

Lab #: 218732

Job #: 16094

Sample Name: Jepsen 23A-2

Co. Lab#:

Company: LT Environmental

Date Sampled: 8/19/2011

Container: IsoTube®

*AP# 05-123-33806*

Field/Site Name: PO 014211159

Location: Rig 11

Formation/Depth:

Sampling Point:

Date Received: 8/25/2011

Date Reported: 9/16/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	na			
Helium -----	0.0051			
Hydrogen -----	0.0016			
Argon -----	0.0085			
Oxygen -----	0.15			
Nitrogen -----	0.80			
Carbon Dioxide -----	nd			
Methane -----	70.91	-45.31	-220.8	
Ethane -----	15.07	-28.92		
Ethylene -----	nd			
Propane -----	7.10	-25.76		
Iso-butane -----	1.35			
N-butane -----	2.57			
Iso-pentane -----	0.725			
N-pentane -----	0.705			
Hexanes + -----	0.602			

Total BTU/cu.ft. dry @ 60deg F &amp; 14.7psia, calculated: 1384

Specific gravity, calculated: 0.799

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