DEPARTMENT OF MINES

EDMONTON, ALBERTA
CANADA

December 1, 1958

CONFIDENTIAL
WESTERN MINERALS LTD.

Date March 26, 1959

Eugene Vellet
Pool Plateau Oil
#8 Michael Building
Calgary, Alberta

60° 48' 138° 08'

Re: Eagle Plains #1

YJ

The cores from Eagle Plains #1, Core 18 (3 boxes) and Core 19 (1 box) were examined for fossil content, but a poorly preserved Streptelasma was the only fossil located in Box 1 of Core 18. This would indicate a continuation of the Upper Ordovician section of limestone encountered in the previous core. The appearance of a limestone breccia in Core 18 which is not entirely autochthonous at this horizon is interesting in the light of the appearance of a similar limestone breccia in the canyon of the Peel River at this same strat graphic position. This would imply that the carbonate facies of the Upper Ordovician and the Lower Silurian present in the well (Eagle Plains #1) is represented by an entirely graptolitic shale facies in the canyon on the Peel and this would provide a facies change from carbonate to shale southward from your well across the Eagle Plains. Similarly the carbonates in Core 17 (9327-9342) (although only 3' was recovered) would seem to indicate a somewhat thicker section for the Middle Ordovician in the same direction although the Middle Ordovician line is quite argillaceous.

Organic effects are very noticeable on the cores in the Eagle Plains well. The shattering and refilling of fractures by calcite suggests a marble Bay spilled reservoir potentialities in these lower carbonate sequences as close to the Dave Lake transverse structural belt. Favorable retention of porosity should be looked for further in the structure.

The limestone in Core 19 of Permian is not accurately dated and from the shaving and glassering, pointing to a zone of movement in the area and therefore if this is in part a fragment the Ordovician graptolite facies would be present in this area only transgressive over in the well. It is present in shale just west of the well.

The carbonate breccia referred to above in the one core stands out as being the point applicable to the Peel River canyon of the Tea River.

REPORT ON FOSSIL DETERMINATIONS
BY
DR. C. R. STELCK

CONFIDENTIAL
WESTERN MINERALS LTD.

Date. March 26, 1959

CORE NO.1 2101-2122

Typical Loon River type of Lower Cretaceous shale with conifer fragments and pyritized wood fragments.

CORE NO.2 3611-3658

Box 1: Dark Limestone
Disphyllum cf. disjunctum
Martinia cf. richardsoni
Amphipora sp.
Actinostroma

Middle Devonian about base of Stringocephalus zone.

CORE NO.2

Box 2 - Age: Middle Devonian
Disphyllum disjunctum
Actinostroma sp.
Algae

CORE NO.2

Box 3 - Age: Middle Devonian about the base of Stringocephalus zone.

Disphyllum disjunctum
Actinostroma
Martinia richardsoni
Prismatophyllum sp.
Martinia sublineata
Hypothyridina cameroni

CORE NO.2

Box 4 - Late Middle Devonian
Disphyllum disjunctum.

CORE NO.3 3659-3679

Box 1 -
Chonetes?

CORE NO.3

Box 2: Middle Devonian about Pine Point horizon.
Stromatoporoid
Amphipora
Favosites cf. alpenata

CORE NO.3

Box 3:
Amphipora sp.

REPORT ON FOSSIL DETERMINATIONS
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Date. March 26, 1959

CORE NO.1 2101-2122

Typical Loon River type of Lower Cretaceous shale with conifer fragments and pyritized wood fragments.

CORE NO.2 3611-3658

Box 1: Dark Limestone
Disphyllum cf. disjunctum
Martinia cf. richardsoni
Amphipora sp.
Artisostrema

Middle Devonian about base of Stringocephalus zone.

CORE NO.2

Box 2 - Age: Middle Devonian
Disphyllum disjunctum
Artinostroma sp.
Algae

CORE NO.2

Box 3 - Age: Middle Devonian about the base of Stringocephalus zone.

Disphyllum disjunctum
Artinostroma
Martinia richardsoni
Prismatophyllum sp.
Martinia sublineata
Hypothyridina sanwoni

CORE NO.2

Box 4 - Late Middle Devonian
Disphyllum disjunctum.

CORE NO.3 3669-3679

Box 1 -
Chonetes?

CORE NO.3

Box 2: Middle Devonian about Pine Point horizon.
Stromatoporoid
Amphipora
Favosites cf. alpenensis

CORE NO.3

Box 3:
Clathrocoeria sp.

CORE NO.3

Box 4: Middle Devonian about Pine Point horizon.
Algae
Alveolites sp.
Favosites cf. limbatus.
Disphyllum cf. lonsdale

CORE NO.4 3920-3940

Box 1:
Actinostroma sp.

CORE NO.4

Box 3:
Actinostroma sp.

CORE NO.4

Box 4:
Stromatoporoids
Algae
Favosites cf. alpensis
Disphyllum sp.

The suites from Core #4 sent in before also contain Martinia sublineata so the whole of Core #4 is Middle Devonian of late Pine Point age, i.e. Hare Indian Shale equivalents. Ogilvie

Note: I did not see Cores #5, #6 or #7.

CORE NO.8 5590-5600

Box 1: Still Devonian.
Cosmites sp. prob. Gassetti

CORE NO.9 6047-6087

Box 1: Slickensided green shale and crystalline slightly silty limestone.

CORE NO.9

Box 4: Dense mottled limestone.

CORE NO.9

Box 6: All recrystallized, Amphipora sp.

CORE NO.9

Box 8: Fragmental, with Gastropod, Brachiopod and Algal? fragments. It seems that Core #9 might reasonably be devonian as well.

CORE NO.10 6792-6824

Box 2:
This seems to mark about the base of Devonian type lithologies.

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Date March 26, 1959

CORE NO.12

Box 3:
Coarsely crystalline marble. This local limestone crush breccia marble at the top of the Silurian marking the Devonian - Silurian contact, as cores 6, 5, 6 and 7 also carry the marble to slowly regressive amounts downward.

CORE NO.11 7044-7048

Box 1:
Fossil sponge?
Increase in argillaceous content.

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Date. March 26 1957

CORE No.12 7048-7069

Box 1, 2, 3, 4, 5 and 6:
Dense black limestone, argillaceous.

CORE NO.12

Box 3:
Fossil sponge?

CORE NO.13 7069-7097

Box 1, 2, 3, 4 and 5:
Black dolomitic limestone, dense, with tiny crinoidal columnals.

CORE NO.14 7337-7377

Is all Middle Silurian.

CORE NO.14

Box 1:
Dalmanella sp.
Protokionocoras?
Rospirifer aff. R. radiatus

CORE NO.14

Box 2:
Dalmanella sp.

CORE NO.14

Box 3:
Dalmanella sp.

CORE NO.14

Box 4:
Monograptus cf. vulgaris
Dalmanella sp.

CORE NO.14

Box 5:
Favosites cf. prolifaum

CORE NO.14

Box 6:
Stromatoporoid.

CORE NO.14

Box 7:
Favosites cf. prolificum
Cyrtophyllum cf. densum

CORE NO.14

Box 8:
Cyrtophyllum cf. densum

Fossils determined from core fragments of Core #14:
Crinoid Plates
Leperditia sp.
Bumastus sp. indet.
Protokionoceras ?
Gastropod indet.

CORE NO.15 7678-7688

Box 1:
Sheared graptolitic shales
Graptolite indet.

The bedding throughout the core never exceeded 12° in dip, although the shearing and stylolization gave an apparent distortion above this at times. Veining development suggested tension in the lower part of the well from Core #8 down. Marble development and slickensided shale suggest a pre-Middle Devonian regional deformation. This is found to be so in outcrops along the Peel River further south.

I would say that the succession so far is without repetition or faulting and missing sections in the well were by non-deposition and erosion only. From the nature of the shearing below Core 14, it is suggested that you are approaching below Core 15 the top of the extensive (10,000' ±) section of graptolite shales that is present in the Barn Mountains and Porcupine River to the north and also present in the canyon of the Peel to the south. There are very few reservoir rocks known to exist in this sequence.

There is one band only of limestone present in the graptolite shale sequence of importance, i.e. the limestone that makes the whirlpool at the lower canyon of the Peel River at the contact approximately of the Ordovician and Silurian.

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WESTERN MINERALS LTD.
Date. March 26th 1959

CORE NO.16 7696-7706

Box 1:
Monograptus aff. nudus

L. Silurian ?

CORE NO.16

Box 2:
Dalmanella sp. indet.

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Date March 26, 1959

CORE NO.17 7874-7906

Box 1:
"Actinoceras" sp.
Algae

CORE NO.17

Box 2:
Stromatoporoid

CORE NO.17

Box 3:
Stromatoporoid
Crinoidal fragments
Streptelasma s.l.

CORE NO.17

Box 4:
Streptelasma sp.
Catenipora cf. feildeni

CORE NO.17

Box 5:
Kochoceras sp. aff. cuneiforme
Catenipora n.sp. (Stony Mountain formation) Upr Ord

CORE NO.17

Box 6:
Favosites sp. indet.
Siphuncle cf. "Actinoceras"

CORE NO.17

Box 7:
Sighoraia cf. patella.

All of the forms from Core 17 are definitely in the Upper Ordovician about Stony Mountain in age and it indicates that the sequence is still in natural order. Some slickensiding suggests bedding-plane movement in shales. Jointing with calcite-filled voids is assumed to represent decrease of bulk by recrystallization. The development of numerous limestone beds in the shale and silicified argillites as shown in the [illegible] suggests considerable redistribution of silica and lime with loss of [illegible]. The [illegible] is still fast for practical purposes, with a

repetition indicated at all. The appearance of this lime band in the U. Ordovician corresponds with the thin lime bands found at this horizon on the Peel River in the L. Canyon.

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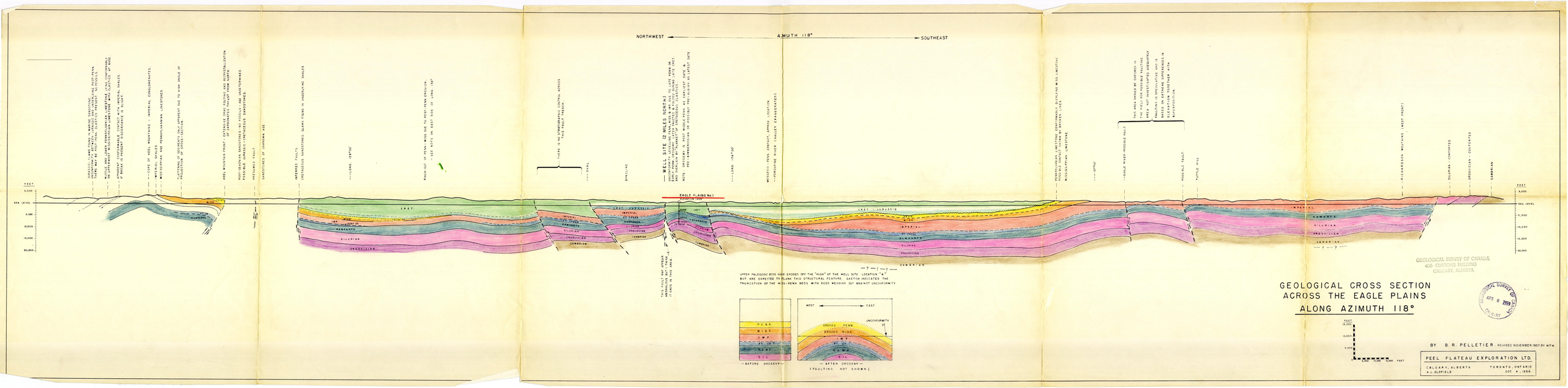
Date March 26 1959

CORE NO.18 9079-9102

See Page 66C.

CORE NO.19 9327-9343

See Page 66C.



GEOLOGICAL SURVEY OF CANADA
406 CUSTOMS BUILDING
CALGARY, ALBERTA.

GEOLOGICAL SURVEY OF CANADA
APR 8 1959
CALGARY

GEOLOGICAL CROSS SECTION ACROSS THE EAGLE PLAINS ALONG AZIMUTH 118°

BY B. R. PELLETIER - REVISED NOVEMBER 1957 BY W.F.W.

PEEL PLATEAU EXPLORATION LTD.

CALGARY, ALBERTA — TORONTO, ONTARIO

A. L. OLDFIELD — OCT. 4, 1956

WELL NAME	OWNER	YR	CORE	TOP	BOTTOM	LOCATION	TYPE
EAGLE PLAINS NO. 1	PEEL ETAL	58		3611	3635	C-30261	MICRO
				3635	3655	C-30261	
				3655	3678	C-30261	

WELL NAME	OWNER	YR	CORE	TOP	BOTTOM	LOCATION	TYPE
EAGLE PLAINS YT NO. 1	PEEL PLAT	58	16	7069	7074	C-13463	CONOD
			16	7074	7079	C-13464	
			16	7089	7094	C-13465	
			16	7094	7097	C-13466	
			17	7337	7342	C-13467	
			17	7342	7347	C-13468	
			17	7372	7377	C-13469	
			20	7874	7879	C-13470	

WELL NAME	OWNER	YR	CORE	TOP	BOTTOM	LOCATION	TYPE
EAGLE PLAINS YT NO. 1	PEEL PLAT	58	3	3668		C-1499	MACRO
				5596		C-18049	
			16	7061		C-18050	
				7368		C-18051	
				7696		C-18053	
				7888		C-18054	
				7890		C-18055	
				7891		C-18056	
				7893		C-18956A	
				7895		C-18957	
				7897		C-18058	
				7898		C-18059	

WELL NAME	OWNER	YR	CORE	TOP	BOTTOM	LOCATION	TYPE
EAGLE PLAINS YT NO. 1	PEEL PLAT	58	1	2116		C-10643	PALYN

WELL NAME	OWNER	YR	CORE	TOP	BOTTOM	LOCATION	TYPE
EAGLE PLAINS NO. 1	PEEL	58	1	2105	2109	C-30261	T.SEC
				3613		C-30261	
				3622		C-30261	
				3659		C-30261	
				3670		C-30261	
				3921		C-30261	
				3936		C-30261	
				4827		C-30261	
				5593		C-30261	

START TEST HOLE
(ACCORDING TO LOCATION)

YUKON TERR.
(DEGREE MINUTE,SEC)

HISTORY LOG

WELL: EAGLE PLAINS M1

SURFACE COORDS: LAT. , LN. , ELEV.

OPERATION: FIELD, PLATEAU EXPLORATION LTD.
CONTRACTOR: DRAKE DRILLING CO.
STATUS: SUSPENDED

SPUDED: APRIL 27, 1967
COMPLETED: MAY 5, 1967
LOG: 0-1,100, MAINLOG
TOP: KB, FLOOR DATE

LOCATION:
TD-DRL: LAT.N LAT. , LAT.W LAT.
TOTAL DEPTH: 8000 - 0 DRL
DATE: 1967

CASING SIZE: 13 3/8", CEMENTED AT: 1,000', WITH: 800 SACKS
9 5/8", CEMENTED AT: 4,800', WITH: 800 SACKS

SANDSTONE
SHALE
LIMESTONE
DOLOMITE
SHALE
CONGLOMERATE

ELECTRICAL OR MAGNETIC LOG

SELF POTENTIAL

RESISTIVITY

GEOLOGIC DATA

TOP DEVONIAN 3987

TOP SILURIAN 6802

SILURIAN UNCONFORMITY

T.D. 8000'

66-48 54 13B 03

A. W. Norris
Fuels & Stratigraphy

E. J. Tassonyi

9 October 1963

Eagle Plain Files

At Dr. Belyea's request I enclose the following files of the Eagle Plains No. 1 well:

1 letter with palaeontological report, Dec. 3, 1958, Dr. (Stelck to Peel Plateau Expl.)

1 report, with map, Nov. 1958, Geology Eagle Plains - Caribou Anticline, Yukon Territory, by W. F. Wuest, Peel Plateau Expl.

These reports were misfiled, but since turned up. All data are confidential.

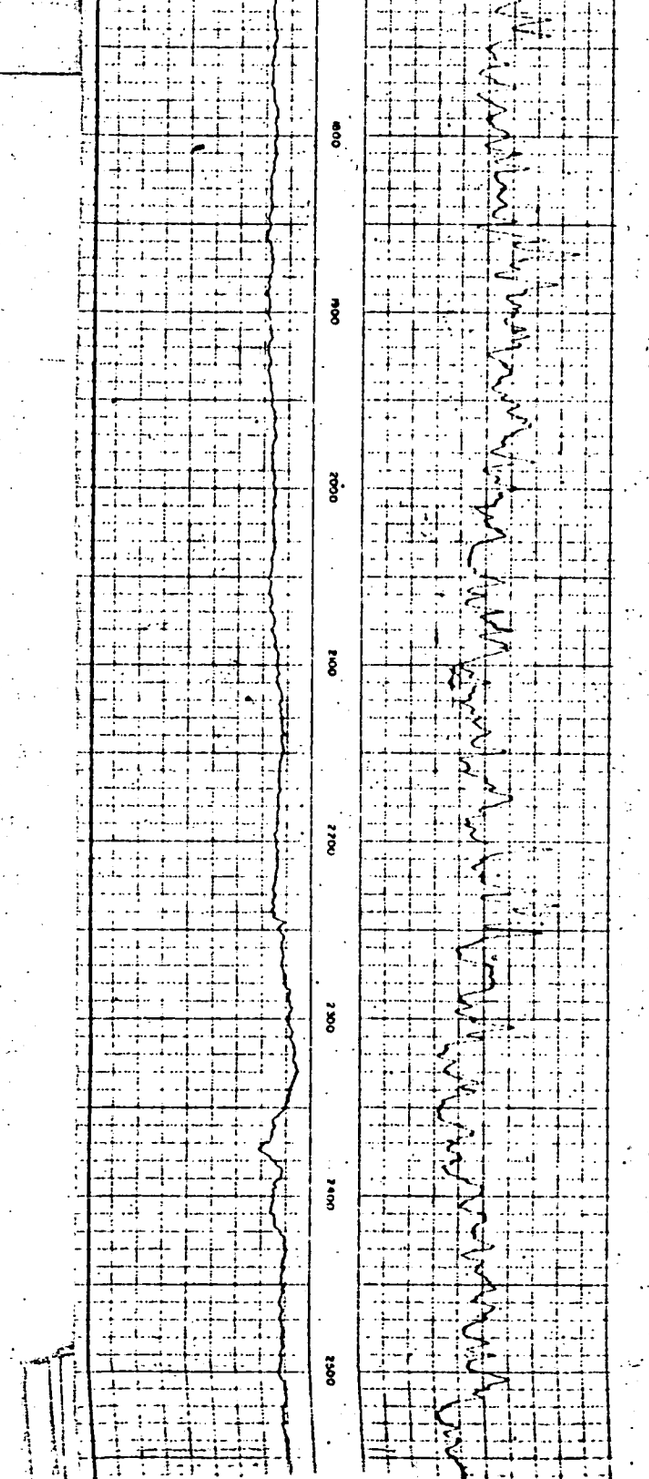
E. J. Tassonyi

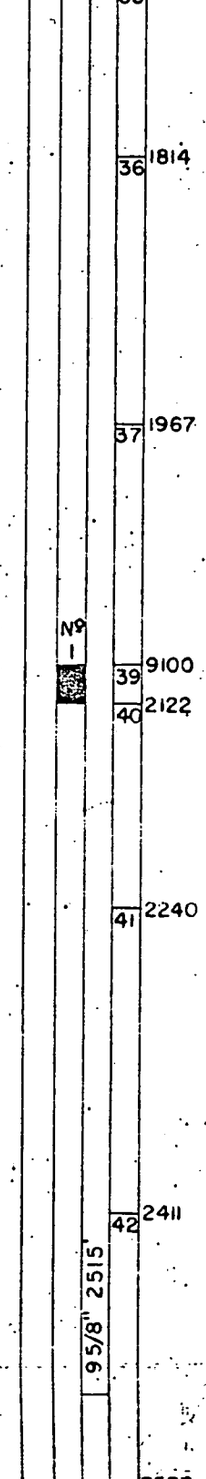
Encls. - 2
EJT:ss

REGISTERED MAIL

Log File

Valley





36	1814	1800'
		1900'
37	1967	
		2000'
39	9100	2100'
40	2122	
		2200'
41	2240	
		2300'
		2400'
42	2411	
		2500'

Shale & scattered st. lam. gry & dk gr to bl. interbedded. fiss, mica, Lens sty sh. Scat. brown non-mica sh. lens. Tr. bl. carb. filaments.

Core No. 1, 2101 - 2122.

Recovered 21' Shale.

Sh. abund. fine interb'd & lams. St. & tr. ss.

Shale mmdm. scat. interbdd st. & ss.

6648 /138

Report on forty-three lots of fossils from core from the Eagle Plains No. 1, Grandview Hills No. 1, Kugaluk N-02, Pt. Separation No. 1 and Root River I-60 wells, Yukon Territory and District of Mackenzie (NTS 95J; 106M,O; 107A; 116J)

The relevant parts of any manuscript prepared for publication that paraphrase or quote from this report should be referred to the Paleontology Subdivision, Calgary, for possible revision.

Depth	Well, Fossils and Age	GSC Loc. No.
	Richfield Oil Corp. et al. Grandview Hills No. 1 67°06'12"N., 130°52'30"W	
3148 1/2 ft.	gastropod (?) - Gossage Rick Y.	C-18045
3549 ft.	indeterminate coral - Ronning Base Warren M age: Middle Ordovician to Permian	C-18046
3566 ft.	gastropod (?) Ronning	C-1927
4211 ft.	indeterminate fossil Ronning	C-18047
4219 ft.	indeterminate tabulate coral Ronning age: Middle Ordovician to Permian	C-18048
	FPC Tenneco Root River I-60 62°39'32.21"N., 123°24'28.96"W. Nick D.	
6621 ft.	echinoderm fragments large gastropod bryozoan (?) Palaeofavosites sp. age: Late Ordovician to Late Silurian	C-18036
6624 ft.	echinoderm fragments ?Bighornia sp. Lobocorallium sp. Palaeophyllum sp. age: Late Ordovician	C-18037
6627 ft.	indeterminate solitary coral	C-18038
6631 ft.	Bighornia sp.	C-2520
6645 ft.	streptelasmid coral age: Middle Ordovician to Silurian	C-18039
	Richfield et al. Pt. Separation No. 1 67°34'06"N., 134°00'10"W.	
7982 1/2 ft.	undetermined stromatoporoid	C-18060
Ronning Group 7984 1/2 ft.	undetermined stromatoporoids - Ronning Base Favosites 2 spp. heliolitid coral (?) age: Silurian to Middle Devonian	C-18061
Ronning Gp.		

Depth	Well, Fossils and Age	GSC Loc. No.
7988 ft.	undetermined stromatoporoid Cystiphyllum sp. age: Silurian	C-18062
7993 ft.	undetermined stromatoporoid ?Favosites 2 spp. Multisolenia tortuosa Fritz age: Silurian, probably Late Llandovery	C-18063
8013 ft.	indeterminate orthid brachiopod	C-18064
8017 ft.	indeterminate brachiopod	C-18065
8019 ft.	Cystiphyllum sp. age: Silurian	C-18066

Peel Plateau Eagle Plains Y.T. No. 1
66°48'54"N., 138°08'30"W.

Rick Y.
Warren M.

7061 ft.	echinoderm fragments ?Favosites sp. Syringopora sp. age: Silurian to Devonian	C-18050
7368 ft.	?Favosites sp. age: Late Ordovician to Middle Devonian	C-18051
7696 ft.	inarticulate brachiopod	C-18053
7888 ft.	indeterminate fossils	C-18054
7890 ft.	streptelasmid coral	C-18055
7891 ft.	streptelasmid coral Palaeophyllum sp. indeterminate tabulate coral age: late Middle Ordovician to Early Silurian	C-18056
7893 ft.	stromatoporoid (?)	C-18056A
7895 ft.	Catenipora 2 spp. age: late Middle Ordovician to Late Silurian	C-18057
7897 ft.	Bighornia sp. Palaeofavosites sp. age: Late Ordovician	C-18058
7898 ft.	?Lobocorallium sp. indeterminate solitary coral Catenipora sp. Palaeofavosites sp. ?Palaeofavosites sp. age: Late Ordovician	C-18059

Carbonate equiv. of Road River Fm.

Vunta?

Depth	Well, Fossils and Age	GSC Loc. No.
	CPOG Kugaluk N-02 68°31'55"N., 131°31'19"W.	
5590 1/4 ft.	Favosites sp. age: Late Ordovician to Middle Devonian	C-18011
5614 ft.	echinoderm fragmnets Cystihalysites sp. age: Silurian	C-18012
5615 ft.	indeterminate coral	C-18013
5624 ft.	favositid coral	C-18014
5626 ft.	indeterminate coral	C-18015
5819 1/2 ft.	?Cystihalysites sp. ?Favosites sp. age: Silurian	C-18016
5824 ft.	indeterminate coral	C-18017
5978-5980 ft.	?Favosites sp.	C-18018
6111 ft.	?Catenipora sp. age: late Middle Ordovician to Late Silurian	C-18019
6126 1/2 ft.	?Catenipora sp. age: late Middle Ordovician to Late Silurian	C-18020
6190 ft.	indeterminate solitary coral halysitid coral age: late Middle Ordovician to Late Silurian	C-18021
6199 1/2 ft.	indeterminate fossils	C-18022
6242 ft.	indeterminate solitary coral	C-18023
6423 ft.	favositid coral (?) age: probably Late Ordovician to Devonian	C-18024
6491 ft.	favositid coral (?) age: probably Late Ordovician to Devonian	C-18025
6619 ft.	fossil (?) fragments	C-18026

Rowning ?
Vinta ?

B.S. Norford

Paleontology Subdivision
Institute of Sedimentary and Petroleum Geology,
Calgary, June 26, 1972