Prepared: 12/18/06 Analyzed: 12/19/06 | | | | | | |
| Benzene | 49.6 | | ug/l | 50.0 | | 99.2 | 80-120 | | | |
| Toluene | 48.9 | | " | 50.0 | | 97.8 | 80-120 | | | |
| Ethylbenzene | 50.1 | | " | 50.0 | | 100 | 80-120 | | | |
| Xylene (p/m) | 88.8 | | " | 100 | | 88.8 | 80-120 | | | |
| Xylene (o) | 43.8 | | " | 50.0 | | 87.6 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *40.0* | | *"* | *40.0* | | *100* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *39.7* | | *"* | *40.0* | | *99.2* | *80-120* | | | |
| **Matrix Spike (EL61809-MS1)** | **Source: 6L12016-05** | | | Prepared: 12/18/06 Analyzed: 12/19/06 | | | | | | |
| Benzene | 0.0547 | 0.00100 | mg/L | 0.0500 | ND | 109 | 80-120 | | | |
| Toluene | 0.0534 | 0.00100 | " | 0.0500 | ND | 107 | 80-120 | | | |
| Ethylbenzene | 0.0551 | 0.00100 | " | 0.0500 | ND | 110 | 80-120 | | | |
| Xylene (p/m) | 0.101 | 0.00100 | " | 0.100 | ND | 101 | 80-120 | | | |
| Xylene (o) | 0.0505 | 0.00100 | " | 0.0500 | ND | 101 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *43.0* | | *ug/l* | *40.0* | | *108* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *39.1* | | *"* | *40.0* | | *97.8* | *80-120* | | | |

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Project Number: 2-0103
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# Organics by GC - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61809 - EPA 5030C (GC)** | | | | | | | | | | |
| **Matrix Spike Dup (EL61809-MSD1)** | | **Source: 6L12016-05** | | Prepared: 12/18/06 | Analyzed: 12/19/06 | | | | | |
| Benzene | 0.0556 | 0.00100 | mg/L | 0.0500 | ND | 111 | 80-120 | 1.82 | 20 | |
| Toluene | 0.0546 | 0.00100 | " | 0.0500 | ND | 109 | 80-120 | 1.85 | 20 | |
| Ethylbenzene | 0.0581 | 0.00100 | " | 0.0500 | ND | 116 | 80-120 | 5.31 | 20 | |
| Xylene (p/m) | 0.102 | 0.00100 | " | 0.100 | ND | 102 | 80-120 | 0.985 | 20 | |
| Xylene (o) | 0.0513 | 0.00100 | " | 0.0500 | ND | 103 | 80-120 | 1.96 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *44.9* | | *ug/l* | *40.0* | | *112* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *34.1* | | *"* | *40.0* | | *85.2* | *80-120* | | | |
| **Batch EL61908 - EPA 5030C (GC)** | | | | | | | | | | |
| **Blank (EL61908-BLK1)** | | | | Prepared: 12/19/06 | Analyzed: 12/20/06 | | | | | |
| Benzene | ND | 0.00100 | mg/L | | | | | | | |
| Toluene | ND | 0.00100 | " | | | | | | | |
| Ethylbenzene | ND | 0.00100 | " | | | | | | | |
| Xylene (p/m) | ND | 0.00100 | " | | | | | | | |
| Xylene (o) | ND | 0.00100 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *41.7* | | *ug/l* | *40.0* | | *104* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *32.6* | | *"* | *40.0* | | *81.5* | *80-120* | | | |
| **LCS (EL61908-BS1)** | | | | Prepared: 12/19/06 | Analyzed: 12/20/06 | | | | | |
| Benzene | 0.0468 | 0.00100 | mg/L | 0.0500 | | 93.6 | 80-120 | | | |
| Toluene | 0.0469 | 0.00100 | " | 0.0500 | | 93.8 | 80-120 | | | |
| Ethylbenzene | 0.0500 | 0.00100 | " | 0.0500 | | 100 | 80-120 | | | |
| Xylene (p/m) | 0.0893 | 0.00100 | " | 0.100 | | 89.3 | 80-120 | | | |
| Xylene (o) | 0.0431 | 0.00100 | " | 0.0500 | | 86.2 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *34.7* | | *ug/l* | *40.0* | | *86.8* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *40.0* | | *"* | *40.0* | | *100* | *80-120* | | | |

## Organics by GC - Quality Control
## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61908 - EPA 5030C (GC)** | | | | | | | | | | |
| **Calibration Check (EL61908-CCV1)** | | | | Prepared: 12/19/06 | Analyzed: 12/20/06 | | | | | |
| Benzene | 50.3 | | ug/l | 50.0 | | 101 | 80-120 | | | |
| Toluene | 48.7 | | " | 50.0 | | 97.4 | 80-120 | | | |
| Ethylbenzene | 50.2 | | " | 50.0 | | 100 | 80-120 | | | |
| Xylene (p/m) | 89.8 | | " | 100 | | 89.8 | 80-120 | | | |
| Xylene (o) | 45.2 | | " | 50.0 | | 90.4 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *41.4* | | " | *40.0* | | *104* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *39.2* | | " | *40.0* | | *98.0* | *80-120* | | | |
| **Matrix Spike (EL61908-MS1)** | | **Source: 6L15007-10** | | Prepared: 12/19/06 | Analyzed: 12/20/06 | | | | | |
| Benzene | 0.0476 | 0.00100 | mg/L | 0.0500 | ND | 95.2 | 80-120 | | | |
| Toluene | 0.0487 | 0.00100 | " | 0.0500 | ND | 97.4 | 80-120 | | | |
| Ethylbenzene | 0.0464 | 0.00100 | " | 0.0500 | ND | 92.8 | 80-120 | | | |
| Xylene (p/m) | 0.0929 | 0.00100 | " | 0.100 | ND | 92.9 | 80-120 | | | |
| Xylene (o) | 0.0446 | 0.00100 | " | 0.0500 | ND | 89.2 | 80-120 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *39.5* | | *ug/l* | *40.0* | | *98.8* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *37.9* | | " | *40.0* | | *94.8* | *80-120* | | | |
| **Matrix Spike Dup (EL61908-MSD1)** | | **Source: 6L15007-10** | | Prepared: 12/19/06 | Analyzed: 12/20/06 | | | | | |
| Benzene | 0.0466 | 0.00100 | mg/L | 0.0500 | ND | 93.2 | 80-120 | 2.12 | 20 | |
| Toluene | 0.0444 | 0.00100 | " | 0.0500 | ND | 88.8 | 80-120 | 9.24 | 20 | |
| Ethylbenzene | 0.0443 | 0.00100 | " | 0.0500 | ND | 88.6 | 80-120 | 4.63 | 20 | |
| Xylene (p/m) | 0.0816 | 0.00100 | " | 0.100 | ND | 81.6 | 80-120 | 13.0 | 20 | |
| Xylene (o) | 0.0420 | 0.00100 | " | 0.0500 | ND | 84.0 | 80-120 | 6.00 | 20 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *36.2* | | *ug/l* | *40.0* | | *90.5* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *34.3* | | " | *40.0* | | *85.8* | *80-120* | | | |

# General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61530 - Filtration Preparation** | | | | | | | | | | |
| **Blank (EL61530-BLK1)** | | | | Prepared: 12/18/06 Analyzed: 12/19/06 | | | | | | |
| Total Dissolved Solids | ND | 10.0 | mg/L | | | | | | | |
| **Duplicate (EL61530-DUP1)** | | **Source: 6L14006-01** | | Prepared: 12/18/06 Analyzed: 12/19/06 | | | | | | |
| Total Dissolved Solids | 9510 | 10.0 | mg/L | | 9600 | | | 0.942 | 20 | |
| **Duplicate (EL61530-DUP2)** | | **Source: 6L15006-03** | | Prepared: 12/18/06 Analyzed: 12/19/06 | | | | | | |
| Total Dissolved Solids | 1250 | 10.0 | mg/L | | 1300 | | | 3.92 | 20 | |
| **Batch EL61801 - Filtration Preparation** | | | | | | | | | | |
| **Blank (EL61801-BLK1)** | | | | Prepared: 12/15/06 Analyzed: 12/18/06 | | | | | | |
| Total Dissolved Solids | ND | 10.0 | mg/L | | | | | | | |
| **Duplicate (EL61801-DUP1)** | | **Source: 6L15007-01** | | Prepared: 12/15/06 Analyzed: 12/18/06 | | | | | | |
| Total Dissolved Solids | 2050 | 10.0 | mg/L | | 1920 | | | 6.55 | 20 | |
| **Duplicate (EL61801-DUP2)** | | **Source: 6L15007-11** | | Prepared: 12/15/06 Analyzed: 12/18/06 | | | | | | |
| Total Dissolved Solids | 3370 | 10.0 | mg/L | | 3240 | | | 3.93 | 20 | |
| **Batch EL61901 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EL61901-BLK1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 8.00 | 4.00 | mg/L | | | | | | | B |
| Carbonate Alkalinity | ND | 0.100 | " | | | | | | | B |
| Bicarbonate Alkalinity | 8.00 | 4.00 | " | | | | | | | B |
| Hydroxide Alkalinity | ND | 0.100 | " | | | | | | | B |

# General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61901 - General Preparation (WetChem)** | | | | | | | | | | |
| **LCS (EL61901-BS1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 196 | 4.00 | mg/L | 200 | | 98.0 | 85-115 | | | B |
| **Duplicate (EL61901-DUP1)** | | **Source: 6L15005-01** | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 2000 | 20.0 | mg/L | | 1960 | | | 2.02 | 20 | B |
| **Reference (EL61901-SRM1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 248 | 4.00 | mg/L | 250 | | 99.2 | 90-110 | | | B |
| **Batch EL62009 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EL62009-BLK1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 12.0 | 4.00 | mg/L | | | | | | | B |
| Carbonate Alkalinity | ND | 0.100 | " | | | | | | | B |
| Bicarbonate Alkalinity | 12.0 | 4.00 | " | | | | | | | B |
| Hydroxide Alkalinity | ND | 0.100 | " | | | | | | | B |
| **LCS (EL62009-BS1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 192 | 4.00 | mg/L | 200 | | 96.0 | 85-115 | | | B |
| **Duplicate (EL62009-DUP1)** | | **Source: 6L15007-09** | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 660 | 20.0 | mg/L | | 680 | | | 2.99 | 20 | B |
| **Reference (EL62009-SRM1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Total Alkalinity | 248 | 4.00 | mg/L | 250 | | 99.2 | 90-110 | | | B |
| **Batch EL62105 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EL62105-BLK1)** | | | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Sulfate | ND | 0.500 | mg/L | | | | | | | |
| Chloride | ND | 0.500 | " | | | | | | | |

## General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62105 - General Preparation (WetChem)** | | | | | | | | | | |
| **LCS (EL62105-BS1)** | | | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Sulfate | 10.2 | 0.500 | mg/L | 10.0 | | 102 | 80-120 | | | |
| Chloride | 10.5 | 0.500 | " | 10.0 | | 105 | 80-120 | | | |
| **Calibration Check (EL62105-CCV1)** | | | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Sulfate | 11.0 | | mg/L | 10.0 | | 110 | 80-120 | | | |
| Chloride | 9.93 | | " | 10.0 | | 99.3 | 80-120 | | | |
| **Duplicate (EL62105-DUP1)** | | **Source: 6L15005-01** | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Chloride | 7610 | 125 | mg/L | | 7510 | | | 1.32 | 20 | |
| Sulfate | 505 | 125 | " | | 493 | | | 2.40 | 20 | |
| **Duplicate (EL62105-DUP2)** | | **Source: 6L15006-04** | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Chloride | 114 | 5.00 | mg/L | | 115 | | | 0.873 | 20 | |
| Sulfate | 173 | 5.00 | " | | 172 | | | 0.580 | 20 | |
| **Matrix Spike (EL62105-MS1)** | | **Source: 6L15005-01** | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Chloride | 10500 | 125 | mg/L | 2500 | 7510 | 120 | 80-120 | | | |
| Sulfate | 3490 | 125 | " | 2500 | 493 | 120 | 80-120 | | | |
| **Matrix Spike (EL62105-MS2)** | | **Source: 6L15006-04** | | Prepared: 12/20/06 Analyzed: 12/21/06 | | | | | | |
| Chloride | 221 | 5.00 | mg/L | 100 | 115 | 106 | 80-120 | | | |
| Sulfate | 277 | 5.00 | " | 100 | 172 | 105 | 80-120 | | | |
| **Batch EL62107 - General Preparation (WetChem)** | | | | | | | | | | |
| **Blank (EL62107-BLK1)** | | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Sulfate | ND | 0.500 | mg/L | | | | | | | |
| Chloride | ND | 0.500 | " | | | | | | | |

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Project Number: 2-0103
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# General Chemistry Parameters by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62107 - General Preparation (WetChem)** | | | | | | | | | | |
| **LCS (EL62107-BS1)** | | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Sulfate | 10.6 | 0.500 | mg/L | 10.0 | | 106 | 80-120 | | | |
| Chloride | 10.7 | 0.500 | " | 10.0 | | 107 | 80-120 | | | |
| **Calibration Check (EL62107-CCV1)** | | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Chloride | 8.38 | | mg/L | 10.0 | | 83.8 | 80-120 | | | |
| Sulfate | 10.9 | | " | 10.0 | | 109 | 80-120 | | | |
| **Duplicate (EL62107-DUP1)** | **Source: 6L15007-02** | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Chloride | 196 | 12.5 | mg/L | | 202 | | | 3.02 | 20 | |
| Sulfate | 254 | 12.5 | " | | 258 | | | 1.56 | 20 | |
| **Duplicate (EL62107-DUP2)** | **Source: 6L15007-15** | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Chloride | 848 | 0.500 | mg/L | | 834 | | | 1.66 | 20 | |
| Sulfate | 579 | 0.500 | " | | 539 | | | 7.16 | 20 | |
| **Matrix Spike (EL62107-MS1)** | **Source: 6L15007-02** | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Sulfate | 528 | 12.5 | mg/L | 250 | 258 | 108 | 80-120 | | | |
| Chloride | 475 | 12.5 | " | 250 | 202 | 109 | 80-120 | | | |
| **Matrix Spike (EL62107-MS2)** | **Source: 6L15007-15** | | | Prepared: 12/21/06 Analyzed: 12/27/06 | | | | | | |
| Sulfate | 1180 | 25.0 | mg/L | 500 | 539 | 128 | 80-120 | | | QM-07 |
| Chloride | 1530 | 25.0 | " | 500 | 834 | 139 | 80-120 | | | QM-07 |







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## Total Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61906 - 6010B/No Digestion** | | | | | | | | | | |
| **Blank (EL61906-BLK1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | ND | 0.0810 | mg/L | | | | | | | |
| Magnesium | ND | 0.0360 | " | | | | | | | |
| Potassium | ND | 0.0600 | " | | | | | | | |
| Sodium | ND | 0.0430 | " | | | | | | | |
| **Calibration Check (EL61906-CCV1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | 2.26 | | mg/L | 2.00 | | 113 | 85-115 | | | |
| Magnesium | 1.87 | | " | 2.00 | | 93.5 | 85-115 | | | |
| Potassium | 1.70 | | " | 2.00 | | 85.0 | 85-115 | | | |
| Sodium | 1.93 | | " | 2.00 | | 96.5 | 85-115 | | | |
| **Duplicate (EL61906-DUP1)** | **Source: 6L15005-01** | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | 96.1 | 4.05 | mg/L | | 95.0 | | | 1.15 | 20 | |
| Magnesium | 186 | 1.80 | " | | 199 | | | 6.75 | 20 | |
| Potassium | 39.2 | 0.600 | " | | 39.3 | | | 0.255 | 20 | |
| Sodium | 4870 | 43.0 | " | | 5060 | | | 3.83 | 20 | |
| **Batch EL61907 - 6010B/No Digestion** | | | | | | | | | | |
| **Blank (EL61907-BLK1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | ND | 0.0810 | mg/L | | | | | | | |
| Magnesium | ND | 0.0360 | " | | | | | | | |
| Potassium | ND | 0.0600 | " | | | | | | | |
| Sodium | ND | 0.0430 | " | | | | | | | |
| **Calibration Check (EL61907-CCV1)** | | | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | 2.13 | | mg/L | 2.00 | | 106 | 85-115 | | | |
| Magnesium | 2.00 | | " | 2.00 | | 100 | 85-115 | | | |
| Potassium | 1.71 | | " | 2.00 | | 85.5 | 85-115 | | | |
| Sodium | 1.81 | | " | 2.00 | | 90.5 | 85-115 | | | |

# Total Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL61907 - 6010B/No Digestion** | | | | | | | | | | |
| **Duplicate (EL61907-DUP1)** | | **Source: 6L15007-09** | | Prepared & Analyzed: 12/19/06 | | | | | | |
| Calcium | 292 | 8.10 | mg/L | | 288 | | | 1.38 | 20 | |
| Magnesium | 251 | 3.60 | " | | 246 | | | 2.01 | 20 | |
| Potassium | 24.1 | 0.600 | " | | 23.6 | | | 2.10 | 20 | |
| Sodium | 625 | 21.5 | " | | 707 | | | 12.3 | 20 | |

## Dissolved Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62004 - EPA 3005A** | | | | | | | | | | |
| **Blank (EL62004-BLK1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | ND | 0.000698 | mg/L | | | | | | | |
| Barium | ND | 0.00170 | " | | | | | | | |
| Cadmium | ND | 0.00300 | " | | | | | | | |
| Chromium | ND | 0.000405 | " | | | | | | | |
| Lead | ND | 0.000692 | " | | | | | | | |
| Selenium | ND | 0.000489 | " | | | | | | | |
| Silver | ND | 0.000296 | " | | | | | | | |
| **LCS (EL62004-BS1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.777 | 0.000698 | mg/L | 0.800 | | 97.1 | 85-115 | | | |
| Barium | 0.200 | 0.00170 | " | 0.200 | | 100 | 85-115 | | | |
| Cadmium | 0.199 | 0.00300 | " | 0.200 | | 99.5 | 85-115 | | | |
| Chromium | 0.204 | 0.000405 | " | 0.200 | | 102 | 85-115 | | | |
| Lead | 0.976 | 0.000692 | " | 1.10 | | 88.7 | 85-115 | | | |
| Selenium | 0.401 | 0.000489 | " | 0.400 | | 100 | 85-115 | | | |
| Silver | 0.0946 | 0.000296 | " | 0.100 | | 94.6 | 85-115 | | | |
| **LCS Dup (EL62004-BSD1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.784 | 0.000698 | mg/L | 0.800 | | 98.0 | 85-115 | 0.897 | 20 | |
| Barium | 0.202 | 0.00170 | " | 0.200 | | 101 | 85-115 | 0.995 | 20 | |
| Cadmium | 0.202 | 0.00300 | " | 0.200 | | 101 | 85-115 | 1.50 | 20 | |
| Chromium | 0.204 | 0.000405 | " | 0.200 | | 102 | 85-115 | 0.00 | 20 | |
| Lead | 1.04 | 0.000692 | " | 1.10 | | 94.5 | 85-115 | 6.35 | 20 | |
| Selenium | 0.418 | 0.000489 | " | 0.400 | | 104 | 85-115 | 4.15 | 20 | |
| Silver | 0.101 | 0.000296 | " | 0.100 | | 101 | 85-115 | 6.54 | 20 | |
| **Calibration Check (EL62004-CCV1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.0511 | | mg/L | 0.0500 | | 102 | 90-110 | | | |
| Barium | 0.0487 | | " | 0.0500 | | 97.4 | 90-110 | | | |
| Cadmium | 0.0494 | | " | 0.0500 | | 98.8 | 90-110 | | | |
| Chromium | 0.0458 | | " | 0.0500 | | 91.6 | 90-110 | | | |
| Lead | 0.0500 | | " | 0.0500 | | 100 | 90-110 | | | |
| Selenium | 0.0495 | | " | 0.0500 | | 99.0 | 90-110 | | | |
| Silver | 0.0459 | | " | 0.0500 | | 91.8 | 90-110 | | | |

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

# Dissolved Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62004 - EPA 3005A** | | | | | | | | | | |
| **Matrix Spike (EL62004-MS1)** | **Source: 6L15007-19** | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.906 | 0.00698 | mg/L | 0.800 | 0.0567 | 106 | 75-125 | | | |
| Barium | 0.214 | 0.0170 | " | 0.200 | 0.0208 | 96.6 | 75-125 | | | |
| Cadmium | 0.208 | 0.0300 | " | 0.200 | ND | 104 | 75-125 | | | |
| Chromium | 0.176 | 0.00405 | " | 0.200 | 0.00447 | 85.8 | 75-125 | | | |
| Lead | 0.745 | 0.00692 | " | 1.10 | ND | 67.7 | 75-125 | | | MS-3 |
| Selenium | 0.445 | 0.00489 | " | 0.400 | 0.00958 | 109 | 75-125 | | | |
| Silver | 0.0954 | 0.00296 | " | 0.100 | 0.00107 | 94.3 | 75-125 | | | |
| **Matrix Spike Dup (EL62004-MSD1)** | **Source: 6L15007-19** | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.903 | 0.00698 | mg/L | 0.800 | 0.0567 | 106 | 75-125 | 0.332 | 20 | |
| Barium | 0.218 | 0.0170 | " | 0.200 | 0.0208 | 98.6 | 75-125 | 1.85 | 20 | |
| Cadmium | 0.210 | 0.0300 | " | 0.200 | ND | 105 | 75-125 | 0.957 | 20 | |
| Chromium | 0.178 | 0.00405 | " | 0.200 | 0.00447 | 86.8 | 75-125 | 1.13 | 20 | |
| Lead | 0.801 | 0.00692 | " | 1.10 | ND | 72.8 | 75-125 | 7.24 | 20 | MS-3 |
| Selenium | 0.449 | 0.00489 | " | 0.400 | 0.00958 | 110 | 75-125 | 0.895 | 20 | |
| Silver | 0.0976 | 0.00296 | " | 0.100 | 0.00107 | 96.5 | 75-125 | 2.28 | 20 | |
| **Post Spike (EL62004-PS1)** | **Source: 6L15007-19** | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Lead | 56.4 | 0.0148 | mg/L | 55.0 | ND | 103 | 85-115 | | | |
| **Batch EL62005 - EPA 3005A** | | | | | | | | | | |
| **Blank (EL62005-BLK1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | ND | 0.00170 | mg/L | | | | | | | |
| Barium | ND | 0.000489 | " | | | | | | | |
| Cadmium | ND | 0.000692 | " | | | | | | | |
| Chromium | ND | 0.000698 | " | | | | | | | |
| Lead | ND | 0.000296 | " | | | | | | | |
| Selenium | ND | 0.00300 | " | | | | | | | |
| Silver | ND | 0.000405 | " | | | | | | | |

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Dissolved Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62005 - EPA 3005A** | | | | | | | | | | |
| **LCS (EL62005-BS1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.768 | 0.00170 | mg/L | 0.800 | | 96.0 | 85-115 | | | |
| Barium | 0.195 | 0.000489 | " | 0.200 | | 97.5 | 85-115 | | | |
| Cadmium | 0.196 | 0.000692 | " | 0.200 | | 98.0 | 85-115 | | | |
| Chromium | 0.183 | 0.000698 | " | 0.200 | | 91.5 | 85-115 | | | |
| Lead | 1.02 | 0.000296 | " | 1.10 | | 92.7 | 85-115 | | | |
| Selenium | 0.412 | 0.00300 | " | 0.400 | | 103 | 85-115 | | | |
| Silver | 0.0939 | 0.000405 | " | 0.100 | | 93.9 | 85-115 | | | |
| **LCS Dup (EL62005-BSD1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.786 | 0.00170 | mg/L | 0.800 | | 98.2 | 85-115 | 2.32 | 20 | |
| Barium | 0.193 | 0.000489 | " | 0.200 | | 96.5 | 85-115 | 1.03 | 20 | |
| Cadmium | 0.198 | 0.000692 | " | 0.200 | | 99.0 | 85-115 | 1.02 | 20 | |
| Chromium | 0.184 | 0.000698 | " | 0.200 | | 92.0 | 85-115 | 0.545 | 20 | |
| Lead | 1.03 | 0.000296 | " | 1.10 | | 93.6 | 85-115 | 0.976 | 20 | |
| Selenium | 0.421 | 0.00300 | " | 0.400 | | 105 | 85-115 | 2.16 | 20 | |
| Silver | 0.101 | 0.000405 | " | 0.100 | | 101 | 85-115 | 7.29 | 20 | |
| **Calibration Check (EL62005-CCV1)** | | | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.0525 | | mg/L | 0.0500 | | 105 | 90-110 | | | |
| Barium | 0.0476 | | " | 0.0500 | | 95.2 | 90-110 | | | |
| Cadmium | 0.0491 | | " | 0.0500 | | 98.2 | 90-110 | | | |
| Chromium | 0.0450 | | " | 0.0500 | | 90.0 | 90-110 | | | |
| Lead | 0.0493 | | " | 0.0500 | | 98.6 | 90-110 | | | |
| Selenium | 0.0530 | | " | 0.0500 | | 106 | 90-110 | | | |
| Silver | 0.0457 | | " | 0.0500 | | 91.4 | 90-110 | | | |
| **Matrix Spike (EL62005-MS1)** | | **Source: 6L15007-22** | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.837 | 0.0170 | mg/L | 0.800 | 0.0114 | 103 | 75-125 | | | |
| Barium | 0.433 | 0.00489 | " | 0.200 | 0.288 | 72.5 | 75-125 | | | MS-4 |
| Cadmium | 0.205 | 0.00692 | " | 0.200 | ND | 102 | 75-125 | | | |
| Chromium | 0.174 | 0.00698 | " | 0.200 | 0.000824 | 86.6 | 75-125 | | | |
| Lead | 0.731 | 0.00296 | " | 1.10 | ND | 66.5 | 75-125 | | | MS-3 |
| Selenium | 0.436 | 0.0300 | " | 0.400 | 0.00115 | 109 | 75-125 | | | |
| Silver | 0.112 | 0.00405 | " | 0.100 | 0.000322 | 112 | 75-125 | | | |

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Fax: (432) 687-0456

# Dissolved Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62005 - EPA 3005A** | | | | | | | | | | |
| **Matrix Spike Dup (EL62005-MSD1)** | | **Source: 6L15007-22** | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Arsenic | 0.835 | 0.0170 | mg/L | 0.800 | 0.0114 | 103 | 75-125 | 0.239 | 20 | |
| Barium | 0.435 | 0.00489 | " | 0.200 | 0.288 | 73.5 | 75-125 | 0.461 | 20 | MS-4 |
| Cadmium | 0.206 | 0.00692 | " | 0.200 | ND | 103 | 75-125 | 0.487 | 20 | |
| Chromium | 0.174 | 0.00698 | " | 0.200 | 0.000824 | 86.6 | 75-125 | 0.00 | 20 | |
| Lead | 0.752 | 0.00296 | " | 1.10 | ND | 68.4 | 75-125 | 2.83 | 20 | MS-3 |
| Selenium | 0.430 | 0.0300 | " | 0.400 | 0.00115 | 107 | 75-125 | 1.39 | 20 | |
| Silver | 0.111 | 0.00405 | " | 0.100 | 0.000322 | 111 | 75-125 | 0.897 | 20 | |
| **Post Spike (EL62005-PS1)** | | **Source: 6L15007-22** | | Prepared & Analyzed: 12/20/06 | | | | | | |
| Barium | 10.5 | 0.0244 | mg/L | 10.0 | 0.288 | 102 | 85-115 | | | |
| Lead | 55.4 | 0.0148 | " | 55.0 | ND | 101 | 85-115 | | | |
| **Batch EL62011 - EPA 7470A** | | | | | | | | | | |
| **Blank (EL62011-BLK1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | ND | 0.000250 | mg/L | | | | | | | |
| **LCS (EL62011-BS1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00110 | 0.000250 | mg/L | 0.00100 | | 110 | 85-115 | | | |
| **LCS Dup (EL62011-BSD1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00110 | 0.000250 | mg/L | 0.00100 | | 110 | 85-115 | 0.00 | 20 | |
| **Calibration Check (EL62011-CCV1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00106 | | mg/L | 0.00100 | | 106 | 90-110 | | | |
| **Matrix Spike (EL62011-MS1)** | | **Source: 6L15007-01** | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00106 | 0.000250 | mg/L | 0.00100 | ND | 106 | 75-125 | | | |

Larson & Associates, Inc.
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Midland TX, 79710

Project: Targa Midstream/ Eunice Mid. Plant
Project Number: 2-0103
Project Manager: Mark Larson

Fax: (432) 687-0456

## Dissolved Metals by EPA / Standard Methods - Quality Control

## Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch EL62012 - EPA 7470A** | | | | | | | | | | |
| **Blank (EL62012-BLK1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | ND | 0.000250 | mg/L | | | | | | | |
| **LCS (EL62012-BS1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00104 | 0.000250 | mg/L | 0.00100 | | 104 | 85-115 | | | |
| **LCS Dup (EL62012-BSD1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.00110 | 0.000250 | mg/L | 0.00100 | | 110 | 85-115 | 5.61 | 20 | |
| **Calibration Check (EL62012-CCV1)** | | | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.000990 | | mg/L | 0.00100 | | 99.0 | 90-110 | | | |
| **Matrix Spike (EL62012-MS1)** | | **Source: 6L15007-21** | | Prepared: 12/19/06 Analyzed: 12/20/06 | | | | | | |
| Mercury | 0.000980 | 0.000250 | mg/L | 0.00100 | ND | 98.0 | 75-125 | | | |

## Notes and Definitions

| | |
|---|---|
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
| O-04 | This sample was analyzed outside the EPA recommended holding time. |
| MS-4 | Matrix spike and/or matrix spike duplicate outside 75-125% acceptance limits. Serial dilution (x5) within10% RPD limits. Post spike on serial dilution sample within 75-125% recovery limits indicating matrix interference. |
| MS-3 | Matrix spike and/or matrix spike duplicate outside 75-125% limits. Serial dilution (x5) outside 10% RPD limits. Post spike for the serial dilution sample was within 75-125% recovery, therefore data accepted based on method requirements. |
| J | Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). |
| B | Analyte is found in the associated blank as well as in the sample (CLP B-flag). |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |
| LCS | Laboratory Control Spike |
| MS | Matrix Spike |
| Dup | Duplicate |

Report Approved By: Raland K Tuttle Date: 1/2/2007

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

pg 1 of 2

# CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc.
Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: TARGA
SITE MANAGER: M. LARSON
PROJECT NO.: 2-0103
PROJECT NAME: TARGA EUNICE PLANT
PAGE 1 OF 2
LAB. PO #

| DATE 06 | TIME MST | WATER | SOIL | OTHER | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | BTEX (40ml HCl) | TDS (1L poly) | AN/CAT | DISS. METALS (HNO3 500ml poly) | | | | | LAB. I.D. NUMBER (LAB USE ONLY) | REMARKS (I.E.; FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/5 | 11:30 | X | | | MW-1 | 4 | X | X | X | X | | | | | 6L15001-01 | |
| | 12:20 | X | | | MW-7 | 4 | X | X | X | X | | | | | 02 | |
| | 13:00 | X | | | MW-8 | 4 | X | X | X | X | | | | | 03 | |
| | 13:45 | X | | | MW-9 | 4 | X | X | X | X | | | | | 04 | |
| | 14:15 | X | | | MW-10 | 4 | X | X | X | X | | | | | 05 | |
| 12/5 | 14:40 | X | | | MW-11 | 4 | X | X | X | X | | | | | 06 | |
| 12/6 | 9:00 | X | | | MW-14 | 4 | X | X | X | X | | | | | 07 | |
| \| | 10:00 | X | | | MW-4 | 4 | X | X | X | X | | | | | 08 | |
| \| | 10:40 | X | | | MW-3 | 4 | X | X | X | X | | | | | 09 | |
| 12/6 | 11:10 | X | | | MW-13 | 4 | X | X | X | X | | | | | 10 | |
| 12/8 | 9:10 | X | | | MW-12 | 4 | X | X | X | X | | | | | 11 | |
| | 9:40 | X | | | MW-18 | 4 | X | X | X | X | | | | | 12 | |
| | 10:40 | X | | | MW-20 | 4 | X | X | X | X | | | | | 13 | |
| | 11:55 | X | | | MW-19 | 4 | X | X | X | X | | | | | 14 | |
| ↓ | 12:40 | X | | | MW-15 | 4 | X | X | X | X | | | | | 15 | |
| 12/8 | 13:50 | X | | | MW-6 | 4 | X | X | X | X | | | | | 16 | |
| 12/12 | 9:30 | X | | | MW-5 | 4 | X | X | X | X | | | | | 17 | |
| 12/12 | 10:30 | X | | | MW-16 | 4 | X | X | X | X | | | | | 18 | |

FAE

SAMPLED BY: (Signature) [signature] DATE: 12/12 TIME: 11:20
RELINQUISHED BY: (Signature) DATE: TIME:
RECEIVED BY: (Signature) DATE: TIME:

RELINQUISHED BY: (Signature) [signature] DATE: 12/15 TIME: 9:35
RECEIVED BY: (Signature) DATE: TIME:
SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS: (Diss. Metals are filtered)
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) [signature]
DATE: 12/15/06 TIME: 9:35

SAMPLE CONDITION WHEN RECEIVED: 0.5 w/labels
LA CONTACT PERSON:
SAMPLE TYPE:

# Environmental Lab of Texas

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Mark Larson

Company Name: Larson & Assoc.

Company Address:

City/State/Zip:

Telephone No:

Fax No:

Sampler Signature:

e-mail:

Project Name: Targa Eunice Plant

Project #:

Project Loc:

PO #:

Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #:

| LAB # (lab use only) | FIELD CODE | Beginning Depth | Ending Depth | Date Sampled | Time Sampled | Field Filtered | Total #. of Containers | Ice | $HNO_3$ | HCl | $H_2SO_4$ | NaOH | $Na_2S_2O_3$ | None | Other (Specify) | Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other | TPH: 418.1 8015M 8015B | TPH: TX 1005 TX 1006 | Cations (Ca, Mg, Na, K) | Anions (Cl, SO4, Alkalinity) | SAR / ESP / CEC | Metals: As Ag Ba Cd Cr Pb Hg Se | Volatiles | Semivolatiles | BTEX 8021B/5030 or BTEX 8260 | RCI | N.O.R.M. | TDS | | | RUSH TAT (Pre-Schedule) 24, 48, 72 hrs | Standard TAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | DIUP #1 | | | 12/8/06 | | | 4 | | | | | | | | | W | | | X | X | | | | | X | | | X | | | | |
| 20 | DIUP #2 | | | " | | | 4 | | | | | | | | | W | | | X | X | | | | | X | | | X | | | | |
| 21 | DIUP #3 | | | 12/12/06 | | | 4 | | | | | | | | | W | | | X | X | | | | | X | | | X | | | | |
| 22 | DIUP #4 | | | " | | | 4 | | | | | | | | | W | | | X | X | | | | | X | | | X | | | | |

Analyze For: TCLP: / TOTAL:

Special Instructions:

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| Relinquished by: | Date | Time | Received by: | Date | Time |
| Relinquished by: | Date | Time | Received by ELOT: | Date | Time |

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: °C

# Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson

Date/ Time: 12/15/06 9:35

Lab ID #: 6L15007

Initials: CK

## Sample Receipt Checklist

| | | | | | Client Initials |
|---|---|---|---|---|---|
| #1 | Temperature of container/ cooler? | Yes | No | 0.5 °C | |
| #2 | Shipping container in good condition? | Yes | No | | |
| #3 | Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 | Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | |
| #5 | Chain of Custody present? | Yes | No | | |
| #6 | Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 | Chain of Custody signed when relinquished/ received? | Yes | No | | |
| #8 | Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont./ Lid | |
| #9 | Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 | Sample matrix/ properties agree with Chain of Custody? | Yes | No | | |
| #11 | Containers supplied by ELOT? | Yes | No | | |
| #12 | Samples in proper container/ bottle? | Yes | No | See Below | |
| #13 | Samples properly preserved? | Yes | No | See Below | |
| #14 | Sample bottles intact? | Yes | No | | |
| #15 | Preservations documented on Chain of Custody? | Yes | No | | |
| #16 | Containers documented on Chain of Custody? | Yes | No | | |
| #17 | Sufficient sample amount for indicated test(s)? | Yes | No | See Below | |
| #18 | All samples received within sufficient hold time? | JMM ~~Yes~~ | No | See Below | |
| #19 | Subcontract of sample(s)? | Yes | No | Not Applicable | |
| #20 | VOC samples have zero headspace? | Yes | No | Not Applicable | |

## Variance Documentation

Contact: Mark Larson Contacted by: Jeanne McMurrey Date/ Time: 12-15-06

Regarding: holding time exceeded on TDS on designated samples, $CO_3$, HCOOH as we
Scott: add dups to COC & run MW13 was not labeled

Corrective Action Taken:

Check all that Apply:

- [x] See attached e-mail/ fax
- [x] Client understands and would like to proceed with analysis
- [ ] Cooling process had begun shortly after sampling event

**Jeanne McMurrey**

**From:** "Jeanne McMurrey" <jeanne@elabtexas.com>
**To:** "Mark Larson" <mark@laenvironmental.com>
**Sent:** Friday, December 15, 2006 2:29 PM
**Subject:** Fw: Targa Eunice Plant samples

Hello Mark,
In addition to some of the TDS exceeding the hold times the CO3, HCO3, OH have exceeded their times as well. Do you still want to continue with the analysis? Please let me know.
Thanks,
Jeanne

----- Original Message -----
**From:** Jeanne McMurrey
**To:** Mark Larson
**Sent:** Friday, December 15, 2006 11:02 AM
**Subject:** Re: Targa Eunice Plant samples

Good Morning Mark,

We received your samples for Targa Eunice Plant today. I need to inform you the following samples have exceeded the 7-day hold time for TDS:

MW-1 thru MW-11 sampled on 12/05
MW-14, 4, 3, 13 sampled 12/06
MW-12, 18, 20, 19,15, 6 sa,mpled 12/08

MW-19, MW-15 and MW-6 we will try to salvage before the hold time expires this morning.

Please let me know if you want to continue with the TDS analysis on these particular samples.

Thanks,
Jeanne

Jeanne McMurrey
Environmental Lab of Texas I, Ltd.
12600 West I-20 East
Odessa, Texas 79765
432-563-1800

## Jeanne McMurrey

**From:** "Mark Larson" <mark@laenvironmental.com>
**To:** "Jeanne McMurrey" <jeanne@elabtexas.com>
**Sent:** Friday, December 15, 2006 3:21 PM
**Subject:** RE: Targa Eunice Plant samples

Jeanne: Please run the samples for TDS. Also, per your earlier email, please run the additional analysis.
Mark

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**Jeanne McMurrey**

**From:** "scott armour" <SCOTT@LAENVIRONMENTAL.COM>
**To:** "JEANNE" <JEANNE@ELABTEXAS.COM>
**Sent:** Friday, December 15, 2006 3:16 PM
**Subject:** CHANGES TO WATER SAMPLES

JEANNE,

PLEASE ADD ALL DUPS TO THE CHAIN-OF-CUSTODYS AND RUN THE TARGA EUNICE PLANT SAMPLES THAT ARE UNLABELED BTEX FOR MW-13

THANKS

SCOTT

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