

January, 2016

Oil and Gas Well Stimulation. FGL is a Water Board Designated Laboratory

Analytical Methods

All injection wells and injection waters must conform to criteria for Class II well operations under the U.S. Safe Drinking Water Act. In order to conform to criteria under the U.S. Safe Drinking Water Act, the Division as well as the State Water Board requires that the water be sampled under strict quality assurance/quality control (QA/QC) sampling procedures and the samples be analyzed by a laboratory that is certified by the Environmental Laboratory Accreditation Program (ELAP), under proper chain-of-custody protocol, for the following analyses:

Analyses	EPA Method	Holding Time	Preservative	Sample Container
TDS	160.1	7 days	≤6°C	One liter plastic
CCR Title 22 Metals, Major and Minor Cations, and Trace Metals*	200.7/200.8	180 days	HNO ₃	500 ml plastic
BTEX	8021	14 days	≤6°C, HCL, No HS	Three-40 ml VOA-glass vials
TPH for Crude Oil	8015(M) C ₁₀ -C ₄₄	7 days	≤6°C	One liter amber glass
PAHs**	8310	7 days	≤6°C	One liter amber glass
Methane	RSK-175(M)	14 days	≤6°C, No HS	Two-40 ml VOA-glass vials
Radionuclides***	900.0 series	180 days	Varied #	Varied #
Alkalinity	310.2	14 days	≤6°C	500 ml plastic
Chloride	300	28 days	≤6°C	500 ml plastic
Nitrate	353.2	48 hours	≤6°C	500 ml plastic
Sulfate	300	28 days	≤6°C	500 ml plastic
Bromide	300	28 days	<6°C	500 ml plastic

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

M = Modified

HCL = Hydrochloric Acid dilution (prepared and provided by laboratory)

HS = Head Space

ml = milliliter

PAH = Polynuclear Aromatic Hydrocarbons

TDS = Total Dissolved Solids

TPH = Total Petroleum Hydrocarbons

VOA = Volatile Organic Analysis

#confirm preservative and container requirements with laboratory conducting the analysis