



### TRANSFER DETAILS

Transferred on January 14 through 17, 2009 @ 5000 psig & 45 °C

Sample	MDT	Depth		Reservoir	Reservoir	Opening	Transferred	Fluid
ID	MPSR	mMDBRT	mTVDSS	Pressure	Temp.	Pressure	to Petrolab	Phase
#	#	(metres)		(psia)	(°C)	(psig) @110 F	Cylinder	Transferred
1	1719	2879.5	2879.5	4147	93.5	888	L728	water
2	2421	2879.5	2879.5	4147	93.5	1133	L018	water
3	2489	3008	3008.02	4358	97.7	1054	L-729	water
4	2499	3008	3008.02	4358	97.7	1076	L-014	water

## Water from Mud Filtrate

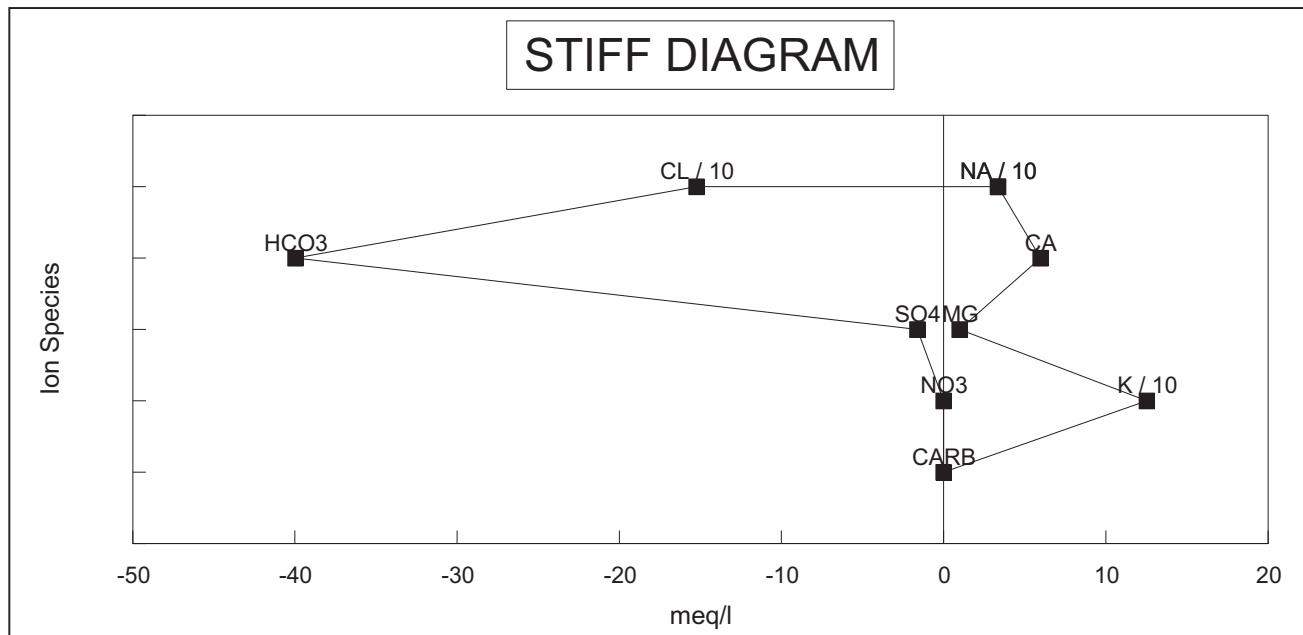
Resistivity	:	0.714	Ohm.M @ 25 °C
Conductivity (E.C)	:	14000	micro-S/cm @ 25 °C
pH	:	7.5	
Density	:	1.0079	gm/cc @ 25 °C
Total alkalinity	:	2000	Each as CaCO3

Cations			
		mg/l	meq/l
Calcium	(Ca):	120.0	5.99
Magnesium	(Mg):	12.0	0.99
Sodium	(Na):	770.0	33.49
Potassium	(K):	4900.0	125.32

Anions			
		mg/l	meq/l
Hydroxide	(OH):	0.0	0.00
Carbonate	(CO3):	0.0	0.00
Bi-Carbonate	(HCO3):	2438.6	39.96
Sulphate	(SO4):	78.0	1.62
Chloride	(Cl):	5400.0	152.33
Nitrate	(NO3):	<0.1	0.00

Total dissolved solids		
		mg/l
Calculated (HCO3=CO3)	:	12479
From Conductivity	:	8862
Salinity	:	9747

Hardness		
Carbonate	:	349
Non-Carbonate	:	0
Total	:	349



## Cylinder L-018 EX:MRSC 2421 @ 2879.5 m, sample ID 2.0

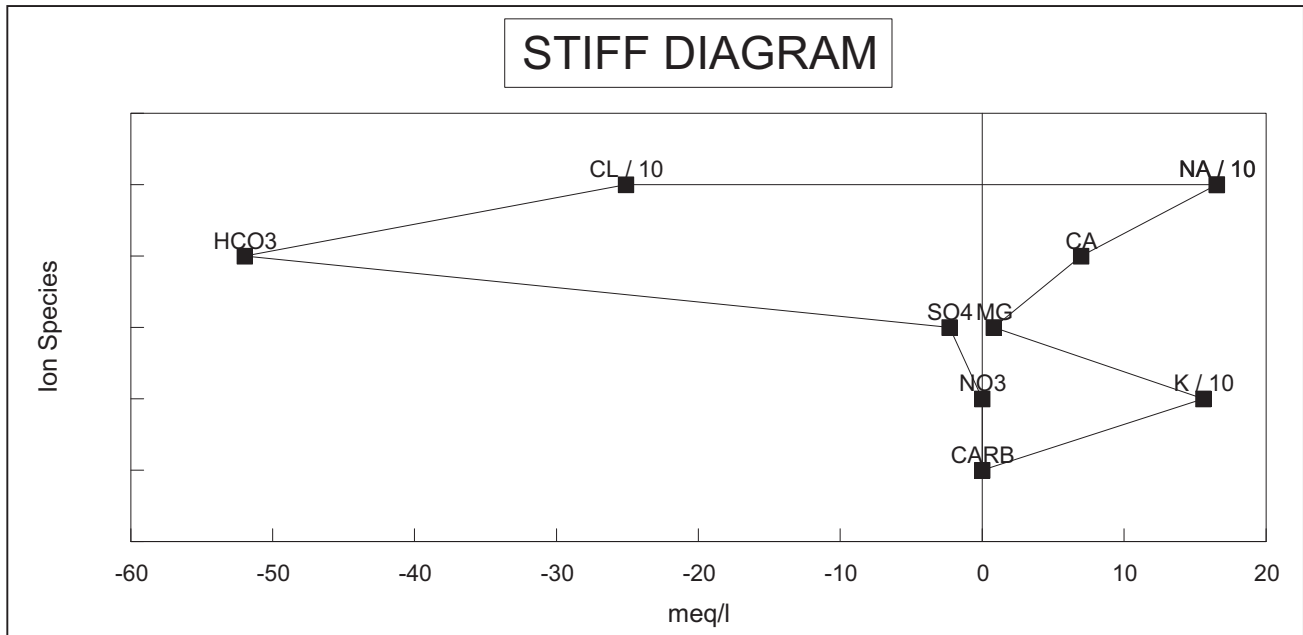
Resistivity	:	0.286	Ohm.M @ 25 °C
Conductivity (E.C)	:	35000	micro-S/cm @ 25 °C
pH	:	7.5	
Density	:	1.0173	gm/cc @ 25 °C
Total alkalinity	:	2600	Each as CaCO3

Cations			
		mg/l	meq/l
Calcium	(Ca):	140.0	6.99
Magnesium	(Mg):	10.0	0.82
Sodium	(Na):	3800.0	165.29
Potassium	(K):	6100.0	156.01

Anions			
		mg/l	meq/l
Hydroxide	(OH):	0.0	0.00
Carbonate	(CO3):	0.0	0.00
Bi-Carbonate	(HCO3):	3170.2	51.95
Sulphate	(SO4):	110.0	2.29
Chloride	(Cl):	8900.0	251.06
Nitrate	(NO3):	<0.1	0.00

Total dissolved solids		
		mg/l
Calculated (HCO3=CO3)	:	20619
From Conductivity	:	22155
Salinity	:	16065

Hardness		
Carbonate	:	391
Non-Carbonate	:	0
Total	:	391



## Cylinder L-014 EX:MRSC 2499 @ 3008 m, sample ID 4.0

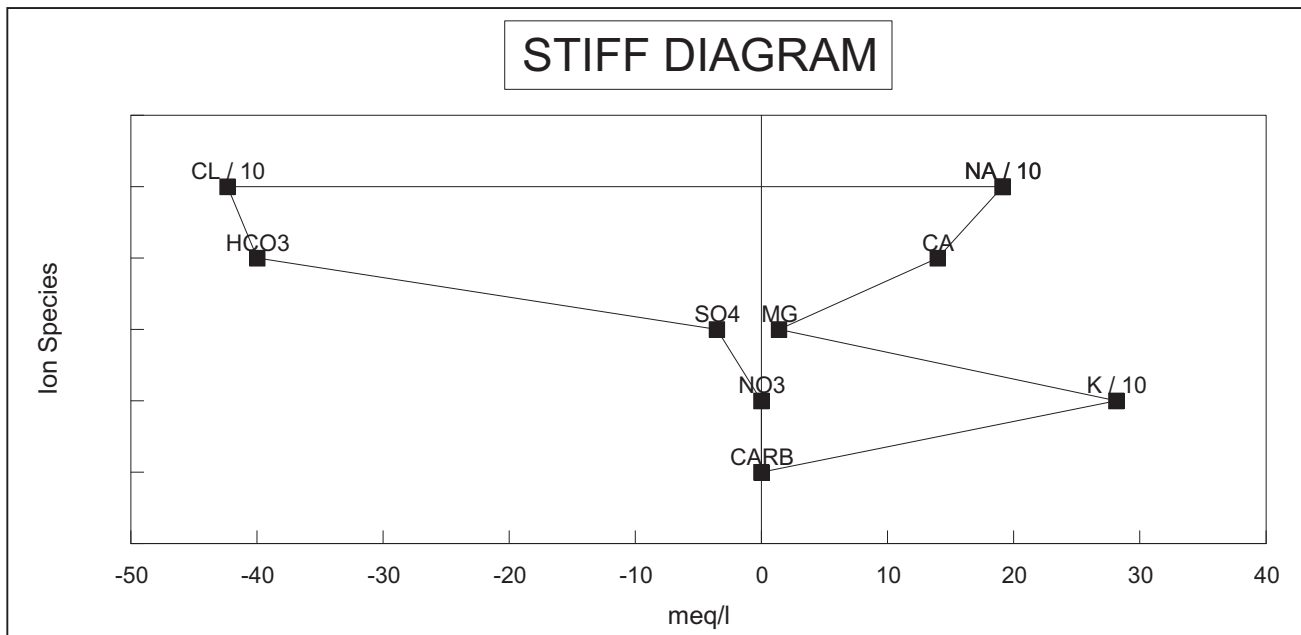
Resistivity	:	0.185	Ohm.M @ 25 °C
Conductivity (E.C)	:	54000	micro-S/cm @ 25 °C
pH	:	7.0	
Density	:	1.0259	gm/cc @ 25 °C
Total alkalinity	:	2000	Each as CaCO <sub>3</sub>

Cations			
		mg/l	meq/l
Calcium	(Ca):	280.0	13.97
Magnesium	(Mg):	17.0	1.40
Sodium	(Na):	4400.0	191.39
Potassium	(K):	11000.0	281.33

Anions			
		mg/l	meq/l
Hydroxide	(OH):	0.0	0.00
Carbonate	(CO <sub>3</sub> ):	0.0	0.00
Bi-Carbonate	(HCO <sub>3</sub> ):	2438.6	39.96
Sulphate	(SO <sub>4</sub> ):	170.0	3.54
Chloride	(Cl):	15000.0	423.13
Nitrate	(NO <sub>3</sub> ):	<0.1	0.00

Total dissolved solids		
		mg/l
Calculated (HCO <sub>3</sub> =CO <sub>3</sub> )	:	32066
From Conductivity	:	34182
Salinity	:	27075

Hardness		
Carbonate	:	769
Non-Carbonate	:	0
Total	:	769





**COMPOSITIONAL ANALYSIS OF  
GAS IN WATER SOLUTION**  
FROM CYLINDER NUMBER L-018 EX MPSR2421 Sample number 2, Depth 2879.5m

Component		Mol %	GPM		
Hydrogen Sulphide	H2S	0.00		Pressure Base	: 14.696
Carbon Dioxide	CO2	7.23		Zsc	: 0.998
Nitrogen	N2	0.89		Mol Weight	: 18.53
Methane	C1	89.91		Gas Gravity	: 0.641
Ethane	C2	1.68	0.450	Pc	: 694.5
Propane	C3	0.20	0.055	Tc	: 361.7
Iso-Butane	iC4	0.01	0.003	Mol Weight C6+	: 92.4
N-Butane	nC4	0.01	0.003	Density C6+	: 0.6787
Iso-Pentane	iC5	0.00	0.000	Mol Weight C7+	: 98.8
N-Pentane	nC5	0.00	0.000	Density C7+	: 0.6874
Hexanes	C6	0.03	0.012	Mol Weight C10+	: --
Heptanes	C7	0.03	0.013	Density C10+	: --
Octanes	C8	0.01	0.005	Mol Weight C11+	: --
Nonanes	C9	0.00	0.000	Density C11+	: --
Decanes	C10	0.00	0.000	Mol Weight C12+	: --
Undecanes	C11	0.00	0.000	Density C12+	: --
Dodecanes Plus	C12+	0.00	0.000	Heating Value (BTU/ft3)	
TOTAL		100.00	0.541	Gross	: 952
				Nett	: 858
				Wobbe Index	: 1189
				Zpt *	: 1.000

Laboratory Opening Pressure : 1133 psig @ : 110 °F

Date Sampled: January 8, 2009

**Gas Water Ratio: 17 Scf / Bbl**



**COMPOSITIONAL ANALYSIS OF  
GAS IN WATER SOLUTION**  
FROM CYLINDER NUMBER L-014 EX MPSR2499 Sample number 4, Depth 3008m

Component		Mol %	GPM		
Hydrogen Sulphide	H2S	0.00		Pressure Base	: 14.696
Carbon Dioxide	CO2	5.82		Zsc	: 0.998
Nitrogen	N2	1.26		Mol Weight	: 18.20
Methane	C1	90.87		Gas Gravity	: 0.630
Ethane	C2	1.62	0.434	Pc	: 688.1
Propane	C3	0.35	0.097	Tc	: 358.7
Iso-Butane	iC4	0.02	0.007	Mol Weight C6+	: 95.8
N-Butane	nC4	0.02	0.006	Density C6+	: 0.6834
Iso-Pentane	iC5	0.00	0.000	Mol Weight C7+	: 99.7
N-Pentane	nC5	0.00	0.000	Density C7+	: 0.6887
Hexanes	C6	0.01	0.004	Mol Weight C10+	: --
Heptanes	C7	0.02	0.008	Density C10+	: --
Octanes	C8	0.01	0.005	Mol Weight C11+	: --
Nonanes	C9	0.00	0.000	Density C11+	: --
Decanes	C10	0.00	0.000	Mol Weight C12+	: --
Undecanes	C11	0.00	0.000	Density C12+	: --
Dodecanes Plus	C12+	0.00	0.000	Heating Value (BTU/ft3)	
TOTAL		100.00	0.561	Gross	: 964
				Nett	: 868
				Wobbe Index	: 1215
				Zpt *	: 1.000

Laboratory Opening Pressure : 1076 psig @ : 110 °F

Date Sampled: January 8, 2009

**Gas Water Ratio: 16 Scf / Bbl**