

LEGEND

- TARGA'S ACTIVE INJECTION WELL
- MONITOR WELL LOCATION (SHALLOW)
- MONITOR WELL LOCATION (DEEP)
- RECOVERY WELL LOCATION
- WATER WELL LOCATION (INACTIVE)
- OFFSITE PROPERTY WELLS "NOT SAMPLED"
- HYDROCARBON INVESTIGATION AREA
- CHLORIDE INVESTIGATION AREA
- ▨ APPROXIMATE EXTENT OF LNAPL PLUME
- 5— BENZENE CONTOUR (µg/L)

BASEMAP NOTES

1. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE SLOP OIL SUMP #1 IN JULY 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING DUE SOUTH OF THE SUMP TO A TD OF 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH AND LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) WAS ENCOUNTERED AT 17 FEET BGS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE SLOP OIL SUMP #1 INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 2.0 X 3.0 FEET. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (17) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
2. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE SLOP OIL SUMP #2 IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING DUE SOUTH OF THE SUMP TO A TD OF 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH AND INTERMEDIATE SOILS AT 17 FEET BGS AND LNAPL WAS ENCOUNTERED ON THE GROUNDWATER. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE SLOP OIL SUMP #2 INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 2.0 X 3.0 FEET. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (17) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
3. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE SLOP OIL SUMP #3 IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING DUE SOUTH OF THE SUMP TO A TD OF 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS TO BOTH THE SOILS AND GROUNDWATER IN ALL BORINGS. TWO OF THE THREE BORINGS WERE CONVERTED TO MONITOR WELLS (MW 1 & MW 2). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996.
4. TWO SEPARATE SHALLOW SUBSURFACE INVESTIGATIONS WERE CONDUCTED IN THE VICINITY OF SUMP #4 IN AUGUST 1996 AND AUGUST 1997. THE AUGUST 1996 INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOIL BORING DIRECTLY NORTH OF THE SUMP #4 TO A TD OF 10 FEET BGS. RESULTS AT 10 FEET BGS INDICATED HYDROCARBON IMPACTS. THE JUNE 1997 INVESTIGATION INCLUDED THE INSTALLATION OF THREE ADDITIONAL SHALLOW BORINGS EAST, WEST & SOUTH OF THE SUMP TO A MAXIMUM DEPTH OF 10 FEET BGS. NO HYDROCARBON IMPACTS WERE DETECTED IN ANY OF THE THREE BORINGS AT DEPTH (4 FEET). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED JULY 1997.
5. A SHALLOW SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF SUMP #5 IN AUGUST 1996. THIS INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING DUE SOUTH OF THE SUMP TO A TD OF 10 FEET BGS. NO HYDROCARBON IMPACTS WERE DETECTED AT DEPTH. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996.
6. A SHALLOW SUBSURFACE INVESTIGATION WAS CONDUCTED ON THE SOUTHWEST CORNER OF THE EMERGENCY FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED A SHALLOW TRENCH (TEST PIT) THAT WAS EXCAVATED TO 5 FEET BGS. CONFIRMATION SAMPLES AT DEPTH (5 FEET BGS) WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996.
7. AN INTERMEDIATE SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF THE H2S FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A TD OF 27 FEET BGS. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (1.5 FEET) SOILS NEAR THE H2S FLARE SUMP. ANALYTICAL RESULTS AT THE 27 FEET BGS INTERVAL WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT DATED SEPTEMBER 1996.
8. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF FIELD OIL PIT #1 IN NOVEMBER 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A TOTAL DEPTH (TD) OF FORTY EIGHT (48) FEET BELOW ORIGINAL GRADE LEVEL. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS EXTENDED TO 40 FEET BGS. GROUNDWATER WAS NOT ENCOUNTERED DURING THE INVESTIGATION. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED JULY 1997. REMEDIAL ACTIVITIES FOR THE FIELD OIL PIT #1 INCLUDED OVER-EXCAVATION ACTIVITIES THAT WERE PERFORMED IN FEBRUARY 2000. A TOTAL OF 300 CUBIC YARDS OF SOIL WERE REMOVED. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
9. THE EAST SUMP WAS CONSTRUCTED OF CONCRETE AND MEASURED 9' X 9' X 30'. THE EAST SUMP WAS REMOVED IN SEPTEMBER 2000 AND THE AREA WAS OVER-EXCAVATED TO APPROXIMATELY 7' X 12' X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (5) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
10. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE CONCRETE DRAIN SUMP IN SEPTEMBER 2000. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A TD OF 51 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH. REMEDIAL ACTIVITIES FOR THE CONCRETE DRAIN SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 8' X 12' X 9'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (51) INDICATED HYDROCARBON IMPACTS IN THE SOILS. BOTH INVESTIGATION AND REMEDIATION ACTIVITIES ARE SUMMARIZED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
11. THE NORTH BRINE WATER RETENTION POND (POND #3) MEASURED APPROXIMATELY 240' X 240' X 10' AND HAD A DESIGNED CAPACITY OF 75,000 BARRELS (BBL). USAGE OF THIS POND WAS DISCONTINUED IN EARLY 1996. THE NORTH BRINE WATER RETENTION POND WAS CAPPED AND GROUNDED WITH A CLAY CAP IN LATE 2000.
12. THE SOUTH BRINE WATER RETENTION POND (POND #4) MEASURED APPROXIMATELY 190' X 240' X 10' AND HAD A DESIGNED CAPACITY OF 52,000 BARRELS (BBL). USAGE OF THIS POND WAS DISCONTINUED IN MID 1996. THE SOUTH BRINE WATER RETENTION POND WAS CAPPED AND GROUNDED WITH A CLAY CAP IN LATE 2000.
13. THE FORMER TANK BATTERY LOCATION WAS STRUCK BY LIGHTNING IN MAY 2000. THIS FORMER TANK BATTERY LOCATION WAS USED FOR FLUID (LNAPL) AND PRODUCED WATER STORAGE BY THE GROUNDWATER REMEDIATION SYSTEMS. LOCATED ON THE EAST SIDE OF THE PLANT, APPROXIMATELY 300 BBL'S OF FLUIDS WERE RELEASED AND 300 BBL'S WERE RECOVERED. DEMOLITION OF THE FORMER TANK BATTERY IS SUMMARIZED IN A TRANSMITTAL LETTER OF A 288P-ANNUAL GROUNDWATER MONITORING REPORT FOR THE ENERGE SOUTH GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. DATED MARCH 3, 2006.
14. A SUBSURFACE INVESTIGATION WAS CONDUCTED IN THE VICINITY OF THE FORMER TRUCK LOADING AREA LOCATED SOUTH OF THE PLANT IN NOVEMBER 2000. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS TO GROUNDWATER. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (5-6 FEET BGS) AND IN THE INTERMEDIATE (20-26 BGS) AT LEAST ONE BORING. TWO OF THE THREE WELLS WERE CONVERTED INTO MONITOR WELLS (MW 32 & MW 34). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH ENERGE GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN JULY 2000.
15. THE NORTHWEST BRINE WATER RETENTION POND (POND #5) WAS CAPPED IN JULY 2001. DEMOLITION ACTIVITIES OF THE SOUTHWEST BRINE WATER RETENTION POND (POND #6) ARE SUMMARIZED IN THE 2007 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH ENERGE GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN MARCH 7, 2007.

WELL ID	TMW-6	EXCEEDENCE
Benzene	10	EXCEEDENCE
Toluene	6	DETECTION
Ethylbenzene	<1.0	
Xylenes	<1.0	

ALL CONCENTRATIONS IN MICROGRAMS PER LITER (µg/L)

NOTES:

1. SAMPLES WERE COLLECTED IN AUGUST 2009.
2. WELLS MARKED WITH "LNAPL" WERE NOT SAMPLED DUE TO THE PRESENCE OF LIGHT NON-AQUEOUS PHASE LIQUID.
3. BTEX WAS ANALYZED BY EPA METHOD 8021B.
4. BOLD INDICATES THAT A COC WAS DETECTED.
5. SHADING INDICATES THAT A DETECTED RESULT EXCEEDED THE NMWCC STANDARD.
6. CONTOUR INTERVALS VARY AND ARE INDICATED ON FIGURE.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL ADJUST SCALE ACCORDINGLY.

Chevron Environmental Management Company

ENUNICE SOUTH

BTEX CONCENTRATION MAP

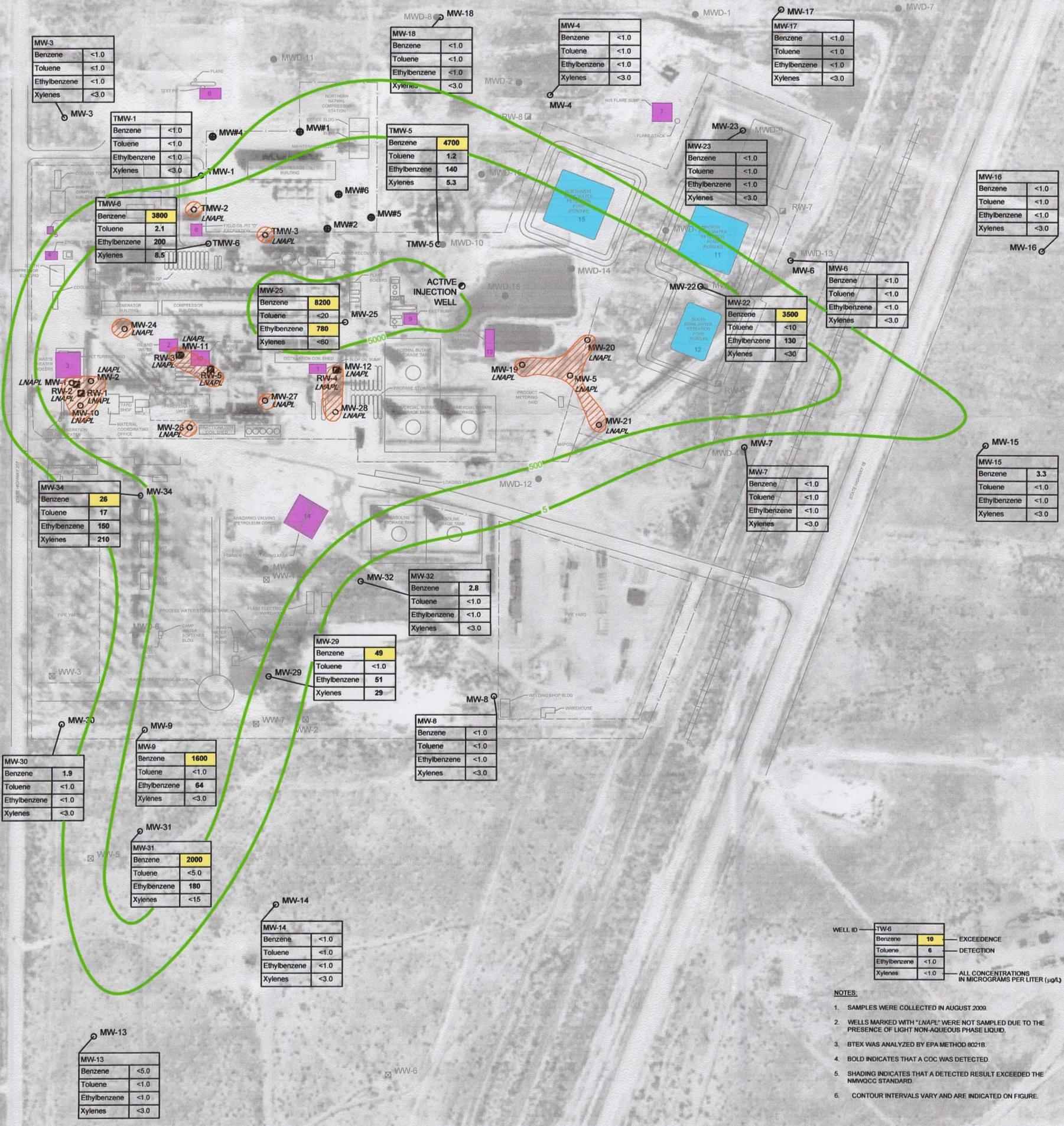
SHALLOW WELLS - AUGUST 2009

COMBETOGA-ROVERS & ASSOCIATES

Source Reference: USGS 1988 AERIAL

Project Manager: J. ORNELAS Reviewed By: T. LARSON Date: AUGUST 2009

Scale: 1:300 Project No.: 055271-09 Report No.: 002 Drawing No.: 011



Well ID	MW-34
Benzene	26
Toluene	17
Ethylbenzene	150
Xylenes	210

Well ID	MW-29
Benzene	49
Toluene	<1.0
Ethylbenzene	51
Xylenes	29

Well ID	MW-9
Benzene	1600
Toluene	<1.0
Ethylbenzene	64
Xylenes	<3.0

Well ID	MW-31
Benzene	2000
Toluene	<5.0
Ethylbenzene	180
Xylenes	<15

Well ID	MW-14
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-3
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-18
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-4
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-17
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	TMW-5
Benzene	4700
Toluene	1.2
Ethylbenzene	140
Xylenes	5.3

Well ID	MW-23
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	TMW-6
Benzene	3800
Toluene	2.1
Ethylbenzene	200
Xylenes	6.5

Well ID	MW-25
Benzene	8200
Toluene	<20
Ethylbenzene	780
Xylenes	<60

Well ID	MW-22
Benzene	3500
Toluene	<1.0
Ethylbenzene	130
Xylenes	<30

Well ID	MW-6
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-16
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-15
Benzene	3.3
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-32
Benzene	2.8
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-7
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-8
Benzene	<1.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-30
Benzene	1.9
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0

Well ID	MW-13
Benzene	<5.0
Toluene	<1.0
Ethylbenzene	<1.0
Xylenes	<3.0