

Isotech Gas Data

Job 10881

Carter Road

Isotech Lab No.	Sample Name	Location	Sampling Point	GC date	H ₂ S %	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 ‰	SDC ₁ ‰	Specific Gravity	BTU
153882	G01120801	Dimock Twp	Sautner WW	1/15/2009	0	0.0245	0	0.404	8.26	0.27	33.47	0	56.47	1.06	0	0.0355	0	0.0019	0	0	0	1/15/2009	-30.66	-178.7	0.749	592
153883	G01130801	Dimock Twp	Gesford #3 - 20 casing"	1/15/2009	0	0.0345	0.166	0.0270	0.573	0	2.40	0	94.91	1.82	0	0.0666	0.0019	0.0048	0	0	0	1/15/2009	-31.20	-173.9	0.576	997
153884	G01130802	Dimock Twp	Gesford #3 - 13 3/8 casing"	1/15/2009	0	0.0237	0.107	0.375	8.36	0.015	31.86	0	58.07	1.14	0	0.0411	0.0015	0.0027	0	0	0	1/15/2009	-31.59	-175.3	0.740	610

Chemical analysis based on standards accurate to within 2%



ANALYSIS REPORT

Lab #: 153882 Job #: 10881
Sample Name: G01120801 Co. Lab#:
Company: Penn. Dept. of Environmental Res.
Date Sampled: 1/12/2009
Container: Cali-5-Bond Bag
Field/Site Name: Carter Road
Location: Dimock Twp
Formation/Depth:
Sampling Point: Sautner WW
Date Received: 1/15/2009 Date Reported: 1/19/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Hydrogen Sulfide -----	nd			
Helium -----	0.0245			
Hydrogen -----	nd			
Argon -----	0.404			
Oxygen -----	8.26			
Nitrogen -----	33.47			
Carbon Dioxide -----	0.27			
Methane -----	56.47	-30.66	-178.7	
Ethane -----	1.06			
Ethylene -----	na			
Propane -----	0.0355			
Iso-butane -----	nd			
N-butane -----	0.0019			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 592
Specific gravity, calculated: 0.749

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 #: 153883 Job #: 10881
Sample Name: G01130801 Co. Lab#:
Company: Penn. Dept. of Environmental Res.
Date Sampled: 1/13/2009
Container: Cali-5-Bond Bag
Field/Site Name: Carter Road
Location: Dimock Twp
Formation/Depth:
Sampling Point: Gesford #3 - 20" casing
Date Received: 1/15/2009 Date Reported: 1/19/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Hydrogen Sulfide -----	nd			
Helium -----	0.0345			
Hydrogen -----	0.166			
Argon -----	0.0270			
Oxygen -----	0.573			
Nitrogen -----	2.40			
Carbon Dioxide -----	nd			
Methane -----	94.91	-31.20	-173.9	
Ethane -----	1.82			
Ethylene -----	na			
Propane -----	0.0666			
Iso-butane -----	0.0019			
N-butane -----	0.0048			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 997
Specific gravity, calculated: 0.576

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 #: 153884 Job #: 10881
Sample Name: G01130802 Co. Lab#:
Company: Penn. Dept. of Environmental Res.
Date Sampled: 1/13/2009
Container: Cali-5-Bond Bag
Field/Site Name: Carter Road
Location: Dimock Twp
Formation/Depth:
Sampling Point: Gesford #3 - 13 3/8" casing
Date Received: 1/15/2009 Date Reported: 1/19/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Hydrogen Sulfide -----	nd			
Helium -----	0.0237			
Hydrogen -----	0.107			
Argon -----	0.375			
Oxygen -----	8.36			
Nitrogen -----	31.86			
Carbon Dioxide -----	0.015			
Methane -----	58.07	-31.59	-175.3	
Ethane -----	1.14			
Ethylene -----	na			
Propane -----	0.0411			
Iso-butane -----	0.0015			
N-butane -----	0.0027			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 610
Specific gravity, calculated: 0.740

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%

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for a systematic approach to data collection and the importance of using reliable and valid measurement instruments.

3. The third part of the document focuses on the analysis and interpretation of the collected data. It discusses the various statistical techniques used to analyze the data and the importance of interpreting the results in the context of the research objectives.

4. The fourth part of the document discusses the implications of the research findings and the need for further research. It emphasizes that the results of the study have important implications for the organization and that further research is needed to explore the underlying mechanisms and to test the generalizability of the findings.

5. The fifth part of the document provides a conclusion and a summary of the key findings. It reiterates the importance of maintaining accurate records and the need for a systematic approach to data collection and analysis. It also highlights the implications of the research findings and the need for further research.