



COASTAL CHEMICAL CO., L.L.C.

Chemical Lab Overview

Coolants

(Full Analysis)

Appearance
Color
Iron
Chloride
Aluminum
Lead
Copper
Sodium
Potassium
Calcium
Nitrite
Nitrate
pH
Reserve Alkalinity
Freeze Point
Molybdate
Silicate
Borate
Phosphate
Total Azoles
BZT
TT
MBT
Glycol %

(Short Analysis)

Appearance
Color
Iron
Chloride
Nitrite
Nitrate
pH
Freeze Point
Molybdate
Borate
Glycol %

Glycol

Appearance
pH
Iron
Chloride
Water %
Suspended Solids
Hydrocarbon %
Glycol %
Foaming Tendency
(upon Request)

Glycol

(Gas Chromatography)

(Upon request)

Ethylene Glycol
Propylene Glycol
Diethylene Glycol
Triethylene Glycol
Tetraethylene Glycol
Pentaethylene Glycol
Hexaethylene Glycol

Heat Transfer Fluid

Heat Transfer Analysis

Water Content
Flash Point
Appearance
Total Acid Numbers
Xylene-Insolubles
Kinematic Viscosity
Distillation

Produced Water

Complete Water Analysis

Anions

Sulfate
Chloride
Bicarbonate
Organic Acid

Physical Properties

pH
Field Temperature
Specific Gravity
Alkalinity (as CaCO₃)

Residuals

Oil Soluble
Water Soluble
Water Dispersible
Amine Based

Cations

Strontium
Sodium (calc)
Manganese
Magnesium
Iron
Calcium
Barium

Scaling Index

Calcium Carbonate
Calcium Sulfate

Oil and Grease

Gravimetric
Infrared

Iron, Chloride & Manganese

Corrosion Coupon Analysis

Corrosion Rate (MPY)

Scale Coupon Analysis

Corrosion Rate (MPY)
Hydrocarbon
Water Soluble Salts
Calcium Carbonate
Iron Compounds
Acid Insoluble

Membrane Deposits (Millipore) Analysis

Injectivity Data
Iron Compounds
Hydrocarbon
Calcium Carbonate
Acid Insoluble

Product Identification

FTIR
GC and GCMS
XRD/EDX

Amines

Routine Amine Analysis

Appearance
pH
Chloride
Iron Sodium
Potassium
Hydrocarbon %
Suspended Solids
Amine Concentration wt % (Alkalinity)
Total Acid Gas
H₂S Acid Gas
CO₂ Acid Gas
Foaming Tendency (upon request)

Heat Stable Salts

Anions
Bicine
Acetate
Formate
Chloride

Sulfate

Oxalate
Phosphate
Thiosulfate
Thiocyanate
THSS
IHSS
HSAS

(Gas Chromatography) (Upon request)

Diethanolamine (DEA)
Monoethanolamine (MEA)
Methyldiethanolamine (MDEA)
Diglycolamine (DGA)
Disopropanolamine (DIPA)

Makeup Water Analysis

Chloride
Calcium
Magnesium
Sulfate
Barium
Iron
Bicarbonate
Sodium
Total Dissolved Solids
Total Hardness

Metals

Soluble Metals

Barium
Calcium
Chromium
Copper
Iron
Magnesium
Manganese
Nickel
Potassium
Silicon
Strontium
Sodium
Vanadium
Zinc

Hydrocarbon Analysis

Paraffin %
Cloud Point (Cross-Polar Microscopy)
Pour Point
API Gravity
Asphaltene
Gel Point

Paraffin Deposition

Cold Finger

Paraffin Deposition
Percent Protection

Solids Analysis

Qualitative Deposit Analysis Solvent

Solubility

Xylene
Chloroform
Hot Water
Cold Water
Cold HCL
Hot HCL
Sulfuric Acid
Caustic Soda
Other solvents upon request

Quantitative Deposit Analysis

% Hydrocarbon
% Water Soluble Salts
% Calcium Carbonate
% Iron Compounds
% Acid Insoluble

Bacteria Cultures

Sulfate Reducing Bacteria (SRB)
Acid Reducing Bacteria (APB)

Miscellaneous

Methanol (GC)
Surface Tension
DEA C02 (GC)
Gardner Color Scale
LPR Corrosion Testing

Analytical Instruments

Gas
Chromatography/Mass Spectrometer
Ion Chromatography
ICP
FTIR
Flash Point Tester
Karl Fisher Titrator
UV/Vis Spectrometer
Cross Polarization Microscopy
Cold Finger Apparatus