

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. C73-6385

Received: April 13, 1973 Reported: April 16, 1973

Well: Location: Chevron SOBC WM Whitefish YT J-70

Operator: CHEVRON STANDARD LIMITED

Field or Area: Whitefish R

Elev.: K.B. 1087' Grd. 1070'

Zone/Formation: Lower Cretaceous

Sample Interval: 6740' - 6812'

Method of Production: D.S.T. #1

Sampled from: Bottom

Sampled by: Johnston Tester

Date: March 31, 1973

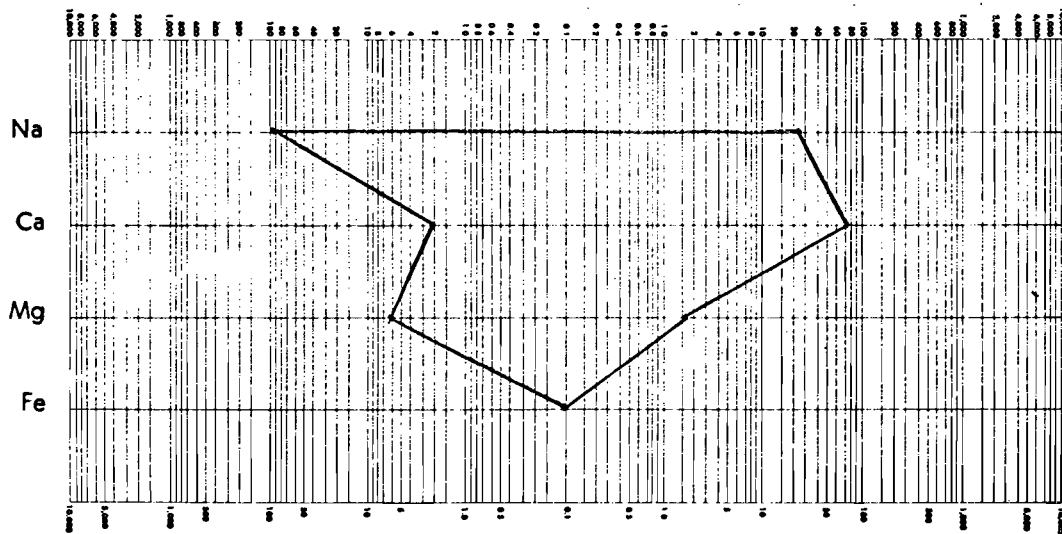
OTHER PERTINENT DATA

Recovered: 743' 250' mud, 493' mud cut water.

(Signed) *D. Shewchuk* /cc.

	Na & K	Ca	Mg					SO <sub>4</sub>	Cl			CO <sub>3</sub>	HCO <sub>3</sub>		
Mg./L	2111	40	75					79	900			---	4450		
Meq./L	91.83	2.00	6.17					1.64	25.38			---	72.98		
Meq.%	45.92	1.00	3.09					0.82	12.69			---	36.49		

Total Solids Mg/L: By Evaporation 5524 Fe Present Specific Gravity 1.007 @60°F Observed pH 7.8 @ 72°F  
 Calculated 7655 After Ignition 3408 H<sub>2</sub>S Nil Refractive Index 1.3341 @25°C Resistivity 1.25 ohm meters @ 68°F  
 Pattern Unit Meq./L Organic matter - Present



Remarks and Conclusions  
 Analysis determined on a clear colorless filtrate recovered from water containing approximately 20% sediment.

Received: April 11, 1973 Reported: April 13, 1973

Well: Location: Chevron SOBC WM Whitefish YT-J70

Operator: CHEVRON STANDARD LIMITED

Field or Area: Whitefish R

Elev.: K.B. 1087' Grd.

Zone/Formation:

Sample Interval: 6885' - 6980'

Method of Production: D.S.T. #3

Sampled from: Tool Top

Sampled by: Johnston Testers

Date: April 8, 1973

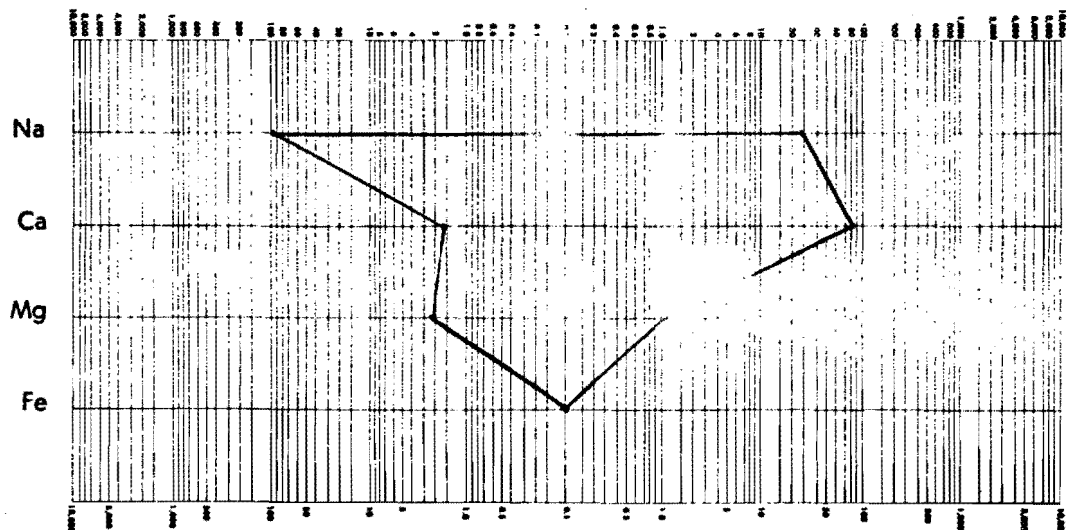
OTHER PERTINENT DATA

Recovered: 5790' water.

(Signed)

	Na & K	Ca	Mg					SO <sub>4</sub>	Cl			CO <sub>3</sub>	HCO <sub>3</sub>		
Mg./L	2253	32	27					54	1000			---	4420		
Meq./L	98.00	1.60	2.22					1.12	28.20			---	72.49		
Meq. %	48.12	0.79	1.09					0.55	13.85			---	35.60		

Total Solids Mg/L: By Evaporation 5584 Fe Present Specific Gravity 1.010 @60°F Observed pH 7.9 @77 °F  
 Calculated 7786 After Ignition 4024 H<sub>2</sub>S Nil Refractive Index 1.3342 @25°C Resistivity 1.19 ohm meters @68 °F  
 Pattern Unit Meq./L Organic matter - Present



Remarks and Conclusions

Analysis determined on a clear colorless filtrate recovered from water containing a trace of sediment and a trace of hydrocarbon.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton

Fort St. John

Calgary

**GAS ANALYSIS REPORT:** Lab. No E73-3900 Received: Apr. 11, 1973 Reported: Apr. 12, 1973

Well: Chevron SOBC Whitefish YT-J-70 Operator: CHEVRON STANDARD LIMITED

Field or Area: Wildcat Location: \_\_\_\_\_ Elev.: K.B. Grd. \_\_\_\_\_

Zone and Formation: \_\_\_\_\_ Sample Interval: 6885' - 6980'

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

Sampled from: \_\_\_\_\_ Sampled by: \_\_\_\_\_ Date: Apr. 9, 1973

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 Sampled at 11:30 A.M. Container #1023.

(Signed)

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA	G.P.M. (Calculated)	SPECIFIC GRAVITY
Helium	0.05	pentanes +	0.021	Calculated 0.576
Hydrogen sulfide	0.	at 12 lbs.	0.024	by Weight .573
Carbon dioxide	0.15	at 15 lbs.	0.025	CRITICALS (Calculated)
Nitrogen	1.95	at 22 lbs.	0.030	Pc 670.1
Methane	95.83	at 26 lbs.	0.034	Tc 345.8
Ethane	1.72	VAPOR PRESSURE (Calc.) @ 100°F. Pentanes +		6.38
Propane	0.14	0.032	H <sub>2</sub> S Grains per 100 cu. ft. @ 60°F. & 14.65 p.s.i.a.	0.
Isobutane	0.09	0.024	GROSS B.T.U. (Calc.) @ 60°F. & 14.65 p.s.i.a. (dry)	1004.9
N-butane	0.01	0.003	(sat.)	987.3
Isopentane	0.01	0.003	Acid Gas Free (dry)	1006.4
N-pentane	TRCE	0.	DEW POINT (Calc.) p.s.i.	950 1050 1200
Hexanes	0.02	0.007	FAH.	-27 -30 -34
Heptanes	0.02	0.007	Mol. Wt.: Total Gas	16.679 Heptanes + 102.093
Octanes	0.01	0.004	Received at 3 psig. Prior to analysis sample was heated to 180°F.	
Nonanes	0.	0.		
Decanes +	0.	0.		
TOTAL	100.00	0.080		

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.  
 À présenter en double dans les trente jours suivant l'achèvement, le remaniement, l'abandon et le reconditionnement de chaque puits, ou après suspension.

Well Name & No. - Nom et n° du puits <b>Chevron SOBC WM Whitefish YT J-70</b>	Permit No. - N° de permis <b>2727</b>	Lease No. - N° de concession
(Permittee, License, Lessee) - (Détenant de permis ou de licence, du concessionnaire) <b>Western Minerals Ltd.</b>	Exploratory Licence No. - N° de licence de sondage <b>1541</b>	
(Operator) - (Exécutant) <b>Chevron Standard Limited</b>	Exploratory Licence No. - N° de licence de sondage <b>1502 SOBC-1501</b>	

LOCATION - EMPLACEMENT			
Unit - Unité <b>J</b>	Section <b>70</b>	Grid - Étendue quadrillée <b>67-10-137-15</b>	Latitude <b>67° 09' 32"</b>
			Longitude <b>137° 26' 44"</b>
Unique Well Identifier - Code d'ordinateur <b>300J706710137150</b>		Universal Well Location Reference - Références universelles d'emplacement du puits <b>Lat. 67.15889° N Long. 137.44555° W</b>	

	Date	Depth - Profondeur	Pool(s) Gisement(s)
Spudded Début des travaux	Jan. 17/73	<b>75' KB</b>	
Suspended Suspension des travaux	Feb. 18/73		Interval(s) Open to Production Intervalle(s) de production
Resumed Operations Reprise des travaux			
Finished Drilling Forage terminé		<b>6980' KB</b>	
Deepened Approfondissement			
Complete (Gas/Oil) Achèvement (Gaz/Pétrole)			Elevation: Gr. <b>1070</b> K.B. <b>1085</b> Altitude du sol <b>15</b> du carré d'entraînement <b>GP Drilling</b>
Abandoned Abandon		<b>6980' KB</b>	Rig No. <b>15</b> Drilling Contractor N° de la tour de forage <b>GP Drilling</b> Entrepreneur en forage
Rig Released Fin des travaux	April 10/73	<b>Surface</b>	Contractor's Business Licence No. N° du permis de l'entrepreneur

CASING RECORD - TUBAGE

Casing Size (Inches) Diamètre (en pouces)	Grade Qualité	Weight Poids	Amount Longeur	Set at - Fixation à	Sacks of Cement and Additives Sacs de ciment et d'additifs
<b>19</b>	<b>ERW</b>		<b>60</b>	<b>75</b>	<b>200sx 6J Coldset</b>
<b>13-3/8</b>	<b>K-55</b>	<b>54.5</b>	<b>891.41</b>	<b>908</b>	<b>875sx + 3% CaCl<sub>2</sub></b>
1.					
2.					
3.					
4.					
5.					
6.					

Geological Tops Sommet des formations	Elevation - Profondeur		Core Record - Carottes					
	Depths Sous le niveau du sol	Sub-Sea Sous le niveau de la mer	From - de	To - à	Rec. Récupérées	From - de	To - à	Rec. Recup.
<b>Eagle Plain</b>	<b>Surface</b>	<b>71007</b>	<b>6714</b>	<b>6721</b>	<b>6.5</b>			
<b>Blackie S.S.</b>	<b>2866</b>	<b>-1779</b>						
<b>U. Albian Shale</b>	<b>3360</b>	<b>-2293</b>						
<b>M. Albian Uncon.</b>	<b>4720</b>	<b>-3633</b>						
<b>Basal Cret.</b>	<b>4720</b>	<b>-3633</b>						
<b>Siltstone Unit</b>	<b>5142</b>	<b>-4055</b>						
<b>Hauterivian SS.</b>	<b>6472</b>	<b>-5385</b>						

Log Record - Diagrammes

Run Série	Type of Log Genre de diagramme	From - De	To - À
<b>1</b>	<b>Minilog Caliper</b>	<b>6979'</b>	<b>908'</b>
<b>1</b>	<b>BHC Acoustilog</b>	<b>6974'</b>	<b>10'</b>
<b>1</b>	<b>Dual Induction Focused</b>	<b>6975'</b>	<b>908'</b>