

Isotech Gas Data

Job 10923

Susquehanna County

Isotech Lab No.	Sample Name	Field Name	GC date	He %	H ₂ %	Ar %	O ₂ %	CO ₂ %	N ₂ %	CO %	C ₁ %	C ₂ %	C ₂ H ₄ %	C ₃ %	iC ₄ %	nC ₄ %	iC ₅ %	nC ₅ %	C ₆ + %	MS date	δ ¹³ C ₁ ‰	δDC ₁ ‰	Specific Gravity	BTU	
154924	Mike Ely	Carter Road	1/27/2009	0.0017	0	0.945	20.83	0.050	75.53	0	2.60	0.0410	0	0.0018	0	0	0	0	0	0	1/28/2009	-32.04	-170.3	0.989	27
154925	Hubert	Carter Road	1/27/2009	0.0029	0	0.913	20.38	0.040	73.84	0	4.74	0.0828	0	0.0033	0	0	0	0	0	0	1/28/2009	-31.24	-174.1	0.98	50
154926	Ron Carter Sr	Carter Road	1/27/2009	0.0186	0	0.572	11.53	0.32	45.69	0	41.07	0.767	0	0.0263	0	0.0020	0	0.0023	0	0	1/28/2009	-31.08	-172.7	0.818	430

Chemical analysis based on standards accurate to within 2%



ANALYSIS REPORT

Lab #: 154924 Job #: 10923
Sample Name: Mike Ely Co. Lab#:
Company: Penn. Dept. of Environmental Res.
Date Sampled: 1/18/2009
Container: Cali-5-Bond Bag
Field/Site Name: Carter Road
Location: Susquehanna County
Formation/Depth:
Sampling Point:
Date Received: 1/27/2009 Date Reported: 1/30/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Hydrogen Sulfide -----	nd			
Helium -----	0.0017			
Hydrogen -----	nd			
Argon -----	0.945			
Oxygen -----	20.83			
Nitrogen -----	75.53			
Carbon Dioxide -----	0.050			
Methane -----	2.60	-32.04	-170.3	
Ethane -----	0.0410			
Ethylene -----	na			
Propane -----	0.0018			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 27

Specific gravity, calculated: 0.989

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%



ANALYSIS REPORT

Lab #: 154926 Job #: 10923
Sample Name: Ron Carter Sr Co. Lab#:
Company: Penn. Dept. of Environmental Res.
Date Sampled: 1/21/2009
Container: Cali-5-Bond Bag
Field/Site Name: Carter Road
Location: Susquehanna County
Formation/Depth:
Sampling Point:
Date Received: 1/27/2009 Date Reported: 1/30/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Hydrogen Sulfide -----	nd			
Helium -----	0.0186			
Hydrogen -----	nd			
Argon -----	0.572			
Oxygen -----	11.53			
Nitrogen -----	45.69			
Carbon Dioxide -----	0.32			
Methane -----	41.07	-31.08	-172.7	
Ethane -----	0.767			
Ethylene -----	na			
Propane -----	0.0263			
Iso-butane -----	nd			
N-butane -----	0.0020			
Iso-pentane -----	nd			
N-pentane -----	0.0023			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 430
Specific gravity, calculated: 0.818

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%