

Lab #: 365390 Job #: 22122 IS-65689  
 Sample Name/Number: Werning Well  
 Company: Maralex Resources  
 Date Sampled: 6/27/2013  
 Container: Dissolved Gas Bottle  
 Field/Site Name:  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 7/01/2013 Date Reported: 7/29/2013

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	nd			
Helium -----	na			
Hydrogen -----	nd			
Argon -----	0.639			
Oxygen -----	9.86			
Nitrogen -----	31.78			
Carbon Dioxide -----	0.061			
Methane -----	57.61	-67.07	-238.3	
Ethane -----	0.0508			
Ethylene -----	nd			
Propane -----	0.0002			
Propylene -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

**Remarks:**

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.48

Concentration of methane in water = 29 cc/L ; 20 ppm

\*Addition of helium negates the ability to detect native helium and may negate the ability to detect hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. Isotopic composition of oxygen is relative to VSMOW, except for carbon dioxide which is relative to VPDB. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.