IOE AMOCO BOWIE H-05

Drilling Authority No. 216

Date Issued 23 December 1969

WELL NAME 108 Amoco Bonin M-05

FIELD

LOCATION: Unit H Area:

Section 05

Grid 56-20-122-45

Latitude 60-14-53.6 Longitude 142-20-39.0

U.W.L.R. 20.2603 -- 122.7750

U.W.I. 3008156020122450

Rig Release Date:

Status

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
23/12/69	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
30-1-70	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
7-6-70	Well History Supplement.
	Well Completion Data.
	Work-over Report No.
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells – Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells – Vitter's Method.
	M.P.R. – Oil – Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....

IAND 5290 (3-69)

Unique well Identifier
300/05602012250

Drilling Authority No. 396
Date Issued December 31, 1969

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

WELL COMPLETION DATA

To be submitted in duplicate within thirty days after the completion, rework, abandonment, suspension of every well.

FEB 20 1970

Well name and number IOE AMOCO Bovie M-05 60° 20' 122° 45'

Permit No. Lease No. 592-69

AMOCO Canada Petr Co. Ltd. Exploratory Licence No. 1335
(Name of Operator, Licensee, Grantee)

Imperial Oil Enterprises Exploratory Licence No. 1266
(Licensee)

Location Unit F Section 09 Grid 60° 20' 122° 45'

Latitude 60°24'05.8" North Longitude 122°46'39.0" West

Name of Established Reference Marker Triangulation Stations Sully and Drop

Universal Well Location Reference Lat 60.24605° N Long 122.77750° W

	DATE	DEPTH
Spudded	Jan 6/70	
Suspended		
Resumed Operations		
Finished Drilling	Jan 15/70	1900
Deepened		
Completed (Gas/Oil)		
Abandoned	Jan 18/70	1900
Rig released	Jan 15/70	1900

Pool(s)

Interval(s) open to production

Elevation Gr. 1216.6 K.B. 1229.8

Rig No. 5

Drilling Contractor S & T Drilling Co.

Contractor's Business Licence No. 564

CASING RECORD

	Casing Size (inches)	Grade	Weight	Amount	Set at —	Sacks of Cement and Additives
1.	8 5/8	J55	24	616.14	629.14	425 + 2% $CaCl_2$
2.						
3.						
4.						
5.						
6.						

GEOLOGICAL TOPS	ELEVATION Depths	ELEVATION Sub-Sea
L. Cretaceous	40.	+ 1190
Scatter Formation	1104	+ 126
Permian	1561	- 334
Mattson	1567	- 337
Mississippian	1703	- 473

CORE RECORD

From	To	Rec.	From	To	Rec.
1580	1635	34			

LOG RECORD

Run No.	Type of Log	From	To
1	SNP	629	1886
1	IES	629	1886
1	FDC	629	1885
1	BHCSGRC	10	1885
1	Velocity Survey	10	1885

LAND 52-90 (2) (2-65)

CEMENTING RECORD (Plug, Squeeze, etc.)

Date	From	To	Remarks
Jan 17	1700	1500	100 sax + 2% $CaCl_2$ felt at 1458'
Jan 18	675	575	60 sax + 2% $CaCl_2$ felt at 560'

5 sacks in top of surface casing 3 sacks each in Rathole & Mousehole cut off surface casing 3' below ground level and welded on steel name plate

PERFORATING RECORD (Bullet, Jet)

Date	From	To	Remarks

SERVICING RECORD (Acidizing, Fracing, etc.)

Date	From	To	Remarks

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	Jan 13	Mattson	1555	1625	15	60	60	711	711	441	453	760	723	GTS in 2½ mins. at 70 Mcf/d WTS in 5 mins. Rec. 800' salt water (15000PPM naCl) Field Pressures

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks
CNP-1-9798	Core	1580		Core # 1	
CAL-2-1561	Water	1555	1625	DST # 1	

PRESENT STATUS OF WELL

		(Interval.)
Oil		
Gas		(Interval.)
Dry	X	
Susp.		

Company Imperial Oil Limited

Signed by J. Macbeth

Title Well Records Supervisor

Date February 9, 1970

Forms to be prepared in duplicate and forwarded to the Oil Conservation Engineer, Calgary, Alberta.

File No.

Drilling Authority No. 396

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION

JAN 5 1970

Application to Abandon a Well ~~or Suspend Drilling~~

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well IOL AMOCO BOYLE M-05-60-20-122-45

Location: Unit M Section 05 Grid 60°20' 122°45'

Latitude 60° 14' 45.8" North Longitude 122° 45' 38.8" West

From Established Reference Marker Triangular Stations Sully and Drop

Universal Well Location Reference

Permit No. ~~----~~ Lease No. 592-60

Amoco Canada Petroleum Company Ltd.
(Permittee, Licensee, Lessee)

Date of commencement of proposed program January 17, 1970

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at none encountered

Gas at 1555' - 1625' minor amounts

Water at 1556' - 1625'

Total Depth 1900' Date of last operations January 18, 1970

Present condition of well

Standing - ready to abandon

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 8-5/8"	24.0	618.34	628.34	425 sacks + 2% $CaCl_2$	None
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	1700'-1500'	Mississippian	100 sacks + 2% $CaCl_2$	Feel in 8 hours
2	675'- 575'	Shale	60 sacks + 2% $CaCl_2$	Feel in 8 hours
3	Surface	5 sack cement plug plus name plate on 4' riser to be erected.		

The following logs have been run ARS, BHCS, SNP, FDC

Other operations proposed

Operations to be carried out by Imperial Oil Enterprises Contractor Licence No. 554

Address 11650 - 142 Street, Edmonton Address 10025 Jasper Ave. Edmonton

Responsible Agent in field J. Kerby

Dated at Edmonton, this 23 Day of January 1970

Signed by A J Gamm Company Imperial Oil Enterprises

Title Development Manager Operator's Exploratory Licence No. 1266

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Confirming oral approval given by Mr. B.R.J. Thomas on the 17th January 1970.

Dated 30th January, 19 70

B R J Thomas
Oil Conservation Engineer

Forms to be submitted in triplicate to Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 5290 (5) (3-67)

Drilling Authority No. 396

Project No.

File No.

Canada

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION

DEC 30 1969

Application for a Drilling Authority

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill:—

Name and number of well Amoco Bovie N.(5-60-30-122-45

Location: Unit M Section 05

Latitude 60° 14' 43.8" North Longitude 122° 46' 30.0" West 60° 20' 122° 45'

From Established Reference Marker Triangular Steel Cut Sully and Drop

Universal Well Location Reference Lat. 60.24605° N., Long. 122.77750° W.

Elevation: Ground K.B. feet above sea-level.

Well is expected to produce from Beadle formation at a depth of about 2325 feet. Expected total final depth 2425 feet.

Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. Lease No. 592-69 Acreage 6,356

Permittee, licensee, or lessee Amoco Canada Petroleum Company Ltd.

Exploratory Licence No. 1335

Surface owned by Crown or Crown

Petroleum and natural-gas rights owned by Crown (If disputed submit name and address of owner and occupant.)

We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (Inches)	Weight (Lbs./Ft.)	Grade	New or Used	Estimated Depth	Status of Cement
1. 9-5/8"	36.00	J-55	New	600'	To Surface
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment Hydril - double gate Shaffer.

Well will be drilled with Rotary Rig No. 3 by Gulf Drilling Co. Ltd. (Drilling Contractor or company)

Responsible agent of applicant:—

At well E. L. Kennedy Contractor's Business Licence No. 566

Address 11620 - 142 St., Edmonton At registered office G. M. McPherson

Address 10025 - Jasper Avenue, Edmonton

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Dated at Edmonton this 29 day of December 19 69

Signed by E. L. Kennedy Company Imperial Oil Enterprises Ltd.

Title Development Manager Operator's Licence No. 1266

(For Resource Management Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

1. The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.
2. During well drilling and testing operations, every effort shall be made to ensure

Dated 31st December 19 69 J. [illegible] Oil Conservation Engineer

Forms to be submitted to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 52-30-1 (3-67)

WELL IDENTIFIER .. 30605 6020 22 50

used drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.

3. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.

4. Production and intermediate casing programs shall be approved by the Oil Conservation Engineer.

(for) D.H.J. Dean, Oil Conservation Engineer

T. 11 - 4 - 54

IOE AMOCO Bovle H-05

60° 20' 122° 45'

7-11-4-84

INDEX

Page 1	Well Summary	
Page 2	Geological Summary	Tops, Cores
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Page 4		Sample Description
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Page 7		Casing Record
Page 8		Bit Record
Page 9		Mud Report
Page 10		Deviation Record
Page 11		Abandonment Plugs Lost Circulation Zones
Page 12	Section IV	Logs
Page 13	Analysis	Core & Water
Page 14	Completion Summary	Cementation Record

OIL & GAS OPERATIONS UNIT
Oil and Mineral Division
MAR 31 1970
OTTAWA, CANADA
Dept. of Indian Affairs & Northern Development

Company Imperial Oil Limited
Signed By
Title Well Records Supervisor
Date February 9, 1970

SECTION I SUMMARY OF WELL DATA

(a) Name - 108 AMOCO Bovie M-05-60-20-122-45

(b) Lessee - Amoco Canada Petroleum Co. Ltd.

(c) Operator - Imperial Oil Enterprises Ltd.
10025 Jasper Avenue
Edmonton, Alberta

(d) Location - M-05-60-20-122-45
Latitude - 60°14'45.8" North
Longitude - 122°46'39.0" West
Universal Well Location Reference Lat 60.24605°N
Long 122.77750°W
Unique Well Identifier 300M056020122450

(e) Co-ordinates - N/A

(f) Lease Number - 592-69

(g) Drilling Contractor - S & T #5 Rotary

(h) Drilling Authority - #396 issued December 31, 1969

(i) Classification - NFW

(j) Elevations - Gr. 1216.6 K.B. 1229.8

(k) Spud - January 6, 1970

(l) Completed Drilling - January 15, 1970

(m) FTD - 1900

(n) Status - Dry & Abandoned

(o) Rig Release - January 18, 1970

(p) Hole Sizes - 0 - 636 12-1/4"
636 - 1900 7-7/8"

(q) Casing - 8-5/8 x 629 x C-425

SECTION II GEOLOGICAL SUMMARY

(a) Formation Tops

Formation	Log	Sample
Lower Cretaceous	40	40
Scatter	1104	1126
Permian	1564	1564
Mattson	1567	1567
Mississippian	1703	1703

(b) Cored Intervals

No.	Interval	Recovery	Formation
1	1580-1635	34	Mattson

(c) Core Description

Core #1 1580 - 1635 Rec 34/55

1580 - 1598 Sandstone, yellow gray, very fine and fine grained quartzose, silica cement, well sorted, sub-rounded, scattered oil stain, fair porosity.

1598 - 1614 Siltstone, yellow gray, arenaceous interbedded with dark gray shale.

1614 - 1635 Core Stuck to bottom of hole and is lost. Interpreted to have the same lithology as the previous interval.

10, 7, 8, 7, 7, 8, 7, 9, 7, 7, 10, 7, 11, 6, 11, 9, 15, 13, 15, 14, 17, 12, 16, 11, 15, 14, 16, 11, 17, 11, 17, 11, 18, 13, 18, 10, 16, 14, 18, 13, 17, 12, 18, 11, 18, 13, 19, 14, 18, 15, 20, 14, 19, 12, 19 mins. per foot.

(d) Sample Description

0 - 40	Unconsolidated sand and gravel.
40 - 130	Shale, medium gray, micro-micaceous.
130 - 240	Interbedded shale, medium gray, micro-micaceous, siltstone medium gray, glauconitic, and very fine grained quartzose sandstone, glauconitic, poor ineffective porosity.
240 - 450	Sandstone, light gray, very fine grained, quartzose, glauconitic, well sorted, sub-angular, argillaceous cement, up to 10% ineffective porosity developed. Interbeds of medium gray siltstone increasing towards base.
450 - 636	Siltstone, medium gray, glauconitic, interbedded with medium gray shale and minor interbeds of very fine grained quartzose, glauconitic, sandstone.
637 - 760	Poor samples. Shale, medium gray, silty (20%) interbedded with light gray siltstone.
760 - 1100	Shale, medium gray, silty (15%), in part glauconitic, interbedded with light gray glauconitic siltstone in varying amounts. A few fine grained sandstone lenses present.
1100 - 1350	Siltstone, light-medium gray, glauconitic interbedded with silty shale. siltstone is generally oil stained but tight.
1350 - 1564	Shale, dark gray, micromicaceous, carbonaceous plant fragments, only traces of siltstone.
1564 - 1567	Chert, light gray-blue gray.
1567 - 1635	See Core Description
1635 - 1703	Shale, dark gray, micro-micaceous, interbedded with siltstone, medium gray, dolomite and silica cement, tight, some very fine grained sandstone, with patchy oil staining.
1703 - 1900	Limestone, buff to pale brown, micritic-skeletal, in part cherty, with some interbeds of dolomite, medium gray micro-crystalline, argillaceous, tight.

(e) Palaeontological Determination

SECTION III ENGINEERING SUMMARY

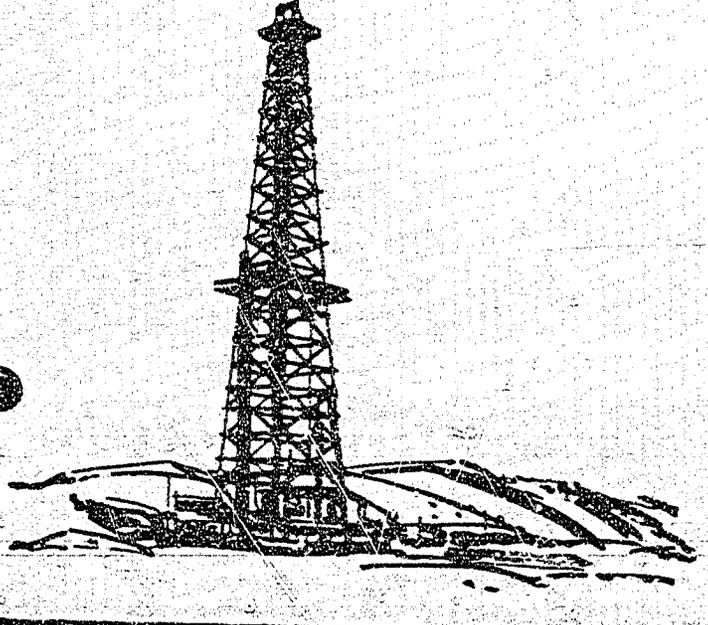
(a) Drill Stem Tests

DST #1 1555-1625 VO 15 SI 60/60 (Mattson)
Gas to surface in 2½ mins. at 70 Mcf/d.
Water to surface in 5 mins. Recovered
800' salt water (15,000 PPM NaCl)
HP 760-723 FP 441-453 SIP 711-711
Field Pressures
BHT below 72°F.

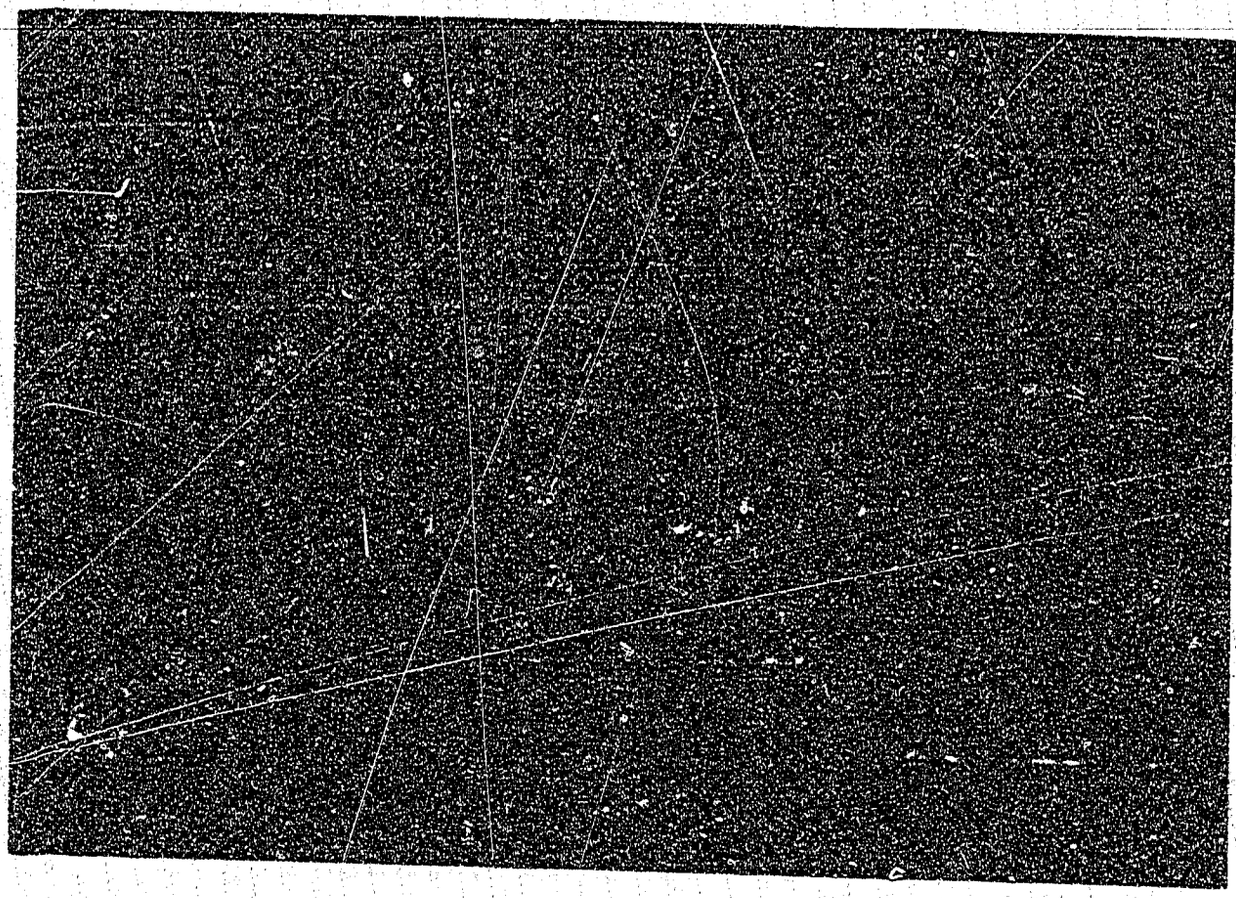
LYNES

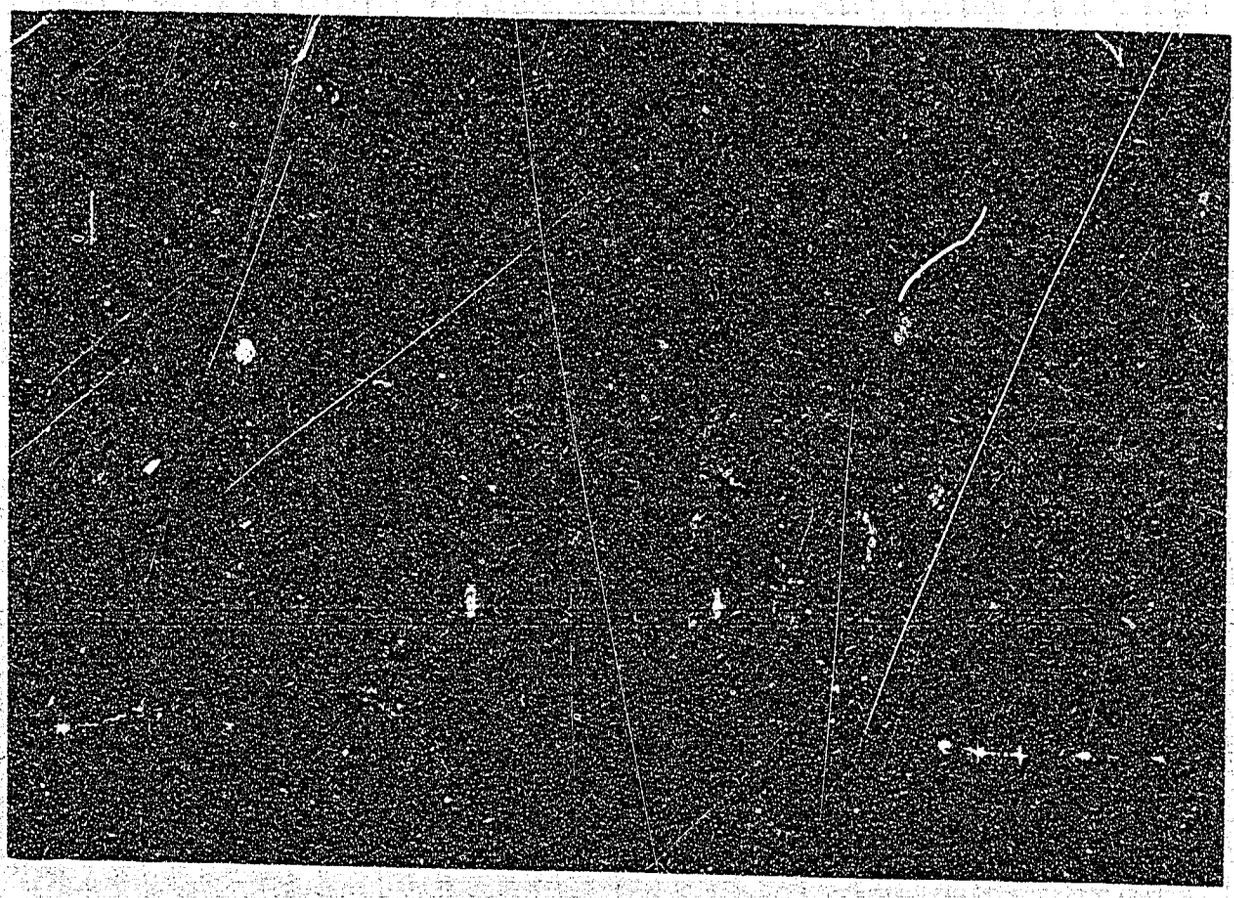
BRIGHT NAME IN THE OIL PATCH

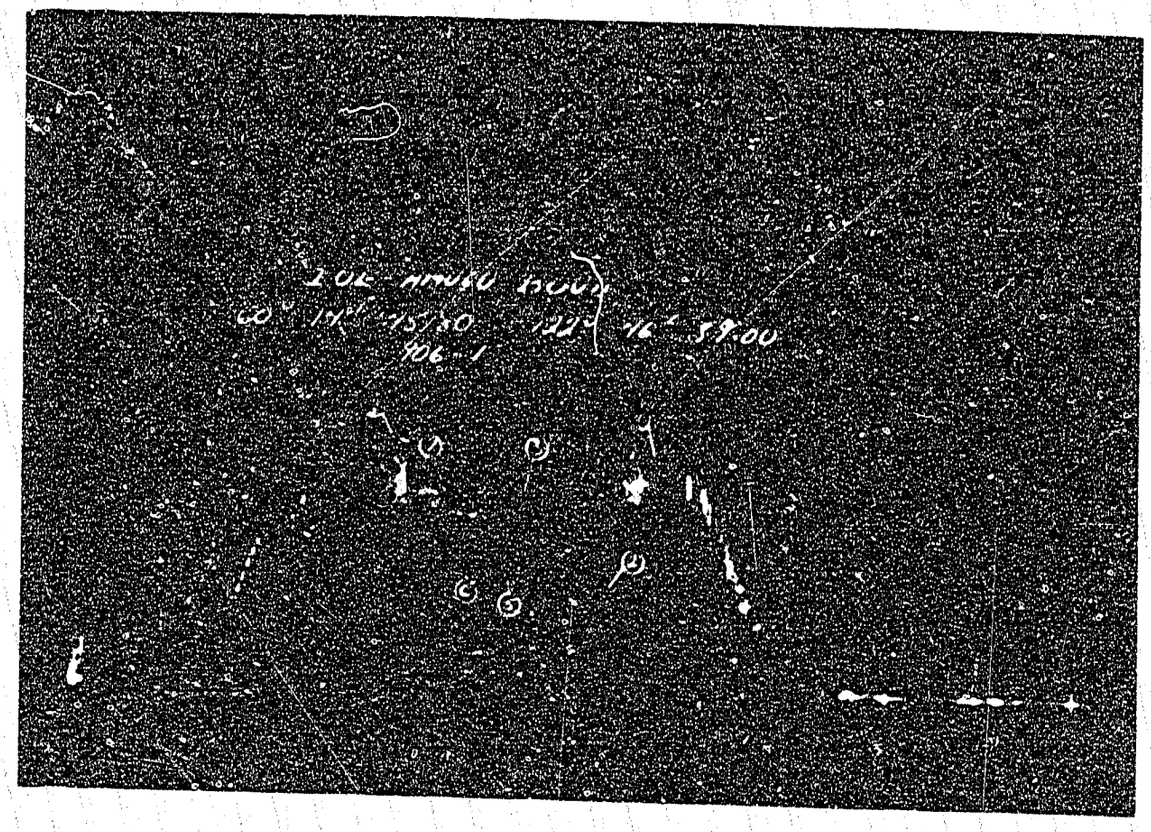
Dependable Conventional Packer Tools



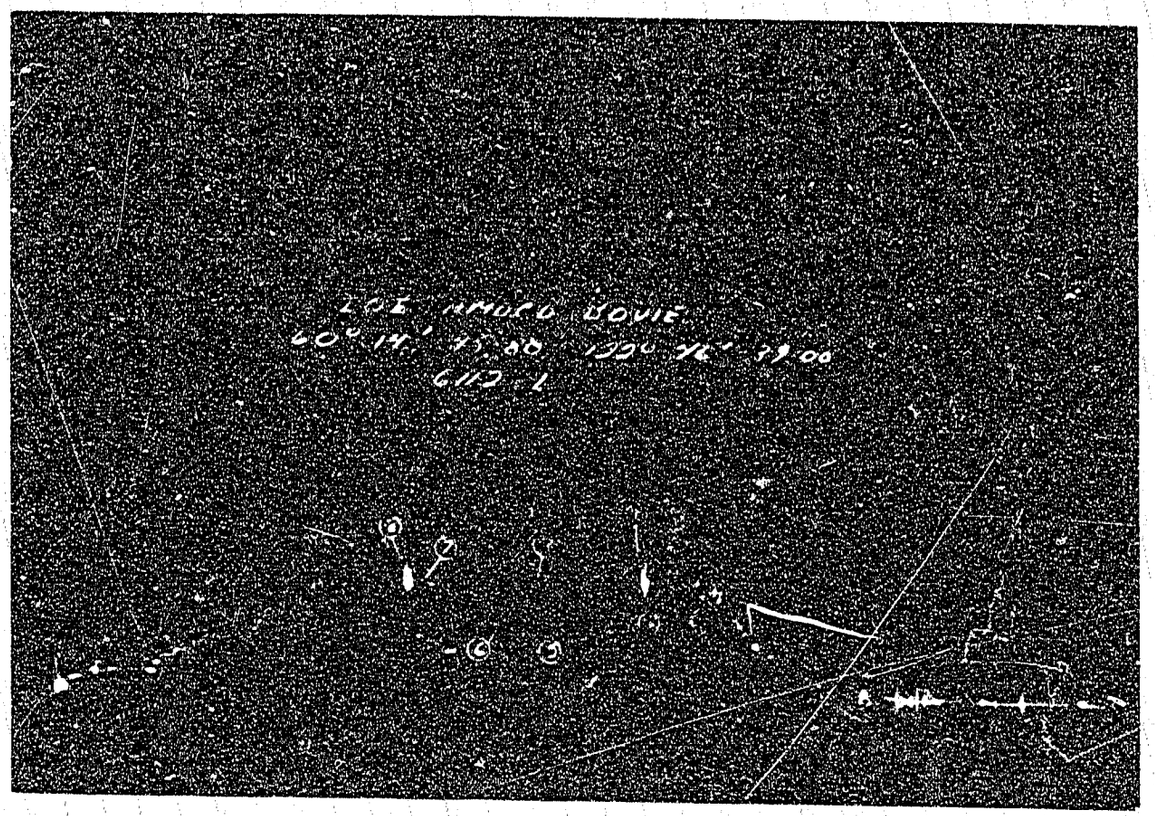
DRILL STEM TEST
TECHNICAL SERVICE REPORT

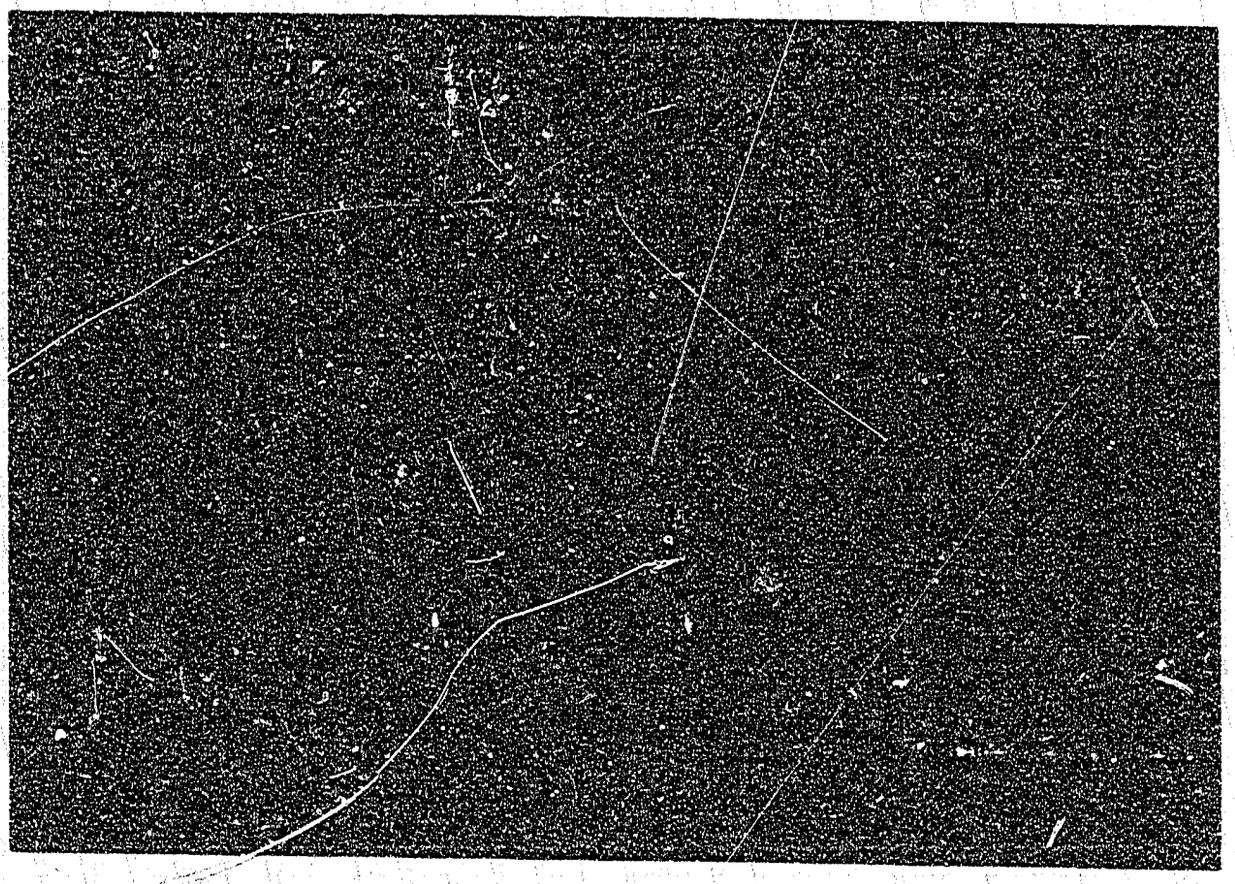





106-1


966-1


LT. EDWARD BOVIE
600 FT. 9:40 1330 KC 29.00
GRID 1



Imperial Oil Enterprises Ltd.
ICE Amoco Bovie 60° 13' 45.80 122° 46' 59.00
DST # 1

NOMENCLATURE (Definition of Symbols)

Q	= average production rate during test (bbl./day
Q_g	= measured gas production rate during test, MCF/day
k	= permeability, md
h	= net pay thickness, ft. (when unknown, test interval is chosen)
μ	= fluid viscosity, centipoise
Z	= compressibility factor
T_r	= reservoir temperature, ° Rankine
m	= slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	= approximate radius of investigation, feet
r_w	= wellbore radius, feet
t_p	= total flowing time, minutes
P_e	= Extrapolated maximum reservoir pressure, psig
P_f	= final flowing pressure, psig
P.I.	= productivity index, bbls./day/psi
$P.I._t$	= theoretical productivity index with damage removed, bbl./day/psi
D.R.	= damage ratio
E.D.R.	= estimated damage ratio
AOF	= absolute open flow potential, MCF/D
AOF_t	= theoretical absolute open flow if damage were removed
Σ	= subsea depth
W	= water gradient based on salinity
H_w	= potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 1935 ft. Subsea depth ft. Ticket No. 0769 Hour Recorder No. 90

t_o = 5 Mins. Initial Shut-In Pressure | Second Flow Pressure | t_c = 30 Mins. Final Shut-In Pressure

Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10³ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_c + Ø}{Ø}$	PSIG	PSIG² ÷10³ (Gas)
0	----	348				0	----	428	
5	2.000	668				5	7.000	668	
10	1.500	677				10	4.000	665	
15	1.333	678				15	2.352	665	
20	1.250	679				20	2.000	671	
25	1.200	680				25	1.800	674	
30	1.167	680				30	1.667	676	
35	1.143	681				35	1.571	677	
40	1.125	681				40	1.500	677	
45	1.111	682				45	1.444	678	
50	1.100	682				50	1.400	679	
55	1.091	682				55	1.363	679	
60	1.083	682				60	1.333	679	

Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

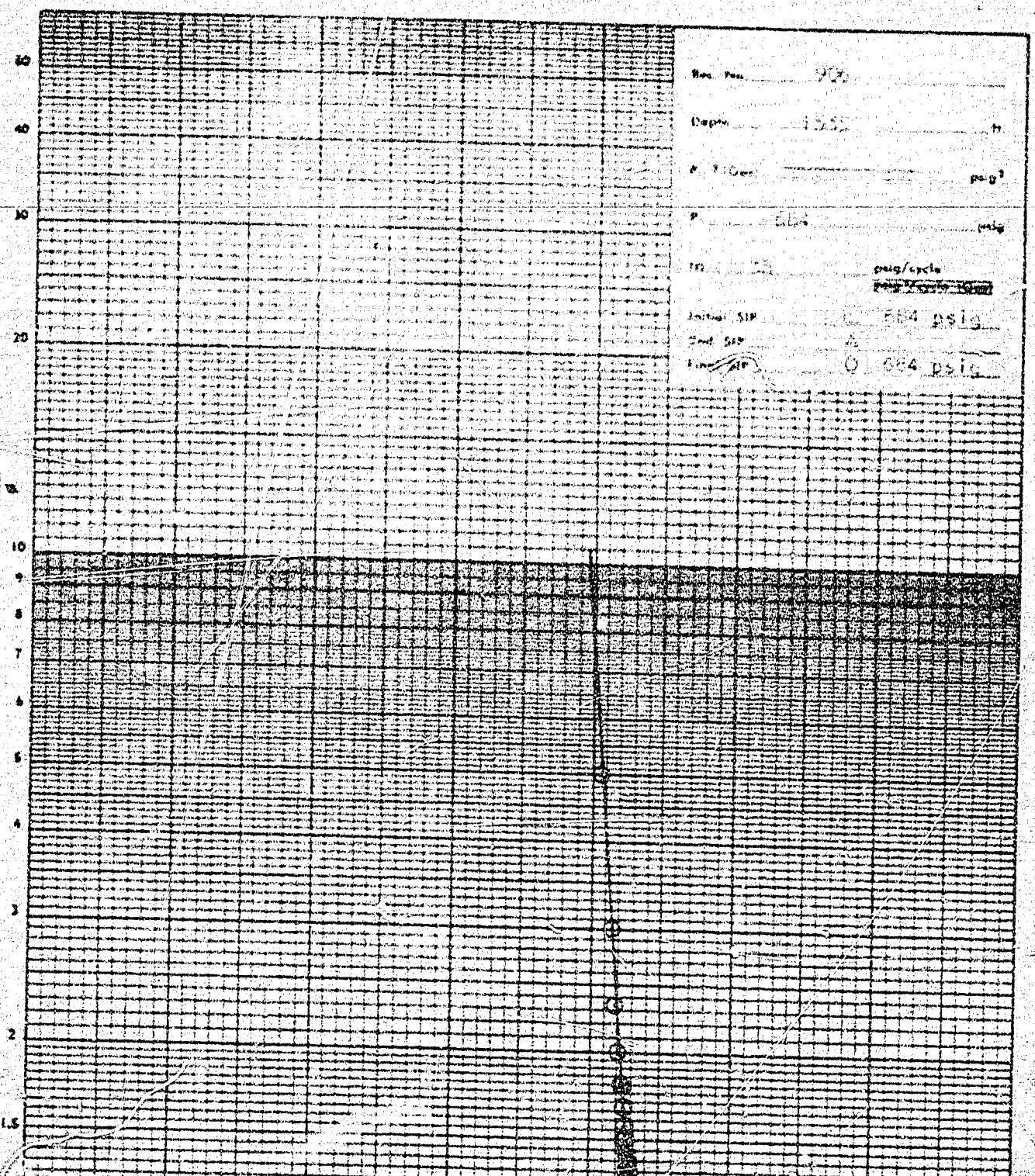
t_o = Mins. Initial Shut-In Pressure | Second Flow Pressure | t_c = Mins. Final Shut-In Pressure

Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10³ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_c + Ø}{Ø}$	PSIG	PSIG² ÷10³ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 5

Remarks: DST #1

PRESSURE DATA



PSIG (OIL OR WATER)

DST # 1

PRESSURE EXTRAPOLATION PLOT

Recorder Depth 1580 ft. Subsea depth ft. Ticket No. 0749 Hour Recorder No. 06F

t_p = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_f = 30 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_p + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_f + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
Ø	----	432				Ø	----	449	
5	2.000	671				5	7.000	665	
10	1.500	694				10	4.000	675	
15	1.333	697				15	2.333	681	
20	1.250	697				20	2.000	684	
25	1.200	697				25	1.800	686	
30	1.167	698				30	1.667	688	
35	1.143	698				35	1.571	689	
40	1.125	698				40	1.500	691	
45	1.111	698				45	1.444	692	
50	1.100	698				50	1.400	693	
55	1.091	698				55	1.363	693	
60	1.083	698				60	1.333	693	

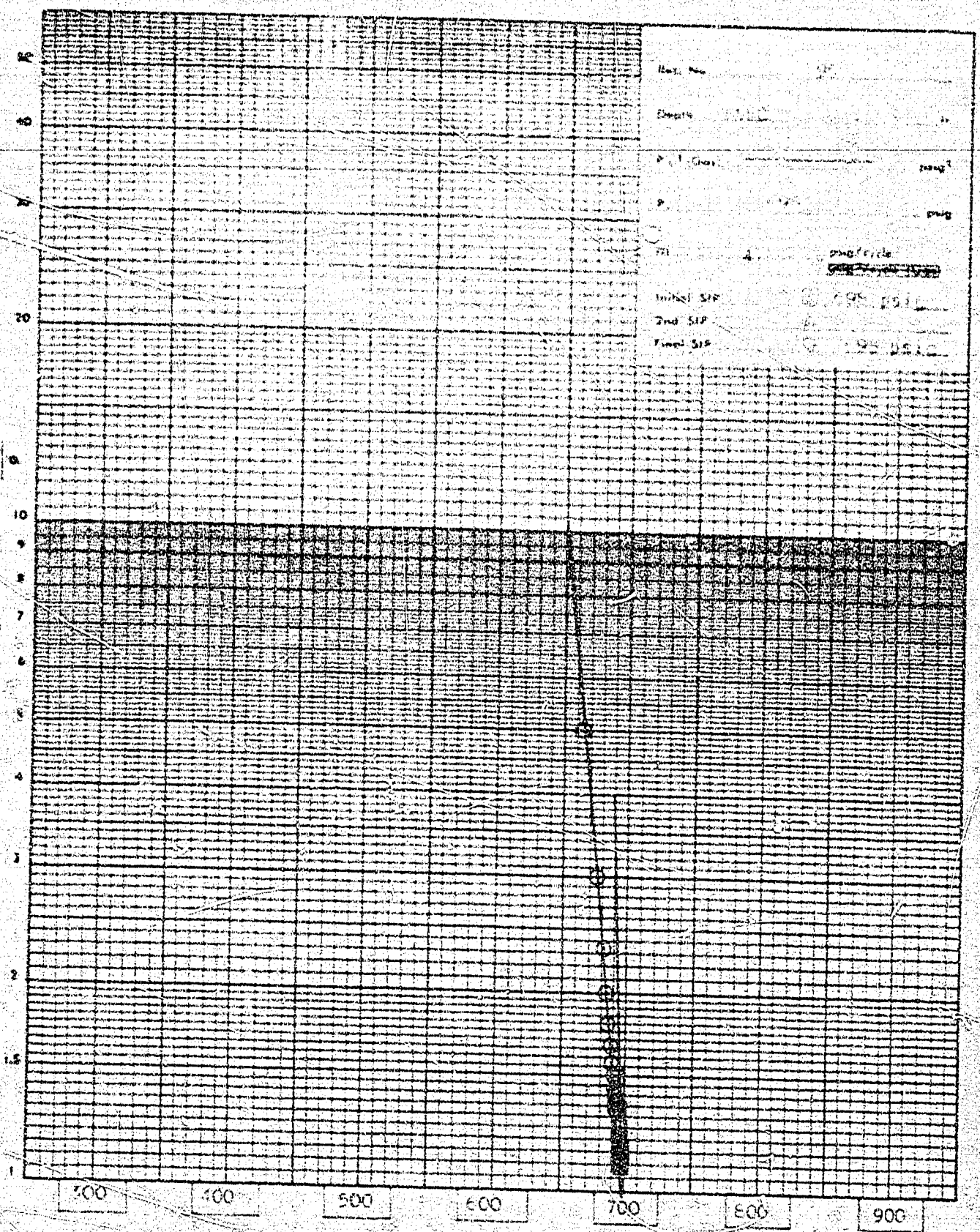
Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

t_p = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_f = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_p + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_f + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 5

Remarks: DST # 1

PRESSURE DATA



PRESSURE EXTRAPOLATION PLOT

Recorder Depth 1883 ft. Subsea depth ft. Ticket No. 3769 Hour Recorder No. 6112

t_o = Mins. Initial Shut-in Pressure				Second Flow Pressure		t_c = Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_c + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	----	417				0	----	464	
5	2.000	570				5	5.000	654	
10	1.500	693				10	3.000	678	
15	1.333	695				15	2.333	683	
20	1.250	695				20	2.000	687	
25	1.200	695				25	1.800	687	
30	1.167	697				30	1.667	689	
35	1.143	697				35	1.571	690	
40	1.125	698				40	1.500	692	
45	1.111	700				45	1.444	693	
50	1.100	700				50	1.400	694	
55	1.091	700				55	1.363	696	
60	1.083	700				60	1.333	696	

Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

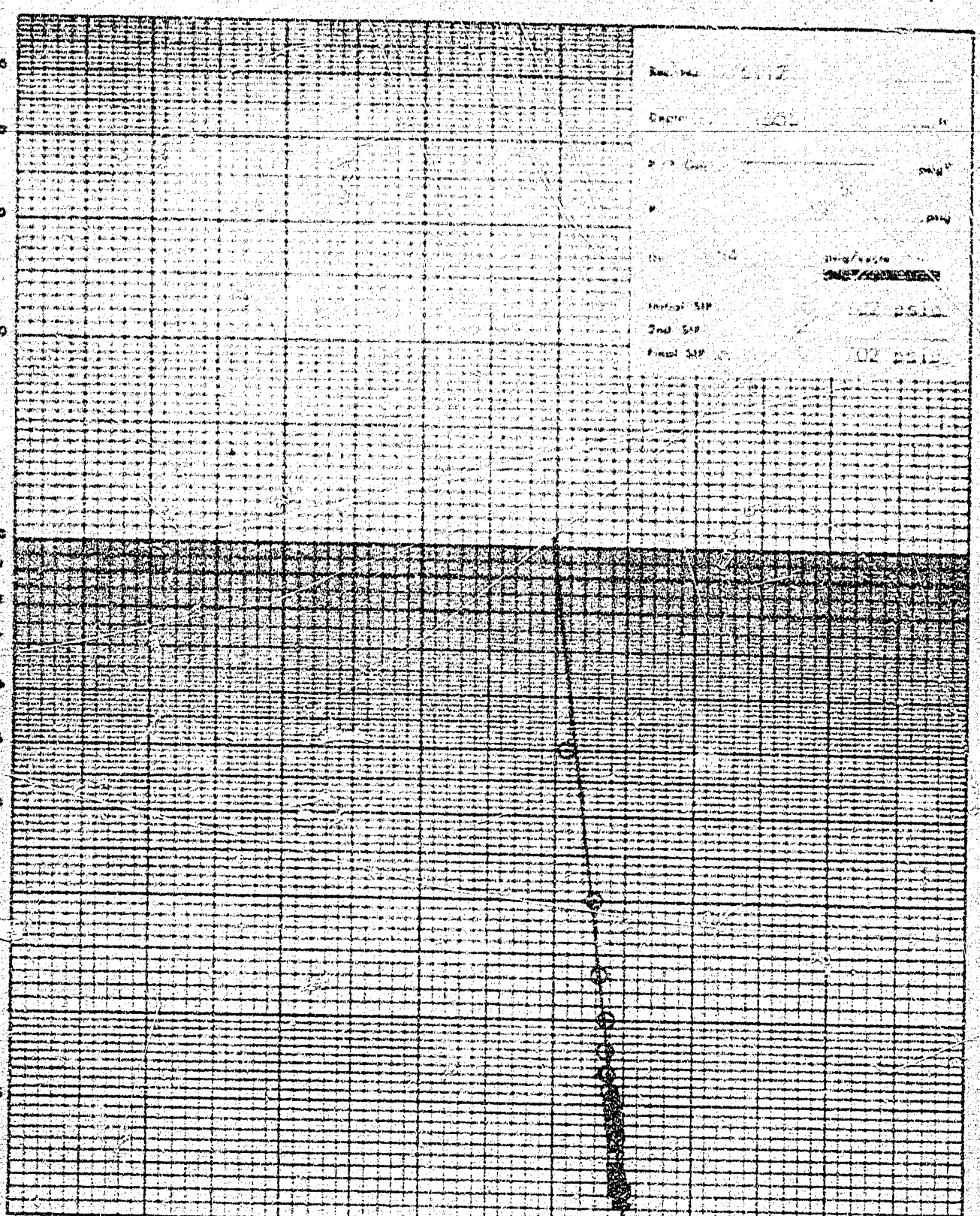
t_o = Mins. Initial Shut-in Pressure				Second Flow Pressure		t_c = Mins. Final Shut-in Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_c + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 5

Remarks:

DST #1

PRESSURE DATA



PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA — Test No. 1 — Ticket No. 2729 — Date January 13, 1970

Formation: Pekisko
Interval Tested: 1524 ft. to 1585 ft.
Feet of Net Pay Tested: 61
Type of Test: Dual Bottom Hole Drill Stem Test
Cushion: Amount
Shortest in Main at 12:00 Hrs. — Tool Open at 2:15 Hrs.
Preflow: 5 Mins. — Initial Shut-in: 60 Mins.
Test Flow: Mins. — Second Shut-in: Mins.
Final Flow: 15 Mins. — Final Shut-in: 30 Mins.

Remarks: Gas to surface in 2 1/2 Minutes. Test sitting on form test in hole. Ceased pipe down about 1" on preflow.
Blow: Tested about 10 feet off bottom. Fluid to surface in 5 minutes. Well blew in when pulled loose about 60' off bottom.

GENERAL INFORMATION

Company: Imperial Oil Enterprises Ltd.
Address: 10025 Jasper Avenue, Edmonton, Alberta
Well Name: ICE Arco Bovie
Well Number: 60-14-45-22-W5M
K.B. Elevation: 1738 — Sub Sea Elevation:
Area: Bovie — Province: N.W.T.
Company Rep: Jim Kirby
Tester: Russ Tetreau
Contractor: C. E. T. — Rig No. 2
Ticket No.: 2729 — Date: January 13, 1970
Service Reports To: B - above address

GAS BLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chemical
Weight: 9.2 — Viscosity: 54 — Water Loss: 7.4
Filter Cake: 2/32" — Bottom Hole Temperature:
Drill Pipe Size: 4 1/2" FH — Weight: 16.60
Drill Collars: 6 1/4" — I.D. 2 2/8" — Feet Run: 524.56
Main Hole or Casing Size: 7 7/8" — No. of Feet:
Ratholo or Liner Size:
Bottom Hole Choke Size:
Surface Choke Size:
Packer Rubber Size: 6 5/8 x 7"

REMARKS

Shut-in pressures suggest high permeability within the interval tested.

RECOVERY

TOTAL FLUID RECOVERED 800 Ft. Consisting of:
800 Ft. of Fresh water
Ft. of
Ft. of
Ft. of
Test was/was not Reverse Circulated WAS NOT
Oil Recovery A.P.I. — Water Specific Gravity
Salinity

PRESSURE READINGS

	Inside X Outside	Inside Outside X	Inside Outside X	Inside Outside
Recorder No.	906	965	6112	
Capacity	3050	5040	5500	
Depth	1535	1580	1585	
1 - INITIAL HYDROSTATIC	721	747	751	
2 - PRE-FLOW	348	412	417	
3 - INITIAL SHUT-IN	682	698	700	
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW	391	422	454	
6 - FINAL FLOW	428	449	464	
7 - FINAL SHUT-IN	679	693	696	
8 - FINAL HYDROSTATIC	721	747	751	

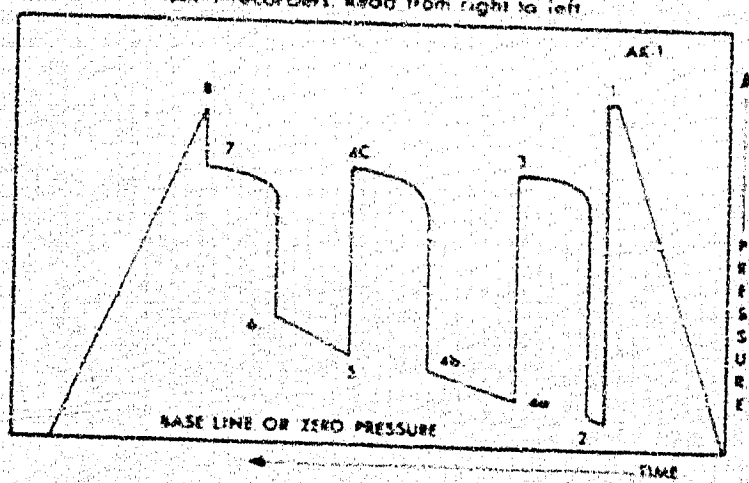
NUMBER KEY

Imperial Oil Enterprises Ltd. — Company
ICE Arco Bovie 60-14-45-22 W5M 122° 46' 39.00" — Well Name and Description
13 — Test No.
1970 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK-1 recorders. Read from right to left

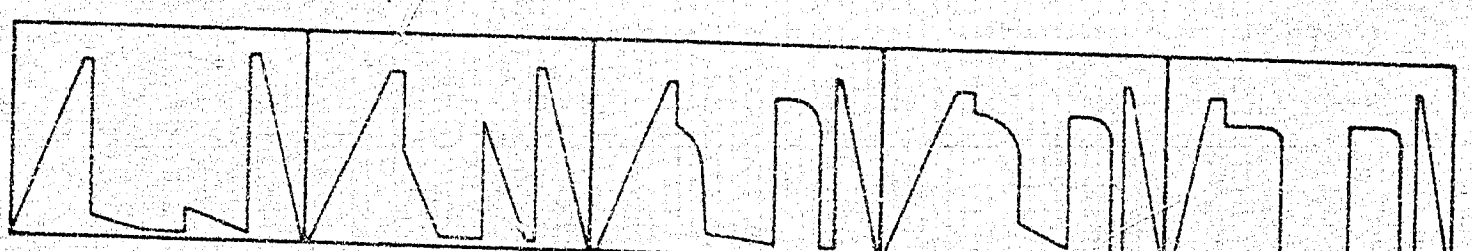


K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



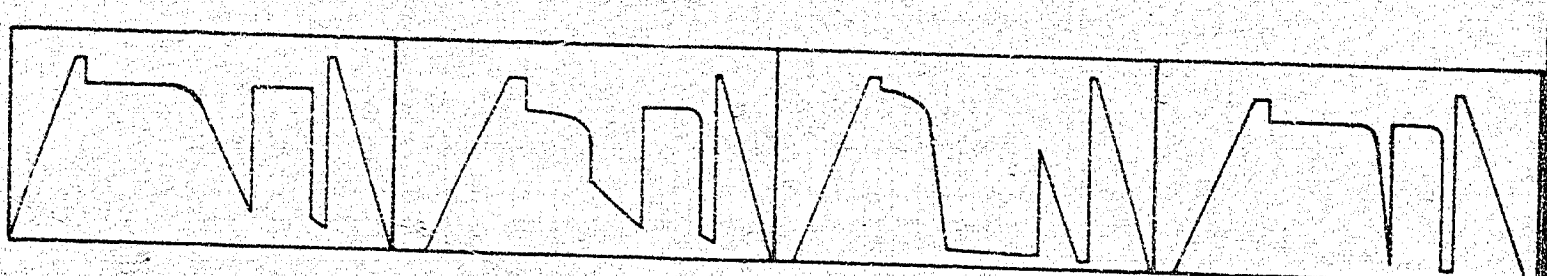
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.

(b) Casing Record -

IMPERIAL OIL LIMITED

EDMONTON PRODUCING DIVISION

FORM NO. 5BN

DATE June 6/70

PAGE NO 2

CASING—CEMENTING REPORT

REFERENCE TABLE NO 1

NAME OF WELL Ice River Prov. No. 2-10 21 12 25 4

CONTRACT NO Sil Custom PREPARED BY Tim Keeley

CASING	SIZE O.D. (IN.)	WEIGHT LB/FT	GRADE	MANUFACTURER	COLLARS SHORT/LONG	NO. OF JOINTS	AMOUNT FT	DEPTH FT. K.B. (D)
Surface	8 5/8	24	J55	NEW	Short	19	582.66	
STAGING COLLAR								
BACK-OFF COLLAR OR PACKER								
FLOAT COLLAR	"			HAWCO			1.66	
CASING	8 5/8	24	J55	NEW	Short	1	38.66	
SHOE	"			HAWCO			1.12	
						TOTAL	621.44	
						CALC. AMT. UP ON LAST JT.	13.10 KBGL	
						ACTUAL AMT UP ON LAST JT.		
						MAKE UP ALLOWANCE		
						CASING SET	629.24	
						TOTAL DEPTH OF HOLE		636

HOLE SIZE 9 7/8 IN. FROM C TO 636 FT.

HOLE SIZE ____ IN. FROM ____ TO ____ FT.

HOLE SIZE ____ IN. FROM ____ TO ____ FT.

K.B. TO TOP OF SURFACE CASING FLANGE 13.10 FT.

CASING CUTOFF ____ IN. ABOVE TOP OF CASING FLGE.

TYPE OF CASING - A.P.I. [X] EXTREME LINE [ ]

POWER TONGS USED — YES [ ] NO [X]

POWER TONGS SUPPLIED BY ____

TYPE OF FLOAT EQUIPMENT Howco Guide Shoe MANUFACTURER Hawco

ITEM	TYPE	MANUFACTURER	NO.	SPACING FT	INTERVAL COVERED FT. K.B. (D)
SCRATCHERS					
CENTRALIZERS	Latch On	Hawco	2		centre of 1st Jt. - 3 Jt.

TYPE OF MUD

INITIAL MUD WT. 9.0 LB./GAL. VISCOSITY 40 SEC.

FINAL MUD WT. 9.0 LB./GAL. VISCOSITY 40 SEC.

CEMENTED BY Hawco

CEMENT USED 425 SKS. GEL ____ % ____ SKS.

ADDITIVES 2% CaCl2 AMT ____ SKS.

____ AMT ____ SKS.

TIME CASING STARTED IN HOLE 2:15 A.M. P.M.

DROPPING RATE AT 2000' WAS ____ SEC. FOR ____ FT. JT.

4000' WAS ____ SEC. FOR ____ FT. JT.

6000' WAS ____ SEC. FOR ____ FT. JT.

8000' WAS ____ SEC. FOR ____ FT. JT.

WAS THERE LOSS OF FLUID WHILE RUNNING PIPE? ____

IF SO AT WHAT DEPTH? ____ FT.

TIME CASING ON BOTTOM ____ A.M. 5:15 P.M.

CIRCULATION BROKEN AT ____ A.M. 5:20 P.M.

PRESSURE REQUIRED TO BREAK CIRCULATION 200 P.S.I.

CIRCULATING PRESSURE AFTER CLEANUP 200 P.S.I.

STROKE LENGTH WHILE RECIPROCATING 40 FT. INITIALLY

40 FT. FINALLY

TIME STARTED MIX CEMENT ____ A.M. 6:10 P.M.

WAS BOTTOM PLUG USED Yes?

RELEASED TOP PLUG AT ____ A.M. 7:00 P.M.

PRESSURE JUST BEFORE PLUG HITS 400 P.S.I.

MAXIMUM PRESSURE 1000 P.S.I.

PLUG CHASED WITH Water AND BUMPED AT ____ A.M. 7:15 P.M.

STROKE LENGTH WHILE CEMENTING 20 FT.

WAS THERE ANY DIFFERENCE IN PUMP PRESSURE ON UPSTROKE AND DOWNSTROKE? NONE ____ P.S.I.

MUD RETURNS WHILE CEMENTING [X] FULL [ ] PARTIAL

[ ] NONE EXPLAIN IN REMARKS.

RECIPROCATION STOPPED AT ____ A.M. 7:11 P.M.

REMARKS: ____

(c) Bit Record

No.	Type	Size	Hrs. on Bottom	Depth In	Depth Out	Footage Drilled	Remarks
1	OSC3	12-1/4	20	0	296	290	
2	OSC3	12-1/4	13	290	636	346	
3	XIC	7-7/8	40-1/4	636	1580	944	
1	Diamond	7-13/16	12	1580	1635	55	Coring
4	XV	7-7/8	13-1/2	1635	1776	141	
5	XDV	7-7/8	14-1/2	1776	1990	124	FTD

(d) Mud Report - Water Bentonite

Date	Gel	Caustic	Plaster	CMC
Jan 6	2500	150	20	
Jan 7	2200	150	40	
Jan 8	1200	100		
Jan 10	500	100		
Jan 11	2900			50
Jan 12	400			100
Jan 14	500			50
Jan 15	700			50
Jan 17	1100	50	—	—
Total	12000#	550#	60#	250#

(e) Deviation Record

Survey Depth	Degrees Off
60	1/8
100	1/2
140	1/8
203	1/4
265	1/8
259	1/4
432	1/8
580	1/8
636	1/4
1000	1/8
1221	1/8
1375	1/4
1499	7/8
1559	1
1650	1
1710	1
1776	1

(f) Abandonment Plugs

No.	Date	Interval	Sacks Cement	Felt At
1	Jan 17	1700-1500	100 + 2% $CaCl_2$	1458
2	Jan 18	675-575	60 + 2% $CaCl_2$	560
3	Jan 18	Surface	5	
		Rathole	3	
		Mousehole	3	

Cut off casing 3' below ground level and welded on steel name plate.

(g) Lost Circulation Zones

Depth	Zone	Lost Material	Additives
280	Lower Cretaceous	150 bbls. mud	2200# GEL 150# Caustic 47 Sax sawdust Plaster 40#

(h) Blowouts - Nil

SECTION IV LOGS

Date	Type	Interval
Jan 16/70	SNP	629 - 1886
Jan 16/70	IES	629 - 1886
Jan 16/70	FDC	629 - 1885
Jan 16/70	BHCSGRC	10 - 1885
	Velocity Survey	10 - 1885

SECTION V ANALYSIS

(a) Core #1

(b) Water DST #1

(c) Gas

(d) Oil

CORE LABORATORIES · CANADA LTD.
EDMONTON ALBERTA

Company IMPERIAL OIL ENTERPRISES LTD.
Well ~~IOE—B~~ Tuk Amoco Bear A-15
Field
Province

Date Report FEBRUARY 9/70
Location 64 [illegible]
Formation MATTSON
D. Fluid WATER BASE MUD

File CNP-1-9788
Analysts GH JP DO
Remarks

Plug No (Card Field)	Interval Represented, Feet			Permeability to Air, Millidarcys			Porosity	Density, gm/cc		Saturations, Per Cent Pore Space		Plug Quality N			Plug Type	Description
	Top	Base	Thick	Maximum	90°	Vertical	Per Cent	Bulk	Grain	Oil	Water	Consolidation	Texture	Interpretation		
	B	C	D	F	G	H	I	J	K	L	M	(1)	(2)	(3)	G	
	CORED INTERVAL 1580.0'/- 1635.0'															
	CORE NO.1 1580.0' - 1635.0' (REC. 32.5') (9 BOXES)															
1	1580.0	81.0	1.0	113.00	107.00	98.53	18.3	2.16	2.64						11	2 6 9 19 S
2	1581.0	81.3	0.3	174.00	174.00	121.00	19.9	2.15	2.69						11	2 6 9 19 S
3	1581.3	81.6	0.3	78.22	73.75	1.88	16.2	2.26	2.69						11	2 6 9 19 S
4	1581.6	82.0	0.4	143.00	132.00	48.01	20.7	2.11	2.67						11	2 6 9 19 S
5	1582.0	82.8	0.8	105.00	101.00	45.83	19.6	2.11	2.63						11	2 6 9 19 S
6	1582.8	83.7	0.9	98.87	96.79	75.37	19.8	2.12	2.65						11	2 6 9 19 S
7	1583.7	84.2	0.5	125.00	119.00	44.69	20.1	2.11	2.64						11	2 6 9 19 S
8	1584.2	84.6	0.4	129.00	119.00	56.07	20.7	2.10	2.64						11	2 6 9 19 S
9	1584.6	85.5	0.9	86.00	82.47	56.99	20.0	2.09	2.61						11	2 6 9 19 S
10	1585.5	86.3	0.8	78.93	75.17	32.58	19.7	2.09	2.61						11	2 6 9 19 S
11	1586.3	87.0	0.7	98.76	90.60	53.78	20.2	2.11	2.64						11	2 6 9 19 S
12	1587.0	87.6	0.6	99.96	96.81	43.10	20.8	2.10	2.64						11	2 6 9 19 S
13	1587.6	88.5	0.9	81.68	79.33	44.03	20.2	2.10	2.63						11	2 6 9 19 S
14	1588.5	89.0	0.5	124.00	114.00	57.79	22.4	2.06	2.65						11	2 6 9 19 S
15	1589.0	89.5	0.5	*	123.00	40.42	22.1	2.07	2.65						11	2 6 9 19 S
16	1589.5	89.9	0.4	67.32	67.32	29.32	20.5	2.10	2.64						11	2 6 9 19 S
17	1589.9	90.6	0.7	*	92.75	34.06	20.8	2.08	2.63						11	2 6 9 19 S
18	1590.6	91.5	0.9	80.00	78.93	52.39	21.1	2.08	2.63						11	2 6 9 19 S
19	1591.5	92.0	0.5	119.00	110.00	39.48	22.1	2.06	2.65						11	2 6 9 19 S
20	1592.0	92.5	0.5	126.00	109.00	43.36	21.5	2.08	2.63						11	2 6 9 19 S
21	1592.5	92.9	0.4	110.00	105.00	30.26	21.8	2.05	2.63						11	2 6 9 19 S
22	1592.9	93.5	0.6	121.00	91.16	33.64	23.2	2.03	2.65						11	2 6 9 19 S
23	1593.5	94.1	0.6	94.20	90.30	46.51	22.2	2.06	2.65						11	2 6 9 19 S
24	1594.1	94.5	0.4	126.00	117.00	49.42	22.4	2.05	2.66						11	2 6 9 18 S
25	1594.5	95.0	0.5	140.00	119.00	51.64	22.2	2.06	2.67						11	2 6 9 18 S
26	1595.0	95.4	0.4	120.00	114.00	38.06	20.5	2.09	2.63						11	2 6 9 18 S

CORE LABORATORIES CANADA LTD.

EDMONTON ALBERTA

Company IMPERIAL OIL ENTERPRISES LTD.
Well IOE "B"

File CRP-1-9796

Plug No. (Card Field)	Interval Represented, Feet			Permeability to Air, Millidarcys			Porosity	Density gm/cc		Saturations, Per Cent Pore Space		Plug Quality No.			Plug Type	Description
	Top	Base	Thick	Maximum	90°	Vertical	Per Cent	Bulk	Grain	Oil	Water	Condition	Texture	Interpretation		
	B	C	D	F	G	H	I	J	K	L	M	(1)	(2)	(3)	Q	
	CORE NO.1 (CONT'D)															
27	1595.4	96.1	0.7	113.00	110.00	41.99	20.3	2.10	2.64						11	2 6 9 18 S
28	1596.1	96.9	0.8	104.00	84.36	47.63	20.3	2.13	2.67						11	2 6 9 18 B S
SS29	1596.9	97.5	0.6	49.59	43.93	10.15	16.6	-	-						3	2 6 9 17 S
SS30	1597.5	98.4	0.9	18.83	18.20	13.81	15.3	-	-						3	2 6 9 17 S
31	1598.4	99.4	1.0	42.50	29.07	2.12	12.1	2.33	2.65						11	2 6 9 17 S
-	1599.4	00.6	1.2	-	-	-	-	-	-			5	1		-	SHY
32	1600.6	01.6	1.0	4.31	3.26	0.21	11.8	2.34	2.65						11	2 6 9 16 S
-	1601.6	12.5	10.9	-	-	-	-	-	-			5	1		-	SHY
-	1612.5	35.0	22.5	-	-	-	-	-	-			2			-	LOST CORE

CORE ANALYSIS CODE KEY

I Permeability (md) Columns F, G, H

Code

(m) when K max. and K_{90} are measured
(r) when K radial is measured
(h) when a single horizontal K is measured

II Plug Quality (Column K)

Code Condition (Subcolumn 1)

1 - Fractured
2 - Missing (includes cement plugs)
3 - Broken or unconsolidated
4 - Uncored
5 - Portion of core not analysed

Texture (Subcolumns 2)

1 - Dense

Interpretation (Subcolumns 3)

1 - Same as
2 - Interpreted Value (editing stage)
3 - Assigned footage
4 - Interpreted Values for footage, permeability, porosity and lithology

III Plug Type (Column O)

Code

1 - Full Diameter (includes 4 3/8", 3 1/2", 2 5/8", 2 3/4" Diameter)
2 - Slim hole (less than 2 1/2" diameter)
3 - Cubes - any size
4 - Horizontal test plugs - any size
5 - Vertical test plugs - any size
6 - Test plugs - all sizes - undifferentiated position
7 - Unconsolidated technique
8 - Combined plugs - Full diameter, plus cubes test plugs, etc.
9 - All measurements except vertical permeability on horizontal test plugs, vertical permeability taken on vertical test plugs
10 - Horizontal permeabilities run on small diameter plugs (other meas. full diameter)
11 - Full diameter (glazed surface removed)

KEY TO DESCRIPTION OF SANDSTONE CORE SAMPLES

Colour

(1) Grey
(2) Brown
(3) "Salt and Pepper"

Cementing

(4) Unconsolidated
(5) Soft (Easily crushed)
(6) Medium
(7) Hard
(8) Dense (Complete Infilling)

Grain Size

(9) Fine (Less than 0.25 mm. diameter)
(10) Medium (0.25 mm. to 0.50 mm. diameter)
(11) Coarse (0.50 to 1.00 mm. diameter)
(12) Very coarse (1.0 to 2.0 mm. diameter)
(13) Gravel (Greater than 2.0 mm. diameter)

Shale Content

(14) Shale (less than 5% sand)
(15) Sand Lenses (5% to 45% sand)
(16) Interbedded (Approx. 50% sand)
(17) Shale Lenses (55% to 95% sand)
(18) Shaly partings (over 95% sand)
(19) Massive sand (no visible shale)

Broken

(20) Broken or fractured so that one or more tests cannot be made.

Accessory Minerals

(A) Glauconite
(B) Pyrite
(C) Chert
(D) Pyrobitumen

Bentonite

(E)

Silt or Clay

(F)

Oil Stains

S

CORE LABORATORIES – CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS

File CAL-2-1561 Page 1 of 1

Company Imperial Oil Limited

Well Imp Amoco Bovie M-05 KB. 1230' Grd. 1217'

Location 60 14' 45.60" 112 46' 30.00" Field Bovie Lake Area Province N.W.T.

Formation _____ Interval 1555' - 1625'

Sampled from DST #02 (Sample @ 34.0' Above Tool) by _____

Date sampled Jan. 12/70 Date analysed Jan. 23/70 Analyst D.S.

Recovery 600' Water

_____ Mud type _____ Water cushion _____

Resistivity 0.60 Ohm-meters @ 70 °F

Specific gravity 1.0107 @ 60°F

pH 7.65 H_2S Absent

Refractive Index 1.335 @ 72°F

Total Solids:

Calculated 15,030 mg/liter

By evaporation @ 110°C - mg/liter

By evaporation @ 180°C - mg/liter

At ignition - mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO_3	SO_4	CO_3	OH
4,938	106	55	Trace	Abs.	-	-	5,213	4,695	24	Nil	Nil

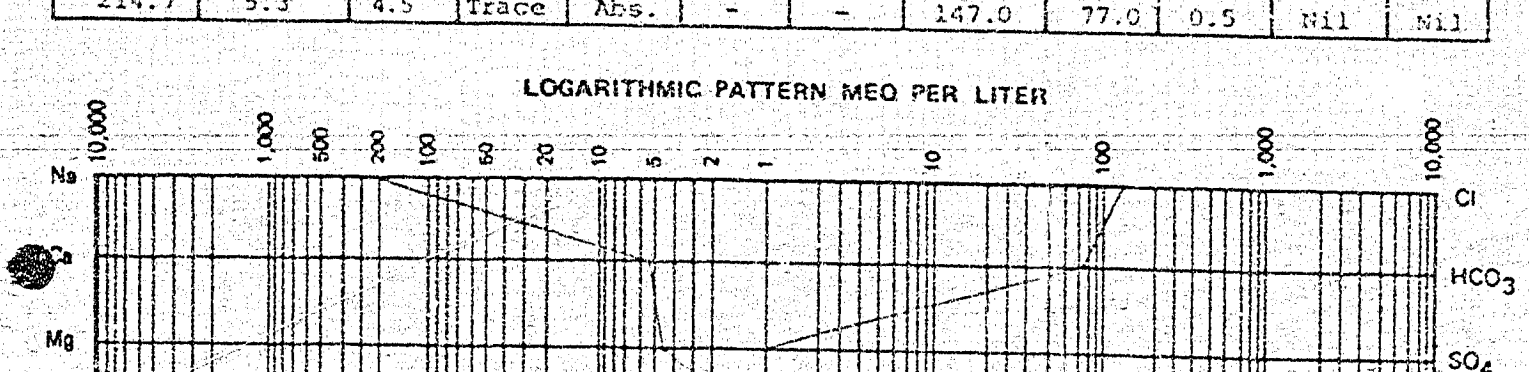
PER CENT CALCULATED SOLIDS

32.9	0.7	0.4	Trace	Abs.	-	-	34.7	31.2	0.2	Nil	Nil

MEQ PER LITER

214.7	5.3	4.5	Trace	Abs.	-	-	147.0	77.0	0.5	Nil	Nil

LOGARITHMIC PATTERN MEQ PER LITER



SECTION "I" COMPLETION SUMMARY

(a) Tubing Record - Nil

(b) Perforation Record - Nil

(c) Cementation Record

Date	No.	Interval	Sacks Cement	Feet	Zone
Jan 17	1	1700-1500	100 + 2% $CaCl_2$	1458	Mattson
Jan 18	2	675-575	60 + 2% $CaCl_2$	560	Lower Cretaceous

5 sacks in top of surface casing.

3 sacks in rat hole

3 sacks in mousehole

Cut casing off 3' below ground level and welded on steel name plate.

(d) Acidization and Fracturing - Nil

(e) Back Pressure and Production Tests - Nil

IOE AMOCO-BOVIE M-05-60-20-122-45

DAILY DRILLING REPORT

REPORT NO. | DATE JAN 24/70

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
Imp Oil Enterprises	T.O.E. Amoco Bovie M-5-60-20-122-45	M-5			N. W. T.

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.	TYPE TND.
S & T DRILLING (WESTERN) CO. LTD.	5	2	4½	6"	F. H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Don E Wuchs

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-250	15"
2.	NAT.	C-250	12"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN	8	8	8
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD	
BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	200#		
Caustic	150		

DRILLER: Don Doyle

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
				Top Tank 5½ FT } Fuel								
				Bottom Tank 2½ FT }								

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8	Rigging up on new Location
			START GM Motors

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD	
BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C Laulaier

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:00	8	Rigging upon New Location
			Clean out Mud Tank
			Hook suction on pumps & Kill Hoses
			Raise Derrick put up Briefas
			Start Murphy Motor

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD	
BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: Don Doyle

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8	Rigging up.

LAST TRUCK IN W/ DRILL PIPE & FUEL TANK AT 1000 Hr.

DAILY DRILLING REPORT

REPORT NO. — DATE JAN 9/70

OPERATOR: IMP. OIL ENTERPRISES

LEASE: T.O.E. AMOCO BOVIE M-5-60-20-122-45

WELL NO.: M-5 — FIELD OR DIST. — COUNTY — STATE: N. W. T.

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. — RIG NO.: 5

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D.: 6" — TYPE THD.: F. H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo. Edwards

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	P-250	15"
2.	NAT.	P-250	12"
3.			

LAST CASING / TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN	8	8	8
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	2000		
Caustic	150		

DRILLER: Don Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
				Top Tank 5½ FT } Fuel								
				Bottom Tank 2½ FT }								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8	Rigging up on new Location
			START GM Motors

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C Laulois

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
				AT 200 FT.								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:00	8	Rigging Upon New Location
			Clean out Mud Tank
			Hook suction on pumps & Mixer Hoses
			Raise derrick put up Prefabs
			START Murphy Motor
			LAST TRUCK IN W/ DRILL PIPE & FUEL TANK

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: Don Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8	Rigging up.

DAILY DRILLING REPORT

REPORT NO. 1 DATE Dec 6/70

OPERATOR: IMP. OIL ENTERPRISES

LEASE: T.O.E. AMOCO BOVIE M-5-60-20-122-45

WELL NO. M-5 | FIELD OR DIST. | COUNTY | STATE N.W.T.

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. | RIG NO. 5

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. STACK

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	P-250	15"
2.	NAT.	P-150	12"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN	6½		
DRILLING ACTUAL	1½	7	6¾
REAMING		½	
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			1¼
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
WELDING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		½	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MILES TRIPS LAST CUT

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD	
BIT NO.	1
SIZE	12¼
MFG.	H.W.
TYPE	OSC-3
NOZZLE NO.	COMPL.
NOZZLE SIZE	
SER. NO.	18340
DEPTH OUT	
DEPTH IN	0
TOTAL FTG.	33
TOTAL HR. RUN	1½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2000#		
Caustic	150#		

DRILLER Don Doyle

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
0	33											

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00			Rig TO SPUD
	6:30	C½	DRILL RAT HOLE MIX MUD
6:30	8:00	1½	SPUD IN + DRILL 33 FT.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD		
BIT NO.	1	RR
SIZE	12¼	7⅞
MFG.	H.W.	HW
TYPE	OSC3	OSC3
NOZZLE NO.	CONV.	
NOZZLE SIZE		
SER. NO.	18340	RR
DEPTH OUT		49
DEPTH IN	0	35
TOTAL FTG.	49	14
TOTAL HR. RUN	7½	1½
COND. OF BIT	RUN	
REAMER NO.		
REAMER TYPE		

MUD RECORD
TIME
WEIGHT
VISC.-SEC
W.L.-C.C.
FLTR. CK.
PH
SD. CONT. %
PRESSURE GRADIENT

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Charbonneau

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
33	49				90	5	200	7⅞	60			

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	60								

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	12:00	4	Dr. 11 12¼ Hole
12:00	1:30	1½	Dr. 11 7⅞ "
1:30	2:00	½	Change Shale Screen repair 4" Valve Set Rig
2:00	2:30	½	Ream w/12¼ BIT 12 ft
2:30	4:00	1½	Drill 12¼ Hole
			Fuel 5'4" Top Tank — 2'8" Bottom Tank 10:00 AM

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
3	D.C. 12¼ I.D.	O.D. 92.04	FT.
5	D.C. 6¼ I.D.	O.D. 154.54	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D. 4.00	FT.
	SUBS	O.D. 3.80	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	20.26	FT.
	KELLY DOWN	31.40	FT.
	TOTAL	192.00	FT.

BIT RECORD	
BIT NO.	1
SIZE	12¼
MFG.	HW
TYPE	OSC3
NOZZLE NO.	CONV.
NOZZLE SIZE	
SER. NO.	18340
DEPTH OUT	
DEPTH IN	0
TOTAL FTG.	182
TOTAL HR. RUN	14¼
COND. OF BIT	RUN
REAMER NO.	

MUD RECORD
TIME
WEIGHT
VISC.-SEC
W.L.-C.C.
FLTR. CK
PH
SD. CONT. %
PRESSURE GRADIENT

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	500#		
Fibre Seal	20#		

Drlr.

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
49	182	D			110	5	300	7⅞ X 15"	60	5½ X 12"		S

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	60	¼		100	½		140'	½°	

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:15	1¼	DRILL 12¼" Hole
5:15	5:30	¼	W.L. SURVEY
5:30	7:00	1½	DRILL 12¼" Hole
7:00	7:30	½	W.L. SURVEY
7:30	9:45	1¼	DRILL 12¼ HOLE
9:45	9:15	½	SURVEY + CONC.
9:15	12:00	2¾	DRLG. 12¼" Hole

DAILY DRILLING REPORT

REPORT NO. 2 DATE JAN 1/70

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
Imp. Oil Enterprises	F.C.E. Imp. Oil Bear #3-CO-20-N22-45	M-5			N.W.T.

CONTRACTOR	RIG NO.	DRILL. PIPE STRING NO.	DRILL. PIPE STRING SIZE	TOOL JOINT O.D.	TOOL JOINT THD.
S & T DRILLING (WESTERN) CO. LTD.	5	2	4½	6"	F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
	A. STACH

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-250	
2.	NAT.		
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING								
TUBING OR LINER								

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	6¼		5¾
REAMING			
CONDITIONING MUD & CIRCULATING	¼		1
TRIPS			¼
LUBRICATE RIG	¼		
DEVIATION SURVEY	½		1
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG	1		
DRILLING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

NORMING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
8	D.C. 6¼ I.D. O.D.	247.58 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
1	Ball Sub BIT OR C.B.	3.20 FT.
		FT.
	KELLY DOWN	35.22 FT.
	TOTAL	290.00 FT.
WT. OF STRING	32 M	LBS.

BIT RECORD

BIT NO.		1
SIZE		12¼
MFG.		H.W.
TYPE		OSC-3
NOZZLE	NO.	Conv.
	SIZE	
SER. NO.		43340
DEPTH OUT		
DEPTH IN		0
TOTAL FTG.		290
TOTAL HR. RUN		[illegible]
COND. OF BIT		RUN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	2:00
WEIGHT	8.7
VISC.-SEC	29
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER GEL	500#		
PLASTER	40 LBS		
SAWDUST	5 SKS		

DRILLER Don Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-T PAR'EL-P COM'D-C
182	290	D		FUEL Top Tank 4'2"	110	10	300	7¼	60	5½		S
				Bottom Tank 2'4"				X		X		
								15"		12"		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	203	¼°		265	½°				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:15	1¼	DRLG. 12¼" HOLE
1:15	1:45	½	RIG SERV. + SURVEY
1:45	5:00	3¼	DRLG. 12¼" HOLE
5:00	5:15	¼	SURVEY
5:15	6:00	¾	~~WORK ON PUMP~~ DRLG. 12¼" HOLE
6:00	6:30	½	WORK ON PUMP
6:30	7:00	½	DRLG. 12¼" HOLE
7:00	8:00	1	REPAIR JET, MIX MUD, WORK ON PUMP

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		2
SIZE		12¼
MFG.		HW
TYPE		OSC 3
NOZZLE	NO.	Conv.
	SIZE	
SER. NO.		10645
DEPTH OUT		
DEPTH IN		290
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	11400		
CAUSTIC	1/2 D		

DRILLER C. Saulnier

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-T PAR'EL-P COM'D-C
290	290	D										

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼	Rig Serv
8:15	8:45	½	Pull out of Hole Change BIT
8:45	4:00	7¼	Mix Mud & Sawdust

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
1	STANDS D.P.	95.85 FT.
1	SINGLES D.P.	31.03 FT.
9	D.C. 6¼ I.D. O.D.	278.83 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
1	SUB C.B.	3.20 FT.
		FT.
	KELLY DOWN	19.06 FT.
	TOTAL	432.00 FT.
WT. OF STRING	98 M	LBS.

BIT RECORD

BIT NO.		2
SIZE		12¼
MFG.		H.W.
TYPE		OSC-3
NOZZLE	NO.	Conv.
	SIZE	
SER. NO.		10645
DEPTH OUT		
DEPTH IN		290
TOTAL FTG.		142
TOTAL HR. RUN		5¾
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	11:00
WEIGHT	9.3
VISC.-SEC	60
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	500		
Caustic	50		

DRILLER C. Saulnier

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-T PAR'EL-P COM'D-C
290	432	D			100	12	400	7¼	60	5½		S
								X		X		
								15		12		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	359	¼°		423	⅛°				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:00	1	Mix Mud + Sawdust
5:00	5:15	¼	Run in Hole
5:15	9:15	4	DRILLING 12¼" Hole
9:15	9:45	½	SURVEY
9:45	11:15	1½	DRLG. 12¼" HOLE
11:15	11:45	½	SURVEY
11:45	12:00	¼	DRLG. 12¼" HOLE

DAILY DRILLING REPORT — REPORT NO. 3 — DATE JAN 5/70

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
Imp. Oil Enterprises	E.O.E. AMOCO. Bowie M-5-60-20-122-45	M-5			N. W. T.

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. — RIG NO. 5

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A STACK

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-250	15"
2.	NAT.	G-150	12"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5¾		
REAMING			
CONDITIONING MUD & CIRCULATING	½		
TRIPS	2½		
LUBRICATE RIG	¼		
DEVIATION SURVEY	¾		
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
SLIPPING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES / SIZE	
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
9	STANDS D.P.	2832.27	FT.
	SINGLES D.P.		FT.
9	D.C. 6¼ I.D. O.D.	278.83	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
1	BIT C.B.	3.20	FT.
			FT.
	KELLY DOWN	4	FT.
	TOTAL	611.00	FT.
	WT. OF STRING	43.000	LBS.

BIT RECORD

BIT NO.	2
SIZE	12¼
MFG.	H. W.
TYPE	OSC-3
NOZZLE NO.	Conv.
NOZZLE SIZE	
SER. NO.	10645
DEPTH OUT	
DEPTH IN	290
TOTAL FTG.	321
TOTAL HR. RUN	11
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:30	3:30	6:45
WEIGHT	9.0	9.1	9.2
VISC.-SEC	78	75	61
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1200#		
Caustic	100#		
Watery			

DRILLER: Don Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.EL-P COM'D-C
432	611	D			100	15	450	7¼	60	5½		S
								X		X		
				3' 8" Fuel				15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
580	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼	Rig SERV.
12:15	3:00	2¾	DRLg. 12¼" Hole
3:00	3:30	½	Coulent get to Bottom w/ survey
3:30	6:30	3	DRLg. 12¼" Hole
6:30	6:45	¼	Survey
1:45	7:15	½	Circ. To TRIP
7:15	8:00	¾	TRIP OUT & STRAP OUT
			LOSING MUD TO FORMATION SLOWLY

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
3	STANDS D.P.	2832.27	FT.
1	SINGLES D.P.	31.39	FT.
9	D.C. 6¼ I.D. O.D.	278.83	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
1	BIT C.B.	3.20	FT.
			FT.
	KELLY DOWN	35.00	FT.
	TOTAL	636.00	FT.
	WT. OF STRING	43.000	LBS.

BIT RECORD

BIT NO.	2
SIZE	12¼
MFG.	HW
TYPE	OSC3
NOZZLE NO.	Conv.
NOZZLE SIZE	
SER. NO.	10645
DEPTH OUT	636
DEPTH IN	290
TOTAL FTG.	346
TOTAL HR. RUN	13½
COND. OF BIT	3-1-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	900
WEIGHT	9.3
VISC.-SEC	90
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C. Saulnier

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL-P COM'D-C
[illegible]	[illegible]			[illegible]	100	15	450	7¼	60	5½		
[illegible]	[illegible]			[illegible]								
611	636											

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
636	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:45	¾	Run IN, Ream
8:45	9:00	¼	Rig Serv
9:00	9:15	¼	Dr. 11 12¼ hole Leaking mud To Formation Slowly
9:15	9:45	½	Work on #2 pump 2" To 50' of Hole
9:45	10:30	¾	DRILL 12¼ Hole 1200 1.00 TRIP out
10:30	10:45	¼	Work on Murphy Motor 1.00 4.00 Rig + Run Csg.
10:45	11:15	½	DRILL 12¼" Hole
11:15	[illegible]	[illegible]	Circ Cond Hole

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C. Saulnier D. Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:15	1¼	Run Casing
5:15	6:00	¾	Circ
6:00	7:15	1¼	Cement & plug Down
7:15	12:00	4¾	W.O.C.

DAILY DRILLING REPORT — REPORT NO. 4 — DATE JAN 3/69

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
I. MP. OIL ENTERPRISES	AMOCO BOVIE M-5-CO-20-122-45	M-5			N. W. T.

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.	TYPE THD.
S & T DRILLING (WESTERN) CO. LTD.	5	2	4½	6"	F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A STACK

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-250	15"
2.	NAT.	C-150	12"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝"	MANN	24-J55	20	629	13.10	629	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
WELDING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT	7¼		
DRILL STEM TEST			
OTHER	¾		
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WC/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
STANDS D.P.			FT.
SINGLES D.P.			FT.
D.C.	I.D.	O.D.	FT.
D.C.	I.D.	O.D.	FT.
STB. BODY		O.D.	FT.
STB. BODY		O.D.	FT.
RMR. BODY		O.D.	FT.
SUBS		O.D.	FT.
BIT OR C.B.			FT.
			FT.
KELLY DOWN			FT.
TOTAL			FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Don Doyle

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.
	636		

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOLS PAR'EL-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	7.15	7¼	W. O. C.
7:15	8:60	¾	BACK OFF LANDING JOINT & COLLAR
			6' 5½" Jnt top tank 8:30 A.M.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
STANDS D.P.			FT.
SINGLES D.P.			FT.
D.C.	I.D.	O.D.	FT.
D.C.	I.D.	O.D.	FT.
STB. BODY		O.D.	FT.
STB. BODY		O.D.	FT.
RMR. BODY		O.D.	FT.
SUBS		O.D.	FT.
BIT OR C.B.			FT.
			FT.
KELLY DOWN			FT.
TOTAL			FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C Soulvier

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.
636		-	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOLS PAR'EL-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	Rig Lay
815	400		W.O.C. Head Up

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
STANDS D.P.			FT.
SINGLES D.P.			FT.
D.C.	I.D.	O.D.	FT.
D.C.	I.D.	O.D.	FT.
STB. BODY		O.D.	FT.
STB. BODY		O.D.	FT.
RMR. BODY		O.D.	FT.
SUBS		O.D.	FT.
BIT OR C.B.			FT.
			FT.
KELLY DOWN			FT.
TOTAL			FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	2 1
NOZZLE SIZE	22 20
SER. NO.	18957
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Caulvier Don Doyle

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOLS PAR'EL-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	Rig Lay
415	715	3	HEAD UP
7.15	730	¼	PRESSURE BLIND RAMS OK
730	930	1	Blow Mud Lines & Close Line
8.30	9:15	¾	Run in w/ Drill Collars
9:15	10:15	1	Pick up Kelly FROZEN @ GR. LEV. IN SOCK STEAM OUT
10:15	12:00	1¾	Drlg MOUSE HOLE

DAILY DRILLING REPORT — REPORT NO. 5 — DATE JAN 10/72

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
Imp. Oil Enterprises	Amoco Rovie M-5-60-20-122-45	M-5			N.W.T

CONTRACTOR	RIG NO.
S & T DRILLING (WESTERN) CO. LTD.	5

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-250	15"
2.	NAT	C-150	12"
3.			

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo Ed Dunham

LAST CASING, TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝	London	24-J55	20	629	13.10	629	

TIME DISTRIBUTION — HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4		5
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.	1		
CUT OFF DRILLING LINE			
REPAIR RIG			¾
WAITING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	2¾		2¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		9

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
19	D.C. 6½ I.D. O.D.	581.59	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING 56 M LBS.

BIT RECORD

BIT NO.	1
SIZE	7⅞
MFG.	H.W.
TYPE	XIC
NOZZLE NO.	2 1
NOZZLE SIZE	22 20
SER. NO.	18857
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Soda Ash			100#

DRILLER Don Doyle

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
						1	250			5½		S
										X		
										12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼	Rig Serv.
12:15	1:15	1	Finish Drlg. Mouse Hole
1:15	3:00	1¾	Pick up 9 Drill Collars
3:00			Pressure up pipe Rams & Hyd Drl to 1000 P.S.I. ok
	4:00	1	V Motor Shutoffs ok
4:00	8:00	4	Drlg. out Float & Rubbers

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.	612.59	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STD. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
20T	SUBS Sub O.D.	4.00	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Boulanger

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
								5½				S
								X				
								12				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:45		Drlg out Float & Rubbers
10:45	11:45	1	Pull out of Hole
11:45	12:30	¾	Rig Ser and Blow
12:00	1:00	1½	Run in Hole
1:15	4:00	3¼	Drilling 7 7/8

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
1	STANDS D.P.	95.76	FT.
2	SINGLES D.P.	63.00	FT.
20	D.C. 2⅞ I.D. 6¾ O.D.	612.87	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	41.50	FT.
	TOTAL	817.13	FT.

WT. OF STRING 60 M LBS.

BIT RECORD

BIT NO.	1
SIZE	7 7/8
MFG.	
TYPE	X16
NOZZLE NO.	1 2
NOZZLE SIZE	12 13
SER. NO.	18857
DEPTH OUT	
DEPTH IN	636
TOTAL FTG.	191
TOTAL HR. RUN	6¾
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	W
WEIGHT	A
VISC.-SEC	T
W.L.-C.C.	L
FLTR. CK	R
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CEL	500#		

DRILLER D. Walker D. Ford

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
665	817 13	R			70	15	600	5	60	5½	64	S
					70	150		X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	6:30	2½	Drlg 7 7/8 Hole
6:30	7:00	½	Lay down two stands.
			Pick up 1 Stand in Derrick.
7:00	8:00	1	Repair & put gard on #1 pump.
8:00	8:30	½	Blow Kelly & Hoist 1 Std
8:30	9:15	¾	Repair Barber Gate
9:15	9:30	¼	Run back to RTM & pick up Kelly
9:30	12:00	2½	Drlg

DAILY DRILLING REPORT

REPORT NO. 6 DATE Jan 11/70

OPERATOR: IMP OIL ENT

LEASE: IOE AMOCO BEVILL M-5 L.S.20-122-15

WELL NO.: M-5

FIELD OR DIST.:

COUNTY:

STATE: N W T

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD.

RIG NO.: 5

DRILL PIPE STRING: NO. 3, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. F H

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo E Workman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8 5/8	MTM	24 J-55	20	629	13.10	6.29	

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7½	7½	7
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼	¼	
DEVIATION SURVEY	¼	¼	¼
TEST B.O.P.		✓	
CUT OFF DRILLING LINE			
REPAIR RIG			
WELDING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			½
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

SIZE

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
4	STANDS D.P.	377.82 FT.
1	SINGLES D.P.	30.78 FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	41.04 FT.
	TOTAL	1066.00 FT.
WT. OF STRING		68M LBS.

BIT RECORD

BIT NO.	1
SIZE	7 7/8
MFG.	HW
TYPE	X1C
NOZZLE NO.	1 2
NOZZLE SIZE	12 13
SER. NO.	18857
DEPTH OUT	
DEPTH IN	636
TOTAL FTG.	430
TOTAL HR. RUN	14¼
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1.30	4.00	6.30
WEIGHT	8.7	8.7	8.6
VISC.-SEC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	800#		

1 SACK SAWDUST ON FLOOR

DRILLER D A Zubko

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-PAR'L.-P COM'D.-C
813	1066	D			70	18	550	5	60	5½		S
3				FUEL - MAIN 5'5"				X		X		
				SPARE 3'4"				15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1000	⅞°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	RIG SERV
12.15	6.00	5¾	DRLG
6.00	6.15	¼	SURVEY @ 1000'
6.15	8.00	1¾	DRLG

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
6	STANDS D.P.	727.71 FT.
1	SINGLES D.P.	31.30 FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	1248 FT.
WT. OF STRING		75 M LBS.

BIT RECORD

BIT NO.	1
SIZE	7 7/8
MFG.	HW
TYPE	X 1C
NOZZLE NO.	1 2
NOZZLE SIZE	12 13
SER. NO.	18857
DEPTH OUT	
DEPTH IN	636
TOTAL FTG.	
TOTAL HR. RUN	21¾
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	8.00	1.00	3.00
WEIGHT	8.5	8.5	8.5
VISC.-SEC	30	30	30
W.L.-C.C.			
FLTR. CK.			
PH	11.0	11.0	11.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	300		
WATER			

DRILLER Duane DeFord

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-PAR'L.-P COM'D.-C
1066	1248	D			70	28	550	5	60	5½		
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1221	⅞°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
2.00	8.15	6¼	RIG SERV T.V. B.OP
8.15	2.45	6½	DRLG - 7⅞
2.45	3.00	¼	SURVEY @ 1221
3.00	4.00	1	DRLG 7⅞

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
9	STANDS D.P.	840.75 FT.
	SINGLES D.P.	FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	16.35 FT.
	TOTAL	1474 FT.
WT. OF STRING		72M LBS.

BIT RECORD

BIT NO.	1
SIZE	7 7/8
MFG.	HW
TYPE	X16
NOZZLE NO.	1 2
NOZZLE SIZE	12 13
SER. NO.	18857
DEPTH OUT	
DEPTH IN	636
TOTAL FTG.	838
TOTAL HR. RUN	24¾
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	5.00	7.00	11.0
WEIGHT	8.5	8.7	9.0
VISC.-SEC	30	37	41
W.L.-C.C.		15.6	9.4
FLTR. CK.			
PH	11.0	11.0	11.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	400#		
CMC (REG)	50#		

DRILLER D.A. Zubko

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-PAR'L.-P COM'D.-C
1248	1474	D			70	28	550	5	60	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1375	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	8.15	4¼	DRLG
8.15	8.45	½	SURVEY @ 1375
8.45	9.15	½	CHANGE SHAKER SCREEN
9.15	12.00	2¾	DRLG

DAILY DRILLING REPORT — REPORT NO. 7 — DATE Jan 12/70

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
IMP OIL ENT	TOE AMOCO BOVIE M-5 60-20-R2-45	M-5			N W T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.	TYPE THD.
S & T DRILLING (WESTERN) CO. LTD.	5	3	4½	6"	F H

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Les Erickson

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
	8 5/8	M+M	24 J-55	20	629	13.10	629	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5½		
REAMING			
CONDITIONING MUD & CIRCULATING	1½		¼
TRIPS			5¼
LUBRICATE RIG	¼	H	
DEVIATION SURVEY	½		
TEST B.O.P.		✓	
CUT OFF DRILLING LINE			
REPAIR RIG			
REAMING			5¼
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¼		¼
FISHING			

COMPLETION WORK: A. PERFORATING; B. TUBING TRIPS; C. SWABBING; D. TESTING; E. ADDITIONAL

DETAILS	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES / SIZE	
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
16	STANDS D.P.	931.79 FT.
	SINGLES D.P.	FT.
20	D.C. 6¼ I.D. O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	31.34 FT.
	TOTAL	1580 00 FT.
WT. OF STRING	72 M	LBS.

BIT RECORD

BIT NO.	1	
SIZE	7 7/8	
MFG.	HTC	
TYPE	X-16	
NOZZLES NO.	1 2	
NOZZLES SIZE	12 13	
SER. NO.	18857	
DEPTH OUT	1580	
DEPTH IN	636	
TOTAL FTG.	944	
TOTAL HR. RUN	40¼	
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	2:00	7:00
WEIGHT	8.9	9.0
VISC.-SEC	52	45
W.L.-C.C.	8.8	
FLTR. CK.	2/32	2/32
PH	11.0	10.0
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	400#		
CMC REG	50#		
SAWDUST	8 SKS		

DRILLER: D.A. Webster

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
1474	1580	D	—		70	28-32	600	5	60	5½		S
						12-20		X		X		
				FUEL 4' 9"				15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1499	7/8°		1559	1°				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 30	½	DRLG
12 30	12 45	¼	SURVEY @ 1499
12 45	1 00	¼	RIG SERV
1 00	4 30	3½	DRLG
4 30	4 45	¼	SURVEY @ 1559
4 45	6 15	1½	DRLG
6 15	7 45	1½	CIRC SAMPLE
7 45	8 00	¼	DRAIN KELLY

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING	72 M	LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	BLOW KELLY & FILL UP LINE
8 15	10 00	1¾	TRIP OUT STRAP OUT
10 00	10 15	¼	RIG SERV & BOP
10 15	11 30	1¼	RUN IN HOLE
11 30	1 00	1½	CIRC
1 00	1 15	¼	BLOW KELLY
1 15	2 30	1¼	TRIP TO CORE @ 1580.
2 30	3 15	¾	PICK UP CORE BARREL & STAB THRU CASE
3 15	4 00	¾	RUN IN HOLE
4 00	6 15	2¼	SLOW W/CORE
6 15	6 30	¼	BARREL
6 30	6 45	¼	DROP BALL
6 45	12 00	5¼	CORE 7 13/16

STRAP OUT 1589
PIPE FULLY 15 90.1
DIF - LONGER 1.97

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
16	STANDS D.P.	935.62 FT.
2	SINGLES D.P.	66.72 FT.
17	D.C. 6¼ I.D. O.D.	523.97 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	65.98 FT.
		FT.
	KELLY DOWN	19.77 FT.
	TOTAL	1607 00 FT.
WT. OF STRING	72M	LBS.

BIT RECORD

BIT NO.	2C	
SIZE	7 13/16	
MFG.	CHRIS	
TYPE	◇	
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.	EC9809	
DEPTH OUT		
DEPTH IN	1580	
TOTAL FTG.	27	
TOTAL HR. RUN	5¼	
COND. OF BIT	RUN	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		8:00
WEIGHT		9.2
VISC.-SEC		48
W.L.-C.C.		10.0
FLTR. CK		2/32
PH		11.0
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CMC	50#		

DRILLER: D.A. Webster

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
1580	1607	C	—		100	14	875	5	61	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	6 15	5¼	FINISH RUNNING IN & CLEAN TO BOTTOM
6 15	6 30	¼	CIR CORE BARREL
6 30	6 45	¼	DROP BALL
6 45	12 00	5¼	CORE 7 13/16

DAILY DRILLING REPORT

REPORT NO. 8 DATE Jan 13/70

OPERATOR: IMP OIL ENT

LEASE: TOF AMOCO BOYLE 60-20-122-45

WELL NO.: M-5

FIELD OR DIST.:

COUNTY:

STATE: N W T

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD.

RIG NO.: 5

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. F H

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo E Winkleman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8 5/8	MTM	24 J-55	20	629	13.10	629	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	1		2¾
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			1½
REPAIR RIG			
[illegible]	6¾		
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			1½
OTHER	¼		3¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES / SIZE	
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR — NO. 11

STANDS D.P.	1028.86	FT.
SINGLES D.P.		FT.
D.C. 17 I.D. 6¼ O.D.	533.97	FT.
D.C. I.D. O.D.		FT.
STB. BODY O.D.		FT.
STB. BODY O.D.		FT.
RMR. BODY O.D.		FT.
SUBS O.D.		FT.
~~SUBS~~ C.B.	65.98	FT.
		FT.
KELLY DOWN	16.19	FT.
TOTAL	1635.00	FT.
WT. OF STRING	72M	LBS.

BIT RECORD

BIT NO.	1C
SIZE	7 7/16
MFG.	CHAIC
TYPE	◇
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC9909
DEPTH OUT	1635
DEPTH IN	1580
TOTAL FTG.	55
TOTAL HR. RUN	12
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2:00	4:00	6:00
WEIGHT	9.2	9.3	9.2
VISC.-SEC	54	56	54
W.L.-C.C.	8.0	8.0	7.4
FLTR. CK.	32	32	32
PH	11.0	11.0	11.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CMC	150#		

DRILLER: D. A. Walker

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
1607	1635	C			100	14	875	5	61	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	6:45	6¾	CUT CORE NO 1
6:45	7:00	¼	BLOW KELLY
7:00	8:00	1	HOIST

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D. O.D.		FT.
D.C. I.D. O.D.		FT.
STB. BODY O.D.		FT.
STB. BODY O.D.		FT.
RMR. BODY O.D.		FT.
SUBS O.D.		FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: Duane DeFord

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
9:00	9:30		FINISH TAPING
9:30	12:00		RECOVER CORE & SEA BARREL
12:00	2:15		PICK UP PACKER & STINGER MAKE UP SAME
2:15	2:30		RUN IN W/ PACKER
2:30	4:00		LAY DOWN 1 SINGLE MAKE HEAD
			DST NO 1. 1635

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D. O.D.		FT.
D.C. I.D. O.D.		FT.
STB. BODY O.D.		FT.
STB. BODY O.D.		FT.
RMR. BODY O.D.		FT.
SUBS O.D.		FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	2
SIZE	7 7/8
MFG.	HW
TYPE	XV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	16223
DEPTH OUT	
DEPTH IN	1635
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: D. A. Walker

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
1635												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1½	DST NO 1
5:30	6:30	1	Slight Blow After Pulling Packer Loose.
6:30	7:00	½	Close BOP's Check Pressure on Anchor OK
7:00	9:30	2½	HOIST DST NO 1
9:30	11:15	1¾	SERV LAY DOWN & LOAD OUT TEST TOOL
11:15	11:45	½	SLIP 23' DRLG LINE
11:45	12:00	¼	RUN IN W/ BIT

DAILY DRILLING REPORT

REPORT NO. 9 DATE Jan 14/70

OPERATOR: IMP OIL ENT

LEASE: JOE AHOCO BOYLE 60-20-122-45

WELL NO. M5 | FIELD OR DIST. | COUNTY | STATE NWT

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. | RIG NO. 5

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo Walker

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
9⅝	M+M	36 J-55	20	629	13.10	629	

TIME DISTRIBUTION-HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	3¾	7	3½
REAMING	1¾		
CONDITIONING MUD & CIRCULATING			
TRIPS	1¾		2
LUBRICATE RIG	¼	¼	
DEVIATION SURVEY	½	¼	¼
TEST B.O.P.		✓	
CUT OFF DRILLING LINE			
REPAIR RIG		½	1
RIGGING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¼		2¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES / SIZE	
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
11	STANDS D.P.	1024.09 FT.
1	SINGLES D.P.	31.40 FT.
20	D.C. 6¾ I.D. O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	37.64 FT.
	TOTAL	1710 00 FT.
WT. OF STRING		75M LBS.

BIT RECORD

BIT NO.	2
SIZE	7⅞
MFG.	HW
TYPE	XV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	16223
DEPTH OUT	
DEPTH IN	1635
TOTAL FTG.	75
TOTAL HR. RUN	3¾
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	7 00
WEIGHT	9.2
VISC.-SEC	49
W.L.-C.C.	7.8
FLTR. CK.	2/32
PH	10.5
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER D.A. Walker

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
1635	1710	D			60	25	1000	5		5½	52	S
								X		X		
				FUEL 6'6"				5½		12		

DEVIATION RECORD: DEPTH 1650 | DEV. 1° | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	RIG SERV
12 15	2 00	1¾	FINISH IN W/ BIT
2 00	2 15	¼	MAKE UP KELLY HOSE
2 15	4 00	1¾	CIRC ON 90' TO BOTTOM
4 00	4 45	¾	DRLG.
4 45	5 00	¼	SURVEY @ 1650
5 00	9 00	3	DRLG

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
2	STANDS D.P.	1103.01 FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
20	D.C. 6¼ I.D. O.D.	612.87 FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	24.92 FT.
	TOTAL	1760 FT.
WT. OF STRING		75M LBS.

BIT RECORD

BIT NO.	2
SIZE	7⅞
MFG.	HW
TYPE	XV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	16223
DEPTH OUT	
DEPTH IN	1635
TOTAL FTG.	50
TOTAL HR. RUN	10¾
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	11 00	2 00
WEIGHT	9.4	9.4
VISC.-SEC	60	60
W.L.-C.C.	6.7	6.8
FLTR. CK.	2/32	2/32
PH	10.5	10.5
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CMC	50		
GEL	500		

DRILLER Duane Defoe

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
1710	1760	D			60	25	1000	5	60	5½	52	S
										5½		

DEVIATION RECORD: DEPTH 1710 | DEV. ¾° | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	SURVEY @ 1710
8 15	8 30	¼	CHANGE POP VALVE IN C250 Rig SER & BOP
8 30	2 45	6¼	DRLG 7⅞
2 45	3 15	½	CHANGE SUCTION CAP ON C250
3 15	4 00	¾	DRLG. 7⅞

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
12	STANDS D.P.	1118.59 FT.
1	SINGLES D.P.	29.89 FT.
20	D.C. 6¼ I.D. O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	17.65 FT.
	TOTAL	1783 00 FT.
WT. OF STRING		75M LBS.

BIT RECORD

BIT NO.	2	3
SIZE	7⅞	7⅞
MFG.	HW	HW
TYPE	XV	XDV
NOZZLE NO.	3	3
NOZZLE SIZE	10	10
SER. NO.	16223	17790
DEPTH OUT	1776	
DEPTH IN	1635	1776
TOTAL FTG.	141	7
TOTAL HR. RUN	13½	¾
COND. OF BIT	No. 6	RUN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4 00
WEIGHT	9.4
VISC.-SEC	54
W.L.-C.C.	6.7
FLTR. CK.	2/32
PH	10.5
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER D.A. Walker

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
1760					60	25	1150	5	60	5½	52	S
	1783	D						X		X		
								15		12½		

DEVIATION RECORD: DEPTH 1776 | DEV. 1° | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	6 45	2¾	DRLG
6 45	7 00	¼	SURVEY @ 1° 1776
7 00	8 00	1	TRIP FOR NEW BIT
8 00	9 15	1¼	BREAK & LAY DOWN CORE BBL
9 15	10 15	1	REPAIR 4" CAMERON ON STAND PIPE
10 15	11 15	1	RUN IN W/ BIT
11 15	12 00	¾	DRLG

DAILY DRILLING REPORT

REPORT NO. 10 DATE Jan 15/70

OPERATOR: IMP OIL ENT

LEASE: I OF ARCO ROVIE 60-20-122-45

WELL NO. M5 | FIELD OR DIST. | COUNTY | STATE NWT

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. | RIG NO. 5

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo E Wickham

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C250	15
2.	Nat	C150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝	M&M	24 J-55	20	629	13.10	629	

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	6	
REAMING			
CONDITIONING MUD & CIRCULATING		1½	
TRIPS		1¼	
LUBRICATE RIG	¼	¼	
DEVIATION SURVEY			
TEST B.O.P.		✓	
CUT OFF DRILLING LINE			
REPAIR RIG			
SLIPPING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			8
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
13	STANDS D.P.	1210.58 FT.
	SINGLES D.P.	FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	30.55 FT.
	TOTAL	1858.00 FT.

WT. OF STRING 80M LBS.

BIT RECORD

BIT NO.	3
SIZE	7⅞
MFG.	HW
TYPE	XDV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	17790
DEPTH OUT	
DEPTH IN	1776
TOTAL FTG.	82
TOTAL HR. RUN	8½
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	100	4:00	7.30
WEIGHT	9.4	9.4	9.4
VISC.-SEC	50	58	60
W.L.-C.C.		66	6.0
FL TR. CK.	2/32	2/32	2/32
PH	10.5	10.5	10.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel.	700#		
CMC	50#		

DRILLER D.A. Webber

FOOTAGE

FROM	TO	DR. D RM. R CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL. PART. EL-P COMP. C
1783	1858	D			60	40	1125	5	56	5½		S
								X		X		
				FUEL 5'8"				15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12¹⁵	¼	RIG SERV
12¹⁵	8⁰⁰	7¾	DRLG

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
13	STANDS D.P.	1211.04 FT.
1	SINGLES D.P.	31.28 FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	41.04 FT.
	TOTAL	1900.23 FT.

WT. OF STRING 80M. LBS.

BIT RECORD

BIT NO.	3
SIZE	7⅞
MFG.	HW
TYPE	XDV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	17790
DEPTH OUT	
DEPTH IN	1776
TOTAL FTG.	124
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:00	1:12
WEIGHT	9.4	9.4
VISC.-SEC	61	66
W.L.-C.C.	5.8	5.7
FL TR. CK.	2/32	2/32
PH	10.5	10.5
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Duane DeTour

FOOTAGE

FROM	TO	DR. D RM. R CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL. PART. EL-P COMP. C
1858	1900	D			60	40	1125	5	56	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	2⁰⁰	6	DRLG
2⁰⁰	3⁰⁰	1	Tie Bottom Hole Sample to Log
3⁰⁰	3¹⁵	¼	Rig Serv BOP
3¹⁵	3³⁰	¼	Make 6 Stand Dummy TRIP
3³⁰	4⁰⁰	½	CIR Wait on Log TRUCK

8

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
13	STANDS D.P.	1210.58 FT.
1	SINGLES D.P.	31.28 FT.
20	D.C. I.D. 6¼ O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	41.27 FT.
	TOTAL	1900 FT.

WT. OF STRING 80M LBS.

BIT RECORD

BIT NO.	3
SIZE	7⅞
MFG.	HW
TYPE	XDV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	17790
DEPTH OUT	
DEPTH IN	1776
TOTAL FTG.	124
TOTAL HR. RUN	14½
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	5:00	10:00
WEIGHT	9.4	9.4
VISC.-SEC	69	66
W.L.-C.C.	5.7	5.7
FL TR. CK	2/32	
PH	10.5	10.5
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SAW DUST	2 SACK		

DRILLER D.A. Webber

FOOTAGE

FROM	TO	DR. D RM. R CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL. PART. EL-P COMP. C
1900							1125	5	56	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	12⁰⁰	8	CIR WAIT ON Log TRUCK

DAILY DRILLING REPORT — REPORT NO. 11 — DATE Jan 16/70

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
IMP OIL ENT	E OF AMOCO BOVIE 60-20-122-45	M-5			N W T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.	TYPE THD.
S & T DRILLING (WESTERN) CO. LTD.	5	2	4½	6"	F H

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo E Wuthrow

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝	M+M	J-55	20	629	13.10	629	

MORNING TOUR

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	2		1½
TRIPS			1
LUBRICATE RIG			
DEVIATION SURVEY	¼		
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
RIGGING			
WIRE LINE LOGGING	3¾		1¼
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			4¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		8

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
20	D.C. 6¼ I.D. O.D.	612.87	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	3
SIZE	7⅞
MFG.	HW
TYPE	XDV
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	17790
DEPTH OUT	1900
DEPTH IN	1776
TOTAL FTG.	124
TOTAL HR. RUN	14½
COND. OF BIT	6-1-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2³⁰
WEIGHT	9.4
VISC.–SEC	64
W.L.–C.C.	6.0
FLTR. CK.	2/32
PH	10.5
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	400#		
CMC	50#		

DRILLER D. A. Walker

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOLID–S PART'L–P COMP'D–C
1900							1125	5'	56	5½		S
								X		X		
				FUEL 4' 10"				15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1900	1½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁰⁰	2	CIRC WAIT FOR LOG TRUCK
2⁰⁰	2⁴⁵	¾	MAKE 2 STAND DUMMY TRIP (HOLE CLEAN)
2⁴⁵	3⁰⁰	¼	DROP SURVEY
3⁰⁰	4¹⁵	1¼	HOIST TO LOG
#15	9¹⁰	3¾	RIG TO & LOG w/ SCHLUMBERGER

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
20	D.C. 6¼ I.D. O.D.	612.87	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.–SEC	
W.L.–C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Duane Dalford

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOLID–S PART'L–P COMP'D–C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	4⁰⁰	8	LOG w/ SCHLUMBERGER

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
13	STANDS D.P.	1210.58	FT.
1	SINGLES D.P.	31.29	FT.
20	D.C. 6¼ I.D. O.D.	612.87	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS O.D.	4.00	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	41.27	FT.
	TOTAL	1900'	FT.
WT. OF STRING		80M	LBS.

BIT RECORD

BIT NO.	RR 3
SIZE	7⅞
MFG.	HW
TYPE	XDV
NOZZLE NO.	OPEN
NOZZLE SIZE	
SER. NO.	17790
DEPTH OUT	
DEPTH IN	C/RC
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1030
WEIGHT	9.4
VISC.–SEC	48
W.L.–C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER L. A. Walker

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOLID–S PART'L–P COMP'D–C
							400	5	61	5½		S
								X		X		
								15		12		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	5¹⁵	1¼	Log w/ Schlumberger — 10³⁰–12⁰⁰ 1½ CIRC WAIT ON ORDERS
5¹⁵	7⁰⁰	1¾	Velocity Survey
7⁰⁰	7³⁰	½	Starting Rig Motor: Rig & Pump motor
7³⁰	8³⁰	1	Cut Mud Ready to Run in Hole
8³⁰	9³⁰	1	Run in Hole
9³⁰	10⁰⁰	½	Make up Kelly Hose & Blow Kelly
10⁰⁰	10³⁰	½	Break Circ Clean 15' Fill To Bottom

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

DAILY DRILLING REPORT

REPORT NO. 12 DATE Jan 17/70

OPERATOR: IMP OIL ENT

LEASE: I OF AMOCO BOWIE 60-20-122-W5

WELL NO. M-5 | FIELD OR DIST. | COUNTY | STATE: N WT

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD. | RIG NO. 5

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT O.D. 6" | TYPE THD. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo Ewbank

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C 250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝	H&M	J-55	20	629	13.10	6.29	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
WAITING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	8	5	
FISHING			

COMPLETION WORK

A. PERFORATING	
B. TUBING TRIPS	
C. SWABBING	
D. TESTING	
E. ADDITIONAL	
TOTALS	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
13	STANDS D.P.	1210.58 FT.
1	SINGLES D.P.	31.29 FT.
20	D.C. 6⅛ I.D. O.D.	612.87 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS O.D.	4.00 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	41.27 FT.
	TOTAL	1900.00 FT.
	WT. OF STRING	80M LBS.

BIT RECORD		
BIT NO.	RR	3
SIZE		7⅞
MFG.		HW
TYPE		XDV
NOZZLE NO.		0
NOZZLE SIZE		OPEN
SER. NO.		17790
DEPTH OUT		
DEPTH IN		C/RC
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD			
TIME	12.00	3:00	6:00
WEIGHT	9.5	9.5	9.5
VISC.-SEC	65	87	90
W.L.-C.C.	5.8	5.8	5.8
FLTR. CK.	2	2	2
PH	10.0	10.5	10.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1100#		
Caustic	90#		

DRILLER: L. A. Walker

FOOTAGE FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
							400	5	61	5½		S
								X		X		
								15		12		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	8.00	8	CIRC WAIT ON ORDERS COND MUD
			Schlumberger of Can
			Got 160 Gals of #1 Gas
			Lynes United Sec Ltd
			Got 80 Gals of #1 Gas
			Century Geo Corp of Can
			Box 5700 Sta "A" Calgary Alta
			Got 115 Gals of Gas

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD		
BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD			
TIME	8.30		
WEIGHT	9.5		
VISC.-SEC	23		
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	1.00	5	CIRC WAIT ON ORDERS
1.00	1.15	1¼	HOIST OUT LAY DOWN FLEX PIPE +
2.15	2.45	½	RUN IN OPEN END
2.45	4.00	1¼	Pickup 28 SINGLES
[illegible]			[illegible]
		8	

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD		
BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD			
TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: D. A. Walker

FOOTAGE FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
				#1 Plug 1700 TO 1500								
				W/100 Sx Cement + 2% Cal								
				Plug down @ 5.45 PM								

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	Pick up 28 SINGLES
4.15	5.00	¾	Rig up HALLIBURTON to CEMENT
5.00	5.15	¼	CIR PIPE
5.15	6.00	¾	Mix Plug + pump DOWN 1700 TO 1500
6.00	6.30	½	Pull 28 stands
6.30	8.00	1½	Pull out of Hole
8.00	12.00	4	RUN IN + LAY DOWN D C's

DAILY DRILLING REPORT

REPORT NO. 13 DATE Jan 18/70

OPERATOR: IMP OIL ENT

LEASE: JOE AMOCO BOVIE 66-20-122-45

WELL NO.: M-5

FIELD OR DIST.:

COUNTY:

STATE: ALTA

CONTRACTOR: S & T DRILLING (WESTERN) CO. LTD.

RIG NO.: 5

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Geo E Watkinson

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-250	15
2.	Nat	C-150	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
8⅝	M+M	24 J-55	20	629	13.10	629	

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
WELDING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.–SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.–C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO.		FLTR. CK.	
	STB. BODY O.D.	FT.	NOZZLE SIZE		PH	
	RMR. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	DEPTH IN		MUD & CHEMICALS ADDED	
		FT.	TOTAL FTG.		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	TOTAL HR. RUN			
	TOTAL	FT.	COND. OF BIT			
WT. OF STRING		LBS.	REAMER NO.			
			REAMER TYPE		DRILLER: D. O. Webber	

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.–SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.–C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO.		FLTR. CK.	
	STB. BODY O.D.	FT.	NOZZLE SIZE		PH	
	RMR. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	DEPTH IN		MUD & CHEMICALS ADDED	
		FT.	TOTAL FTG.		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	TOTAL HR. RUN			
	TOTAL	FT.	COND. OF BIT			
WT. OF STRING		LBS.	REAMER NO.			
			REAMER TYPE		DRILLER	

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.–SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.–C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO.		FLTR. CK	
	STB. BODY O.D.	FT.	NOZZLE SIZE		PH	
	RMR. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	DEPTH IN		MUD & CHEMICALS ADDED	
		FT.	TOTAL FTG.		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	TOTAL HR. RUN			
	TOTAL	FT.	COND. OF BIT			
WT. OF STRING		LBS.	REAMER NO.			
			REAMER TYPE		DRILLER: D.O. Webber	

MORNING TOUR

FOOTAGE FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL–S PAR'L–P COM'D–C
				FUEL 5'5"								

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12¹⁵	¼	RIG SERV — FEIT FOR Plug # @ 2AM
12¹⁵	1⁴⁵	1½	W O C — TOP @ 1458
1⁴⁵	2⁰⁰	¼	RUN IN TBG PLUG @ 1458
2⁰⁰	2³⁰	½	PULL OUT TO 675 + RUN PLUG NO 2
2³⁰	3⁰⁰	5½	W O C LAY DOWN 36 JTS DRILL PIPE TEAR OUT BOP
			Plug #2 675–575 w/60 Sax + 2% Calx Plug down @ 230 AM

DAY TOUR

FOOTAGE FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL–S PAR'L–P COM'D–C
				FEIT FOR Plug #2 TOP @ 560								

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	9⁰⁰	1	FINISH TEAR OUT BOP
9⁰⁰	10¹⁵	1¼	FEIT plug @ 560. LAY DOWN 19 JTS DRILL PIPE
10¹⁵			LAY DOWN BOP
	4⁰⁰	5¾	PULL RAT HOLE BREAK KELLY & LAY DOWN TEAR OUT Rig
		8	

EVENING TOUR

FOOTAGE FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL–S PAR'L–P COM'D–C

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	12⁰⁰	8	TEAR OUT Rig
			Rig RELEASE 300 PM
18"X 9" FLATC IRON 3/8" THICK			MATERIAL USED FOR LOCATION SIGNES FOR LOCATION, 10E SUN BLACK STONE E 72 61° 11–27 –122 14–54 AND 20E AMOCO BOVIE MS–60–20–122–45
8 HRS WELDING (2 MEN)			1¼" OF 2" PIPE, 20" X 24" FLATE PLAT ⅛" THICK

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 13

WELL NAME I.O.E. ATTACA BOVIE M-45 Lsd. 60° Sec. 20' Twn. 122° Rge. 45' W. Contractor L.T.L. Ltd. Month 1 Day 12 1970

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL	Number	OD	ID	Length	INDICATOR WEIGH	TOTAL
COLLAR					DRILLING STRING	D. COLLARS
DATA						

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
Test for Plug #1 @ 2 AM. Top @ 1458.					
Plug #2 675-575 w 60 sack + 2% Ca Cl2 plug down @ 2:30 AM @ EH					

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
RIG SERV	12:00	12:15	1/4
W O C	12:15	1:45	1 1/2
RUN IN TAC PLUG @ 1458	1:45	2:00	1/4
PULL OUT TO 675 & RUN PLUG NO 2	2:01	2:30	1/2
W.O.C. LAY DOWN 36 JTS DRILL PIPE TEAR OUT BOP	2:31	8:00	5 1/2

Driller D. A. Webber

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR					DRILLING STRING / DRILL COLLARS
DATA					

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
Test for Plug #2 Top @ 560					
Rig released @ 3 PM AM @ EH					

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
FINISH TEAR out B.O.P.	8:00	9:00	1
Test plug @ 560 LAY DOWN 19 JTS DRILL PIPE	9:00	10:15	1 1/4
LAY DOWN B.O.P.	10:15		
PULL RAT HOLE REMOVE KELLY & LAY DOWN			
TEAR out Rig		4:00	5 3/4
			8

Driller Duane DeYoung

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR					DRILLING STRING / DRILL COLLARS
DATA					

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
5 sack Cement Plug in top of 9 5/8 Csg in Cellar Mouse Hole, Cut off 9 5/8 Csg 3' below ground level welded on plate welded on pipe & well name					

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery Plate

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
TEAR out Rig	4:00	12	8

Driller

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher ..... Approved by .....

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 12

WELL NAME I.E. ANOCO BOVIE M-5 Lsd. 60° Sec 20' N Twn. 122° Rge. 45' W. Contractor S+T Drlg. Month 1 Day 17 19 70

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1900			7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	1210.58	31.23	41.27	612.87	SOB 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	20	6 1/4	2 1/4	612.87		
					80 M	

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
RR3	XDV		CIRC					

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size OPEN Bit Wear: T____ B____ G____

SURVEYS Depth Deviation

SCOSH PUMP RECORD

	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1			400	15	61	5"
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	
1230	65	9.5	5.8	10.0	GEL	1100
300	87	9.5	5.8	10.5	CAUSTIC	50
500	90	9.5	5.8	10.5		

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
CIRC WAIT ON ORDERS. COND MUD	1200	800	8

Driller D.A. Webber

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T____ B____ G____

Depth Deviation

SCOSH PUMP RECORD

	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
CIR WAIT ON ORDERS	800	100	5
HOIST OUT LAYDOWN	100	215	1 1/4
FLEX PIPE			
RUN IN OPEN END	215	245	1/2
PICK UP ~~38~~ singles	245	100	

Driller Duane DeFord

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T____ B____ G____

Depth Deviation

SCOSH PUMP RECORD

	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
Plug #1 1500' to 1700 w 100 sx					
Cement + 2% Ca clo					
Plug down @ 545 PM					
E.T. Kennedy					

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
PICK UP 28 SINGLES	400	415	1/4
RIG UP HALLIBURTON TO CEMENT	415	500	3/4
CIR PIPE	500	615	1/4
MIX PLUG #1 1700-1500 PUMP DOWN	515	600	3/4
PULL 8 STANDS.	600	630	1/2
~~PULL END OF HOLE~~	630		
CIRC HOLE	630	7	1/2
PULL OUT	7	8	1
LAY DOWN 20 DCs	8	12	4

Driller

HEADING UP & DRLG. OUT: DRILLING: REAMING:

CLASSES OF TIME BREAKDOWN

TOTCO: FISHING: CIRCULATING: CONDITIONING MUD: TRIPPING: CORING: CASING: W.O.C. D.S. TESTING: LOGGING: W.O. ORDERS: RIG REPAIRS: RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE: REAMING CLEANING: WORKING PIPE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO____

Total Contract Time ____hrs. Total Company Time ____hrs. Toolpusher Geo. E. Wankhaus Approved by E.T. Kennedy

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 11

WELL NAME I.C.E. Amoco Bluff M-5 Lsd. 60 Sec. 20 Twn. 122 Rge. 15 W. Contractor S & T Energy Month 1 Day 16 19 70

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1900	TD		7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4½				612.87	30ft 4.00

	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
		20	6¼	2 7/8	612.87		

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
3	XDV	14½	124			1900	124	

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size 3-10 Bit Wear: T.____ B.____ G.____

SURVEYS

Depth 1900 Deviation 1½°

MUD PUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		1125	15	56	5

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
2 30	64	9.4	6.0	10.5	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
CIRC WAIT FOR LOG TRUCK	12 00	2 00	2
MAKE 2 STD DUMMY TRIP (HOLE CLEAN)	2 00	2 45	¾
DROP SURVEY	2 45	3 00	¼
HOIST TO LOG	3 00	4 15	1 1/4
RIG TO & LOG W/ SCHLUMBERGER	4 15	8 00	3 ¾

Driller D. A. Webber

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
		20	6¼	2 7/8	612.87		

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. ____ Jet ☐ Conventional ☐

Nozzle Size ____ Bit Wear: T.____ B.____ G.____

SURVEYS

Depth ____ Deviation ____

MUD PUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
LES	629 -	1886			
FDC	629 -	1885			
SNP	629 -	1886			
BHCS	10 -	1885			

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
LOG W/ SCHLUMBERGER	8 00	4 00	8

Driller Duane DeFord

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1900			7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4½	1210.58	31.28	41.27	612.87	30ft 4.00

	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
		20	6¼	2 7/8	612.87		

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
RR 3	XDV		CIRC					

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size OPEN Bit Wear: T.____ B.____ G.____

SURVEYS

Depth ____ Deviation ____

MUD PUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		400	15	61	5"

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery
CIRC WAIT ON ORDERS				10 30	12 00 - 1½

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
LOG W/ SCHL. — 3 PASS	4 00	5 15	
VELOCITY SURVEY	5 15	7 00	
STARTING LIGHT PLANT MOTOR			
RIG & PUMP MOTORS	7 00	7 30	
CAT HOOK READY TO RUN	7 30		
IN HOLE		8 30	1
RUN IN HOLE	8 30	9 30	1
MAKE UP KELLY HOSE & BLOW KELLY	9 30	10 00	½
BREAK CIRC CLEAN 15' FILL TO BTM	10 00	10 30	½

Driller D. A. Webber

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W. O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES____ NO____

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher Geo E Wachter Approved by .....

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 10

WELL NAME I.O.E. ATIOCO BAXIE M-5 Lsd. 60' Sec. 20' Twn. 122° Rge. 22' W. Contractor S+T Drlg. Month 1 Day 15 19 70

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1783	1858	75'	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4½	1210.58		30.55	612.97	308 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	20	6¼	2⅞	612.97	80M	

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
3	XDV	8½	82.	40M	60			

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size 3-10 Bit Wear: T.... B.... G....

Depth Deviation

SURVEYS

MUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		1125	15"	56	5"

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
1⁰⁰	50	9.4		10.5	GEL 700
4⁰⁰	58	9.4	6.6	10.5	CMC (REG) 50
7⁰⁰	60	9.4	6.0	10.5	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
RIG SERV ✓ B.O.P	12⁰⁰	12¹⁵	¼
DRLG	12¹⁵	8⁰⁰	7¾

Driller D. A. Webber

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

From	To	Hole Made	Bit Size	Formation
1858	1900	42	4¾	

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4½	1210.58	31.29	41.27	612.97	Sub 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	20	6¼	2⅞	612.87		

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
3	XDV				60			

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size 3-10 Bit Wear: T.... B.... G....

Depth Deviation

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		1125	15	56	5"

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
9⁰⁰	61	9.4	5.8	10.5	
1⁰⁰	66	9.4	5.7	10.5	

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

	From	To	Hrs.
DRLG	8⁰⁰	2⁰⁰	6
Cir Bottom Hole Sample To Log	2⁰⁰	3⁰⁰	1
Rig Ser ✓ B.O.P	3⁰⁰	3¹⁵	¼
Make 6 Stand Dummy Trip	3¹⁵	3³⁰	¼
Cir waite on Log Truck	3³⁰	4⁰⁰	½
			8

Driller Duane DeFord

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

From	To	Hole Made	Bit Size	Formation
1900			7⅞	

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4½	1210.58	31.29	41.27	612.97	Sub 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	20	6¼	2⅞	61287	30M	

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
3	XDV	14½	124					

Bit Serial No. 17790 Jet ☑ Conventional ☐

Nozzle Size 3-10 Bit Wear: T.... B.... G....

Depth Deviation

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
	8	1125	15	56	5"

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
5⁰⁰	69	9.4	5.7	10.5	
10⁰⁰	66	9.4	5.7	10.5	

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

	From	To	Hrs.
Cir waite on Log Truck	4⁰⁰	12⁰⁰	8

Driller D. A. Webber

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W. O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher Leo E. Wiedbusch Approved by Dunn Kelly

Form 34402 (200 bks -5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 9

WELL NAME I.O.E. AMOCO Bovie M-5 Lsd. 60 Sec. 20 Twn. 122 Rge. 4 W. Contractor C.A.T. Drlg. Month 1 Day 14 19 70

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1635	1710	75	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	1024.09	3.40	27.14	612.87	

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR	20	6 1/4	2 7/8	612.87	DRILLING STRING / DRILL COLLARS
DATA					75

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	XV	3 3/4	75	25	60			

Bit Serial No. 16223 Jet ☑ Conventional ☐

Nozzle Size 3-10 Bit Wear: T____ B____ G____

SURVEYS

Depth 1650 Deviation 1°

MUD PUMP RECORD

	Hours On Line	Hours Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1			1000	12	52	5 1/2
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
700	49	9.2	7.8	10.5	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
RIG SERV	1200	1215	1/4
FINISH IN W/ BIT	1215	200	1 3/4
MAKE UP KELLY HOSE	200	215	1/4
CLEAN 90' TO BOTTOM	215	400	1 3/4
DRLG	400	445	3/4
SURVEY @ 1650	445	500	1/4
DRLG	501	800	3

Driller D.A. Wilbur

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1710	1760	50	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	1103.01		25.92	612.87	

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR	20	6 1/4	2 7/8	612.87	DRILLING STRING / DRILL COLLARS
DATA					75 M

BIT RECORD

No	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	XV	25	125	25	60			

Bit Serial No. 16223 Jet ☑ Conventional ☐

Nozzle Size 3/10 Bit Wear: T____ B____ G____

Depth 1710 Deviation 1°

MUD PUMP RECORD

	Hours On Line	Hours Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
			1150	12	60	5 1/2

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
1100	60	9.1	6.2	10.5	CMC 50 #
200	60	9.4	6.8	10.5	GEL 500 #

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery
Circulate Out					

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Survey @ 1710	900	930	1/2
Change pop valve in pump	930	830	1/2
Rig Serv BOP			
DRLG	830	245	6 1/2
Change suction cap on C.O.	245	315	1/2
DRLG	315	400	1/2

Driller Duane Du Ford

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1760	1783	23	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4"	1118.59	29.59	12.15	612.87	500

DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
COLLAR	20	6 1/4	2 7/8	612.87	DRILLING STRING / DRILL COLLARS
DATA					75 M

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	XV	13 1/2	141	25	60	1726	141	

Bit Serial No. 16223 Jet ☑ Conventional ☐

Nozzle Size 3/10 Bit Wear: T 6 B____ G____

Depth 1726 Deviation 1°

MUD PUMP RECORD

	Hours On Line	Hours Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
			1150		60	5 1/2

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
400	54	9.4	6.7	10.5	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
DRLG	400	645	2 3/4
Survey @ 1776 @ 10	645	700	
TRIP for new BIT	700	800	1
BREAK & LAY DOWN 4" DP	800	915	1 1/4
REPAIR 4" CAMERON ON STD PIPE	915	1015	1
RUN IN W/ BIT	1015	1115	1
DRLG	1115	1200	3/4

Driller D.A. Wilbur

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ☑ NO ☐

Total Contract Time ____hrs. Total Company Time ____hrs. Toolpusher Geo. Brockman Approved by Jim Kelly

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 8

WELL NAME JOE ANACO BOVIE 11-5 Lsd. 6 Sec. 20 Twn. 122 Rge. 15 W. Contractor S+T Drlg Month 1 Day 13 19 70

DEPTH

1st Tour From: 12:00 Midnight To: 8:00 a.m.				
From	To	Hole Made	Bit Size	Formation
1607	1635	28	7 13/16	

2nd Tour From: 8:00 a.m. To: 4:00 p.m.				
From	To	Hole Made	Bit Size	Formation

3rd Tour From: 4:00 p.m. To: 12:00 p.m.				
From	To	Hole Made	Bit Size	Formation
1635			7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	10 3396		16.19	523.97	65.95

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS
	17	6 1/4	2 7/8	523.97		

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1C	◇	12	55	1/4M	100	1635		

Bit Serial No. EC 9908 Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

Depth Deviation

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

Depth Deviation

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	XV							

Bit Serial No. 16223 Jet ☐ Conventional ☐

Nozzle Size 3-10 Bit Wear: T B G

Depth Deviation

SURVEYS

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		875	15	61	5"

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
2 00	54	9.2	8.0	11	
4 00	56	9.3	8.0	11	
6 00	54	9.2	7.4	11	

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
	TEST 1/4				

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
CUT CORE NO 1	12 00	6 45	6 3/4
BLOW KELLY	6 45	7 00	1/4
HOIST	7 01	8 00	1

Driller D. A. Webber

	From	To	Hrs.
FINISH TRIPING	8 00	8 30	
RECOVER CORE USED BARREL	8 30	9 30	
PICK UP PACKER & STEAM MAKE-UP SAME	9 30	12 00	
RUN IN W/ PACKER	12 00	2 15	
LAY DOWN TWO SINGLE MAKE HEADS	2 15	2 30	
D.S.T. NO 1	2 30	4 00	
			8

Driller Duncan Dufour

	From	To	Hrs.
D.S.T. NO 1	4 00	5 30	
SLIGHT BLOW AFTER	5 30	6 30	
PULLED BACK LEASE	6 30	4 00	
CLOSE BOP CHECK			
PRESSURE ON ANALOG 0 PSI			
HOIST DST NO 1	7 00	9 30	2 1/2
SERV LAY DOWN & LOAD OUT TESTING	9 30	11 15	1 3/4
SLIP 23' DRLG LINE	11 15	11 45	1/2
RUN IN W/ BIT	11 45	12 00	1/4

Driller D. A. Webber

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: DRILLING: REAMING: TOTCO: FISHING: CIRCULATING: CONDITIONING MUD: TRIPPING: CORING: CASING: W.O.C. D.S. TESTING: LOGGING: W. O. ORDERS: RIG REPAIRS: RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE: REAMING CLEANING: WORKING PIPE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by Tom Kyle

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 7

WELL NAME Loe Anco Pool M-5 Lsd. 10 Sec. 20 Twn. 122 Rge. 25 W. Contractor S+T Drlg. Month 1 Day 12 19 76

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1474	1580	10.6	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	931.79		31.34	612.97	50 5/8 11.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	20	6 1/4	2 1/8	612.97	721	

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	X-1C	40 1/4	944	28-32 / 18-20	70	1580		

Bit Serial No. 14357 Jet ☑ Conventional ☐

Nozzle Size 1-12 2-13 Bit Wear: T 2 B 3 G 1/16

SURVEYS

Depth 1499 1559 Deviation 3/4° 1°

MUSH PUMP RECORD

No.	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1			600	15	60	5"
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
2:00	52	8.7	8.8	11.0	DEL — 400
4:30	49	8.9	8.8	11.0	CMC — 50
7:00	45	9.0		11.0	
					8 SAX SAWDUST
					THAW GROUND FOR STAKES

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
DRLG	12:00	12:30	1/2
SURVEY @ 1499	12:30	12:45	1/4
RIG SERV	12:45	1:00	1/4
DRLG	1:00	4:30	3 1/2
SURVEY @ 1559	4:30	4:45	1/4
DRLG	4:45	6:15	1 1/2
CIRC SAMPLE	6:15	7:45	1 1/2
DRAIN KELLY	7:45	8:00	1/4

Driller D. A. Wilder

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth Deviation

MUSH PUMP RECORD

No.	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1						
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
BLOW KELLY & FILL LINES	8:00	8:15	1/4
TRIP OUT STRAP OUT	8:15	12:00	3 3/4
RIG SERV & BOP	12:00	10:00	1/4
RUN IN HOLE	10:00	10:15	1/4
CIR	10:15	11:30	1 1/4
BLOW KELLY	11:30	1:00	1 1/2
TRIP TO CORE	1:00	1:15	1/4
PICK UP CORE BARREL STEAM THAW	1:15	2:30	1 1/4
RUN IN HOLE SLOW W/CORE	2:30	3:15	3/4
BARREL	3:15	4:00	3/4

Driller Duane D. Ford

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
1580	1607	27	7 7/16	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	935.12	60.72	19.77	523.97	45.98

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	17	6 1/4	2 1/8	523.97	72	

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	D	5 1/4	27	14-16	100			

Bit Serial No. EC 9908 Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth: Deviation

MUSH PUMP RECORD

No.	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1			875	15	61	5"
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
					CMC 50#
9:00	48	9.2	10.0	11.0	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery
1	1590				

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
FINISH RUNNING IN & CLEAN TO BOTTOM.	4:00	6:15	2 1/4
CIR CORE BARREL	6:15	6:30	1/4
DROP BALL	6:30	6:45	1/4
CORE 7 13/16	6:45	12:00	5 1/4

Driller D. A. Wilder

HEADING UP & DRLG. OUT: DRILLING: REAMING:

CLASSES OF TIME BREAKDOWN
TOTCO: FISHING: CIRCULATING:
CONDITIONING MUD: TRIPPING: CORING:
CASING: W.O.C. D.S. TESTING:
LOGGING: W.O. ORDERS: RIG REPAIRS:
RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE:
REAMING CLEANING: WORKING PIPE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher [illegible] Approved by Duane Kelly

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 6

WELL NAME Joe Amoco Boyle No 5 Lsd. 60 Sec. 20 Twn. 122 Rge. 15 W. Contractor Sat Drlg. Month 1 Day 11 19 70

DEPTH

1st Tour From: 12:00 Midnight To: 8:00 a.m.				
From	To	Hole Made	Bit Size	Formation
817	1066	249	7 7/8	

2nd Tour From: 8:00 a.m. To: 4:00 p.m.				
From	To	Hole Made	Bit Size	Formation
1066	1248	182	7 7/8	Shale

3rd Tour From: 4:00 p.m. To: 12:00 p.m.				
From	To	Hole Made	Bit Size	Formation
1248	1474	226	7 7/8	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	37.82	30.78	41.04	612.87	SUB 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS
	20	6 1/4	2 7/8	612.87	68M	

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2			4	612.87	SUB 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS
	20	6 1/4	2 7/8	612.87	75M	

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	84.75		16.38	612.87	SUB 4.00

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS
	20	6 1/4	2 7/8	612.87	72M	

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	X-16	14 1/4	430	18	70			

Bit Serial No. 18857 Jet ☑ Conventional ☐
Nozzle Size 1-12 2-13 Bit Wear: T. B. G.

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	Y-16	27 3/4	612	28	70			

Bit Serial No. 18857 Jet ☒ Conventional ☐
Nozzle Size 1-12 2-13 Bit Wear: T. B. G.

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	Y-16	34 1/4	838	28	70			

Bit Serial No. 18857 Jet ☑ Conventional ☐
Nozzle Size 1-12 2-13 Bit Wear: T. B. G.

SURVEYS

Depth 1000' Deviation 1/4°

Depth 1221 Deviation 1/8

Depth 1375 Deviation 1/4°

MUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		550	15	60	5"

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		550	15	60	5"

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		550	15	60	5"

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
1 30	28	8.7			GEL - 800 #
4 00	28	8.7			
6 30	28	8.6			1 SACK SAWDUST ON FLOOR

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
8 00	30	8.5		11.0	GEL 600.
1 00	30	8.5		11.0	
3 00	30	8.5		11.0	WATER

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
5 00	30	8.5		11.0	GEL 1500
8 00	37	8.7	15.6	11.0	CMC (REG) 50
11 00	41	9.0		11.0	

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
RIG SERV	12 00	12 15	1/4
DRLG	12 15	6 00	5 3/4
SURVEY @ 1000'	6 00	6 15	1/4
DRLG	6 15	8 00	1 3/4

	From	To	Hrs.
Rig Serv - B.O.P.	8 00	8 15	1/4
DRLG TO SHOE	8 15	2 45	6 1/2
Survey	2 45	3 00	1/4
DRLG 7 7/8	3 00	4 00	1

	From	To	Hrs.
DRLG	4 00	8 15	4 1/2
SURVEY @ 1375	8 15	8 45	1/2
CHANGE SHAKER SCREEN	8 45	9 15	1/2
DRLG	9 15	12 00	2 3/4

Driller D. A. Webber

Driller Duane D. Ford

Driller D. A. Webber

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W.O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher Lowell Nelson Approved by John Kelly

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 5

WELL NAME Imp. Oil Enterprises Amoco Bovie Lsd M-5 Sec 60 Twn 20 Rge 22 W. 4.5 Contractor S.T. Drlg. Western Month Jan. Day 10 1970

	1st Tour From: 12:00 Midnight To: 8:00 a.m.	2nd Tour From: 8:00 a.m. To: 4:00 p.m.	3rd Tour From: 4:00 p.m. To: 12:00 p.m.
DEPTH	From: / To: / Hole Made: / Bit Size: 7 7/8 / Formation:	From: 636 / To: 665 / Hole Made: 29 / Bit Size: 7 7/8 / Formation: Silt + Shale.	From: 665 / To: 817 / Hole Made: 152 / Bit Size: 7 7/8 / Formation: [illegible]
DRILLING STRING	Size-D.P.: / Stands: / Singles: / Kelly: / Drill. Collar Ft.: 581.59 / Core Bbl. Ft.: SUB 4.00	Size-D.P.: / Stands: / Singles: / Kelly: / Drill. Collar Ft.: / Core Bbl. Ft.:	Size-D.P.: 4½ / Stands: 9576 / Singles: 13.00 / Kelly: 14.50 / Drill. Collar Ft.: 612.87 / Core Bbl. Ft.: SUB 4.00
	DRILL COLLAR DATA: Number: 19 / OD: 6¼ / ID: 2 7/8 / Length: 581.59 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING: 56 M / DRILL COLLARS:	DRILL COLLAR DATA: Number: 19 / OD: 6¼ / ID: 2 7/8 / Length: 581.59 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING: / DRILL COLLARS:	DRILL COLLAR DATA: Number: 20 / OD: 6¼ / ID: 2 7/8 / Length: 598.00 / INDICATOR WEIGHT OF TOTAL: DRILLING STRING: / DRILL COLLARS:
BIT RECORD	No.: 1 / Type: X16 / Time On Bit: / Footage: / WOB: / RPM: / Depth Pulled: / Total Footage Drilled: / Reamed:	No.: / Type: / Time On Bit: / Footage: / WOB: / RPM: / Depth Pulled: / Total Footage Drilled: / Reamed:	No.: 1 / Type: X16 / Time On Bit: 6 3/4 / Footage: 191 / WOB: 15 / RPM: 70 / Depth Pulled: / Total Footage Drilled: / Reamed:
	Bit Serial No.: 18857 / Jet ☑ / Conventional ☐ / Nozzle Size: 2-22 1-20 / Bit Wear: T: B: G:	Bit Serial No.: / Jet ☐ / Conventional ☐ / Nozzle Size: / Bit Wear: T: B: G:	Bit Serial No.: 18857 / Jet ☑ / Conventional ☐ / Nozzle Size: 1-12 2-13 / Bit Wear: T: B: G:
SURVEYS	Depth: / Deviation:	Depth: / Deviation:	Depth: / Deviation:
MUD PUMP RECORD No. 1 No. 2	HOURS: On Line / Circulating / Pump Press / Length of Pump Stroke / Strokes Per Min. / Liner Size: KB to Top of Kelly Pump 1265	HOURS: On Line / Circulating / Pump Press / Length of Pump Stroke / Strokes Per Min. / Liner Size:	HOURS: On Line / Circulating / Pump Press: 600 / Length of Pump Stroke: 15 / Strokes Per Min.: 60 / Liner Size: 5"
MUD RECORD	Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS: Bicarbonate Soda 100#	Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS: Pressure Test Formation 125 PSI Bled Back To 100 PSI	Time / Visc. / Wt. / W L / pH / ADDITIVES — POUNDS: GEL 500 lb
CORING	Core No. / Depth In / Footage / Hours Run / Depth Out / Recovery: Pressure Test 4½ Rams, 1000 PSI 10 min. H-Pipe " " "	Core No. / Depth In / Footage / Hours Run / Depth Out / Recovery: Rig Up 3:45 pm OK Jan 10/70	Core No. / Depth In / Footage / Hours Run / Depth Out / Recovery:

DETAIL OF OPERATIONS AND REMARKS

From	To	Hrs.	1st Tour	From	To	Hrs.	2nd Tour	From	To	Hrs.	3rd Tour
12:00	12:15	¼	Rig Serv.	10:45	12:00	1¼	Drlg out Float & Rubbers	4:00	6:30	2½	Drlg.
12:15	1:15	1	Finish Drlg Mouse Hole				Drain [illegible]				Lay down 2 Sets Run 1
1:15	3:00	1¾	Pick up 9 Drill Collars				Pull out of Hole	6:30	7:00	½	Stand in Derrick
3:00			Pressure up pipe Rams & Hydril	11:45	12:00	¼	Rig Serv & V B.O.P	7:00	8:01	1	Prime & Put Clamp on No 1 Pump
	4:00	1	To 1000 PSI OK V Motor Shutoffs	12:00	1:15	1¼	Run in Hole	8:00	8:30	½	Blow Kelly & Hoist 1 STD
4:00	8:00	4	Drlg. out Float & Rubbers	1:15	4:00	1¾	Drilling 7 7/8 Hole	8:30	9:15	¾	Repair Barber Gate
								9:15	9:30	¼	Run back to Btm Pick up Kelly
								9:30	12:00	2½	Drlg

Driller: Don Doyle | Driller: C. Lachance | Drillers: D. Depeal D.A. Webber

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: / DRILLING: / REAMING: / TOTCO: / FISHING: / CIRCULATING: / CONDITIONING MUD: / TRIPPING: / CORING: / CASING: / W.O.C. / D.S. TESTING: / LOGGING: / W. O. ORDERS: / RIG REPAIRS: / RIG MAINTENANCE: / MISCELLANEOUS: / CONDITION HOLE: / REAMING CLEANING: / WORKING PIPE: / LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO

Total Contract Time .....hrs. Total Company Time .....hrs. Tooipusher ..... Approved by .....

Form 34402 (200 blks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 4

WELL NAME Imp. Oil ENTERPRISES AMOCO BOWIE Lsd. M-5 Sec. 60 Twn. 20 Rge. 122 W. 6 5 Contractor S.T. DRLG. WESTERN Month. JAN. Day. 9 19 70.

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth	Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
W. O. C.	12:00	7:15	7 1/4
Pack off Lnd Joint + ceiling	7:15	8:00	3/4

Driller Don Doyle

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth	Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

Time 7:15 PM

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

OK for Pres. Test Blind rams 1000 PSI

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
W.O.C.	8:00	4:00	8.
Heads up.			

Driller C. Saulnier

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	INDICATOR WEIGHT OF TOTAL DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T B G

SURVEYS

Depth	Deviation

MUD PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Rig Lay	4PM	4:15	1/4
Head Up	4:15	7:15	3
Pressure Blind Rams OK	7:15	7:30	1/4
Blow Mud Line & Flare	7:30	8:30	1
Run in w/ DRILL Collars	8:30	9:15	3/4
Pick up Kelly Frozen @ Gr. Lev	9:15		
In Suck Steam out		16:15	1
Drlg. @ MOUSEHOLE	16:15		
		12:00	1 3/4

Driller C. Saulnier Don Doyle

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT.
DRILLING:
REAMING:
TOTCO:
FISHING:
CIRCULATING:
CONDITIONING MUD:
TRIPPING:
CORING:
CASING:
W.O.C.
D.S. TESTING:
LOGGING:
W. O. ORDERS:
RIG REPAIRS:
RIG MAINTENANCE:
MISCELLANEOUS:
CONDITION HOLE:
REAMING CLEANING:
WORKING PIPE:
LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES ✓ NO.

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher ..... Approved by .....

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 3.

WELL NAME I.O.E. Amoco Bovie M-5-60-20-122-4-5 Lsd..... Sec..... Twn..... Rge..... W..... Contractor S+T Drlg Western Month JAN Day 2 19 70

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
432	611	179	12 1/4	Sandy Shale

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	3 283.27		41.50	278.83	

	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
	COLLAR	9	6 1/4	2 7/8	278.83	DRILLING STRING / DRILL COLLARS
	DATA					42M / 21M

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	OSC3	11 1/2	321	15	100			

Bit Serial No. 10645 Jet ☐ Conventional ☑

Nozzle Size Bit Wear: T..... B..... G.....

SURVEYS

Depth 580 Deviation 1/2°

MUSH PUMP RECORD

	HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1			450	15	60	7 1/4
No. 2						

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
1:30	78	9.			Gel 1200
3:30	75	9.1			Caustic 100
4:45	61	9.2			Water-

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Rig Service	12:00	12:15	1/4
Drlg. 12 1/4" Hole	12:15	3:00	2 3/4
Sand line tie ould nut go w/ survey	3:00	3:30	1/2
Drlg 12 1/4" Hole	3:30	6:30	3.
Survey	6:30	6:45	1/4
Circ to trip	6:45	7:15	1/2
Trip & strap out	7:15	8:00	3/4

Driller Don Doyle

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
611	636	25'	12 1/4	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
4 1/2	3	1	41.50	278.83	

	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
	COLLAR	9	6 1/4	2 7/8	278.83	DRILLING STRING / DRILL COLLARS
	DATA					

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
2	OSC3	13	341	15	100	636	341	

Bit Serial No. 10645 Jet ☐ Conventional ☑

Nozzle Size Bit Wear: T 2 B 1 G 1

Depth 636 Deviation 1/4

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
9:00	42	9.3			RAN 20 JTS
					Csg Landed
					Cement +
					JAN 2/70
					Good Return

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery
Ran 20 Run Csg.				12:45	11 1/2
Run 8 5/8 csg				2:15	4:00 3/4

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Trip in hole	8:00	8:45	3/4
Rig Service	8:45	9:00	1/4
Drill 12 1/4" Hole	9:00	9:15	1/4
Work on pump	9:15	9:45	1/2
Drill 12 1/4" hole	9:45	10:30	3/4
Work on Murphy Motor	10:30	10:45	1/4
Drill 12 1/4" Hole	10:45	11:15	1/2
Circ Hole	11:15	12:00	3/4
trip out of hole	12:00	12:45	3/4

Driller C. Saulnier

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
—	—	—	—	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
—	—	—	—	—	

	DRILL	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL
	COLLAR	—	—			DRILLING STRING / DRILL COLLARS
	DATA					— / —

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
KB To GL			- 13.10					

Bit Serial No. Jet ☐ Conventional ☐

Nozzle Size Bit Wear: T..... B..... G.....

Depth Deviation

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
8 5/8	24#	S J55	Rge 2	ERW	MANNSMAN Csg.
@	629.24 KB	Cemented with 425 sacks			
2%	CaCl2	Plug down @ 7:15 PM			
Cemented by Howco					

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Run 8 5/8 csg.	4:00	5:25	1 1/4
Circ -	5:15	6:00	3/4
Cement	6:00	7:15	1 1/4
W O C	7:15	12:00	4 3/4.

Driller C. Saulnier Don Doyle

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W. O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES..... NO.....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher A STACK Approved by Don Doyle

Form 34402 (200 bks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 2

WELL NAME I.O.E. Amoco Bodie M 5 Lsd. 06 Sec. 20 Twn. 122 Rge. 25 W. Contractor Sut Drlg Westcott Month Jan Day 4 19 70

	1st Tour From: 12:00 Midnight To: 8:00 a.m.					2nd Tour From: 8:00 a.m. To: 4:00 p.m.					3rd Tour From: 4:00 p.m. To: 12:00 p.m.				
DEPTH	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation	From	To	Hole Made	Bit Size	Formation
	182	290	108	12¼							290	432	142	12¼	
DRILLING STRING	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.	Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
				35.22	247.55								4½	9 stds	31.03	19.00	378.63	
	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS	DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING / DRILL COLLARS
		8	6½	2⅞	247.55				6½	2⅞				9	6¼	2⅞	278.63	
																	378 PM	
BIT RECORD	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed	No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
	1	OSC3		290	10M	100				1	OSC3	20	290	10M	100	290		
										2	OSC3							
	Bit Serial No.	16340		Jet ☐	Conventional ☐		Bit Serial No.	16340 – 10645		Jet ☐	Conventional ☐		Bit Serial No.	10645		Jet ☐	Conventional ☐	
	Nozzle Size			Bit Wear: T.	B.	G.	Nozzle Size			Bit Wear: T.	B.	G.	Nozzle Size			Bit Wear: T.	B.	G.
SURVEYS	Depth	203	265	Deviation	¼	½	Depth			Deviation			Depth	259 – 423		Deviation	¼ - ½	
SLUSH PUMP RECORD	HOURS On Line	Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS On Line	Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size	HOURS On Line	Circulating		Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
No. 1				300	15	60	7½								5¾			400	15	60	7¼
No. 2																					
MUD RECORD	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS	Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
		29	8.7			Gel 500						Sawdust #2	11 am	60	9.3			500 Gel
		35	8.7			Plaster 40						Gel 1200						150 Caustic
						Sawdust 5 sks												
						Water												
CORING	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery	Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery
DETAIL OF OPERATIONS AND REMARKS				From	To	Hrs.				From	To	Hrs.				From	To	Hrs.
	Drlg 12¼ Hole			12 00	1 15	1¼	Rig service			8 00	8 15	¼	Mix mud & sawdust			4 00	5 00	1
	Rig serv. & survey			1 15	1 45	½	Trip out of Hole			8 15	8 45	½	Run in hole			5 00	5 15	¼
	Drlg. 12¼ Hole			1 45	5 00	3¼	Mix mud & sawdust			8 45	4 00	7¼	Drlg 12¼ Hole			5 15	9 15	4
	Survey			5 00	5 15	¼							Survey			9 15	9 45	½
	Drlg 12¼ Hole			5 15	6 00	¾							Drlg 12¼ Hole			9 45	11 15	1½
	Work on Pump			6 00	6 30	½							Survey			11 15	11 45	½
	Drlg 12¼ Hole			6 30	7 00	½							Drlg 12¼ Hole			11 45	12 00	¼
	Repair Std line			7 00														
	Mix mud work on Pump				8 00	1												
	Driller Don Doyle						Driller C Faulkner						Driller C Faulkner Don Doyle					

CLASSES OF TIME BREAKDOWN

HEA. NG UP & DRLG. OUT: DRILLING: REAMING: TOTCO: FISHING: CIRCULATING: CONDITIONING MUD: TRIPPING: CORING: CASING: W.O.C. D.S. TESTING: LOGGING: W.O. ORDERS: RIG REPAIRS: RIG MAINTENANCE: MISCELLANEOUS: CONDITION HOLE: REAMING CLEANING: WORKING PIPE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES NO

Total Contract Time ..... hrs. Total Company Time ..... hrs. Toolpusher F. Strack Approved by Jim Kerby

Form 34402 (200 blks.-5-68)

IMPERIAL OIL LIMITED

DAILY DRILLING REPORT No. 1

WELL NAME 12-E Amoco Kodiak N/S Lsd. 12 Sec. 12 Twn. 122 Rge. 4 W. Contractor S & T Drlg. Western Month Jan. Day 6 19 72

1st Tour From: 12:00 Midnight To: 8:00 a.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
0	33	33	12 1/4	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
			33 IN		

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	OSC3	1 1/2	33					

Bit Serial No. 16340 Jet ☐ Conventional ☑

Nozzle Size Bit Wear: T.... B.... G....

SURVEYS

Depth Deviation

MUSH PUMP RECORD No. 1 No. 2

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
			15"		7 1/4

MUD RECORD

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
					Gel 200#
					Caustic 150#

CORING

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

DETAIL OF OPERATIONS AND REMARKS

	From	To	Hrs.
Rig to spud	12 00		
Drill rat Hole			
Mix mud		6 30	6 1/2
Spud in & Drlg 12 1/4 Hole	6 30	8 00	1 1/2

Driller Don Doyle

2nd Tour From: 8:00 a.m. To: 4:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
33	49	16	12 1/4	Stone Ground

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.
			41 50	73 11	

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	1	6 1/4	2 7/8	33 11		

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	OSC3	7 1/2	49				49	

Bit Serial No. 16240 Jet ☐ Conventional ☑

Nozzle Size Bit Wear: T.... B.... G....

Depth 46' 1/2 Deviation

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		950	15"	60	7 1/4

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

	From	To	Hrs.
Drlg 12 1/4 Hole	8 00	12 00	4
Trip for 7 1/8 bit drill 15'	12 00	1 30	1 1/2
change shaker screen	1 30		
Repair 4" standpipe valve		2 00	1/2
Ream w/ 12 1/4 bit	2 00	2 30	1/2
Drlg 12 1/4 Hole.	2 30	4 00	1 1/2

Driller G. Saulnier

3rd Tour From: 4:00 p.m. To: 12:00 p.m.

DEPTH

From	To	Hole Made	Bit Size	Formation
49	182	133	12 1/4	

DRILLING STRING

Size-D.P.	Stands	Singles	Kelly	Drill. Collar Ft.	Core Bbl. Ft.

DRILL COLLAR DATA	Number	OD	ID	Length	INDICATOR WEIGHT OF TOTAL DRILLING STRING	DRILL COLLARS
	5	6 1/4	2 7/8	154		

BIT RECORD

No.	Type	Time On Bit	Footage	WOB	RPM	Depth Pulled	Total Footage Drilled	Total Footage Reamed
1	OSC3	14 1/4	182					

Bit Serial No. 16340 Jet ☐ Conventional ☐

Nozzle Size 12 12 Bit Wear: T 1/2 B 1/2 G....

Depth Deviation

HOURS On Line	HOURS Circulating	Pump Press	Length of Pump Stroke	Strokes Per Min.	Liner Size
		2950			7 1/4

Time	Visc.	Wt.	W L	pH	ADDITIVES — POUNDS
1 30	45	8.7			Gel 500#
					Plaster 20#
400	29	8.7			Water

Core No.	Depth In	Footage	Hours Run	Depth Out	Recovery

	From	To	Hrs.
Drlg 12 1/4 hole	4 00	5 15	1 1/4
Ran w/l survey	5 15	5 30	1/4
Drlg 12 1/4 hole	5 30	7 00	1 1/2
w/l survey	7 00	7 30	1/2
Drlg. 12 1/4 hole	7 30	8 45	1 1/4
w/l survey service Rig	8 45	9 15	1/2
Drlg 12 1/4 hole	9 15	12 00	2 3/4

Driller Don Doyle

CLASSES OF TIME BREAKDOWN

HEADING UP & DRLG. OUT: TOTCO: CONDITIONING MUD: CASING: LOGGING: RIG MAINTENANCE: REAMING CLEANING:
DRILLING: FISHING: TRIPPING: W.O.C. W. O. ORDERS: MISCELLANEOUS: WORKING PIPE:
REAMING: CIRCULATING: CORING: D.S. TESTING: RIG REPAIRS: CONDITION HOLE: LOST CIRC.:

DID YOU CHECK BLOWOUT PREVENTER EQUIPMENT TODAY YES..... NO.....

Total Contract Time .....hrs. Total Company Time .....hrs. Toolpusher A. STACK Approved by