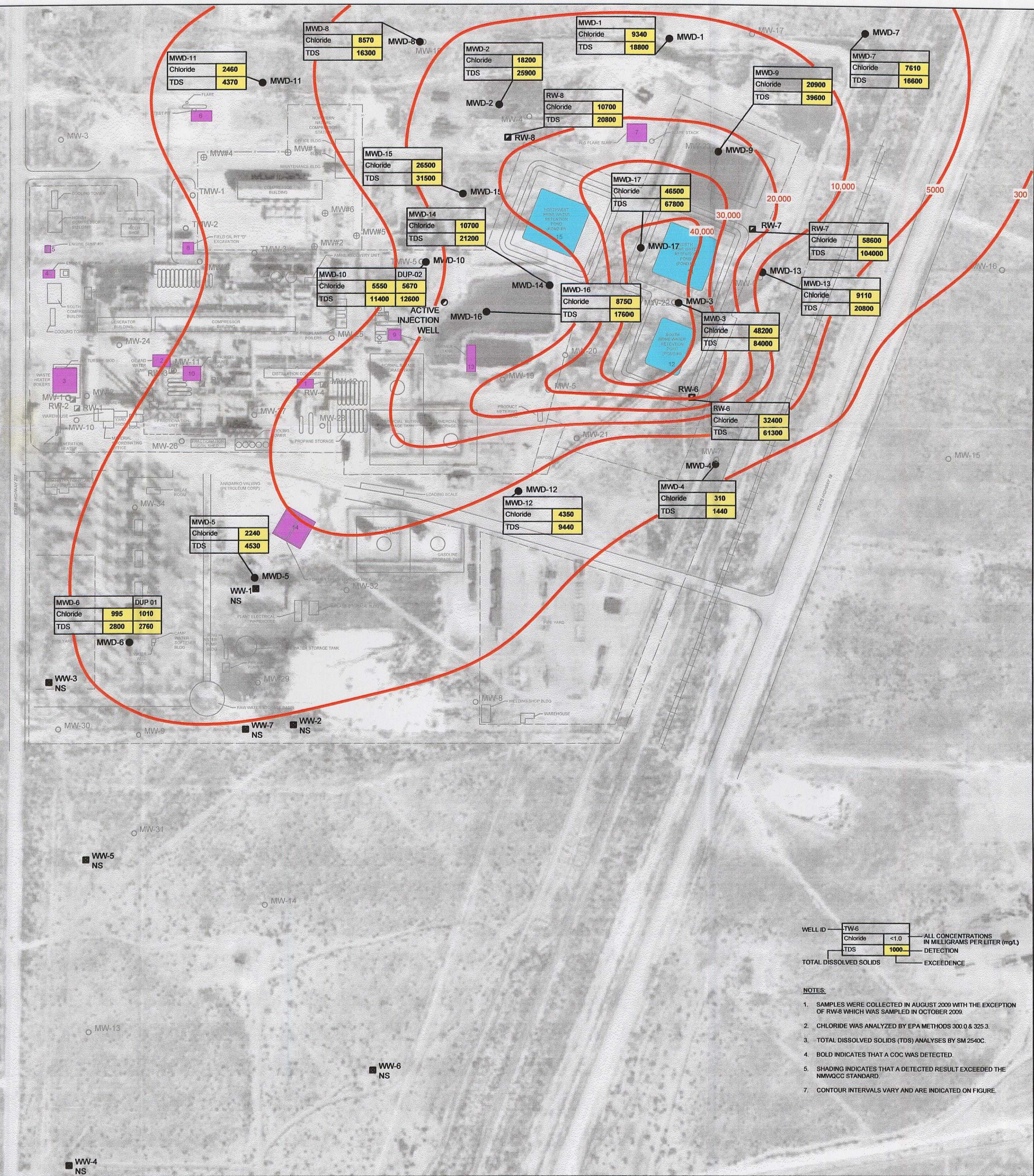




LEGEND

- 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
- 300- CHLORIDE CONTOUR (µg/L)

NOTES

1. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE SLOP OIL SUMP IN JULY 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOL BORE TO A TD OF 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT 17 FEET BGS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE SLOP OIL SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 29' X 27' X 17'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (15) 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 OIL & WATER SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS RANGING IN TDS FROM 52 AND 90 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS IN THE INTERMEDIATE SOILS AT 17 FEET BGS AND LHM WAS ENCOUNTERED ON THE GROUNDWATER. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE OIL & WATER SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 29' X 27' X 17'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (15) 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 JET TURBINE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOL BORE TO A TD OF 6 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS TO BOTH THE SOILS AND GROUNDWATER IN ALL 3 BORINGS. TWO OF THE THREE BORINGS WERE CONVERTED TO MONITOR WELLS (MW 1 & MW 2). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996.

4. TWO SEPARATE SHALLOW SURFACE INVESTIGATIONS WERE CONDUCTED IN THE VICINITY OF ENGINE SUMP #3 IN AUGUST 1996 AND JUNE 1997. THE AUGUST 1996 INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOL BORE DIRECTLY NORTH OF THE SUMP TO A TD OF 10 FEET BGS. RESULTS AT 10 FEET BGS INDICATED HYDROCARBON IMPACTS AT DEPTH. THE JUNE 1997 INVESTIGATION INCLUDED THE INSTALLATION OF THREE INTERMEDIATE SHALLOW BORINGS (EAST, WEST & SOUTH OF THE SUMP) TO A MAXIMUM DEPTH OF 4 FEET BGS. NO HYDROCARBONS WERE DETECTED AT ANY OF THE THREE BORINGS AT INVESTIGATION DEPTHS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996.

5. A SHALLOW SURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF ENGINE SUMP #3 IN AUGUST 1996. THIS INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE BORING DUE SOUTH OF THE SUMP TO A TD OF 6 FEET BGS. NO HYDROCARBONS IMPACTS WERE DETECTED AT DEPTH. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996.

6. A SHALLOW SURFACE 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 0 FEET BGS WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996.

7. AN INTERMEDIATE SURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF THE HES FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOL BORE TO A TD OF 27 FEET BGS. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW 10 TO 15 FEET BGS NEAR THE HES FLARE SUMP. ANALYTICAL RESULTS AT THE 27 FEET BGS INTERVAL WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT REPORT, DATED SEPTEMBER 1996.

8. A SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF FIELD OIL PIT #2 IN NOVEMBER 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOL BORE TO A TD OF 8 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS EXTENDED TO 40 FEET BGS. GROUNDWATER WAS NOT ENCOUNTERED DURING THE INSTALLATION OF THE BORING. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT, GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED JULY 1997. REMEDIAL ACTIVITIES FOR THE FIELD OIL PIT #2 INCLUDED OVER EXCAVATION ACTIVITIES THAT WERE PERFORMED IN FEBRUARY 2000. A TOTAL OF 310 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 5'. THE EAST SUMP WAS REMOVED IN SEPTEMBER 2000 AND THE AREA WAS OVER EXCAVATED TO APPROXIMATELY 9' X 13' X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH 0 FEET BGS 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 SURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE CONCRETE DRAIN SUMP IN SEPTEMBER 2000. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOL BORE TO A TD OF 8 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 9' X 13' X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH 0 FEET BGS 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 #2) MEASURED APPROXIMATELY 247' X 242' X 17' AND HAD A DESIGNED CAPACITY OF 70,000 BARRELS (BBLS). LEASE OF THIS POND WAS DISCONTINUED IN EARLY 1998. THIS NORTH BRINE WATER RETENTION POND WAS CAPPED AND CROWNED WITH A CLAY CAP IN LATE 2000.

12. THE SOUTH BRINE WATER RETENTION POND (POND #4) MEASURED APPROXIMATELY 180' X 282' X 16' AND HAD A DESIGNED CAPACITY OF 50,000 BARRELS (BBLS). LEASE OF THIS POND WAS DISCONTINUED IN MID 1998. THIS SOUTH BRINE WATER RETENTION POND WAS CAPPED AND CROWNED WITH A CLAY CAP IN LATE 2000.

13. THE FORMER TANK BATTERY LOCATION WAS STRUCK BY LIGHTNING IN MAY 2005. THIS FORMER TANK BATTERY LOCATION WAS USED FOR FLUID (NAPL) AND PRODUCED WATER STORAGE BY THE GROUNDWATER REMEDIATION SYSTEMS LOCATED ON THE EAST SIDE OF THE PLANT. APPROXIMATELY 300 BBLS OF FLUIDS WERE RELEASED AND 30 BBLS WERE RECOVERED. DISCUSSION OF THE FORMER TANK BATTERY IS SUMMARIZED IN A TRANSMITTAL LETTER OF A SEM-ANNUAL GROUNDWATER MONITORING REPORT FOR THE EDGAR SOUTH GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. DATED MARCH 3, 2008.

14. A SURFACE INVESTIGATION WAS CONDUCTED IN THE VICINITY OF THE FORMER TRUCK LOADING AREA LOCATED SOUTH OF THE PLANT IN NOVEMBER 2005. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS TO GROUNDWATER. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW 0-4 FEET BGS AND IN THE INTERMEDIATE (25-30 BGS) IN AT LEAST ONE BORING. TWO OF THE THREE WELLS WERE CONVERTED INTO MONITOR WELLS (MW 32 & MW 34). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE 2006 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH EDGAR GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN JULY 2006.

15. THE NORTHWEST BRINE WATER RETENTION POND (POND #3) WAS CAPPED IN JAN 2007. REMEDIAL ACTIVITIES OF THE SOUTHWEST BRINE WATER RETENTION POND (POND #2) ARE SUMMARIZED IN THE 2007 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH EDGAR GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN MARCH 2007.

WELL ID	FW-6	ALL CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L)
Chloride	<1.0	DETECTION
TDS	1000	EXCEEDENCE
TOTAL DISSOLVED SOLIDS		

NOTES:

- SAMPLES WERE COLLECTED IN AUGUST 2009 WITH THE EXCEPTION OF RW-8 WHICH WAS SAMPLED IN OCTOBER 2009.
- CHLORIDE WAS ANALYZED BY EPA METHODS 300.0 & 325.3.
- TOTAL DISSOLVED SOLIDS (TDS) ANALYSES BY SM 2540C.
- BOLD INDICATES THAT A COC WAS DETECTED.
- SHADING INDICATES THAT A DETECTED RESULT EXCEEDED THE NMWCC STANDARD.
- CONTOUR INTERVALS VARY AND ARE INDICATED ON FIGURE.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Chevron Environmental Management Company

EUNICE SOUTH

CHLORIDE & TDS CONCENTRATION MAP

DEEP WELLS - AUGUST 2009

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

USGS 1998 AERIAL

Project Manager:	Reviewed By:	Date:
J. ORNELAS	T. LARSON	FEBRUARY 2009
Scale:	Project No:	Report No:
1:100	055271-09	002
		016

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