

Lab #: 804922 Job #: 48917 IS-65777 Co. Job#:
 Sample Name: CS-15 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: ND CarbonSAFE
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 9/21/2021 16:00 Date Received: 9/28/2021 Date Reported: 11/03/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	0.961				
Oxygen -----	19.22				
Nitrogen -----	77.26				
Carbon Dioxide -----	2.56	-17.31		10.8 ± 0.1	
Methane -----	0.0006				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	nd				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.012

Remarks:

Insufficient methane concentration for isotopic analysis.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 804923 Job #: 48917 IS-65777 Co. Job#:
 Sample Name: CS-9.5 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: ND CarbonSAFE
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 9/21/2021 17:00 Date Received: 9/28/2021 Date Reported: 11/03/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	0.959				
Oxygen -----	21.71				
Nitrogen -----	77.17				
Carbon Dioxide -----	0.16	-19.3			
Methane -----	0.0004				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	nd				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.002

Remarks:

CO2 concentration insufficient for ^{14}C prep.
 $\delta^{13}\text{C}$ isotope data obtained online via GC-C-IRMS.
 Insufficient methane concentration for isotopic analysis.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 804924 Job #: 48917 IS-65777 Co. Job#:
 Sample Name: CS-4 Co. Lab#:
 Company: EERC - Energy & Environmental Research
 API/Well:
 Container: IsoBag
 Field/Site Name: ND CarbonSAFE
 Location: Center, ND
 Formation/Depth:
 Sampling Point:
 Date Sampled: 9/21/2021 18:00 Date Received: 9/28/2021 Date Reported: 11/03/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	^{14}C conc. pMC	Tritium TU
Carbon Monoxide -----	nd				
Helium -----	nd				
Hydrogen -----	nd				
Argon -----	0.965				
Oxygen -----	21.81				
Nitrogen -----	77.16				
Carbon Dioxide -----	0.065	-12.6			
Methane -----	0.0004				
Ethane -----	nd				
Ethylene -----	nd				
Propane -----	nd				
Propylene -----	nd				
Iso-butane -----	nd				
N-butane -----	nd				
Iso-pentane -----	nd				
N-pentane -----	nd				
Hexanes + -----	nd				

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 0

Specific gravity, calculated: 1.002

Remarks:

CO2 concentration insufficient for ^{14}C prep.
 $\delta^{13}\text{C}$ isotope data obtained online via GC-C-IRMS.
 Insufficient methane concentration for isotopic analysis.

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.