



Client/Well Name: Cottonwood Consulting / Flint (OWP) #1
Job #: 23069896
Lab #: DIG-032118 - DIG-032119

SAMPLE INFORMATION							COMPLETE GAS ANALYSIS															HYDROCARBON GAS ANALYSIS (normalized to total HC content)										BTU CONTENT*	
Job	Lab	Well	Sample	Sample	Sample		GC	N ₂	O ₂ + Ar	CO ₂	C ₁	C ₂	C ₃	iC ₄	nC ₄	iC ₅	nC ₅	C ₆ +	C ₆ H ₆	He	H ₂		C ₁	C ₂	C ₃	iC ₄	nC ₄	iC ₅	nC ₅	C ₆ +	Total Gas		
Number	Number	Name	Type	Date	Time	Date	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	mol%	mol%	mol%	mol%	mol%	mol%	mol%	mol%	BTU/ft ³		
23069896	DIG-032118	Flint (OWP) #1 Bradenhead gas	Bradenhead gas	06/02/23	14:40	6/9/2023	2383	175	2460	988782	3375								82				99.6	0.36							1000		
23069896	DIG-032119	Flint (OWP) #1 Production gas	Production gas	06/02/23	14:30	6/9/2023	2025	373	6360	979519	3182												99.7	0.32							1003		

SAMPLE INFORMATION							HYDROCARBON RATIOS					STABLE ISOTOPE ANALYSIS										SPECIFIC GRAVITY*					
Job	Lab	Well	Sample	Sample	Sample		Total HC	Wetness	C ₂ /C ₁ +C ₃	Balance Ratio		Mass Spec	δ ¹³ C ₁	δ ¹³ C ₂	δ ¹³ C ₃	δ ¹³ C ₄	δ ¹³ nC ₄	δ ¹³ iC ₄	δ ¹³ nC ₅	δ ¹³ iC ₅	δ ¹³ nC ₆	δ ¹³ CO ₂	δD		Total Gas	HCs only	
Number	Number	Name	Type	Date	Time	Date	ppm	% C ₂ to C ₃	mol/mol	C ₁ +C ₂ /C ₃ +C ₄		Date	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VPDB	% VSMOW		Spec Grav	Spec Grav	
23069896	DIG-032118	Flint (OWP) #1 Bradenhead gas	Bradenhead gas	06/02/23	14:40		984439	0.4	274.3			6/11/2023	-50.6	-25.8									20.8	-252		0.562	0.556
23069896	DIG-032119	Flint (OWP) #1 Production gas	Production gas	06/02/23	14:30		982701	0.3	307.8			6/11/2023	-50.8	-25.9									19.6	-251		0.563	0.555

Stable isotope results based on multi-point laboratory calibration

low signal; interpret with caution

Precision δ¹³C < 0.5 ‰

Precision δD < 5 ‰

* As ideal gas, with gas concentrations normalized to 100%; calculations based on GPA 2145-09 physical constants.

SPECIFIC GRAVITY*	
Total Gas	HCs only
Spec Grav	Spec Grav
0.562	0.556
0.563	0.555