MDT Gas Analysis

ISOTECH
ISOTECH LABORATORIES INC

ANALYSIS REPORT

Lab #: 183465 Job #: 12777
Sample Name: EX-10170211 Co. Lab#:
Company: Geotechnical Services Pty Ltd
Date Sampled: 3/08/2010 Cylinder: A 15770
Container: 150 ml stainless
Field/Site Name: Noblige-1
Location:
Formation/Depth: Depth 3286.8 m
Sampling Point:
Date Received: 4/06/2010 Date Reported: 5/19/2010

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide	nd			
Hydrogen Sulfide	nd			
Helium	0.0228			
Hydrogen	nd			
Argon	0.0054			
Oxygen	nd			
Nitrogen	5.92			-5.06
Carbon Dioxide	0.44	-17.01		
Methane	85.13	-36.78	-166.7	
Ethane	4.88	-29.39		
Ethylene	nd			
Propane	2.36	-29.68		
Iso-butane	0.393	-28.03		
N-butane	0.535	-30.07		
Iso-pentane	0.128	-28.12		
N-pentane	0.0803	-28.75		
Hexanes +	0.103			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 1054
Specific gravity, calculated: 0.649

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%

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ANALYSIS REPORT

Lab #: 183466 Job #: 12777
Sample Name: EX-10170209 Co. Lab#:
Company: Geotechnical Services Pty Ltd
Date Sampled: 3/08/2010
Container: 150 ml stainless
Field/Site Name: Noblige-1
Location:
Formation/Depth: Depth 3812.5 m
Sampling Point:
Date Received: 4/06/2010 Date Reported: 5/19/2010

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide	nd			
Hydrogen Sulfide	nd			
Helium	0.0217			
Hydrogen	nd			
Argon	nd			
Oxygen	nd			
Nitrogen	5.22			-4.31
Carbon Dioxide	2.06	-13.50		
Methane	85.61	-35.98	-165.7	
Ethane	4.10	-29.29		
Ethylene	nd			
Propane	1.80	-29.68		
Iso-butane	0.316	-27.94		
N-butane	0.459	-29.93		
Iso-pentane	0.140	-28.01		
N-pentane	0.0942	-28.85		
Hexanes +	0.178			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 1030
Specific gravity, calculated: 0.653

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%

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ANALYSIS REPORT

Lab #: 183467 Job #: 12777
Sample Name: EX-10354567 Co. Lab#:
Company: Geotechnical Services Pty Ltd
Date Sampled: 2/16/2010 Cylinder: CL-150-14
Container: 150 ml stainless
Field/Site Name: Noblige-1
Location:
Formation/Depth: Depth 4378.3 m
Sampling Point:
Date Received: 4/06/2010 Date Reported: 5/19/2010

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide	nd			
Hydrogen Sulfide	nd			
Helium	0.0163			
Hydrogen	0.0495			
Argon	0.0355			
Oxygen	nd			
Nitrogen	9.51			-2.90
Carbon Dioxide	0.83	-23.71		
Methane	84.29	-36.81	-167.8	
Ethane	4.21	-30.00		
Ethylene	0.0013			
Propane	0.822	-29.65		
Iso-butane	0.0508			
N-butane	0.0895	-29.71		
Iso-pentane	0.0154			
N-pentane	0.0122			
Hexanes +	0.0716			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 960
Specific gravity, calculated: 0.634

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%

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ANALYSIS REPORT

Lab #: 183468 Job #: 12777
Sample Name: EX-10177310 Co. Lab#:
Company: Geotechnical Services Pty Ltd
Date Sampled: 3/05/2010
Container: 150 ml stainless
Field/Site Name: Noblige-1
Location:
Formation/Depth: Depth 3932.5 m
Sampling Point:
Date Received: 4/06/2010 Date Reported: 5/19/2010

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide	nd			
Hydrogen Sulfide	nd			
Helium	0.0219			
Hydrogen	nd			
Argon	nd			
Oxygen	nd			
Nitrogen	5.39			-4.00
Carbon Dioxide	2.92	-12.27		
Methane	85.71	-36.16	-158.8	
Ethane	3.65	-29.61		
Ethylene	nd			
Propane	1.47	-29.72		
Iso-butane	0.234	-27.93		
N-butane	0.351	-30.15		
Iso-pentane	0.0954	-28.29		
N-pentane	0.0633	-28.95		
Hexanes +	0.0907			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 1001
Specific gravity, calculated: 0.650

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%

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ANALYSIS REPORT

Lab #: 183469 Job #: 12777
Sample Name: EX-10099570 Co. Lab#:
Company: Geotechnical Services Pty Ltd
Date Sampled: 3/08/2010
Container: 150 ml stainless
Field/Site Name: Noblige-1
Location:
Formation/Depth: Depth 4097.5 m
Sampling Point:
Date Received: 4/06/2010 Date Reported: 5/19/2010

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide	nd			
Hydrogen Sulfide	nd			
Helium	0.0213			
Hydrogen	nd			
Argon	nd			
Oxygen	nd			
Nitrogen	6.40			-4.20
Carbon Dioxide	2.99	-11.80		
Methane	83.07	-36.23	-168.0	
Ethane	4.22	-30.12		
Ethylene	nd			
Propane	2.00	-29.86		
Iso-butane	0.336	-28.43		
N-butane	0.517	-30.30		
Iso-pentane	0.155	-28.74		
N-pentane	0.106	-29.12		
Hexanes +	0.181			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 1015
Specific gravity, calculated: 0.671

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%