

Lab #: 159672

Job #: 11238

Sample Name: Nelly Morgan

Co. Lab#:

Company: LT Environmental

Date Sampled: 3/31/2009

Container: Dissolved Gas Bottle

Field/Site Name: Rule 318A

Location:

Formation/Depth:

Sampling Point:

Date Received: 4/02/2009

Date Reported: 5/01/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	0.0890			
Hydrogen -----	nd			
Argon -----	0.406			
Oxygen -----	1.51			
Nitrogen -----	26.54			
Carbon Dioxide -----	0.21			
Methane -----	71.20	-73.10	-276.6	
Ethane -----	0.0443	-47.56		
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 722

Specific gravity, calculated: 0.677

Remarks: Report revised on 5/21/09 to include carbon isotope data for ethane, which was generated using online GC-C-IRMS method.

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. %. Chemical analysis based on standards accurate to within 2%