ISOTECH
ISOTECH LABORATORIES INC

ANALYSIS REPORT

Lab #:	689015	Job #:	39898	IS-79658	Co. Job#:
Sample Name:	DUP-02				Co. Lab#:
Company:	GSI Environmental Inc.				
API/Well:					
Container:	IsoFlask				
Field/Site Name:	4927 XTO Desoto				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	10/19/2018	Date Received:	10/29/2018	Date Reported:	11/05/2018

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{18}O$ ‰	Dissolved gas cc/L	Dissolved gas ppm
Carbon Monoxide	nd					
Helium	na					
Hydrogen	nd					
Argon	1.64					
Oxygen	2.86					
Nitrogen	78.60					
Carbon Dioxide	16.89					
Methane	0.0078				0.0021	0.0014
Ethane	nd				< 0.0002	< 0.0002
Ethylene	nd					
Propane	nd				< 0.0002	< 0.0003
Propylene	nd					
Iso-butane	nd					
N-butane	nd					
Iso-pentane	nd					
N-pentane	nd					
Hexanes +	nd					

Remarks:
Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.83
*Addition of helium negates the ability to detect native helium and may negate the ability to detect hydrogen.
Insufficient C1-C3 concentrations 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. Isotopic composition of oxygen is relative to VSMOW, except for carbon dioxide which is relative to VPDB. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.