

Environmental Services, Inc.

GROUNDWATER MONITORING WELL DEVELOPMENT AND SAMPLING FIELD DATA SHEET

Project Name/No.: Maralex Resources Date: 6/27/13
 Sample No.: Werning Permit 202846 Sample Location: 8002 CR 313
 Samplers Name: Heydenberg Recorded by: Same

Purge Equipment: Bailer: Disposable or Acrylic See Data Disposable Bailer
 Whaler Report From Whaler
 Bladder Pump ESI Bladder Pump
 Submersible Pump gas composition Submersible Pump

Analyses Requested (circle all that apply): Stable Isotopes of Methane
 Gasoline Range Organics (GRO), BTEX, MTBE, VOCs
 Diesel Range Organics (DRO), Heating Oil

Intrinsic Bio. Parameters

Well Number: 202846 Well Diameter: 6.5" with Casing Volume of:
 Depth to Water: 4' TOC 2" = (0.17 Gallon/Feet)
 Well Depth: Reported 160 BGS or TOC 4" = (0.65 Gallon/Feet)
 Height W-Column: 158 feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)
 Volume in Well: gallons (casing volume X height) 6" = (1.47 Gallon/Feet)
 Gallons to purge: 158 gallons (volume X 10) 8" = (2.61 Gallon/Feet)

Lab: Isotech Transportation: Fed Ex STD. overnight

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	pH	Dissolved Oxygen (mg/L)	Turbidity: Color, Fines
9:16						
9:21	50	16.5		9.06		No Turbidity
9:26	75	13.5		8.96		Color or Sediment
9:41	100	13.3		8.97		
9:46	125	11.7		8.97		
9:51	150	11.7		8.96		
9:55	175	11.9		8.97		
10:06	225	11.9		8.96		
						Large to Very Small Gas bubbles present through out large sampling process
						Domestic Water Well was not opened or evaluated during Monitoring/Sampling

Wait for 80% well volume recovery prior to sampling.
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:
 Original Height of Water Column = _____ x 0.8 = _____ - (Well Depth) _____ = Depth to water _____

Time: _____ 1st measured depth to water, _____ feet below TOC.
 Time: _____ 1st measured depth to water, _____ feet below TOC.
 Time: _____ 1st measured depth to water, _____ feet below TOC.

Is well within 80% of original well casing volume: Yes _____ No _____
 Is well within 80% of original well casing volume: Yes _____ No _____
 Is well within 80% of original well casing volume: Yes _____ No _____

Sample Well

Time: _____ Sample ID: _____ Depth: _____ feet below TOC