

AMERADA ET AL CROWN "YT-1" NO. 1

N-50

67° 19' 45" N. Latitude

136° 53' 29" W. Longitude



AMERADA PETROLEUM CORPORATION

GEOLOGICAL REPORT ON STRATIGRAPHIC TEST HOLE

AMERADA ET AL CROWN "YT-A" NO. 1

YUKON TERRITORY

1960

P. P. Matkaluk

Drilling Foreman

R. J. Irving

Wellsite Geologist

Enclosures:

GENERAL INFORMATION



(a) Well Name

Amerada et al Crown "YT-A" No. 1.

(b) Location

67° 19' 45" North Latitude.
136° 53' 29" West Longitude.

(c) Basis of Location

Surface geology and photogeology.

(d) Elevations

Ground - 1027'.

Kelly Bushing - 1042'.

(e) Drilling Contractor

Parker Drilling Company of Canada Ltd. Rig No. 1.

(f) Operator

Amerada Petroleum Corporation.

(g) Permittee

The permit (No. 1104) is currently registered at the Department of Northern Affairs and Natural Resources and stands in the name of Amerada Petroleum Corporation and the Ohio Oil Company.

(h) Permit

Permit No. 1104 (Bell River) containing 49,578 acres, more or less, was originally issued to Canadian Husky Oil Ltd., on the 30th of April, 1957. On the 8th of May, 1959 the permit was transferred to Amerada Petroleum Corporation and the Ohio Oil Company, and was registered at the Department of Northern Affairs and Natural Resources on the 16th of September, 1959.

(i) Date Spudded

10:30 a.m. February 29, 1960.

(j) Date Drilling Completed

September 6, 1960.

(k) Total Depth

Driller - 8004'.

Schlumberger - 8009'.

(1) Date of Rig Release

11:00 p.m. September 8, 1960.

(m) Well Status

Dry and abandoned.



AMERADA CROWN "YT-A" NO. 1

BRIEF CHRONOLOGICAL PROGRESS REPORT

February 29, 1960	Spudded in.
March 1, 1960	Reaming.
March 2, 1960	Cemented 20" conductor pipe at 151' with 160 sacks of cement.
March 3 - 4, 1960	W. O. C. Installing B.O.P.'s and heading up.
March 5 - 19, 1960	Attempting to cement conductor pipe.
March 20 - 26, 1960	Drilling.
March 27 - 30, 1960	Recemented conductor pipe, W. O. C.
March 31 - April 1, 1960	Reaming to 12 1/4".
April 2 - 14, 1960	Drilling.
April 15, 1960	Logging.
April 16 - 26, 1960	Reaming to 17 1/2".
April 27 - May 2, 1960	Fishing.
May 3, 1960	Preparing to run 13 3/8" surface casing.
May 4, 1960	Running 13 3/8" casing.
May 5, 1960	W. O. C. 13 3/8" casing cemented at 1191' with 900 sacks cement.
May 6 - 7, 1960	W. O. C.
May 8 - 10, 1960	Drilling.
May 11, 1960	Fishing and drilling.
May 12 - June 22, 1960	Drilling.
June 23, 1960	Fishing for cones.
June 24, 1960	Drilling.
June 25, 1960	Coring.
June 26 - July 31, 1960	Drilling.
August 1, 1960	Logging.
August 2 - 10 1960	Drilling.

August 11, 1960

Coring.

August 12 - 30, 1960

Drilling and coring.

August 31, 1960

Coring and drilling.

September 1 - 5, 1960

Drilling.

September 6, 1960

Logging.

September 7, 1960

Logging and running plugs.

September 8, 1960

Rig released 11:00 p.m.

GEOLOGICAL SUMMARY

AMERADA ET AL CROWN "YT-A" NO. 1

Location:

67° 19' 45" N. Lat.
136° 53' 29" W. Long.

Elevation:

Ground 1027'.
K. B. 1042'.

Spudded:

10:30 a.m. February 29, 1960.

Abandoned:

11:00 p.m. September 8, 1960.

Total Depth:

8004' - Driller.
8009' - Schlumberger.

Status:

Abandoned.

Casing Record:

151' 20" Conductor pipe with 160 sacks of cement.
1191' 13 3/8" Surface casing cemented 900 sacks of cement.

Drill Stem Tests:

No tests were run.

Coring Resume:

<u>Core Number</u>	<u>Date</u>	<u>Interval</u>	<u>Lithology</u>
#1	25/6/60	4195-4208	Sandstone
#2	12/8/60	6736-6754	Shale
#3	31/8/60	7804-7824	Shale



Logging:

<u>Operator</u>	<u>Run No.</u>	<u>Type</u>	<u>Date</u>	<u>Scale</u>	<u>Interval</u>
Schlumberger	1	E-Log	15/4/60	2"	150 ³ -1198 ³
				5"	150 ³ -1198 ³
Schlumberger	1	Microlog Caliper	15/4/60	5"	150 ³ -1198 ³
Schlumberger	1	Continuous Dipmeter	15/4/60	5"	150 ³ -1198 ³
Schlumberger	1	Temperature	15/4/60	2"	150 ³ -1198 ³
Schlumberger	2	E-Log	31/7/60	2"	1191 ³ -6320 ³
				5"	1191 ³ -6320 ³
Schlumberger	2	Microlog Caliper	31/7/60	5"	1191 ³ -6320 ³
Schlumberger	2	Continuous Dipmeter	31/7/60	5"	1191 ³ -6320 ³
Schlumberger	2	Temperature	31/7/60	2"	50 ³ -2500 ³
Schlumberger	3	E-Log	6/9/60	2"	6320 ³ -8009 ³
				5"	6320 ³ -8009 ³
Schlumberger	3	Microlog Caliper	7/9/60	5"	6320 ³ -8006 ³

Plugging:

<u>Date</u>	<u>Sax Cement</u>	<u>Interval</u>	<u>Top of Plug</u>	<u>Method</u>
8 Sept/60	125	1150 ³ -1250 ³	1125 ³	Displacement

Rig Released:

11:00 p.m. September 8, 1960.

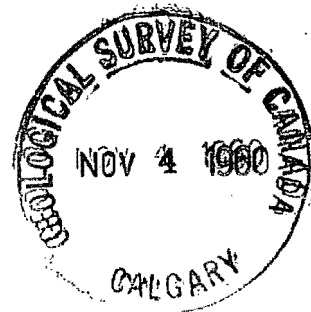
October 3, 1960.

R. J. Irving.

AMERADA ET AL CROWN "YT-A" NO. 1

TENTATIVE LITHOLOGY TOPS

<u>Lithology</u>	<u>Samples</u>	<u>E-Log</u>
Sand	✓1570 (- 528)	1574 (- 532)
Shale	✓1852 (- 810)	1856 (- 814)
Sand	✓2845 (-1803)	2835 (-1793)
Shale	✓3193 (-2151)	3193 (-2151)
Sand	✓3635 (-2593)	3632 (-2590)
Quartz Sand	3800 (-2758)	Not Picked
Cherty Sand	4275 (-3233)	4255 (-3213)
Interbedded Sand/Shale	5295 (-4293)	Not Picked
Sand	5380 (-4338)	5380 (-4338)
Shale	5405 (-4363)	5402 (-4360)
Sand	5540 (-4498)	5540 (-4498)
Shale	5647 (-4605)	5645 (-4603)
Sand	5700 (-4658)	5700 (-4658)
Shale	5710 (-4668)	5710 (-4668)
Silt	6095 (-5053)	Not Picked
Cherty Sand	6125 (-5083)	6123 (-5081)
Shale	6595 (-5553)	6587 (-5545)
Sand	6648 (-5606)	Not Picked
Shale	6695 (-5653)	Not Picked
Quartz Veined		
Shale and Silt	7575 (-6533)	7590 (-6548)
Silty Shale	7725 (-6683)	Not Picked
Final Total Depth	8004 (-6962)	8009 (-6967)



AMERADA ET AL CROWN "YT-A" NO. 1

CORE DESCRIPTIONS

Core: #1.

Interval: 4195'-4208'.

Recovery: 40%. Cored 13 feet, recovered top 5 feet.

Average Coring Time: 28 minutes per foot.

Lithology:

4195.0-4197.7	Sand, brown to black, very fine to fine grained, quartzose, tite, with minor, lighter grey stringers of sand scattered throughout.
4197.7-4197.8	Sand as above, but slightly shaly in part.
4197.8-4198.8	Sand, brown, black, very fine to fine grained, quartzose, tite.
4198.8-4200	Sand, grey, brown, very slightly calcareous in part.
4200-4208	Not recovered.

Core: #2.

Interval: 6736'-6754'.

Recovery: 100%. Cored 18 feet, recovered 18 feet.

Average Coring Time: 28 minutes per foot.

Lithology:

6736.0-6743.4	Shale, very dark grey, with minor traces of quartz and calcite veining. Top two feet were badly fractured and broken, with possible evidence of slickensides.
6743.4-6748.0	Shale dark grey, fractured.
6748.0-6749.0	Shale, very dark grey.
6749.0-6751.5	Shale, dark grey, fractured.
6751.5-6754.0	Shale, dark grey.

Core: #3.

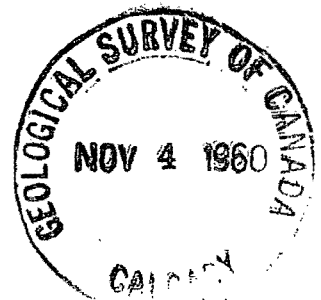
Interval: 7804' -7824'.

Recovery: 95%. Cored 20 feet, recovered 19 feet.

Average Coring Time: 23 minutes per foot.

Lithology:

7804.0-7808.6	Shale, black, carbonaceous, siliceous; bedding planes inclined 20 degrees to side of core.
7808.6-7809.7	Shale as above, badly crumpled and shot through with white quartz.
7809.7-7814.4	Shale as above with minor quartz veins; bedding inclined 20 degrees as above.
7814.4-7820.0	Siltstone, very dark grey, very hard, crumpled with quartz veins as above and minor pyrite; slickensided.
7820.0-7823.0	Shale as above with thin beds of siltstone as above; quartz veined, and badly fractured.
7823.0-7824.0	Not recovered.



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BRIEF SAMPLE DESCRIPTION

Surface to 137'	Tundra, <i>unconsolidated material</i>
137' - 155'	Sandstone, brown, black, fine grained argillaceous.
155' - 220'	Conglomerate, varicolored chert pebbles, with sandstone grey, fine grained, quartzose.
220' - 300'	Shale, dark grey, blocky, very slightly silty, with minor, scattered chert pebbles.
300' - 420'	Siltstone, dark grey, very argillaceous, very slightly calcareous in part, with scattered chert pebbles.
420' - 470'	Shale, dark grey, very silty.
470' - 525'	Siltstone, dark grey, very argillaceous.
525' - 550'	Sandstone, brown, medium grained, quartzose in part, with traces of bedded chert.
550' - 665'	Siltstone, dark grey, argillaceous with some minor, sandstone, shale, and chert pebbles.
665' - 700'	Chert conglomerate, varicolored chert pebbles, with some sandstone, white, medium grained, quartzose.
700' - 1200'	Sandstone, grey, fine grained, quartzose in part, with stringers of shale, black, carbonaceous, micaceous in part.
1200' - 1440'	Interbedded shale, dark grey, silty, and argillaceous grey siltstone.
1440' - 1480'	Sandstone, light grey, fine grained tite quartzitic.
1480' - 1570'	Shale, dark grey, silty, with minor beds of sandstone, light grey, very fine grained, slightly argillaceous.
1570' - 1660'	Sandstone, tan, fine grained, micaceous, slight "salt and pepper" appearance.
1660' - 1850'	Sandstone, light grey, fine grained, argillaceous in part, with minor interbeds of shale, dark grey to black, soft.
1850' - 2845'	Shale, black to dark grey, slightly micaceous in part, silty in part, with occasional thin silt and sand stringers. Scattered pyrite throughout interval.

- 2845' - 3195' Predominately sandstone, grey to medium grey, argillaceous, very fine grained, with interbeds of sandy and silty dark grey shale.
- 3195' - 3250' Shale, black, grey, slightly silty in part.
- 3250' - 3295' Shale, black, grey, very sandy, with minor carbonaceous spots, and minor mica.
- 3295' - 3445' Shale, black, grey, soft, blocky silty.
- 3445' - 3500' Shale, black, grey, soft, with minor mica and pyrite.
- 3500' - 3635' Shale dark grey, black, soft, blocky, silty, with occasional sandy stringers.
- 3635' - 3800' Sandstone, brown, grey, silty, argillaceous and pyritic in part with very slightly dolomitic sand scattered throughout interval.
- 3800' - 4275' Sandstone, white to brown, medium to fine grained, quartzose, tite, with minor stringers of black shale and argillaceous siltstone.
- 4275' - 5295' Sandstone, grey, fine to medium grained, very cherty, brecciated appearance, with occasional stringers of dark grey shale, and minor white quartz veining. Scattered traces of pyrite and abundant Kaolin throughout this interval, becomes less cherty near base of interval.
- 5295' - 5380' Interbedded shale, dark grey, very slightly silty in part, with sand, grey, fine to medium grained.
- 5380' - 5405' Sandstone, dark grey, medium grained, cherty, very slightly calcareous, argillaceous in part.
- 5405' - 5540' Predominately shale, dark grey, platy to blocky, slightly silty and micromicaceous in part, with minor stringers of silt and sand, and traces of calcite veining.
- 5540' - 5647' Sandstone, grey, medium grained, cherty, quartzose, very slightly dolomitic in part, with traces of calcite veining.
- 5647' - 5700' Shale, dark grey, silty in part, with stringers sand, dark grey, fine grained.
- 5700' - 5710' Sand, dark grey, fine grained slightly argillaceous in part, with traces of chert and quartz.
- 5710' - 6095' Shale, grey, platy, fissile, very slightly silty in part, with minor stringers of sandstone and siltstone. Traces of quartz and calcite veining.

- 6095' - 6125' Siltstone, brown fine, argillaceous with stringers of dark grey shale.
- 6125' - 6595' Sandstone, grey to very dark grey, fine to medium grained, cherty, quartz, traces of white Kaolin, argillaceous in part, silty shale stringers, with occasional bands of black shale.
- 6648' - 6695' Sand, grey brown, very fine grained, tiee with shaly stringers.
- 6695' - 6845' Shale, dark grey, silty in part, quartz veined, traces of quartzitic sand stringers.
- 6845' - 6980' Interbedded shale as above, and sand, grey, fine, quartzitic.
- 6980' - 7405' Shale, grey, dark grey, with stringers of silt and sand fine grained, quartzitic.
- 7405' - 7425' Sand, grey, very fine grained, tight
- 7425' - 7575' Shale, grey, silty, with white quartz veining, and minor sandy stringers.
- 7575' - 7725' Predominately siltstone and silty shale, with traces of calcite. Abundant white, milky quartz. This interval may be badly fractured.
- 7725' - 7935' Shale, dark grey, black, fissile, platy, traces of silt calcite plus quartz veining.
- 7935' - 8004' (FTD) Interbedded sandstone, medium to dark grey, very fine, very slightly calcareous and shale very dark grey, hard, siliceous, with white quartz veining. Traces of dolomitic fracture filling in lower 20 feet of this interval.

October 2, 1960.

R. J. Irving.

