

WILKINSON REDKNIFE RIVER
NO. 1

Drilling Authority No.

Date Issued

WELL NAME Wilkinson Redknife River No. 1

FIELD Wildcat

Area: Kakisa River

LOCATION: Unit

Section

Grid

Latitude 60°59'26" N.

Longitude

119°11'10" W.

From Established Reference Marker

Rig Release Date: 22-2-61

Status D & A

Information Release Date 22-2-63

CHANGE OF NAME:

DATE RECEIVED	INDEX
	Application for a Drilling Authority. Well Completion Data. Well History Report. Application to Amend a Drilling Authority. Application to change a Well Name. Application to Abandon a Well or Suspend Drilling. Application to Alter Condition of a Well. Well History Supplement. Well Completion Data. Work-over Report No. Application to Commingle Production before Measurement. Approval to Commingle Production before Measurement. Application to Amend Approval No. to Commingle Production before Measurement. Application for M.P.R.—Oil. New Oil Well Report. New Gas Well Report. Well Inspection Report. Rig Inspection Report. Battery Inspection Report. Field Abandonment Programme and Approval. Well Card. Well Visit. Daily Drilling Reports.

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

For the period from

to February 22, 1961

REPORT of COMPLETION
REWORK
RECOMPLETION
SUSPENSION
ABANDONMENT of a Well

Permit No. . 908 .

Name of well WILKINSON REDWATER RIVER NO. 1 Lease No.

James C. Wilkinson

Registered owner Hemlock Account Drilling Company Guthrie McHaren .

Location 60°59'26" N. Lat. 119°11'10" W. Long.

3,600' S. of N. bdy Permit 908

Survey description, if available 11,400' E. of W. bdy Permit 908

Elevation: Ground @15' Last previous depth 2,150'

Kelly bushing. @27' Present depth Plugged

Spudded February 6, 1961 Finished drilling 10/2/61. Rig Released

February 23, 1961.

Deviations from vertical 100°-0°; 1227°-1/2°; 1350°-1/2°; 2070°-1/2°; 2505°-1/2°; 3114°-0°

CASING RECORD

Date	Size O.D.	Weight lbs/ft	Grade	Set at feet	Sacks Cement	Top of Cement
1 <u>9/2/61</u>	<u>.8 5/8"</u>	<u>. 24 .</u>	<u>. J-55 .</u>	<u>. 199 .</u>	<u>. 100 .</u>	<u>. Surface</u>
2						
3						
4						

TUBING RECORD

Size	Wt. Lbs/foot	Grade	Amount	Landed Depth	Remarks
.					
.					

Wellhead (Manufacturer). (Size). (Series)

Producing Zone and formation

Cord intervals **None**

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.....

.....

Interval logged: E-log 3143'-199' Other logs

H-log 3142°-50°

M-log

Velocity log **Basic 3142°-199°**

The above logs (are)
(~~will be~~) submitted in accordance with Section 65 of the
Regulations.

DRILL STEM TESTS

<u>Test No.</u>	<u>Date</u>	<u>Interval Tested</u>	<u>Duration</u>	<u>Results</u>
1				
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96				
97				
98				
99				
100				

(If space insufficient, attach further sheet)

(Strike out the non-applicable) (Completion) (Rework) (Recompletion)

Perforations Bullet

Shootings

Hydraulic fracturing

Chemical treatment

Date initial production tests

Initial production data

Pumping or flowing

Plug back

Other

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CEMENT PLUGS SET

<u>Date</u>	<u>Plug set at</u>	<u>Sacks cement</u>	<u>Method</u>	<u>Top found at</u>
21/2/61	2150' - 2600'	200	Displacement	2607'
22/2/61	2500' - 1500'	40	Displacement	138'
.				
.				
.				

Washed well samples have been sent to Geological Survey of Canada, Calgary
will be

Cores will be stored at

Core analysis (was made) of the Intervals
(to be made)

Oil analysis (was made) of the Intervals.
(to be made)

Gas analysis (was made) of the Intervals.
(to be made)

Water analysis (was made) of the Intervals.
(to be made)

The above analyses (are)
(will be) submitted in accordance with Section 70(2) of
the Regulations.

ADDITIONAL DETAILS AND COMMENTS

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Signed. *J. C. Sproule*
J. C. SPROULE AND ASSOCIATES LTD. Address No. 1809 Fourth Avenue S.W.,
Calgary, Alberta.

Date May 4, 1961.

(To be submitted in triplicate in accordance with Sections
68, 69, 70 and 71, of the Territorial Oil and Gas Regulations
to the Oil Conservation Engineer at Calgary, Alberta.)

C A N A D A

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NORTHERN ADMINISTRATION BRANCH

RESOURCES DIVISION

ABANDON

NOTICE OF INTENTION TO

~~RE~~

a Well

SUSPENDED DRILLING

(Strike out operation which does not apply)

In accordance with Sections 48 & 49 of the Territorial Oil and Gas Regulations, notice is hereby given of our intention to

~~abandon~~ the well named Wilkinson Redknife River No. 1 on Oil

Permit No. 908 . .

and Gas

Registered in the name of James C. Wilkinson
Nominee Account, A. M. Lloyd, Operator . .

~~License No.~~

Depth 3,151 . . feet. Elevation above sea level: Ground surface 914 ft.

Kelly bushing 924 ft.
 (To be confirmed)

Location 60° 59' 26" N. Lat. 119° 11' 10" W. Long.

. . 3,200 feet (N. of S. boundary) (Permit No. 908)
 (S. of N. boundary) of (~~License No.~~)
 . . 11,406 feet (W. of E. boundary) of (Permit No. 908)
 (E. of W. boundary) (~~License No.~~)

Sec. 60, Unit E

Survey description, if available

CASING RECORD

Size O.D. inches	Weight lbs/ft	Grade	Amount feet	Set at feet	Sacks cement	Method	to be withdrawn
1 & 5/8 .	24 .	J-15 .	187 .	199 .	100 .	Cement	Nil
2							
3							
4							

OIL, GAS AND WATER - NONE

Oil from feet to None . . feet From feet to feet with
 sacks cement

Oil from feet to feet From feet to feet with
 sacks cement

Gas from feet to feet From . . . feet to feet with
sacks of cement.

Gas from feet to feet From . . . feet to feet with
sacks of cement.

Water from feet to feet From feet to feet with
sacks cement.

Water from feet to feet From feet to feet with
sacks cement.

Surface and bottom plugs:

1. from 3,151 .feet to ²⁸⁷⁰~~2605~~ .feet with .120 .sacks cement.
2. from . 250 .feet to ¹⁵⁰~~230~~ .feet with . 40 .sacks cement.
3. from feet to feet withsacks cement.

Surface plug

Date of last operation February 22, 1961. Total depth . 3,151

Nature of liquid left in well ~~drilling mud~~ . . . Level from surface . ~~Surface~~ . . .
on suspension or abandonment

The following logs ^{will be}~~have been~~ run ~~Induction Electrical~~
have been Integrated Sonic - Gamma Ray

Produced from zone and
on abandonment of a well which has been on production.

Present condition of well in addition to above

On abandonment or suspension of drilling we shall comply with Sections 68, 69 and
70 of the Regulations.

Program of operation not included above

Responsible agents of permittee or lessee in charge of operation:

At well Art Whiting Postal address ~~May River, N. W. T.~~
1117 First National Bank Bldg.,
At registered office ~~A. M. Lloyd~~ Postal address ~~Dallas 2, Texas, U. S. A.~~

It is understood that if changes in this Notice of Intention become
necessary we will promptly notify you.

dated at ~~Calgary~~ this . 24 day of . . . February 1961 .

Verbal approval received from B.H. Signed by S. R. L. Harding
J. Thomc, February 21, 1961 S. R. L. Harding
J. C. Sproule and Associates Ltd.

This program is approved subject to the following provisions

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.....
.....
.....

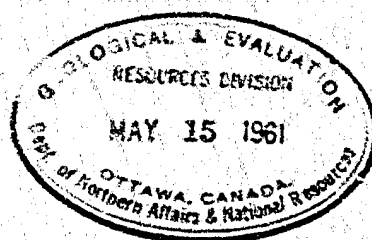
2nd March 1961
Date

B. H. Shum
Oil Conservation Engineer

(To be submitted in triplicate to the Oil Conservation
Engineer at Calgary, Alberta.)

noted
TGH

GEOLOGICAL AND ENGINEERING REPORT
WILKINSON REDKNIFE RIVER NO. 1
REDKNIFE RIVER AREA, NORTHWEST TERRITORIES



J. C. SPROULE & ASSOCIATES
GEOLOGICAL & EXPLORATION CONSULTANTS

1008 FOURTH AVENUE WEST
CALGARY - ALBERTA

TELEPHONE
AMHE 4-9791

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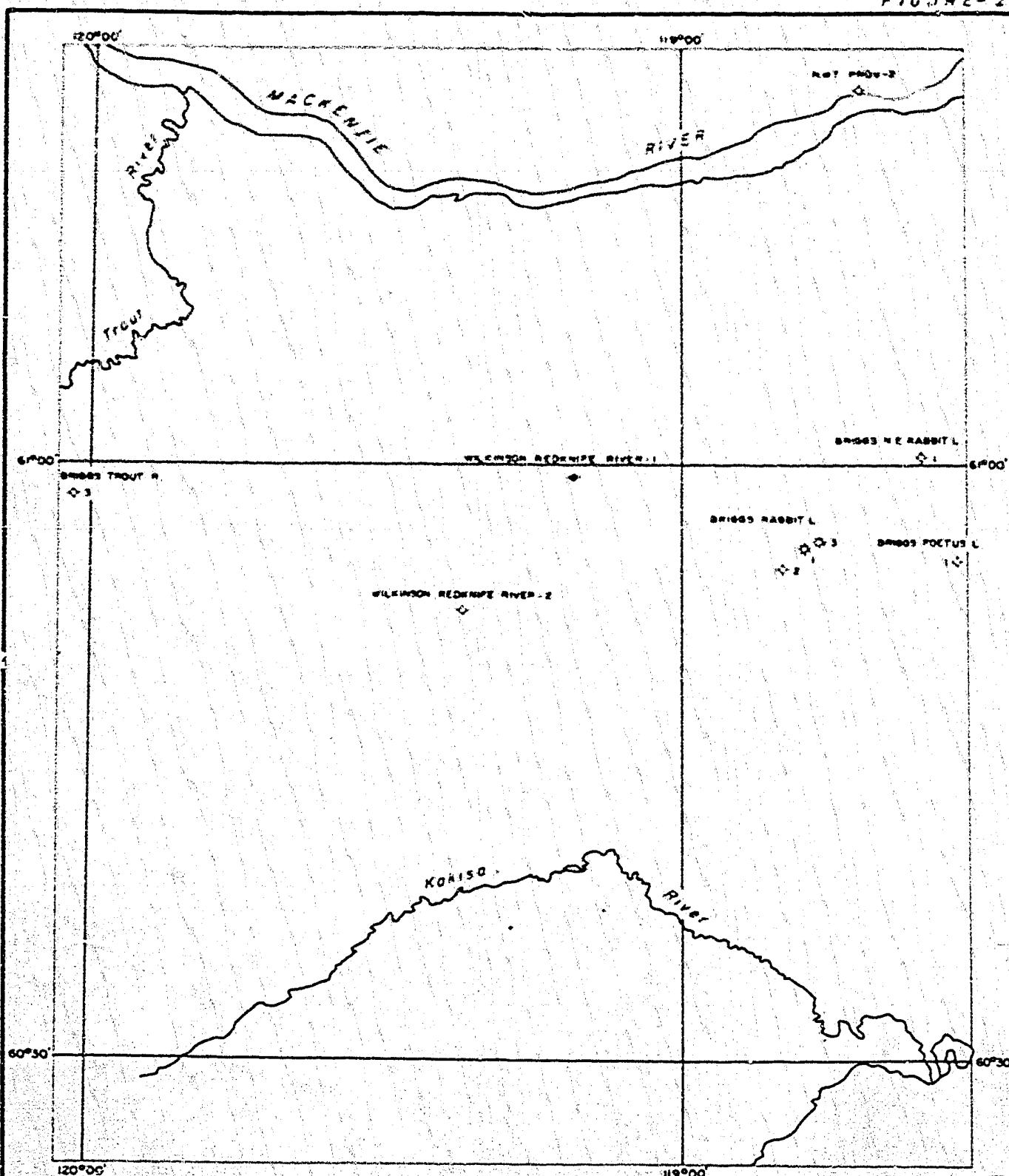
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- Gamma Ray-Integrated Sonic	In pocket
Visual Well Log	In pocket

LIST OF ILLUSTRATIONS

Figure I - Index Map showing Location of Wilkinson Redknife River Wells	Frontispiece
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INDEX MAP
SHOWING
LOCATION OF WILKINSON REDKNIFE RIVER WELLS

- ◇ Abandoned Well
- ☆ Gas Well



SCALE 1" = 8 MILES

INTRODUCTION

Wilkinson Redknife River No. 1 was the second well drilled in the 1961 drilling program on Permits held in the name of James C. Wilkinson Nominee Account. The well was drilled to the Precambrian to test the oil and gas possibilities of the Slave Point and older formations. The location was based on a seismic anomaly delineated during the 1959-60 winter season. The drilling site was situated on the main access road 15 miles west of the Rabbit Lake gas area.

Radiotelephone communication was established between the camp and Hay River, Northwest Territories from where daily telegrams were sent to Calgary for further distribution. The operator was present at the well site for the drilling operation below 2,800 feet and for the logging of the hole by Schlumberger of Canada.

SUMMARY OF WELL DATA

Name of Operator: James C. Wilkinson Nominee Account
(Formerly D. Todd Briggs Nominee Account)
Northwest Territories
A. M. Lloyd, Operator

Well Name: Wilkinson Redknife River No. 1

Location: 60° 59' 26" North Latitude
119° 11' 10" West Longitude

Permit No: 908

Co-ordinates: 3,600' South of North boundary of Permit No. 908
11,400' East of West boundary of Permit No. 908

Elevation: Ground - 915'
Kelly Bushing - 927'
Kelly Bushing to Casing Flange - 12.5'

Technical Supervision: J. C. Sproule and Associates Ltd.
Norman Soul, P. Geol.

Drilling Contractor: Guthrie McLaren Drilling Ltd.
Rig No. 3
Drawworks: National T32 Trailermounted
Derrick: 97' Lee C. Moore Trailermounted
Pump: Oilwell 14-P-HD 7 1/4" x 14"
Blow-out Preventors: 10" x 900 Series Hydril
10" x 900 Series Cameron
80 Gal. Hydril Accumulator

Drill Pipe: 4 1/2" Internal Flush

Status: Plugged and Abandoned

Date Spudded: February 6, 1961

Total Depth: Driller: 3,150'
Logs: 3,148'

Date Completed Drilling: February 19, 1961

Date Rig Released: February 22, 1961

Number of Rig Days: 17

Hole Size: 12 1/4" Surface to 205'
7 7/8" 205' to 3,150'

Casing: 186.53' x 8 5/8" x 24 lb., J-55 new set at 199.13' K.B.
Cemented with 100 sacks and 2% Calcium Chloride,
February 9, 1961.

Mud Type:

Gel

Geological Markers:MarkerDepth
FeetElevation
Feet

Glacial Drift	0	+915
Wabamun Group	25	+902
Trout River Formation	250	+677
Grumbler Formation	460	+467
Kakisa Reef Member	460	+467
Base of Kakisa Reef Member	640	+287
Island River Member	812	+115
Simpson Formation	840	+87
Spence River Formation	2,500	-1,573
Slave Point Formation	2,600	-1,673
Watt Mountain Formation	2,710	-1,783
Prasqu'ile Formation	2,720	-1,793
Red Beds	3,105	-2,178
Precambrian	3,140	-2,213

Total Depth - 3,150'

Core Summary:

None taken.

Formation Test Summary:

None taken.

Logs:

Schlumberger - Induction-Electrical Survey 3,143'-199'.
 - Gamma Ray-Integrated Sonic 3,142'-50'.

Plugs:

<u>Number</u>	<u>Interval</u>	<u>Cement</u>	<u>CaCl₂</u>	<u>Remarks</u>
1	3150'-2600'	190 Sacks	2%	Found at 2,607' after 6 hours.
2	250'-150'	40 Sacks	2%	Found at 138' after 6 1/2 hours.

Remarks:

Lost 1 1/2 days due to ruptured Kelly hose.

DAILY CHRONOLOGICAL REPORTWell Name: Wilkinson Redknife River No. 1Location: 60° 59' 26" N. Lat.
119° 11' 10" W. Long.

Operations ending at 12 midnight.

<u>Date</u>	<u>Total Depth Feet</u>	<u>Progress Feet</u>	<u>Days</u>	<u>Operations</u>
February 6	27	15	1	Cuthrie McLaren Rig 3 spudded at 10:00 p.m. Drilling 9" pilot hole - 1 1/2 hours.
February 7	205	78	2	Drilled to 60' with Bit No. 1A at 4:30 a.m. Drilled to 130' with Bit No. 2A at 3:30 p.m. Drilled to 205' with Bit No. 3A at 11:30 p.m. Measured out of hole.
February 8	266	61	3	Reamed 9" hole to 12 1/4" to 205' at 6:30 p.m. Drilling 7 7/8" hole with Bit No. 1 from 7:45 p.m.
February 9	515	249	4	Drilled to 515' with Bit No. 1 at 1:15 p.m. Losing mud to formation. Cleaned out to 205' with 12 1/4" bit. Ran 6 joints of 8 5/8" casing to 205' and circulated 1/4 hour. Cemented casing with 100 sacks and 22 CaCl ₂ with Howco Skid Unit. 186.63' x 8 5/8" x 24 lb., J-55 New casing set at 199.13' K.B. Plug down at 4:45 p.m. Standing cemented 7 1/4 hours.
February 10	515	0	5	Slacked off at 4:45 a.m. Installed blow-out preventors. Drilled mouse-hole. Ran in with Bit No. 2 and pressured up to 700 psi. Drilled 20' of cement above shoe and drilled through shoe at 4:45 p.m. Kelly hose ruptured. Repaired Kelly hose with clamp but it ruptured again in another place. Waiting on new hose from Edmonton.
February 11	515	0	6	Shut down waiting on new Kelly hose. Kelly hose arrived at 11:45 p.m. Installing new Kelly hose.
February 12	965	450	7	Drilled to 814' with Bit No. 2 from 3:00 a.m. to 6:30 p.m. Losing mud to formation continuously. Drilling with Bit No. 3 from 8:00 p.m.
February 13	1577	612	8	Drilled to 1,157' with Bit No. 3 at 10:00 a.m. Drilling with Bit No. 4 from noon.

<u>Date</u>	<u>Total Depth Feet</u>	<u>Progress Feet</u>	<u>Days</u>	<u>Operations</u>
February 14	2139	562	9	Drilled to 1,614' with Bit No. 4 at 2:45 a.m. Drilled to 2,139' with Bit No. 5 at 10:30 p.m. Pump repairs 3 hours. Pulling out for new bit.
February 15	2560	421	10	Drilled to 2,505' with Bit No. 6 from 1:00 a.m. to 6:00 p.m. Drilling with Bit No. 7 from 9:15 p.m.
February 16	2759	199	11	Drilled to 2,669' with Bit No. 7 at 10:15 a.m. Measured out of hole. Corrected depth from 2,669' to 2,671'. Drilling with bit No. 8 from 1:00 p.m.
February 17	2946	187	12	Drilled to 2,814' with Bit No. 8 at 9:45 a.m. Drilling with Bit No. 9 from noon.
February 18	3059	113	13	Drilled to 2,950' with Bit No. 9 at 12:30 a.m. Drilled to 3,030' with Bit No. 10 from 3:15 a.m. to 3:15 p.m. Drilling with Bit No. 11 from 5:45 p.m.
February 19	3150	91	14	Drilled to 3,114' with Bit No. 11 at 9:00 a.m. Drilled to 3,151' with Bit No. 12 from 11:45 a.m. to 5:00 p.m. Final Total Depth 3,151'. Circulating and waiting on Schlumberger Logging Truck.
February 20	3150	0	15	Circulated to 6:00 a.m. Ran deviation survey. Measured out of hole to 8:00 a.m. Corrected depth to 3,150'. Rigged up to log at 10:00 a.m. Ran Induction-Electrical Survey from 3,143' to 199'. Depth reached 3,148'. Ran Sonic-Gamma Ray Log from 3,142' to 50'. Depth reach 3,146'. Finished logging at 9:00 p.m. Orders to abandon at 11:00 p.m. Laid down drill collars.
February 21	3150	0	16	Waiting on cementer from midnight. Ran in open ended at 4:00 p.m. Ran Plug No. 1 - 190 sacks and 2% CaCl_2 from 3,150' to 2,600'. Plug down at 9:00 p.m. Standing cemented.
February 22	3150	0	17	Felt plug at 3:00 a.m. Found at 2,607'. Ran Plug No. 2 - 40 sacks and 2% CaCl_2 from 250' to 150'. Plug down at 7:00 a.m. Felt plug at 1:30 p.m. Found at 138'. Took off blow-out preventors. Rigged down. Rig released at 3:00 p.m. Tearing out to move.

DEVIATION SURVEYSWell Name:

Wilkinson Redknife River No. 1

Location:60° 59' 26" N. Lat.
119° 11' 10" W. Long.

<u>Depth</u> Feet	<u>Deviation</u> Degrees
60	1/8
120	1/4
168	0
256	0
500	0
770	0
1227	1/2
1550	3/4
1880	3/4
2070	3/4
2304	3/4
2505	1/4
2637	0
2950	1/2
3114	0

MUD RECORDWell Name:

Wilkinson Redknife River No. 1

Location:60° 59' 26" N. Lat.
119° 11' 10" W. Long.

<u>Date</u>	<u>Depth</u>		<u>Weight</u> Lbs./U.S.Gal.	<u>Viscosity</u> Seconds	<u>Water</u> <u>Loss</u> c.c.	<u>PH</u>	<u>Additives</u>
	<u>From</u> Feet	<u>To</u> Feet					
February 6	0	27	-	-	-	-	Gel 4,400 lbs. Bicarbonate 100 lbs.
February 7	27	205	8.9	65	-	-	Gel 4,700 lbs. Bicarbonate 50 lbs.
February 8	205	266	9.4	86	-	-	Gel 3,400 lbs.
February 9	266	515	9.4	63	-	-	Gel 5,000 lbs.
February 10	515	515	-	-	-	-	Bicarbonate 500 lbs. Caustic 50 lbs. Spersene 50 lbs.
February 11	515	515	8.9	66	-	13	Gel 2,800 lbs. Caustic 400 lbs. Spersene 400 lbs.
February 12	515	965	9.4	95	6.7	13	Gel 6,600 lbs. Caustic 250 lbs. Spersene 250 lbs.
February 13	965	1577	10.3	90	4.8	12.5	Gel 300 lbs. Caustic 350 lbs. Spersene 350 lbs. My-lo-jel 300 lbs.
February 14	1577	2139	10.8	58	4.8	12.5	Caustic 450 lbs. Spersene 650 lbs. My-lo-jel 400 lbs.
February 15	2139	2560	10.8	60	3.6	12.5	Gel 2,800 lbs. Caustic 450 lbs. Spersene 450 lbs. My-lo-jel 300 lbs.
February 16	2560	2759	10.7	92	3.4	12.5	Gel 1,500 lbs. Caustic 400 lbs. Spersene 400 lbs. My-lo-jel 800 lbs.

<u>Date</u>	<u>Depth</u>		<u>Weight</u> Lbs./U.S.Gal.	<u>Viscosity</u> Seconds	<u>Water</u> <u>Loss</u> c.c.	<u>PH</u>	<u>Additives</u>
	<u>From</u>	<u>To</u>					
February 17	2759	2946	10.9	65	3.0	12.5	Gel 500 lbs. Caustic 150 lbs. Spersene 150 lbs.
February 18	2946	3059	10.7	60	3.5	12.5	Gel 800 lbs. Caustic 100 lbs. Spersene 100 lbs.
February 19	3059	3150	10.6	60	4.4	13.0	Gel 1,600 lbs. Caustic 250 lbs. Spersene 250 lbs. My-lo-jel 400 lbs.
February 20	3150	3150	10.6	72	4.0	13.0	Gel 500 lbs. My-lo-jel 200 lbs.

SUMMARY OF MUD USED

Gel	30,400 lbs.
Caustic	2,850 lbs.
Spersene	3,050 lbs.
My-lo-jel	2,700 lbs.
Bicarbonate	650 lbs.

BIT RECORDWell Name:

Wilkinson Redknife River No. 1

Location:60° 59' 36" N. Lat.
119° 11' 10" W. Long.

<u>No.</u>	<u>Make</u>	<u>Type</u>	<u>Serial No.</u>	<u>Size Inches</u>	<u>Depth</u>		<u>Progress Feet</u>	<u>Hours</u>
					<u>From Feet</u>	<u>To Feet</u>		
1A	Hughes	W-7	Retip	9	0	60	60	6
2A	Hughes	W-7	Retip	9	60	130	70	9
3A	Globe	MHC	Rerun	8 3/4	130	205	75	7
4A	Hughes	OSC	49200	12 1/4	0	205-Reamed	205	15 3/4
1	Reed	YT	905580	7 7/8	205	515	310	16 3/4
2	Reed	YT	905621	7 7/8	515	814	299	15
3	Reed	YT	905820	7 7/8	814	1157	343	13
4	Reed	YT3	805901	7 7/8	1157	1614	457	12 3/4
5	Reed	YT3	001112	7 7/8	1614	2139	525	15 1/2
6	Reed	YT1	N05617	7 7/8	2139	2505	366	16 1/4
7	Reed	YT1	N03959	7 7/8	2505	2669	164	13
8	Reed	YS1	N01390	7 7/8	2669	2814	145	20
9	Reed	YS1	904115	7 7/8	2814	2950	136	12 1/4
10	Reed	YM	081945	7 7/8	2950	3030	80	11 3/4
11	Reed	YS1	082805	7 7/8	3030	3114	84	15
12	Reed	YS1	093824	7 7/8	3114	3151	37	5 1/4

BIT SUMMARY BELOW SURFACE CASING SHOE

<u>Type</u>	<u>No.</u>
YT	3
YT3	2
YT1	2
YS1	4
YM	1

Total Bits - 12

TIME DRILLING RECORDWell Name:

Wilkinson Redknife River No. 1

Location:60° 59' 25" N. Lat.
119° 11' 10" W. Long.Interval
FeetTime
Mins.

Five-foot intervals.

2500-2550	28, 15, 9, 14, 12, 11, 11, 12, 11, 12.
2550-2600	11, 10, 14, 10, 9, 15, 17, 8, 9, 15.
2600-2650	19, 20, 31, 29, 37, 34, 40, 29, 44, 40.
2650-2700	39, 34, 47, 49, 23, 20, 20, 25, 22, 23.
2700-2750	20, 28, 26, 31, 43, 41, 47, 51, 48, 51.
2750-2800	55, 52, 51, 52, 50, 47, 47, 44, 50, 50.
2800-2850	43, 49, 40, 22, 23, 22, 22, 21, 21, 23.
2850-2900	23, 23, 24, 26, 25, 28, 27, 24, 25, 28.
2900-2950	30, 27, 28, 27, 28, 27, 31, 31, 31, 39.
2950-3000	25, 28, 31, 25, 22, 29, 43, 42, 41, 38.
3000-3050	48, 58, 57, 59, 64, 66, 68, 68, 62, 40.
3050-3100	48, 59, 53, 32, 51, 33, 49, 43, 47, 51.
3100-3150	47, 54, 70, 46, 47, 44, 28, 26, 43, 46.
3150-3151	15.

T. D.

SURFACE CASING TALLYWell Name:

Wilkinson Redknife River No. 1

Location:60° 59' 26" N. Lat.
119° 11' 10" W. Long.

Ran 6 joints (184.63') of 8 5/8" x 24 lb.,
J-55 new casing. Landed at 199.13' K.B.
Cemented by Howco with 100 sacks cement,
plus 2% CaCl₂.
Plug down at 4:45 p.m., February 9, 1961.

<u>No.</u>	<u>Feet</u>	
1	31.48	
28.	28.26	
3	30.72	
4	30.20	
5	30.75	
6	33.22	
	<u>184.63</u>	
	1.90	- Float Shoe
	<u>186.53</u>	- Total

SAMPLE DESCRIPTION

Well Name: Wilkinson Redknife River No. 1

Location: 60° 59' 26" N. Lat.
119° 11' 10" W. Long.

Elevation: Ground - 915'
K. B. - 927'

<u>Depth</u> Feet	<u>Description</u>
0-25	Glacial drift; clay and gravel.

UPPER DEVONIANWabamun Group

25-90	Limestone, cream coloured, dense, clean, traces of corals and brachiopods.
90-100	Limestone, cream coloured to light brown, dense to microgranular, evidence of leaching, minor pyrite, in part fossiliferous fragmental.
100-110	Limestone, cream coloured to light brown, microgranular to fossiliferous fragmental, reefoidal.
110-205	Limestone, cream coloured to buff, dense to microcrystalline, fossiliferous, slightly pyritic, reefoidal, evidence of leaching and traces of dead oil staining; scattered porosity associated with corals.
205-250	Limestone, cream coloured, dense to cryptocrystalline, fossiliferous, clean.

Trout River Formation - 250' E-Log

250-270	Limestone, light grey, dense to microcrystalline, fossiliferous, clean.
270-300	Limestone, buff, microgranular to fossiliferous fragmental, scattered porosity, reefoidal.
300-330	Limestone, buff to light grey, granular to fossiliferous fragmental, silty, scattered poor to fair porosity; bitumen lining scattered vugs.
330-340	Limestone, cream coloured, dense to cryptocrystalline and microgranular, fossiliferous; traces of oolitic limestone.
340-360	Limestone, light grey, microgranular, very silty, fossiliferous, argillaceous.

<u>Depth Feet</u>	<u>Description</u>
360-390	Limestone, light grey containing black oolites and fossil fragments: Limestone, light grey to buff, silty, as above; prominent coarse calcite crystals.
390-400	Limestone, light grey to buff, granular, sandy; trace of green calcareous shale.
400-420	Limestone, cream coloured, dense, clean, fossiliferous.
420-430	Limestone, light grey to buff, microgranular, silty to sandy.
430-460	Sandstone, light grey to light greenish grey, fine-grained, calcareous, glauconitic, traces of green shale partings.
<u>Crumbler Formation - 460' E-Log</u>	
460-470	Shale, dull green, silty, calcareous, grading to green shaly limestone.
470-490	Limestone, greenish grey, microcrystalline, silty, argillaceous, fossiliferous.
490-500	Limestone, yellowish grey, silty, argillaceous, fossiliferous.
500-510	Limestone, cream coloured to buff, dense to cryptocrystalline, fossiliferous, scattered vugs lined with coarse white calcite crystals.
510-520	Limestone, buff to light brown, dense to cryptocrystalline, clean.
520-530	Limestone, brown, microgranular, argillaceous, silty; Limestone, light greyish brown, crystalline, fossiliferous fragmental in part, reefoidal, sandy.
530-560	Limestone, buff to greenish grey, microcrystalline and microgranular to fossiliferous fragmental, silty and argillaceous; traces of greenish grey siltstone at 550'.
560-570	Siltstone, green, calcareous, interbedded with greenish grey to buff, silty limestone, as above.
570-590	Limestone, buff, dense to microgranular, hard, clean.
590-600	Limestone, light grey to buff and greenish grey, silty in part, dense to microgranular and microcrystalline.
600-620	Limestone, light grey to buff and light brown, microgranular, silty, prominent coarse white calcite crystals in vugs; finely disseminated pyrite, fossiliferous.

<u>Depth Feet</u>	<u>Description</u>
620-640	Limestone, buff to greenish grey, microgranular, silty, argillaceous, fossiliferous. Base of Kakias Reef Member.
640-660	Siltstone, green to greenish grey, argillaceous, calcareous, grading into very fine-grained, greenish grey, sandstone, glauconitic, and greenish grey, silty limestone; fossiliferous.
660-680	Limestone, buff, dense to cryptocrystalline with interbedded, greenish grey siltstone and very fine-grained sandstone, as above.
680-690	Siltstone and limestone, as above, with interbedded green, non-calcareous shale.
690-700	Shale, green, calcareous; Siltstone, greyish green, calcareous.
700-710	Limestone, light grey, greenish grey and buff, microcrystalline, and microgranular to fossiliferous fragmental with interbedded shale, green, slightly calcareous, and siltstone, green, calcareous.
710-720	Interbedded limestone and siltstone, as above, with minor green shale.
730-750	Siltstone, green, calcareous, interbedded with shale, green, slightly calcareous; minor limestone, light grey, greenish grey and buff, dense to microcrystalline, argillaceous, fossiliferous, sandy.
750-760	Siltstone, greenish grey, calcareous, grading into limestone, greenish grey, silty, microgranular.
760-770	Limestone, light buff and light greenish grey, very sandy.
770-780	Sandstone, greenish grey, fine-grained, with interbedded green calcareous shale; Limestone, light grey, fragmental to fossiliferous fragmental.
780-800	Limestone, buff, dense; Shale, green, calcareous; Sandstone, light grey to greenish grey, fine-grained, calcareous; Limestone, fossiliferous fragmental, as above.
800-810	Limestone, greenish grey, microgranular, sandy, argillaceous, fossiliferous, with interbedded shale, green, slightly calcareous.
<u>Island River Member - 812'-840' E-Log</u>	
810-840	Limestone, greyish brown, dense to cryptocrystalline and microgranular, argillaceous, silty, fossiliferous.
<u>Simpson Formation - 840' E-Log</u>	

<u>Depth</u> <u>Feet</u>	<u>Description</u>
840-860	Interbedded shale, green, calcareous, and siltstone, greenish to light grey, calcareous, glauconitic, containing fossil fragments.
860-870	Siltstone, green, micromicaceous, argillaceous, calcareous, with interbedded green shale, as above; thin bands of argillaceous, fossiliferous fragmental limestone.
870-880	Shale, maroon, non-calcareous.
880-910	Interbedded siltstone and very fine-grained sandstone, green to greenish grey, calcareous, and green and maroon shale, as above.
910-920	Shale, maroon, non-calcareous and siltstone and shale, as above.
920-950	Siltstone, light greenish grey, micromicaceous, calcareous, glauconitic, grading to very fine-grained sandstone; interbedded shale, green and maroon, slightly calcareous to non-calcareous; thin stringers of buff, dense limestone; very sandy at 940' to 950'.
950-960	Limestone, buff, dense to cryptocrystalline, fossiliferous.
960-970	Siltstone, greenish grey, micromicaceous, calcareous, green shale partings.
970-1010	Shale, green, slightly calcareous, with interbedded siltstone as above; minor buff to cream coloured, dense limestone.
1010-1030	Sandstone, light greenish grey with brown specks, very fine-grained, dirty, calcareous, micromicaceous, hard and tight, fossiliferous, grades into greyish green, micromicaceous, siltstone; interbedded brown and green shale; appears to be a very distinctive zone.
1030-1050	Shale, dark green, non-calcareous and siltstone, as above, with minor limestone, buff, clean, fossiliferous.
1050-1070	Sandstone and siltstone, as above; minor green shale.
1070-1080	Shale, maroon, non-calcareous with interbedded sandstone, siltstone and green shale, as above.
1080-1090	Siltstone and very fine-grained sandstone, light greenish grey with red specks, slightly calcareous; buff fossiliferous fragmental limestone with irregular red shale partings; maroon and brown shale prominent.
1090-1110	Shale, green and brown, non-calcareous with minor interbedded greenish grey and red, calcareous siltstone and very fine-grained sandstone.
1110-1130	Interbedded siltstone, greenish grey, calcareous, and shale, green and brown, silty, calcareous.

<u>Depth</u> <u>Feet</u>	<u>Description</u>
1130-1140	Siltstone, greenish grey, calcareous, grading into limestone, greenish grey to buff, microgranular, silty, with interbedded brown and green shale, as above.
1140-1150	Shale, green and brown, non-calcareous.
1150-1160	Limestone, buff, dense to microgranular and fossiliferous fragmental; coquina bed, fossils replaced by limonite.
1160-1420	Shale, maroon and green, non-calcareous, with minor interbedded siltstone, greenish grey, calcareous.
1420-1430	Shale, as above; traces of buff, dense limestone and greenish grey, microgranular, argillaceous limestone and calcareous siltstone.
1430-1460	Shale, green, silty, calcareous; minor shale, maroon, non-calcareous, and siltstone, greenish grey, calcareous.
1460-1490	Limestone, light grey and light greenish grey, microgranular, silty and argillaceous, fossiliferous, grades into calcareous siltstone.
1490-1540	Limestone, cream coloured, dense, clean.
1540-1590	Limestone, as above; Shale, dark green, fissile, non-calcareous; Siltstone, greenish grey to green.
1590-1600	Limestone, light grey to light greyish green, silty, grading into siltstone, greenish grey to green, calcareous, fossiliferous, with interbedded shale, green, silty, calcareous, and brown, non-calcareous.
1600-1630	Interbedded siltstone and shale, as above.
1630-1770	Interbedded shale, green and brown, non-calcareous to slightly calcareous; minor interbedded siltstone; traces of buff limestone from 1,720' to 1,740'.
1770-1800	Shale, green, silty, calcareous.
1800-1810	Limestone, buff, dense; siltstone, greenish grey, calcareous; Shale, dark green, slightly calcareous.
1810-2000	Shale, dark green, slightly calcareous and shale, brown, non-calcareous.
2000-2040	Shale, dark green and brown, non-calcareous, soft, fissile, breaks into very small fragments; shale, dark green, containing irregularly scattered dark specks.

<u>Depth Feet</u>	<u>Description</u>
2040-2060	Siltstone, greenish grey, calcareous; grading into very fine-grained sandstone; Limestone, buff, dense to microgranular.
2060-2070	Limestone, greenish grey, microgranular, argillaceous.
2070-2150	Limestone, greyish brown, dense to cryptocrystalline, argillaceous, grading into brown, limy shale.
2150-2190	Shale, dark green and dark grey, calcareous; shale, brown, slightly calcareous; shaly limestone and limy shale, brownish grey, as above.
2190-2270	Shale, greyish brown, calcareous, grading into limestone, greyish brown, very argillaceous, as above.
2270-2330	Limestone, greyish brown, dense to microgranular, argillaceous, grading into shale, greyish brown, calcareous; trace of cream coloured, dense limestone at 2,320' to 2,330'.
2330-2500	Shale, brownish grey, green and brown, calcareous to non-calcareous with minor interbedded siltstone, greenish grey, calcareous, and limestone, greyish brown, very argillaceous; Shale, brown, slightly calcareous, fossiliferous, at 2,390'. <u>Spence River Formation - 2,500'</u>
2500-2510	Limestone, dark brown, very argillaceous grading into shale, dark brown, hard, calcareous.
2510-2520	Shale, green and reddish brown, non-calcareous to slightly calcareous;
2520-2540	Shale, dark brown, hard, calcareous.
2540-2550	Shale, as above, grading into limestone, dark brown, very argillaceous.
2550-2570	Shale, dark brown, bituminous, calcareous.
2570-2580	Limestone, buff to dark brown, mottled, microcrystalline.
2580-2600	Shale, dark brown, bituminous, non-calcareous. <u>Slave Point Formation - 2,600' E-Log</u>
2600-2610	Limestone, dark brown, bituminous, microgranular; Limestone, dark brown, dense.
2610-2620	Limestone, buff to brown, dense to granular.
2620-2630	Limestone, buff to light brown, dense, hard.

<u>Depth Feet</u>	<u>Description</u>
2630-2640	Limestone, as above; Limestone, buff, granular, traces of porosity.
2640-2650	Limestone, light brown, dense, stylolitic partings.
2650-2660	Limestone, buff to light brown, dense to granular, scattered porosity.
2660-2665	Limestone, buff to light brown, dense, clean.
2665-2670	Limestone, buff to brown, dense, with doubtful oil staining; Limestone, buff, granular, traces of good porosity; Limestone, greyish white, microgranular, in part chalky, slicken-sided.
2670-2675	Limestone, buff, light brown and dark brown, dense.
2675-2680	Limestone, dark brown, bituminous; Limestone, buff, dense; Limestone, buff to light brown, granular.
2680-2685	Limestone, buff to brown, mottled, dense with irregular bituminous partings; Limestone, greyish white, in part chalky, slickensided.
2685-2690	Limestone, light grey to buff, dense to microcrystalline, traces of porosity. Limestone, light grey to buff, granular, chalky in part.
2690-2695	Limestone, light buff to brown, dense to granular, traces of porosity.
2695-2700	Limestone, light buff to light brown, dense; Limestone, greyish white, in part chalky.
2700-2705	Limestone, buff to brown, dense.
2705-2710	Limestone, greyish white to cream, chalky, very clean.
<u>Watt Mountain Formation - 2,710' Gamma Ray Log</u>	
2710-2715	Limestone, as above; Limestone, buff to brown, dense.
<u>Presqu'ile Formation - 2,720' Gamma Ray Log</u>	
2715-2725	Limestone, greyish white to cream, dense to microcrystalline and chalky, slickensided.
2725-2730	Limestone, cream to buff, dense, chalky in part.

<u>Depth Feet</u>	<u>Description</u>
2730-2830	Limestone, cream to buff, dense to microgranular, traces of doubtful oil staining on slickensided surfaces at 2,745' to 2,750'.
2830-2895	Limestone, greyish white to cream, dense to cryptocrystalline and microgranular, in part chalky; scattered vuggy porosity at 2,835' and 2,890'.
2895-2905	Limestone, buff to light brown, mottled in part, granular, earthy, slickensided.
2905-2915	Limestone, buff to dark brown, mottled, microgranular, irregular partings of black, bituminous shale, slickensided, scattered vugs.
2915-2920	Limestone, buff, granular, slickensided, fair intergranular porosity, minor bituminous partings, slickensided.
2920-2970	Limestone, buff to dark brown, granular to fossiliferous fragmental, slickensided, earthy, argillaceous; prominent bituminous shale partings.
2970-2975	Limestone, dark brown, dense to microcrystalline, bituminous, hard; Limestone, buff to dark brown, as above.
2975-3000	Limestone, buff and dark brown, dense to microgranular, bituminous, slickensided; traces of limestone, greyish white, dense to cryptocrystalline from 2,990' to 3,000'.
3000-3005	Limestone, buff to dark brown, granular, bituminous; Limestone, dark brown, hard, dense to microcrystalline, bituminous.
3005-3010	Limestone, buff to dark brown, dense to microgranular, bituminous.
3010-3015	Limestone, buff, microgranular and microcrystalline; Limestone, buff to dark brown, dense to cryptocrystalline.
3015-3040	Limestone, dark brown, hard, dense to cryptocrystalline and microcrystalline; Limestone, buff to dark brown, mottled, microgranular, bituminous partings.
3040-3045	Dolomite, buff to dark brown, microcrystalline, argillaceous.
3045-3050	Dolomite, buff, dense to microcrystalline, hard, argillaceous.
3050-3060	Interbedded limestone, cream, dense to cryptocrystalline; and dolomite, buff to light brown, dense to microcrystalline.
3060-3065	Dolomite, buff to light brown, finely crystalline, scattered poor porosity.
3065-3070	Dolomite, light brown, microcrystalline, anhydritic, minor bituminous shale partings, calcite veins.

<u>Depth</u> <u>Depth</u> <u>Feet</u>	<u>Description</u>
3070-3080	Dolomite, buff to brown, dense to cryptocrystalline.
3080-3090	Dolomite, brown, microcrystalline to finely crystalline, slightly argillaceous.
3090-3105	Dolomite, buff to light brown, dense to cryptocrystalline, slightly argillaceous.
<u>Red Beds - 3,105'</u>	
3105-3110	Limestone, brownish grey and greenish grey, dense, pyritic, brecciated, partings of bright green shale; Shale, bright green, non-calcareous, pyritic.
3110-3120	Sandstone, grey and greenish grey, fine- to medium-grained, calcareous, quartzose, poorly sorted, green shale, partings, minor quartzitic sandstone, pyritic.
3120-3125	Sandstone, dark coloured, coarse-grained, poorly sorted, shaly; Sandstone, light grey and greenish grey, fine- to coarse-grained, calcareous, poorly sorted, pyritic, green shale partings. Traces of red and green shale.
3125-3140	Shale, red, and sandstone, dark coloured as above; detrital zone.
<u>PRECAMBRIAN - 3,140'</u>	
3140-3150	Diorite, dark green, weathered at top.
3150	Total Depth.

SUMMARY AND CONCLUSIONS

Well Name: Wilkinson Redknife River No. 1

Location: 60° 59' 26" North Latitude
119° 11' 10" West Longitude

Wilkinson Redknife River No. 1 was drilled to the Precambrian basement at a total depth of 3,150 feet in February, 1961. Surface casing was cemented in the Wabamun formation of Upper Devonian age at 199 feet and a 7 7/8-inch hole was drilled to total depth. No cores were taken and no formation tests were made.

The Slave Point formation was found to be 110 feet thick and consists of buff to brown, dense to granular limestone, resembling the same formation in the Rabbit Lake area to the east. The Watt Mountain formation could not be picked from the well cuttings but showed up prominently on the Gamma Ray log at 2,710 feet. The top of the Presqu'ile formation was picked at 2,720 feet. It consists of 175 feet of chalky white limestone with low porosity and permeability. The Presqu'ile is underlain by 145 feet of buff to dark brown, dense to fossiliferous fragmental limestone with low porosity and permeability. No name has been assigned to this formation but it is believed to correlate with the Pine Point formation of the Rabbit Lake area. It is underlain by buff to light brown, dense to finely crystalline dolomite, 65 feet in thickness, and for the most part hard and tight. Dark coloured sandstone and red and green shale assigned to the Red Beds formation of unknown age underlie the dolomite, and rest on dark green diorite which forms the Precambrian basement in this area.

Schlumberger Induction-Electrical and Gamma Ray-Sonic logs were run on the well. These logs did not indicate any zones that warranted a formation test and the well was plugged and abandoned in accordance with the Government Regulations.

Norman Soul
Norman Soul, P. Geol.

S. R. L. Harding
S. R. L. Harding, P. Geol.

1009 Fourth Avenue S. W.,
Calgary, Alberta.
April 26, 1961.

CANADA

NOTICE OF INTENTION TO BEGIN DRILLING OPERATIONS

JAMES C. WILKINSON DEBITED ACCOUNT
A. E. Lloyd Spavator

Wildcat
Development

The well will be located at ~~40° 30' 40"~~ N. Lat. ~~119° 31' 30"~~ Long.

Survey description of Location, if known

Name of well ~~Well name~~ : ~~Backus River No. 1~~

Expected date of commencement . . . February, 1961

<u>Size O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Brand</u>	<u>New or</u>	<u>Estimated</u>	<u>Sacks of</u>
<u>Inches</u>	<u>lbs/ft</u>			<u>Used</u>	<u>Depth</u>	<u>Cement</u>
1. . . 4 1/8"	. 24 .	J-33 .		New . .	. 300 . .	. 125 .
2.						
3.						

Expected depth of water, gas and oil horizons and method of control:

Various zones from 3,100 feet to 3,500 feet. Controlled by adequate mud fluid of proper density and blowout preventer.

An electric log ^{will} be run ~~with~~ Other logs ^{will} be run ~~with~~

STRUCTURE TEST PROGRAM

Proposed number of holes Maximum well depth enclosed within an area bounded by

. N. Latitudes
. W. Longitudes

An electric log ^{will} be run ~~with~~ Other logs ^{will} be run ~~with~~
^{will not} ^{will not}

Name and address of drilling contractor . . . Guthrie Malvern Drilling Ltd.
11810 - 124 Street
Edmonton, Alberta

Responsible agents of permittee or lessee in charge of operation:

At well . . . Art Whiting Postal address . . . May River, N.W.T.

At registered J.C. Sproule and
office . . . Associates Ltd. Postal address 1009 Fourth Avenue S.W., Calgary
Alberta.

It is understood that if changes in this Notice of Intention become necessary we will promptly notify you.

Dated at Calgary this 11th day of January 1961.

Signed by

J. C. SPROULE AND ASSOCIATES LTD.

This program is approved subject to the following provisions (if any):

Because of the delays which will be caused by the remoteness of your operation in furnishing the daily drilling reports each week to my office oral, or if preferred, written reports on the progress of the well are to be sent based on the daily reports you receive by radio.

13 January, 1961.
Date

Oil Conservation Engineer.

(To be submitted in triplicate to the Oil Conservation Engineer at least 15 days prior to the commencement of drilling)

Tool Pusher

Date Feb 22 1966

Lsd. Sec. Twp. Rge. W.

Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____

Bit No.			No. Stds.	Length	Bit No.			No. Stds.	Length	Bit No.			No. Stds.	Length	
Serial No.			No. D.C.'s	Length	Serial No.			No. D.C.'s	Length	Serial No.			No. D.C.'s	Length	
Bit Size				Length	Bit Size				Length	Bit Size				Length	
Bit Type				Length	Bit Type				Length	Bit Type				Length	
Dr. from			Kelly in ==		Dr. from			Kelly in ==		Dr. from			Kelly in ==		
Dr. to			TOTAL ==		Dr. to			TOTAL ==		Dr. to			TOTAL ==		
Cored from			D.C.O.D. Top	Hrs. On Bottom	Cored from			D.C.O.D. Top	Hrs. On Bottom	Cored from			D.C.O.D. Top	Hrs. On Bottom	
Cored to			D.C.I.D. Top	Hrs. Off Bottom	Cored to			D.C.I.D. Top	Hrs. Off Bottom	Cored to			D.C.I.D. Top	Hrs. Off Bottom	
Reamed from			Pipe Size	Trip Time	Reamed from			Pipe Size	Trip Time	Reamed from			Pipe Size	Trip Time	
Reamed to			C.S.G. Set at	Serv. Time	Reamed to			C.S.G. Set at	Serv. Time	Reamed to			C.S.G. Set at	Serv. Time	
Total Bit Footage			C.S.G. Size	Rep. Time	Total Bit Footage			C.S.G. Size	Rep. Time	Total Bit Footage			C.S.G. Size	Rep. Time	
Bit Hrs.			Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.		Pipe in Hole	Jts.	REMARKS:	Bit Hrs.		Pipe in Hole	Jts.	REMARKS:
Table R.P.M.			Pipe on Racks	Jts.	Today	Table R.P.M.		Pipe on Racks	Jts.		Table R.P.M.		Pipe on Racks	Jts.	

Depth		Deviation		Total Pipe on Lease				Jts.		Yesterday		Depth		Deviation		Total Pipe on Lease				Jts.		Denth		Deviation		Total Pipe on Lease				Jts.						
Depth		Deviation								Consumption		Gals.		Depth		Deviation								Depth		Deviation										
Depth		Deviation												Depth		Deviation								Depth		Deviation										
Depth		Deviation												Depth		Deviation								Depth		Deviation										
Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size		Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size		Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size					
12							Liner Size		Liner Size		8							Liner Size		Liner Size		4							Liner Size		Liner Size					
1							Water-Loss		Filter Cake		PH		9						Water-Loss		Filter Cake		PH		5						Water-Loss		Filter Cake		PH	
2													10												6											
3													11												7											
4													12												8											
5							Mud Added Sacks				1							Mud Added Sacks				9							Mud Added Sacks							
6							Chemicals Added Lbs.				2							Chemicals Added Lbs.				10							Chemicals Added Lbs.							
7											3											11														

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	W. SEMAK		Core Bit		Serial	Driller	D. MCHNS		Core Bit		Serial	Driller	B. BRISCOE		Core Bit		Serial
Derrickman	L. SWEETEV		Reaming Bit		Serial	Derrickman	D. BOESTIE		Reaming Bit		Serial	Derrickman	L. WAITING		Reaming Bit		Serial
Cat Headman	N. BERSTREISER 12 HRS	Core Cutters SF. HF.	Core Catchers SF. HF.			Cat Headman	H. BOESTIE		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	R. PRAY		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	C. FREDRICKS 12 HRS	Swab Cups	Swab Rubbers			Rotary Helper	T. ALARY 9 HRS		Swab Cups		Swab Rubbers	Rotary Helper	T. NYHUS		Swab Cups		Swab Rubbers
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	V. C. OLSEN					Fireman	L. TRUSS					Fireman	R. KLEM-				
Leaseman						Leaseman	J. GERBRANDT					Leaseman					

[illegible]

Well No. WILKINSON RED KNIFE RIVER #1

Tool Pusher

Date FEB 21/61

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____ To _____ Hole Made _____

Drilled From _____ To _____ Hole Made _____

Drilled From _____ To _____ Hole Made _____

Hole Made						Drilled From						To						Hole Made					
Bit No.		No. Stds.	Length			Bit No.		No. Stds.	Length			Bit No.		No. Stds.	Length			Bit No.		No. Stds.	Length		
Serial No.		No. D.C.'s	Length			Serial No.		No. D.C.'s	Length			Serial No.		No. D.C.'s	Length			Serial No.		No. D.C.'s	Length		
Bit Size			Length			Bit Size			Length			Bit Size			Length			Bit Size			Length		
Bit Type			Length			Bit Type			Length			Bit Type			Length			Bit Type			Length		
Dr. from		Kelly in ==				Dr. from		Kelly in ==				Dr. from		Kelly in ==				Dr. from		Kelly in ==			
Dr. to		TOTAL ==				Dr. to		TOTAL ==				Dr. to		TOTAL ==				Dr. to		TOTAL ==			
Cored from		D.C.O.D. Top	6'4"	Hrs. On Bottom		Cored from		D.C.O.D. Top	Hrs. On Bottom			Cored from		D.C.O.D. Top	Hrs. On Bottom			Cored from		D.C.O.D. Top	Hrs. On Bottom		
Cored to		D.C.I.D. Top	278	Hrs. Off Bottom		Cored to		D.C.I.D. Top	Hrs. Off Bottom			Cored to		D.C.I.D. Top	Hrs. Off Bottom			Cored to		D.C.I.D. Top	Hrs. Off Bottom		
Reamed from		Pipe Size	4'2"	Trip Time		Reamed from		Pipe Size	Trip Time			Reamed from		Pipe Size	Trip Time			Reamed from		Pipe Size	Trip Time		
Reamed to		C.S.G. Set at	199	Serv. Time		Reamed to		C.S.G. Set at	Serv. Time			Reamed to		C.S.G. Set at	Serv. Time			Reamed to		C.S.G. Set at	Serv. Time		
Total Bit Footage		C.S.G. Size	8'18"	Rep. Time		Total Bit Footage		C.S.G. Size	Rep. Time			Total Bit Footage		C.S.G. Size	Rep. Time			Total Bit Footage		C.S.G. Size	Rep. Time		
Bit Hrs.		Pipe in Hole	104	Jts.	Diesel Fuel Meter Reading	Bit Hrs.		Pipe in Hole	Jts.	REMARKS:		Bit Hrs.		Pipe in Hole	Jts.			Bit Hrs.		Pipe in Hole	Jts.		
Table R.P.M.		Pipe on Racks	20	Jts.	Torque	Table R.P.M.		Pipe on Racks	Jts.	Torque		Table R.P.M.		Pipe on Racks	Jts.	Torque		Table R.P.M.		Pipe on Racks	Jts.	Torque	

Depth	Deviation	Total Pipe on Lease		Today	R.P.M.	Pipe on Racks	Jts.	Table R.P.M.	Pipe in Hole	Jts.	REMARKS:	
Depth	Deviation			Yesterday	Depth	Deviation	Total Pipe on Lease	Jts.	Pipe on Racks	Jts.		
Depth	Deviation			Consumption	Gals.	Depth	Deviation		Depth	Deviation	Total Pipe on Lease	Jts.
Depth	Deviation					Depth	Deviation		Depth	Deviation		
Depth	Deviation					Depth	Deviation		Depth	Deviation		

[illegible]

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			
Driller	W. SEMAK		Core Bit			Driller	D. MAHNS		Core Bit			Driller	B. KRISCOE		Core Bit			
Derrickman	4. SWEETLEY		Reaming Bit			Derrickman	D. BOESTIE		Reaming Bit			Derrickman	1. WHITING		Reaming Bit			
Cat Headman	N. BERGSTREISER		Core Cutters SF. HF.			Cat Headman	H. BOESTIE		Core Cutters SF. HF.			Cat Headman	R. GRAY		Core Cutters SF. HF.			
Rotary Helper	C. FREDRICKS		Swab Cups			Rotary Helper	J. ALARY		Swab Cups			Rotary Helper	T. MAHNS		Swab Cups			
Fireman	V. C. OLSEN		Swab Rubbers			Rotary Helper			Swab Rubbers			Rotary Helper			Swab Rubbers			
Leaseman						Fireman	L. TRUSS					Fireman	B. KLEM					
REMARKS						Leaseman	J. EBBRANDT						REMARKS					

[illegible]

Tool Pusher

Date FEB 20/61

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From To Hole Made

Drilled From _____ To _____ Hole Made _____

Drilled From _____ To 3151 Hole Made _____

Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length
Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length
Bit Size		Length	Bit Size		Length	Bit Size		Length
Bit Type		Length	Bit Type		Length	Bit Type		Length
Dr. from	Kelly in ==		Dr. from	Kelly in ==		Dr. from	Kelly in ==	
Dr. to	TOTAL ==		Dr. to	TOTAL ==		Dr. to	TOTAL ==	
Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom	Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom	Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom
Cored to			Cored to			Cored to		
Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time
Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time
Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time
Bit Hrs.	Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:	Bit Hrs.
Table R.P.M.	Pipe on Racks	Jts.	Today	Table R.P.M.	Pipe on Racks	Jts.		Table R.P.M.

[illegible]

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	W. SEMAK		Core Bit		Serial	Driller	D. MOHNS		Core Bit		Serial	Driller	B. BRISCOE		Core Bit		Serial
Derrickman	L. SWEETLEY		Reaming Bit		Serial	Derrickman	D. BOESTIE		Reaming Bit		Serial	Derrickman	L. G. H. T. A. C.		Reaming Bit		Serial
Cat Headman	N. BERGSTEINER		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	H. BOESTIE		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	K. GRAY		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	B. FREDRICKS		Swab Cups		Swab Rubbers	Rotary Helper	J. ALARY		Swab Cups		Swab Rubbers	Rotary Helper	T. H. H. H. S.		Swab Cups		Swab Rubbers
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	V. C. OLSEN					Fireman	L. TROSS					Fireman	R. KILM				
Leaseman						Leaseman	J. GERBRANDT					Leaseman					

[illegible]

Representative
B. L. Brown
her

Well No. WILKINSON RED KNIFE RIVER #1

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 3059 To 3109 Hole Made 50

Drilled From 3109 To 3144 Hole Made 35

Drilled From 3144 To 3151 Hole Made 7

Bit No.	11	No. Stds.	46	Length	2782.14	Bit No.	11	12	No. Stds.	46-5	Length	2812.41	Bit No.	12	No. Stds.	46-5	Length	2812.41
Serial No.	082805	No. D.C.'s	11	Length	312.07	Serial No.	082805	093824	No. D.C.'s	11	Length	312.07	Serial No.	093824	No. D.C.'s		Length	312.07
Bit Size	7 7/8			Length		Bit Size	7 7/8				Length		Bit Size	7 7/8			Length	
Bit Type	451			Length		Bit Type	451	451			Length		Bit Type	451			Length	
Dr. from	3030	Kelly in =			14.79	Dr. from	3030	3114	Kelly in =			19.52	Dr. from	3114	Kelly in =			26.52
Dr. to	3109	TOTAL =			3109.00	Dr. to	3114	3144	TOTAL =			3144.00	Dr. to	3151	TOTAL =			3151.00
Cored from		D.C.O.D. Top	6'4"	Hrs. On Bottom		Cored from			D.C.O.D. Top	6'4"	Hrs. On Bottom	5'4"	Cored from		D.C.O.D. Top	6'4"	Hrs. On Bottom	
Cored to		D.C.I.D. Top	2'8"	Hrs. Off Bottom		Cored to			D.C.I.D. Top	2'8"	Hrs. Off Bottom	2'3/4	Cored to		D.C.I.D. Top	2'8"	Hrs. Off Bottom	
Reamed from		Pipe Size	4'1/2	Trip Time		Reamed from			Pipe Size	4'1/2	Trip Time	2'1/2	Reamed from		Pipe Size	4'1/2	Trip Time	
Reamed to		C.S.G. Set at	199	Serv. Time		Reamed to			C.S.G. Set at	199	Serv. Time	14	Reamed to		C.S.G. Set at	199	Serv. Time	
Total Bit Footage	79	C.S.G. Size	8'5/8	Rep. Time		Total Bit Footage	84	30	C.S.G. Size	8'5/8	Rep. Time		Total Bit Footage	37	C.S.G. Size	8'5/8	Rep. Time	
Bit Hrs.	14	Pipe in Hole	92	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	15	4'1/4	Pipe in Hole	93	Jts.	REMARKS:	Bit Hrs.	5'11"	Pipe in Hole	93	Jts.	REMARKS:
Table R.P.M.	85	Pipe on Racks	32	Jts.	Today 2 FEET	Table R.P.M.	85	90	Pipe on Racks	31	Jts.	CHECKED B.O.P.'S	Table R.P.M.	90	Pipe on Racks	31	Jts.	

Depth	Deviation	Total Pipe on Lease 124 Jts.	Yesterday	Depth	Deviation	Total Pipe on Lease 124 Jts.	OPEN HOLE	Depth	Deviation	Total Pipe on Lease 124 Jts.	
Depth	Deviation		Consumption Gals.	Depth	Deviation		B.K.	Depth	Deviation		
Depth	Deviation			Depth	Deviation			Depth	Deviation		
Depth	Deviation			Depth	Deviation			Depth	Deviation		

Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size		
							7'4"x14	5'x10								7'4"x14	5'x10								7'4"x14	5'x10		
12	10.7	60	58	675	1/2	✓	Liner Size 6'3/4	Liner Size 5	8	10.6	73	58	700	FOLL		Liner Size 6'3/4	Liner Size 5	4	10.6	66	58	700	3/4	✓	Liner Size 6'3/4	Liner Size 5		
1	10.7	65	58	675	1/2	✓	Water-Loss	Filter Cake	PH	9						Water-Loss	Filter Cake	PH	5	10.6	70	58	700	3/4		Water-Loss	Filter Cake	PH
2	10.7	68	58	675	1/2	✓		3/32	12.5	10	T R	1 P				4.6	2/32	12.5	6	10.6	65	58	700	3/4		4.4	2/32	12.5
3	10.6	64	58	675	1/3	✓	5.2		12.5	11									7	10.5	65	58	700	3/4				13.0
4	10.6	60	58	675	2/3	✓			13.0	12	10.6	73	58	700	3/4	✓			8	10.6	68	48	450	3/4				
5	10.6	65	58	675	2/3	✓	Mud Added Sacks	GEL. 1000#	1	10.6	76	58	700	3/4	✓	Mud Added Sacks	MY-LO-JEL 150#	9	10.6	73	45	450	3/4		Mud Added Sacks	2 SACKS MY-LO-JEL		
6	10.6	68	58	675	2/3	✓	Chemicals Added Lbs.	CAUSTIC. 150#	2	10.6	78	58	700	3/4	✓	Chemicals Added Lbs.		10	10.6	63	45	450	3/4		Chemicals Added Lbs.	CAUSTIC 100#		
7	10.6	70	58	675	FOLL			SPERSENE 150#	3	10.5	69	58	700	3/4	✓			11	10.6	60	45	450	3/4				SPERSENE 100#	

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	W. SKAM		Core Bit		Serial	Driller	D. MOHNS		Core Bit		Serial	Driller	B. BRISCOE		Core Bit		Serial
Derrickman	L. SWEEZY		Reaming Bit		Serial	Derrickman	D. BOSTIE		Reaming Bit		Serial	Derrickman	L. GRATING		Reaming Bit		Serial
Cat Headman	N. BERGSTREISER		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	H. BOSTIE		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	L. GRAY		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	A. FREDRICKS		Swab Cups		Swab Rubbers	Rotary Helper	J. ALARY		Swab Cups		Swab Rubbers	Rotary Helper	T. NYHUS		Swab Cups		Swab Rubbers
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	V.C. OLSEN					Fireman	L. TRUSS					Fireman	B. KLEM				
Leaseman						Leaseman	J. GERBRANDT					Leaseman					

[illegible]

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 3030 To 3059 Hole Made 29

Bit No.	9	10	No. Stds.	44	Length	2661.20	Bit No.	10	No. Stds.	44-5	Length	2691.32	Bit No.	11	No. Stds.	45	Length	2721.37			
Serial No.	80415	1281945	No. D.C.'s	11	Length	312.07	Serial No.	081945	No. D.C.'s	11	Length	312.07	Serial No.	082805	No. D.C.'s	11	Length	312.07			
Bit Size	7 7/8	7 7/8			Length		Bit Size	7 7/8			Length		Bit Size	7 7/8			Length				
Bit Type	YSI	YM			Length		Bit Type	YM			Length		Bit Type	YSI			Length				
Dr. from	2814	2950	Kelly in =		18.73		Dr. from	2950	Kelly in =		26.61		Dr. from	3030	Kelly in =		25.56				
Dr. to	2950	2992	TOTAL =		2992.00		Dr. to	3030	TOTAL =		3030.00		Dr. to	3059	TOTAL =		3059.00				
Cored from			D.C.O.D. Top	6 1/4	Hrs. On Bottom	5 1/4	Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom	6 1/4	Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom	6 1/4			
Cored to			D.C.I.D. Top	2 7/8	Hrs. Off Bottom	2 3/4	Cored to		D.C.I.D. Top	2 7/8	Hrs. Off Bottom	1 3/4	Cored to		D.C.I.D. Top	2 7/8	Hrs. Off Bottom	1 3/4			
Reamed from			Pipe Size	4 1/2	Trip Time	2 1/2	Reamed from		Pipe Size	4 1/2	Trip Time	1 1/2	Reamed from		Pipe Size	4 1/2	Trip Time	1 1/2			
Reamed to			C.S.G. Set at	199	Serv. Time	1 1/4	Reamed to		C.S.G. Set at	199	Serv. Time	1 1/4	Reamed to		C.S.G. Set at	199	Serv. Time	1 1/4			
Total Bit Footage	136	42	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	80	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	29	C.S.G. Size	8 5/8	Rep. Time				
Bit Hrs.	12 1/4	4 3/4	Pipe in Hole	89	Jts.		Bit Hrs.	11 3/4	Pipe in Hole	89	Jts.		Bit Hrs.	6 1/4	Pipe in Hole	90	Jts.				
Table R.P.M.	100	125	Pipe on Racks	36	Jts.		Table R.P.M.	100	Pipe on Racks	35	Jts.		Table R.P.M.	85	Pipe on Racks	34	Jts.				
Depth	2950	Deviation	1/2°	Total Pipe on Lease	124	Jts.	Depth		Deviation		Total Pipe on Lease	124	Jts.	Depth		Deviation		Total Pipe on Lease	124	Jts.	
Depth		Deviation		Consumption		Gals.	Depth		Deviation			Depth		Deviation			Depth		Deviation		
Depth		Deviation					Depth		Deviation			Depth		Deviation			Depth		Deviation		
Depth		Deviation					Depth		Deviation			Depth		Deviation			Depth		Deviation		
Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	7 1/4 x 14	No. 2 Pump Size	5 x 10	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	7 1/4 x 14	No. 2 Pump Size	5 x 10
12	10.9	67	58	650	Full		Liner Size	6 3/4	Liner Size	5	8	10.9	73	58	650			Liner Size	6 3/4	Liner Size	5
1		TRIPS					Water-Loss		Filter Cake		9	10.9	73	58	650			Water-Loss		Filter Cake	
2		TRIP							13.0		10	10.9	72	58	650					13.0	
3		TRIP					4.0		4/32		11	10.9	74	58	650						
4	10.9	80	58	650	11						12	10.9	75	58	650						
5	10.9	73	58	650	11		Mud Added Sacks	8 SACKS GEL			1	10.9	74	58	650			Mud Added Sacks			
6	10.9	68	58	650	11		Chemicals Added Lbs.	100# CAUSTIC			2	10.9	75	58	650			Chemicals Added Lbs.			
7	10.9	82	58	650	11			100# SPERSENE			3	10.9	74	58	650						
CREW							MATERIALS CHARGED TO OPERATOR				CREW							MATERIALS CHARGED TO OPERATOR			
Driller	13	13	13	13	13	13	Core Bit		Serial		Driller	W. SEMAR						Core Bit		Serial	
Derrickman	1	1	1	1	1	1	Reaming Bit		Serial		Derrickman	L. SWEETLEY						Reaming Bit		Serial	
Cat Headman	H	H	H	H	H	H	Core Cutters SF. HF.		Core Catchers SF. HF.		Cat Headman	N. BERGFELSER						Core Cutters SF. HF.		Core Catchers SF. HF.	
Rotary Helper	T	T	T	T	T	T	Swab Cups		Swab Rubbers		Rotary Helper	G. FREDRICKS						Swab Cups		Swab Rubbers	
Rotary Helper											Rotary Helper										
Fireman	13	13	13	13	13	13					Fireman	V. C. OLSEN									
Leaseman											Leaseman	J. GERBRANDT									
REMARKS							FROM	TO			REMARKS							FROM	TO		
DRILLING							1200	1230			DRILL							800	1100		
DROP SURVEY							1230	1245			RIG SERVICE & CHECK B.O.P.S. OK.							1100	1115		
TRIP FOR B.T.							1245	315			DRILL							1115	305		
DRILLING							315	800			HOIST FOR BIT							305	400		
														</							

Date FEB 17/61

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 2759 To 3904 Hole Made 45

Drilled From 2804 To 2864 Hole Made 60

Drilled From 2864 To 2946 Hole Made 82

Run in Hole				Run in Hole				Run in Hole				Run in Hole			
Bit No.	No. Stds.	Length	Dr. from	Bit No.	No. Stds.	Length	Dr. from	Bit No.	No. Stds.	Length	Dr. from	Bit No.	No. Stds.	Length	Dr. from
8	41	2479.29	7669	8	42	2539.62	2814	9	43	2600.52	2946	10	44	2660.02	3000
Serial No.	No. D.C.'s	Length		Serial No.	No. D.C.'s	Length		Serial No.	No. D.C.'s	Length		Serial No.	No. D.C.'s	Length	
1101391	11	312.07		1101392	11	312.07		1101393	11	312.07		1101394	11	312.07	
Bit Size		Length		Bit Size		Length		Bit Size		Length		Bit Size		Length	
7 7/8				7 7/8				7 7/8				7 7/8			
Bit Type		Length		Bit Type		Length		Bit Type		Length		Bit Type		Length	
YS1				YS1				YS1				YS1			
Dr. from	Kelly in =			Dr. from	Kelly in =			Dr. from	Kelly in =			Dr. from	Kelly in =		
7669	12.64			2814	12.31			2814	12.31			2814	12.31		
Dr. to	TOTAL =			Dr. to	TOTAL =			Dr. to	TOTAL =			Dr. to	TOTAL =		
Cored from	D.C.O.D. Top	Hrs. On Bottom		Cored from	D.C.O.D. Top	Hrs. On Bottom		Cored from	D.C.O.D. Top	Hrs. On Bottom		Cored from	D.C.O.D. Top	Hrs. On Bottom	
	6 1/4	2 7/8			6 1/4	2 7/8			6 1/4	2 7/8			6 1/4	2 7/8	
Cored to	D.C.I.D. Top	Hrs. Off Bottom		Cored to	D.C.I.D. Top	Hrs. Off Bottom		Cored to	D.C.I.D. Top	Hrs. Off Bottom		Cored to	D.C.I.D. Top	Hrs. Off Bottom	
	2 7/8	14			2 7/8	14			2 7/8	14			2 7/8	14	
Reamed from	Pipe Size	Trip Time		Reamed from	Pipe Size	Trip Time		Reamed from	Pipe Size	Trip Time		Reamed from	Pipe Size	Trip Time	
	4 1/2				4 1/2				4 1/2				4 1/2		
Reamed to	C.S.G. Set at	Serv. Time		Reamed to	C.S.G. Set at	Serv. Time		Reamed to	C.S.G. Set at	Serv. Time		Reamed to	C.S.G. Set at	Serv. Time	
	199				199				199				199		
Total Bit Footage	C.S.G. Size	Rep. Time		Total Bit Footage	C.S.G. Size	Rep. Time		Total Bit Footage	C.S.G. Size	Rep. Time		Total Bit Footage	C.S.G. Size	Rep. Time	
135	8 5/8			145	8 5/8			132	8 5/8			132	8 5/8		
Bit Hrs.	Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:
18 1/4	82			20	84			11 3/4	86			11 3/4	86		
Table R.P.M.	Pipe on Racks	Jts.	Today	Table R.P.M.	Pipe on Racks	Jts.		Table R.P.M.	Pipe on Racks	Jts.		Table R.P.M.	Pipe on Racks	Jts.	
130	42			100	40			100	40			100	40		

Depth	Deviation	Total Pipe on Lease / 124 Jts.		Pipe on Racks 70 Jts.	R.P.M.	100	Pipe on Racks 38 Jts.
Depth	Deviation		Consumption Gals.	Depth Deviation Total Pipe on Lease / 124 Jts.	Depth	Deviation	Total Pipe on Lease / 124 Jts.
Depth	Deviation			Depth Deviation	Depth	Deviation	
Depth	Deviation			Depth Deviation	Depth	Deviation	

Pump										Deviation										Pump										Deviation									
Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Depth	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Depth	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Depth										
12	10.7	83	58	650	Full		7 1/4 x 14	5 x 10		8	10.8	66	58	650	Full		7 1/4 x 14	5 x 10		4	10.8	68	58	650	Full		7 1/4 x 14	5 x 10											
1	10.7	78	58	650	"		Liner Size 6 3/4	Liner Size 5		9	10.8	68	58	650	Full		Liner Size 6 3/4	Liner Size 5		5	10.8	68	58	650	"		Liner Size 6 3/4	Liner Size 5											
2	10.7	74	58	650	"		Water-Loss 3.0	Filter Cake 2 1/2	PH 13.0	10	10.8	68	58	650	Full		Water-Loss 3.2	Filter Cake 2 1/2	PH 13.0	6	10.8	68	58	650	"		Water-Loss 3.0	Filter Cake 2 1/2	PH 12.5										
3	10.7	67	58	650	"					11	TRIP						3.6		12.5	7	10.8	68	58	650	"														
4	10.7	70	58	650	"					12								13.0		8	10.8	67	58	650	"														
5	10.7	75	58	650	"		Mud Added Sacks			1	10.8	60	58	650	Full		Mud Added Sacks 6 EH. 500#			9	10.8	70	58	650	"		Mud Added Sacks												
6	10.7	78	58	650	"		Chemicals Added Lbs.			2	10.8	64	58	650	Full		Chemicals Added Lbs. CAUSTIC 100#			10	10.8	70	58	650	"		Chemicals Added Lbs. CAUSTIC 50#												
7	10.7	76	58	650	"					3	10.8	67	58	650	Full		SPERSENE 100#			11	10.9	65	58	650	"		SPERSENE 100#												
CREW						MATERIALS CHARGED TO OPERATOR																																	

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	B. BRISCOE	Core Bit	Serial	Driller	W. SEMAK	Core Bit	Serial	Driller	D. MOHNS	Core Bit	Serial	Driller	D. MOHNS	Core Bit	Serial		
Derrickman	L. WHITING	Reaming Bit	Serial	Derrickman	L. SWERLEN	Reaming Bit	Serial	Derrickman	D. BOESTIE	Reaming Bit	Serial	Derrickman	D. BOESTIE	Reaming Bit	Serial		
Cat Headman	K. GRAY	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	N. BERGSTRESE	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	H. BOESTIE	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	H. BOESTIE	Core Cutters SF. HF.	Core Catchers SF. HF.		
Rotary Helper	T. NYKUS	Swab Cups	Swab Rubbers	Rotary Helper	C. FREDRICKS	Swab Cups	Swab Rubbers	Rotary Helper	J. ALBRY	Swab Cups	Swab Rubbers	Rotary Helper	J. ALBRY	Swab Cups	Swab Rubbers		
Fireman	R. KLEM			Fireman	V. C. OLSEN			Fireman	L. TRUSS			Fireman	L. TRUSS				
Leaseman				Leaseman	J. GERBRANDT			Leaseman				Leaseman					
REMARKS																	

[illegible]

Well No. WILKINSON RAIN KNUFE RIVER 1 #

Lsd. Sec. Twp. Rge. W.

Drilled From 27.4 To 2759 Hole Made 55

Bit No.	7	No. Stds.	38-5	Length	2325.28	Bit No.	7	8	No. Stds.	39	Length	2357.52	Bit No.	8	No. Stds.	40	Length	2418.37
Serial No.	103959	No. D.C.'s	11	Length	312.07	Serial No.	103959	101390	No. D.C.'s	11	Length	312.07	Serial No.	101390	No. D.C.'s	11	Length	312.07
Bit Size	7 7/8			Length		Bit Size	7 7/8	7 7/8			Length		Bit Size	7 7/8			Length	
Bit Type	YT1			Length		Bit Type	YT1	YS1			Length		Bit Type	YS1			Length	
Dr. from	2505	Kelly in =			16.65	Dr. from	2505	2669	Kelly in =			34.41	Dr. from	2669			Kelly in =	
Dr. to	2654	TOTAL =			2654.00	Dr. to	2669	2704	TOTAL =			2704.00	Dr. to	2759			TOTAL =	
Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom	8	Cored from			D.C.O.D. Top	6 1/4	Hrs. On Bottom		Cored from				D.C.O.D. Top	6 1/4
		D.C.I.D. Top	2 7/8	Hrs. Off Bottom					D.C.I.D. Top	2 7/8	Hrs. Off Bottom						D.C.I.D. Top	2 7/8
Cored to						Cored to							Cored to					
Reamed from		Pipe Size	4 1/2	Trip Time		Reamed from			Pipe Size	4 1/2	Trip Time		Reamed from				Pipe Size	4 1/2
Reamed to		C.S.G. Set at	199	Serv. Time		Reamed to			C.S.G. Set at	199	Serv. Time		Reamed to				C.S.G. Set at	199
Total Bit Footage	149	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	164	35	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	90			C.S.G. Size	8 5/8
Bit Hrs.	103 1/4	Pipe in Hole	77	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	13	3	Pipe in Hole	78	Jts.	REMARKS:	Bit Hrs.	103 1/4			Pipe in Hole	80
Table R.P.M.	100	Pipe on Racks	47	Jts.	Today	Table R.P.M.	90	90	Pipe on Racks	46	Jts.		Table R.P.M.	90			Pipe on Racks	44

Total Pipe on Lease 24 Jts.										Yesterday										Total Pipe on Lease 124 Jts.										Total Pipe on Lease 124 Jts.									
Depth		Deviation								Consumption		Gals.		Depth		Deviation								Depth		Deviation													
Depth		Deviation												Depth		Deviation								Depth		Deviation													
Depth		Deviation												Depth		Deviation								Depth		Deviation													
Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size				
12	10.1	65	58	600	1/2	✓	Liner Size 6 3/4	Liner Size 5	8	10.9	63	58	650	3/4	✓	Liner Size 6 3/4	Liner Size 5	4	10.8	70	58	650	Full		Liner Size 6 3/4	Liner Size 5													
1	9.9	78	58	600	1/2	✓	Water-Loss	Filter Cake	PH	9	10.9	64	58	650	3/4	✓	Water-Loss	Filter Cake	PH	5	10.8	65	58	650	"		Water-Loss	Filter Cake	PH										
2	10.8	75	58	600	1/2	✓	4.2	7 1/2	12.5	10	10.9	72	58	650	3/4	✓		7 1/2	12.5	6	10.8	68	58	650	"														
3	10.8	80	58	600	1/2	✓			13.0	11						4.4			7	10.7	70	58	650	"		3.4													
4	10.9	76	58	600	1/2	✓			TRIP	12									8	10.7	74	58	650	"															
5	10.9	70	58	600	1/2	✓	Mud Added Sacks 45 SACKS GEL 8 SACKS MY-10-GEL			1						Mud Added Sacks GEL 1100#			9	10.7	74	58	650	"		Mud Added Sacks MY-10-GEL 200#													
6	10.9	75	58	600	1/2	✓	Chemicals Added Lbs. 250# CAUSTIC			2	10.8	60	58	650	3/4	✓	Chemicals Added Lbs. CAUSTIC 120#			10	10.7	82	58	650	"		Chemicals Added Lbs. CAUSTIC 50#												
7	10.9	73	58	600	1/2	✓	250# SPERSENE			3	10.8	65	58	650	3/4	✓	SPERSENE 100#			11	10.7	92	58	650	"		SPERSENE 50#												

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	H. HALLSCOF		Core Bit		Serial	Driller	W. SEMAR		Core Bit		Serial	Driller	D. MOHNS		Core Bit		Serial
Derrickman	L. LUTTING		Reaming Bit		Serial	Derrickman	L. SWEEZEY		Reaming Bit		Serial	Derrickman	D. BOGSTIE		Reaming Bit		Serial
Cat Headman	B. GRAY		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	N. BERGSTREISER		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	H. BOGSTIE		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	T. NYKUS		Swab Cups		Swab Rubbers	Rotary Helper	G. FREDRICKS		Swab Cups		Swab Rubbers	Rotary Helper	J. ALARY		Swab Cups		Swab Rubbers
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	R. KLEIN					Fireman	V. C. OLSEN					Fireman	L. TROSS				
Leaseman						Leaseman	J. GERBRANDT					Leaseman					

[illegible]

Well No. WILKINSON RED KNIFE RIVER 1

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 2475 To 2560 Hole Made 85

Bit No.	6	7	No. Stds.	37	Length	2234.65
Serial No.	No 5617	No 3959	No. D.C.'s	11	Length	312.07
Bit Size	7 7/8	7 7/8			Length	
Bit Type	4T1	4T1			Length	
Dr. from	2139.	2505	Kelly in =			13.28
Dr. to	2505	2560	TOTAL =			2560.00
Cored from			D.C.O.D. Top	6 1/4	Hrs. On Bottom	4 1/2
Cored to			D.C.I.D. Top	2 7/8	Hrs. Off Bottom	3 1/2
Reamed from			Pipe Size	4 1/2	Trip Time	3
Reamed to			C.S.G. Set at	199	Serv. Time	1/4
Total Bit Footage	366	55	C.S.G. Size	8 5/8	Rep. Time	
Bit Hrs.	16 1/4	2 3/4	Pipe in Hole	74	Jts.	REMARKS:
Table R.P.M.	150	170	Pipe on Racks	50	Jts.	

Depth	2505	Deviation	1/4°	Total Pipe on Lease	124 Jts.
Depth		Deviation			
Depth		Deviation			
Depth		Deviation			

Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size
4	10.8	64	58	650	Full		7 1/4 x 1 1/4	5 x 10
5	10.8	65	58	580	1/2	✓	Liner Size 6 3/4	Liner Size 5
6	TRIP	114	6			Water-Loss	Filter Cake	PH
7						3.6	3 1/2	12.5
8								
9	10.8	62	58	650	1/2	✓	Mud Added Sacks	
10	10.8	62	58	650	1/2	✓	Chemicals Added Lbs.	CAUSTIC 50#
11	10.8	60	58	650	1/2	✓		SPERSENE 50#

CREW		MATERIALS CHARGED TO OPERATOR	
Driller	D. MOHNS	Core Bit	Serial
Derrickman	D. BOESTIE	Reaming Bit	Serial
Cat Headman	H. BOESTIE	Core Cutters SF. HF.	Core Catchers SF. HF.
Rotary Helper	J. ALARY	Swab Cups	Swab Rubbers
Rotary Helper			
Fireman	L. TRUSS		
Leadman			

[illegible]

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 2010 To 2139 Hole Made 129

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	B. B. RISCOE		Core Bit		Serial	Driller	W. SEMAR		Core Bit		Serial	Driller	D. MOHNS		Core Bit		Serial
Derrickman	L. WHITING		Reaming Bit		Serial	Derrickman	L. SWEEZEY		Reaming Bit		Serial	Derrickman	D. BOBSTIE		Reaming Bit		Serial
Cat Headman	R. GRAY		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	N. BERGSTREISER		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	H. BOBSTIE		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	T. NYHUS		Swab Cups		Swab Rubbers	Rotary Helper	G. FREDRICKS		Swab Cups		Swab Rubbers	Rotary Helper	J. ALARY		Swab Cups		Swab Rubbers
Fireman	R. KLEMM	11 HRS				Rotary Helper						Rotary Helper					
Leaseman						Fireman	V. C. OLSEN	12 HRS				Fireman	L. TROSS				
						Leaseman	J. GERBRANDT					Leaseman					

[illegible]

E. A. Johnston
Tool Pusher

Well No. WILKINSON BED KNIFE RIVER 1#

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 965 To 1128 Hole Made 163

Drilled From 1128 To 1310 Hole Made 182

Drilled From 1310 To 1577 Hole Made 267

Bit No.	3	No. Stds.	13	Length	784.67	Bit No.	3	4	No. Stds.	16	Length	966.29	Bit No.	4	No. Stds.	20-5	Length	1237.43
Serial No.	905820	No. D.C.'s	11	Length	312.07	Serial No.	905820	825901	No. D.C.'s	11	Length	312.07	Serial No.	805901	No. D.C.'s	11	Length	312.07
Bit Size	7 7/8			Length		Bit Size	7 7/8	7 7/8			Length		Bit Size	7 7/8			Length	
Bit Type	YT			Length		Bit Type	YT	YT3			Length		Bit Type	YT3			Length	
Dr. from	814	Kelly in =		31.26		Dr. from	814	1157	Kelly in =		31.64		Dr. from	1157	Kelly in =		27.50	
Dr. to	1128	TOTAL =		1128.00		Dr. to	1157	1310	TOTAL =		1310.00		Dr. to	1577	TOTAL =		1577.00	
Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom		Cored from			D.C.O.D. Top	6 1/4	Hrs. On Bottom		Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom	7
Cored to		D.C.I.D. Top	2 7/8	Hrs. Off Bottom		Cored to			D.C.I.D. Top	2 7/8	Hrs. Off Bottom		Cored to		D.C.I.D. Top	2 7/8	Hrs. Off Bottom	1
Reamed from		Pipe Size	4 1/2	Trip Time		Reamed from			Pipe Size	4 1/2	Trip Time		Reamed from		Pipe Size	4 1/2	Trip Time	14.
Reamed to		C.S.G. Set at	199	Serv. Time		Reamed to			C.S.G. Set at	199	Serv. Time		Reamed to		C.S.G. Set at	199	Serv. Time	14.
Total Bit Footage	314	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	343	153	C.S.G. Size	8 5/8	Rep. Time		Total Bit Footage	420	C.S.G. Size	8 5/8	Rep. Time	1/2
Bit Hrs.	11	Pipe in Hole	26	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	13	3 1/4	Pipe in Hole	32	Jts.	REMARKS:	Bit Hrs.	10 1/4	Pipe in Hole	41	Jts.	REMARKS:
Table R.P.M.	150	Pipe on Racks	98	Jts.	Today	Table R.P.M.	150	150	Pipe on Racks	92	Jts.	CHECKED R.O.P.	Table R.P.M.	150	Pipe on Racks	93	Jts.	

Depth	Deviation	Total Pipe on Lease	124 Jts.	Yesterday	Depth	1227	Deviation	1/2°	Total Pipe on Lease	124 Jts.	OPEN HOLE	Depth	1550	Deviation	3/4	Total Pipe on Lease	124 Jts.
Depth	Deviation			Consumption	Gals.	Depth		Deviation			OK.	Depth		Deviation			
Depth	Deviation					Depth		Deviation				Depth		Deviation			
Depth	Deviation					Depth		Deviation				Depth		Deviation			

Pump							Pump							Pump							Pump						
Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	
12	9.7	150	58	500	2/3	✓	7 1/4 x 14	5 x 10	8	10.1	90	46	400		✓	7 1/4 x 14	5 x 10	4	10.1	85	58	600	FULL	-	7 1/4 x 14	5 x 10	
1	9.8	150	58	600	2/3	✓	Liner Size 6 3/4	Liner Size 5	9	10.1	92	46	500		✓	Liner Size 6 3/4	Liner Size 5	5	10.1	90	58	600	"	-	Liner Size 6 3/4	Liner Size 5	
2	9.8	145	58	500	2/3	✓	Water-Loss	Filter Cake	10							Water-Loss	Filter Cake	6	10.2	100	58	600	"	✓	Water-Loss	Filter Cake	
3	9.8	110	58	500	2/3		6-5	13.0	11								13	7	10.2	105	58	600	"	✓	4.8	12.5	
4	9.8	85	58	500	2/3		5-8	13.0	12									8	10.2	100	58	650	"	-			
5	9.8	85	58	500	2/3		5-4	12.5	1	10.0	55	54	500		✓	5-4	13	9	10.2	100	58	650	"				
6	9.8	80	58	500	2/3	✓	Mud Added Sacks 65#	MY-20-BEL	2	10.1	65	54	500		✓	Mud Added Sacks 35#	MY-20-BEL	10	JET SAND TRAP								
7	10.0	73	58	500	2/3	✓	Chemicals Added Lbs. 350#	SPERSENE	3	10.1	65	54	500		✓	Chemicals Added Lbs. 350#	CAUSTIC	11	10.2	90	58	650	1/2	✓			

CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR	
Driller	B. BAISCOE	Core Bit	Serial	Driller	W. SEMAK	Core Bit	Serial	Driller	D. MUNS	Core Bit	Serial
Derrickman	L. WHITING	Reaming Bit	Serial	Derrickman	H. SWEETLEY	Reaming Bit	Serial	Derrickman	D. BOBSTIE	Reaming Bit	Serial
Cat Headman	B. GRAY	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	N. BERGSTREISER	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	H. BOBSTIE	Core Cutters SF. HF.	Core Catchers SF. HF.
Rotary Helper	T. NYHUS	Swab Cups	Swab Rubbers	Rotary Helper	C. FREDRICKS	Swab Cups	Swab Rubbers	Rotary Helper	J. ALARY	Swab Cups	Swab Rubbers
Rotary Helper				Rotary Helper				Rotary Helper			
Fireman	R. KLEM			Fireman	V.C. OLSEN			Fireman	L. TRUSS		
Leaseman				Leaseman	J. GERBRANDT			Leaseman			

[illegible]

Well No. WILKINSON KED KNIFE RIVER 1#

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 777 To 965 Hole Made 188

Depth		Deviation						Pump						Pump						Pump								
Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pres-sure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size		
							7'4 x 14	5 x 10								7'4 x 14	5 x 10								7'4 x 14	5 x 10		
12							Liner Size 6 3/4	Liner Size 5	8	9.2	60	45	250	1/2	✓	Liner Size 6 3/4	Liner Size 5	4	9.4	110	48	200	1/2		Liner Size 6 3/4	Liner Size 5		
1							Water-Loss	Filter Cake	PH	9	9.2	62	44	250	1/2	✓	Water-Loss	Filter Cake	5	9.4	117	48	200	1/2		Water-Loss	Filter Cake	PH
2										10	9.2	65	44	250	1/2	✓			6	9.4	120	48	200	1/2		6.7	2 1/2	13
3										11	9.2	70	45	250	1/2	✓			7									
4										12	9.2	75	45	250	1/2	✓			8	9.3	68	48	200	3/4				
5							Mud Added Sacks 30	SAXS 65K		1	9.2	82	48	250	1/2	✓	Mud Added Sacks 27	SAXS GEL	9	9.4	78	48	250	3/4		Mud Added Sacks 300	GEL	
6							Chemicals Added Lbs.			2	9.2	90	48	250	1/2	✓	Chemicals Added Lbs. CAUSTIC	150#	10	9.4	90	48	250	3/4		Chemicals Added Lbs. 100#	CAUSTIC	
7										3	9.4	104	48	250	1/2		SPERSENE 150#		11	9.4	95	48	250	3/4		100#	SPERSENE	

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	B. B. KISCOT	Core Bit	Serial	Driller	W. SENAR	Core Bit	Serial	Driller	D. MOHNS	Core Bit	Serial						
Derrickman	L. WHITING	Reaming Bit	Serial	Derrickman	L. SWEEZEY	Reaming Bit	Serial	Derrickman	D. BOBSTIE	Reaming Bit	Serial						
Cat Headman	R. GRAY	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	N. BERRETRISER	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	H. BOBSTIE	Core Cutters SF. HF.	Core Catchers SF. HF.						
Rotary Helper	T. NYHUS	Swab Cups	Swab Rubbers	Rotary Helper	C. FREDRICKS	Swab Cups	Swab Rubbers	Rotary Helper	J. ALARI	Swab Cups	Swab Rubbers						
Rotary Helper				Rotary Helper				Rotary Helper									
Fireman	B. KLEM			Fireman	V. C. OLSEN			Fireman	L. TROSS								
				Leaseman	T. GERBRANDT			Leaseman									

[illegible]

Well No. WILKINSON RED KNIFE RIVER #1

Lsd. _____ Sec. _____ Twp. _____ : _____ W. _____

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	D. MOHNS		Core Bit		Serial	Driller	B. BAISCOE		Core Bit		Serial	Driller	W. SEMAK		Core Bit		Serial
Derrickman	D. BACSTIK		Reaming Bit		Serial	Derrickman	L. WHITING		Reaming Bit		Serial	Derrickman	A. SWEELEY		Reaming Bit		Serial
Cat Headman	H. BACSTIK		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	M. GARY		Core Cutters SF. HF.		Core Catchers SF. HF.	Cat Headman	N. BERRESTRISER		Core Cutters SF. HF.		Core Catchers SF. HF.
Rotary Helper	T. ALARY		Swab Cups		Swab Rubbers	Rotary Helper	T. NYHUS		Swab Cups		Swab Rubbers	Rotary Helper	C. FREDRICKS		Swab Cups		Swab Rubbers
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	L. TRUSS					Fireman	R. ALLEN					Fireman	V. C. OLSEN				
Leaseman						Leaseman	T. GEORRANT					Leaseman					

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____

Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length
Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length
Bit Size		Length	Bit Size		Length	Bit Size		Length
Bit Type		Length	Bit Type		Length	Bit Type		Length
Dr. from	Kelly in ==		Dr. from	Kelly in ==		Dr. from	Kelly in ==	
Dr. to	TOTAL ==		Dr. to	TOTAL ==		Dr. to	TOTAL ==	
Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom	Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom	Cored from	D.C.O.D. Top D.C.I.D. Top	Hrs. On Bottom Hrs. Off Bottom
Cored to			Cored to			Cored to		
Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time
Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time
Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time
Bit Hrs.	Pipe in Hole	Jts.	Bit Hrs.	Pipe in Hole	Jts.	Bit Hrs.	Pipe in Hole	Jts.
Table R.P.M.	Pipe on Racks	Jts.	Table R.P.M.	Pipe on Racks	Jts.	Table R.P.M.	Pipe on Racks	Jts.

Depth	Deviation	Total Pipe on Lease	Jts.	Yesterday	Depth	Deviation	Total Pipe on Lease	Jts.		Depth	Deviation	Total Pipe on Lease	Jts.	
Depth	Deviation			Consumption	Gals.	Depth	Deviation			Depth	Deviation			
Depth	Deviation					Depth	Deviation			Depth	Deviation			
Depth	Deviation					Depth	Deviation			Depth	Deviation			

Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size
12							7'4x14	5x10	8								
1							Liner Size 6 3/4	Liner Size 5	9								
2							Water-Loss	Filter Cake	10								
3									11								
4									12								
5							Mud Added Sacks		1								
6							Chemicals Added Lbs.		2								
7									3								

CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR	
Driller	D. MOHNS	Core Bit	Serial	Driller	B. BAISCH	Core Bit	Serial	Driller	W. SEMAK	Core Bit	Serial
Derrickman	D. BOGSTIE	Reaming Bit	Serial	Derrickman	L. WHITING	Reaming Bit	Serial	Derrickman	L. SWEETLEY	Reaming Bit	Serial
Cat Headman	H. BOGSTIE	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	R. GRAY	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	C. BERGSTRESEN	Core Cutters SF. HF.	Core Catchers SF. HF.
Rotary Helper	J. ALARY	Swab Cups	Swab Rubbers	Rotary Helper	T. NYLUS	Swab Cups	Swab Rubbers	Rotary Helper	C. FREDRICKS	Swab Cups	Swab Rubbers
Rotary Helper				Rotary Helper				Rotary Helper			
Fireman	L. TRUSS			Fireman	H. KILM			Fireman	V. C. OLSEN		
Leaseman				Leaseman	T. GERBAANT			Leaseman			

[illegible]

Drilled From 266 To 423 Hole Made 157

Drilled From 423 To 515 Hole Made 92

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____ To _____ Hole Made _____

Bit No.	1	No. Stds.	3	Length	182.1
Serial No.	905580	No. D.C.'s	11	Length	312.0
Bit Size	7 7/8			Length	
Bit Type	PT			Length	
Dr. from	205	Kelly in =			20.81
Dr. to	515	TOTAL =			515.00
Cored from		D.C.O.D. Top	6 1/4	Hrs. On Bottom	5
Cored to		D.C.I.D. Top	2 7/8	Hrs. Off Bottom	
Reamed from		Pipe Size	4 1/2	Trip Time	
Reamed to		C.S.G. Set at		Serv. Time	1 1/4
Total Bit Footage	310	C.S.G. Size		Rep. Time	
Bit Hrs.	16 3/4	Pipe in Hole	6	Jts.	REMARKS:
Table R.P.M.	150		118		

Bit No.		No. Stds.	Length
Serial No.		No. D.C.'s	Length
Bit Size			Length
Bit Type			Length
Dr. from		Kelly in ==	
Dr. to		TOTAL ==	
Cored from		D.C.O.D. Top	Hrs. On Bottom
Cored to		D.C.I.D. Top	Hrs. Off Bottom
Reamed from		Pipe Size	Trip Time
Reamed to		C.S.G. Set at	Serv. Time
Total Bit Footage		C.S.G. Size	Rep. Time
Bit Hrs.		Pipe in Hole	Jts.
Table R.P.M.			REMARKS:

Depth	500	Deviation	0°	Total Pipe on Lease	24 Jts.
Depth		Deviation			
Depth		Deviation			
Depth		Deviation			

Depth	Deviation	Total Pipe on Lease	Jts.
Depth	Deviation		Jts.
Depth	Deviation		

Depth		Deviation							
Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	
8		48	58	300	1/4	✓	74 X 14	5 X 10	
9		50	58	300	1/4	✓	Liner Size 634	Liner Size 5	
10		55	58	300	1/2	✓	Water-Loss	Filter Cake	
11		82	58	300	1/2	✓		PH	
12		80	58	300	1/2	✓			
1		85	58	300	1/2	✓	Mud Added Sacks	41 SACKS GEL	
2							Chemicals Added Lbs.		
3									

[illegible]

CREW		MATERIALS CHARGED TO OPERATOR	
Driller	B. B. SCOPE	Core Bit	Serial
Derrickman	L. WHITING	Reaming Bit	Serial
Cat Headman	B. GRAY	Core Cutters SF. HF.	Core Catchers SF. HF.
Rotary Helper	T. NYHUS	Swab Cups	Swab Rubbers
Rotary Helper			
Fireman	B. H. ELM		

[illegible]

REMARKS	FROM	TO
PIC SERVICE.	800	815
DAILING.	815	115
DRAP SURVEY & HOIST	115	145
RUN RN W/12'14 TO 205' & CIRC	145	230
HOIST & PIC UP TO RUN CASING.	230	300
RUN CASING.	300	400
(LOSSING MUD CONTINUOUSLY)		
MIXING GEL		

Fireman		V. C. OLSEN	
Leaseman			
REMARKS		FROM	TO
CIRC. CASING		400	415
CEMENT CASING		415	445
W.O.C.		445	1200
Run 186.63 FT 8 7/8 24 LB. J-55 Casing Set at 199.13 N.B. Cemented by Howco with 100.521 Construction Cement 9% C.L.P.A. Job completed 445 P.M. 12.50 N.B. To T.P. Casing bowl			

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	D. MONAS		Core Bit	Serial		Driller	B. BRISCOE		Core Bit	Serial		Driller	W. SEMAK		Core Bit	Serial	
Derrickman	D. BICSTIE		Reaming Bit	Serial		Derrickman	L. WHITING		Reaming Bit	Serial		Derrickman	L. SWEETEV		Reaming Bit	Serial	
Cat Headman	H. BICSTIE		Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	R. GRAY		Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	N. BERGSTREISER		Core Cutters SF. HF.	Core Catchers SF. HF.	
Rotary Helper	J. ALARY		Swab Cups	Swab Rubbers		Rotary Helper	T. NYHUS		Swab Cups	Swab Rubbers		Rotary Helper	G. FREDRICKS		Swab Cups	Swab Rubbers	
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	L. TRUSS					Fireman	R. KARM					Fireman	V.C. OLSEN				
Leaseman						Leaseman	T. GERBANT					Leaseman					

[illegible]

Company Representative

GUTHRIE MCLAREN DRILLING LTD.

Well No. WILKINSON RED KNIFE RIVER #1

Tool Pusher

Date FEB 7/61

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From 27 To 78 Hole Made 51Drilled From 78 To 130 Hole Made 52Drilled From 130 To 205 Hole Made 75

Bit No.	<u>1A</u>	<u>2A</u>	No. Stds.	Length	Bit No.	<u>2A</u>	<u>34</u>	No. Stds.	Length	Bit No.	<u>3A</u>	No. Stds.	Length
Serial No.	<u>RETIP</u>	<u>RETIP</u>	No. D.C.'s	<u>2</u>	Length	<u>52.47</u>	Serial No.	<u>RETIP</u>	<u>RETIP</u>	No. D.C.'s	<u>4</u>	Length	<u>100.58</u>
Bit Size	<u>9</u>	<u>9</u>		Length			Bit Size	<u>9</u>	<u>9 3/16</u>		Length		
Bit Type	<u>W7</u>	<u>W7</u>		Length			Bit Type	<u>W7</u>	<u>EDC</u>		Length		
Dr. from	<u>0</u>	<u>60</u>	Kelly in =	<u>25.53</u>	Dr. from	<u>60</u>	<u>130</u>	Kelly in =	<u>19.92</u>	Dr. from	<u>130</u>	Kelly in =	<u>38.26</u>
Cored to	<u>60</u>	<u>78</u>	TOTAL =	<u>78.00</u>	Dr. to	<u>130</u>		TOTAL =	<u>130.00</u>	Dr. to	<u>205</u>	TOTAL =	<u>205.00</u>
Cored from			D.C.O.D. Top	<u>6 1/4</u>	Hrs. On Bottom			D.C.O.D. Top	<u>6 1/4</u>	Hrs. On Bottom			
Cored to			D.C.I.D. Top	<u>2 7/8</u>	Hrs. Off Bottom			D.C.I.D. Top	<u>2 7/8</u>	Hrs. Off Bottom			
Reamed from			Pipe Size		Trip Time			Pipe Size	<u>4 1/2</u>	Trip Time			
Reamed to			C.S.G. Set at		Serv. Time			C.S.G. Set at		Serv. Time			
Total Bit Footage			C.S.G. Size		Rep. Time			C.S.G. Size		Rep. Time			
Bit Hrs.			Pipe in Hole	Jts.	Diesel Fuel Meter Reading			Bit Hrs.	<u>9</u>	Pipe in Hole	Jts.	REMARKS:	
Table R.P.M.			Pipe on Racks	Jts.	Today	<u>2'2"</u>		Table R.P.M.		Pipe on Racks	Jts.	REMARKS:	

Depth	<u>60</u>	Deviation	<u>1/8°</u>	Total Pipe on Lease	Jts.	Yesterday		Depth	<u>130</u>	Deviation	<u>1/4</u>	Total Pipe on Lease	Jts.
Depth		Deviation		Consumption	Gals.			Depth		Deviation			
Depth		Deviation						Depth		Deviation			
Depth		Deviation						Depth		Deviation			

Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size	Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size	No. 2 Pump Size		
							7 1/4 x 14	5 x 10								7 1/4 x 14	5 x 10		
12							Liner Size 63/4	Liner Size 5	8	8.8	90	50	250	1/2	✓	Liner Size 63/4	Liner Size 5		
1	50						Water-Loss	Filter Cake	PH	9	8.7	94	50	250	1/2	✓	Water-Loss	Filter Cake	PH
2	55									10	8.7	93	50	250	1/2	✓			
3	55									11	8.8	90	50	250	1/2	✓			
4	60									12	8.9	89	50	250	1/2	✓			
5	70					✓	Mud Added Sacks GEL 1100#		1	8.8	92	50	250	1/2	✓	Mud Added Sacks 22 SACKS GEL		Mud Added Sacks GEL 400#	
6	75					✓	Chemicals Added Lbs. BICARB. 50#		2	8.8	87	50	250	1/2	✓	Chemicals Added Lbs.		Chemicals Added Lbs.	
7	75					✓			3	TRIP									

CREW				MATERIALS CHARGED TO OPERATOR				CREW				MATERIALS CHARGED TO OPERATOR				CREW				MATERIALS CHARGED TO OPERATOR			
Driller	<u>D. MOHNS</u>	Core Bit	Serial	Driller	<u>B. PRISCOTT</u>	Core Bit	Serial	Driller	<u>W. SEMAK</u>	Core Bit	Serial	Driller	<u>L. SWEEZEY</u>	Core Bit	Serial	Driller	<u>N. BERGSTRESEN</u>	Core Bit	Serial	Driller	<u>E. FREDRICKS</u>	Core Bit	Serial
Derrickman	<u>D. ROUSTIE</u>	Reaming Bit	Serial	Derrickman	<u>L. WHITING</u>	Reaming Bit	Serial	Derrickman	<u>L. SWEEZEY</u>	Reaming Bit	Serial	Derrickman	<u>L. SWEEZEY</u>	Reaming Bit	Serial	Derrickman	<u>N. BERGSTRESEN</u>	Reaming Bit	Serial	Derrickman	<u>E. FREDRICKS</u>	Reaming Bit	Serial
Cat Headman	<u>H. ROUSTIE</u>	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	<u>B. GRAY</u>	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	<u>N. BERGSTRESEN</u>	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	<u>N. BERGSTRESEN</u>	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	<u>N. BERGSTRESEN</u>	Core Cutters SF. HF.	Core Catchers SF. HF.	Cat Headman	<u>E. FREDRICKS</u>	Core Cutters SF. HF.	Core Catchers SF. HF.
Rotary Helper	<u>J. ALARY</u>	Swab Cups	Swab Rubbers	Rotary Helper	<u>P. NYHUS</u>	Swab Cups	Swab Rubbers	Rotary Helper	<u>E. FREDRICKS</u>	Swab Cups	Swab Rubbers	Rotary Helper	<u>E. FREDRICKS</u>	Swab Cups	Swab Rubbers	Rotary Helper	<u>E. FREDRICKS</u>	Swab Cups	Swab Rubbers	Rotary Helper	<u>E. FREDRICKS</u>	Swab Cups	Swab Rubbers
Fireman	<u>L. TRUSS</u>			Fireman	<u>B. KLEIN</u>			Fireman	<u>V.C. OLSEN</u>			Fireman	<u>V.C. OLSEN</u>			Fireman	<u>V.C. OLSEN</u>			Fireman	<u>V.C. OLSEN</u>		
Leaseman				Leaseman	<u>I. GERBAANT</u>			Leaseman				Leaseman				Leaseman				Leaseman			

REMARKS	FROM	TO	REMARKS	FROM	TO	REMARKS	FROM	TO
<u>DRILL 9" PILOT HOLE</u>	<u>12:00</u>	<u>4:30</u>	<u>RIG SERVICE</u>	<u>8:00</u>	<u>8:15</u>	<u>DRILL PILOT HOLE</u>	<u>4:00</u>	<u>6:00</u>
<u>SURVEY</u>	<u>4:30</u>	<u>4:45</u>	<u>DRILLING PILOT HOLE</u>	<u>8:15</u>	<u>3:30</u>	<u>RIG SERVICE</u>	<u>6:00</u>	<u>6:15</u>
<u>DRILL 9" PILOT HOLE</u>	<u>4:45</u>	<u>8:00</u>	<u>CHANGE BITS</u>	<u>3:30</u>	<u>4:00</u>	<u>DRILL PILOT HOLE</u>	<u>1:15</u>	<u>9:00</u>
						<u>SURVEY</u>	<u>9:00</u>	<u>9:15</u>
						<u>DRILL PILOT HOLE</u>	<u>9:15</u>	<u>11:30</u>
						<u>HOIST STRAP D.C.S PRIOR TO REAM</u>	<u>11:30</u>	<u>12:00</u>
						<u>PIPE TALLY</u>	<u>167.74</u>	
						<u>MEASURED</u>	<u>167.72</u>	
						<u>.02 DIFF</u>		

L. P. L. L.
Tool Pusher

Well No. WILKINSON RED KNIFE RIVER #1

Date FEB 6 1961

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____	To _____	Hole Made _____	Drilled From _____	To _____	Hole Made _____	Drilled From _____	To 27	Hole Made 27
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Bit No.		No. Stds.	Length	Bit No.		No. Stds.	Length	Bit No.	1A		No. Stds.	Length
Serial No.		No. D.C.'s	Length	Serial No.		No. D.C.'s	Length	Serial No.	RETIP		No. D.C.'s	Length
Bit Size			Length	Bit Size			Length	Bit Size	9			Length
Bit Type			Length	Bit Type			Length	Bit Type	W7			Length
Dr. from		Kelly in ==		Dr. from		Kelly in ==		Dr. from	0		Kelly in ==	27.00
Dr. to		TOTAL ==		Dr. to		TOTAL ==		Dr. to	27		TOTAL ==	27.00
Cored from		D.C.O.D. Top	Hrs. On Bottom	Cored from		D.C.O.D. Top	Hrs. On Bottom	Cored from			D.C.O.D. Top	Hrs. On Bottom
Cored to		D.C.I.D. Top	Hrs. Off Bottom	Cored to		D.C.I.D. Top	Hrs. Off Bottom	Cored to			D.C.I.D. Top	Hrs. Off Bottom
Reamed from		Pipe Size	Trip Time	Reamed from		Pipe Size	Trip Time	Reamed from			Pipe Size	Trip Time
Reamed to		C.S.G. Set at	Serv. Time	Reamed to		C.S.G. Set at	Serv. Time	Reamed to			C.S.G. Set at	Serv. Time
Total Bit Footage		C.S.G. Size	Rep. Time	Total Bit Footage		C.S.G. Size	Rep. Time	Total Bit Footage			C.S.G. Size	Rep. Time
Bit Hrs.		Pipe in Hole	Jts.	Bit Hrs.		Pipe in Hole	Jts.	Bit Hrs.			Pipe in Hole	Jts.
Table R.P.M.		Pipe on Racks	Jts.	Table R.P.M.		Pipe on Racks	Jts.	Table R.P.M.		REMARKS:	Pipe on Racks	Jts.
			Diesel Fuel Meter Reading									REMARKS:
			Today									

Depth	Deviation	Total Pipe on Lease	Jts.	Yesterday		Depth	Deviation	Total Pipe on Lease	Jts.			Pipe on Rack	Jts.	
Depth	Deviation			Consumption	Gals.	Depth	Deviation			Depth	Deviation	Total Pipe on Lease	Jts.	
Depth	Deviation					Depth	Deviation			Depth	Deviation			
Depth	Deviation					Depth	Deviation			Depth	Deviation			

[illegible]

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	D. MANN		Core Bit	Serial		Driller	B. BRISCOE 10 HRS		Core Bit	Serial		Driller	W. SEMAK 16 HRS		Core Bit	Serial	
Derrickman	D. ROESTIE		Reaming Bit	Serial		Derrickman	L. WHITING 10 HRS		Reaming Bit	Serial		Derrickman	L. SWEETEV		Reaming Bit	Serial	
Cat Headman	H. ROESTIE		Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	B. GRAY 10 HRS		Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	N. BERGSTADSEN 10 HRS		Core Cutters SF. HF.	Core Catchers SF. HF.	
Rotary Helper	J. ALARY		Swab Cups	Swab Rubbers		Rotary Helper	T. NYHUS 10 HRS		Swab Cups	Swab Rubbers		Rotary Helper	G. FREDRICKS 10 HRS		Swab Cups	Swab Rubbers	
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	L. TRUSS					Fireman	B. FLIM 10 HRS					Fireman	V.C. OLSEN				
Leaseman						Leaseman	T. GERRANT					Leaseman					

[illegible]

B. Johnston
Tool Pusher

Well No. WILKINSON RED KNIFE RIVER 15

Date: 1-FEB-5

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____ To _____ Hole Made _____

Drilled From _____ To _____ Hole Made _____

Drilled From _____ To _____ Hole Made _____

Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length	Bit No.	No. Stds.	Length
Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length	Serial No.	No. D.C.'s	Length
Bit Size		Length	Bit Size		Length	Bit Size		Length	Bit Size		Length
Bit Type		Length	Bit Type		Length	Bit Type		Length	Bit Type		Length
Dr. from	Kelly in		Dr. from	Kelly in		Dr. from	Kelly in		Dr. from	Kelly in	
Dr. to	TOTAL		Dr. to	TOTAL		Dr. to	TOTAL		Dr. to	TOTAL	
Cored from	D.C.O.D. Top	Hrs. On Bottom	Cored from	D.C.O.D. Top	Hrs. On Bottom	Cored from	D.C.O.D. Top	Hrs. On Bottom	Cored from	D.C.O.D. Top	Hrs. On Bottom
Cored to	D.C.I.D. Top	Hrs. Off Bottom	Cored to	D.C.I.D. Top	Hrs. Off Bottom	Cored to	D.C.I.D. Top	Hrs. Off Bottom	Cored to	D.C.I.D. Top	Hrs. Off Bottom
Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time	Reamed from	Pipe Size	Trip Time
Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time	Reamed to	C.S.G. Set at	Serv. Time
Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time	Total Bit Footage	C.S.G. Size	Rep. Time
Bit Hrs.	Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:	Bit Hrs.	Pipe in Hole	Jts.	REMARKS:
Table R.P.M.	Pipe on Racks	Jts.	Today	Table R.P.M.	Pipe on Racks	Jts.		Table R.P.M.	Pipe on Racks	Jts.	

Depth	Deviation	Total Pipe on Lease	Jts.	Yesterday	Depth	Deviation	Total Pipe on Lease	Jts.	R.P.M.	Pipe on Racks	Jts.	
Depth	Deviation			Consumption	Depth	Deviation			Depth	Deviation	Total Pipe on Lease	Jts.
Depth	Deviation				Depth	Deviation			Depth	Deviation		
Depth	Deviation				Depth	Deviation			Depth	Deviation		
					Depth	Deviation			Depth	Deviation		

[illegible]

CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR	
Driller	D. MOHNS	12 HRS	Serial	Driller	B. BRISCOE	16 HRS	Serial	Driller	W. SEMAK	16 HRS	Serial
Derrickman	D. BERTIE	12 HRS	Serial	Derrickman	L. WHITING	16 HRS	Serial	Derrickman	L. SWEELEY	16 HRS	Serial
Cat Headman	H. BERTIE	12 HRS	Core Catchers SF. HF.	Cat Headman	L. GRAY	16 HRS	Core Catchers SF. HF.	Cat Headman	N. BERSTREISER	16 HRS	Core Catchers SF. HF.
Rotary Helper	J. ALARY	16 HRS	Swab Rubbers	Rotary Helper	T. NYHUS	16 HRS	Swab Rubbers	Rotary Helper	G. FREDRICKS	16 HRS	Swab Rubbers
Fireman	L. TRUST	14 HRS		Fireman	B. RLYIN	16 HRS		Rotary Helper			
Leaseman				Leaseman	I. GERBMAN	12 HRS		Fireman	V.C. OLSEN	16 HRS	

[illegible]

B. H. Linton
Tool Pusher

1/

Date FEB 4/61

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Drilled From _____ To _____	Hole Made _____	Drilled From _____ To _____	Hole Made _____	Drilled From _____ To _____	Hole Made _____
-----------------------------	-----------------	-----------------------------	-----------------	-----------------------------	-----------------

Bit No.			No. Stds.	Length		Bit No.			No. Stds.	Length		Bit No.			No. Stds.	Length	
Serial No.			No. D.C.'s	Length		Serial No.			No. D.C.'s	Length		Serial No.			No. D.C.'s	Length	
Bit Size				Length		Bit Size				Length		Bit Size				Length	
Bit Type				Length		Bit Type				Length		Bit Type				Length	
Dr. from			Kelly in ==			Dr. from			Kelly in ==			Dr. from			Kelly in ==		
Dr. to			TOTAL ==			Dr. to			TOTAL ==			Dr. to			TOTAL ==		
Cored from			D.C.O.D. Top	Hrs. On Bottom		Cored from			D.C.O.D. Top	Hrs. On Bottom		Cored from			D.C.O.D. Top	Hrs. On Bottom	
Cored to			D.C.I.D. Top	Hrs. Off Bottom		Cored to			D.C.I.D. Top	Hrs. Off Bottom		Cored to			D.C.I.D. Top	Hrs. Off Bottom	
Reamed from			Pipe Size	Trip Time		Reamed from			Pipe Size	Trip Time		Reamed from			Pipe Size	Trip Time	
Reamed to			C.S.G. Set at	Serv. Time		Reamed to			C.S.G. Set at	Serv. Time		Reamed to			C.S.G. Set at	Serv. Time	
Total Bit Footage			C.S.G. Size	Rep. Time		Total Bit Footage			C.S.G. Size	Rep. Time		Total Bit Footage			C.S.G. Size	Rep. Time	
Bit Hrs.			Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.			Pipe in Hole	Jts.	REMARKS:	Bit Hrs.			Pipe in Hole	Jts.	REMARKS:
Table R.P.M.			Pipe on Racks	Jts.	Today	Table R.P.M.			Pipe on Racks	Jts.		Table R.P.M.			Pipe on Racks	Jts.	

[illegible]

CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR			CREW			MATERIALS CHARGED TO OPERATOR		
Driller	W. SEAR	16 HRS	Core Bit	Serial		Driller	D. MONAS	12 HRS	Core Bit	Serial		Driller	B. BAISCOE	12 HRS	Core Bit	Serial	
Derrickman	L. SWEEZEY	16 HRS	Reamer Bit	Serial		Derrickman	D. BOSTIE	15 HRS	Reamer Bit	Serial		Derrickman	L. WHITING	15 HRS	Reamer Bit	Serial	
Cat Headman	N. BERSTREISER	16 HRS	Core Catchers SF. HF.	Core Catchers SF. HF.		Cat Headman	H. BOSTIE	12 HRS	Core Catchers SF. HF.	Core Catchers SF. HF.		Cat Headman	B. BRAY	15 HRS	Core Catchers SF. HF.	Core Catchers SF. HF.	
Rotary Helper	G. FREDRICKS	16 HRS	Swab Rubbers	Swab Rubbers		Rotary Helper	J. ALARY	12 HRS	Swab Rubbers	Swab Rubbers		Rotary Helper	T. NYHUS	15 HRS	Swab Rubbers	Swab Rubbers	
Rotary Helper						Rotary Helper						Rotary Helper					
Fireman	V.C. OLSEN	12 HRS				Fireman	L. TRUSS	15 HRS				Fireman	R. KLEEM	15 HRS			
Leaseman						Leaseman	J. GERBRANDT	10 HRS				Leaseman					

[illegible]

GUTHRIE McLAREN DRILLING LTD.

Well No. WILKINSON, RED KNIFE RIVER No 1st

Lsd. _____ Sec. _____ Twp. _____ Rge. _____ W. _____

Company Representative

B. Robertson
Tool Pusher

Date FEB 3/61

Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____ Drilled From _____ To _____ Hole Made _____

Bit No.			No. Stds.	Length	Bit No.			No. Stds.	Length	Bit No.			No. Stds.	Length	
Serial No.			No. D.C.'s	Length	Serial No.			No. D.C.'s	Length	Serial No.			No. D.C.'s	Length	
Bit Size				Length	Bit Size				Length	Bit Size				Length	
Bit Type				Length	Bit Type				Length	Bit Type				Length	
Dr. from			Kelly in ==		Dr. from			Kelly in ==		Dr. from			Kelly in ==		
Dr. to			TOTAL ==		Dr. to			TOTAL ==		Dr. to			TOTAL ==		
Cored from			D.C.O.D. Top	Hrs. On Bottom	Cored from			D.C.O.D. Top	Hrs. On Bottom	Cored from			D.C.O.D. Top	Hrs. On Bottom	
Cored to			D.C.I.D. Top	Hrs. Off Bottom	Cored to			D.C.I.D. Top	Hrs. Off Bottom	Cored to			D.C.I.D. Top	Hrs. Off Bottom	
Reamed from			Pipe Size	Trip Time	Reamed from			Pipe Size	Trip Time	Reamed from			Pipe Size	Trip Time	
Reamed to			C.S.G. Set at	Serv. Time	Reamed to			C.S.G. Set at	Serv. Time	Reamed to			C.S.G. Set at	Serv. Time	
Total Bit Footage			C.S.G. Size	Rep. Time	Total Bit Footage			C.S.G. Size	Rep. Time	Total Bit Footage			C.S.G. Size	Rep. Time	
Bit Hrs.			Pipe in Hole	Jts.	Diesel Fuel Meter Reading	Bit Hrs.		Pipe in Hole	Jts.	REMARKS:	Bit Hrs.		Pipe in Hole	Jts.	REMARKS:
Table R.P.M.			Pipe on Racks	Jts.	Today	Table R.P.M.		Pipe on Racks	Jts.		Table R.P.M.		Pipe on Racks	Jts.	

Depth	Deviation	Total Pipe on Lease	Jts.	Yesterday		Depth	Deviation	Total Pipe on Lease	Jts.		Depth	Deviation	Total Pipe on Lease	Jts.	
Depth	Deviation			Consumption	Gals.	Depth	Deviation				Depth	Deviation			
Depth	Deviation					Depth	Deviation				Depth	Deviation			
Depth	Deviation					Depth	Deviation				Depth	Deviation			
Depth	Deviation					Depth	Deviation				Depth	Deviation			

Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size		Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size		Time	Wt.	Vis.	Pump Stroke	Pump Pressure	Pit Gauge	Water Added	No. 1 Pump Size		No. 2 Pump Size			
12							Liner Size		Liner Size		8								Liner Size		Liner Size		4								Liner Size		Liner Size	
1							Water-Loss	Filter Cake	PH		9								Water-Loss	Filter Cake	PH		5								Water-Loss	Filter Cake	PH	
2											10												6											
3											11												7											
4											12												8											
5							Mud Added Sacks				1								Mud Added Sacks				9								Mud Added Sacks			
6							Chemicals Added Lbs.				2								Chemicals Added Lbs.				10								Chemicals Added Lbs.			
7											3												11											

CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR		CREW		MATERIALS CHARGED TO OPERATOR	
Driller	Core Bit	Serial		Driller	Core Bit	Serial		Driller	Core Bit	Serial	
Derrickman	Reaming Bit	Serial		Derrickman	Reaming Bit	Serial		Derrickman	Reaming Bit	Serial	
Cat Headman	Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	Core Cutters SF. HF.	Core Catchers SF. HF.		Cat Headman	Core Cutters SF. HF.	Core Catchers SF. HF.	
Rotary Helper	Swab Cups	Swab Rubbers		Rotary Helper	Swab Cups	Swab Rubbers		Rotary Helper	Swab Cups	Swab Rubbers	
Rotary Helper				Rotary Helper				Rotary Helper			
Fireman				Fireman				Fireman			
Leaseman				Leaseman				Leaseman			
W. SEMAK 16 HRS				D. MOHNS 12 HRS				B. BAISCOL 12 HRS			
L. SWEPLEY 12 HRS				D. BOESTIE 16 HRS				L. WHITING 12 HRS			
N. BERGSTREISER 12 HRS				H. BOESTIE 11 HRS				B. GAAY 12 HRS			
C. FREDRICKS 12 HRS				J. ALARY 12 HRS				T. NYHUS 11 HRS			
V. C. OLSEN 12 HRS				L. TRUSS 16 HRS				B. PLIM 16 HRS			
				J. GERBRANDT 13 HRS							

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