

Lab #: 668668      Job #: 38653      IS-94649      Co. Job#: \_\_\_\_\_  
 Sample Name: Foster 4-6-5 / Production CSG      Co. Lab#: \_\_\_\_\_  
 Company: Crestone Peak Resources  
 API/Well: \_\_\_\_\_  
 Container: IsoTube®  
 Field/Site Name: Bradenhead Testing  
 Location: \_\_\_\_\_  
 Formation: \_\_\_\_\_  
 Sampling Point: 415898  
 Date Sampled: 5/15/2018 9:30      Date Received: 6/18/2018      Date Reported: 9/04/2019

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0177			
Hydrogen -----	nd			
Argon -----	0.0242			
Oxygen -----	0.55			
Nitrogen -----	1.99			
Carbon Dioxide -----	0.57			
Methane -----	81.80	-47.39	-241.9	
Ethane -----	9.85	-31.96		
Ethylene -----	nd			
Propane -----	3.40	-28.36		
Propylene -----	nd			
Iso-butane -----	0.453	-31.03		
N-butane -----	0.855	-27.45		
Iso-pentane -----	0.186	-28.15		
N-pentane -----	0.165	-27.15		
Hexanes + -----	0.140			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1155  
 Specific gravity, calculated: 0.681

Remarks: LOE / AFE - W64419 / 8503 Insufficient CO2 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 #: 668669 Job #: 38653 IS-94649 Co. Job#: \_\_\_\_\_  
 Sample Name: Foster 4-6-5 / Surface CSG Co. Lab#: \_\_\_\_\_  
 Company: Crestone Peak Resources  
 API/Well: \_\_\_\_\_  
 Container: IsoTube®  
 Field/Site Name: Bradenhead Testing  
 Location: \_\_\_\_\_  
 Formation: \_\_\_\_\_  
 Sampling Point: 415898  
 Date Sampled: 5/15/2018 9:30 Date Received: 6/18/2018 Date Reported: 9/04/2019

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.107			
Hydrogen -----	nd			
Argon -----	0.0958			
Oxygen -----	1.25			
Nitrogen -----	26.59			
Carbon Dioxide -----	0.022			
Methane -----	70.67	-81.51	-286.2	
Ethane -----	0.221	-36.20		
Ethylene -----	0.0008			
Propane -----	0.127	-29.66		
Propylene -----	0.0006			
Iso-butane -----	0.0408			
N-butane -----	0.111			
Iso-pentane -----	0.110			
N-pentane -----	0.147			
Hexanes + -----	0.511			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 763

Specific gravity, calculated: 0.693

Remarks: LOE / AFE - W64419 / 8503 Insufficient concentration/sample volume for CO2, butane, and pentane 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. %.