

Lab #: 750214 Job #: 43908 IS-94649 Co. Job#:
 Sample Name: Segal 4-2-24 / Production Casing Co. Lab#:
 Company: Crestone Peak Resources
 API/Well:
 Container: IsoTube®
 Field/Site Name: Bradenhead Testing
 Location: W62462
 Formation:
 Sampling Point: 417903
 Date Sampled: 12/19/2019 9:00 Date Received: 1/09/2020 Date Reported: 1/29/2020

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.930			
Oxygen -----	20.91			
Nitrogen -----	78.00			
Carbon Dioxide -----	0.069	-10.5		
Methane -----	0.0675	-40.2		
Ethane -----	0.0118			
Ethylene -----	nd			
Propane -----	0.0057			
Propylene -----	nd			
Iso-butane -----	0.0010			
N-butane -----	0.0020			
Iso-pentane -----	0.0007			
N-pentane -----	0.0007			
Hexanes + -----	0.0002			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1

Specific gravity, calculated: 1.000

Remarks: Isotopes obtained online via GC-C-IRMS/GC-P-IRMS. Insufficient C2-C5 concentrations for isotopic analysis. Insufficient C1 concentration for dD 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. %.