

Lab #: 913256 Job #: 57833 IS-69033 Co. Job#:
Sample Name: BW_Martin_47218_F Co. Lab#:
Company: Oxy USA Inc.
API/Well:
Container: 125ml Plastic Bottle
Field/Site Name: BWSE/GWA_Griswold_27N_11HZ
Location: NWSW_12_1N_66W
Formation/Depth: IN
Sampling Point: 753954
Date Sampled: 3/04/2024 10:18 Date Received: 3/08/2024 Date Reported: 3/27/2024

δD of water ----- -102.0 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -13.48 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- -9.7 ‰ relative to VPDB

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 914333 Job #: 57920 IS-69033 Co. Job#:

Sample Name: BW_Martin_47218_F Co. Lab#:

Company: Oxy USA Inc.

API/Well:

Container: IsoFlask

Field/Site Name: BWSE/GWA_Griswold_27N_11HZ

Location: NWSW_12_1N_66W

Formation/Depth: IN

Sampling Point: 753954

Date Sampled: 3/04/2024 10:18 Date Received: 3/08/2024 Date Reported: 4/19/2024

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{18}\text{O}$ ‰	Dissolved gas cc/L	Dissolved gas ppm
Carbon Monoxide -----	nd					
Helium -----	na					
Hydrogen -----	nd					
Argon -----	0.764				0.36	0.59
Oxygen -----	4.72					
Nitrogen -----	37.98				16	19
Carbon Dioxide -----	0.79					
Methane -----	55.64	-72.57	-260.4		26	17
Ethane -----	0.0934				0.046	0.057
Ethylene -----	nd					
Propane -----	0.0085				0.0040	0.0074
Propylene -----	nd					
Iso-butane -----	0.0005					
N-butane -----	0.0016					
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 = 0.81

*Addition of helium negates the ability to detect native helium and may negate the ability to detect hydrogen. Insufficient ethane, propane, butane, and pentane 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. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. 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. %.