

SEND DATA TO:

Name:

Company:

Address:

Phone:

Email:

Project:

PO #:

Location:

Sampled By:

SEND INVOICE TO (if different from SEND DATA TO):

Name:

Company:

Address:

Phone:

Email:

Standard

Priority

Rush

Analysis Requested

Sample Description

Container Number	Sample Identification	Date Sampled	Time							Comments

Chain-of-Custody Record

Signature	Company	Date	Time
Relinquished by			
Received by			
Relinquished by			
Received by			
Relinquished by			
Received by			

Address: 1308 Parkland Court Champaign, IL 61821-1826 Phone: 217-398-3490

## ANALYSIS PACKAGE CODES

### Code    Analysis Included

Natural Gas Characterization using high precision dual inlet IRMS

NG-1 - Full GC composition,  $\delta^{13}\text{C}$  &  $\delta\text{D}$  of  $\text{CH}_4$

NG-2 - NG-1 plus  $\delta^{13}\text{C}$  of  $\text{C}_2\text{H}_6$  and  $\text{C}_3\text{H}_8$

NG-3 - NG-2 plus  $\delta^{13}\text{C}$  of  $i\text{C}_4\text{H}_{10}$  and  $n\text{C}_4\text{H}_{10}$

NG-4 - NG-3 plus  $\delta^{13}\text{C}$  of  $i\text{C}_5\text{H}_{12}$  and  $n\text{C}_5\text{H}_{12}$

\*-D - add  $\delta^{13}\text{C}$  of  $\text{CO}_2$  to any analysis package (e.g., NG-2-D)

Bacterial Gas Characterization

BG-1 - Full GC composition,  $\delta^{13}\text{C}$  of  $\text{CH}_4$  and  $\text{CO}_2$  &  $\delta\text{D}$  of  $\text{CH}_4$

BG-2 - BG-1 plus  $^{14}\text{C}$  of  $\text{CH}_4$

BG-3 - BG-2 plus  $^3\text{H}$  of  $\text{CH}_4$

Dissolved Gas

DGS - Dissolved gas screening, quantification of dissolved  $\text{CH}_4$ ,  $\text{C}_2\text{H}_6$ ,  $\text{C}_3\text{H}_8$

DG-1 - Full Dissolved Gas GC,  $\delta^{13}\text{C}$  &  $\delta\text{D}$  of  $\text{CH}_4$

DG-2 - DG-1 plus  $\delta^{13}\text{C}$  of  $\text{C}_2\text{H}_6$  and  $\text{C}_3\text{H}_8$

Mud Gas / Headspace Gas

MG-1 - Basic GC,  $\delta^{13}\text{C}$  of  $\text{CH}_4$  via GC-C-IRMS

MG-2 - MG-1 plus  $\delta^{13}\text{C}$  of  $\text{C}_2\text{H}_6$  and  $\text{C}_3\text{H}_8$  via GC-C-IRMS

Water Isotope Analyses

RAG - Radiocarbon analysis of groundwater -  $\delta^{13}\text{C}$  and  $^{14}\text{C}$  of dissolved inorganic carbon (DIC)

SIW - Stable isotopes package -  $\delta\text{D}$  and  $\delta^{18}\text{O}$  of water and  $\delta^{13}\text{C}$  of DIC

TDC - Tritium of water by liquid scintillation counter (LSC), detection limit of 10-15 TU

TEE - Tritium of water with electrolytic enrichment by LSC, detection limit of <1TU

Water Chemistry Analyses

WAB - Basic Suite - ( $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Mg}^{2+}$ ,  $\text{Ca}^{2+}$ ) + ( $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ ), alkalinity, pH, conductivity, density

WAE - Environmental Suite - WAB + ( $\text{Ba}^{2+}$ ,  $\text{Sr}^{2+}$ ,  $\text{Fe}^{2+,3+}$ ,  $\text{Mn}^{2+}$ ) + ( $\text{F}^-$ ,  $\text{Br}^-$ ,  $\text{NO}_3^-$ ,  $\text{PO}_4^{3-}$ )

WAO - Oilfield Suite - WAB + ( $\text{Ba}^{2+}$ ,  $\text{Sr}^{2+}$ ,  $\text{Fe}^{2+,3+}$ ,  $\text{Mn}^{2+}$ ,  $\text{Li}^+$ ,  $\text{B}^{3+}$ ) + ( $\text{Br}^-$ )