CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. C72-4171

Received: Jan.17, 1972 Reported: Jan.28, 1972

Well: Location: Chevron SOBC Wm. W. Parkin

Operator: CHEVRON STANDARD LIMITED

Field or Area:

Elev.: K.B. Grd. Zone/Formation: Sample Interval:

Method of Production: D.S.T. 1 Sampled from: Top of tool Sampled by: Date: Dec.17, 1972

OTHER PERTINENT DATA Information as received on sample bottle.

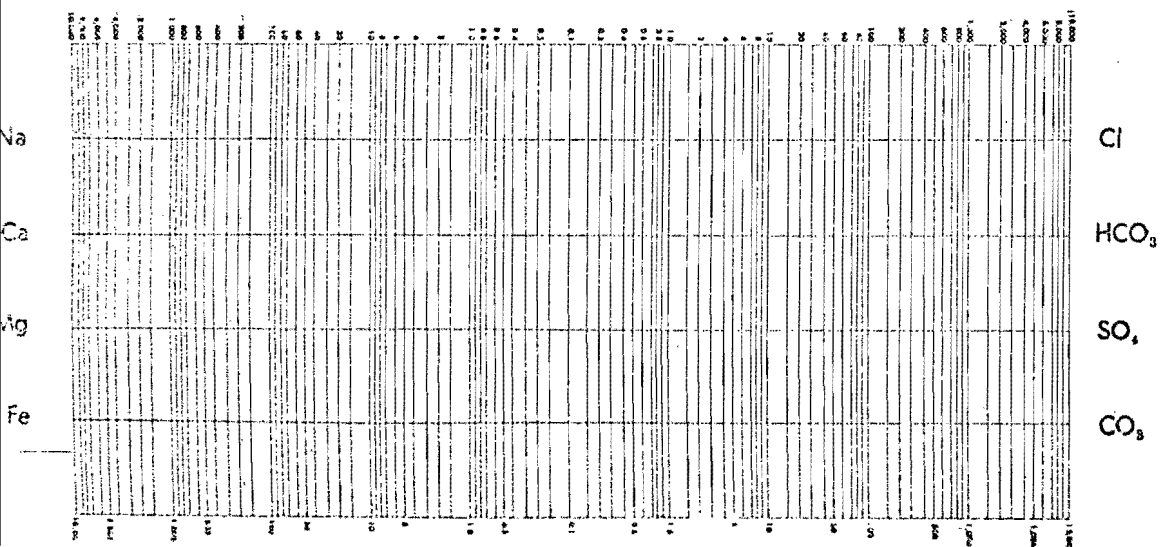
(Signed)

	Na	K	Ca	Mg					SO_4	Cl			CO_3	HCO_3		
Mg./L										370						
eq./L										10.43						
q. %																

Total Solids Mg/L: By Evaporation 2856 Fe present Specific Gravity @60°F Observed pH 8.6 @ 72 °F

Calculated After Ignition 1732 H_2S Nil Refractive Index 1.3331 @25°C Resistivity 3.12 ohm meters @ 68 °F

Pattern Unit Meq./L



Remarks and Conclusions

Analysis determined on a clear colorless filtrate recovered from mud. Much organic matter detected in evaporated total dissolved solids. Complete analysis not attempted due to lack of sample.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. C72-4172

Received: Jan.18,1972 Reported: Jan.31,1972 Well: Location: Chevron Wm. Parkin

Operator: CHEVRON STANDARD LIMITED Field or Area:

Elev.: K.B. Grd. Zone/Formation: Sample Interval:

Method of Production: D.S.T. #3 Sampled from: 2000' from top Sampled by: Date: Dec.26,1971

OTHER PERTINENT DATA

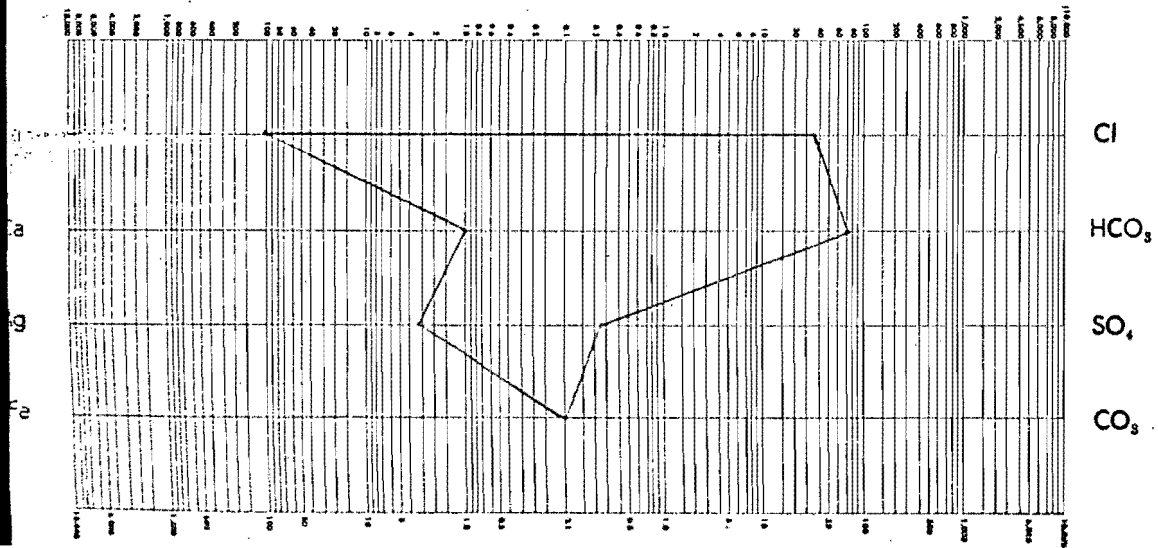
(Signed)

	Na & K		Ca	Mg					SO_4	Cl			CO_3	HCO_3		
g./L	2300		20	39					12	1200			Trace	4280		
q./L	100.07		1.00	3.21					0.25	33.84			Trace	70.19		
. %	47.98		0.48	1.54					0.12	16.23			Trace	33.65		

Total Solids Mg/L: By Evaporation 9,540 Fe Nil Specific Gravity 1.015 @60°F Observed pH 8.3 @ 72 °F

Calculated 7,851 After Ignition 5,288 H_2S Present Refractive Index 1.3346 @25°C Resistivity 0.806 ohm meters @ 68 °F

Pattern Unit Meq./L



Remarks and Conclusions

Analysis determined on pale green filtrate recovered from water containing a trace of sediment. Organic matter detected in evaporated total dissolved solids.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. C72-4173

Received: Jan.18, 1972 Reported: Jan.28, 1972

Well: Location: Chevron SOBC Wm. W. Parkin

Operator: CHEVRON STANDARD LIMITED

Field or Area:

Elev.: K.B. Grd. Zone/Formation:

Sample Interval:

Method of Production: D.S.T. 6

Sampled from: 120' above tool

Sampled by: Johnston Testers Ltd.

Date: Jan.11, 1972

OTHER PERTINENT DATA Information is written on sample bottle.

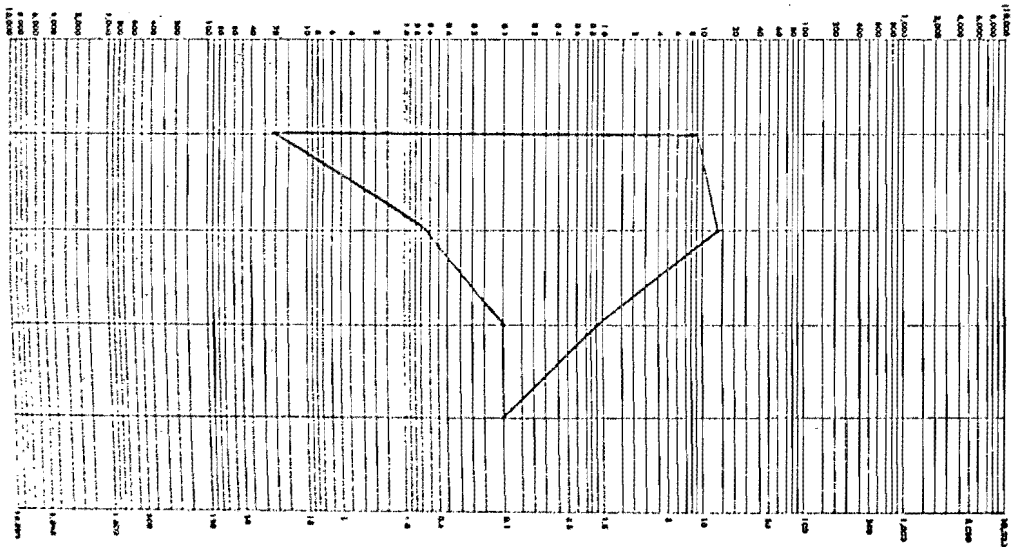
(Signed)

	Na & K		Ca	Mg					SO_4	Cl			CO_3	HCO_3		
/L	534		13	Trace					437	30				850		
/L	23.23		0.65	Trace					9.09	0.85				13.94		
%	48.64		1.36	Trace					19.03	1.78				29.19		

Total Solids Mg/L: By Evaporation 1746 Fe Much Specific Gravity 1.006 @60°F Observed pH 8.4 @ 72 °F

Calculated 1864 After Ignition 1212 H_2S Nil Refractive Index 1.3363 @25°C Resistivity 4.93 ohm meters @ 68 °F

Pattern Unit Meq./L



Remarks and Conclusions

Analysis determined on a clear colorless filtrate recovered from watery mud. Organic matter detected in evaporated total dissolved solids.

CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton – Fort St. John – Calgary

GAS ANALYSIS REPORT: Lab. No. C72-4013-1 Received: Jan.31,1972 Reported: Feb.7,1972

Well: Chevron SOBC W.M.W. Parkin C-33 Operator: CHEVRON STANDARD LIMITED

Field or Area: Location: Elev.: K.B. Grd.

Zone and Formation: Sample Interval:

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date:

Pressure: (a) at point of sampling psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling °F (b) Separator °F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #1 Container Nos: C85, C10; V98

(Signed)

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium	0.02	
Hydrogen sulfide	0.	
Carbon dioxide	0.38	
Nitrogen	0.93	
Methane	88.33	
Ethane	6.69	
Propane	2.57	0.586
Isobutane	0.30	0.081
N-butane	0.57	0.149
Isopentane	0.11	0.033
N-pentane	0.08	0.024
Hexanes	0.02	0.007
Heptanes	TRCE	0.
Octanes	TRCE	0.
Nonanes	0.	0.
Decanes +	0.	0.
TOTAL	100.00	0.880

G.P.M. (Calculated)

pentanes +	0.064
at 12 lbs.	0.
at 15 lbs.	0.
at 22 lbs.	0.071
at 26 lbs.	0.077

SPECIFIC GRAVITY

Calculated	0.635
by Weight	0.628

CRITICALS (Calculated)

Pc	672.2
Tc	369.6

VAPOR PRESSURE (Calc.) @ 100°F. Pentanes + 17.20

H_2S Grains per 100 cu. ft. @ 60°F. & 14.65 p.s.i.a. 0.

GROSS B.T.U. (Calc.) @ 60°F. & 14.65 p.s.i.a. (dry) 1108.6

(sat.) 1089.2

Acid Gas Free (dry) 1112.8

DEW POINT (Calc.) p.s.i.

	950	1050	1200
FAH.	-2	-3	-5

Mol. Wt.: Total Gas 18.403 Heptanes + 0.

C72-4013-1 D.S.T. #1. Sample received with a pressure of 85 psig at 72°F.

C72-4013-2 D.S.T. #3. Sample received with zero pressure at 72°F. Insufficient sample for analysis.