Drilling Authority No. 569

Date Issued 15-01-72

WELL NAME Union Japex Blackwater E-11

FIELD ..... Area: .....

LOCATION: Unit E Section 11 Grid 63-50-123-00

Latitude 63.40.20 Longitude 123.03.30

U.W.L.R. 63.67222-123.05833

U.W.I. 300E116350 123000

Rig Release Date: 04-04-72

Status D+A

Information Release Date 04-04-74

CHANGE OF NAME:

DATE RECEIVED	INDEX
11-01-72	Application for a Drilling Authority.
7-09-72	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
10-05-72	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
	Well Completion Data.
	Work-over Report No. .....
	Application to Commingle Production before Measurement.
	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.
01-03-72	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.....

Report No. — *Rapport n°*	Date received — *Date de réception*	Date released *Date d'envoi*	IAND 52-86 (1-71)
28-1-4-71	07-09-72	04-04-74	

Title — *Titre*

Well History Report - Union Tapex Blackwater E-11-CR-50-123-CC

Permittee — *Détenteur de permis*	Operator — *Usager*
Tapex Canada Ltd./Andex Oil Co Ltd	Union Oil Company of Can

Author — *Auteur*	Area — *Région*
J.S. McCaffrey	Blackwater Lake

Permit No. *Permis n°*	Release Date *Date d'octroi*	Permit No. *Permis n°*	Release Date *Date d'octroi*	Permit No. *Permis n°*	Release Date *Date d'octroi*
4898					

REVISED

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
MINISTÈRE DES AFFAIRES INDIENNES ET DU NORD CANADIEN

OIL & M[redacted] DIVISION
DIVISION DU PÉTROLE ET DES MINÉRAUX

WELL COMPLETION DATA
RENSEIGNEMENTS SUR LES FORAGES

Drilling Authority No. / *N° de l'autorisation de forage* 569

Date Issued / *Date de délivrance* Jan. 15/72

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

Well Name & No — *Nom et n° du puits*	Permit No. — *N° de permis*	Lease No. — *N° de concession*
UNION JAPEX BLACKWATER E-11	4898	

(Permittee, License, Lessee) — *(Détenteur de permis ou de licence, du concessionnaire)*	Exploratory Licence No. — *N° de licence de sondage*
Japex Canada Ltd. & Andex Oil Co. Ltd.	1954 & 1956
(Operator) — *(Exécutant)*	Exploratory Licence No. — *N° de licence de sondage*
Union Oil Company of Canada Ltd.	1429

LOCATION — *EMPLACEMENT*

Unit — *Unité*	Section	Grid — *Étendue quadrillée*	Latitude	Longitude
E	11	63° 50' N., 123° 00' W	63° 40' 20" N	123° 3' 30" W

Unique Well Identifier — *Code d'ordinateur*	Universal Well Location Reference — *Références universelles d'emplacement du puits*
300 E 11 6350123000	63.67222° N., 123.05833° W.

	Date	Depth — *Profoneur*
Spudded / *Début des travaux*	Feb. 22/72	
Suspended / *Suspension des travaux*		
Resumed Operations / *Reprise des travaux*		
Finished Drilling / *Forage terminé*	Apr 2/72	7120' Dr. 7122 Log
Deepened / *Approfondissement*		
Complete (Gas/Oil) / *Achèvement (Gaz/Pétrole)*		
Abandoned / *Abandon*	Apr 4/72	
Rig Released / *Fin des travaux*	Apr 4/72	

Pool(s) / *Gisement(s)*

Interval(s) Open to Production / *Intervalle(s) de production*

Elevation: Gr. / *Altitude du sol* 1642' K.B. / *du carré d'entraînement* 1655'

Rig No. / *N° de la tour de forage* 3

Drilling Contractor / *Entrepreneur en forage* Guthrie McLaren

Contractor's Business Licence No. / *N° du permis de l'entrepreneur*

CASING RECORD — *TUBAGE*

Casing Size (Inches) / *Diamètre (en pouces)*	Grade / *Qualité*	Weight / *Poids*	Amount / *Longeur*	Set at — / *Fixation à*	Sacks of Cement and Additives / *Sacs de ciment et d'additifs*
1. 9-5/8	H-40	32.3	791'	787'	600 + 2% $CaCl_2$
2.					
3.					
4.					
5.					
6.					

Geological Tops / *Sommet des formations*	Elevation — *Profondeur*	
	Depths / *Sous le niveau du sol*	Sub-Sea / *Sous le niveau de la mer*
Middle Devonian	1972	+ 317
Upper Ordovician	5850	-4195
Lower Ordovician	6293	-4638
Cambrian	6692	-5037
Total Depth	7122	-5467

Core Record — *Carottes*

From — *de*	To — *à*	Rec. / *Récupérées*	From — *de*	To — *à*	Rec. / *Recup.*
NO CORES CUT					

Log Record — *Diagrammes*

Run / *Série*	Type of Log / *Genre de diagramme*	From — *De*	To — *À*
1	Dual Induction Laterlog	787	7115
	BHC Sonic Gamma Ray Caliper	787	7120
	Sidewall Neutron Porosity	2000	7121

CEMENTING RECORD (Plug, Squeeze, etc.) *CIMENTATION (Bouchon, sous pression, etc.)*				PERFORATING RECORD (Bullet, Jet) *PERFORATION (à balles, à jet)*				SERVICING RECORD (Acidizing, Fracing, etc.) *ENTRETIEN (acidification, fracturation, etc.)*			
Date	From – *de*	To – *à*	Remarks – *Remarques*	Date	From – *de*	To – *à*	Remarks – *Remarques*	Date	From – *de*	To – *à*	Remarks – *Remarques*
Apr.3/72	7120'	6950'	Plug #1 with 110 sacks cement. No feel								
Apr.3/72	5500'	5350'	Plug #2 with 148 sacks cement + 2.5% $CaCl_2$ Felt top at 5247'								
Apr.4/72	3700'	3600'	Plug #3 with 90 sacks cement + 2% $CaCl_2$. Felt top at 3531'			N/A				N/A	
Apr.4/72	837'	737'	Plug #4 with 100 sacks cement + 2% $CaCl_2$ Felt top at 605'								

Apr. 4. Surface 5 sx. Weld on plate & sign.

DRILL STEM TESTS – *ESSAIS AUX TIGES*

No. – *N°*	Date	Formation	From – *de*	To – *à*	V.O. Mins. *Vanne ouverte (minutes)*	I.S.I. Mins. *Première obturation (minutes)*	F.S.I. Mins. *Obturation définitive (minutes)*	I.S.I.B.H.P. *Pression de fond à la 1re obturation*	F.S.I.B.H.P. *Pression de fond à l'obturation définitive*	I.F.B.H.P. *Pression de fond au jaillissement*	F.F.B.H.P. *Pression de fond à l'écoulement définitif*	L.H.P. *Pression hydrostatique de début*	F.H.P. *Pression hydrostatique définitif*	Remarks – *Remarques*
1	Mar.6/72	Bear Rock	2700'	2590'	30	60	60	594	510	75	75	1356	1351	Very weak air blow, dead after 5 mins. Salinity of recovery fluid 147 ppm (CL) Rec. 4' mud.
2	Mar.12/72	Bear Rock	3910	3685	60	60	60	1631	1576	365	971	1985	1977	Fair air blow, increasing, decreasing after 30 mins. then steady to end of test, 950' mud, 1000' water cut mud
3	Apr. 3/72	Bear Rock	5460	5320	60	60	60	2181	2182	2113	2181	2911	2770	Good air blow. Decreasing after 30 mins. Dead after 45 mins. Salinity of recovery fluid 1200 ppm (CL) Rec. 1000' muddy water & 3575' salty water.

ANALYSIS – *ANALYSE*

Lab. No. *N° de laboratoire*	Sample *Echantillon*	From – *de*	To – *à*	Source	Remarks – *Remarques*
933-2443	Water	3685	3910	DST #2	
C72-8573	"	5320	5460	" #3	
			N/A		

PRESENT STATUS OF WELL
ETAT ACTUEL DU PUITS

Oil *Pétrole*		(Interval) *(Intervalle)*
Gas *Gaz*		(Interval) *(Intervalle)*
Dry *Sec*	✓	D & A
Susp. *Travaux sus.*		

Company *Société* UNION OIL COMPANY OF CANADA LTD.

Signed by *Signé par* [signature]

Title *Titre* Drilling Superintendent

Date May 5, 1972

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY – 8 1972
YUKON TERR.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
MINISTÈRE DES AFFAIRES INDIENNES ET DU NORD CANADIEN

OIL & MINERAL DIVISION
DIVISION DU PÉTROLE ET DES MINÉRAUX

WELL COMPLETION DATA
RENSEIGNEMENTS SUR LES FORAGES

Drilling Authority No.
N° de l'autorisation de forage

Date Issued
Date de délivrance

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

Well Name & No — *Nom et n° du puits*	Permit No. — *N° de permis*	Lease No. — *N° de concession*
UNION JAPEX BLACKWATER E-11	4898	

(Permittee, License, Lessee) — *(Détenteur de permis ou de licence, du concessionnaire)*	Exploratory Licence No. — *N° de licence de sondage*
Japex Canada Ltd. & Andex Oil Co. Ltd.	
(Operator) — *(Exécutant)*	Exploratory Licence No. — *N° de licence de sondage*
Union Oil Company of Canada Ltd.	1429

LOCATION — *EMPLACEMENT*

Unit — *Unité*	Section	Grid — *Étendue quadrillée*	Latitude	Longitude
E	11	63° 50' N., 123° 00' W	63° 40' 20" N	123° 3' 30" W

Unique Well Identifier — *Code d'ordinateur*	Universal Well Location Reference — *Références universelles d'emplacement du puits*
300 E 11 6350123000	63.67222° N., 123.05833° W.

	Date	Depth — *Profondeur*
Spudded *Début des travaux*	Feb.22/72	
Suspended *Suspension des travaux*		
Resumed Operations *Reprise des travaux*		
Finished Drilling *Forage terminé*	Apr 2/72	7120'
Deepened *Approfondissement*		
Complete (Gas/Oil) *Achèvement (Gaz/Pétrole)*		
Abandoned *Abandon*	Apr 4/72	
Rig Released *Fin des travaux*	Apr 4/72	

Pool(s) *Gisement(s)*

Interval(s) Open to Production *Intervalle(s) de production*

Elevation: Gr. *Altitude du sol* 1642' K.B. *du carré d'entraînement* 1655'

Rig No. *N° de la tour de forage* 3

Drilling Contractor *Entrepreneur en forage* Guthrie McLaren

Contractor's Business Licence No. *N° du permis de l'entrepreneur*

CASING RECORD — *TUBAGE*

Casing Size (Inches) *Diamètre (en pouces)*	Grade *Qualité*	Weight *Poids*	Amount *Longeur*	Set at — *Fixation à*	Sacks of Cement and Additives *Sacs de ciment et d'additifs*
1. 9-5/8	H-40	32.3	791'	787'	600 + 2% $CaCl_2$
2.					
3.					
4.					
5.					
6.					

Geological Tops *Sommet des formations*	Elevation — *Profondeur* Depths *Sous le niveau du sol*	Sub-Sea *Sous le niveau de la mer*
Middle Devonian	1972	+ 317
Upper Ordovician	5850	−4195
~~Lower Ordovician~~	~~6293~~	~~−4638~~
Cambrian	6692	−5037
Total Depth	7122	−5467

Core Record — *Carottes*

From — *de*	To — *à*	Rec. *Récupérées*	From — *de*	To — *à*	Rec. *Recup.*
NO CORES CUT					

Log Record — *Diagrammes*

Run *Série*	Type of Log *Genre de diagramme*	From — *De*	To — *À*
1	Dual Induction Laterlog	787	7115
	BHC Sonic Gamma Ray Caliper	787	7120
	Sidewall Neutron Porosity	2000	7121

CEMENTING RECORD (Plug, Squeeze, etc.) *CIMENTATION (Bouchon, sous pression, etc.)*			
Date	From — *de*	To — *à*	Remarks — *Remarques*
Apr.3/72	7120'	6950'	Plug #1 with 110 sacks cement. No feel
Apr.3/72	5500'	5350'	Plug #2 with 148 sacks cement + 2.5% $CaCl_2$ Felt top at 5247'
Apr.4/72	3700'	3600'	Plug #3 with 90 sacks cement + 2% $CaCl_2$. Felt top at 3531'
Apr.4/72	837'	737'	Plug #4 with 100 sacks cement + 2% $CaCl_2$ Felt top at 605'

PERFORATING RECORD (Bullet, Jet) *PERFORATION (à balles, à jet)*			
Date	From — *de*	To — *à*	Remarks — *Remarques*
		N/A	

SERVICING RECORD (Acidizing, Fracing, etc.) *ENTRETIEN (acidification, fracturation, etc.)*			
Date	From — *de*	To — *à*	Remarks — *Remarques*
		N/A	

DRILL STEM TESTS — *ESSAIS AUX TIGES*

No. — *N°*	Date	Formation	From — *de*	To — *à*	V.O. Mins. *Vanne ouverte (minutes)*	I.S.I. Mins. *Première obturation (minutes)*	F.S.I. Mins. *Obturation définitive (minutes)*	I.S.I.B.H.P. *Pression de fond à la 1re obturation*	F.S.I.B.H.P. *Pression de fond à l'obturation définitive*	I.F.B.H.P. *Pression de fond au jaillissement*	F.F.B.H.P. *Pression de fond à l'écoulement définitif*	L.H.P. *Pression hydrostatique de début*	F.H.P. *Pression hydrostatique définitif*	Remarks — *Remarques*
1	Mar.6/72	Bear Rock	2700'	2590'	30	60	60	594	510	75	75	1356	1351	Very weak air blow, dead after 5 mins. Salinity of recovery fluid 147 ppm (CL)
2	Mar.12/72	Bear Rock	3910	3685	60	60	60	1631	1576	365	971	1985	1977	Fair air blow, increasing, decreasing after 30 mins. then steady to end of test, 950' mud, 1000' water cut mud
3	Apr.3/72	Bear Rock	5460	5320	60	60	60	2181	2102	2113	2181	2911	2770	Good air blow. Decreasing after 30 mins. Dead after 45 mins. Salinity of recovery fluid 1280 ppm (CL)

ANALYSIS — *ANALYSE*

Lab. No. *N° de laboratoire*	Sample *Echantillon*	From — *de*	To — *à*	Source	Remarks — *Remarques*
			N/A		

PRESENT STATUS OF WELL *ETAT ACTUEL DU PUITS*

		(Interval) *(Intervalle)*
Oil *Pétrole*		
Gas *Gaz*		
Dry *Sec*	√	D & A
Susp. *Travaux sus.*		

Company *Société* UNION OIL COMPANY OF CANADA LTD.

Signed by *Signé par* J.J. Sullivan

Title *Titre* Drilling Superintendent

Date May 5, 1972

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

CANADA

Drilling Authority No.....

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

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 Union Japex Blackwater E-11

Location: Unit E Section 11 Grid 63° 50' N., 123° 00' W.

Latitude 63° 40' 20" N Longitude 123° 3' 30" W

From Established Reference Marker

Universal Well Location Reference 63.67222° N., 123.05833° W.

Permit No. 4898 Lease No.

Japex Canada Ltd. & Andex Oil Co. Ltd.
(Permittee, Licencee, Lessee)

Date of commencement of proposed program

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at N/A

Gas at N/A

Water at N/A

Total Depth 7120' Date of last operations April 4, 1972

Present condition of well Dry and Abandoned

CASING RECORD

	Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1.	9-5/8"	32.3#	79..'	787'	600 + 2% $CaCl_2$	Set in tension
2.						
3.						
4.						
5.						

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	7120'-6950'	Cambrian (eroded)	110	No feal
2	5500'-5350'	Bear Rock	148	Felt at 5247'
3	3700'-3600'	Bear Rock	90	Felt at 3531'
4	837'-737'	Cretaceous	100	Felt at 605'
	Cut off casing 3' below ground level. Welded on steel plate - welded rod to top of casing, extending 3' above ground level, and welded name of well to top of rod.			

The following logs have been run DLL, BHC, SGRC, SMP

Other operations proposed Abandon well, restore wellsite, location and access road

Operations to be carried out by Guthrie McLaren Drilling Contractor Licence No.

Address 14630 - 119th Ave. Edmonton, Alberta. Address

Responsible Agent in field H. R. Stoddart

Dated at Calgary, Alberta, this 4th Day of May 19 72

Signed by [signature] Company UNION OIL COMPANY OF CNADA LTD.

Title Drilling Superintendent Operator's Exploratory Licence No. 1429

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

(For OIL AND MINERAL DIVISION use only)

APPROVAL

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

Dated May 10, 19 72

[signature] District Conservation Engineer

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY - 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

IAND 52-90-5 (7-71)

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

Ottawa

848932

Drilling Authority No. ... 569 ... N71A007
Project No. .....

Dr Berry

DEPT. I.A. & N.D.
CENTRAL MAIL ROOM
CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

JAN 17 9 53 AM '71

Application for a Drilling Authority

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
OIL & MINERAL DIVISION
JAN 11 1972
CALGARY 21, ALBERTA
Oil Conservation Engineer
Northwest Territories & Yukon Territory

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 .. UNION JAPEX BLACKWATER E-11

Location: Unit ... E ... Section ... 11 ... Grid 63°50'N. 123°00'W.
Latitude 63°40'20"N. Longitude 123°3'30"W.
Unique Well Identifier. 300E116350123000
Universal Well Location Reference. 63.67222° N 123.05833 W

Elevation: Ground ... 1642'(est.) ... K.B. ... feet above sea-level.
Well is expected to produce from Devonian and Ordovician formation at a depth of about 5400 and 5900 feet. Expected total final depth 7000'
Area assigned to well ... Wildcat
(for District Conservation Engineer's use only)

Permit No. 4898 Lease No. Acreage
Permittee, licensee, or lessee Japex Canada Ltd. & Andex Oil Co. Ltd.
Explanatory Licence No. 1429
Surface owned by Crown or Crown
(If alienated submit name and address of owner and occupant.)

Petroleum and natural gas rights owned by Crown
We propose to use the following strings of casing, either cementing or landing them as indicated below:—

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1. 16"		Conductor	New	60'	100 sacks
2. 9-5/8"	32.3#	H-40	New	800'	650 sacks
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment. Middle Devonian and Ordovician, control by adequate mud weight and Hydril and Shaffer BOP's.

Well will be drilled with Rotary Rig No. 3 by Guthrie-McLaren Drilling Ltd.
(Drilling Contractor or company)

Responsible agent of applicant:— Contractor's Business Licence No.
At well H.R. Stoddart At registered office E.J. Connor
Address 335 - 8th Ave. SW., Calgary. Address 335 - 8th Ave. SW., Calgary, Alta.
It is understood that if changes become necessary, notice of the change of plan will be submitted.
Dated at Calgary, this 29 day of December 19 71
Signed by ... Company Union Oil Company of Canada Ltd.
Title Manager Production Operations Operator's Licence No. 1429

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:
See attached sheet

Dated. January 15 19 72 ... District Conservation Engineer

Forms to be submitted to District Conservation Engineer, Department of Indian Affairs and Northern Development.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 12 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

IAND 52-90-1 (7-71)

CONDITIONS OF APPROVAL FOR DRILLING AUTHORITY NO.
FOR Union Japex Blackwater E-11

1. Copies of this Drilling Authority shall be exhibited at the Drilling Rig in both the Doghouse and the Drilling Foreman's Office between spud and rig release dates.

2. The Company will submit to this office on Tuesday of each week, a Progress Report on the well. The Oil Conservation Engineer may request more frequent reports.

3. All waste materials shall be disposed of in a manner that will prevent pollution to adjacent areas.

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

5. Any additional strings of casing must be approved by the District Conservation Engineer prior to running.

6. All shows (small or large) of oil and gas are to be reported immediately.

G. E. Blue,
District Conservation Engineer,
Box 1500,
Yellowknife, N.W.T.

Bus. Phone 873-4421
Res. Phone 873-3028

(30)

DRILLING AUTHORITY No. 569

WELL BULLETIN - CANADA LANDS

OIL AND MINERAL DIVISION

DATE Jan. 13,'72

Date Drilling Authority Issued: 29th December, 1971.

Permit No.: 4898

Company: Union Oil Company of Canada Ltd.

Well Name: UNION JAPEX BLACKWATER E-11

Location: Lat. 63° 40' 20" N Long. 123° 3' 30" W

Co ordinates: Unit: E Section: 11 Grid: 63°50'N 123°00'W

Universal Well Location Reference: 63.67222° N 123.05833 W

Unique Well Identifier: 300E116350123000

Field: Wildcat

Ground Elevation: 1642'(est.)
Projected Depth: 7000'
Contractor: Guthrie McLaren Drilling Ltd.
Rig No.: 3
Mail To:

Oil & Gas Journal
Petroleum Information Exchange
Oilweek
Daily Oil Bulleint
Well Information Services
Northwestern District Oil Scouts
~~XXXXXXXXXXXX~~
G. B. Armstrong
D. Bohun
M. Thomas

G. E. Blue,
Oil Conservation Engineer,
Oil & Mineral Division,
D.I.A.N.D.,
Box 1500,
Yellowknife, N.W.T.

UNION JAPEX BLACKWATER E-11
DRILLING PROGRAM

CONTRACTOR

Guthrie-McLaren Drilling Ltd.

PROPOSED DEPTH

7000'

HOLE SIZE AND CASING PROGRAM

Depth	Hole Size	Casing	Cement
0 - 60'	22"	16"	to Surface
60' - 700' (est)	12-1/4 (or) 13-3/4"	9-5/8"	to Surface
700' - 7000'	8-3/4"	(to be determined)	

MUD PROGRAM

0 - 700'	Gel-caustic
700 - 5500'	Water or light gel-chemical
5500- 7000'	Gel-chemical

DEVIATION

Surface hole - maximum 1°
Under surface - maximum 7°

CORING AND TESTING

At discretion of wellsite geologist. Formations where testing or coring may be required are the Nahanni Hume, Bear Rock, Mount Kindle, and Mount Clark.

LOGGING PROGRAM (Tentative)

(1) BHC-SGRC - surface casing to T.D.
(2) DILL - surface casing to T.D.
(3) FDG - Nahanni to T.D.
(4) GSNP - Nahanni to T.D.

Mud Logging Unit - Surface casing to T.D.

N71A007

UNION OIL COMPANY OF CANADA LIMITED
GEOLOGICAL PROGNOSIS

FORMATION TOPS	SUBSEA	DEPTH
Pleistocene-Cretaceous		0-2080
Middle Devonian		
Hare Indian	- 426	2080
Nahanni Hume	- 606	2260
Bear Rock	- 906	2560
Seismic "A" Event	-2306	3960
Bear Rock Prospect Zone	-3796	5450
Upper Ordovician		
Mt. Kindle	-4256	5910
Lower Ordovician		
Franklin Mountain	-4856	6510
Cambrian		
Mt. Clark	-5306	6960
Total Depth		7000

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 12 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOP., CAN.
OIL & MINERAL DIVISION
JAN 11 1972
CALGARY 21, ALBERTA
OIL CONSERVATION ENGINEER
Northwest Territories & Yukon Territory

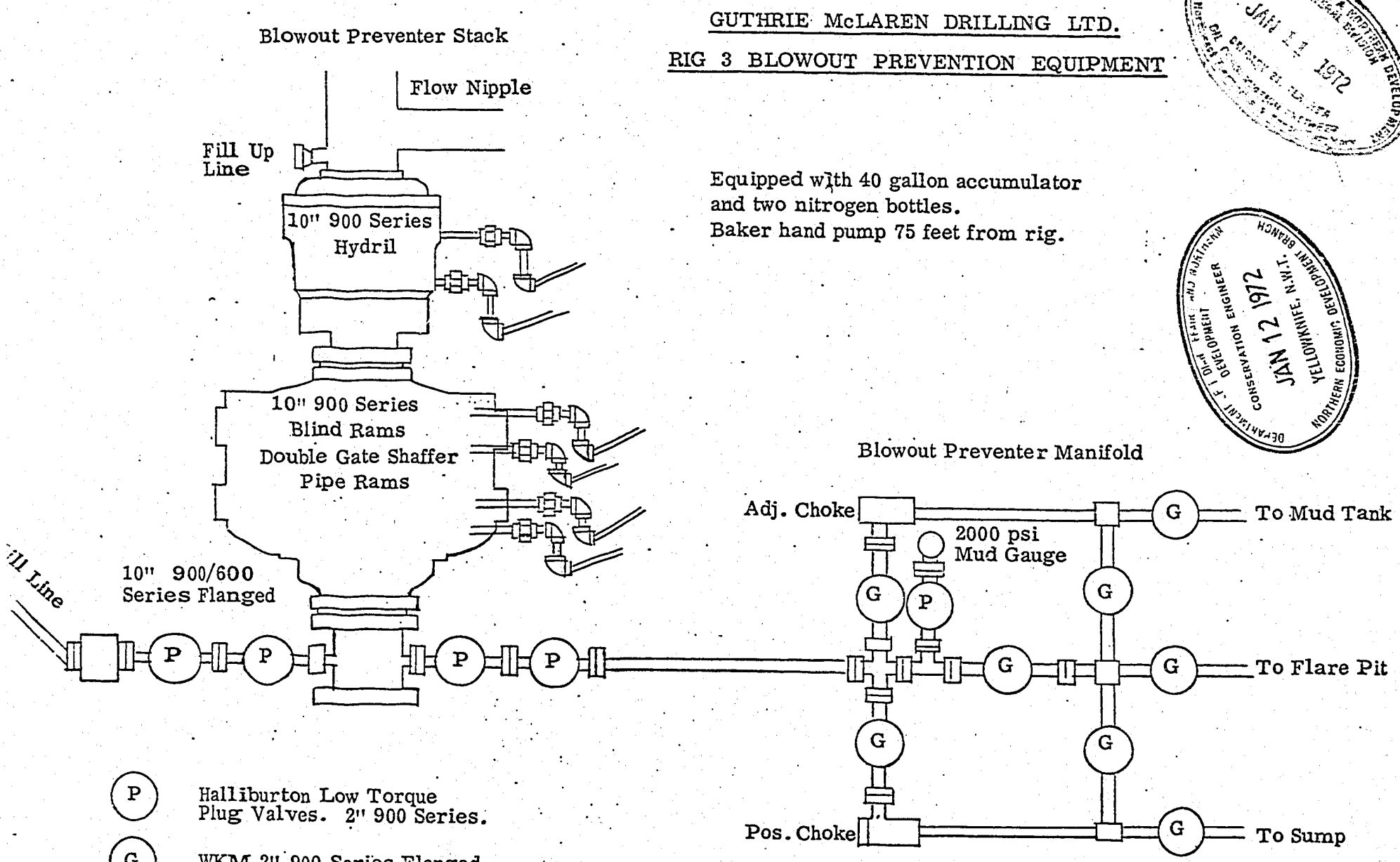
GUTHRIE McLAREN DRILLING LTD.

RIG 3 BLOWOUT PREVENTION EQUIPMENT

DEPT. OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
JAN 11 1972
OIL & GAS CONSERVATION DIVISION

Equipped with 40 gallon accumulator
and two nitrogen bottles.
Baker hand pump 75 feet from rig.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
OIL & GAS DIVISION
JAN 12 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH



P — Halliburton Low Torque Plug Valves. 2" 900 Series.

G — WKM 2" 900 Series Flanged Gate Valves.

Well History Report

UNION JAPEX BLACKWATER E-11

Well History Report

UNION JAPEX BLACKWATER E-11

OIL & GAS OPERATIONS UNIT
Oil and Mineral Division
SEP 7 1972
OTTAWA, CANADA
Dept. of Indian Affairs & N

WELL HISTORY REPORT

ON

UNION JAPEX BLACKWATER E-11

63° 40' 20" North Latitude
123° 3' 30" West Longitude

NORTHWEST TERRITORIES

CANADA

OIL & GAS OPERATIONS UNIT
Oil and Mineral Division
SEP 7 1972
OTTAWA, CANADA
Dept. of Indian Affairs & Northern Dev't

James S. McCaffrey

James S. McCaffrey P. Geol.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY - 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMY

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WELL HISTORY REPORT

SECTION 1 - SUMMARY OF WELL DATA

(a) WELL NAME AND NUMBER

Union Japex Blackwater E 11

(b) PERMITTEE — EXPLORATORY LICENSE NO.

Japex Canada Ltd. & Andex Oil Co. Ltd. — 1429

(c) NAME OF OPERATOR

Union Oil Company of Canada Limited
335 - 8th Ave. S.W., Calgary, Alberta

(d) LOCATION

Unit E, Section 11, Grid 63° 50' N, 123° 00' W
Latitude 63° 40' 20" N, Longitude 123° 3' 30" W
Unique Well Identifier-300E116350123000
Universal Well Location Reference - 63.67222° N, 123.05833 W

(e) PERMIT NUMBER

4898

(f) DRILLING CONTRACTOR

Guthrie McLaren Drilling Ltd. — Rig No. 3 (Rotary)

(g) DRILLING AUTHORITY

No. 569 Date Issued - January 15, 1972

(h) CLASSIFICATION

Wildcat

(i) ELEVATION

Ground Elevation 1642' — K.B. Elevation 1655'

(j) DATE SPUDDED

February 22, 1972 (3:15 p.m.)

(k) DATE COMPLETED DRILLING

April 2, 1972 (1:30 a.m.)

(l) TOTAL DEPTH AND PLUGGED BACK TOTAL DEPTH

TD 7120'; PBTD Surface

(m) WELL STATUS

Plugged and abandoned

(n) DATE RIG RELEASED

April 4, 1972 (8:00 p.m.)

(o) HOLE SIZE

Surface	22" from surface to 54' 13 3/4" from 54' - 787' 8 3/4" from 787' - 7120' TD

(p) CASING

(Surface) Ran 22 Jts (791.00' total), 9 5/8", 32.3#, H-40, ST&C, new Mannesmann casing, equipped with 2 centralizers, a WOTCO guide shoe and float collar; - landed at 787' K.B. - cemented with 600 sacks oilwell cement plus 2% $CaCl_2$ - good cement returns - casing pressured to 1000 psi - float held O.K. - plug in place at 3:15 p.m. February 24, 1972.

(q) CEMENTING COMPANY

Halliburton Services Ltd.

(r) MUD COMPANY

Baroid of Canada

(s) MUD LOGGING COMPANY

Core Laboratories Canada Ltd.

(t) LOGGING COMPANY

Schlumberger of Canada

(u) DRILLING SUPERVISOR

H.S. Stoddart and H. Mould

(v) GEOLOGIST

James S. McCaffrey (P.Geol.)

SECTION II - GEOLOGICAL SUMMARY

(a) Formation Tops

K.B. = 1655'

Formation	E-Log Depth	Sub-Sea Depth	Sample Depth
Cretaceous (Base Glacial Drift)	-	-	170' (?)
Middle Devonian			
Hare Indian Fm.	1972	+317	1960'
Nahanni Fm.	2045	-390	2040
Bear Rock Fm.	2599	-944	2600
Upper Ordovician			
Mt. Kindle Fm.	5850	-4195	5850
Lower Ordovician			
Franklin Mtn. Fm.	6293	-4638	-
Cambrian (eroded)	6692	-5037	6690
Top of Upper Salt Zone	6789	-5134	6785
Base of Lower Salt Zone	6926	-5271	6930
Mt. Clark Sandstone	7006	-5351	7000
Base of Mt. Clark SS	7076	-5421	7075
Total Depth	7122	-5467	7120

UNION JAPEX BLACKWATER E 11

63° 40' 20" North Latitude
123° 3' 30" West Longitude

NORTHWEST TERRITORIES

CANADA

SAMPLE DESCRIPTIONS

130' - 7120' T.D.

UNION JAPEX BLACKWATER E-11

63° 40' 20" North Latitude
123° 3' 30" West Longitude

KB = 1655'

Note - Sample Study begins at 130' in Glacial Drift

Surface - 50' No samples
(Set conductor pipe to 54' KB)

Note:

(1) 15' Permafrost. (approx.)

(2) - Dynamite was used to prepare the sump.

(3) - A fresh sample was collected from the sump excavation.
- (Part of the sample was washed free of clay and Shale to enable description of sands and gravels). Sample description follows.

Surface - 20' KB - Clay, light greyish brown, bentonitic, partly arenaceous, rare pebbles. (Most of the pebbles and sand grains consist of quartz, quartzite, granite and feldspar)

50' - 110' No samples - abundant fine to very fine grained quartz sand was found in shale shaker box.
- the sand probably passed through the shale shaker screen.
- The clay probably mixed with the drilling fluid.

110' - 130' No samples - (The shale shaker was by passed. - Attempts to catch samples in a pail placed in the shale shaker box flow line were unsuccessful.)

Note - Lost 20 barrels drilling fluid to the formation at 116'.

- Mixed Gel and lost circulation material @ 116'.

130-140 Sand - white to clear (slight ironstone stain), fine to very fine grained, sub-angular, quartzose; trace ironstone;

Note - Re Sample Interval 130' - 170'

- The shale shaker was by passed.

- The samples were collected in a pail placed in the shale shaker box flow line

---

140-150 No sample.

150-160 Sand - as above; minor Dolomite (contamination from cuttings of a previous well) light grey, cryptocrystalline to microcrystalline, tight. Trace Anhydrite, white, very fine to coarse crystalline (contamination from cuttings of a previous well).

160-170 Sand - as above; (trace only) (Sample consists mainly of Dolomite and Anhydrite contamination - as above).

Note - Started catching samples from the shale shaker at 180'.

CRETACEOUS (BASE GLACIAL DRIFT) 170' (?)

170-180 Shale - grey to dark grey, micromicaceous, partly arenaceous, partly glauconitic; and Minor Sandstone - light grey, very fine to fine grained, glauconitic in part, argillaceous in part, kaolinitic in part, grading to Siltstone, tight; trace Sandstone - cream to buff, fine to very fine grained, calcareous, tight; trace Ironstone;

180-190 Sandstone - light grey, fine to very fine grained, glauconitic, argillaceous in part, siliceous in part, kaolinitic, tight, grading to Siltstone, and Minor Shale - as above; trace Ironstone;

190-220	Shale - grey to dark grey, partly glauconitic, micromicaceous, silty to arenaceous in part; and Minor Siltstone - light grey, argillaceous, slightly glauconitic, partly siliceous, partly kaolinitic, grading to very fine grained Sandstone;
220-270	Shale - dark grey to grey - as above; and Minor Sandstone - as above;
270-300	Shale - dark grey to grey, micromicaceous; and minor Sandstone - light grey, very fine grained, partly kaolinitic, partly glauconitic, partly siliceous, slightly calcareous in part, tight, grading to Siltstone.
300-320	Shale - as above, partly glauconitic, partly silty to arenaceous; and Minor Sandstone - as above;
320-340	Shale - dark grey, micromicaceous;
340-390	Shale - as above, arenaceous in part; and Minor Sandstone - grey to light grey, medium to very fine grained, argillaceous in part, kaolinitic in part, siliceous in part, slightly glauconitic, tight; trace Ironstone;
390-400	Shale - as above, arenaceous in part; trace Sandstone - as above, calcareous in part; trace Ironstone;
400-410	Shale - dark grey to grey, micromicaceous, arenaceous in part; and Minor Sandstone - light grey, fine to medium grained, quartzose, slightly kaolinitic, friable, tight; trace Ironstone;
410-440	Shale - as above; trace Ironstone;
440-450	Shale - dark grey to grey, micromicaceous; trace Sandstone - light grey, fine grained, quartzose, siliceous to slightly calcareous, tight; trace Pyrite and Ironstone;
450-480	Shale - grey to dark grey, micromicaceous in part; and Minor Ironstone - (siderite) light brown, cryptocrystalline;
480-500	Shale - as above, silty to arenaceous in part; trace Sandstone - light grey, fine to very fine grained, slightly calcareous to siliceous, tight; trace Ironstone and Pyrite.
500-520	Shale - grey to dark grey, micromicaceous in part, silty to arenaceous in part, slightly glauconitic; trace Siltstone - light grey, argillaceous, slightly glauconitic; trace Sandstone - light grey, fine to very fine grained, siliceous, slightly kaolinitic, partly argillaceous, tight; trace Ironstone ; trace Pyrite @ 510';

520–530 — Shale - grey to dark grey, micromicaceous in part, silty to arenaceous in part; trace Sandstone - grey, very fine grained, argillaceous, siliceous, slightly glauconitic, tight; trace Ironstone.

530–550 — Shale - as above; trace Sandstone - light grey to grey, very fine grained, siliceous, partly argillaceous, glauconitic, tight; trace Ironstone;

550–590 — Shale - grey to dark grey, micromicaceous in part; trace Siltstone - grey, siliceous, calcareous, slightly glauconitic, hard; trace Ironstone;

590–690 — Shale - as above, silty in part; trace Siltstone - grey, siliceous, slightly calcareous, partly argillaceous, slightly glauconitic; trace Ironstone; trace Pyrite;

690–710 — Shale - grey to dark grey, micromicaceous in part, silty in part; and minor Ironstone (siderite) - light brown, cryptocrystalline; trace Siltstone - as above;

710–720 — Shale - grey to dark grey, micromicaceous in part, partly silty to arenaceous, glauconitic in part; and minor Ironstone - as above; trace Siltstone - grey, siliceous, slightly calcareous, slightly glauconitic, partly argillaceous, pyritic in part, grading to very fine grained Sandstone;

Note - Lost 80 barrels of drilling fluid to the formation @ 726' - mixed Gel and lost circulation material - regained full circulation.

720–786 — Shale - grey to dark grey, micromicaceous in part, silty to arenaceous in part; trace Siltstone; light grey to grey, siliceous, glauconitic, partly argillaceous, grading to very fine grained Sandstone; trace Ironstone; trace Sandstone - light grey, fine to medium grained, quartzose, sub-angular, (sample mostly uncemented quartz grains); trace Pyrite;

786–830 — Shale - dark grey to grey, micromicaceous in part; and minor Sandstone - light grey, fine to medium grained, quartzose, sub-angular, (sample mostly uncemented quartz grains) - abundant cement contamination.

830-870	Shale - as above; trace Ironstone and Pyrite;
870-1100	Shale - dark grey to grey, micromicaceous; trace Ironstone; trace Pyrite; - abundant cement contamination in some samples;
1100-1800	Shale - dark grey to grey, micromicaceous; trace Ironstone; rare Pyrite;
1800-1810	No sample - trip
1810-1850	Shale - dark grey to grey, micromicaceous; trace Ironstone; rare Pyrite.
1850-1880	Shale - as above, silty in part; trace Siltstone - light grey to grey, siliceous to slightly calcareous, partly argillaceous, partly glauconitic; trace Pyrite.
1880-1960	Shale - as above, silty in part; and Minor Siltstone - as above, more argillaceous; trace Pyrite.
	HARE INDIAN FM. 1972' (+317)
1960-1980	As above; trace Shale - light grey, micromicaceous, calcareous;
1980-1990	No sample - missed
1990-2040	Shale - light grey, partly calcareous, micromicaceous; (Abundant Shale cavings)
	NAHANNI FM. 2045' (-390)
2040-2050	As above; trace Limestone - as below.
2050-2100	Limestone - greyish brown to brown, partly light brown to buff, cryptograined to micrograined, partly chalky, slightly argillaceous, tight; trace Calcite (fracture cement) white to clear, coarse crystalline;
2100-2110	Limestone - as above; rare Calcite - as above; (minor Shale cavings)
2110-2220	Limestone - brown to light brown, partly buff to greyish brown - as above, slightly silty* @ 2200 and 2220; (Minor Shale cavings); rare calcite - as above;
2220-2270	Limestone - brown to greyish brown, partly buff to light brown, cryptograined to micrograined, partly chalky, slightly silty*, slightly argillaceous, tight;

* In part, very fine quartz crystals.

2270-2280	As above; and Limestone - light brownish grey, cryptograined, argillaceous, disseminated Pyrite, tight;
2280-2330	Limestone - Brown to light brown, partly buff to greyish brown, cryptograined to micrograined, partly chalky, slightly silty*, slightly argillaceous, tight;
2330-2400	Limestone - brown to greyish brown, partly light brown, cryptograined to micrograined, partly argillaceous, very slightly silty*, tight;
2400-2410	Limestone - brown to dark greyish brown, partly light brown, cryptograined to micrograined, partly pelletoidal to fragmental, slightly argillaceous, tight;
2410-2420	Limestone - Brown to greyish brown, partly buff to light brown, cryptograined to micrograined, partly pelletoidal to fragmental, slightly argillaceous, slightly dolomitic, tight;
2420-2460	Limestone - light to medium brown, partly light to dark greyish brown, cryptograined to micrograined, partly pelletoidal to fragmental, slightly argillaceous, slightly dolomitic, tight; -(abundant cavings)
2460-2490	Limestone - light to medium brown, partly light to medium greyish brown, crptograined to micrograined, slightly pelletoidai, slightly dolomitic, slightly argillaceous, tight; (abundant cavings)
2490-2500	Dolomite - buff to light brown, microcrystalline, partly limy, tight; and Minor Limestone - light to medium brown, partly light greyish brown, micrograined, partly dolomitic, tight; (abundant cavings)
2500-2510	Dolomite - light brown to buff, very fine to microcrystalline, tight; and Minor Limestone - as above; (abundant cavings)
2510-2520	Dolomite - as above, partly dark greyish brown, microcrystalline, slightly argillaceous, tight;
2520-2530	Dolomite - light brown to buff, very fine to microcrystalline, slightly argillaceous, tight; (abundant cavings)
2530-2550	Cavings - trace Dolomite - as above;
2550-2560	Dolomite - buff to light brown, microcrystalline, slightly argillaceous, tight; (sample 90% Shale cavings)

* In part, very fine quartz crystals

2560-2590 Dolomite - buff to light brown, very fine to microcrystalline, slightly argillaceous, tight; (sample 80% Shale cavings)

2590-2600 Dolomite - buff to light brown, partly brownish grey, microcrystalline, tight; (sample 80% Shale cavings)

BEAR ROCK FM. 2599' (-944)

2600-2610 Dolomite - buff to light brown, partly brownish grey, very fine to microcrystalline, Anhydritic in part, tight; trace Anhydrite - cream to light brown, cryptocrystalline to microcrystalline; (sample 80% Shale cavings)

NOTE: Pulled up into casing to repair mud line, then pulled out of hole for new Bit @ 2619'

2610-2620 Dolomite - light brown to buff, microcrystalline, scattered pyrobitumen, rare intercrystalline and vugular porosity (3%), no oil cut or stain; trace Anhydrite - as above; (sample 90% cavings)

2620-2630 Dolomite - light brown to buff, partly medium to dark greyish brown, very fine to microcrystalline, scattered pyrobitumen, slightly anhydritic, trace intercrystalline and vugular porosity (3%), no oil cut or stain; trace Anhydrite - as above; (Sample 50% Shale cavings)

2630-2650 As above, rare porosity, rare pyrobitumen; (sample 30% Shale cavings)

2650-2660 As above, rare porosity, rare pyrobitumen; (sample 70% Shale cavings)

2660-2680 Dolomite - light brown to buff, partly medium to dark greyish brown, very fine to microcrystalline, slightly anhydritic, rare pyrobitumen, trace intercrystalline and vugular porosity (3-6%), no oil cut or stain; (sample 80% Shale cavings)

2680-2700 Dolomite - as above, rare porosity (3-6 %), no oil stain or cut; trace Anhydrite - cream to light brown, cryptocrystalline to microcrystalline; (sample 80% - 90% Shale cavings)

2700-2710 Anhydrite - cream to light brown, very fine to microcrystalline, bedded; and Minor Dolomite - greyish brown to brown, microcrystalline, anhydritic in part, partly replaced with white very fine crystalline Anhydrite, tight;

2710-2720 Dolomite - light brown, very fine to microcrystalline, crumbley, tight; and Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic in part , tight; and Minor Anhydrite - as above;

2720-2730 Dolomite - buff to light brown, partly medium to dark greyish brown, very fine to microcrystalline, anhydritic in part, crumbley in part, trace pyrobitumen, tight; trace Anhydrite - as above;

2730-2750 Dolomite - as above,and Minor Anhydrite - light grey to light brown, partly cream to buff, microcrystalline to very fine crystalline;

2750-2760 Dolomite - as above, trace intercrystalline and vugular porosity (3%), no oil cut or stain; and Minor Anhydrite - as above;

2760-2770 Dolomite - buff to light brown, partly greyish brown, very fine to microcrystalline, trace pyrobitumen, scattered intercrystalline and vugular porosity (3%), no oil stain or cut;

2770-2780 Dolomite - brown to light brown, partly medium to dark greyish brown - as above, trace porosity (3%); and Minor Anydrite as below;

2780-2800 Anhydrite - brownish grey to light brown, very fine to microcrystalline and Minor Dolomite - brown to greyish brown, as above, rare porosity;

2800-2810 Anhydrite - light brown to brownish grey, partly cream to buff, very fine to microcrystalline;

2810-2830 Anhydrite - as above; trace Dolomite - as above, tight;

2830-2840 Anhydrite - as above; and Minor Dolomite; light to medium brown, partly medium to dark greyish brown, microcrystalline to very fine crystalline, anhydritic, tight;

2840-2850 Anhydrite - light brown to greyish brown, partly cream to buff - as above; trace Dolomite - as above;

2850-2880 Anhydrite - as above; and Minor Dolomite - light brown to greyish microcrystalline, anhydritic, tight;

2880-2920 Anhydrite - as above; and Minor Dolomite - light brown, microcrystalline, partly crumbley, anhydritic, tight;

2920-2930 Anhydrite - as above, and Minor Dolomite - as below.

2930-2940 Dolomite - light to medium greyish brown, partly light brown to dark greyish brown, very fine to microcrystalline, tight; and Minor Anhydrite - cream to light brown, very fine to microcrystalline;

2940–2950 Dolomite - as above; and Anhydrite - as above;

2950–2960 Anhydrite - as above; and Minor Dolomite - as above;

2960–2970 Dolomite - light brown, microcrystalline, anhydritic, rare intercrystalline and vugular porosity (3%), no oil cut or stain; and Minor Anhydrite - as above;

2970–2990 Anhydrite - light brown to buff, very fine to microcrystalline;

2990–3000 Anhydrite - buff to greyish brown, very fine to microcrystalline; and Minor Dolomite - light brown to greyish brown, cryptocrystalline to microcrystalline, anhydritic, scattered floating Anhydrite fragments, tight;

3000–3030 Anhydrite - buff to light brown, partly greyish brown, very fine to microcrystalline; and Minor Dolomite - light to medium brown, partly medium to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic, scattered floating Anhydrite fragments, tight;

3030–3050 Anhydrite - as above; trace Dolomite - as above;

3050–3060 Anhydrite - as above; and Dolomite - brown to dark greyish brown, very fine to microcrystalline, anhydritic, tight;

3060–3070 Anhydrite - as above; and Dolomite - as above; partly buff to light brown cryptocrystalline to microcrystalline, anhydritic, tight;

3070–3080 Dolomite - as above; and Anhydrite - as above;

3080–3100 Anhydrite - light brown to buff, very fine to microcrystalline; and Minor Dolomite - brown to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic, tight;

3100–3120 Anhydrite - as above; trace Dolomite - as above;

3120–3130 Anhydrite - as above; and Minor Dolomite - medium to dark greyish brown, partly brown, cryptocrystalline to microcrystalline, anhydritic, tight.

3130–3160 Dolomite - medium to dark greyish brown, very fine to microcrystalline, anhydritic, tight; and Anhydrite - as above;

3160–3170 Dolomite - light to medium brown, partly medium to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic, tight; and Anhydrite - as above;

3170-3180	Dolomite - as above; and minor Anhydrite - as above;
3180-3190	Dolomite - as above; and Anhydrite - as above;
3190-3200	Anhydrite - buff to light brown, very fine to microcrystalline; and minor Dolomite - as above;
3200-3210	Anhydrite - as above, partly light greyish brown;
3210-3230	Anhydrite - as above; and minor Dolomite - as above;
3230-3390	Anhydrite - as above; and minor Dolomite - brown, very fine to microcrystalline, anhydritic in part, tight;
3390-3420	Dolomite - as above; and minor Anhydrite - as above;
3420-3460	Anhydrite - cream to light brown, partly greyish brown, very fine to microcrystalline; and minor Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic, tight;
3460-3480	Dolomite - dark to medium greyish brown, partly light brown, cryptocrystalline to microcrystalline, anhydritic, tight; and minor Anhydrite - as above;
3480-3490	Anhydrite - cream to light brown - as above; and minor Dolomite - as above;
3490-3500	Dolomite - as above; and minor Anhydrite - as above;
3500-3530	Anhydrite - cream to light brown - as above; and Dolomite - as above;
3530-3540	Dolomite - buff to greyish brown, partly light brown to dark greyish brown, very fine to microcrystalline, anhydritic, tight; and Anhydrite - cream to light brown, partly greyish brown - as above;
3540-3570	Anhydrite - brownish grey to light brown, partly cream - as above; and minor Dolomite - as above;
3570-3580	Anhydrite - as above; and Dolomite - dark to medium greyish brown, partly brown, cryptocrystalline to microcrystalline, anhydritic, tight;
3580-3690	Anhydrite - light brown to buff, partly light greyish brown, cryptocrystalline; and minor Dolomite - dark to medium greyish brown, partly light brown, cryptocrystalline to microcrystalline, partly very fine crystalline, anhydritic, tight;

3690-3710	Dolomite - light brown to greyish brown, partly buff, cryptocrystalline to microcrystalline, (trace vugs and fractures lined with white re-crystallized Dolomite), rare vugular and inter crystalline porosity (3-6%), no oil stain or cut; trace Anhydrite;
3710-3750	Dolomite - light brown to dark greyish brown, cryptocrystalline to very fine crystalline, anhydritic, (trace porosity @ 3720 and 3730); (minor Anhydrite - as above at 3750')
3750-3780	Dolomite - dark to medium greyish brown - as above, in part buff to light brown, chalky to earthy, cryptocrystalline to microcrystalline, tight;
3780-3800	Dolomite - dark to medium greyish brown, partly light brown, cryptocrystalline to microcrystalline, rare pinpoint porosity (3%) at 3790'; and minor Anhydrite - as above;
3800-3820	Dolomite - light to dark greyish brown, microcrystalline to very fine crystalline, chalky to earthy in part, tight; and minor Dolomite - light brown, very fine to microcrystalline, poor intercrystalline and vugular porosity (3-6%), no oil stain or cut, trace Anhydrite;
3820-3830	Dolomite - light brown - as above, nearly sucrosic in part, scattered poor intercrystalline and vugular porosity (3-9%), no oil stain or cut;
3830-3850	Anhydrite - light brown to buff, cryptocrystalline to microcrystalline; and Dolomite - as above, trace porosity (3-6%) at 3840', no porosity at 3850';
3850-3870	Dolomite - medium to dark greyish brown, partly brown, very fine to microcrystalline, fair to poor intercrystalline and vugular porosity (3-9%), no oil stain or cut; (minor Anhydrite at 3870');
3870-3880	Dolomite - as above, scattered porosity (3-9%); and minor Anhydrite - as above;
3880-3900	Anhydrite - buff to greyish brown, cryptocrystalline to microcrystalline; and minor Dolomite - dark to medium greyish brown, cryptocrystalline to microcrystalline, anhydritic, tight;
3900-3910	Anhydrite - as above; trace Dolomite - as above;

3910-3920	Anhydrite - greyish brown to light brown, partly buff, cryptocrystalline to microcrystalline; and minor Dolomite - medium to dark greyish brown, partly light brown, cryptocrystalline to microcrystalline, anhydritic, trace vugular and intercrystalline porosity (a few chips only);
3920-3940	Anhydrite - as above; trace Dolomite - as above;
3940-3950	Anhydrite - as above; and minor Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, anhydritic, tight;
3950-3970	Dolomite - dark to medium greyish brown, partly light brown to buff, cryptocrystalline to microcrystalline, partly fair to microcrystalline, anhydritic in part, scattered intercrystalline and vugular porosity (3-9%), no oil stain or cut; trace Anhydrite - as above;
3970-3980	As above, less porosity;
3980-4010	Anhydrite - greyish brown to light brown, partly buff, cryptocrystalline to microcrystalline;
4010-4020	Anhydrite - as above; and minor Dolomite - medium to dark greyish brown, partly light brown, cryptocrystalline to microcrystalline, anhydritic, tight;
4020-4030	Dolomite - as above; and minor Anhydrite - as above;
4030-4040	Dolomite - as above, in part earthy to chalky, trace intercrystalline and vugular porosity (3%), no oil stain or cut; trace Anhydrite - as above;
4040-4050	Dolomite - light brown to greyish brown, microcrystalline to very fine crystalline, anhydritic, trace intercrystalline and vugular porosity (3%), no oil stain or cut; and minor Anhydrite - as above;
4050-4060	Anhydrite - buff to light brown - as above; and minor Dolomite light to medium brown, cryptocrystalline to microcrystalline, anhydritic, tight;
4060-4070	Anhydrite - as above; trace Dolomite - as above;
4070-4080	Anhydrite - as above; and minor Dolomite - buff to light brown, cryptocrystalline to microcrystalline, partly very fine crystalline, anhydritic, trace vugular and intercrystalline porosity, no oil cut or stain;

4080-4090	Dolomite - medium to light greyish brown, partly light brown to dark greyish brown, cryptocrystalline to microcrystalline, trace vugular and intercrystalline porosity (3%); and minor Anhydrite - light brown to light greyish brown, partly buff, cryptocrystalline to microcrystalline;
4090-4100	Anhydrite - buff to light brown, cryptocrystalline to microcrystalline; trace Dolomite - as above, tight;
4100-4110	Anhydrite - greyish brown to light brown, cryptocrystalline to microcrystalline;
4110-4120	Dolomite - medium to dark greyish brown, partly light brown, cryptocrystalline to microcrystalline, anhydritic, tight; and minor Anhydrite - as above;
4120-4130	Dolomite - light brown to greyish brown, partly dark greyish brown - as above; and minor Anhydrite - light brown to buff, cryptocrystalline to microcrystalline;
4130-4140	Anhydrite - light brown to buff, cryptocrystalline to microcrystalline; and Dolomite - light brown to buff, cryptocrystalline to microcrystalline, anhydritic, tight;
4140-4150	Dolomite - light brown to greyish brown - as above; and Anhydrite - as above;
4150-4160	Anhydrite - light brown to cream, partly light greyish brown, cryptocrystalline to microcrystalline; and minor Dolomite - as above;
4160-4170	Dolomite - buff to light brown, cryptocrystalline to microcrystalline, anhydritic, (trace silty to arenaceous), partly argillaceous, rare floating Anhydrite fragments, tight; and minor Anhydrite - as above;
4170-4180	Dolomite - as above, trace silty to arenaceous, partly argillaceous; and Anhydrite - as above;
4180-4190	Anhydrite - cream to buff, partly light brown to light grey, cryptocrystalline to microcrystalline; and minor Dolomite - buff to light brownish grey, partly light brown to light grey, cryptocrystalline to microcrystalline, partly argillaceous, slightly silty to arenaceous, anhydritic, tight; trace Shale - brownish grey, dolomitic;

4190-4200 Dolomite - as above; and Anhydrite - as above; and Shale - light greyish brown to light grey, dolomitic, slightly silty to arenaceous, slightly anhydritic, grading to argillaceous Dolomite;

4200-4220 Dolomite - cream to buff to light greyish brown, cryptocrystalline to microcrystalline, partly silty to arenaceous, clean, slightly anhydritic, tight;

4220-4230 Dolomite - buff to light brown, partly cream to light greyish brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight; trace Shale - light greyish brown to light grey, dolomitic;

4230-4240 Dolomite - as above, partly brownish grey to greenish grey, partly argillaceous, silty to arenaceous in part; trace Shale- light greyish brown to greyish green, dolomitic, partly arenaceous;

4240-4250 Dolomite - cream to buff, partly white, very fine to microcrystalline, tight; and minor Shale - light greyish brown to light greyish green, dolomitic, partly silty to arenaceous, slightly anhydritic, grading to an argillaceous Dolomite; trace Anhydrite - white, very fine to microcrystalline;

4250-4260 Dolomite - cream to buff, partly white, very fine to microcrystalline, slightly anhydritic, tight; and minor Shale - light greyish green, dolomitic, silty to arenaceous in part, slightly anhydritic, grading to an argillaceous Dolomite; trace Anhydrite - as above;

4260-4270 Dolomite - as above, partly light brown; and minor Shale - light to medium greenish grey, partly brownish grey, - as above; trace Anhydrite - as above;

4270-4280 Dolomite - buff to light brown, partly cream, cryptocrystalline to microcrystalline, slightly anhydritic, tight; trace Shale - as above; trace Anhydrite - as above;

4280-4290 Dolomite - as above; trace Anhydrite - white, cryptocrystalline to microcrystalline, partly chalky; trace Shale - as above;

4290-4300 Dolomite - light brown to buff, cryptocrystalline to microcrystalline, slightly anhydritic, tight; trace Anhydrite - as above;

4300-4320 Dolomite - cream to light brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight;

4320-4330 Dolomite - light brown to greyish brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight;

4330-4340	Dolomite - buff to light brown, very fine to microcrystalline, slightly anhydritic, tight;
4340-4350	Dolomite - as above; and minor Anhydrite - white to cream, cryptocrystalline to microcrystalline;
4350-4360	Dolomite - as above; and minor Anhydrite - as above;
4360-4370	Dolomite - as above; and minor Anhydrite - as above;
4370-4380	Dolomite - light to medium grey, cryptocrystalline to microcrystalline, silty in part, argillaceous, slightly anhydritic, tight, grading to dolomitic Shale;
4380-4390	Dolomite - as above; and minor Dolomite - cream to buff, cryptocrystalline, slightly anhydritic, tight;
4390-4400	Dolomite - cream to buff, cryptocrystalline, slightly anhydritic, tight; and minor Dolomite - light to medium grey - as above. (probably cavings)
4400-4420	Dolomite - cream, cryptocrystalline, slightly anhydritic, tight;
4420-4430	Dolomite - cream, cryptocrystalline to very fine crystalline, slightly anhydritic, tight;
4430-4440	As above; trace Anhydrite - white cryptocrystalline to microcrystalline;
4440-4470	Dolomite - cream to buff, cryptocrystalline to very fine crystalline, slightly anhydritic, tight;
4470-4490	Dolomite - cream to light brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight;
4490-4500	Dolomite - cream to buff, cryptocrystalline to microcrystalline, slightly anhydritic, tight;
4500-4520	Dolomite - buff to light brown, partly cream, cryptocrystalline to very fine crystalline, slightly anhydritic, tight; trace Shale - light grey to grey, dolomitic, scattered floating sand and silt grains; trace Dolomite - light grey, microcrystalline to cryptocrystalline, argillaceous, scattered floating sand and silt grains, tight;
4520-4540	Dolomite - light grey to light brownish grey, cryptocrystalline to microcrystalline, argillaceous, slightly anhydritic, partly silty, tight, grading to dolomitic Shale; and minor Dolomite - cream to buff - as above; trace Shale - as above; trace Siltstone - light grey, dolomitic, argillaceous; trace pyrite.

4540-4550	Dolomite – cream to buff, cryptocrystalline to microcrystalline, partly light greyish brown, partly argillaceous, slightly anhydritic, slightly silty to arenaceous, tight, grading to dolomitic Sandstone and Siltstone; trace Shale - greyish green, silty to arenaceous in part, dolomitic;
4550-4590	Dolomite – cream to buff, cryptocrystalline to microcrystalline, slightly anhydritic, clean, tight; trace Shale - greyish green, silty to arenaceous;
4590-4600	Dolomite – buff to cream - as above;
4600-4610	Dolomite – light brown to buff - as above;
4610-4620	Dolomite – as above; and Dolomite - light brown to brown, cryptocrystalline to microcrystalline, silty to arenaceous, slightly anhydritic, argillaceous in part, tight; and minor Anhydrite – buff to light brown, partly white, cryptocrystalline to microcrystalline; trace Shale – greyish green to light brownish grey, silty in part;
4620-4630	Dolomite – buff to light greyish brown, partly light brown, partly pink to light rusty reddish brown, cryptocrystalline to microcrystalline, partly argillaceous, partly silty to arenaceous, slightly anhydritic, tight; and minor Anhydrite - cream to light brown, cryptocrystalline to microcrystalline; trace Shale - light green to greyish green, micromicaceous, dolomitic;
4630-4640	Dolomite – cream to light brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight;
4640-4650	Dolomite – as above; and Dolomite - dark to medium greyish brown, cryptocrystalline to microcrystalline, slightly argillaceous, tight; trace Anhydrite – buff to light greyish brown, cryptocrystalline to microcrystalline; trace Shale - light grey, dolomitic.
4650-4660	Dolomite – cream to buff, cryptocrystalline to microcrystalline, chalky in part, tight; and minor Dolomite - light greyish green, cryptocrystalline to microcrystalline, argillaceous, silty in part, tight; trace Shale - greyish green, dolomitic, silty in part; trace Anhydrite – as above.
4660-4670	Dolomite – cream to buff - as above; trace Dolomite - light greyish green - as above; trace Shale and Anhydrite - as above;
4670-4680	Dolomite – cream to light brown – as above; and minor Shale - greyish green to light grey, dolomitic, silty in part, grading to argillaceous Dolomite; trace Anhydrite - as above;

4680-4690	Dolomite - cream to light brown - as above; trace Shale and Anhydrite - as above;
4690-4700	Dolomite - cream to light brown - as above; and minor Dolomite - as above, partly white, very fine to micro-crystalline; trace Shale and silty argillaceous Dolomite - as above;
4700-4720	Dolomite - buff to light brown, crptocrystalline to micro-crystalline, slightly anhydritic, tight; trace Anhydrite - as above; trace Shale - as above at 4710';
4720-4730	Dolomite - as above, partly cream; trace Anhydrite - buff to light brown, cryptocrystalline to microcrystalline; trace Shale - greyish green to light grey, dolomitic, silty in part;
4730-4740	Dolomite - light brown to light greyish brown, cryptocrystalline to microcrystalline, anhydritic, partly argillaceous, tight; and minor Dolomite - dark to medium greyish brown, crypto-crystalline to microcrystalline, argillaceous, tight; and minor Anhydrite - as above; trace Shale - as above; trace Shale - dark grey to dark brownish grey, dolomitic.
4740-4780	Dolomite - buff to light greyish brown, cryptocrystalline to microcrystalline, silty to arenaceous in part, slightly anhydritic, argillaceous, tight; and Shale - light grey to greenish grey, dolomitic, silty to arenaceous in part, tight; and minor Anhydrite - buff to light brown, cryptocrystalline to micro-crystalline;
4780-4790	Dolomite - cream to light brown, cryptocrystalline to micro-crystalline, tight; and minor Anhydrite - as above; trace Shale - as above;
4790-4800	Dolomite - buff to greyish brown, partly light brown to dark greyish brown, cryptocrystalline to microcrystalline, silty in part, slightly anhydritic, slightly argillaceous in part, tight; and minor Anhydrite - light brown to buff - as above; trace Siltstone - buff to pink, dolomitic, grading to silty Dolomite;
4800-4810	Dolomite - buff to light greyish brown, cryptocrystalline to microcrystalline, silty to arenaceous in part, slightly anhydritic, argillaceous in part, tight; and minor Shale - greyish green to maroon, partly brick red, silty in part, dolomitic, grading to argillaceous Dolomite;
4810-4820	Dolomite - buff to light greyish brown, partly light brown, cryptocrystalline to microcrystalline, slightly anhydritic, argillaceous in part, silty in part, tight; and minor Shale - greyish green to light brownish grey, partly brick red, dolomitic, silty in part; trace Anhydrite - as above;

4820-4830	Dolomite - as above; and minor Anhydrite - buff to light brown, cryptocrystalline to microcrystalline; and minor Shale - greenish grey, silty in part, dolomitic;
4830-4850	Dolomite - as above; and minor Shale - greyish green to brownish grey, silty to arenaceous in part, dolomitic, grading to argillaceous Dolomite; trace Anhydrite - buff to light brown, cryptocrystalline to microcrystalline;
4850-4860	As above; and minor Dolomite - cream to buff, cryptocrystalline to microcrystalline, tight;
4860-4870	Dolomite - cream to buff, cryptocrystalline to microcrystalline, tight; (abundant Shale and Dolomite cavings - as above)
4870-4890	Dolomite - light brown to buff, cryptocrystalline to micro-crystalline, tight;
4890-4930	Dolomite - light brown to buff, microcrystalline to crypto-crystalline, partly very fine crystalline, partly chalky, tight;
4930-4940	As above - and minor Dolomite - medium to light greyish brown, cryptocrystalline to microcrystalline, slightly anhydritic, tight; trace Anhydrite - light brown to buff, cryptocrystalline to microcrystalline; trace Chert - cream to light brown, crypto-crystalline to lithographic;
4940-4950	Dolomite - medium dark greyish brown, partly light brown, cryptocrystalline to microcrystalline, partly chalky to earthy, slightly argillaceous, slightly anhydritic, tight; trace Chert - light brown;
4950-4970	Dolomite - dark to medium brownish grey, partly brown to dark greyish brown - as above, partly argillaceous; trace Anhydrite - as above;
4970-4990	Dolomite - dark to medium brownish grey, partly brown to dark greyish brown, cryptocrystalline to microcrystalline, partly argillaceous, slightly anhydritic, tight; trace Anhydrite - as above;
4990-5000	Dolomite - dark to medium brownish grey, partly light brown to dark greyish brown, cryptocrystalline to microcrystalline, chalky to earthy in part, slightly argillaceous, tight;
5000-5010	Dolomite - medium to dark brownish grey, partly light to medium greyish brown, cryptocrystalline to microcrystalline, argillaceous in part, tight; and minor Shale - medium to dark brownish grey, dolomitic; trace Anhydrite - light brown to greyish brown, cryptocrystalline to microcrystalline;

5010-5020	Dolomite - medium to light greyish brown, partly light brown, cryptocrystalline to microcrystalline, partly chalky to earthy, partly argillaceous, tight; and minor Shale - brownish grey, dolomitic; trace Anhydrite - as above;
5020-5030	Dolomite - buff to light brown, cryptocrystalline to microcrystalline, partly chalky, tight; and minor Dolomite - as above; trace Shale - as above, pyritic in part; trace Pyrite;
5030-5040	Dolomite - medium to dark brownish grey, cryptocrystalline to microcrystalline, partly argillaceous, tight; and minor Dolomite - buff to light brown - as above; and minor Shale - medium to dark brownish grey, dolomitic; trace Anhydrite - as above; trace Chert - cream;
5040-5050	Dolomite - light brown to buff, cryptocrystalline, partly chalky, tight; and minor Dolomite - light grey to light greyish brown, cryptocrystalline, partly argillaceous, tight; trace Shale - grey, dolomitic, partly pyritic; trace Anhydrite - as above;
5050-5060	Dolomite - light brown to light greyish brown, partly buff, cryptocrystalline, partly chalky, tight; trace Dolomite - light grey to light greyish brown - as above; trace Shale and Anhydrite - as above; trace Chert - light brown to light greyish brown;
5060-5090	Dolomite - light brown to buff, cryptocrystalline to microcrystalline, partly chalky, clean, cherty in part, tight; trace Chert - light brown;
5090-5100	Dolomite - as above; and minor Dolomite - light brown to buff, fine to very fine crystalline, tight;
5100-5110	Dolomite - cream to buff, partly light brown, microcrystalline to very fine crystalline, tight; rare pyrobitumen; trace Pyrite;
5110-5120	Dolomite - as above, partly fine crystalline; trace cream to clear Quartz; trace Anhydrite crystals - white, coarse crystalline;
5120-5130	Dolomite - buff to light brown, microcrystalline to very fine crystalline, partly fine crystalline, rare pyrobitumen, rare intercrystalline and vugular porosity, no oil cut or stain; rare Chert - buff to light brown;

5130-5150	Dolomite - buff to light brown, partly light greyish brown, microcrystalline to very fine crystalline, tight; trace Chert - white to light greyish brown, trace Quartz - white to clear;
5150-5160	Dolomite - as above and minor Dolomite - cream, fine to very fine crystalline, clean, tight; trace Chert - as above; trace Quartz - white to clear;
5160-5170	Dolomite - buff to light brown, partly cream, very fine to microcrystalline, partly chalky, tight;
5170-5180	Dolomite - as above; trace Chert - light greyish brown;
5180-5220	Dolomite - buff to light brown, fine to very fine crystalline, tight; trace clear, coarse crystalline Anhydrite;
5220-5230	Dolomite - as above, partly light greyish brown, partly microcrystalline to cryptocrystalline;
5230-5240	Dolomite - buff to light brown, partly light greyish brown, microcrystalline to very fine crystalline, chalky in part, tight;
5240-5250	Dolomite - as above, partly fine crystalline, rare vugular and intercrystalline porosity (3%), no oil stain or cut.
5250-5260	Dolomite - light brown to buff, partly light greyish brown, cryptocrystalline to microcrystalline, tight;
5260-5270	Dolomite - light brown to buff - as above; trace Chert - cream to white, trace Dolomite - dark brownish grey - as below;
5270-5280	Dolomite - medium to dark brownish grey, cryptocrystalline to microcrystalline, slightly argillaceous, tight; and Dolomite - as above; trace Shale - dark brownish grey to dark grey, bituminous, dark brown streak. Rare Chert - light to dark grey, partly white;
5280-5290	Dolomite - buff to light brown, partly greyish brown, microcrystalline to very fine crystalline, tight; and minor Dolomite - medium to dark brownish grey - as above; trace Chert - buff to dark greyish brown, spicular in part,
5290-5300	Dolomite - buff to light brown, cryptocrystalline to microcrystalline, chalky to earthy in part, tight; trace Quartz - buff to clear; rare clear Quartz crystals;

5300-5320	Dolomite - as above; and minor Dolomite - medium to dark brownish grey, cryptocrystalline to microcrystalline, partly argillaceous, tight; trace Chert - buff to brownish grey; trace Quartz - buff; trace Shale - dark brownish grey to dark grey, bituminous, dark brown streak;
5320-5330	Dolomite - buff to light brown, very fine to microcrystalline, partly fine crystalline, chalky to earthy in part, tight; and minor Dolomite - medium to dark brownish grey - as above; trace Chert - dark brownish grey to dark grey;
5330-5340	Dolomite - buff to light brown, slightly argillaceous in part, as above, rare intercrystalline and vugular porosity (3%), no oil cut or stain, rare pyrobitumen and minor Dolomite - as above; trace Chert - dark grey to dark brownish grey; trace Quartz - clear to light buff; trace Shale - dark grey to dark brownish grey, bituminous, dark brown streak.
5340-5350	Dolomite - buff to light brown, very fine to microcrystalline, trace intercrystalline and vugular porosity (3-6%), no oil stain or cut, rare pyrobitumen; trace Chert - as above, partly light brown; trace Quartz - as above; rare clear Quartz crystals.
5350-5360	Dolomite - as above, partly greyish brown, scattered vugular and intercrystalline porosity (3-6%), no oil cut or stain, rare pyrobitumen; and minor Dolomite - medium to dark greyish brown, microcrystalline, slightly argillaceous, tight; trace Chert - dark grey to dark brownish grey;
5360-5370	Dolomite - dark to medium greyish brown, cryptocrystalline to microcrystalline, partly argillaceous, tight; and minor Dolomite - buff to light brown, microcrystalline to very fine crystalline, partly chalky to earthy, tight; rare Chert - as above;
5370-5380	Dolomite - dark to medium brownish grey, cryptocrystalline to microcrystalline, partly argillaceous, tight; and minor Dolomite - buff to light brown - as above;
5380-5390	Dolomite - dark to medium brownish grey, - as above; and minor Dolomite - buff to light brown, cryptocrystalline to microcrystalline, slightly argillaceous, tight;
5390-5400	Dolomite - medium to dark greyish brown, partly buff to light brown, very fine to microcrystalline, slightly argillaceous, trace vugular, intercrystalline and fracture porosity (3-6%), no oil stain or cut, rare pyrobitumen; trace white to clear calcite fracture cement (with fine grained clear calcite crystals) adhering to fracture faces;

5400-5420 Dolomite - medium to dark greyish brown, very fine to microcrystalline, slightly argillaceous - as above; and Dolomite - buff to light greyish brown, cryptocrystalline to very fine crystalline, partly chalky to earthy, trace vugular, intercrystalline and fracture porosity (3-6%), no oil cut or stain (rare pyrobitumen); trace calcite fracture cement and calcite crystals - as above;

5420-5430 As above; trace Dolomite - cream to buff, cryptocrystalline, tight;

Note: Lost circulation @ 5424' . (Lost 120 barrels of drilling fluid to the formation)

5430-5450 Dolomite - medium to dark greyish brown, very fine micro-crystalline, slightly argillaceous, slightly anhydritic, trace vugular, intercrystalline and fracture porosity (3-6%), no oil stain or cut, rare pyrobitumen; and minor Dolomite - buff to light brown - as above, slightly anhydritic; rare Chert - cream to light brownish grey; trace calcite fracture cement and calcite crystals - as above;

5450-5460 Dolomite - as above, earthy to chalky in part. rare inter-crystalline, vugular and fracture porosity (3-6%), no oil cut or stain, rare pyrobitumen; trace calcite fracture cement and calcite crystals - as above; trace Chert - light brownish grey to cream.

5460-5470 Dolomite - dark to medium brownish grey, cryptocrystalline to microcrystalline, slightly anhydritic, partly argillaceous, tight; and minor Dolomite - buff to light brownish grey, cryptocrystalline to very fine crystalline, slightly anhydritic, tight; trace Chert - cream; trace Shale - dark brownish grey, dolomitic;

5470-5490 Dolomite - light brown to light greyish brown, cryptocrystalline to microcrystalline, partly chalky to earthy, tight; and minor Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, slightly argillaceous, tight; rare Chert - as above;

5490-5500 Dolomite - buff to light brown, partly light greyish brown, cryptocrystalline to microcrystalline, slightly argillaceous, tight; trace Dolomite - medium to dark greyish brown - as above;

5500-5510	Dolomite - dark to medium brownish grey, cryptocrystalline to microcrystalline, partly argillaceous, tight; and Dolomite - buff to light brownish grey, cryptocrystalline to microcrystalline, slightly argillaceous, tight;
5510-5530	As above; trace Chert - dark brownish grey;
5530-5540	Dolomite - dark brownish grey to dark grey, cryptocrystalline to microcrystalline, partly argillaceous, tight; trace Chert - brown to dark brownish grey;
5540-5560	Dolomite - buff to light brown, cryptocrystalline to microcrystalline, tight; and minor Dolomite - as above; trace Chert - white to cream to dark brownish grey;
5560-5570	As above; rare Chert - greyish brown;
5570-5590	Dolomite - buff to light brown, microcrystalline to very fine crystalline, partly fine crystalline, tight; trace Chert - cream;
5590-5600	Dolomite - buff to light brown, microcrystalline to very fine crystalline, chalky to earthy in part, tight; and minor Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, slightly argillaceous, tight;
5600-5610	Dolomite - medium to dark greyish brown - as above, earthy to chalky in part; and minor Dolomite - buff to light greyish brown, cryptocrystalline to microcrystalline, slightly argillaceous, earthy to chalky in part, tight;
5610-5620	Dolomite - dark to medium brownish grey, microcrystalline to cryptocrystalline, partly argillaceous, partly earthy, tight; and minor Dolomite - light grey to brown to buff, cryptocrystalline to microcrystalline, earthy in part, tight; trace Chert - dark greyish brown to brown;
5620-5630	Dolomite - buff to light greyish brown - as above; and minor Dolomite - dark to medium brownish grey - as above; trace Chert - light brownish grey to dark greyish brown;
5630-5640	Dolomite - dark to medium brownish grey - as above; and minor Dolomite - buff to light greyish brown - as above; trace Chert - light brownish grey, speckled.
5640-5670	Dolomite - light greyish brown to buff, microcrystalline to cryptocrystalline, slightly argillaceous, fossiliferous, earthy in part, rare pyrobitumen, tight; and minor Dolomite - medium to dark brownish grey - as above, fossiliferous in part (crinoids?); rare Chert - light brownish grey to dark grey;

5670-5690	Dolomite - medium to dark greyish brown, partly buff to light greyish brown, microcrystalline to cryptocrystalline, slightly argillaceous, fossiliferous in part (crinoids ?), earthy in part, tight; rare Chert light brown to brownish grey;
5690-5750	Dolomite - light greyish brown to buff, microcrystalline to very fine crystalline, fossiliferous in part, earthy in part, tight; and Dolomite - medium to dark greyish brown, microcrystalline to very fine crystalline, slightly argillaceous, fossiliferous in part (crinoids?), tight;
5750-5770	As above; trace Chert - light brownish grey to buff;
5770-5805	Dolomite - dark to medium brownish grey, partly light greyish brown to buff, microcrystalline to very fine crystalline, partly argillaceous, earthy in part, tight; trace Chert - light greyish brown to dark grey;
5805-5810	No sample - trip
5810-5830	Dolomite - dark to medium brownish grey, partly light greyish brown to buff, microcrystalline to cryptocrystalline, partly argillaceous, earthy in part, tight; and minor Shale - medium to dark brownish grey, dolomitic; trace Chert - dark grey to dark brownish grey;
5830-5840	Dolomite - medium to dark brownish grey, microcrystalline to cryptocrystalline, earthy in part, partly argillaceous, tight; and minor Shale - as above; trace Chert - dark greyish brown to light brown; trace pyrite;
5840-5850	As above; trace Dolomite - silty to arenaceous, pyritic in part.

UPPER ORDOVICIAN - MT. KINDLE FM.
5850' (-4195')

5850-5870	Dolomite - cream to white, medium to microcrystalline, slightly argillaceous, tight; - scattered pyrobitumen.
5870-5880	Dolomite - as above, microcrystalline to very fine crystalline, partly fine crystalline;
5880-5890	Dolomite - cream to white, (trace pink), very fine to medium crystalline, slightly argillaceous, slightly silty to arenaceous, tight;
5890-5900	Dolomite - pink to cream, partly buff, very fine to microcrystalline, partly fine to medium crystalline, slightly argillaceous, silty to arenaceous, tight;

5900-5910	Dolomite - cream to buff, partly pink, microcrystalline to fine crystalline, slightly silty to arenaceous, tight;
5910-5920	Dolomite - cream to pink, medium to microcrystalline, slightly silty to arenaceous, tight;
5920-5930	Dolomite - cream to buff, partly pink, microcrystalline to very fine crystalline, slightly silty to arenaceous, chalky to earthy in part, tight;
5930-5960	Dolomite - cream to buff, partly pink to light brown, very fine to microcrystalline, partly medium to fine crystalline, slightly argillaceous, slightly silty to arenaceous, tight; and minor Dolomite - light brown, (mottled), very fine to medium crystalline, white dolomitic cement, partly pelletoidal to oolitic, slightly argillaceous, tight; trace Chert - cream;
5960-5980	Dolomite - light brown (mottled), very fine to medium crystalline, partly pelletoidal to oolitic, slightly argillaceous, tight; and minor Dolomite - cream to buff, partly pink to light brown, as above;
5980-5990	Dolomite - cream to light greyish brown, very fine to micro-crystalline, slightly argillaceous, slightly silty to arenaceous, tight; and minor Dolomite - light brown, pelletoidal to oolitic in part, - as above; trace Chert - buff;
5990-6000	Dolomite - buff to light greyish brown, microcrystalline to very fine crystalline, slightly argillaceous, silty to arenaceous, partly chalky, tight; and minor oolitic to pelletoidal Dolomite as above;
6000-6010	Dolomite - cream to buff, microcrystalline to very fine crystalline, partly chalky, slightly silty, slightly pelletoidal to oolitic, tight; and minor Dolomite - medium to dark greyish brown, partly light brown, microcrystalline to very fine crystalline, partly pelletoidal to oolitic, partly silty to arenaceous, slightly argillaceous, tight;
6010-6060	Dolomite - cream to light brown, trace pink, microcrystalline to very fine crystalline, slightly argillaceous, slightly silty to arenaceous, slightly pelletoidal to oolitic, partly chalky to earthy, tight; (rare pyrobi tumen at 6020')
6060-6070	Dolomite - as above; trace Dolomite - as below.
6070-6080	Dolomite - as above; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly argillaceous, slightly silty, tight;
6080-6100	Dolomite - cream to light brown - as above; and Dolomite - medium to dark greyish brown - as above;

6100-6110	Dolomite - buff to light grey, partly light brown, micro-crystalline to very fine crystalline, slightly silty in part, slightly argillaceous, tight; and minor Dolomite - medium to dark greyish brown, microcrystalline to very fine crystalline, silty to arenaceous in part, partly pelletoidal, slightly pyrobituminous, slightly argillaceous, tight; trace Shale - dark brownish grey to dark grey, bituminous, dark brown streaks;
6110-6120	As above; (40% medium to dark greyish brown Dolomite)
6120-6130	Dolomite - greyish brown to light brown, partly buff, partly dark greyish brown, very fine to microcrystalline, partly fine crystalline, slightly argillaceous, slightly silty, partly mottled, slightly pelletoidal, slightly pyrobituminous, tight;
6130-6140	As above, slightly pelletoidal;
6140-6160	Dolomite - dark to medium greyish brown, partly light greyish brown to buff, very fine to microcrystalline, chalky to earthy in part, partly argillaceous, slightly silty, tight;
6160-6200	Dolomite - as above, slightly chalky to earthy, (slightly pelletoidal at 6200');
6200-6210	Dolomite - medium to light greyish brown, partly light brown to buff, partly dark greyish brown, very fine to microcrystalline, partly chalky to earthy, partly argillaceous, slightly silty, tight; rare medium to coarse grained floating Quartz.
6210-6240	Dolomite - medium to dark greyish brown, microcrystalline to very fine crystalline, partly argillaceous, slightly silty, tight; and Dolomite - buff to light grey, partly light brown to light rusty brown, cryptocrystalline to microcrystalline, slightly silty, slightly argillaceous, tight; rare medium to coarse grained floating Quartz.
6240-6260	Dolomite - buff to light brown, partly light greyish brown to light rusty brown, microcrystalline to cryptocrystalline, slightly silty, slightly argillaceous, tight; and minor Dolomite - medium to dark greyish brown - as above; rare medium to coarse grained floating Quartz.
6260-6270	Dolomite - buff to light brown, partly light greyish brown - as above; and minor Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, partly argillaceous, slightly silty, tight; rare medium to coarse floating Quartz grains.

6270-6280 Dolomite - buff to light brown, partly light greyish brown - as above, partly chalky; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly argillaceous, slightly silty, tight; - rare floating Quartz grains (medium to coarse grained) - rare clear Anhydrite crystals.

LOWER ORDOVICIAN - FRANKLIN MTN. FM.
6293 (-4638)

6280-6300 Dolomite - buff to light brown, cryptocrystalline to microcrystalline, slightly argillaceous, slightly silty, partly earthy to chalky, tight; - rare floating Quartz grains - as above; - rare clear Anhydrite crystals at 6300';

6300-6310 Dolomite - as above; trace Dolomite - as below.

6310-6320 Dolomite - buff to light brown, partly cream, - as above; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, slightly silty, slightly argillaceous, tight;

6320-6330 Dolomite - white to cream, partly very light grey to buff, very fine to microcrystalline, partly fine crystalline, slightly silty in part, tight; rare Shale - light grey to greyish green, waxy, disseminated pyrite;

6330-6350 Dolomite - as above, very fine to microcrystalline, partly chalky to earthy;

6350-6360 As above, slightly pelletoidal; trace Dolomite - medium to dark greyish brown, partly light brown, - as below; rare Shale - light grey to greyish green - as above;

6360-6400 Dolomite - cream to buff, partly light brown, microcrystalline to very fine crystalline, slightly pelletoidal, slightly argillaceous, slightly silty, partly chalky to earthy, tight; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly argillaceous, slightly silty, slightly pelletoidal, tight;

6400-6420 Dolomite - cream to buff, partly light brown, microcrystalline to cryptocrystalline, slightly argillaceous, slightly silty, slightly pelletoidal, tight; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly argillaceous, slightly silty, (trace arenaceous at 6420') slightly pelletoidal, tight; trace pyrite - (trace clear Anhydrite crystals at 6410') trace floating Quartz grains (fine to medium grained).

6420-6430 Dolomite - cream to buff, partly light brown - as above, trace arenaceous, chalky to earthy in part; and minor Dolomite - medium to dark greyish brown - as above; trace pyrite;

6430-6480 Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly argillaceous, slightly silty, partly chalky to earthy, tight; and minor Dolomite - buff to light brown, microcrystalline to cryptocrystalline, slightly argillaceous, slightly silty, partly earthy to chalky, tight;

6480-6530 Dolomite - buff to light brown - as above; and minor Dolomite - medium to dark greyish brown - as above;

6530-6540 Dolomite - buff to light brown, partly light grey to light greyish brown, microcrystalline to cryptocrystalline, slightly argillaceous, slightly silty to arenaceous, slightly pyritic, partly earthy to chalky, tight; and minor Dolomite - medium to dark greyish brown - as above; trace Shale - dark greyish brown, dolomitic; rare floating Quartz grains; trace pyrite;

6540-6550 Dolomite - buff to light brown, partly cream to light greyish brown, - as above, slightly silty to arenaceous; and minor Dolomite - medium to dark greyish brown - as above; trace Shale - dark greyish brown to grey, dolomitic; rare floating Quartz grains (fine to coarse grained); trace pyrite;

6550-6560 Dolomite - light brown to buff, partly cream, microcrystalline to cryptocrystalline, slightly argillaceous, slightly silty to arenaceous, tight; trace Shale - as above; trace clear Anhydrite crystals. Rare floating Quartz grains (fine to very coarse grained); trace pyrite;

6560-6570 Dolomite - light brown to buff, partly cream - as above; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly mottled, (partly pelletoidal to oolitic), slightly silty to arenaceous, partly argillaceous, tight; rare Quartz grains - as above; trace pyrite; trace Shale - as above;

6570-6580 Dolomite - light brown to buff, partly cream, partly chalky to earthy, as above; and minor Dolomite - medium to dark greyish brown, very fine to microcrystalline, slightly silty to arenaceous, partly argillaceous, slightly pelletoidal, tight; and minor Shale - medium to dark greyish brown, partly grey, dolomitic, slightly pyritic; rare clear Anhydrite crystals;

6580-6590 Dolomite - medium to dark greyish brown, very fine to microcrystalline, partly pelletoidal, slightly silty to arenaceous, partly argillaceous, tight; and minor Dolomite - light brown to buff, partly cream - as above; and minor Shale - medium to dark greyish brown, partly grey to dark grey, dolomitic; rare clear Anhydrite crystals.

6590-6640 Dolomite - medium to dark greyish brown, cryptocrystalline to microcrystalline, partly argillaceous, tight; and minor Dolomite - light brown to buff, microcrystalline to cryptocrystalline, slightly argillaceous, partly chalky to earthy, slightly silty, slightly arenaceous in part, tight; and minor Shale - medium to dark grey, partly medium to dark greyish brown, dolomitic; - rare clear Anhydrite crystals at 6610'- trace pyrite at 6640'.

6640-6670 Dolomite - medium to dark greyish brown - as above; and minor Dolomite - light greyish brown to light brown, cryptocrystalline to microcrystalline, slightly argillaceous, partly chalky to earthy, slightly silty, slightly arenaceous in part, tight; and minor Shale - as above; trace pyrite at 6660 and 6670'.

6670-6690 Shale - medium to dark grey, partly medium to dark greyish brown, dolomitic, and minor Dolomite - light brown to light greyish brown, partly buff, cryptocrystalline to microcrystalline, slightly silty to arenaceous, slightly argillaceous, chalky to earthy in part; and minor Dolomite - medium to dark greyish brown - as above; trace pyrite;

CAMBRIAN - (eroded) 6692' (-5037)

6690-6700 Shale - brownish grey to grey, partly dark rusty red to greyish green, slightly anhydritic, dolomitic in part; and Siltstone - pink to light orange to buff, slightly anhydritic, dolomitic; and minor Dolomite - light greyish brown to buff, partly light brown, cryptocrystalline to microcrystalline, partly silty, slightly anhydritic, tight; trace pyrite;

6700-6720 Shale - dark rusty red to greyish green to brownish grey to grey, dolomitic in part; slightly anhydritic; and Siltstone - pink to light orange to buff, partly rusty red, dolomitic, slightly anhydritic, siliceous in part; and minor Dolomite - buff to light brown, partly light greyish brown, cryptocrystalline to microcrystalline, silty in part, slightly anhydritic, tight;

6720-6750	Shale - dark brick red to light greyish green to purplish grey to grey, dolomitic in part; and minor Siltstone - pink to buff, partly light grey, dolomitic; trace Dolomite - pink to buff to cream to light brown, cryptocrystalline to microcrystalline, silty in part;
6750-6770	Shale - dark brick red to light greyish green to light brownish grey, dolomitic; and Siltstone - as above, partly light brown; and minor Dolomite - dark brownish grey, microcrystalline, tight; trace Anhydrite - buff, cryptocrystalline;
6770-6780	Shale - brick red to green, dolomitic in part, anhydritic in part, (partly with white specks); and minor Dolomite - pink to buff to light greyish brown, cryptocrystalline to microcrystalline, silty, tight; and minor Siltstone - pink to buff, partly dolomitic; trace Anhydrite - buff, cryptocrystalline;
6780-6789	As above; Siltstone partly light grey to light brownish grey;
	TOP OF UPPER SALT ZONE 6789' (-5134)
6789-6830	Salt (halite) - log interpretation
6830-6850	Anhydrite - very light grey to light greyish brown, cryptocrystalline, dolomitic in part, chalky to earthy in part; and minor Shale - dark rusty red to green, slightly dolomitic in part, slightly anhydritic in part; and minor Siltstone - pink to rusty red to buff, dolomitic, slightly anhydritic; trace Quartz crystals - clear to light orange, small; trace white to clear Anhydrite crystals; trace Salt casts;
6850-6854	Anhydrite - as above; and minor Shale - as above; and minor Shale - very light greyish brown, dolomitic, soft; trace Siltstone - as above; trace Quartz crystals and Anhydrite crystals - as above; trace Salt casts.
6854-6926	Salt (halite) - log interpretation
	BASE OF LOWER SALT ZONE 6926' (-5271)

Note: The salinity of the mud filtrate at 6935' showed an increase from 800 ppm (CL) to 64,000 ppm (CL)

6926-6940 Shale - light greyish brown, dolomitic, slightly anhydritic, silty in part; and minor Siltstone - light greyish brown, dolomitic, slightly anhydritic, partly argillaceous; and minor Shale - maroon to dark rusty red to greyish green, slightly dolomitic, slightly anhydritic; trace Quartz and Anhydrite crystals - as above; trace Salt casts - (probably cavings)

6940-6950 As above - and minor Shale - medium to dark brownish grey, partly anhydritic, dolomitic; and minor Anhydrite - cream to buff, cryptocrystalline to microcrystalline, dolomitic;

6950-6970 Shale - dark rusty red to brownish grey to dark brownish grey, slightly anhydritic, dolomitic; and minor Anhydrite - cream to buff, cryptocrystalline, dolomitic; and minor Siltstone - buff to light brown to rusty red, slightly anhydritic, dolomitic, tight; trace clear to light orange Quartz crystals; trace clear Anhydrite crystals.

6970-6980 Shale - medium to dark brownish grey, partly rusty red, partly grey to dark maroon - as above; and Anhydrite - as above; and Siltstone - buff to light greyish brown, partly light brown - as above; trace Quartz and Anhydrite crystals - as above;

6980-6990 Shale - green to greyish green to rusty red, partly dark brownish grey, dolomitic, slightly anhydritic and minor Siltstone - buff to light greyish brown, dolomitic, slightly anhydritic; and minor Anhydrite - cream to buff, cryptocrystalline;

6990-7000 Shale - green to greyish green, partly rusty red to dark greenish grey, partly dark brownish grey, dolomitic, slightly anhydritic; and minor Siltstone - buff to greyish brown, partly rusty red - as above; and minor Anhydrite - light brownish grey, cryptocrystalline;

MOUNT CLARK SS. 7006' (-5351)

7000-7010 Shale - very dark brownish grey to black, siliceous, slightly anhydritic, glauconitic in part; and Siltstone - light to dark greyish brown, dolomitic, slightly anhydritic; and Dolomite - light greyish brown to dark brownish grey, cryptocrystalline to microcrystalline, partly pelletoidal, slightly anhydritic, tight; trace Sandstone - dark greyish brown, fine to medium grained, dolomitic to siliceous, partly glauconitic, slightly argillaceous, slightly pyritic, slightly anhydritic, tight, (grains consist of Siltstone pellets - fine to medium grained size); trace Sandstone - light grey, fine to medium grained - as below; trace Pyrite;

7010-7020	Sandstone - white to light grey, fine to medium grained, (rare coarse Quartz grains) sub-angular, quartzose, clean, slightly glauconitic (?), siliceous, no oil stain or cut, tight;
7020-7060	Sandstone - white to light grey, fine to medium grained, (rare coarse Quartz grains), sub-angular, quartzose, clean, siliceous, tight;
7060-7070	Sandstone - as above, scattered coarse to very coarse grained Quartz;
7070-7075	Sandstone - as above, scattered coarse to very coarse grained Quartz. Trace Shale - brick red, soft, earthy, (the Shale partly contaminated and stained the Sandstone); trace Shale - dark rusty red, slightly dolomitic, slightly anhydritic; (abundant cavings - trip at 7073')
7075-7080	Cavings - (trip at 7078')
	BASE MOUNT CLARK SANDSTONE 7076' (-5421)
7080-7120 T.D.	Shale - dark rusty red, dolomitic, siliceous in part; (abundant cavings)

Total Depth 7120' (Driller)

7122' (Logger)

Finished drilling at 1:30 a.m. April 2, 1972

SECTION III - ENGINEERING REPORT

(a) DRILL STEM TEST #1 (2590-2700) — BEAR ROCK FM.

Duration:	PF 5 mins ISI 60 mins.
	VO 30 mins FSI 60 mins.
Blow:	On PF - weak initial puff, slight increase;
	On VO - very weak air blow - dead after 5 mins.
Recovery:	4' drilling mud
Pressures	IHP 1356 IFP 75 ISIP 594
	FHP 1351 FFP 75 FSIP 510
Remarks:	Salinity of recovery fluid 147 ppm (CL)

(a) DRILL STEM TEST #2 (3685-3910) — BEAR ROCK FM.

Duration:	PF 5 mins ISI 60 mins
	VO 60 mins FSI 60 mins
Blow:	On PF - good initial puff, increasing;
	On VO - fair air blow, increasing, decreasing after 30 mins, then held steady to end of test
Recovery:	950' mud
	1000' water cut mud
Pressures:	IHP 1985 IFP 365 ISIP 1631
	FHP 1977 FFP 971 FSIP 1576
Remarks:	Salinity of recovery fluid 2061 ppm (CL)

DRILL STEM TEST RECORD (continued)

(a) DRILL STEM TEST #3 (5320-5460) (Straddle Test) BEAR ROCK FM.

Duration: PF 5 mins ISI 60 mins
VO 60 mins FSI 60 mins

Blow: On PF - good initial puff, good air blow

On VO - good air blow, decreasing after 30 mins. Dead after 45 mins.

Recovery: 1000' mud cut water
3575' slightly salty water

Pressures:

IHP	2911	IFP	2113	ISIP	2181
FHP	2770	FFP	2181	FSIP	2182

Remarks:
- Lost approximately 200 barrels drilling fluid to the formation when the packer was pulled loose.
- R = 1.50 ohm/meters @ 68°
- Salinity of recovery fluid 1280 ppm (CL)

(b) CASING RECORD

Casing Size (inches)	9 5/8"
Weight (lbs/ft)	32.3#
Grade	H-40
Brand	Mannesmann
New or Used	New
Depth	787' K.B.
Sacks of Cement	600 sacks oilwell cement plus 2% $CaCl_2$.

BIT RECORD

Bit No.	Make	Size	Type	Serial No.	Depth Out	Footage	Hours	Dull	Condition	
								T	B	G
-	-	22"	Bucket	-	54'	54'	19 3/4	-	-	-
1-S	Sec.	13 3/4"	S3-J	95842	351'	297'	13 3/4	2	1	I
2-S	HW	13 3/4"	OSC-3	19311	787'	436'	15 1/2	1	1	I
1	Smith	8 3/4"	SDT-J	HN097	1780'	993'	19	2	2	I
2	Smith	8 3/4"	SDG-H	HN889	2231'	451'	26 1/2	2	2	I
3	HW	8 3/4"	X1G	36691	2535'	304'	26 1/2	7	2	I
4	Sec.	8 3/4"	M44N	911679	2619'	84'	11 1/4	6	2	I
5	Sec.	8 3/4"	S88	343077	2700'	81'	6 1/2	4	2	I
6	Sec.	8 3/4"	M44N	391163	2877'	177'	19 1/4	5	2	I
5RR	Sec.	8 3/4"	S88	343077	3416'	539'	46 1/4	4	2	I
7	HW	8 3/4"	J44	EM277	3910'	494'	53 1/4	2	1	I
7RR	HW	8 3/4"	J44	EM277	4434'	524'	43 3/4	4	1	I
8	Sec.	8 3/4"	M88	339820	5175'	741'	75 1/4	7	5	I
9	Sec.	8 3/4"	M88	912772	5556'	381'	36	6	4	I
10	Smith	8 3/4"	5JS	FT400	5812'	256'	31 1/4	7	3	I
11	Smith	8 3/4"	5JS	FT 202	5843'	31'	6 3/4	1	1	I
12	Reed	8 3/4"	SMG	792208	5940'	97'	16 3/4	4	1	I

Bit No.	Make	Size	Type	Serial No.	Depth Out	Footage	Hours	Dull Condition T	B	G
13	Sec.	8 3/4"	S88	354883	6265'	325'	34 3/4	7	3	I
14	Sec.	8 3/4"	S88	912337	6432'	167'	18 1/4	7	2	I
15	Reed	8 3/4"	SCM5	674106	6625'	193'	23 1/4	7	2	I
16	Reed	8 3/4"	SCM5	762089	6696'	71'	10	6	2	I
17	Reed	8 3/4"	SHG	698170	6719'	23'	5 1/4	5	1	I
18	Reed	8 3/4"	SC5	582993	6986'	267'	34 3/4	8	8	I
11RR	Smith	8 3/4"	5JS	FT202	6989'	3'	1 1/2	4	2	I
19	Sec.	8 3/4"	M88	340935	7073'	84'	15 3/4	8	1	I
20	Sec.	8 3/4"	H88	911224	7079'	6'	5 3/4	1	1	I
21	Sec.	8 3/4"	H77	912479	7120'	41'	15	4	2	I

(d) MUD RECORD (Mud Properties)

To 8:00 a.m. Daily

1972	Wt.	Visc.	WL	FC	PH
Feb. 23	-	60	-	-	-
Feb. 24	10.5	47	-	-	-
Feb. 25	-	-	-	-	-
Feb. 26	8.6	28	-	-	10.0
Feb. 27	9.0	28	-	-	10.8
Feb. 28	8.8	37	-	-	10.0
Feb. 29	9.2	33	-	-	8.5
Mar. 1	9.0	36	-	-	10.2
Mar. 2	9.2	45	16.0	2/32	10.0
Mar. 3	9.2	92	10.8	2/32	10.5
Mar. 4	9.6	100	9.0	2/32	10.0
Mar. 5	9.6	150	6.4	2/32	9.0
Mar. 6	9.6	98	7.2	2/32	12.0
Mar. 7	9.6	73	9.4	2/32	12.5
Mar. 8	9.7	68	10.4	2/32	12.5
Mar. 9	9.9	60	11.0	2/32	12.0
Mar. 10	9.9	65	11.8	2/32	12.0
Mar. 11	9.7	65	10.0	2/32	11.5
Mar. 12	9.9	75	10.4	2/32	11.5
Mar. 13	9.8	58	12.0	2/32	11.5
Mar. 14	10.0	63	13.3	2/32	12.0
Mar. 15	9.9	65	13.0	2/32	12.0
Mar. 16	9.7	60	10.5	2/32	12.5
Mar. 17	9.7	65	11.8	2/32	12.5
Mar. 18	9.7	65	10.0	2/32	12.0
Mar. 19	9.7	60	10.2	2/32	12.0
Mar. 20	9.5	60	10.8	2/32	12.0
Mar. 21	9.4	65	9.6	2/32	12.0

(d) MUD RECORD (Mud Properties) (continued)

To 8:00 a.m. Daily

1972

	Wt.	Visc.	WL	FC	PH
Mar. 22	9.6	65	9.2	2/32	12.0
Mar. 23	9.6	70	9.5	2/32	9.5
Mar. 24	9.6	65	10.6	2/32	11.0
Mar. 25	9.7	70	9.4	2/32	11.5
Mar. 26	9.7	68	9.8	2/32	11.0
Mar. 27	9.7	72	10.2	2/32	11.0
Mar. 28	9.6	63	10.4	2/32	11.5
Mar. 29	9.7	78	9.6	2/32	11.0
Mar. 30	10.1	115	22.0	2/32	11.5
Mar. 31	9.8	82	16.0	2/32	11.0
April 1	9.1	80	4.3	2/32	10.0
April 2	9.6	102	5.4	2/32	10.0
April 3	-	-	-	-	-
April 4	-	-	-	-	-
April 5	-	-	-	-	-

(d) MUD RECORD (Mud Additives)

To 8:00 a.m. Daily

1972

Feb. 23	2600# Gel, 200# Lime, 20 sacks Sawdust
Feb. 24	500# Gel, 50# Lime, 42 sacks Sawdust
Feb. 25	Nil
Feb. 26	400# Bicarbonate of Soda
Feb. 27	200# Bicarbonate of Soda, 2000# Gel, 100# Soda Ash, 8# Bennex
Feb. 28	2500# Gel, 10# Bennex
Feb. 29	Nil
Mar. 1	4300# Gel, 16# Bennex
Mar. 2	10,900# Gel, 550# Caustic, 1500# Q-Broxin
Mar. 3	5000# Gel, 200# Caustic
Mar. 4	1600# Gel, 50# CMC
Mar. 5	2900# Gel, 50# CMC
Mar. 6	800# Gel, 350# Q-Broxin, 150# Caustic
Mar. 7	2000# Gel, 300# Q-Broxin, 250# Caustic
Mar. 8	8000# Gel, 150# Caustic, 50# Q-Broxin, 50# CMC
Mar. 9	1400# Gel, 50# CMC, 150# Caustic, 100# Q-Broxin
Mar. 10	4000# Gel, 150# Q-Broxin, 150# Caustic, 50# CMC
Mar. 11	3500# Gel, 150# Caustic, 150# Q-Broxin
Mar. 12	2500# Gel, 50# Caustic, 50# Q-Broxin
Mar. 13	2800# Gel, 200# Caustic, 150# Q-Broxin
Mar. 14	3200# Gel, 250# Caustic, 250# Q-Broxin
Mar. 15	7900# Gel, 200# Caustic, 200# Q-Broxin
Mar. 16	2700# Gel, 100# Caustic, 100# Q-Broxin, 50# CMC
Mar. 17	3000# Gel, 100# Caustic, 100# Q-Broxin, 50# CMC
Mar. 18	4000# Gel, 50# CMC 200# Caustic, 200# Q-Broxin

(d) MUD RECORD (Mud Additives) (continued)

To 8:00 a.m. Daily

1972

Mar. 19	1000# Gel, 100# Caustic, 100# Q-Broxin, 50# CMC.
Mar. 20	6200# Gel, 200# Caustic, 200# Q-Broxin, 65 sacks Sawdust 8 sacks Fibre-Tex
Mar. 21	1000# Gel, 100# Caustic, 100# Q-Broxin, 100# CMC.
Mar. 22	100# Caustic, 100# Q-Broxin, 500# Gel
Mar. 23	1600# Gel, 50# CMC 100# Q-Broxin, 100# Caustic
Mar. 24	1500# Gel, 50# CMC 150# Caustic, 150# Q-Broxin
Mar. 25	100# Q-Broxin, 100# Caustic, 1000# Gel, 50# CMC
Mar. 26	2300# Gel, 100# Q-Broxin, 100# Caustic
Mar. 27	800# Gel, 150# Caustic, 150# Q-Broxin, 50# CMC
Mar. 28	50# Caustic, 50# Q-Broxin
Mar. 29	1000# Gel, 150# Caustic, 150# Q-Broxin, 50# CMC
Mar. 30	350# Caustic, 1100# Q-Broxin, 200# CMC
Mar. 31	1400# Impermix, 100# Caustic, 100# Q-Broxin
April 1	1550# Impermix, 150# Caustic, 250# Q-Broxin 350# Mikolstarch, 300# Preservative
April 2	2400# Zeogel, 50# Preservative
April 3	Nil
April 4	5000# Gel, 35 sacks Sawdust, 12 sacks Fibretex
April 5	Nil

(e) DEVIATION SURVEY RECORD

DEPTH (Feet)	DEVIATION (Degrees)	DEPTH (Feet)	DEVIATION (Degrees)
116	7/8	1983	1/2
146	3/4	2076	1/4
174	1/2	2168	3/4
229	1/4	2231	1/8
288	1/2	2323	1/2
346	7/8	2410	1/4
375	1	2535	1/4
425	7/8	2634	0
450	3/4	2695	1/4
510	3/4	2780	1/4
572	3/4	2877	1/8
657	1	2940	1/2
684	7/8	3006	3/4
715	1	3068	1/8
787	3/4	3131	3/4
850	1/2	3190	3/4
915	1/4	3250	1/4
1015	1/2	3317	3/4
1136	1	3348	3/4
1168	1/2	3380	1/8
1292	1	3411	3/4
1355	1/4	3475	5/8
1449	1 1/4	3538	1/8
1511	3/4	3599	1/2
1605	1/4	3693	0
1699	1/8	3785	1/2
1761	1/4	3880	1
1821	1	3910	5/8
1890	1/2	4007	3/4

(e) DEVIATION SURVEY RECORD (continued)

DEPTH (Feet)	DEVIATION (Degrees)	DEPTH (Feet)	DEVIATION (Degrees)
4100	1/2		
4225	1/8		
4381	3/4		
4434	3/4		
4567	3/4		
4724	1/4		
4881	1/4		
5129	1/4		
5315	1/2		
5556	3/4		
5812	5/8		
5940	0		
6265	1 1/4		
6432	1 1/4		
6696	1		
7120 TD	1 1/4		

SECTION III - ENGINEERING SUMMARY

(f) ABANDONMENT PLUGS

Plug No.	Position	No. of Sacks of Cement	Remarks
1	(6950-7120)	110 sacks	Nil
2	(5350-5500)	148 sacks + 2.5% $CaCl_2$	Felt @ 5247'
3	(3600-3700)	90 sacks + 2% $CaCl_2$	Felt @ 3531'
4	(737-837)	100 sacks + 2% $CaCl_2$	Felt @ 605'

- Cut off casing 3' below ground level - welded on steel plate - welded rod to top of casing, extending 3' above ground level - welded well name to top of rod.

(g) LOST CIRCULATION ZONES

Lost Circulation Zone #1

Depth	116'
Interval	unknown - cased interval
Formation	Glacial drift
Zone	-

Amount of Material Lost - 20 bbls drilling fluid.

Corrective Measures Taken - Pumped a mixture of lost circulation material and Gel down the borehole - full circulation was regained after 2 1/2 hours.

Lost Circulation Zone #2

Depth	726'
Interval	unknown - cased interval
Formation	Cretaceous
Zone	-

Amount of Material Lost - 80 bbls drilling fluid.

Corrective Measures Taken - Pumped a mixture of lost circulation material and Gel down the borehole - full circulation was regained after 1 1/2 hours.

Lost Circulation Zone #3

Depth	5424'
Interval	5332-5447
Formation	Bear Rock Fm.
Zone	-

Amount of Material Lost - 120 bbls drilling fluid.

Corrective Measures Taken - Pumped a mixture of lost circulation material and Gel down the borehole - full circulation was regained after 3 3/4 hours.

(g) LOST CIRCULATION ZONES (continued)

Remarks

- Ran DST #3 (5320-5460) over above lost circulation zone. (straddle test).
- When the packer was pulled loose, approximately 200 bbls of drilling fluid was lost to the formation.
- Ran in open end, pumped a mixture of lost circulation material and Gel down the borehole - regained full circulation.

(h) REPORT OF BLOWOUTS

None

SECTION IV - LOGS

TYPE OF LOG	FROM	TO
Dual Induction Laterolog	787	7115
BHC Sonic Gamma Ray Caliper	787	7120
Sidewall Neutron Porosity Log	2000	7121

SECTION V - ANALYSIS

(a) CORE ANALYSIS

None

(b) WATER ANALYSIS

Enclosed

(c) GAS ANALYSIS

None

(d) OIL ANALYSIS

None

SECTION VI - COMPLETION SUMMARY

(a) TUBING RECORD

None

(b) PERFORATION RECORD

None

(c) CEMENTATION RECORD

None

(d) ACIDIZATION AND FRACTURING RECORD

None

(e) BACK PRESSURE AND PRODUCTION TESTS

None

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
1972			Drlg.	
Feb. 19	21'	21'	5 3/4	- Drilling conductor hole.
Feb. 20	53'	32'	17 1/2	- Drilling conductor hole - Approx. 15' of permafrost
Feb. 21	54'	1'	2 1/4	- Drilling conductor hole & W.O.C.
Feb. 22	54'	--	--	- W.O.C. & Drilling rat hole.
Feb. 23	346'	292'	12 1/2	- Drilling 13 3/4" hole. - Spudded in @ 3:15 p.m. Feb. 22/72 - Lost 20 bbls. drilling fluid to formation @ 116'; pumped a mixture of Gel and lost circulation material down the borehole. - Regained full circulation.
Feb. 24	787'	441'	16 1/2	- Lost 80 bbls. drilling fluid to formation @ 726' - Pumped a mixture of Gel & lost circulation material down the borehole. - Regained full circulation.
Feb. 25	787'	--	--	W.O.C. (Surface Casing) Surface Casing Report Ran 787', 9 5/8", 32.3# Casing - Cemented with 600 sacks Oilwell cement plus 2% $CaCl_2$. Plug in place @ 3:15 p.m. Feb. 24/72.

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
1972			Drlg.	
Feb. 26	1270'	483'	6 3/4	- Drilled out under Shoe @ 12:01 a.m. Feb. 26/72 - Pressure tested blind rams, Hydril & Pipe rams to 1,000 psi - Held O.K. - Felt top of cement @ 725'
Feb. 27	1875'	605'	15 1/2	K.B. Elev. = 1655' Ground Elev. = 1641.5' K.B. to Ground = 13.65'.
Feb. 28	2220'	345'	22 1/4	Abundant shale cavings in samples.
Feb. 29	2460	240'	19 1/4	- Abundant shale cavings in samples - Trip for new bit @ 2231' - Reaming bridges (1240-2231) - 1 3/4 hrs.
Mar. 1	2603'	143'	18	- Abundant shale cavings in samples. - Trip for new bit @ 2535' - Tight spots (1240-2200) when tripping out. - Bridges @ 1200-1350, 1440-1530 & 1900-1950 when running in.
Mar. 2	2700'	97'	8	- Working pipe in tight hole @ 8:00 a.m. (Tripping out for DST #1 @ 2700') - Abundant shale cavings in samples - Trip for new bit @ 2619' - tight spot @ 1240' when pulling out - Reamed bridges 1240-1400' when running in. - 60' fill on bottom after trip - Dept. of Indian Affairs & Natural Resources rig inspection March 1/72.

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
1972			Drlg.	
Mar. 3	2700'	--	--	- Conditioning tight hole for DST #1 - Stuck in the hole @ 2560' for 2 1/4 hrs.
Mar. 4	2700'	--	--	- Conditioning tight hole for DST #1
Mar. 5	2700'	--	--	- Conditioning tight hole for DST #1. - Picking up testing tools @ 8:00 a.m.
Mar. 6	2789'	89'	10	- Ran DST #1 (2590-2700); Rec. 4' mud.
Mar. 7	3006'	217'	19 1/4	- No fill on bottom after trip.
Mar. 8	3265	259'	22 1/2	
Mar. 9	3452'	187'	18 1/4	
Mar. 10	3655'	203'	22 1/2	
Mar. 11	3861'	206'	20 3/4	
Mar. 12	3910'	49'	5 1/2	- Ran DST #2 (3685-3910) Rec. 950' mud 1000' water cut mud.
Mar.13	4090'	180'	18	
Mar. 14	4330'	240'	23	
Mar. 15	4504'	174'	18 1/4	
Mar. 16	4731'	227'	22 1/2	
Mar. 17	4949'	218'	23	
Mar. 18	5175	226'	21 3/4	
Mar. 19	5378'	203'	20	
Mar. 20	5556	178'	16	- Lost 120 bbls. Drilling Fluid to Formation @ 5424' - Mixed Gel & lost circulation material - 3 3/4 hrs.

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
1972			Drlg.	
Mar. 21	5713'	157'	20	
Mar. 22	5834'	121'	15 1/2	
Mar. 23	5938'	104'	19	
Mar. 24	6110'	172'	17 1/2	
Mar. 25	6265'	155'	17 1/2	
Mar. 26	6432'	167'	18 1/4	
Mar. 27	6624	192'	23	
Mar. 28	6707	83'	12 1/2	- Tripping 9 1/2 hrs. (2 trips for new bits)
Mar. 29	6818	111'	17	
Mar. 30	6986'	168'	20 3/4	- Drilling break 6689-6926' (salt zone) - Salinity of mud filtrate @ 6935' increased from 800 ppm (CL) to 64,000 ppm (CL).
Mar. 31	7007'	21'	4 1/2	- Lost part of 1 cone in hole (Bit #18) - Ran in with the magnet - Recovered most of the iron in the hole.
April 1	7078'	71'	14 1/2	
April 2	7120'TD	42'	12	- Finished drilling @ 1:30 a.m. April 2, 1972, @ 7120' T.D. - Logging at 8:00 a.m.

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
1972			Drlg.	
April 3	7120 TD	--	--	- Tripping out with DST #3 @ 8:00 a.m. - Ran the following Logs: (1) Dual Ind. Laterolog 787 - 7115 (2) BHC Sonic Gamma Ray Caliper Log 787 - 7120 (3) Sidewall Neutron Porosity Log 2000 - 7121 - Ran DST #3 (5320-5460) Rec. 1000' mud cut water 3575' slightly salty water - Note: Lost approx. 200 bbls. of drilling mud to formation when packer was pulled loose - Pumped a mixture of Gel & lost circulation material down the borehole. - Regained full circulation.
April 4	7120 TD	--	--	- W.O.C. @ 8:00 a.m. - Plug #1 (6950-7120) w/110 sacks cement. - Plug #2 (5350-5500) w/148 sacks cement + 2.5% $CaCl_2$ - Felt @ 5247'. - Plug #3 (3600-3700) w/90 sacks cement + 2% $CaCl_2$ - Felt @ 3531'

DAILY DRILLING PROGRESS REPORT

WELL Union Japex Blackwater E-11

(TO 8:00 A.M. DAILY)

DATE	DEPTH	PROGRESS	HOURS	REMARKS
April 5	712CTD	--	--	- Plug #4 (737-837) w/100 sacks cement + 2% $CaCl_2$ - Felt @ 605' - Cut off casing 3' below Ground Level - Welded on steel plate - Welded rod to top of casing, extending 3' above ground level - Welded well name to top of rod Rig Released @ 8:00 p.m. April 4, 1972

CORE LABORATORIES — CANADA LTD.
PETROLEUM RESERVOIR ENGINEERING

Company Union Oil Company of Canada Limited — Page 1 of 2

Well Union Japex Blackwater E-11 — File 933-2443

Field Blackwater Lake Area, Northwest Territories — Analyst LK

Location 63 40'20.00 N.L. 123 03'30.00 W.L. — Elevation: K.B. — Grd. 1642'

Formation Bear Rock — Depth 2590' - 2700'

Sampled from DST #1 — by G. Wright Testers

Sampling pressure — psig — Sampling temp. — °F — Ambient temp. — °F

Date sampled March 5/72 — Date received April 5/72 — Date analysed April 14/72

Container pressure — Mud — Water cushion

Recovery or flowrate: 4' Drilling Mud.

Mud Filtrate Analysis

Resistivity	0.990 Ohm-meters @ 75°F
Chloride	147 mg/liter

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY - 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

CORE LABORATORIES — CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS

File 933-2443 Page 2 of 2

Company Union Oil Company of Canada Limited

Well Union Japex Blackwater E-11 K.B. ____ Grd. 1642'

Location 63 40'20.00 N.L. 123 03'30.00 W.L. Field Blackwater Lake Area Province N.W.T.

Formation Bear Rock Interval 3685' - 3910'

Sampled from DST #2 (Top of Tool) by G. Wright Testers

Date sampled March 12/72 Date analysed April 14/72 Analyst LK

Recovery 1950 Liquid (950' Mud, 1000' Water-Cut Muddy Fresh Water).

Mud type ____ Water cushion ____

Resistivity 0.950 Ohm-meters @ 67 °F

Specific gravity 1.0079 @ 60°F

pH 7.9 H_2S Absent

Refractive Index 1.3334 @ 70°F

Total Solids:

Calculated 8,160 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
1651	928	122	Trace	-	-	-	2061	142	3256	Nil	Nil

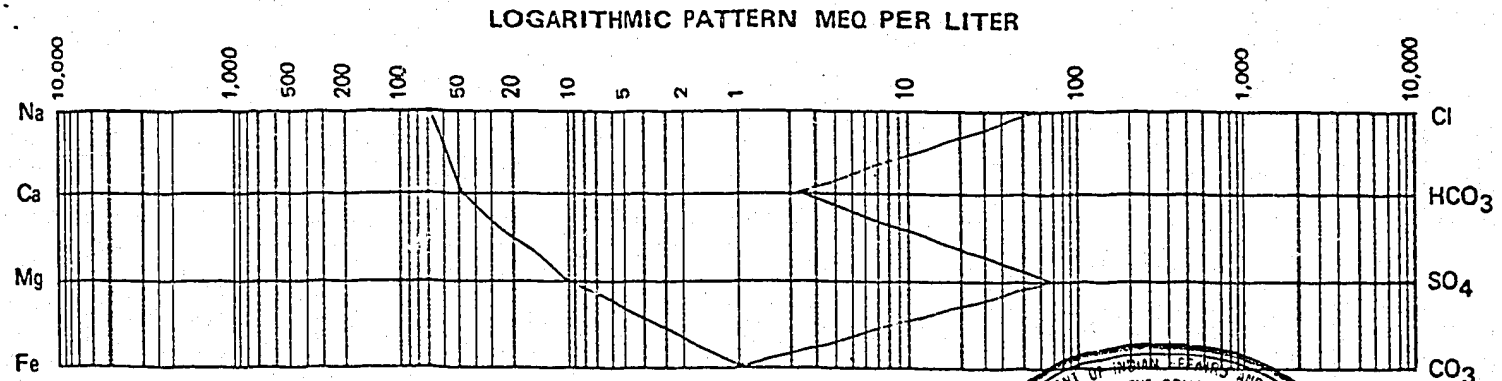
PER CENT CALCULATED SOLIDS

20.2	11.4	1.5	Trace	-	-	-	25.3	1.7	39.9	.0	.0

MEQ PER LITER

71.8	46.3	10.0	Trace	-	-	-	58.1	2.3	67.7	.0	.0

LOGARITHMIC PATTERN MEQ PER LITER



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DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY - 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. E72-8573

Received: April 6,1972 Reported: April 12, 1972 Well: Location: Union Black Water E-11

Operator: UNION OIL COMPANY OF CANADA LIMITED Field or Area:

Elev.: K.B. Grd. Zone/Formation: Sample Interval: 5320' - 5460'

Method of Production: D.S.T. #3 Sampled from: Sampled by: Halliburton Date:

OTHER PERTINENT DATA

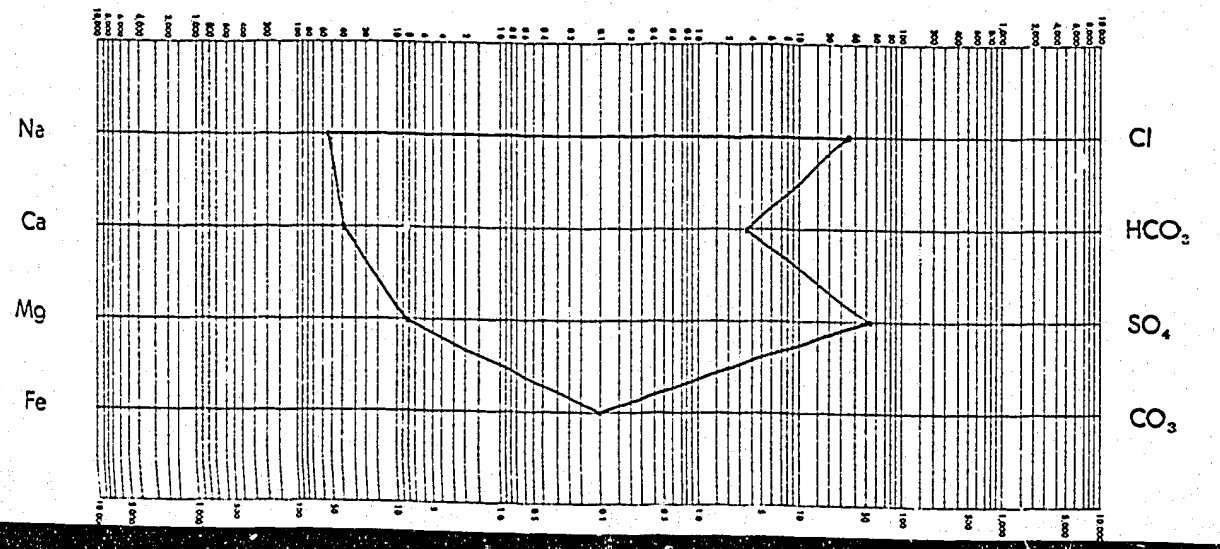
(Signed)

	Na & K	K	Ca	Mg					SO_4	Cl			CO_3	HCO_3	OH	
Mg./L	1255		621	101					2597	1280			Nil	230	Nil	
Meq./L	54.60		30.99	8.30					54.02	36.10			---	3.77	---	
Meq. %	29.08		16.50	4.42					28.77	19.22			---	2.01	---	

Total Solids Mg/L: By Evaporation 6,690 Fe Present Specific Gravity 1.009 @60°F Observed pH 7.7 @ 75 °F

Calculated 6,084 After Ignition 5,480 H_2S Nil Refractive Index 1.3339 @25°C Resistivity 1.50 ohm meters @ 68 °F

Pattern Unit Meq./L



Remarks and Conclusions

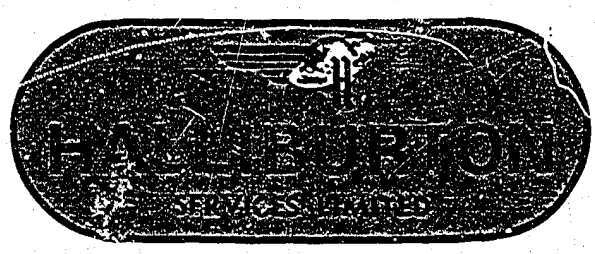
Sample consisted of light yellow colored water with a thin layer of sediment.

Organic matter detected in dissolved solids.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY - 8 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BR.

FORMATION TESTING

Technical Report



CALGARY, ALBERTA

A Halliburton Company

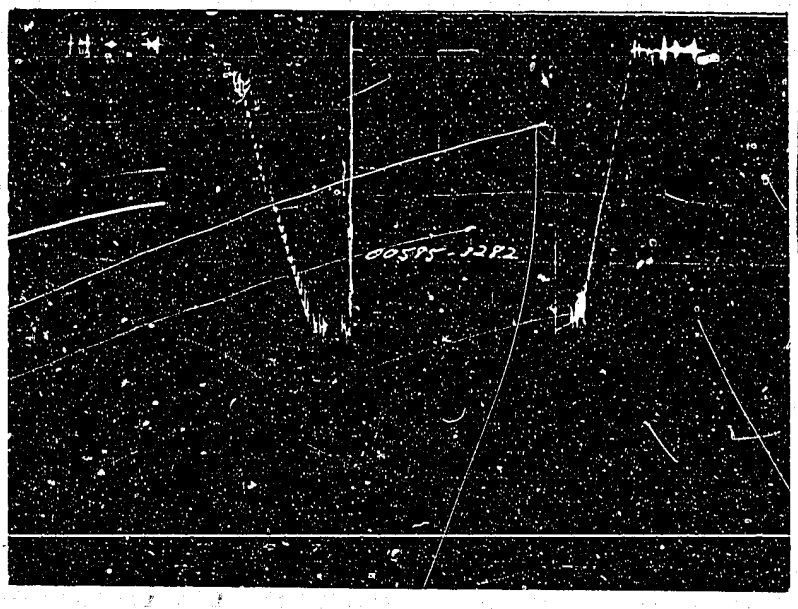
EQUIPMENT DATA

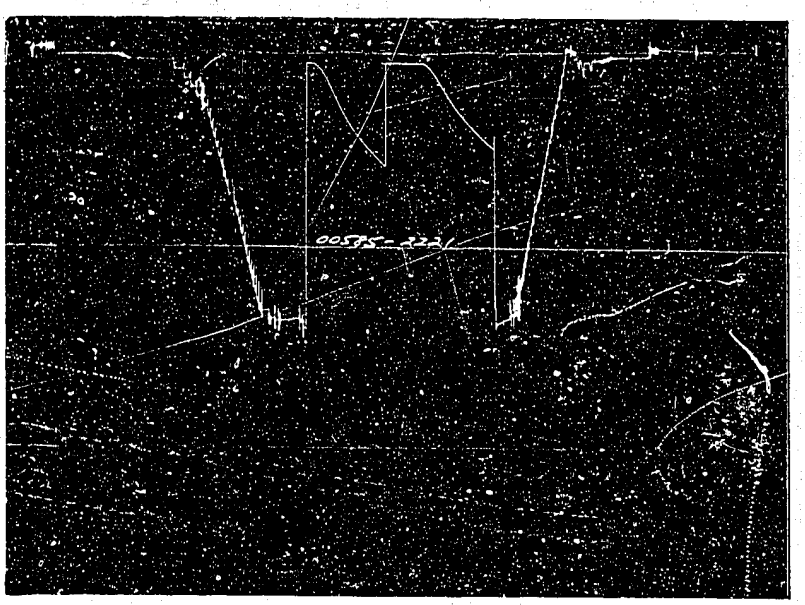
	OD	LENGTH
Reversing Sub		2.80'
Water Cushion Valve		
DEPTH		
Drill Pipe & Adapters		
Drill Collars & Adapters		86.20'
Handling Sub & Choke		
Dual CIP Valve	5"	7.50'
Dual CIP Sampler		
Hydrospring Tester	5"	5.40'
DEPTH		
Multiple CIP Sampler		
Extension Joint		
BT Running Case	5"	4.00'
DEPTH		
HT-500 Temp. Recorder		
Hydraulic Jar	5"	5.10'
VR Safety Joint	5"	2.80'
Equalizing Crossover		
Packer Assembly	7 3/4"	5.75'
DEPTH		2590
Distributor		
Packer Assembly		
DEPTH		
Flush Joint Anchor & Equalizing Tube	5"	18.00'
Crossover Adapter		
Blanked-Off BT Case		
DEPTH		0
HT-500 Temp. Recorder		
Drill Collars & Adapters		83.80'
Flush Joint Anchor & Equalizing Tube		
Packer Assembly		
DEPTH		
Distributor		
Packer Assembly		
DEPTH		
Equalizing Seal		
Anchor Pipe Safety Joint		
Side Wall Anchor		
DEPTH		
Drill Collars & Adapters		
Flush Joint Anchor	5"	3.00'
Blanked-Off BT Case	5"	3.80'
DEPTH		2700

PRESSURE

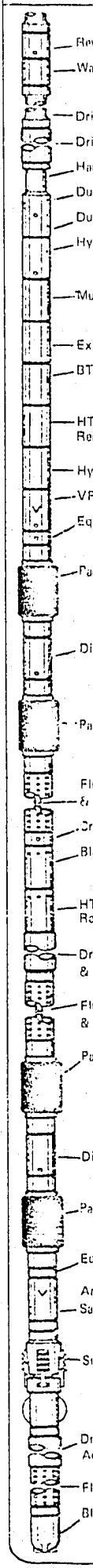
TIME

Each horizontal line equal to 1000 psi





EQUIPMENT DATA

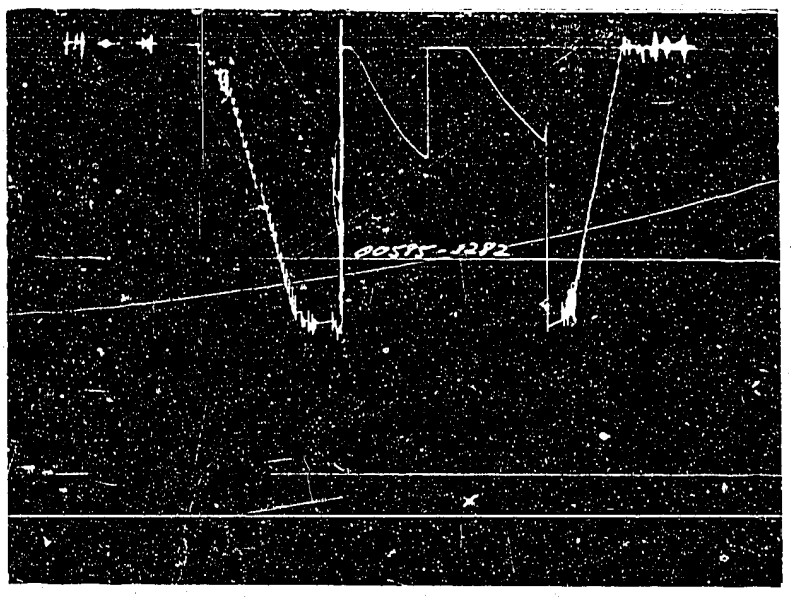


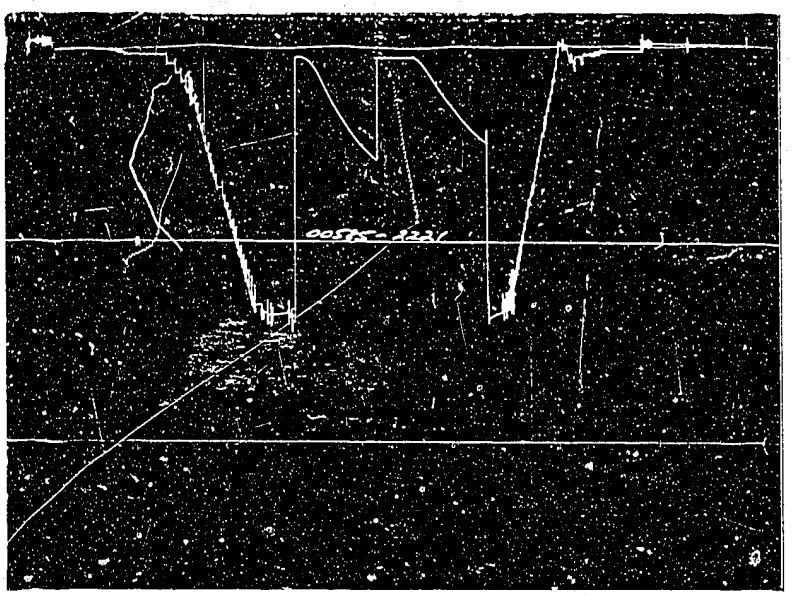
	OD	LENGTH
Reversing Sub		2.80'
Water Cushion Valve		
DEPTH		
Drill Pipe & Adapters		
Drill Collars & Adapters		86.20'
Handling Sub & Choke		
Dual CIP Valve	5"	7.50'
Dual CIP Sampler		
Hydrospring Tester	5"	5.40'
DEPTH		
Multiple CIP Sampler		
Extension Joint		
BT Running Case	5"	4.00'
DEPTH		
HT-500 Temp. Recorder		
Hydraulic Jar	5"	5.10'
VR Safety Joint	5"	2.80'
Equalizing Crossover		
Packer Assembly	7 3/4"	5.75'
DEPTH		2590
Distributor		
Packer Assembly		
DEPTH		
Flush Joint Anchor & Equalizing Tube	5"	18.00'
Crossover Adapter		
Blanked-Off BT Case		
DEPTH		
HT-500 Temp. Recorder		
Drill Collars & Adapters		83.80'
Flush Joint Anchor & Equalizing Tube		
Packer Assembly		
DEPTH		
Distributor		
Packer Assembly		
DEPTH		
Equalizing Seal		
Anchor Pipe Safety Joint		
Side Wall Anchor		
DEPTH		
Drill Collars & Adapters		
Flush Joint Anchor	5"	3.00'
Blanked-Off BT Case	5"	3.80'
DEPTH		2700

PRESSURE

TIME

Each horizontal line equal to 1000 psi





Halliburton SERVICES LIMITED

FORMATION TESTING
DATA SHEET

REFER TO INVOICE NO. 00585

HALLIBURTON DISTRICT: High Level

JOB DATE: March 5, 1972

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA:

PRESSURE DATA

	TOP	CENTRE	BOTTOM
GAUGE NUMBER	3282		2221
GAUGE DEPTH	2573		2698
BLANKED OFF	[redacted]/NO	YES/NO	YES/[redacted]
HOUR CLOCK TRAVEL	12 hr.		12 hr.
INITIAL HYDROSTATIC	1291		1356
FIRST FLOW INITIAL	10		74
FIRST FLOW FINAL	10		74
FIRST CLOSED IN	535		594
SECOND FLOW INITIAL	11		75
SECOND FLOW FINAL	11		75
SECOND CLOSED IN	453		510
THIRD FLOW INITIAL			
THIRD FLOW FINAL			
THIRD CLOSED IN			
FINAL HYDROSTATIC	1287		1351

TYPE OF TEST	TESTER	EMPL. NO.
Bottom Hole	G. Wiggett	
WITNESS: B. Mould	DRILLING CONTRACTOR: Guthrie McLaren #3	

EQUIPMENT AND WELL DATA

FORMATION TESTED: Bear Rock	GAUGE DEPTH ____ °F MEAS. / TEMPERATURE ____ °F EST.
NET PRODUCTIVE THICKNESS ____ FT.	MUD TYPE: Gel
K B ELEVATION: 1642	MUD WEIGHT: 9.6 MUD VISC.: 150
ALL DEPTHS MEASURED FROM: ☑ KB ☐ GROUND	CASING OR HOLE SIZE: 8 3/4"
PACKER DEPTHS TOP: 2590 BOTTOM:	RATHOLE SIZE: N/A
DEPTH OF TESTER VALVE: 2561	DRILL PIPE OD: 4 1/2" WEIGHT: 16.6
CASING PERFORATED INTERVAL: N/A	DRILL COLLARS ABOVE TESTER ID: 2 7/8" LENGTH: 345'
TOTAL DEPTH: 2700	SURFACE CHOKE: 1"
AMOUNT AND TYPE CUSHION: Nil	BOTTOM CHOKE: 5/8"

FLUID SAMPLER DATA

SAMPLER PRESSURE AT SURFACE ____ PSIG

RECOVERY: C.C. OIL ____ CU.FT. GAS ____

C.C. WATER ____

C.C. MUD ____

TOTAL LIQUID C.C. ____

SAMPLE SHIPPED TO LABORATORY: YES ☐ NO ☐

OIL GRAVITY ____ API @ ____ °F

GAS/OIL RATIO ____ CU.FT./BBL.

	RESISTIVITY/REFRACTOMETER/SP. GR. READING			CHLORIDE CONTENT
RECOVERY WATER	____	@ ____	°F	____ PPM
RECOVERY MUD FILTRATE	____	@ ____	°F	____ PPM
MUD PIT SAMPLE FILTRATE	____	@ ____	°F	____ PPM

TIME PERIODS

	FIRST	SECOND	THIRD		AM	PM
FLOW	5	30		TESTER OPENED	11:25	
CLOSED IN	60	60		PACKER UNSEATED		2:00

LIQUID RECOVERY DATA

MEASURED FROM TESTER VALVE

FEET	DESCRIPTION OF LIQUID
4	Mud
4	TOTAL LIQUID RECOVERY

GAS FLOW RATE DATA

TYPE OF INSTRUMENT: ☐ CRITICAL FLOW PROVER ☐ PITOT TUBE ☐ ORIFICE WELL TESTER ☐ SIDE STATIC

FLOW TIME	INSTRUMENT PRESSURE "WATER	"MERC.	PSI	ORIFICE SIZE	GAS TEMP.	GAS RATE MCFD @ 60°F

REMARKS: Tool open with weak air blow with slight increase. Tool open on second flow with weak air blow, dead in 5 mins.

COMPANY: UNION OIL COMPANY OF CANADA LTD.

LEGAL DESCRIPTION: 63°40'20" 123°03'30"W

PROVINCE OR TERRITORY: N.W.T.

FIELD OR AREA: BLACKWATER LAKE

TEST NUMBER: 1

WELL NAME AND NUMBER: UNION JAPEX BLACKWATER E-11

TESTED INTERVAL: 2590 - 2700

NOMENCLATURE

AOF = absolute open flow potential, MCFD

AOF_t = theoretical absolute open flow potential if damage were removed, MCFD

B = formation volume factor, res bbl/ST bbl

c = compressibility, psi^{-1}

D = gauge depth from KB, ft

DR = damage ratio, dimensionless

E = KB elevation, ft

F = drill pipe capacity, bbl/ft

G = hydrostatic gradient of recovery fluid, psi/ft

h = net productive thickness of formation, ft

h^1 = thickness of test interval, ft

k = average effective permeability, md

k^1 = estimated average effective permeability, md

m = slope of final CIP buildup plot, psig/cycle ($psig^2$/cycle for gas)

M = slope of flow plot, min^{-1}

P_D = average pressure drop across damaged zone during flow, psig

P_f = reservoir pressure, psig

P_s = wellbore flow pressure, psig

$\bar{P}$ = weighted average wellbore flow pressure, psig

PI = productivity index, bbl/day-psi

PI_t = theoretical productivity index if damage were removed, bbl/day-psi

PS = potentiometric surface, fresh water corrected to 100° F, ft

Q = average liquid production rate during test, bbl/day

Q_g = measured gas production rate, MCFD at 60° F, 14.4 psig, sp. gr. 0.60

Q_m = maximum production rate, U.S. gal/min

Q_{mt} = maximum theoretical production rate if damage were removed, U.S. gal/min

q = flow rate calculated from hydrostatic of recovery, psi/×min

r_i = radius of investigation, ft

r_w = wellbore or shaft radius, ft

R_s = solution gas-oil ratio, MCFD/ST bbl

s = fluid saturation, fraction

t = effective flow time, min

t_f = time interval from start of continuous production to some future point of interest, min

T = reservoir temperature, °R

μ = viscosity, cp

x = time increment during which q values are calculated, min

Z = compressibility factor, dimensionless

ϕ = porosity, fraction

θ = time point during the closed-in period, minutes

Subscripts

g = gas

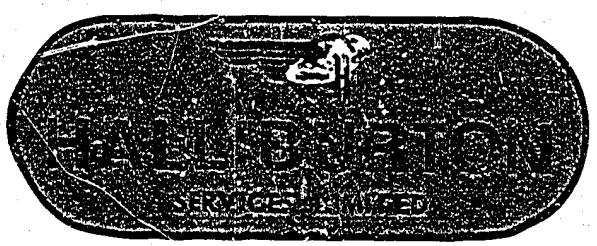
o = oil

w = water

t = total

FORMATION TESTING

Technical Report



CALGARY, ALBERTA

A Halliburton Company

EQUIPMENT DATA

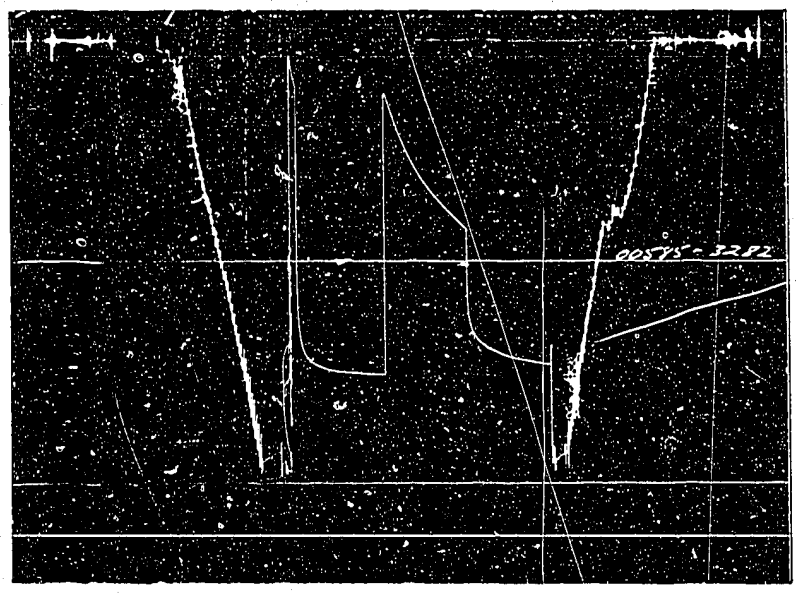
	OD	LENGTH
Reversing Sub		3.00'
Water Cushion Valve		
DEPTH		
Drill Pipe & Adapters		
Drill Collars & Adapters		86.40'
Handling Sub & Choke		
Dual CIP Valve	5"	6.80'
Dual CIP Sampler		
Hydrospring Tester	5"	5.40'
DEPTH		
Multiple CIP Sampler		
Extension Joint		
BT Running Case	5"	4.00'
DEPTH		
HT-500 Temp. Recorder		
Hydraulic Jar	5"	5.10'
VR Safety Joint	5"	2.80'
Equalizing Crossover		
Packer Assembly	7 3/4"	5.80'
DEPTH		
Distributor		
Packer Assembly	7 3/4"	5.75'
DEPTH		3685
Flush Joint Anchor & ~~Equalizing Tube~~	5"	10.00'
Crossover Adapter		
Blanked-Off BT Case		
DEPTH		
HT-500 Temp. Recorder		
Drill Collars & Adapters		204.55'
Flush Joint Anchor & Equalizing Tube		
Packer Assembly		
DEPTH		
Distributor		
Packer Assembly		
DEPTH		
Equalizing Seal		
Anchor Pipe Safety Joint		
Side Wall Anchor		
DEPTH		
Drill Collars & Adapters		
Flush Joint Anchor	5"	5.00'
Blanked-Off BT Case	5"	3.80'
DEPTH		3910

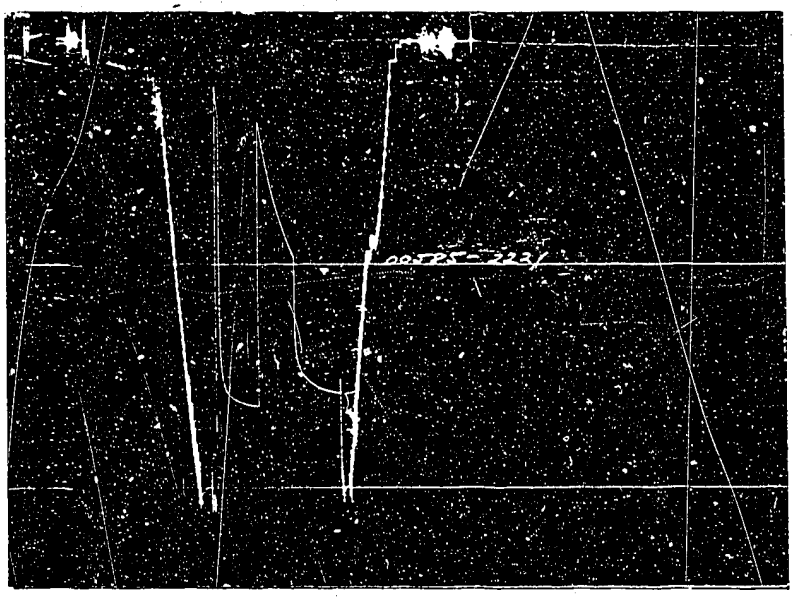
FORM 3444

PRESSURE

TIME

Each horizontal line equal to 1000 psi





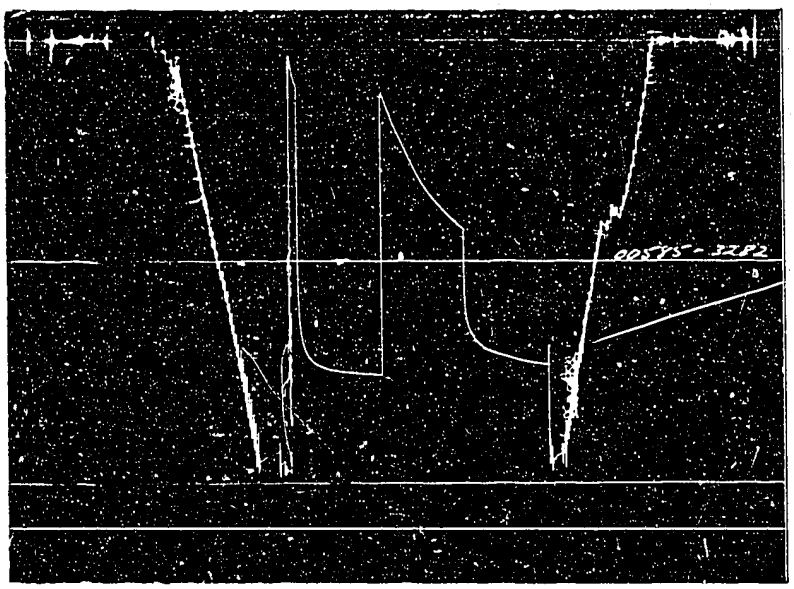
EQUIPMENT DATA

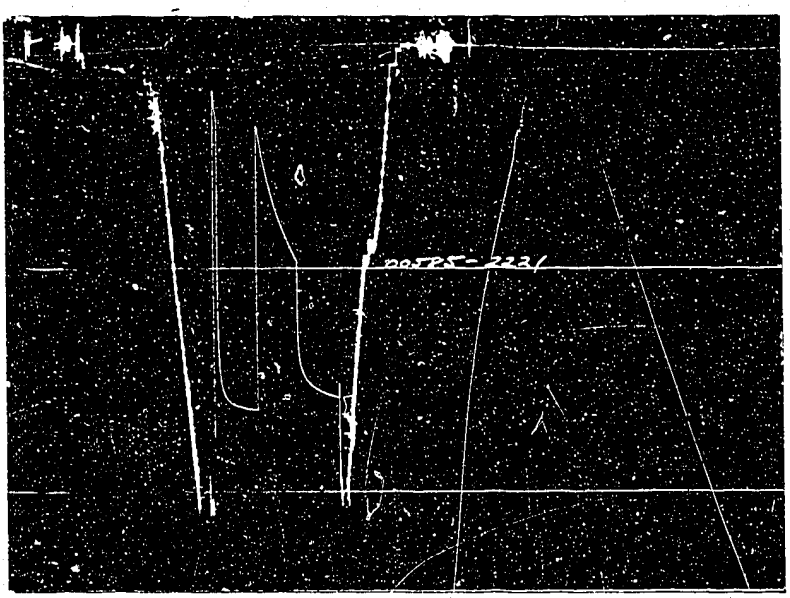
	OD	LENGTH
Reversing Sub		3.00'
Water Cushion Valve		
DEPTH		
Drill Pipe & Adapters		
Drill Collars & Adapters		86.40'
Handling Sub & Choke		
Dual CIP Valve	5"	6.80'
Dual CIP Sampler		
Hydrospring Tester	5"	5.40'
DEPTH		
Multiple CIP Sampler		
Extension Joint		
BT Running Case	5"	4.00'
DEPTH		
HT-500 Temp. Recorder		
Hydraulic Jar	5"	5.10'
VR Safety Joint	5"	2.80'
Equalizing Crossover		
Packer Assembly	7 3/4"	5.80'
DEPTH		
Distributor		
Packer Assembly	7 3/4"	5.75'
DEPTH		3685
Flush Joint Anchor & Equalizing Tube	5"	10.00'
Crossover Adapter		
Blanked-Off BT Case		
DEPTH		
HT-500 Temp. Recorder		
Drill Collars & Adapters		204.55'
Flush Joint Anchor & Equalizing Tube		
Packer Assembly		
DEPTH		
Distributor		
Packer Assembly		
DEPTH		
Equalizing Seal		
Anchor Pipe Safety Joint		
Side Wall Anchor		
DEPTH		
Drill Collars & Adapters		
Flush Joint Anchor	5"	5.00'
Blanked-Off BT Case	5"	3.80'
DEPTH		3910

PRESSURE

TIME

Each horizontal line equal to 1000 psi





FORM 3444

Halliburton SERVICES LIMITED

FORMATION TESTING DATA SHEET

REFER TO INVOICE NO. 00585

HALLIBURTON DISTRICT: Edmonton

JOB DATE: March 12, 1972

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA:

PRESSURE DATA

	TOP	CENTRE	BOTTOM
GAUGE NUMBER	3282		2221
GAUGE DEPTH	3665		3908
BLANKED OFF	YES/NO	YES/NO	YES/NO
HOUR CLOCK TRAVEL	12 hr.		24 hr.
INITIAL HYDROSTATIC	1862		1985
FIRST FLOW — INITIAL	71		205
FIRST FLOW — FINAL	217		334
FIRST CLOSED IN	1513		1631
SECOND FLOW — INITIAL	245		365
SECOND FLOW — FINAL	859		971
SECOND CLOSED IN	1466		1576
THIRD FLOW — INITIAL			
THIRD FLOW — FINAL			
THIRD CLOSED IN			
FINAL HYDROSTATIC	1859		1977

FLUID SAMPLER DATA

SAMPLER PRESSURE AT SURFACE _____ PSIG

RECOVERY: C.C. OIL _____ CU.FT. GAS _____

C.C. WATER _____

C.C. MUD _____

TOTAL LIQUID C.C. _____

SAMPLE SHIPPED TO LABORATORY: YES ☐ NO ☐

OIL GRAVITY _____ API @ _____ °F

GAS/OIL RATIO _____ CU.FT./BBL.

	RESISTIVITY/REFRACTOMETER/SP. GR. READING			CHLORIDE CONTENT
RECOVERY WATER		@ °F		PPM
RECOVERY MUD FILTRATE		@ °F		PPM
MUD PIT SAMPLE FILTRATE		@ °F		PPM

LIQUID RECOVERY DATA

FEET (MEASURED FROM TESTER VALVE)	DESCRIPTION OF LIQUID
950	Mud
1000	Water cut mud fresh
1950	TOTAL LIQUID RECOVERY

REMARKS: Good initial blow increasing slightly. Fair air blow decreasing after 30 mins. then remaining steady to end of second flow period.

TYPE OF TEST	TESTER	EMPL. NO.
Dual Bottom Hole	G. Wiggett	
WITNESS: B. Mould	DRILLING CONTRACTOR: Guthrie #3	

EQUIPMENT AND WELL DATA

FORMATION TESTED: Bear Rock	GAUGE DEPTH _____ °F MEAS. TEMPERATURE _____ °F EST.
NET PRODUCTIVE THICKNESS _____ FT.	MUD TYPE: Gel
K B ELEVATION: 1642	MUD WEIGHT: 9.9 MUD VISC.: 75
ALL DEPTHS MEASURED FROM: ☑ KB ☐ GROUND	CASING OR HOLE SIZE: 8 3/4"
PACKER DEPTHS: TOP — BOTTOM: 3685	RATHOLE SIZE: N/A
DEPTH OF TESTER VALVE: 3653	DRILL PIPE: OD 4 1/2" WEIGHT 16.6
CASING PERFORATED INTERVAL: N/A	DRILL COLLARS ABOVE TESTER: ID 2 7/8" LENGTH 255'
TOTAL DEPTH: 3910	SURFACE CHOKE: 1"
AMOUNT AND TYPE CUSHION: Nil	BOTTOM CHOKE: 5/8"

TIME PERIODS

	FIRST	SECOND	THIRD		AM	PM
FLOW	5	60		TESTER OPENED	4:05	
CLOSED IN	60	60		PACKER UNSEATED	7:10	

GAS FLOW RATE DATA

TYPE OF INSTRUMENT: ☐ CRITICAL FLOW PROVER ☐ PITOT TUBE ☐ ORIFICE WELL TESTER ☐ SIDE STATIC

FLOW TIME	INSTRUMENT PRESSURE "WATER	"MERC.	PSI	ORIFICE SIZE	GAS TEMP.	GAS RATE MCFD @ 60°F

LEGAL DESCRIPTION: 63° 40' 20" N - 123° 3' 30" W

COMPANY: UNION OIL CO. OF CANADA LTD.

PROVINCE OR TERRITORY: N.W.T.

FIELD OR AREA: BLACKWATER LAKE

TEST NUMBER: 2

WELL NAME AND NUMBER: UNION JAPEX BLACKWATER E-11

TESTED INTERVAL: 3685 - 3910

FORM 3448

IIC

NOMENCLATURE

AOF = absolute open flow potential, MCFD

AOF_t = theoretical absolute open flow potential if damage were removed, MCFD

B = formation volume factor, res bbl/ST bbl

c = compressibility, psi^{-1}

D = gauge depth from KB, ft

DR = damage ratio, dimensionless

E = KB elevation, ft

F = drill pipe capacity, bbl/ft

G = hydrostatic gradient of recovery fluid, psi/ft

h = net productive thickness of formation, ft

h^1 = thickness of test interval, ft

k = average effective permeability, md

k^1 = estimated average effective permeability, md

m = slope of final CIP buildup plot, psig/cycle ($psig^2$/cycle for gas)

M = slope of flow plot, min^{-1}

P_D = average pressure drop across damaged zone during flow, psig

P_f = reservoir pressure, psig

P_s = wellbore flow pressure, psig

$\overline{P}$ = weighted average wellbore flow pressure, psig

PI = productivity index, bbl/day-psi

PI_t = theoretical productivity index if damage were removed, bbl/day-psi

PS = potentiometric surface, fresh water corrected to 100° F, ft

Q = average liquid production rate during test, bbl/day

Q_g = measured gas production rate, MCFD at 60° F, 14.4 psig, sp. gr. 0.60

Q_m = maximum production rate, U.S. gal/min

Q_{mt} = maximum theoretical production rate if damage were removed, U.S. gal/min

q = flow rate calculated from hydrostatic of recovery, psi/×min

r_i = radius of investigation, ft

r_w = wellbore or shaft radius, ft

R_s = solution gas-oil ratio, MCFD/ST bbl

s = fluid saturation, fraction

t = effective flow time, min

t_f = time interval from start of continuous production to some future point of interest, min

T = reservoir temperature, °R

μ = viscosity, cp

x = time increment during which q values are calculated, min

Z = compressibility factor, dimensionless

ϕ = porosity, fraction

θ = time point during the closed-in period, minutes

Subscripts

g = gas

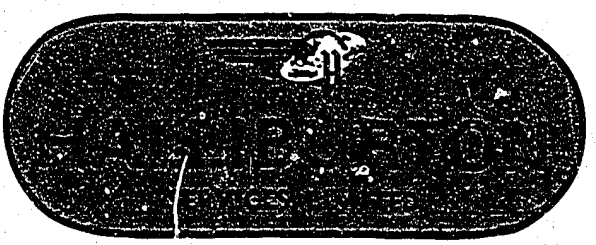
o = oil

w = water

t = total

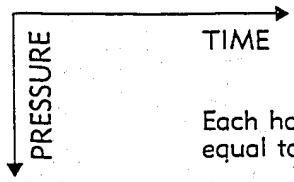
FORMATION TESTING

Technical Report

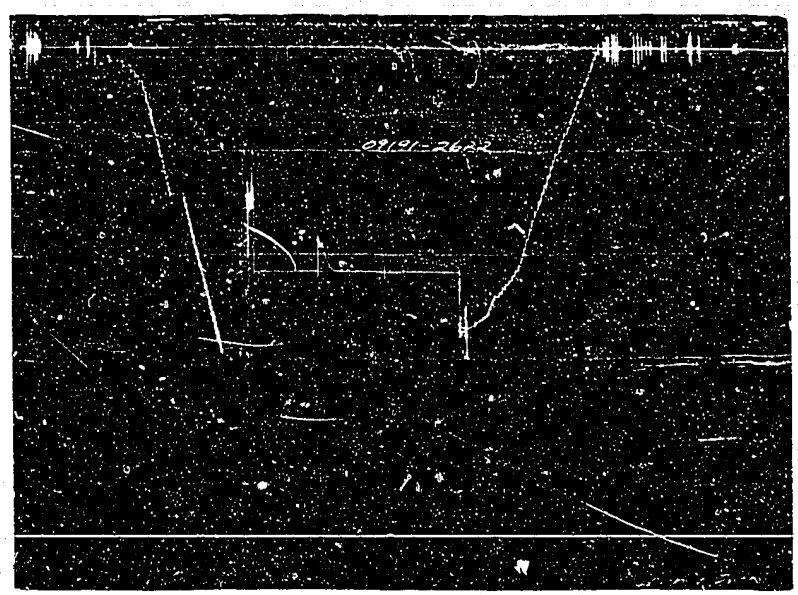


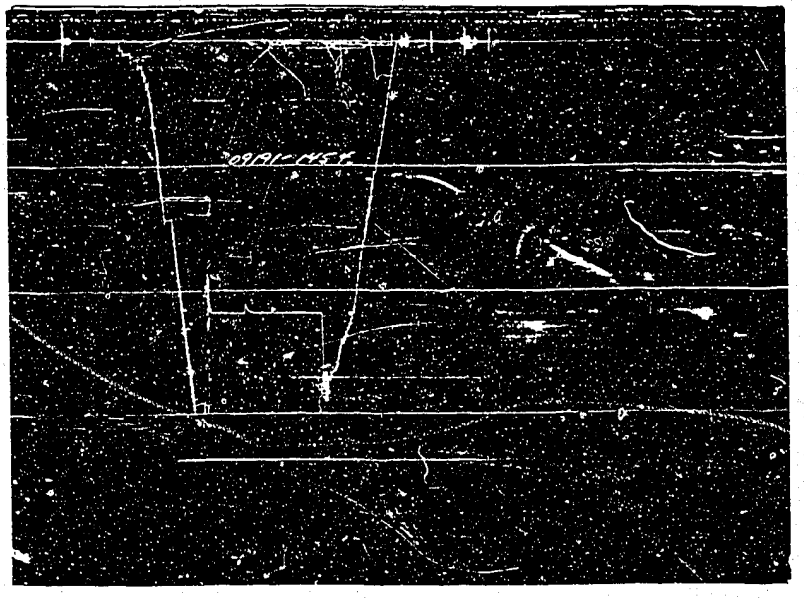
CALGARY, ALBERTA

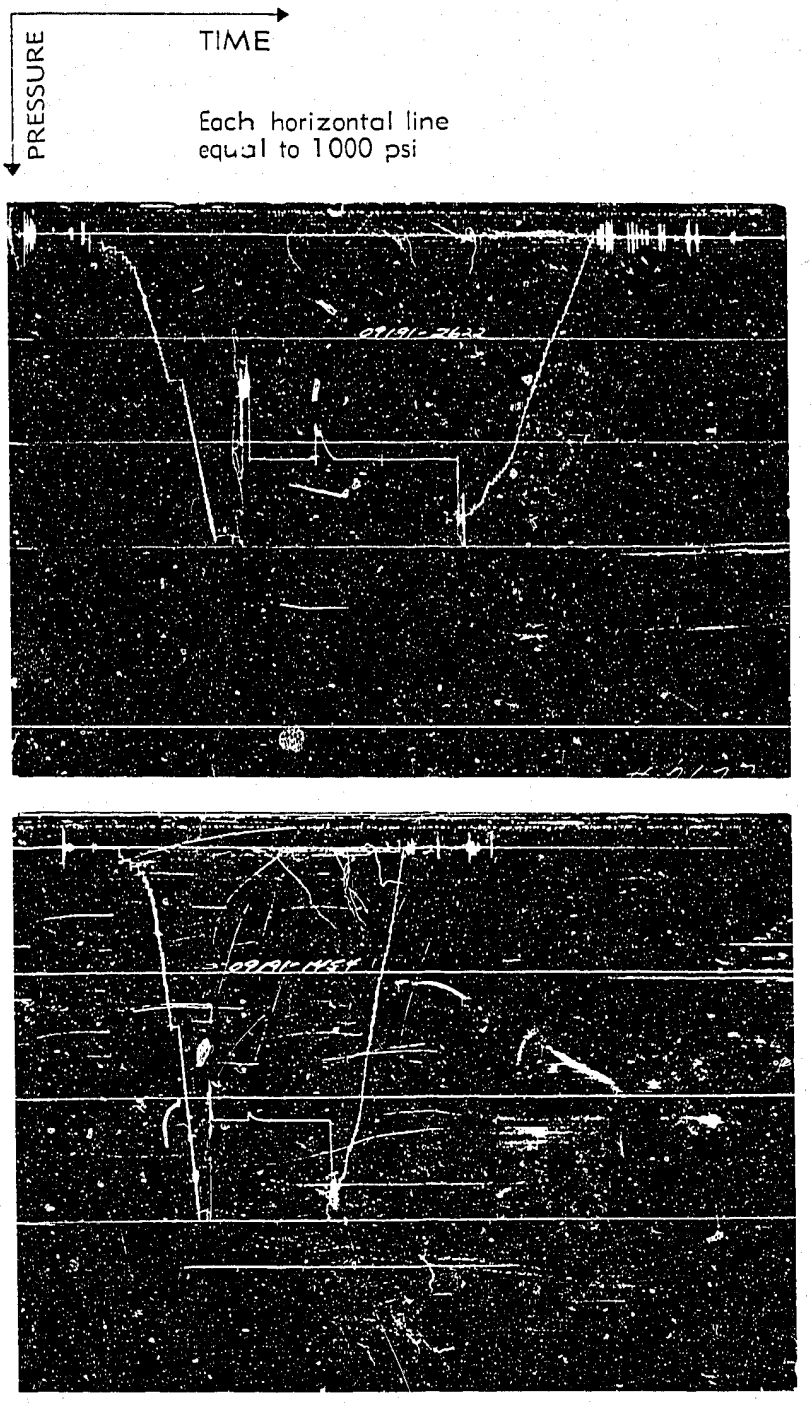
A Halliburton Company



Each horizontal line
equal to 1000 psi






TIME
PRESSURE
Each horizontal line
equal to 1000 psi

Halliburton SERVICES LIMITED

FORMATION TESTING
DATA SHEET

REFER TO INVOICE NO. 09191

HALLIBURTON DISTRICT: Edmonton

JOB DATE: April 2, 1972

OWNER, OPERATOR OR HIS AGENT STATES THE WELL IS IN CONDITION FOR THE SERVICE JOB TO BE PERFORMED AND SUBMITS THE FOLLOWING DATA:

PRESSURE DATA

	TOP	CENTRE	BOTTOM
GAUGE NUMBER	2622		1454
GAUGE DEPTH	5289		5348
BLANKED OFF	~~YES~~/NO	YES/NO	YES/~~NO~~
HOUR CLOCK TRAVEL	12 hr.		24 hr.
INITIAL HYDROSTATIC	2885		2911
FIRST FLOW INITIAL	1473		1894
FIRST FLOW FINAL	1428		2144
FIRST CLOSED IN	2163		2181
SECOND FLOW INITIAL	1848		2113
SECOND FLOW FINAL	2163		2181
SECOND CLOSED IN	2165		2182
THIRD FLOW INITIAL			
THIRD FLOW FINAL			
THIRD CLOSED IN			
FINAL HYDROSTATIC	2741		2770

FLUID SAMPLER DATA

SAMPLER PRESSURE AT SURFACE _____ PSIG

RECOVERY: C.C. OIL _____ CU.FT. GAS _____

C.C. WATER _____

C.C. MUD _____

TOTAL LIQUID C.C. _____

SAMPLE SHIPPED TO LABORATORY: YES ☐ NO ☐

OIL GRAVITY _____ API @ _____ °F

GAS/OIL RATIO _____ CU.FT./BBL.

~~RESISTIVITY~~/REFRACTOMETER/~~SP. GR. READING~~

			CHLORIDE CONTENT	
RECOVERY WATER	@ 60	°F	1925	PPM
RECOVERY MUD FILTRATE	@	°F		PPM
MUD PIT SAMPLE FILTRATE	@	°F		PPM

LIQUID RECOVERY DATA

MEASURED FROM TESTER VALVE: FEET	DESCRIPTION OF LIQUID
1000	Muddy Water
3575	Slightly Salty Water
4575	TOTAL LIQUID RECOVERY

REMARKS: Good blow for first 30 mins. of flow, then decreasing until dead in 45 mins. TIGHT HOLE.

TYPE OF TEST	TESTER	EMPL. NO.
Dual Straddle	A. Guske	153
WITNESS	**DRILLING CONTRACTOR**	
B. Mould	Guthrie #3	

EQUIPMENT AND WELL DATA

FORMATION TESTED: Bear Rock	GAUGE DEPTH _____ °F MEAS. TEMPERATURE _____ °F EST.
NET PRODUCTIVE THICKNESS _____ FT.	MUD TYPE: Gel
K B ELEVATION	MUD WEIGHT: 9.6 MUD VISC.: 102
ALL DEPTHS MEASURED FROM: ☑ KB ☐ GROUND	CASING OR HOLE SIZE: 8 3/4"
PACKER DEPTHS (TOP): 5320 (BOTTOM): 5460	RATHOLE SIZE: N/A
DEPTH OF TESTER VALVE: 5285	DRILL PIPE (OD): 4 1/2" (WEIGHT): 16.6
CASING PERFORATED INTERVAL: N/A	DRILL COLLARS ABOVE TESTER (ID): 2 7/8" (LENGTH): 587'
TOTAL DEPTH: 7120	SURFACE CHOKE: -
AMOUNT AND TYPE CUSHION: Nil	BOTTOM CHOKE: 5/8"

TIME PERIODS

	FIRST	SECOND	THIRD		AM	PM
FLOW	5	60		TESTER OPENED	4:25	
CLOSED IN	60	70		PACKER UNSEATED	7:40	

GAS FLOW RATE DATA

TYPE OF INSTRUMENT: ☐ CRITICAL FLOW PROVER ☐ PITOT TUBE ☐ ORIFICE WELL TESTER ☐ SIDE STATIC

FLOW TIME	INSTRUMENT PRESSURE "WATER	"MERC.	PSI	ORIFICE SIZE	GAS TEMP.	GAS RATE MCFD @ 60°F

LEGAL DESCRIPTION: 63 40' 20 / 23 03' 30

COMPANY: UNION OIL COMPANY OF CANADA LTD.

PROVINCE OR TERRITORY: N.W.T.

FIELD OR AREA: BLACKWATER LK.

TEST NUMBER: 3

WELL NAME AND NUMBER: UNION JAPEX BLACKWATER E-11

TESTED INTERVAL: 5320 - 5460

NOMENCLATURE

AOF = absolute open flow potential, MCFD

AOF_t = theoretical absolute open flow potential if damage were removed, MCFD

B = formation volume factor, res bbl/ST bbl

c = compressibility, psi^{-1}

D = gauge depth from KB, ft

DR = damage ratio, dimensionless

E = KB elevation, ft

F = drill pipe capacity, bbl/ft

G = hydrostatic gradient of recovery fluid, psi/ft

h = net productive thickness of formation, ft

h^1 = thickness of test interval, ft

k = average effective permeability, md

k^1 = estimated average effective permeability, md

m = slope of final CIP buildup plot, psig/cycle ($psig^2$/cycle for gas)

M = slope of flow plot, min^{-1}

P_D = average pressure drop across damaged zone during flow, psig

P_f = reservoir pressure, psig

P_s = welibore flow pressure, psig

$\bar{P}$ = weighted average wellbore flow pressure, psig

PI = productivity index, bbl/day-psi

PI_t = theoretical productivity index if damage were removed, bbl/day-psi

PS = potentiometric surface, fresh water corrected to 100°F, ft

Q = average liquid production rate during test, bbl/day

Q_g = measured gas production rate, MCFD at 60°F, 14.4 psig, sp. gr. 0.60

Q_m = maximum production rate, U.S. gal/min

Q_{mt} = maximum theoretical production rate if damage were removed, U.S. gal/min

q = flow rate calculated from hydrostatic of recovery, psi/Xmin

r_i = radius of investigation, ft

r_w = wellbore or shaft radius, ft

R_s = solution gas-oil ratio, MCFD/ST bbl

s = fluid saturation, fraction

t = effective flow time, min

t_f = time interval from start of continuous production to some future point of interest, min

T = reservoir temperature, °R

μ = viscosity, cp

x = time increment during which q values are calculated, min

Z = compressibility factor, dimensionless

ϕ = porosity, fraction

θ = time point during the closed-in period, minutes

Subscripts

g = gas

o = oil

w = water

t = total

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 9

Lease
Well Name UNION JAPEX BLACK WATER ET AL

Date APRIL 4 1972

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Weather Condition CLEAR 0° Road Conditions ROUGH Nearest Town WRIGLEY

Water - Source LAKE Miles Hauled 4 Pumped ____ Camp Distance from Rig 2000 FEET. Reason for Extra L. Plant

OPERATOR

UNION OIL CO.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER A. Ewald

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Tbd.	O.D.
DWKS				

PUMPS No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	274-P	14
2.	"	"	"
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			
Reaming			
Conditioning Mud & Circulating			
Trips	2¼		
Lubricate Rig			
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
~~Running Casing~~ & Cementing	¼		
Waiting on Cement	5½		
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	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD				
Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				
Mud & Chemicals Added	Type	Amt.	Type	Amt.

Driller Ronald Hasek

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:30	1½						LAY DOWN DRILL PIPE.
1:30	2:00	½						RUN IN HOLE FEEL FOR PLUG #2
2:00	2:15	¼						PULL UP FOR PLUG #3.
2:15	2:30	¼						RUN PLUG #3
2:30	8:00	5½						W.O.C & LAY DOWN PIPE

FELT FOR PLUG #2 FOUND TOP @ 5247. 200 FT.

PLUG #3 3700-3600 90 SACKS OF CEMENT PLUS 2% CC. PLUG IN PLACE @ 2:30 AM (April 4/72)

13.5 INCHES

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker LOADER HAS 12	
Total Pipe on Lease		Jts.	Trucker T.N.I. 14	
			Trucker	

MUD RECORD				
Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				
Mud & Chemicals Added	Type	Amt.	Type	Amt.

Driller Thorpe Tate

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	½						W.O.C & LAY DOWN PIPE
8:30	9:00	½						RUN IN FEEL PLUG #3
9:00	9:10	1/4						~~RUN~~ ~~FEEL~~ #3 PULL UP
9:15	9:30	¼						RUN PLUG #4
9:30	3:30							W.O.C
3:30	4:00							RUN IN FEEL PLUG #4

FELT FOR PLUG #3 FOUND TOP @ 3531. at 9AM.

RAN PLUG #4 7327 - 637 100 SAX of CEMENT PLUS 2% CC

PLUG in PLACE @ 9:30 AM April 4/72.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD				
Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				
Mud & Chemicals Added	Type	Amt.	Type	Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:00	1						LAY DOWN PIPE
5:00	8:00	3						TEAR OUT LAY DOWN B. OP's
8:00	10:00	2						CUT OFF CASING WELD ON PLATE
~~8:00~~	~~10:00~~	~~2~~						5 SK. CEMENT PLUG
10:00	12:00	2						TEAR OUT

FELT FOR PLUG #4 FOUND TOP @ 605'.

4PM (April 4/72 - RIG RELEASED 8PM.

CLEARED TO DRILL

No. 0509

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JOHN BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: APRIL 3 1972

Weather Condition: CLEAR - 10 | Road Conditions: ROUGH | Nearest Town: WRIGLEY | Water - Source ___ Miles Hauled ___ Pumped ___ | Camp Distance from Rig: 200yd | Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature]

Rig No. 3 DWKS

Drill Pipe String: No. 2 Size 4½

Tool Joints 3½ O.D. Type Thd. FH

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
	9⅝	MANN.	32.3 H40	22	787	13.95	721	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual			
Reaming			
Conditioning Mud & Circulating			
Trips	2		
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	3		
Other	2½		
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. M 10092

No. of Lines 4 Size 1/8

Feet Slipped

Feet Cut Off

Present Length

Ton Mi. or Trips Since Last Cut

Cumulative Ton Mi. or Trips

No. of Days From Spud 52

Cumulative Rotating Hrs.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
68	Stands D.P.		Ft.
5	Singles D.P.	638.40	Ft.
22	D.C. 6¼"		
2	I.D. 7" O.D.	704.43	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	27.12	Ft.
	Total	7120	Ft.
Wt. of String		150,000	Lbs.
Pipe in Hole		205	Jts.
Pipe on Racks		9	Jts.
Total Pipe on Lease		214	Jts.

BIT RECORD: Bit No. | Size | Mfg. | Type | Nozzle No. / Size | Ser. No. | Depth Out | Depth In | Total Ftg. | Total Hr. Run | Cond. of Bit | Reamer No. | Reamer Type

Water Charges Reg. Hrs. O.T. Hrs.

Trucker ___ Trucker ___ Trucker ___

MUD RECORD: Time | Weight | Visc.-Ser. | W.L.-C.C. | FL TR. CK. | PH | SD. Cont. % | Pressure Gradient

Mud & Chemicals Added: Type | Amt. | Type | Amt.

Driller: [signature]

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD: Bit No. | Size | Mfg. | Type | Nozzle No. / Size | Ser. No. | Depth Out | Depth In | Total Ftg. | Total Hr. Run | Cond. of Bit | Reamer No. | Reamer Type

Water Charges Reg. Hrs. O.T. Hrs.

Trucker LODER 11 Trucker ___ Trucker ___

MUD RECORD: Time | Weight | Visc.-Sec. | W.L.-C.C. | FL TR. CK. | PH | SD. Cont. % | Pressure Gradient

Mud & Chemicals Added: Type | Amt. | Type | Amt.

Driller

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD: Bit No. | Size | Mfg. | Type | Nozzle No. / Size | Ser. No. | Depth Out | Depth In | Total Ftg. | Total Hr. Run | Cond. of Bit | Reamer No. | Reamer Type

Water Charges Reg. Hrs. O.T. Hrs.

Trucker TNT 16 Trucker ___ Trucker ___

MUD RECORD: Time | Weight | Visc.-Sec. | W.L.-C.C. | FL TR. CK. | PH | SD. Cont. % | Pressure Gradient

Mud & Chemicals Added: Type | Amt. | Type | Amt.

Type	Amt.	Type	Amt.
SAWDUST	35 sks		
FIBERTEX	12 sks		
GEL	5000 #		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:00	2						MAKE UP TEST
2:00	4:00	2						RUN IN WITH TEST
4:00	4:30	½						HEAD UP TO TEST
4:30	7:30	3						WELL ON TEST
7:30	8:00	½						BACK OFF CHECK SAMPS & PULL TEST #1

DST #1 5320 - 5460. 1¾ RUBBERS HOWCO.
PRE FO 5 MINS ISI 60 VO 6.0. FSI 60. GOOD IP GOOD BLOW ON PRE FLO. GOOD BLOW ON VO OPEN. DIED AFTER 30 MINS DEAD AFTER 45 mins. REC. 1000' OF muddy water 35% SLIGHTLY SALTY WATER. FUEL 1'9"

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
1H	2908		IFP	1812	ISI 273								
FH	2726		FFP	2123	FSI 2177								

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	11:30	3½						PULL TEST #2 SLOW
11:30	1:00	1½						BRACK DOWN TESTING TOOLS
1:00	3:30	2½						RUN IN OPEN END TO 5700.
3:30	4:00							BRACK CIRC (NO RETURNS)

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
					WHIPSTOCK PULLED PACKER LOOSE								

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	½						MIX MUD
5:30	6:00	½						BRACK CIRC
6:00								CEMENT PLUG #1 W/ 110 SKS CEMENT
	6:30	½						7120 - 6950 DOWN @ 6:30
6:30	7:30	1						PULL UP TO RUN PLUG #2
7:30	8:30	1						RUN PLUG #2
8:30								W.O.C. LAY DOWN COLLARS
	12:00	3½						& SOME PIPE

RAM PLUG #2 5350 - 5200 14 SAX
AT CEMENT PLUG 2 5/8 CC
PLUG IN PLACE @ 8:30 PM

No. 6508

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name Union Tapes Blackwater F-11 | Date April 2 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition Clear-S | Road Conditions Rough | Nearest Town Wrigley | Water - Source Lake | Miles Hauled 4 | Pumped ___ | Camp Distance from Rig 200 Rods | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

Rig No. 3 DWKS | Drill Pipe String No. 2 Size 4½ | Tool Joint 5¾ O.D. Type Tbd. FH | Drill Collars No. ___ Size ___

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Sidal

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oil Well	214-P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	Mayn	32.3 H-40	22	787	13.45	787	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	1½		
Reaming			
Conditioning Mud & Circulating	1¼		
Trips	2½		1
Lubricate Rig			
Deviation Survey	¼		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging	2½	8	4
Running Casing & Cementing			
Waiting on Cement Orders			2
Drill Stem Test			1
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.	M 10092
No. of Lines	8 Size 1/8
Feet Slipped	1940
Feet Cut Off	1940
Present Length	3175
Ton Mi. or Trips Since Last Cut	3.51
Cumulative Ton Mi. or Trips	178.00
No. of Days From Spud	51
Cumulative Rotating Hrs.	582½

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
63	Stands D.P.	Ft.
5	Singles D.P.	6380.40 Ft.
22	D.C. 6¼"	
2	I.D. 7" O.D.	704.43 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.60 Ft.
	Bit or C.B.	Ft.
	Kelly Down	27.12 Ft.
	Total	7120 Ft.

Wt. of String 151,000 Lbs. | Pipe in Hole 205 Jts. | Pipe on Racks 9 Jts. | Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	21
Size	8¾
Mfg.	Sec
Type	H 77
Nozzle No.	3
Nozzle Size	14
Ser. No.	912479
Depth Out	7120
Depth In	7079
Total Ftg.	41
Total Hr. Run	15
Cond. of Bit	4-2-1
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ Trucker ___ Trucker ___

MUD RECORD

Time	1:00	3:00
Weight	~~10~~ 9.6	
Visc.-Sec.	102	
W.L.-C.C.	~~5~~ 4	
FL TR. CK.	2/32	
PH	10.0	
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Bernard Sidal

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
7114	7120	6	D			70	50	1000	6"	60			S

Deviation Record: Depth 7120 | Dev. 1¼° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:30	1½						Drlg.
1:30	2:45	1¼						Circ. Up Bottom Hole Sample
~~2:45~~	~~3:00~~	~~¼~~						~~Pull Out To Log.~~
2:45	3:00	¼						Survey
3:00	5:30	2½						Pull Out To Log
5:30	6:00	½						Rig Up To Log
6:00	8:00	2						Logging
								RAN INDUCTION FR LOG. 787 - 7120 TD
								FUEL AT 7:00 AM 2'

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.
	Kelly Down	Ft.
	Total	Ft.

Wt. of String Lbs. | Pipe in Hole Jts. | Pipe on Racks Jts. | Total Pipe on Lease Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker Loader 10½ 11
Trucker ___ Trucker ___

MUD RECORD

Time		
Weight		
Visc.-Sec.		
W.L.-C.C.		
FL TR. CK.		
PH		
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Dave Gauchotte

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
7120													

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	4:00	8						Logging
								RAN S.N.P. Log 787 - 7120
								RAN BORE HOLE COMPENSATED Log 787 - 7120. TD

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
69	Stands D.P.	Ft.
5	Singles D.P.	6380.40 Ft.
22	D.C. 6¼	
2	I.D. 7" O.D.	704.43 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.60 Ft.
	Bit or C.B.	Ft.
	Kelly Down	Ft.
	Total	Ft.

Wt. of String Lbs. | Pipe in Hole 205 Jts. | Pipe on Racks 9 Jts. | Total Pipe on Lease 214 Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker TNT 3
Trucker ___ Trucker ___

MUD RECORD

Time		
Weight		
Visc.-Sec.		
W.L.-C.C.		
FL TR. CK.		
PH		
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller ___

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	8:00	4						Logging
8:00	10:00	2						Wait On Orders
10:00	11:00	1						Run In ~~Tbg~~ Tail Pipe For Test
11:00	12:00	1						Make Up Test

No. 6507

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Japer Blackwater F-1

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: April 1 1972

Weather Condition: Clear -16 | Road Conditions: Rough | Nearest Town: Wrigley | Water - Source: Lake | Miles Hauled: 4 | Pumped: ____ | Camp Distance from Rig: 200 Feet | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: M. Dowell

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Build

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint	Type Thd.
3 DWKS Ideco	2	4½	5¾ O.D.	F.H.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oil Well	214-P	14
2.	"	"	"
3.			

LAST CASING / TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	Mann	32.3 H-40	22	787	1345	781	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	3 3/4	2 3/4	7 3/4
Reaming			
Conditioning Mud & Circulating			
Trips	2	4 3/4	
Lubricate Rig		1/4	1/4
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line	1 1/4		
Repair Rep Wash Pipe	1 1/4		
Repair Back Gear	1/4	1/4	
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.	M-100 92
No. of Lines	8 Size 1/8
Feet Slipped	1840
Feet Cut Off	1840
Present Length	3175
Ton Mi. or Trips Since Last Cut	3351
Cumulative Ton Mi. or Trips	17800
No. of Days From Spud	50
Cumulative Rotating Hrs.	579 1/2

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
68	Stands D.P.	6349.35 Ft.
	Singles D.P.	Ft.
22	D.C. 6 1/4	
2	I.D. 7 O.D.	704.48 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.60 Ft.
	Bit or C.B.	Ft.
	Kelly Down	16.17 Ft.
	Total	7078 Ft.

Wt. of String 143,000 Lbs.
Pipe in Hole 204 Jts.
Pipe on Racks 10 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	20
Size	8 3/4
Mfg.	Sec
Type	H88
Nozzle No.	3
Nozzle Size	14
Ser. No.	911224
Depth Out	
Depth In	7073
Total Ftg.	5
Total Hr Run	3 1/4
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ____ ____ ____
Trucker ____ ____ ____
Trucker ____ ____ ____

MUD RECORD

Time	7:00
Weight	9.6
Visc.-Sec.	78
W.L.-C.C.	4.3
FL TR. CK.	2/32
PH	10.5
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: George Hack

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
7033	7078	5	D			60	40	900	6"	58			C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:15	1 1/4						Slip & Cut 90' Line.
1:15	2:30	1 1/4						Change Wash Pipe & Packing In Swivel
2:30	4:30	2						Finish In Hole.
4:30	4:45	1/4						Break Circ
4:45	8:00	3 1/4						Drill

FUEL AT 7:10 AM 3'1"

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
68	Stands D.P.	6349.35 Ft.
	Singles D.P.	Ft.
22	D.C. 6 1/4	
2	I.D. 7 1/16 O.D.	704.48 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	26.17 Ft.
	Total	7088.00 Ft.

Wt. of String ____ Lbs.
Pipe in Hole 204 Jts.
Pipe on Racks 10 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	20	21
Size	8 3/4	8 3/4
Mfg.	Sec.	Sec.
Type	H88	H88
Nozzle No.	3	3
Nozzle Size	14	14
Ser. No.	911224	912479
Depth Out	7079	
Depth In	7073	7079
Total Ftg.	6	9
Total Hr. Run	5 3/4	2
Cond. of Bit	1-1-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker Loadre 4 hrs 4
Trucker ____ ____ ____
Trucker ____ ____ ____

MUD RECORD

Time	8:00		3:00
Weight	9 1/4	T.	9.1
Visc.-Sec.	80	R.	80
W.L.-C.C.	4.8	P.	4.2
FL TR. CK.	2/32		2/32
PH	10.0		10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Dave Buckley

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
7078	7088	10				55	30	1000	6"	58			
						70	50	1000	6"	61			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:45	3/4						Drlg
8:45	11:00	2 1/4						Trip for Bit
11:00	11:15	1/4						Rig Ser. ✓ Motor Shut Off & Bops.
11:15	1:45	2 1/2						Run In
1:45	2:00	1/4						Break Circ.
2:00	4:00	2						Drilling 8 3/4" hole

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
68	Stands D.P.	Ft.
5	Singles D.P.	638.40 Ft.
22	D.C. 6 1/4	
2	I.D. 7 O.D.	704.45 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	21.12 Ft.
	Total	7114 Ft.

Wt. of String 151.00 Lbs.
Pipe in Hole 205 Jts.
Pipe on Racks 9 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	21
Size	8 3/4
Mfg.	Sec.
Type	H77
Nozzle No.	3
Nozzle Size	14
Ser. No.	912479
Depth Out	
Depth In	7079
Total Ftg.	35
Total Hr. Run	13 1/2
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker INT 9
Trucker ____ ____ ____
Trucker ____ ____ ____

MUD RECORD

Time	7:00		11:00
Weight	9.1		9.
Visc.-Sec.	85		102
W.L.-C.C.	5.2		5.4
FL TR. CK.	2/32		2/32
PH	10.0		10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
220 GEL	2400 #		
Preservative 50 #			

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
7088	7114	26	D			70	50	1000	6"	61			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	8:00	4						Drlg.
8:00	8:15	1/4						Rig Ser.
8:15	12:00	3 3/4						Drlg

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT — CONSERVATION ENGINEER — NORTHERN AREA — CALGARY, ALTA. — APR 7 1972

No. 6506

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Taper Blackwater E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: March 31 1922

Weather Condition: - 10 | Road Conditions: Rough | Nearest Town: Wessley | Water - Source: Lake, Miles Hauled: 4, Pumped: ___ | Camp Distance from Rig: 200 rods. | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Swed

Rig No. 3 | DWKS | Drill Pipe String: No. 2, Size 4½ | Tool Joint: 5¾ O.D., Type Thd: F H

PUMPS No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oil Well	214-D	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	Mann	32.3 H40	22	787	1345	781	

TIME DISTRIBUTION — HOURS

	Morn.	Day	Eve.
Rig Up & Tear Down			
Drilling Actual	4½	7¾	3½
Reaming			
Conditioning Mud & Circulating			
Trips	2¾		4¼
Lubricate Rig		¼	¼
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		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.	M16092
No. of Lines	8 Size ⅛
Feet Slipped	1780
Feet Cut Off	1780
Present Length	3265
Ton Mi. or Trips Since Last Cut	601
Cumulative Ton Mi. or Trips	17,449
No. of Days From Spud	49
Cumulative Rotating Hrs.	56¾

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
67	Stands D.P.	6255.85	Ft.
	Singles D.P.		Ft.
22	D.C. 6¼		
2	I.D. 2 O.D.	704.43	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
1	Twist Bit at C.B.	3.50	Ft.
	Kelly Down	35.17	Ft.
	Total	7004	Ft.

Wt. of String: 147,000 Lbs. | Pipe in Hole: 201 Jts. | Pipe on Racks: 13 Jts. | Total Pipe on Lease: 214 Jts.

BIT RECORD		
Bit No.	19	
Size	8¾	
Mfg.	Sec.	
Type	M 88	
Nozzle No.	3	
Nozzle Size	14	
Ser. No.	340935	
Depth Out		
Depth In	6989	
Total Ftg.	18	
Total Hr. Run	4½	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: Loader 1 Hr.
Trucker: ___
Trucker: ___

MUD RECORD			
Time	4:00	7:00	
Weight	9.8	9.8	
Visc.-Sec.	77	82	
W.L.-C.C.		16.0	
FL TR. CK.		3/32	
PH	10.5	11.0	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Impermex	1400 #		
Caustic	100 #		
Q-Broxin	100 #		

Driller: A. Swed

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6989	7007	18	D			65	40	1000	6"	56	6		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:45	2¾						Run In With Bit # 19.
2:45	3:00	¼						Break Circ.
3:00	3:30	½						Work Junk Sub
3:30	8:00	4½						Drill.
								Fuel 4'3" 7:00 AM

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.	6255.85	Ft.
1	Singles D.P.	62.25	Ft.
22	D.C. 6¼		
2	I.D. 7 O.D.	7044.8	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
1	Junk Bit C.B.	3.50	Ft.
	Kelly Down	25.92	Ft.
	Total	7060.00	Ft.

Wt. of String: 148.000 Lbs. | Pipe in Hole: 203 Jts. | Pipe on Racks: 11 Jts. | Total Pipe on Lease: 214 Jts.

BIT RECORD		
Bit No.	19	
Size	8¾	
Mfg.	Sec.	
Type	M 88	
Nozzle No.	3	
Nozzle Size	14	
Ser. No.	340935	
Depth Out		
Depth In	6989	
Total Ftg.	71	
Total Hr. Run	12¼	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: Loader 4 hrs
Trucker: ___
Trucker: ___

MUD RECORD			
Time	4:30	12:00	4:00
Weight	10.0	10.0	10.0
Visc.-Sec.	100	100	104
W.L.-C.C.	9.2	7.2	
FL TR. CK.	3/32	3/32	
PH	12.0	11.5	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Impermex	1350 #		
Caustic	150 #		
Q-Broxin	250 #		

Driller: Dave Sinclair

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
7007	7060	53	D			65	40	1000	6"	56			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:00	1						Drill
9:00	9:15	¼						Rig Ser.
9:15	4:00	6¾						Drill

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
67	Stands D.P.		Ft.
1	Singles D.P.	6318.10	Ft.
	D.C.		
24	I.D. O.D.	7044.8	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.	8.00	Ft.
	Bit or C.B.	3.50	Ft.
	Kelly Down	3892	Ft.
	Total	7073	Ft.

Wt. of String: 148,000 Lbs. | Pipe in Hole: 203 Jts. | Pipe on Racks: 11 Jts. | Total Pipe on Lease: 214 Jts.

BIT RECORD		
Bit No.	19	20
Size	8¾	8¾
Mfg.	Sec.	Sec.
Type	M 88	H 88
Nozzle No.	3	3
Nozzle Size	14	14
Ser. No.	340935	911224
Depth Out	7073	
Depth In	6989	7073
Total Ftg.	84	
Total Hr. Run	15¾	
Cond. of Bit	8-1-1	
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: T.N.T. 8
Trucker: ___
Trucker: ___

MUD RECORD			
Time	5:00	7:00	
Weight	10.0	10.1	
Visc.-Sec.	110	97	
W.L.-C.C.		5.2	
FL TR. CK.		4/32	
PH	11.5	11.5	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Mikolstarch	350 #		
Impermix	200 #		
Preservative	300 #		

Driller: ___

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
7060	7073	13	D			65	40	1000	6"	56			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	7:30	3½						Drlg
7:30	11:00	3½						Trip
11:00	11:45	¾						Run In Colleers
11:45	12:00	¼						Rig Ser.

No. 5505

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 30 19 72

Weather Condition: SNOW - 2 | Road Conditions: ROUGH | Nearest Town: LEADER | Water - Source: LAKE | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 200 YARDS. | Reason for Extra L. Plant:

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS IDECO

Drill Pipe String: No. 2, Size 4½

Tool Joint: Type Thd. F.H., O.D. 5¾

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature]

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	OILWELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN	32.3.440	22	787	13.45	781	

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	5½		
Reaming			
Conditioning Mud & Circulating			
Trips	2¼		6¾
Lubricate Rig	¼		¼
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			1
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. M.1092
No. of Lines 8 Size 1/8
Feet Slipped 1780
Feet Cut Off 1780
Present Length 3265
Ton Mi. or Trips Since Last Cut 508
Cumulative Ton Mi. or Trips 17296
No. of Days From Spud 48
Cumulative Rotating Hrs. ~~546~~ 546

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
67	Stands D.P.		Ft.
0	Singles D.P.	6318.10	Ft.
19	D.C. 8¼		
2	I.D. 7 O.D.	615.34	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
9	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	39.22	Ft.
	Total	6986	Ft.

Wt. of String 141,000 Lbs.
Pipe in Hole 203 Jts.
Pipe on Racks 11 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	18	
Size	8¾	
Mfg.	REED	
Type	SC5	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	582993	
Depth Out	6986	
Depth In	6719	
Total Ftg.	267	
Total Hr. Run	34 3/4	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:00	4:00
Weight	10.1	10.1
Visc.-Sec.	124	115
W.L.-C.C.	21.6	22.0
FL TR. CK.	2/32	2/32
PH	11.5	11.5
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.
QBroxin	150 Lbs		
Caustic	50 Lbs		

Driller: [signature]

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6955	6986	31	D			70	40	1000	6"	60	6"		C

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼						RIG SER
12:15	5.45	5½						DRILL
5.45	8:00	2¼						TRIP FOR BIT & STRAP OUT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
67	Stands D.P.	6255.85	Ft.
	Singles D.P.		Ft.
22	D.C. 6¼		
2	I.D. 7 O.D.	704.48	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.0°	Ft.
	Bit or C.B.		Ft.
	Kelly Down	10 67	Ft.
	Total	6989.00	Ft.

Wt. of String 145.000 Lbs.
Pipe in Hole 201 Jts.
Pipe on Racks 13 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	18	19 RR
Size	8¾	8¾
Mfg.	REED	Smith
Type	SC5	5JS
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	582993	FT207
Depth Out	6986	6989
Depth In	6719	6986
Total Ftg.	267	3
Total Hr. Run	34 3/4	1½
Cond. of Bit	8-8-0	4-2-1
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.I. 4
Trucker ___
Trucker ___

MUD RECORD

Time		2:00
Weight		10.1
Visc.-Sec.		115
W.L.-C.C.		22.0
FL TR. CK.		2/32
PH		11.5
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: [signature]

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6986	6989	3				70	30	1600	6"	60			

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	9.15	1¼						FINISH TRIP OUT & STRAP OUT
9.15	9.30	¼						RIG SER.
9.30	10.00	½						LAY DOWN 1 STR. & 2 SINGLES
10.00	10.30	½						PICK UP 3 DRILL COLLARS
10.30	11.45	1¼						RUN IN DRILL COLLARS
11.45	1.00	1¼						CUT & SLIP DRILLING LINE
1.00	1.15	¼						RUN IN PIPE
1.15	2.45	1½						BRAKE CIRC
2.45	4.00	1¼						DRILL ON IRON
								TRIP OUT TO RUN MAGNET

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
67	Stands D.P.	6255.85	Ft.
	Singles D.P.		Ft.
22	D.C. 6¼		
2	I.D. 7 O.D.	704.48	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
1	Stabilizer Body Stb. O.D.	3.50	Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	17.17	Ft.
	Total	6989.00	Ft.

Wt. of String 147,000 Lbs.
Pipe in Hole 201 Jts.
Pipe on Racks 13 Jts.
Total Pipe on Lease 214 Jts.

BIT RECORD

Bit No.	19
Size	8¾
Mfg.	SEC
Type	M88
Nozzle No.	3
Nozzle Size	14
Ser. No.	340935
Depth Out	
Depth In	6989
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller ___

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	1.00	2						FINISH TRIP OUT.
1.00	8:30	3½						RUN IN W/ MAGNET
8:30	9:00	½						WORK MAGNET
9:00	9:15	¼						RIG SER.
9:15	11:30	2¼						PULL OUT WITH MAGNET.
11:30	12:00	½						TAKE IRON OFF MAGNET. REMOVE SAME & PUT JUNK SUB ON BIT.
								RECOVERED MOST OF THE IRON

APR - 7 1972

N. 6504

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 29 1972

Weather Condition: + 10 | Road Conditions: ROUGH | Nearest Town: WRESLEY | Water - Source: LAKE | Miles Hauled ___ Pumped ___ | Camp Distance from Rig ___ | Reason for Extra L. Plant ___

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS TOOL | Drill Pipe String No. 3 Size 4½ | Tool Joint 5¾ O.D. | Type Thd. EH

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Swiderski

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	"	"	"
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	6	7¾	8
Reaming			
~~Conditioning~~ Mud & Circulating	1½		
Trips			
Lubricate Rig	¼	¼	
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	¼	½	
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	9	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.	WL 100 92
No. of Lines	8 Size 1/8
Feet Slipped	1735
Feet Cut Off	1690
Present Length	3310
Ton Mi. or Trips Since Last Cut	476
Cumulative Ton Mi. or Trips	16668
No. of Days From Spud	3/7
Cumulative Rotating Hrs.	539

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
66	Stands D.P.	6163.39	Ft.
	Singles D.P.		Ft.
19	D.C. 6¼		
2	I.D. 7 O.D.	615.24	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	26.93	Ft.
	Total	6818	Ft.
Wt. of String		141,000	Lbs.
Pipe in Hole		198	Jts.
Pipe on Racks		16	Jts.
Total Pipe on Lease		214	Jts.

BIT RECORD

Bit No.	18
Size	8¾
Mfg.	REED
Type	SC56
Nozzle No.	3
Nozzle Size	13
Ser. No.	582993
Depth Out	
Depth In	6718
Total Ftg.	104
Total Hr. Run	14
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.7	9.7	9.7
Visc.-Sec.	67	66	68
W.L.-C.C.		9.8	9.6
FL TR. CK.		2/32	2/32
PH	11.5	11.5	11.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CMC	50#		
CAUSTIC	100#		
Q-BROXIN	100#		

Driller: Richard Hood

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
6764	6818	54	D			70	45	1000	6"	60	6		C

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:00	1						DRILL
1:00	1:30	½						RIG SER REPAIR MUD LINE
1:30	5:15	3¾						DRILL
5:15	6:45	1½						CIRC SAMPLE
6:45	8:00	1¼						DRILL
								FUEL @ 7:20 3'7"

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
67	Stands D.P.	6916.53	Ft.
	Singles D.P.		Ft.
19	D.C. 6½		
2	I.D. 7 O.D.	615.24	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.49	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	40.47	Ft.
	Total	6925.00	Ft.
Wt. of String		141.000	Lbs.
Pipe in Hole		201	Jts.
Pipe on Racks		13	Jts.
Total Pipe on Lease		214	Jts.

BIT RECORD

Bit No.	18
Size	8¾
Mfg.	REED
Type	SC56
Nozzle No.	3
Nozzle Size	13
Ser. No.	582993
Depth Out	
Depth In	6719
Total Ftg.	206
Total Hr. Run	21¼
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker LOADER 2 HRS
Trucker ___
Trucker ___

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.8	9.8	9.8
Visc.-Sec.	260	125	150
W.L.-C.C.	18.0	16.0	16.0
FL TR. CK.	2/32	2/32	2/32
PH	12.00	12.00	11.00
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	50#		
Q-Broxin	550#		
C.M.C.	100#		

Driller: Daniel Lee

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
6818	6925	107	D			70	45	1000	6"	60			

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:00	1						DRILL
9:00	9:15	¼						RIG SER
9:15	2:45	5½						DRILL
2:45	3:15	½						TIGHTEN WASH PIPE
3:15	4:00	¾						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
67	Stands D.P.		Ft.
5	Singles D.P.	628.02	Ft.
19	D.C. 6¼		
2	I.D. O.D.	615.24	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	39.30	Ft.
	Total	6955	Ft.
Wt. of String		141.000	Lbs.
Pipe in Hole		202	Jts.
Pipe on Racks		12	Jts.
Total Pipe on Lease		214	Jts.

BIT RECORD

Bit No.	18
Size	8¾
Mfg.	REED
Type	SC56
Nozzle No.	3
Nozzle Size	13
Ser. No.	582993
Depth Out	
Depth In	6719
Total Ftg.	236
Total Hr. Run	29¼
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 5
Trucker LOADER 1 HRS.
Trucker ___

MUD RECORD

Time	4:30	9:00	11:00
Weight	9.8	10.0	10.2
Visc.-Sec.	135	140	192
W.L.-C.C.	18.0	14.2	20.1
FL TR. CK.	2/32	2/32	2/32
PH	10.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	250	Lbs	
Q-Broxin	400	Lbs	
C.M.C.	100	Lbs	

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
6925	6955	30	D			70	45	1000	6"	60			C

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8						DRILLING 8¾" HOLE

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
APR - 7 1972
EDMONTON, ALBERTA

No. 6503

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION PAPER BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 28 1972

Weather Condition: CLEAR | Road Conditions: ROUGH | Nearest Town: WRIGLEY | Water - Source: LAKE, Miles Hauled: 4, Pumped: ___ | Camp Distance from Rig: 200 YDS. | Reason for Extra L. Plant: ___

OPERATOR: UNION OIL CO.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint	O.D.
3 DWKS	2	4½	Type Thd. FH	5-3/4

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	Mayo	325 H40	22	787	12.45	784	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	2 3/4	3	8
Reaming			
Conditioning Mud & Circulating			
Trips	4 3/4	4 3/4	
Lubricate Rig		1/4	
Deviation Survey	1/4		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Back Casing Ctrs	1/4		
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 (Once Use Only)

Day Work	
Hrs. W/DP	
Hrs. WO/DP	
Hrs. Standby	
Total Day Work	

WIRE LINE RECORD

Reel No.	Mayo 2.
No. of Lines	8 Size 1/8
Feet Slipped	1735
Feet Cut Off	1690
Present Length	3310
Ton Mi. or Trips Since Last Cut	476
Cumulative Ton Mi. or Trips	16,668
No. of Days From Spud	46
Cumulative Rotating Hrs.	517 3/4

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
64	Stands D.P.		
D	Singles D.P.	6040.04	Ft.
19	D.C. 6¼		
2	I.D. 7 O.D.	615.24	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	38.28	Ft.
	Total	6707	Ft.
Wt. of String		138,000	Lbs.
Pipe in Hole		194	Jts.
Pipe on Racks		20	Jts.
Total Pipe on Lease		214	Jts.

BIT RECORD		
Bit No.	16	17
Size	8 3/4	8 3/4
Mfg.	REED	REED
Type	SCM5	SH6
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	722089	698170
Depth Out	6696	
Depth In	6625	6696
Total Ftg.	71	11
Total Hr. Run	10	2¼
Cond. of Bit	7-2-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ Trucker ___ Trucker ___

MUD RECORD		
Time	6.00	7.00
Weight	9.7	9.6
Visc.-Sec.	67	63
W.L.-C.C.		10.4
FL TR. CK.		2/32
PH	11.5	11.5
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Barrie Hack

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6694	6707	13	D			70	40000	1000	6"	60	6"		D

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	6696	1°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:30	½						DRLG
12:30	12:45	¼						SURVEY
12:45	5:30	4¾						TRIP FOR BIT
5:30	5:45	¼						BRAKE CTRS
5:45	8:00	2¼						DRLG

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: MARCH 27 1972

Weather Condition: CLEAR-S Road Conditions: ROUGH Nearest Town: WRIGLEY

Water - Source: LAKE. Miles Hauled: 4 Pumped: ____ Camp Distance from Rig: 200 YARDS. Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS IDECO | Drill Pipe String No. 2 Size 4½ | Tool Joint 5¾ O.D. | Type Thd. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Ewald

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	OILWELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3 H-40	22	787	13.45	781	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	8	2¼	5½
Reaming			
Conditioning Mud & Circulating		¼	
Trips		4¾	
Lubricate Rig		¼	½
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line		½	
Repair Rig			¼
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. M 100.92

No. of Lines 8 Size 1⅛

Feet Slipped 1735

Feet Cut Off 1690

Present Length 3310

Ton Mi. or Trips Since Last Cut 94

Cumulative Ton Mi. or Trips 16286

No. of Days From Spud 45

Cumulative Rotating Hrs. 508

APR-5 1972 DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT ENGINEERING BRANCH YELLOWKNIFE, N.W.T.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
64	Stands D.P.	5976.32 Ft.
	Singles D.P.	Ft.
19	D.C. 6¼"	
2	I.D. 7" O.D.	615.24 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	19.00 Ft.
	Total	6624 Ft.

Wt. of String 136,000 Lbs.

Pipe in Hole 192 Jts.

Pipe on Racks 14 Jts.

Total Pipe on Lease 204 Jts.

BIT RECORD	
Bit No.	15
Size	8¾
Mfg.	REED
Type	SCM5C
Nozzle No.	3
Nozzle Size	13
Ser. No.	674106
Depth Out	
Depth In	6432
Total Ftg.	192
Total Hr. Run	23
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ ____ ____

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD			
Time	1:00	4:00	7:00
Weight	9.7	9.7	9.7
Visc.-Sec.	73	72	72
W.L.-C.C.	9.4	9.8	10.2
FL TR. CK.	3/32	2/32	2/32
PH	11.5	11.0	11.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic 50#			
QBroxin 50#			

Driller: Bernie Laceb

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6563	6624	61	D			70	40	1000	6"	60	6"		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8						DRILL

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	Stands D.P.	5976.32 Ft.
	Singles D.P.	Ft.
19	D.C. 6¼	
2	I.D. 7" O.D.	615.24 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	35.00 Ft.
	Total	6640.00 Ft.

Wt. of String 136,000 Lbs.

Pipe in Hole 192 Jts.

Pipe on Racks 22 Jts.

Total Pipe on Lease 214 Jts.

BIT RECORD		
Bit No.	15	16
Size	8¾	8¾
Mfg.	REED	REED
Type	SCM5C	SCM5C
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	674106	762089
Depth Out	6625	
Depth In	6432	6625
Total Ftg.	193	15
Total Hr. Run	23¼	2
Cond. of Bit	7-2-2	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker J.W.T. 10

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD				
Time				4:00
Weight				9.7
Visc.-Sec.				77
W.L.-C.C.				9.6
FL TR. CK.				3/32
PH				10.5
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Dacquisto

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6624	6640	16	D			70	40	1000	6"	60			
						70	40	1000	6"	58			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						DRILL
8:15	10:45	2½						TRIP FOR BIT
10:45	11:15	½						SLIP DRILLING LINE
11:15	11:30	¼						RIG SER
11:30	1:45	2¼						RUN IN W/ BIT #16
1:45	2:00	¼						BRACK CIRC
2:00	4:00	2						DRILLING 8¾" HOLE

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
64	Stands D.P.	Ft.
D	Singles D.P.	6040.04 Ft.
19	D.C. 6¼"	
2	I.D. 7" O.D.	615.24 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.60 Ft.
	Bit or C.B.	Ft.
	Kelly Down	25.78 Ft.
	Total	6694 Ft.

Wt. of String 138,000 Lbs.

Pipe in Hole ____ Jts.

Pipe on Racks ____ Jts.

Total Pipe on Lease 214 Jts.

BIT RECORD	
Bit No.	16
Size	8¾
Mfg.	REED
Type	SCM5C
Nozzle No.	3
Nozzle Size	13
Ser. No.	762089
Depth Out	
Depth In	6625
Total Ftg.	69
Total Hr. Run	9½
Cond. of Bit	4N1
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ ____ ____

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD			
Time	7:00	9:00	11:00
Weight	9.7	9.7	9.7
Visc.-Sec.	72	71	65
W.L.-C.C.	9.5	9.7	9.9
FL TR. CK.	2/32	2/32	2/32
PH	10.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	50#		
Q-Broxin	50#		

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6640	6894	54	D			70	42	1000	6"	58			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	10:15	6¼						DRILL
10:15	10:45	½						REG SER & REPAIR WASH IN STAND PIPE
10:45	12:00	1¼						DRILL

No. 6501

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION JAPEX BLACKWATER E-11

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: MARCH 26 1972

Weather Condition: CLEAR +0 | Road Conditions: ROUGH | Nearest Town: WAGELEY | Water - Source: LAKE | Miles Hauled: 4 | Pumped: ____ | Camp Distance from Rig: 200 YDS. | Reason for Extra L. Plant: ____

OPERATOR: UNION OIL CO

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Smith

Rig No. 3 DWKS | Drill Pipe String: No. 2, Size 4½ | Tool Joint 5¾ O.D. | Type Thd. FH

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	OILWELL	314-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MAYH	32.3# H40	22	787	13.46	781	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	3	7 3/4	7 3/4
Reaming			
Conditioning Mud & Circulating Samples	1/4		
Trips	4 1/4	1/4	
Lubricate Rig		1/4	1/4
Deviation Survey	1/4		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig		1/4	
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other	1/4		
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.	M 10092		
No. of Lines	8	Size	1/8
Feet Slipped	1690		
Feet Cut Off	1696		
Present Length	3310		
Ton Mi. or Trips Since Last Cut	737		
Cumulative Ton Mi. or Trips	16,098		
No. of Days From Spud	24		
Cumulative Rotating Hrs.	2185 1/4		

APR 3 1972 — DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT — NORTHERN ENGINEERING SERVICES

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
62	Stands D.P.	5786.61	Ft.
	Singles D.P.		Ft.
19	D.C. 6¼		
2	I.D. 2 O.D.	615.24	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	14.71	Ft.
	Total	6432	Ft.
Wt. of String		133,000	Lbs.
Pipe in Hole		186	Jts.
Pipe on Racks		18	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD		
Bit No.	14	15
Size	8 3/4	8 3/4
Mfg.	SEC	REED
Type	S88	SCM5
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	912337	674106
Depth Out	6432	
Depth In	6825	6432
Total Ftg.	207	
Total Hr. Run	18¼	
Cond. of Bit	8-2-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ____ Trucker ____ Trucker ____

MUD RECORD			
Time	2:00	4:00	7:00
Weight	9.7		
Visc.-Sec.	68		
W.L.-C.C.	9.8		
FL TR. CK.	2/32		
PH	11		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	800 #		

Driller: Bernard Hack

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6410	6432	22	D			70	40/0	1000	6"	60	6"		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	6432	1¼°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	3:00	3						DRILL
3:00	3:15	1/4						CIRC UP SAMPLE
3:15	3:30	1/4						SURVEY
3:30	7:45	4 1/4						TRIP FOR BIT
7:45	8:00	1/4						BRAKE CIR

Fish 2'5"

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.	5786.61	Ft.
2	Singles D.P.	62.76	Ft.
19	D.C. 6¼		
2	I.D. 7 O.D.	615.24	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	14.95	Ft.
	Total	6445.00	Ft.
Wt. of String		135,000	Lbs.
Pipe in Hole		189	Jts.
Pipe on Racks		15	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD		
Bit No.	15	
Size	8¾	
Mfg.	REED	
Type	SCM5	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	674106	
Depth Out		
Depth In	6432	
Total Ftg.	63	
Total Hr. Run	7¼	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.W.T. 12
Trucker ____ Trucker ____

MUD RECORD			
Time	11:00	1:00	3:00
Weight	9.6	9.6	9.6
Visc.-Sec.	75	72	73
W.L.-C.C.	9.8	10.0	10.0
FL TR. CK	3/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CAUSTIC	100#		
Q-BROXIN	100#		
GEL	800#		

Driller: Dave Lee

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6432	6495	63	D			70	40	1000	6"	60			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	1/4						BRACK CIRC.
8:15	8:30	1/4						RIG SER. & B.O.P.
8:30	3:15	6¾						DRILLING 8¾" hole
3:15	3:30	1/4						WELD STAND PIPE
3:30	4:00	1/2						DRILLING

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
63	Stands D.P.		Ft.
5	Singles D.P.	593.09	Ft.
9	D.C. 6¼		
2	I.D. 7 O.D.	615.24	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	21.23	Ft.
	Total	6563	Ft.
Wt. of String		135,000	Lbs.
Pipe in Hole		190	Jts.
Pipe on Racks		13	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD		
Bit No.	15	
Size	8¾	
Mfg.	REED	
Type	SCM5	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	674106	
Depth Out		
Depth In	6432	
Total Ftg.	131	
Total Hr. Run	15	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ____ Trucker ____ Trucker ____

MUD RECORD			
Time	5:00	9:00	11:00
Weight	9.6	9.7	9.7
Visc.-Sec.	69	71	72
W.L.-C.C.	10.0	9.6	9.4
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CMC	50#		

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6495	6563	68	D			70	40	1000	6"	60			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	10:15	6¼						DRILL
10:15	10:30	1/4						RIG SER.
10:30	12:00	1½						D.BRK

No. 6550

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 25 19 72

Weather Condition: CLEAR — Road Conditions: ROUGH — Nearest Town: WRIGLEY — Water - Source: LAKE — Miles Hauled: 4 — Pumped: ___ — Camp Distance from Rig: 200 RODS — Reason for Extra L. Plant

OPERATOR: UNION OIL C.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sidal

Rig No. 3 — DWKS — IDECO

Drill Pipe String: No. 2 — Size 4½

Tool Joint: Type Tbd. — 5¾ O.D. — F.H.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14
2.	OIL WELL	214P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No. Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	36# J-55	22	787	13.45	781	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	1¾	7½	7¾
Reaming			
Conditioning Mud & Circulating		¼	
Trips	4½	¼	
Lubricate Rig	¼		
Deviation Survey	¼		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	½		
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other	¾		
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. M10082

No. of Lines 8 Size 1¼

Feet Slipped 1690

Feet Cut Off 1690

Present Length 3310

Ton Mi. or Trips Since Last Cut 557

Cumulative Ton Mi. or Trips 15816

No. of Days From Spud 43

Cumulative Rotating Hrs. 467¼

CONSERVATION ENGINEER — FEB-2 1972 — DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT — FORT SMITH, N.W.T.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
60	Stands D.P.	5601.94	Ft.
5	Singles D.P.	~~5695.44~~	Ft.
~~15~~	D.C. ~~6¼~~		
~~2~~	I.D. ~~9~~ O.D.	5326.5	Ft.
19	D.C. 6¼"		
2	I.D. 7 O.D.	615.24	Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	34.38	Ft.
	Total	6265	Ft.
Wt. of String		125,000	Lbs.
Pipe in Hole		180	Jts.
Pipe on Racks		24	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD		
Bit No.	13	14
Size	8¾	8¾
Mfg.	~~SEC~~	SEC
Type	S88	S88
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	354853	912337
Depth Out	6265	
Depth In	5940	6265
Total Ftg.	325	
Total Hr. Run	3¾	
Cond. of Bit	7-3-1N	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker LOADER 1 HR

Trucker

Trucker

MUD RECORD		
Time	1:00	
Weight	9.7	
Visc.-Sec.	70	
W.L.-C.C.	9.4	
FL TR. CK.	2/32	
PH	11.5	
SD. Cont. %		
Pressure Gradient		

Mud & Chemicals Added

Type	Amt.	Type	Amt.
LOSDID	½		

Driller: [signature]

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6254	6265	11	D			70	40	1000	6"	60	6"		D

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	6265	1¼°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:45	1¾						DRILL
1:45	2:00	¼						SURVEY
2:00	2:15	¼						RIG SER.
2:15	3:15	1						TRIP FOR BIT
3:15	3:45	½						REPAIR AIR LINE
3:45	5:00	1¼						TRIP OUT.
5:00	5:45	¾						USE ~~FORK~~ LOADER TO PICK UP THREE COLLAR OF GOOD & PUT ON CAT WALK & PICK UP BHA IN HOLE (SLICK).
5:45	8:00	2¼						

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
60	Stands D.P.	5601.94	Ft.
2	Singles D.P.	69.23	Ft.
14	D.C. 6¼		
2	I.D. 7 O.D.	615.24	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	27.15	Ft.
	Total	6330.00	Ft.
Wt. of String		131,000	Lbs.
Pipe in Hole		182	Jts.
Pipe on Racks		22	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD	
Bit No.	14
Size	8¾
Mfg.	SEC
Type	S88
Nozzle No.	3
Nozzle Size	13
Ser. No.	912337
Depth Out	
Depth In	6265
Total Ftg.	65
Total Hr. Run	7½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker LOADER HRS 4½

Trucker T.W.T 11

Trucker

MUD RECORD			
Time	11:00	12:30	7:00
Weight	9.7	9.6	9.6
Visc.-Sec.	74	64	64
W.L.-C.C.	9.4	10.2	10.2
FL TR. CK.	2/32	2/32	2/32
PH	10.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	100#		
Q-BROXIN	100#		
GEL	500#		

Driller: Dave Zuchotzki

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6265	6330	65		D		70	~~40~~ 50000	1000	6"	60			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						TRIP
8:15	8:30	¼						BACK CIRC
8:30	4:00	7½						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
61	Stands D.P.		Ft.
0	Singles D.P.	5757.29	Ft.
19	D.C. 6¼"		
2	I.D. 7" O.D.	615.24	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.	5	Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	24.03	Ft.
	Total	6410.00	Ft.
Wt. of String		132,000	Lbs.
Pipe in Hole		185	Jts.
Pipe on Racks		19	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD	
Bit No.	14
Size	8¾
Mfg.	SEC
Type	S88
Nozzle No.	3
Nozzle Size	13
Ser. No.	912337
Depth Out	
Depth In	6265
Total Ftg.	185
Total Hr. Run	15¼
Cond. of Bit	JN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD			
Time	6:00	8:00	11:00
Weight	9.6	9.7	9.7
Visc.-Sec.	62	62	62
W.L.-C.C.	10.0	9.6	9.1
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	1000#		

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6330	6410	80	D			70	40	1000	6"	60			D

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	¼						RIG SER.
4:15	12:00	7¾						DRILL

No. 0545

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: BLACKWATER JADE UNION E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 24 19 72

Weather Condition: SNOW 15 | Road Conditions: ROUGH | Nearest Town: QUESNEL | Water - Source: LAKE | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 200 YARDS | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Bidal

Rig No.	Drill-Pipe String No.	Drill-Pipe String Size	Tool Joint
3 DWKS	2	4½	5 3/4 O.D. Type Tbd. EH

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	OILWELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN	32.3 H40	22	787	13.45	781	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7½	7 3/4	8 3/4
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	¼
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	½		
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	9	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. M 10092

No. of Lines 8 Size 1 1/8

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.

APR 3 1972

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
59	Stands D.P.		
5	Singles D.P.	564.45	Ft.
16	D.C. 6¼"		
2	I.D. 7 O.D.	52.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	29.40	Ft.
	Total	611.00	Ft.

Wt. of String 125,000 Lbs.

Pipe in Hole 178 Jts.

Pipe on Racks 26 Jts.

Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	13	
Size	8 3/4	
Mfg.	SEC	
Type	S 88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	354883	
Depth Out		
Depth In	5940	
Total Ftg.	161	
Total Hr. Run	17¼	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker LOADER 1 HRS

Trucker

Trucker

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.7	9.6	9.6
Visc.-Sec.	64	67	65
W.L.-C.C.	10.5	10.6	10.6
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1500	Lbs	
Caustic	50	Lbs	
QBroxin	50	Lbs	
CMC	50	Lbs	

Driller Bernie Bidal

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6035	6110	76	D			70	40	1000	6"	60	6"		R

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:15	2¼						DRILL
2:15	2:45	½						REPAIR SPRAYPIPE.
2:45	8:00	5¼						DRILL

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
60	Stands D.P.	5601.94	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	40.00	Ft.
	Total	6183.09	Ft.

Wt. of String 128,000 Lbs.

Pipe in Hole 180 Jts.

Pipe on Racks 24 Jts.

Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	13	
Size	8 3/4	
Mfg.	SEC	
Type	S 88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	354883	
Depth Out		
Depth In	5940	
Total Ftg.	243	
Total Hr. Run	25	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker LOADER HRS 3

Trucker

Trucker

MUD RECORD

Time	4:00	12:00	7:00
Weight	9.6	9.6	9.7
Visc.-Sec.	70	70	64
W.L.-C.C.	10.4	10.4	9.4
FL TR. CK.	2/32	2/32	2/32
PH	11.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Dave Fuchs

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6111	6183	72	D			70	40	1000	6"	60			P

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:15	1 1/4						DRILL
9:15	9:30	¼						RIG SER: V BOPs
9:30	4:00	6½						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
61	Stands D.P.	5695.53	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	17.28	Ft.
	Total	6254.00	Ft.

Wt. of String 129,000 Lbs.

Pipe in Hole 183 Jts.

Pipe on Racks 21 Jts.

Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	13	
Size	8 3/4	
Mfg.	SEC.	
Type	S 88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	354883	
Depth Out		
Depth In	5940	
Total Ftg.	314	
Total Hr. Run	32¾	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker T.V.T 14

Trucker

Trucker

MUD RECORD

Time	5:00	8:00	1:00
Weight	9.7	9.7	9.7
Visc.-Sec.	69	72	61
W.L.-C.C.	10.2	10.4	
FL TR. CK.	2/32	2/32	
PH	11.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
QBroxin	100 #		
CAUSTIC	100 #		
GEL.	1000 #		
CMC	50 #		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
6183	6254	71	D			70	40	1000	6"	60			C

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8						DRILL

No. 6548

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Tapes Backwash E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: March 23 1972

Weather Condition: Mild | Road Conditions: Rough | Nearest Town: Wrigley | Water - Source: Lake | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 200 Irons. | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A. D. Snell

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

Rig No. 3 DWKS | Drill Pipe String: No. 2, Size 4½ | Tool Joint 5¾ O.D., Type Thd. FH | Loco

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14
2.	Oilwell	214-P	14
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9 5/8	Mann	32.3# H-40	22	787	13.45	781	
TUBING OR LINER								

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¾	7¼	7¾
Reaming			
Conditioning Mud & Circulating		¼	
Trips		4¾	
Lubricate Rig	¼	¼	¼
Deviation Survey		¾	
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other W.O.R.		¼	
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. M 10092

No. of Lines 8 Size 1⅛

Feet Slipped 1690

Feet Cut Off 1690

Present Length 3310

Ton Mi. or Trips Since Last Cut 389

Cumulative Ton Mi. or Trips 15727

No. of Days From Spud 41

Cumulative Rotating Hrs. 427½

APR -5 1972

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
57	Stands D.P.		
5	Singles D.P.	5353.28	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
1	Rmr. Jewels Body 5⅞ O.D.	3.48	Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	40.15	Ft.
	Total	5938	Ft.
Wt. of String		124,000	Lbs.
Pipe in Hole		172	Jts.
Pipe on Racks		32	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	12	
Size	8 3/4	
Mfg.	Reed	
Type	SMC	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	799208	
Depth Out		
Depth In	5843	
Total Ftg.	95	
Total Hr. Run	16½	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges: Trucker Loader — Reg. Hrs. 2 — O.T. Hrs. ___; Trucker ___; Trucker ___

MUD RECORD

	1:00	4:00	7:00
Time			
Weight	9.6	9.6	9.6
Visc.-Sec.	61	61	70
W.L.-C.C.	10.4	10.4	9.5
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000	lbs	
CMC	50	lbs	

Driller: Boyd Lacy

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5894	5938	42	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼						Rig Ser
12:15	8:00	7¾						Drill

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
57	Stands D.P.	5321.30	Ft.
2	Singles D.P.	63.57	Ft.
16	D.C. 6½		
9	I.D. 7 O.D.	527.65	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	32.09	Ft.
	Total	5958.00	Ft.
Wt. of String		122,000	Lbs.
Pipe in Hole		173	Jts.
Pipe on Racks		31	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	12	13
Size	8 3/4	8 3/4
Mfg.	Reed	Sec.
Type	SMC	S88
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	799208	354883
Depth Out	5940	
Depth In	5843	5940
Total Ftg.	97	18
Total Hr. Run	16¾	2
Cond. of Bit	4-1-1	IN
Reamer No.		
Reamer Type		

Water Charges: Trucker Loader — Reg. Hrs. ___ — O.T. Hrs. 1 Hr.; Trucker ___; Trucker ___

MUD RECORD

Time	3:00		3:00
Weight	9.6		9.6
Visc.-Sec.	70		70
W.L.-C.C.			10.8
FL TR. CK.			2/32
PH	9.5		10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Boyd Lacy

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5938	5958	20				70	35	1600	6"	70			
						70	40	1000	6"	70			

Deviation Record: Depth 5940 Dev. 6° Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						Drill
8:15	8:30	¼						Survey
8:30	11:00	2½						Trip for Bit
11:00	11:15	¼						Rig Ser
11:15	11:30	¼						Wait on Orders [redacted]
11:30	1:45	2¼						Run in w/ Bit # 13
1:45	2:00	¼						Brack Circ
2:00	4:00	2						Drill 8¾" hole

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		Ft.
58	Stands D.P.		
0	Singles D.P.	5497.49	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	16.45	Ft.
	Total	6035	Ft.
Wt. of String		124,000	Lbs.
Pipe in Hole		176	Jts.
Pipe on Racks		28	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	13	
Size	8 3/4	
Mfg.	Sec.	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	354883	
Depth Out		
Depth In	5940	
Total Ftg.	95	
Total Hr. Run	4¾	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges: Trucker INT — Reg. Hrs. 8 — O.T. Hrs. ___; Trucker ___; Trucker ___

MUD RECORD

Time	6:00	9:00	11:00
Weight	9.7	9.7	9.7
Visc.-Sec.	72	63	65
W.L.-C.C.	10.8		10.4
FL TR. CK.	2/32		2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	100#		
Q-Broxin	100#		

Driller

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5958	6035	77	D			70	40	1600	6"	70			

Deviation Record: Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	8:00	4						Drilling 8¾" hole
8:00	8:15	¼						Rig Ser
8:15	12:00	3¾						Drill

N. 0547

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION IAPEX BLACKWATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 22 1972

Weather Condition: MILD | Road Condition: ROUGH | Nearest Town: WRIGLEY | Water - Source: LAKE | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 2000 yds. | Reason for Extra L. Plant: ___

OPERATOR: UNION OIL CO.

Rig No. 3 | DWKS 9 DECO

Drill Pipe String: No. 2 | Size 4½

Tool Joint: 5¾ O.D. | Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Siedal

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14"
2.	Oilwell	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3# H-40	22	787	13.45		

TIME DISTRIBUTION—HOURS

	Morn.	Day	Eve.
Rig Up & Tear Down			
Drilling Actual	4¾	3¼	8
Reaming			
Conditioning Mud & Circulating			
Trips	2	4¼	
Lubricate Rig		¼	
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	½		
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test	¼	¼	
Other	1	¼	
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. M 10092
No. of Lines 8 Size 1/16
Feet Slipped 1690
Feet Cut Off 1690
Present Length 3310
Ton Mi. or Trips Since Last Cut 228
Cumulative Ton Mi. or Trips 15366
No. of Days From Spud 40
Cumulative Rotating Hrs. 410¼

APR -2 1972

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
56	Stands D.P.	Ft.
1	Singles D.P.	52.60.87 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	32.04 Ft.
	Total	5834.00 Ft.

Wt. of String 123,000 Lbs.
Pipe in Hole 169 Jts.
Pipe on Racks 35 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	11	
Size	8¾	
Mfg.	SMITH	
Type	5JS	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	FT202	
Depth Out	IN.	
Depth In	5812	
Total Ftg.	22	
Total Hr. Run	4¼	
Cond. of Bit	IN.	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:30	4:00	7:00
Weight		9.4	9.6
Visc.-Sec.		65	65
W.L.-C.C.		9.4	9.2
FL TR. CK.	11	2/32	2/32
PH		12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Brian Bertelson

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5812	5834	22	D			70	40	1000	6"	60	6"	—	C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾						FINISH CHECKING DRILL COLLARS; SUBS AND EASH CHANGE MANDRIL.
1245	945	2						RUN IN W/BIT #11
245	300	¼						CHECK PIN ON KELLY & SAVER SUB
300	315	1¼						BREAK CIRC.
315	8:00	4¾						DRILLING.
730	800	½						WELD ON STAND PIPE
								NOTE: ALL DRILL COLLARS & VARIOUS SUBS WERE OKAY ON CHECK.
								Fuel @ 7:00 A.M. 1'6"

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
56	Stands D.P.	Ft.
5	Singles D.P.	52.59.65 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	522.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
1	Rmr. Sub Body O.D.	3.48 Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	41.84 Ft.
	Total	5846 Ft.

Wt. of String 124,000 Lbs.
Pipe in Hole 169 Jts.
Pipe on Racks 35 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	11	12
Size	8¾	8¾
Mfg.	SMITH	REED
Type	5JS	SMG
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	FT203	792208
Depth Out	5843	
Depth In	5812	5843
Total Ftg.	51	3
Total Hr. Run	6¾	¾
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 6
Trucker ___
Trucker ___

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.6		9.4
Visc.-Sec.	64		66
W.L.-C.C.	9.3		9.4
FL TR. CK.	3/32		2/32
PH	12		12.
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bruce Steele

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5834	5846 (5847)	13	D			70	40	800	6"	60	6"		@

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:30	2½						~~DRL~~ DRILL.
10:30	10:45	¼						~~TRIP FOR BIT~~ REG SER ~ MARCO SURVEY
10:45	3:00	4¼						TRIP FOR BIT
3:00	3:15	¼						BREAK CIRC
3:15	4:00	¾						DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
57	Stands D.P.	532.30 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
9	I.D. 7 O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
1	Rmr. Sub Body O.D.	3.48 Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	28.13 Ft.
	Total	5894. Ft.

Wt. of String 123000. Lbs.
Pipe in Hole 171 Jts.
Pipe on Racks 33 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	12	
Size	8¾	
Mfg.	REED	
Type	SMG	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	792209	
Depth Out		
Depth In	5843	
Total Ftg.	51	
Total Hr. Run	8¾	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	5.00	9:00	10.00
Weight	9.6	9.5	9.6
Visc.-Sec.	63	64	64
W.L.-C.C.	9.4		10.0
FL TR. CK.	2/32		2/32
PH	10.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	100 #		
Q-Broxin	100 #		
CEL	600 #		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5846	5894	48				76	35	1000	6"	64			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	12:00	8						DRILL 8¾" hole

3947

N. 0340

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 21 1972
Weather Condition: MILD Road Conditions: ROUGH Nearest Town: WRIGLEY Water - Source: LAKE Miles Hauled: 1 Pumped: ___ Camp Distance from Rig: 200 yds. Reason for Extra L. Plant

OPERATOR: UNION OIL CO.
Rig No. 3 DWKS Ideco
Drill Pipe String: No. 2 Size 4½
Tool Joint: 5¾ O.D. Type Thd. F.H.
SIGNATURE OF OPERATOR'S REPRESENTATIVE:
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sidal

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Gardwell	214-P	14
2.	Gardwell	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN.	32.3# H-40	22	787	13.45'		

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	8	7¾	3½
Reaming			
Conditioning Mud & Circulating			
Trips			1¾
Lubricate Rig		¼	
Deviation Survey			1/4
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other			2½
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.	M16092
No. of Lines	8 Size 7/8
Feet Slipped	1690
Feet Cut Off	1690
Present Length	3310
Ton Mi. or Trips Since Last Cut	228
Cumulative Ton Mi. or Trips	15138
No. of Days From Spud	29
Cumulative Rotating Hrs.	394¾

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
55	Stands D.P.	5135.57	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7" O.D.	525.67	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	38.32	Ft.
	Total	5713.00	Ft.
Wt. of String		123,000	Lbs.
Pipe in Hole		165	Jts.
Pipe on Racks		39	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	10		
Size	8¾		
Mfg.	SMITH		
Type	5JS		
Nozzle No.	3		
Nozzle Size	13		
Ser. No.	FT400		
Depth Out			
Depth In	5556		
Total Ftg.	157		
Total Hr. Run	20		
Cond. of Bit			
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.5	9.5	9.4
Visc.-Sec.	70	70	65
W.L.-C.C.	11.0	8.8	9.6
FL TR. CK.	2/32	3/32	3/32
PH	12.0	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	50 lbs		
Q-Broxin	50 lbs		
C.M.C.	50 lbs		

Driller: Brian Bertelsen.

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
5646	5713	67	D			70	46	1000	6"	60	6"	—	C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8						DRILLING
								Fuel - 2'8" @ 7:00 AM

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
56	Stands D.P.	5229.18	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	19.29	Ft.
	Total	5790.00	Ft.
Wt. of String		123,000	Lbs.
Pipe in Hole		168	Jts.
Pipe on Racks		36	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	10		
Size	8¾		
Mfg.	SMITH		
Type	5JS		
Nozzle No.	3		
Nozzle Size	13		
Ser. No.	FT-100		
Depth Out			
Depth In	5556		
Total Ftg.	234		
Total Hr. Run	27¾		
Cond. of Bit	IN		
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 10
Trucker LOADER 5 HRS.
Trucker ___

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.5	9.6	9.5
Visc.-Sec.	64	63	63
W.L.-C.C.	9.4	9.2	9.2
FL TR. CK.	2/32	2/32	2/32
PH	11.0	10.0	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	100#		
QBroxin	100#		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
5713	5790	77	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						RIG SER / MOTOR SHUT OFF & BOPS
8:15	4:00	7¾						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
56	Stands D.P.	5229.18	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	41.73	Ft.
	Total	5812.00	Ft.
Wt. of String		123 000	Lbs.
Pipe in Hole		168	Jts.
Pipe on Racks		36	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	10		
Size	8¾		
Mfg.	SMITH		
Type	5JS		
Nozzle No.	3		
Nozzle Size	13		
Ser. No.	FT-100		
Depth Out	5812		
Depth In	5556		
Total Ftg.	256		
Total Hr. Run	31¼		
Cond. of Bit	7-3-1		
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.5		
Visc.-Sec.	62		
W.L.-C.C.	9.3		
FL TR. CK.	2/32		
PH	11.5		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	500 lbs		

Driller: Brian Bertelsen.

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'd-P Com'd-C
5790	5812	22	D			70	40	1000	6"	60	6"	—	C

Deviation Record: Depth 5812 | Dev. 5/8° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	7:30	3½						DRILL
7:30	7:45	¼						SURVEY
7:45	9:30	1¾						TRIP FOR BIT - HOIST TO DRILL COLLARS
9:30	12:00	2½						CHECK DRILL COLLARS (O.K.)

MAR 27 1972
YELLOWKNIFE, N.W.T.

No. 6545

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Japex Blackwater K-11 | Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M. | Date: March 20, 1972 | Weather Condition: 10 | Road Conditions: Rough | Nearest Town: Wrigley | Water - Source: Lake | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 200 yds. | Reason for Extra L. Plant:

OPERATOR: Union Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Ewald

Rig No. 3 | DWKS: Ideco | Drill Pipe String: No. 2, Size 4½ | Tool Joint: 5 3/4 O.D., Type Thd. F.H.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Gilwell	214-P	14"
2.	Gilwell	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No. Joints	Feet	P.KB. to CSG. HD.	Set at	Remarks
9 5/8	Mann.	32.3# H-40	22	787	13.45		

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	4½	4¼	7¾
Reaming			
Conditioning Mud & Circulating			
Trips	3	2¼	
Lubricate Rig		¼	¼
Deviation Survey	¼		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	¼		
Coring			
~~Wireline~~ Cut Logging Trip		1	
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other		¼	
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.	MJ0092
No. of Lines	8
Size	7/8
Feet Slipped	1690
Feet Cut Off	1690
Present Length	3310
Ton Mi. or Trips Since Last Cut	10
Cumulative Ton Mi. or Trips	14980
No. of Days From Spud	28
Cumulative Rotating Hrs.	~~356¾~~ 3754

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
53	Stands D.P.	Ft.
1	Singles D.P.	4979.65 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	35.26 Ft.
	Total	5556.00 Ft.

Wt. of String: 122,000 Lbs. | Pipe in Hole: 160 Jts. | Pipe on Racks: 44 Jts. | Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	9	10
Size	8 3/4	8 3/4
Mfg.	SEC	Smith
Type	M88	5JS
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	912772	FT400
Depth Out	5556	
Depth In	5175	
Total Ftg.	381	
Total Hr. Run	36	
Cond. of Bit	6-4-1 BT	
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: LOADER 2 HRS.
Trucker: ___
Trucker: ___

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.6	9.5	
Visc.-Sec.	60	60	
W.L.-C.C.	10.8	10.8	
FL TR. CK.	2/32	2/32	Trip
PH	12.0	12.0	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	700 lbs		
Caustic	50 lbs		
Q-Broxin	50 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5520	5556	36	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth 5556 | Dev. ¾ | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	230	2½						DRILLING 8¾" HOLE.
230	245	¼						WELD ON STANDPIPE
245	445	2						DRILLING.
445	500	¼						SURVEY
500	800	3						HOIST OUT FOR BIT CHANGE
								Fault - 3 ft. 8 inches

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
53	Stands D.P.	Ft.
0	Singles D.P.	5011.07 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	39.84 Ft.
	Total	5592 Ft.

Wt. of String: 122,000 Lbs. | Pipe in Hole: 162 Jts. | Pipe on Racks: 42 Jts. | Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	10	
Size	8 3/4	
Mfg.	Smith	
Type	5JS	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	FT100	
Depth Out		
Depth In	5556	
Total Ftg.	36	
Total Hr. Run	4¼	
Cond. of Bit	In	
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: T.N.T. 15 HRS.
Trucker: ___
Trucker: ___

MUD RECORD

Time		12:00	3:00
Weight		9.6	9.6
Visc.-Sec.		64	64
W.L.-C.C.		11.6	11.6
FL TR. CK.		2/32	2/32
PH		11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 #		
CMC	50 #		
Caustic	50 #		
QBroxin	50 #		

Driller: [signature]

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5556	5594	36	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						RIG SER ✓ MOTOR SHUT OFF & BOPS.
8:15	9:00	¾						RUN IN COLLARS.
9:00	10:00	1						SLIP 45' & CUT 90' LINE.
10:00	11:30	1½						RUN IN WITH PIPE
11:30	11:45	¼						BREAK CIRC (NO FILL)
11:45	489	4¼						DRILL.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
54	Stands D.P.	Ft.
1	Singles D.P.	5073.17 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
1	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	31.74 Ft.
	Total	5646.00 Ft.

Wt. of String: 122,000 Lbs. | Pipe in Hole: 164 Jts. | Pipe on Racks: 40 Jts. | Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	10	
Size	8 3/4	
Mfg.	Smith	
Type	5JS	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	FT100	
Depth Out		
Depth In	5556	
Total Ftg.	90	
Total Hr. Run	12	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker: ___
Trucker: ___
Trucker: ___

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.6	9.5	9.5
Visc.-Sec.	64	70	70
W.L.-C.C.		11.2	11.0
FL TR. CK.		2/32	3/32
PH	12	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5594	5646	52	D			70	40	1000	6"	60	6"	—	C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	815	4¼						DRILL
815	830	¼						RIG SERVICE
830	1200	3½						DRILLING.

No. 0544

GUTHRIE McLAREY Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION JAPEX BLACKWATER F-11
Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.
Date: MARCH 19 1972
Weather Condition: -5° Road Conditions: ROUGH. Nearest Town: WRIGLEY
Water - Source: LAKE Miles Hauled: 4 Pumped: ____
Camp Distance from Rig: 200 yds. Reason for Extra L. Plant: ____

OPERATOR: UNION OIL CO.
Rig No.: 3 DWKS IDECO
Drill Pipe String: No. 2 Size: 4½
Tool Joint: 5¾ O.D. Type Thd.: F.H.
SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature]

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

	Size	Make	Wt. & Gr.	No. Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9⅝	MANN.	32.3# H-40	22	787	13.45		
TUBING OR LINER								

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Morn.	Day	Eve.
Rig Up & Tear Down			
Drilling Actual	1½	4	7½
Reaming			
Conditioning Mud & Circulating / BOT Circ		3¾	1¼
Trips			
Lubricate Rig		¼	
Deviation Survey	½		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other			1¼
Fishing			
COMPLETION WORK A. Perforating			
B. Tubing Trips			
C. Swabbing			
D. Testing			
E. Additional			
Totals	8	8	8

DRILLING ASSEMBLY AT END OF TOUR

NO.			Ft.
51	Stands D.P.		
2	Singles D.P.	4826.02	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
1	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	10.89	Ft.
	Total	5378.00	Ft.
Wt. of String		120,000	Lbs.
Pipe in Hole		155	Jts.
Pipe on Racks		49	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	9	
Size	8¾	
Mfg.	SEC.	
Type	M88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	912772	
Depth Out	IN	
Depth In	5175	
Total Ftg.	203	
Total Hr. Run	20	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker: Loader 2 hrs
Trucker:
Trucker:

MUD RECORD

Time	1.00	4:00	7:00
Weight	9.7	9.7	9.7
Visc.-Sec.	62	60	60
W.L.-C.C.	10.0	10.0	10.2
FL TR. CK.	2/32	2/32	2/32
PH	12.0	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	# 1000 lbs		
Caustic	50 lbs		
Q-Broxin	50 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5300	5378	78	D			70	40	1000	6"	60	6"	-	C

Deviation Record: Depth 6315 Dev. ½° Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:30	1½						DRILLING 8¾" HOLE
1:30	2:00	½						SURVEY
2:00	8:00	6						DRILLING.
								Fuel @ 7:00 AM. - 5 ft.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			Ft.
52	Stands D.P.	4858.12	
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	37.46	Ft.
	Total	5435	Ft.
Wt. of String		121,000	Lbs.
Pipe in Hole		156	Jts.
Pipe on Racks		48	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	9	
Size	8¾	
Mfg.	SEC	
Type	M88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	912772	
Depth Out		
Depth In	5175	
Total Ftg.	206	
Total Hr. Run	24	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker: LOADER 5 HRS.
Trucker: T.M.T. 12
Trucker:

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.8	9.7	9.8
Visc.-Sec.	62	63	67
W.L.-C.C.	11.2		11.6
FL TR. CK.	2/32		2.32
PH	12.0	12.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	3500 lbs		
SAWDUST	65 SAX		
Fibertex	65 SAX		
CAUSTIC	50#		
Q-BROXIN	50#		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5378	5435	57	D			70	40	1000	6"	60	6"		C

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						RIG SERV MOTOR SHUT OFF BOPS
8:15	11:30	3¼						DRILL
11:30	3:15	3¾						Lost Circ Material (Parshel) Lost Circ DRILL. FULL RETURNS.
3:15	4:00	¾						
								LOSTED 120 BBL MUD TO TO FORMATION

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			Ft.
53	Stands D.P.	4949.16	
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	29.75	Ft.
	Total	5520.00	Ft.
Wt. of String		121,000	Lbs.
Pipe in Hole		159	Jts.
Pipe on Racks		45	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	9	
Size	8¾	
Mfg.	SEC	
Type	M88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	912772	
Depth Out	IN.	
Depth In	5175	
Total Ftg.	345	
Total Hr. Run	31½	
Cond. of Bit	IN.	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker: LOADER 3 HRS.
Trucker:
Trucker:

MUD RECORD

Time	5:00	9:00	12:00
Weight	9.7	9.6	9.6
Visc.-Sec.	73	75	75
W.L.-C.C.	11.6	11.6	11.0
FL TR. CK.	2/32	2/32	2/32
PH		11.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	2000 lbs		
Caustic	100 lbs		
Q-Broxin	100 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5435	5520	85	D			70	40	1000	6"	60	6"	-	C

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	6:00	2						DRILL
6:00	6:15	¼						WAIT ON ORDERS & CIRC
6:15	8:00	1¾						DRILLING
8:00	8:15	¼						CHANGE BACK TO FINE SHAKER SCREEN.
8:15	12:00	3¾						DRILLING.

WIRE LINE RECORD

Reel No.	M10092
No. of Lines	8 Size 1⅛
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	675
Cumulative Ton Mi. or Trips	14435
No. of Days From Spud	27
Cumulative Rotating Hrs.	359

TIME SUMMARY (Office Use Only)

Day Work	
Hrs. W/DP	
Hrs. WO/DP	
Hrs. Standby	
Total Day Work	

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND GAS DIVISION
MAY 23 1972
YELLOWKNIFE, N.W.T.

N. 0545

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name UNION JADEX BLACKWATER E-11 | Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M. | Date MARCH 18 1972

Weather Condition -5 | Road Conditions ROUGH | Nearest Town WRIGLEY | Water - Source LAKE | Miles Hauled 4 | Pumped ___ | Camp Distance from Rig 200 yds. | Reason for Extra L. Plane

OPERATOR: UNION Oil Co.

Rig No. 3 DWKS 9DECO | Drill Pipe String No. 2 Size 4½ | Tool Joint Type Tbd. F.H. 5¾ O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Smith

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN.	32.3# H-40	22	787	13.45		

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	6	4½	8
Reaming			
Conditioning Mud & Circulating			
Trips	1½	3	
Lubricate Rig		¼	
Deviation Survey	½		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other		¼	
Fishing			
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.	M10092
No. of Lines	8
Size	1/8
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	675
Cumulative Ton Mi. or Trips	14435
No. of Days From Spud	26
Cumulative Rotating Hrs.	340

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
49	Stands D.P.	4608.91 Ft.
1	Singles D.P.	Ft.
16	D.C. 6¼"	
2	I.D. 7" O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	25.00 Ft.
	Total	5175.00 Ft.

Wt. of String 115000 Lbs. | Pipe in Hole 148 Jts. | Pipe on Racks 56 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	8
Size	8¾
Mfg.	SEC.
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	5175
Depth In	4434
Total Ftg.	741
Total Hr. Run	75¼
Cond. of Bit	7-5-I
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___ | Trucker LOADER 4 hrs. | Trucker ___ | Trucker ___

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.6	9.6	
Visc.-Sec.	65	65	
W.L.-C.C.	10.4	10.8	
FL TR. CK.	2/32	2/32	
PH	12.0	12.0	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	2000	lbs	
CMC	50	lbs	
Caustic	50	lbs	
Q-Broxin	50	lbs	

Driller Brian Bertelsen.

FOOTAGE

From	To	Fege.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5124	5175	51	D			70	40	1000	6"	60	6	-	C

Deviation Record: Depth 5129 | Dev. ¾ | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼						DRILLING.
12:15	12:45	½						SURVEY
12:45	6:30	5¾						DRILLING
6:30	8:00	1½						Hoisting bit #8 (SWIG FROM 3930-3784)
								NOTE: DRILLING IN CHART FROM 5155 PARTICLES
								FUEL @ 800 A.M. - 2 feet 8 inches

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
50	Stands D.P.	4669.48 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7" O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	14.43 Ft.
	Total	5225 Ft.

Wt. of String 115,060 Lbs. | Pipe in Hole 150 Jts. | Pipe on Racks 54 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	9
Size	8¾
Mfg.	SEC
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	912772
Depth Out	
Depth In	5175
Total Ftg.	50
Total Hr. Run	4½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___ | Trucker T.N.T. 12 HRS. | Trucker ___ | Trucker ___

MUD RECORD

Time		12:00	3:00
Weight		9.6	9.6
Visc.-Sec.		65	65
W.L.-C.C.		11.2	11.2
FL TR. CK.		2/32	2/32
PH		12.0	12
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CMC	50	#	

Driller George Sadler

FOOTAGE

From	To	Fege.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5175	5225	50	D	2		70	40	1000	6"	60	6"		C

Deviation Record: Depth ___ | Dev. ___ | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						RIG SER. & MOTOR SIDE OFF BOPS.
8:15	11:15	3						TRIP.
11:15	11:30	¼						BRAKE CIRC.
11:30	4:00	4½						DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
50	Stands D.P.	Ft.
2	Singles D.P.	4732.93 Ft.
16	D.C.	
2	I.D. O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	25.98 Ft.
	Total	5300.00 Ft.

Wt. of String 119,000 Lbs. | Pipe in Hole 152 Jts. | Pipe on Racks 52 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	9
Size	8¾
Mfg.	SEC
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	912772
Depth Out	IN.
Depth In	5175
Total Ftg.	125
Total Hr. Run	12½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___ | Trucker ___ | Trucker ___ | Trucker ___

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.7	9.7	9.7
Visc.-Sec.	67	63	65
W.L.-C.C.	10.8	10.0	10.0
FL TR. CK.	2/32	2/32	2/32
PH	12	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	50	lbs	
Q-Broxin	50	lbs	

Driller Brian Bertelsen.

FOOTAGE

From	To	Fege.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
5225	5300	75	D			70	40	1000	6"	60	6"	-	C

Deviation Record: Depth ___ | Dev. ___ | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8						DRILLING.

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION JAPEX BLACKWATER F-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 17 1972

Weather Condition: SNOWY Road Conditions: RUFF Nearest Town: WRIGLEY
Water - Source: LAKE Miles Hauled ___ Pumped ___ Camp Distance from Rig: 200 yds.
Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 — DWKS — Ideco
Drill Pipe String: No. 2, Size 4½
Tool Joint: Type Thd. F.H. 5¾ O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER:

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14"
2.	Oilwell	214P	14"
3.			

LAST CASING / TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN.	32.3# H-40	22	787	13.45		

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¼	7¾	8
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	
Deviation Survey	¾		
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.	M10092
No. of Lines	8 Size 1/2
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	546
Cumulative Ton Mi. or Trips	14306
No. of Days From Spud	25
Cumulative Rotating Hrs.	321½

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
47	Stands D.P.	4390.86	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	17.05	Ft.
	Total	4949.00	Ft.
Wt. of String		112,000	Lbs.
Pipe in Hole		141	Jts.
Pipe on Racks		63	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8		
Size	8¾		
Mfg.	SEC.		
Type	M88		
Nozzle	No.	3	
	Size	13	
Ser. No.	339820		
Depth Out			
Depth In	4434		
Total Ftg.	505		
Total Hr. Run	53½		
Cond. of Bit			
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker: Loader 4 hrs.
Trucker:
Trucker:

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.7	9.7	9.7
Visc.-Sec.	62	60	65
W.L.-C.C.	11.8	11.4	11.8
FL TR. CK.	2/32	2/32	2/32
PH	12.0	12.0	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	2000 lbs		
C.M.C	50 lbs		
Caustic	50 lbs		
Q-Broxin	50 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
4873	4944	76	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth 4881 — Dev. ¼° — Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1230	½						DRILLING 8¾" HOLE
1230	115	¾						SURVEY (LOST SURVEY BARREL & MADE EXTRA RUN TO RETRIEVE SAME.)
~~115~~								
115	400	6¾						DRILLING
								Fuel @ 7:00 A.M. 4'

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
47	Stands D.P.		Ft.
0	Singles D.P.	4452.57	Ft.
16	D.C. 6¼"		
4	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	40.34	Ft.
	Total	4534	Ft.
Wt. of String		113,000	Lbs.
Pipe in Hole		143	Jts.
Pipe on Racks		61	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8		
Size	8¾		
Mfg.	SEC		
Type	M88		
Nozzle	No.	3	
	Size	13	
Ser. No.	339830		
Depth Out			
Depth In	4434		
Total Ftg.	600		
Total Hr. Run	61¼		
Cond. of Bit	1		
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker: J.N.T. 10
Trucker:
Trucker:

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.7	9.7	9.7
Visc.-Sec.	61	60	60
W.L.-C.C.	12	12.2	12.4
FL TR. CK.	2/32	2/32	2/32
PH	12	12	12
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 #		
Caustic	150 #		
Q-Broxin	150 #		

Driller: Bernie Lacelle

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
4949	5034	85	D			70	40	1000	6"	60	6"		C

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:00	2						DRILL
10:00	10:15	¼						RIG SER. & MOTOR SHUT OFF & BOPS
10:15	4:00	5¾						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
48	Stands D.P.		Ft.
2	Singles D.P.	4546.60	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	36.31	Ft.
	Total	5124.00	Ft.
Wt. of String		114,000	Lbs.
Pipe in Hole		146	Jts.
Pipe on Racks		58	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8		
Size	8¾		
Mfg.	SEC		
Type	M-88		
Nozzle	No.	3	
	Size	13	
Ser. No.	339820		
Depth Out			
Depth In	4434		
Total Ftg.	690		
Total Hr. Run	69¼		
Cond. of Bit	IN.		
Reamer No.			
Reamer Type			

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker:
Trucker:
Trucker:

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.7	9.6	9.6
Visc.-Sec.	65	60	63
W.L.-C.C.	12.6	12.6	12.8
FL TR. CK.	2/32	2/32	2/32
PH	12	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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'l-P Com'd-C
5034	5124	90	D			70	40	1000	6"	60	6	—	C

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8						DRILL

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
NORTHERN ECONOMIC DEVELOPMENT BRANCH
RECEIVED MAR 27 1972

No. 6541

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ Mer.

Date: MARCH 16 1972

Weather Condition: -10 | Road Conditions: ROUGH | Nearest Town: WRIGLEY | Water - Source: LAKE | Miles Hauled: 1/4 | Pumped ___ | Camp Distance from Rig: 200 yds | Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS 9 DEED

Drill Pipe String: No. 9, Size 4½

Tool Joint: 5 3/4 O.D., Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W D Smith

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Ewald

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN.	32.3	22	787	13.45		
		H-40					

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¼	7¾	8
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	
Deviation Survey	½		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig	¼		
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.	M10092
No. of Lines	8
Size	1 1/16
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	546
Cumulative Ton Mi. or Trips	14306
No. of Days From Spud	24
Cumulative Rotating Hrs.	298¼

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
44	Stands D.P.	Ft.
2	Singles D.P.	4172.65 Ft.
16	D.C. 6¼"	
2	I.D. 7" O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	17.23 Ft.
	Kelly Down	Ft.
	Total	4731.00 Ft.

Wt. of String: 111,000 Lbs.
Pipe in Hole: 134 Jts.
Pipe on Racks: 70 Jts.
Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	8
Size	8¾
Mfg.	SEC.
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339430
Depth Out	IN
Depth In	4434
Total Ftg.	297
Total Hr. Run	30½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Trucker Loader 3 HRS. Reg. Hrs. O.T. Hrs.
Trucker
Trucker

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.7	9.7	9.7
Visc.-Sec.	60	62	60
W.L.-C.C.	10.0	10.5	10.5
FL TR. CK.	3/32	3/32	3/32
PH	12.5	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	#900		
C.M.C.	#50		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4661	4731	70	D			70	40	1000	6"	60	6"		(C)

Deviation Record: Depth 4724 | Dev. ¼ | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	3:45	3¾						DRILLING 8¾" HOLE
3:45	4:00	¼						WELD ON MUD LINE UNDER SUB.
4:00	6:45	2¾						DRILLING
6:45	7:15	½						SURVEY
7:15	9:00	1¾						DRILLING.
								FUEL @ 7:30 P.M.
								2 Jt. 4 inches

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
45	Stands D.P.	Ft.
5	Singles D.P.	4236.11 Ft.
16	D.C. 6¼"	
2	I.D. 7" O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	23.80 Ft.
	Total	4803 Ft.

Wt. of String: 111,000 Lbs.
Pipe in Hole: 136 Jts.
Pipe on Racks: 68 Jts.
Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	8
Size	8¾
Mfg.	SEC
Type	M-88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	
Depth In	4434
Total Ftg.	369
Total Hr. Run	38¼
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges: Trucker T.N.T. 15 Reg. Hrs. O.T. Hrs.
Trucker
Trucker

MUD RECORD

Time	9:00	12:00	3:00
Weight	9.7	9.7	9.7
Visc.-Sec.	62	68	68
W.L.-C.C.	10.7	11	11.6
FL TR. CK.	2/32	2/32	2/32
PH	12.5	12	12
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	1000#		
CAUSTIC	50#		
Q-BROXIN	50#		

Driller: Bernie Steed

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4731	4803	72	D			70	40	1000	6"	60	6"		(C)

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	11:00	3						DRILL
11:00	11:15	¼						RIG SER ✓ MOTOR SHUT OFF & BOPS
11:15								DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
46	Stands D.P.	4298.98 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼"	
2	I.D. 7" O.D.	527.65 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	32.93 Ft.
	Total	4873.00 Ft.

Wt. of String: 112,000 Lbs.
Pipe in Hole: 138 Jts.
Pipe on Racks: 66 Jts.
Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	8
Size	8¾
Mfg.	SEC
Type	M-88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	IN
Depth In	4434
Total Ftg.	439
Total Hr. Run	46¼
Cond. of Bit	IN.
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.7	9.7	9.7
Visc.-Sec.	70	65	63
W.L.-C.C.	11.8	11.8	11.8
FL TR. CK.	3/32	2/32	3/32
PH	12.5	12.5	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4803	4873	70	D			70	40	1000	6"	60	6"	—	(C)

Deviation Record

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8						DRILL

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAR 21 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

RECEIVED
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAR 21 1972
YELLOWKNIFE, N.W.T.

No. 3540

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION JAPEX BLACKWATER F-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 15 1972
Weather Condition: -10 Road Condition: ROUGH Nearest Town: WRIGLEY
Water - Source: LAKE Miles Hauled: 4 Pumped ___ Camp Distance from Rig: 200 yds.
Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature]

Rig No. 3 DWKS Hecco
Drill Pipe String: No. 5 Size 4½
Tool Joint 5 3/4 O.D. Type Thd. F.H.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN.	32.3 H-40	22	787	13.45		

TIME DISTRIBUTION—HOURS

	Mom	Day	Eve
Rig Up & Tear Down			
Drilling Actual	8	7½	7¾
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	¼
Deviation Survey		¼	
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.	M10092
No. of Lines	8 Size 1 1/8
Feet Slipped	1545
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	546
Cumulative Ton Mi. or Trips	143066
No. of Days From Spud	23
Cumulative Rotating Hrs.	275½

CONSERVATION ENGINEER MAR 21 1972

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
42	Stands D.P.	3921.84	Ft.
	Singles D.P.		Ft.
	D.C.		Ft.
	I.D. O.D.		Ft.
16	D.C. 6¼		
2	I.D. 7" O.D.	527.65	Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	41.07	Ft.
	Total	4504.00	Ft.
Wt. of String		106	Lbs.
Pipe in Hole		128	Jts.
Pipe on Racks		76	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8
Size	8 3/4
Mfg.	SEC.
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	
Depth In	4434
Total Ftg.	70
Total Hr. Run	8
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker LOADER 4 HRS.
Trucker ___
Trucker ___

MUD RECORD

	1:00	4:00	7:00
Time			
Weight	9.9	9.9	9.9
Visc.-Sec.	65	63	65
W.L.-C.C.	13.0	12.8	13.0
FL TR. CK.	2/32	2/32	2/32
PH	11.5	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	3900 lbs		
Caustic	100 lbs		
Q-Broxin	100 lbs		

Driller: Brian Bertelsen

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4434	4504	70	D			70	40	1000	6"	60	6"	—	C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8						DRILLING 8¾" HOLE
								Fuel @ 7:30 AM.
								3 ft 7½ inches

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
43	Stands D.P.	4016.08	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7" O.D.	527.65	Ft.
	D.C.		Ft.
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	26.83	Ft.
	Total	4584	Ft.
Wt. of String		109,000	Lbs.
Pipe in Hole		129	Jts.
Pipe on Racks		75	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8
Size	8 3/4
Mfg.	SEC
Type	M-88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	
Depth In	4434
Total Ftg.	150
Total Hr. Run	15½
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. 12 O.T. Hrs. ___
Trucker T.W.T.
Trucker ___
Trucker ___

MUD RECORD

	9:00	12:00	3:00
Time			
Weight	10	10	9.8
Visc.-Sec.	65	73	64
W.L.-C.C.	12.6	12.6	12.9
FL TR. CK.	2/32	2/32	2/32
PH	12	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	1000 #		
CAUSTIC	50 #		
Q-BROXIN	50 #		

Driller: [signature]

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4504	4584	80	D			70	40	1000	6"	60	6"		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	4567	3/4°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	2:00	6						DRILLING
2:00	2:15	¼						RIG SER. & MADE SHUT OFF & BOPS
2:15	2:30	¼						SURVEY.
2:30	4:00	1½						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
43	Stands D.P.		Ft.
2	Singles D.P.	4078.89	Ft.
16	D.C. 6¼"		
2	I.D. 7" O.D.	527.65	Ft.
	D.C.		Ft.
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	41.07	Ft.
	Total	4661.00	Ft.
Wt. of String		110,000	Lbs.
Pipe in Hole		131	Jts.
Pipe on Racks		73	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	8
Size	8 3/4
Mfg.	SEC
Type	M-88
Nozzle No.	3
Nozzle Size	13
Ser. No.	339820
Depth Out	IN
Depth In	4434
Total Ftg.	227
Total Hr. Run	23 1/4
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

	5:00	8:00	11:00
Time			
Weight	9.7	9.7	9.7
Visc.-Sec.	65	60	64
W.L.-C.C.	13.2	13.4	10.4
FL TR. CK.	2/32	2/32	2/32
PH	12.5	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	800 lbs		
Caustic	200 lbs		
Q-Broxin	50 lbs		

Driller: [signature]

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4584	4661	77	D			70	40	1000	6"	60	6"		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	930	4½						DRILLING
930	945	¼						RIG SERVICE
945	1200	3¼						DRILLING

No. 6539

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11 — Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 14 1972

Weather Condition: -10 — Road Conditions: ROUGH — Nearest Town: WAIGLEY — Water - Source: LAKE — Miles Hauled: 4 — Pumped: ___ — Camp Distance from Rig: 2000 yds. — Reason for Extra L. Plant: ___

OPERATOR: UNION OIL CO.

Rig No. 3 — DWKS: Adeco — Drill Pipe String: No. 2, Size 4½ — Tool Joint: 5¾ O.D. — Type Thd.: F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Seed

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14"
2.	Oilwell	214-P	14"
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9⅝	MANN	32.3# H-40	22	787	13.45		
TUBING OR LINER								

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	3	7¼	3
Reaming			
Conditioning Mud & Circulating			
Trips			4½
Lubricate Rig		¼	
Deviation Survey		½	1¼
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other Break Circ.			1¼
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. M10092
No. of Lines 8 — Size 1 1/8
Feet Slipped 1645
Feet Cut Off 1600
Present Length 3400
Ton Mi. or Trips Since Last Cut 546
Cumulative Ton Mi. or Trips 14386
No. of Days From Spud 22
Cumulative Rotating Hrs. 252¼ ~~252¼~~

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
40	Stands D.P.	3762.64	Ft.
1	Singles D.P.		Ft.
16	D.C. I.D. O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	21.27	Ft.
	Total	4330.00	Ft.
Wt. of String		104,000	Lbs.
Pipe in Hole		120	Jts.
Pipe on Racks		84	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.		7A.B.
Size		8¾
Mfg.		H.W.
Type		J44
Nozzle No.		3
Nozzle Size		13
Ser. No.		EM277
Depth Out		
Depth In		3416
Total Ftg.		914
Total Hr. Run		86¾
Cond. of Bit		IN.
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker LOADER 2 HRS.
Trucker
Trucker

MUD RECORD

Time	2:00	4:00	7:00
Weight	10.0	10.0	10.0
Visc.-Sec.	60	60	63
W.L.-C.C.	13.0	13.2	13.3
FL TR. CK.	2/32	1/32	2/32
PH	12.0	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1200 lbs		
Caustic	100 lbs		
Q-Broxin	100 lbs		

Driller Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4240	4330	90	D			70	40	1000	6"	60	6"	—	C

Deviation Record: Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8						DRILLING 8¾" HOLE
								FUEL 5 FEET @ 700 A.M.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
48	Stands D.P.		Ft.
1	Singles D.P.	3829.25	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	36.06	Ft.
	Total	4406	Ft.
Wt. of String		105,000	Lbs.
Pipe in Hole		122	Jts.
Pipe on Racks		82	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.		7
Size		8¾
Mfg.		HW
Type		J44
Nozzle No.		3
Nozzle Size		13
Ser. No.		EM277
Depth Out		
Depth In		3416
Total Ftg.		990
Total Hr. Run		94
Cond. of Bit		IN
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T.
Trucker
Trucker

MUD RECORD

Time	9:00	12:00	3:00
Weight	10.2	10.1	9.9
Visc.-Sec.	65	68	62
W.L.-C.C.	11.6	11.6	12.0
FL TR. CK.	2/32	2/32	2/32
PH	12	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	24,000#		
Caustic	100#		
Q-Broxin	100#		

Driller Bernie Lach

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4330	4406	76	D			70	40	1000	6"	60	6"		C

Deviation Record: Depth 4381 Dev. 3¼° Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:00	2.				DRILL		Rig Ser ✓ Motor Shut Off.
10:00	10:15	¼						Rig Ser ✓ Motor Shut Off & Bops.
10:15	1:15	3						DRILL
1:15	1:45	½						SURVEY
1:45	4:00	2¼						DRILL.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
41	Stands D.P.		Ft.
3	Singles D.P.	3859.26	Ft.
14	D.C. 14¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	33.65	Ft.
	Total	4434.00	Ft.
Wt. of String		106,000	Lbs.
Pipe in Hole		124	Jts.
Pipe on Racks		80	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.		7
Size		8¾
Mfg.		HW
Type		J-44
Nozzle No.		3
Nozzle Size		13
Ser. No.		2M277
Depth Out		4435
Depth In		3416
Total Ftg.		1019
Total Hr. Run		97
Cond. of Bit		4-1-1 BT
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time	5:00	7:00	11:00
Weight	10	9.9	
Visc.-Sec.	64	65	
W.L.-C.C.		12.1	
FL TR. CK.		2/32	
PH	12.5	12.5	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1600 lbs		

Driller Brian Bertelsen.

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4406	4434	28				70	40	1000	6"	60	6"	—	C

Deviation Record: Depth 4434 Dev. 3/4 Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	7:00	2						DRILL
7:00	7:15	¼						SURVEY.
7:15	11:45	4½						TRIP
11:45	12:00	¼						BREAK CIRC. & CLEAN 4' FILL

No. 6538

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION IAPEX BLACKWATER E-11 | Location — Lsd. — Sec. — Twp. — Rge. — W. — M. | Date: MARCH 13 1972

Weather Condition: +8 | Road Conditions: RUFF | Nearest Town: WRIGLEY | Water — Source: LAKE | Miles Hauled: 4 | Pumped | Camp — Distance from Rig: 200 yds. | Reason for Extra L. Plant

OPERATOR: UNION Oil Co.

Rig No. 3 DWKS Ideco | Drill Pipe String: No. 2, Size 4½ | Tool Joint: 5¾ O.D., Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. Duff

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Ewald

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Dilwell	214-P	14
2.	Dilwell	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MAYN.	32.3# H-40	22	787	13.45		

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	8	7½	7½
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	
Deviation Survey		¼	½
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	9	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.	M 100 92
No. of Lines	8 Size 1⅛
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	434
Cumulative Ton Mi. or Trips	14254
No. of Days From Spud	21
Cumulative Rotating Hrs.	241½

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
37	Stands D.P.		Ft.
1	Singles D.P.	3517.30	Ft.
16	D.C. 6¼		
2	I.D. 2" O.D.	527.65	Ft.
	L.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	31.61	Ft.
	Total	4090.00	Ft.
Wt. of String		102,000	Lbs.
Pipe in Hole		112	Jts.
Pipe on Racks		92	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD	
Bit No.	7 RR.
Size	8¾
Mfg.	H.W.
Type	J 44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM277
Depth Out	
Depth In	3416
Total Ftg.	674
Total Hr. Run	63¾
Cond. of Bit	1N
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD			
Time	1.00	4:00	7.00
Weight	9.7	9.7	9.8
Visc.-Sec.	60	58	58
W.L.-C.C.	12.4	12.0	12.0
FL TR. CK.	2/32	2/32	2/32
PH	12.0	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1800 lbs		
Caustic	50 lbs		
Q-Broxin	50 lbs		

Driller: Brian Bertelsen

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4010	4090	80	D			70	40	1000	6"	60	6"		C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8						DRILLING 8¾" HOLE
								FUEL @ 7:00 A.M. 1 FT. 3 inches

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
38	Stands D.P.	3610.58	Ft.
5	Singles D.P.		Ft.
16	D.C. 10¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	13.33	Ft.
	Total	4165	Ft.
Wt. of String		102,000	Lbs.
Pipe in Hole		115	Jts.
Pipe on Racks		9	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD	
Bit No.	7
Size	8¾
Mfg.	H.W.
Type	J.44
Nozzle No.	3
Nozzle Size	13
Ser. No.	Em277
Depth Out	
Depth In	3416
Total Ftg.	749
Total Hr. Run	71¼
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 12
Trucker
Trucker

MUD RECORD			
Time	900	12⁰⁰	3:00
Weight	9.8	9.9	9.9
Visc.-Sec.	60	60	59
W.L.-C.C.	12		
FL TR. CK.	2/32	2/32	2/32
PH	12	12.5	12
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel - 900 lbs			
Caustic - 100 lbs			
Q Broxin - 100 lbs			

Driller: Rodney Laceé

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4090	4165	75	D			70	40	1000	6"	60			D

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	4160	½°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:45	¾						DRILL
8:45	9:00	¼						Rig Serv Motor Shut Off & Bops.
9:00	9:15	¼						Survey
9:15	4:00	6¾						Drill

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
39	Stands D.P.	3674.09	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	527.65	Ft.
	D.C.		
	I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	24.82	Ft.
	Total	4240.00	Ft.
Wt. of String		103,000	Lbs.
Pipe in Hole		117	Jts.
Pipe on Racks		87	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD	
Bit No.	7
Size	8¾
Mfg.	H.W.
Type	J.44
Nozzle No.	3
Nozzle Size	13
Ser. No.	Em 277
Depth Out	IN
Depth In	3416
Total Ftg.	824
Total Hr. Run	78¾
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker LOADER 3 HRS.
Trucker
Trucker

MUD RECORD			
Time	5:00	8:00	11:00
Weight	9.9	9.9	9.9
Visc.-Sec.	60	56	60
W.L.-C.C.		13.0	13.2
FL TR. CK.		2/32	2/32
PH	12	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	#1200		
Caustic	#50		
Q-Broxin	#50		

Driller: Brian Bertelsen

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
4165	4240	75	D			70	40	1000	6"	60	6"	-	C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	4225	⅛°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	1000	6						DRILLING
1000	1030	½						SURVEY & RIG SERVICE
1030	1200	1½						DRILLING.

No. 6537

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION OIL JAPEX E-11 BLACKWATER — Location: Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 12 1972

Weather Condition: – 10 — Road Conditions: ROUGH — Nearest Town: WAINWRIGHT — Water - Source: LAKE — Miles Hauled: 4 — Pumped: ___ — Camp Distance from Rig: 200 yds. — Reason for Extra L. Plant: ___

OPERATOR: UNION OIL CO.

Rig No. 3 — DWKS Ideco. — Drill Pipe String: No. 2, Size 4½ — Tool Joint: Type Thd. F.H., 5¾ O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. A. Dowd

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sild

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14
2.	Oilwell	214-P	14
3.			

LAST CASING / TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN.	#32.75-H40	22	787	13.45		

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling, Actual		2½	7½
Breaking Circ.		¼	
Conditioning Mud & Circulating		¼	
Trips	2½		
Lubricate Rig		¼	
Deviation Survey			½
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test	¾		
Other	2¼		
Fishing			

COMPLETION WORK

A. Perforating			
B. Tubing Trips			
C. Swabbing			
D. Testing			
E. Additional			
Totals	9	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.	M10092
No. of Lines	8 — Size 1⅛
Feet Slipped	1645
Feet Cut Off	1600
Present Length	3400
Ton Mi. or Trips Since Last Cut	434
Cumulative Ton Mi. or Trips	14274
No. of Days From Spud	20
Cumulative Rotating Hrs.	218½

DEPARTMENT OF MINES AND NATURAL RESOURCES — CONSERVATION BRANCH — MAR 16 1972 — EDMONTON, ALBERTA

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
36	Stands D.P.	3362.84 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	9.03 Ft.
	Total	3910.00 Ft.

Wt. of String 99,000 Lbs. — Pipe in Hole 108 Jts. — Pipe on Racks 96 Jts. — Total Pipe on Lease 204 Jts.

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	

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker LOADER 2 HRS
Trucker
Trucker

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Brian Berteteau.

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3910													

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	145	1¾						PICK UP & MAKE UP PACKER
145	330	1¾						RUN IN W/ DST. #2
330	400	½						HEAD UP TEST
400	715	3¼						WELL ON TEST
715	800	¾						HOIST D.S.T. #2

(HIT FLUID AFTER PULLING 18 stds) @ approx 1950' FLUID. ppetro

DST #2 3685–3910 Dual Howco 7¾ PRE FLO 5 MINS ISI 60 VO 60. FSI 60 Good IPOH 60 F. IP. FAIR blow. 4 to 8 in 9 MINS. INCREASE DECREASING AFTER 30 MINS Rec 950' of mud 1000' of muddy salt water

3' 3" 9:00 AM

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
36	Stands D.P.	3362.84 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	29.07 Ft.
	Total	3933 Ft.

Wt. of String 99,000 Lbs. — Pipe in Hole 108 Jts. — Pipe on Racks 96 Jts. — Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	8 ¾
Size	7
Mfg.	HW
Type	J-44
Nozzle No.	3
Nozzle Size	13
Ser. No.	FM-277
Depth Out	
Depth In	3416
Total Ftg.	517
Total Hr. Run	55¾
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker T.N.T 11
Trucker
Trucker

MUD RECORD

Time			3:30
Weight			9.6
Visc.-Sec.			70
W.L.-C.C.			11.8
FL TR. CK.			2/32
PH			11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	100#		
QBroxin	50#		

Driller: Bernie Hagel

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3910	3933	23	D			70	40	1000	6"	60			C

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10.45	2¾						PULL TEST & LOAD OUT TEST.
10.45	11:00	¼						RIG SER ✓ MOTOR SHUT OFF & BOPS.
11:00	11.15	2¼						LAY ONE COLLAR DOWN & RUN IN SLOW
11.15	1:30	¼						BREAK CIRC
1:30	4:00	2½						DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
36	Stands D.P.	Ft.
2	Singles D.P.	3456.64 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	527.65 Ft.
	D.C.	
	I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	12.27 Ft.
	Total	4010.00 Ft.

Wt. of String 101,000 Lbs. — Pipe in Hole 110 Jts. — Pipe on Racks 94 Jts. — Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	8 ¾
Size	7
Mfg.	HW
Type	J-44
Nozzle No.	3
Nozzle Size	13
Ser. No.	FM-277
Depth Out	IN.
Depth In	3416
Total Ftg.	594
Total Hr. Run	63¼
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.8	9.8	9.8
Visc.-Sec.	67	65	58
W.L.-C.C.	12.0	11.8	12.0
FL TR. CK.	2/32	2/32	2/32
PH	12	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 lbs		
Caustic	50 lbs		
Q-Broxin	50 lbs		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3933	4010	77	D			70	40	1000	6"	60	6	–	C

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
4007	3/4°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	1100	7						DRILLING.
1100	1130	½						SURVEY
1130	1200	½						DRILLING.

No. 6556

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER F-11 | Location — Ld. Sec. Twp. Rge. W. M. | Date: MARCH 11 1972

Weather Condition: -20 | Road Conditions: ROUGH | Nearest Town: WRIGLEY | Water - Source: LAKE | Miles Hauled: 4 | Pumped | Camp Distance from Rig: 200 yds. | Reason for Extra L. Plant

OPERATOR: UNION Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bird

Rig No. 3 | DWKS IDECO | Drill Pipe String: No. 4, Size 4½ | Tool Joint 6¾ O.D. | Type Thd. F.H.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Gilwell	214-P	14
2.	Gilwell	214-P	14
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9⅝	MANN	32.3 H40	22	787	13.45		
TUBING OR LINER								

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	6½	5½	
Reaming			
Conditioning Mud & Circulating	1½	2	3¾
Trips			4½
Lubricate Rig		¼	
Deviation Survey		¼	¼
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. M 100 92

No. of Lines 8 Size 1¼

Feet Slipped 1645

Feet Cut Off 1600

Present Length 3401

Ton Mi. or Trips Since Last Cut 272

Cumulative Ton Mi. or Trips 14132

No. of Days From Spud 19

Cumulative Rotating Hrs. ~~24~~ 208¼

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
35	Stands D.P.		Ft.
1	Singles D.P.	3299.41	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	22.46	Ft.
	Total	3861.00	Ft.
Wt. of String		99,000	Lbs.
Pipe in Hole		106	Jts.
Pipe on Racks		98	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	7
Size	8 3/4
Mfg.	H.W.
Type	J 44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM277
Depth Out	
Depth In	3416
Total Ftg.	445
Total Hr. Run	47¾
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker LOADER 4 HRS.

Trucker

Trucker

MUD RECORD

Time	12:00	3.00	7.00
Weight	9.9	9.9	9.9
Visc.-Sec.	58	65	65
W.L.-C.C.	10.2	10.0	10
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel -	1000 lbs		
Caustic -	50 lbs		
Q-Broxin -	50 lbs		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3791	3861	70	D			70	40	1000	6	60	6	—	C

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	300	3						DRILLING 8¾" HOLE
300	430	1½						CIRC. SAMPLES & WAIT ON ORDERS (POSSIBLE TEST)
430	800	3½						DRILLING.
								FUEL: 3½'
								NOTE: CHANGED OIL & FILTERS IN BOTH LIGHT PLANTS & FLOOR MOTORS

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
31	Stands D.P.		Ft.
0	Singles D.P.	3331.21	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	346.6	Ft.
	Total	3910	Ft.
Wt. of String		99,000	Lbs.
Pipe in Hole		107	Jts.
Pipe on Racks		97	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	7
Size	8 3/4
Mfg.	HW
Type	J-44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM 277
Depth Out	3910
Depth In	3416
Total Ftg.	494
Total Hr. Run	53¼
Cond. of Bit	0-1-1 BT
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker T.N.T. 14

Trucker

Trucker

MUD RECORD

Time	9.00	12:00	3.00
Weight	9.9	9.9	9.9
Visc.-Sec.	65	64	61
W.L.-C.C.		10.2	
FL TR. CK.		2/32	
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CAUSTIC	50#		
Q-BROXIN	50#		
GEL	1500#		

Driller: Reggie Hack

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3861	3910	49	D			70	40	1000	6	60	6	—	C

Deviation Record: Depth 3880 | Dev. 1° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:00	2						DRILL
10:00	10:15	¼						RIG SER. & ✓ MOTOR SHUT OFF & BOPS.
10:15	10:30	¼						SURVEY.
10:30	2:00	3½						DRILL. TO 3910
2:00	4:00	2						CIRC UP SAMPLE & COND. MUD

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
36	Stands D.P.	3362.84	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	~~39~~ 49.03	Ft.
	Total	3910.00	Ft.
Wt. of String		99,000	Lbs.
Pipe in Hole		108	Jts.
Pipe on Racks		96	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	9
Size	8¾
Mfg.	H.W.
Type	J.44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM277
Depth Out	3910
Depth In	3416
Total Ftg.	494
Total Hr. Run	53¼
Cond. of Bit	0-1-1 BT
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	5:30	9.00	12.00
Weight	9.9	9.9	
Visc.-Sec.	78	75	
W.L.-C.C.		10.4	
FL TR. CK.		3/32	
PH	11.5	11.5	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 lbs		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3910.													

Deviation Record: Depth 3910 | Dev. ¼° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:45	1¾						COND MUD FOR TEST
5:45	6:00	¼						SURVEY.
6:00	7:30	1½						DUMMY TRIP TO CASING & STRAP OUT
7:30	8:45	1¼						RUN IN. (SLOW)
8:45	10:15	2½						CIRC COND HOLE PRIOR TO TESTING.
10:15	12:00	1¾						HOIST TO TEST.
								MEAS. OUT — 3363.18
								3362.84
								DIFF. .34
								NO CORR.

N. 6535

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION OIL JAPEX BLACKWATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 10, 1972
Weather Condition: -20 Road Conditions: ROUGH Nearest Town: WRIGLEY
Water - Source: LAKE Miles Hauled: 4 Pumped: ___
Camp Distance from Rig: 2000 yds Reason for Extra L. Plant: ___

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS IDECO | Drill Pipe String No. 2 Size 4½ | Tool Joint Type Tbd. F.H. 5¾ O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. Dowd

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Guild

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Gilwell	214-P	14
2.	Oilwell	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	R.B. to C.G. HD.	Set at	Remarks
9⅝	MANN	32#-H40	22	13.45	781		

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7½	6¾	7½
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	
Deviation Survey	½	1	½
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. M100 92
No. of Lines 8 Size 1/8
Feet Slipped 1645
Feet Cut Off 1600
Present Length 3400
Ton Mi. or Trips Since Last Cut 115
Cumulative Ton Mi. or Trips 13840
No. of Days From Spud 18
Cumulative Rotating Hrs. 199

MAR 15 1972

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
33	Stands D.P.	3081.30 Ft.
	Singles D.P.	Ft.
2	D.C. 7"	
16	I.D. 6¼ O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Rmr. Body C.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	34.57 Ft.
	Total	3655.00 Ft.
Wt. of String	95,000	Lbs.
Pipe in Hole	99	Jts.
Pipe on Racks	105	Jts.
Total Pipe on Lease	204	Jts.

BIT RECORD	
Bit No.	7
Size	8¾
Mfg.	H.W.
Type	J44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM277
Depth Out	IN
Depth In	3416
Total Ftg.	239
Total Hr. Run	27
Cond. of Bit	IN
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ ___ ___
Trucker ___ ___ ___
Trucker ___ ___ ___

MUD RECORD			
Time	1:00	4:00	7:00
Weight	9.8	9.9	9.9
Visc.-Sec.	65	62	65
W.L.-C.C.	11.9	12.0	11.8
FL TR. CK.	2/32	2/32	2/32
PH	12.0	12.5	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel - 2000 lbs			
Caustic - 50 lbs			
Q-Broxin 50 lbs			
C.M.C. - 50 lbs			

Driller: Brian Bertelsen

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3590	3655	65	D			70	40	1000	6	60	6	—	S

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	3599	½							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	100	1						DRILLING 8¾" HOLE
100	130	½						SURVEY
130	800	6½						DRILLING.
								Fuel @ 7:00 A.M.
								5'

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
33	Stands D.P.	3141.94 Ft.
	Singles D.P.	~~Ft.~~
16	D.C. 6¼"	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	42.00 Ft.
	Total	3723 Ft.
Wt. of String	98,000	Lbs.
Pipe in Hole	101	Jts.
Pipe on Racks	103	Jts.
Total Pipe on Lease	204	Jts.

BIT RECORD	
Bit No.	7
Size	8¾
Mfg.	HW
Type	J-44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM 277
Depth Out	
Depth In	3416
Total Ftg.	307
Total Hr. Run	33¾
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 13 ___
Trucker ___ ___ ___
Trucker ___ ___ ___

MUD RECORD			
Time	9:00	12:00	3:00
Weight	9.9	9.8	9.8
Visc.-Sec.	62	65	63
W.L.-C.C.	10.0	10.0	10.0
FL TR. CK.	2/32	2/32	2/32
PH	11.5	12	12
SD. Cont. %	—		
Pressure Gradient	—		

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	—	800 lbs	
Caustic	—	50 lbs	
Q Broxin	—	50 lbs	

Driller: B. Crowe

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3655	3723	68	D			70	40	1000	6	60			C

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	2693	0°	BULLS EYE						

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼						RIG SER ✓ MOTOR SHUT OFF & BOPS
8:15	12:30	4¼						DRILL.
12:30	1:30	1						SURVEY (SURVEY BBL CRMP OFF STUCK BAR TRIP RUNS TO RECOVER)
1:30	4:00	2½						DRILL

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
34	Stands D.P.	Ft.
2	Singles D.P.	3236.09 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.10 Ft.
	Bit or C.B.	Ft.
	Kelly Down	15.79 Ft.
	Total	3791.00 Ft.
Wt. of String	98,000	Lbs.
Pipe in Hole	104	Jts.
Pipe on Racks	100	Jts.
Total Pipe on Lease	204	Jts.

BIT RECORD	
Bit No.	7
Size	8¾
Mfg.	HW
Type	J-44
Nozzle No.	3
Nozzle Size	13
Ser. No.	EM 277
Depth Out	
Depth In	3416
Total Ftg.	375
Total Hr. Run	40¼
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ ___ ___
Trucker ___ ___ ___
Trucker ___ ___ ___

MUD RECORD			
Time	5:00	9:00	11:00
Weight	9.8	9.9	9.9
Visc.-Sec.	61	60	64
W.L.-C.C.	10.0	10.0	10.2
FL TR. CK.	2/32	2/32	2/32
PH	11.5	11.5	11.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel - 1700 lbs			
Caustic - 50 lbs			
Q-Broxin - 50 lbs			

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3723	3791	68	D			70	40	1000	6	60	6	—	S

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	3785	½							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	10¼6	6¼						DRILL.
10¼6	11¼5	½						SURVEY & RIG SERVICE
11¼5	12:00	¾						DRILL

N. 0554

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION OIL JAPEX BLACKWATER F-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: MARCH 9 19 72
Weather Condition: -22° Road Conditions: ROUGH Nearest Town: WRIGLEY
Water - Source ___ Miles Hauled ___ Pumped ___ Camp Distance from Rig ___ Reason for Extra L. Plant ___

OPERATOR: UNION OIL CO.
Rig No. 3 DWKS IDECO
Drill Pipe String: No. 2 Size 4½
Tool Joint: Type Tbd. F.H. 5½ O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. Mantle
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Smiled

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No. Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3-H40	22	13.45	787		

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	4½	7½	7½
Reaming			
Conditioning Mud & Circulating			
Trips	3		
Lubricate Rig	¼	¼	
Deviation Survey		¼	1½
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	9	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.	M100 92
No. of Lines	8 Size 1⅛
Feet Slipped	
Feet Cut Off	
Present Length	3790
Ton Mi. or Trips Since Last Cut	115
Cumulative Ton Mi. or Trips	13840
No. of Days From Spud	17
Cumulative Rotating Hrs.	177¼

CONSERVATION ENGINEER — MAR 10 1972 — N.W.T. — YELLOWKNIFE

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
31	Stands D.P.	2892.94 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7" O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	19.93 Ft.
	Total	3452.00 Ft.
Wt. of String		92,000. Lbs.
Pipe in Hole		93 Jts.
Pipe on Racks		111 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	7	
Size	8¾	
Mfg.	H.W.	
Type	J44	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	EM277	
Depth Out	IN	
Depth In	3416	
Total Ftg.	36	
Total Hr. Run	4½	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges: Trucker LOADER 2 — Reg. Hrs. ___ O.T. Hrs. ___

MUD RECORD

Time	12:00	4:00	7:00
Weight		9.8	9.9
Visc.-Sec.		58	60
W.L.-C.C.		10.4	11.0
FL TR. CK.		2/32	2/32
PH		12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Q-Broxin	50 lbs		
Caustic	100 lbs		
Gel	900 lbs		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3416	3452	36	D			64 / 66	40	1000	6	60	6	—	S

Deviation Record: Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:15	1¼						HOIST FOR BIT CHANGE
1:15	1:30	¼						RIG SERVICE
1:30	3:15	1¾						RUN IN W/ J44 (SLOW)
3:15	3:30	¼						BREAK CIRC.
3:30	7:00	4½						DRILLING.
								FUEL 2' 4" @ 7:00 A.M.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
31	Stands D.P.	Ft.
0	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.62 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	27.95 Ft.
	Total	3523 Ft.
Wt. of String		94,000 Lbs.
Pipe in Hole		95 Jts.
Pipe on Racks		109 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	7	
Size	8¾	
Mfg.	H.W.	
Type	J44	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	EM277	
Depth Out		
Depth In	[illegible]	
Total Ftg.	[illegible]	
Total Hr. Run	[illegible]	
Cond. of Bit	[illegible]	
Reamer No.		
Reamer Type		

Water Charges: Trucker T.W.T 11 — Reg. Hrs. ___ O.T. Hrs. ___

MUD RECORD

Time	8:00	12:00	3:00
Weight	10.0	10.0	10.0
Visc.-Sec.	65	63	58
W.L.-C.C.	10	10	10
FL TR. CK.	2/32	2/32	2/32
PH	10.5	11.5	12
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 lbs		
Q-Broxin	100 lbs		
Caustic	100 lbs		

Driller Bernard Lovell

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3452	3523	71	D			70	40	1000	6"	60			C

Deviation Record: Depth 3425 Dev. ⅝ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:15	2¼						DRILL
10:15	10:30	¼						RIG SER. / MOTOR SHUT OFF & BOPS
10:30	10:45	¼						SURVEY
10:45	4:00	5¼						DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
31	Stands D.P.	Ft.
1	Singles D.P.	30.18.76 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	32.09 Ft.
	Total	3590.00 Ft.
Wt. of String		94,000 Lbs.
Pipe in Hole		97 Jts.
Pipe on Racks		107 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	7	
Size	8¾	
Mfg.	H.W.	
Type	J44	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	EM277	
Depth Out		
Depth In	3416	
Total Ftg.	174	
Total Hr. Run	19½	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges: Trucker ___ — Reg. Hrs. ___ O.T. Hrs. ___

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.9	9.8	9.8
Visc.-Sec.	60	58	58
W.L.-C.C.	11.2	11.4	11.6
FL TR. CK.	2/32	2/32	2/32
PH	12	12	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	1000 lbs		

Driller Brian Robertson

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3523	3590	67	D			70	40	1000	6	60	6	—	S

Deviation Record: Depth 3538 Dev. ¾ Direction ___ | Depth ___ Dev. ___ Direction ___ | Depth ___ Dev. ___ Direction ___

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1½						DRILL
5:30	6:00	½						SURVEY
6:00	12:00	6						DRILL
								CHANGED FUEL FILTERS IN BOTH G.M. LIGHT PLANTS. BB

No. 6533

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION OIL JAPEX BLACK WATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: March 8 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source / Miles Hauled / Pumped | Camp Distance from Rig / Reason for Extra L. Plant

OPERATOR: UNION Oil Co

Rig No. 3 | DWKS IDECO | Drill Pipe String No. 2, Size 4½ | Tool Joint 5½ O.D. | Type Thd. E.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: D. Field / N. Miller

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14
2.	Oilwell	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3-H40	22	791	13.45	787	

TIME DISTRIBUTION — HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7½	7½	6¼
Reaming			
Conditioning Mud & Circulating			
Trips			¾
Lubricate Rig		¼	¼
Deviation Survey	½	¼	¾
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.	M10092
No. of Lines	8 Size 1/8
Feet Slipped	45
Feet Cut Off	
Present Length	3746
Ton Mi. or Trips Since Last Cut	33
Cumulative Ton Mi. or Trips	13708
No. of Days From Spud	16
Cumulative Rotating Hrs.	157 ¾

CONSERVATION ENGINEER — MAR 15 1972 — YELLOWKNIFE, N.W.T.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	Stands D.P.	2705.40 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
1	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	20.44 Ft.
	Total	3265.00 Ft.

Wt. of String 90,000 Lbs.
Pipe in Hole 87 Jts.
Pipe on Racks 117 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	5 RR	
Size	8¾	
Mfg.	SEC.	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out		
Depth In	2877	
Total Ftg.	388	
Total Hr. Run	32½	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:00	4:00	6:00
Weight	9.7	9.7	9.7
Visc.-Sec.	70	76	68
W.L.-C.C.	10.2	11.4	10.4
FL TR. CK.	4/32	2/32	2/32
PH	12.5	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GMC	50 #		

Driller: Dave Quick

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3180	3265	85				70	40	1000	6	59			

Deviation Record: Depth 3190 — Dev. ¾° — Direction 3250 | Depth ½° | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	1:00	1						Drilling 8¾" hole
1:00	1:15	¼						Survey
1:15	7:00	5¾						Drilling
7:00	7:15	¼						Survey
7:15	8:00	¾						Drilling

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
29	Stands D.P.	Ft.
2	Singles D.P.	2767.84 Ft.
16	D.C.	
2	I.D. O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	38.03 Ft.
	Total	3345.00 Ft.

Wt. of String 91,000 Lbs.
Pipe in Hole 89 Jts.
Pipe on Racks 115 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	5 RR.	
Size	8¾	
Mfg.	SEC.	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out		
Depth In	2877	
Total Ftg.	468	
Total Hr. Run	40	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker T.N.T 11
Trucker ___
Trucker ___

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.7	9.8	9.8
Visc.-Sec.	65	63	63
W.L.-C.C.	11.2	11.8	11.8
FL TR. CK.	3/32	3/32	3/32
PH	12.5	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Q-Broxin	50 lbs		
Caustic	50 lbs		
CMC	50 lbs		

Driller: Brian Bertleson

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3265	3345	80	D			73	40	1000	6	60			(S)

Deviation Record: Depth 3317 — Dev. ¾° — Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
9:00	10:15	2¼						Drilling 8¾" hole
10:15	10:30	¼						Rig Service & Motor Shut Off & Bops
10:30	1:00	2½						Drilling
1:00	1:15	¼						Survey
1:15	4:00	2¾						Drilling.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
30	Stands D.P.	Ft.
0	Singles D.P.	2861.48 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	15.38 Ft.
	Total	3416 Ft.

Wt. of String 92,600 Lbs.
Pipe in Hole Jts.
Pipe on Racks Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	5 RR.	
Size	8¾	
Mfg.	SEC	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out	3416	
Depth In	2877	
Total Ftg.	549	
Total Hr. Run	46 ¼	
Cond. of Bit	BT-2-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	5:00	8:00	11:00
Weight	9.8	9.9	9.9
Visc.-Sec.	63	63	64
W.L.-C.C.	11.9	11.9	11.9
FL TR. CK.	2/32	2/32	2/32
PH	12.5	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	600 #		

Driller: Bernard Sarrault

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3345	3416	71	D			73	40	1000	6	60			(C)

Deviation Record: Depth 3348 — Dev. ¾° — Direction | Depth 3380 | Dev. ½ | Direction | Depth 3491 | Dev. ¾°

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	¼						Rig Ser
4:15	4:30	¼						Survey
4:30	7:30	3						Drill.
7:30	7:45	¼						Survey
7:45	10:45	3						Drill
10:45	11:00	¼						Survey
11:00	11:15	¼						Drill
11:15	12:00	¾						Trip Out For Bit.

No. 0332

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION OIL JAPEX BLACK WATER E-11
Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: MARCH 7 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source | Miles Hauled | Pumped | Camp Distance from Rig | Reason for Extra L. Plant

OPERATOR: UNION OIL Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. D. Mould

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: W Muller

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint	O.D.	Type Tbd.
3 DWKS IDECO	2	4½	5½		FH

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14"
2.	OIL WELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN	32.3-H40	22	791	13.45'	787	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¾	7¼	7¾
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig		¼	
Deviation Survey	1¼	½	¼
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. M 100 92
No. of Lines 8 Size 1¼
Feet Slipped
Feet Cut Off
Present Length 3746
Ton Mi. or Trips Since Last Cut TRIP 39
Cumulative Ton Mi. or Trips 1708
No. of Days From Spud 10
Cumulative Rotating Hrs. 26¼

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
26	Stands D.P.	2425.37 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
1	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	42.00 Ft.
	Total	3006.40 Ft.
Wt. of String		88,000 Lbs.
Pipe in Hole		78 Jts.
Pipe on Racks		126 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	5 RR	
Size	8¾	
Mfg.	SEC.	
Type	S 88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out		
Depth In	2877	
Total Ftg.	129	
Total Hr. Run	10	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker LOADER 6
Trucker
Trucker

MUD RECORD

Time	1:00	4:00	7:00
Weight	9.6	9.7	9.6
Visc.-Sec.	75	75	73
W.L.-C.C.	9.8	9.6	9.4
Fl. TR. CK.	2/32	2/32	2/32
PH	11.5	12.5	12.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	2000 #		
Q-Broxin	50 #		
Caustic	50 #		

Driller Dave Gucciardi

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2910	3006	96				70	40	1000	6"	59			
						70	40	1000	6	59			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	2940	½°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:45	2¾						DRILLING 8¾" HOLE
2:45	3:00	¼						SURVEY
3:00	8:00	5						DRILLING
								Fuel 5" 4"

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
27	Stands D.P.	2519.67 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	27.20 Ft.
	Total	3086 Ft.
Wt. of String		88,000 Lbs.
Pipe in Hole		81 Jts.
Pipe on Racks		123 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	5 R.R.	
Size	8¾	
Mfg.	SEC.	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out		
Depth In	2877	
Total Ftg.	209	
Total Hr. Run	17¼	
Cond. of Bit	IN.	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker LOADER 8 4
Trucker
Trucker

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.7	9.7	9.7
Visc.-Sec.	80	65	60
W.L.-C.C.	9.0	11.0	11.2
FL TR. CK.	2/32	2/32	2/32
PH	11.5	12.0	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Q-Broxin	50 lbs		
Caustic	150 lbs		

Driller Brian Bertchaw

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3006	3086	80				70	40	1000	6"	59			5

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	3006	¾°		3068	⅛°				

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	½						DRILL 8¾ HOLE
8.30	9:00	½						SURVEY & RIG SERVICE
9:00	2.15	5¼						DRILL 8¾ HOLE
2.15	2.30	¼						SURVEY
2.30	4.00	1½						DRILLING 8¾ HOLE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
28	Stands D.P.	2612.06 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	28.81 Ft.
	Total	3180.00 Ft.
Wt. of String		88,000 Lbs.
Pipe in Hole		84 Jts.
Pipe on Racks		120 Jts.
Total Pipe on Lease		204 Jts.

BIT RECORD

Bit No.	5 R.R.	
Size	8¾	
Mfg.	SEC.	
Type	S88	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	343077	
Depth Out		
Depth In	2877	
Total Ftg.	303	
Total Hr. Run	25	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time	7:00	8:30	10:30
Weight	9.7	9.7	9.7
Visc.-Sec.	65	63	60
W.L.-C.C.	9.4		
FL TR. CK.	2/32		
PH	12.5		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	800 LBS		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
3086	3180	94				70	40	1000	6	59			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	3131	¾°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	7:45	3¾						DRILLING.
7:45	8:00	¼						SURVEY
8:00	12:00	4						DRILLING

No. 6531

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION OIL JAPEX BLACK WATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 6 1972

Weather Condition: 21° | Road Conditions | Nearest Town | Water - Source / Miles Hauled | Pumped | Camp Distance from Rig / Reason for Extra L. Plant

OPERATOR: UNION Oil Co.

Rig No. 3 DWKS IDECO | Drill Pipe String: No. 7, Size 4½ | Tool Joint: Type Thd. F.H., O.D. 5½

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	914-P	14"
2.	OIL WELL	914-P	14"
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	P.K.B. to CSG. HD.	Set at	Remarks
LAST CASING	9 5/8	MANN	32.3-H40	22	791	13.45'	787	
TUBING OR LINER								

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: W Miller

TIME DISTRIBUTION—HOURS

	Mom	Day	Eve.
Rig Up & Tear Down			
Drilling Actual	7	7¼	4¼
Reaming			
Conditioning Mud & Circulating			
Trips			3
Lubricate Rig		¼	
Deviation Survey	1		¼
Test B.O.P.			
Cut Off Drilling Line			½
Repair Rig		½	
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. MICO92

No. of Lines 8 Size 9/16

Feet Slipped 45

Feet Cut Off —

Present Length

Ton. Mi. or Trips Since Last Cut

Cumulative Ton-Mi. or Trips 1365

No. of Days From Spud

Cumulative Rotating Hrs.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
23	Stands D.P.	2145.71	Ft.
2	Singles D.P.	62.63	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	42.00	Ft.
	Total	2789.47	Ft.
Wt. of String		83,000	Lbs.
Pipe in Hole		71	Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD

Bit No.	6	
Size	8¾	
Mfg.	SEC.	
Type	M44H	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	391163	
Depth Out		
Depth In	2700	
Total Ftg.	89	
Total Hr. Run	10	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker L CADER 4 hrs

Trucker

Trucker

MUD RECORD

Time	1:00	4:00	6:00
Weight	9.6	9.6	9.6
Visc.-Sec.	110	102	98
W.L.-C.C.	5.0		7.2
FL TR. CK.	3/32		2/32
PH	12.5	12.5	12.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Caustic	50#		
Q Broxin	50#		
Gel	800#		

Driller: Dave Gunkel

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2726	2789	63				76	40	1050	6	60			
						76	40	1050	6	60			
						76	40	1000	6	60			

Deviation Record: Depth 2195 | Dev. ¼° | Direction 278° | Depth 74° | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:30	½						SURVEY RIG SERVICE
12:30	7:30	7						DRILLING 8¾" HOLE
7:30	2:00	1/9						SURVEY
7								

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
24	Stands D.P.		Ft.
2	Singles D.P.	2302.09	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	18.78	Ft.
	Total	2864.000	Ft.
Wt. of String		84,000	Lbs.
Pipe in Hole		74	Jts.
Pipe on Racks		130	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	6	
Size	8¾	
Mfg.	SEC.	
Type	M44N	
Nozzle No.	3	
Nozzle Size	13	
Ser. No.	391163	
Depth Out	IN	
Depth In	2700	
Total Ftg.	160	
Total Hr. Run	17¼	
Cond. of Bit	IN	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.6	9.6	9.6
Visc.-Sec.	85	90	75
W.L.-C.C.	7.4	6.0	8.4
FL TR. CK.	2/32	2/32	2/32
PH	9.5	10.0	10.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Q-Broxin	200 lbs.		
Caustic	150 lbs.		

Driller: Brian Bertil

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2789	2860	71	0			78	40	1050	6	62	6	—	(S)

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	11:00	3						DRILLING 8¾" HOLE
11:00	11:15	¼						RIG SERVICE
11:15	1:45	2½						DRILLING
1:45	2:15	½						WELD ON MUD LINE
2:15	4:00	1¾						DRILLING

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
25	Stands D.P.	2331.96	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	28.91	Ft.
	Total	2910.00	Ft.
Wt. of String		82 000	Lbs.
Pipe in Hole		75	Jts.
Pipe on Racks		129	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	6	JRR.
Size	8¾	8¾
Mfg.	SEC.	SEC.
Type	M44N	S88
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	391163	343077
Depth Out	2877	
Depth In	2700	2877
Total Ftg.	187	33
Total Hr. Run	19¼	2¼
Cond. of Bit	5-2-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	6:00	9:00	10:00
Weight	9.6		9.6
Visc.-Sec.	75		75
W.L.-C.C.	9.0		7.2
FL TR. CK.	2/32		2/32
PH	10.5		10.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Q BROXIN	50#		
Caustic	50#		

Driller: Dave

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2860	2910	50	D			78	40	1000	6	59			
						75	40	1000	6	59			

Deviation Record: Depth 2877 | Dev. ⅛° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	6:00	2						DRILLING
6:00	6:15	¼						SURVEY
6:15	8:15	2						HOIST FOR BIT CHANGE & RUN COLLARS IN.
8:15	8:45	½						SLIPP DRILLING LINE
8:45	9:45	1						RUN IN PIPE (NO FILL)
9:45	12:00	2¼						DRILLING 2¾" HOLE

No. 0330

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION OIL JADEX BLACK WATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: MARCH 5 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source ___ Miles Hauled ___ Pumped ___ | Camp Distance from Rig ___ Reason for Extra L. Plant

OPERATOR: UNION OIL Co.

Rig No. 2 DWKS | Drill Pipe String No. 2 Size 4½ | Tool Joint 5½ O.D. | Type Thd. F.H.

IDECO

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING / TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MAYA	32.3-H40	22	791	13.45	787	

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual			3
Reaming			
Conditioning Mud & Circulating	3½		13¼
Trips	3¾	3½	7¾
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		3½	
Other	¾	1½	1½
Fishing			

COMPLETION WORK: A. Perforating; B. Tubing Trips; C. Swabbing; D. Testing; E. Additional

Totals	8	8	8

DRILLING ASSEMBLY AT END OF TOUR

NO.			
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	20.60	Ft.
	Total	2700.60	Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD

Bit No.	6
Size	8¾
Mfg.	SEC.
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	391123
Depth Out	
Depth In	2700.
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker LOADE 1 Hr.

Trucker

Trucker

MUD RECORD

Time	1230	3.00	5.00
Weight	9.3	9.3	9.6
Visc.-Sec.	125	135	150
W.L.-C.C.			
FL TR. CK.			
PH			9.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	2000#		

Driller Dave Zuckotti

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700								900	6				

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	100	1						Circ Condition - Make
100	200	1						Hoist out to Collars (Slow)
200	300	1						Run in (Slow)
300	530	2½						Circ. Condition Hole & Mud
530	715	1¾						Hoist to Test
715	800	¼						Pick up Testing Tools

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼"		
2	I.D. 7" O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.16	Ft.
	Total	2700.00	Ft.
Wt. of String		93,000	Lbs.
Pipe in Hole		69	Jts.
Pipe on Racks		135	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	6
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	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Brian Burkheimer

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
DST #1	2590	2700	PRE FLOW 5 MINS 15	60	VOID FSI 60 Weak IP-0 IN PRE-FLOW								
SLIGHT INCREASE TO A FAINT IP OF ½" VO DEAD 5 MINS RE-OPEN FOR DRILLING MUD													
IHH 1252 FHH 1282		FFP 0	FFP 0	ISIP 517	FSIP 438								

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	915	1¼						MAKE UP PACKER
915	1100	1¾						RUN IN W/PACKER (SLOW)
1100	1115	¼						HEAD UP TEST #1
1115	245	3½						WELL ON TEST
245	400	1¼						HOIST D.S.T. #1 (RECOVERED 4' FLUID)
~~430~~	~~600~~	~~1½~~						~~BREAK DOWN PACKER & LOAD OUT SAME~~

WIRE LINE RECORD

Reel No.	M10092
No. of Lines	8 Size 1⅛
Feet Slipped	
Feet Cut Off	
Present Length	3791
Ton Mi. or Trips Since Last Cut	1638
Cumulative Ton Mi. or Trips	1638
No. of Days From Spud	7
Cumulative Rotating Hrs.	92.84

TIME SUMMARY (Office Use Only)

Day Work	
Hrs. W/DP	
Hrs. WO/DP	
Hrs. Standby	
Total Day Work	

DEPARTMENT OF MINES AND NATURAL RESOURCES — CONSERVATION BRANCH — OIL AND GAS DIVISION — RECEIVED

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	42.60	Ft.
	Total	2726.84	Ft.
Wt. of String		83000	Lbs.
Pipe in Hole		69	Jts.
Pipe on Racks		135	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	6B.
Size	8¾
Mfg.	SEC.
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	391123
Depth Out	
Depth In	2700
Total Ftg.	26
Total Hr. Run	3
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	730	9.00	11.00
Weight	9.6	9.6	9.6
Visc.-Sec.	120	125	105
W.L.-C.C.			
FL TR. CK			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
BORAX	300#		
CAUSTIC	100#		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700	2726	26				75	40	1000	6	58			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	430	½						FINISH OUT W/D.S.T. #1 (SLOW)
430	600	1½						BREAK DOWN & SERVICE PACKER.
600	715	1¼						RUN IN W/BIT (4' FILL) & STAB.
715	900	1¾						CIRC & COND. MUD
900	1200	3						DRILLING 8¾" HOLE

DAILY DRILLING REPORT

Form 6

GUTHRIE McLAREN Drilling Co.

Lease / Well Name: UNION OIL JAPEX — BLACK WATER F-11
Location — Ld. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: March 4 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source ___ Miles Hauled ___ Pumped ___ | Camp Distance from Rig ___ Reason for Extra L. Plant

OPERATOR: UNION Oil Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: W. Miller

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joints	O.D.
3 DWKS IOECO	2	4½	Type Tbd. F.H.	5½

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	7½ - P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3-H40	22	791	13.45	787	

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Mom	Day	Eve
Rig Up & Tear Down			
Drilling Actual			
Reaming	5¼		
Conditioning Mud & Circulating	¼	3½	3½
Trips	2¼	4½	4½
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. WE/DP			
Hrs. WO/DP			
Hrs. Standby			
Total Day Work			

WIRE LINE RECORD

Reel No. M10092
No. of Lines 8 Size 1/8
Feet Slipped
Feet Cut Off
Present Length 2790
Ton Mi. or Trips Since Last Cut 471
Cumulative Ton Mi. or Trips 13077
No. of Days From Spud 7
Cumulative Rotating Hrs. 44¼

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	2145.71 Ft.	Bit No.	6
	Singles D.P.	Ft.	Size	8¾
16	D.C. 6¼		Mfg.	SEC
2	I.D. 7 O.D.	525.69 Ft.	Type	M44N
	D.C. I.D. O.D.	Ft.	Nozzle No.	3
			Nozzle Size	13
	Stb. Body O.D.	Ft.	Ser. No.	391123
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	2700
	Subs O.D.	8.00 Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	20.60 Ft.	Cond. of Bit	
	Total	2700.00 Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time	7 P.C.	4:00	7:00
Weight	9.6	9.6	9.6
Visc.-Sec.	135	140	100
W.L.-C.C.	11.2		9.0
FL TR. CK.	2/32		2/32
PH	10.5		10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
CMC	50 #		

Driller: Dave Gunderson

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700							1000	1000	6	52			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.30	½						Hoist & Lay Down Stb. Body
12.30	1.45	1¼						Run in to 1800
1.45	3.45	2						Clean Bridges From 1800 To 1840
3.45	4.15	½						Run in To 2240
4.15	5.45	1½						Clean Bridge From 2240 To 2350
5.45	6.30	¾						Run in Singles
6.30	7.30	1						Clean 45' To Bottom
7.30	8.00	½						Circ Condition Hole & Mud
								Fuel 3"

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
23	Stands D.P.	2145.71 Ft.	Bit No.	6
	Singles D.P.	Ft.	Size	8¾
16	D.C. 6¼		Mfg.	SEC.
2	I.D. 7 O.D.	525.69 Ft.	Type	M44N
	D.C. I.D. O.D.	Ft.	Nozzle No.	3
			Nozzle Size	13
	Stb. Body O.D.	Ft.	Ser. No.	391123
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	2700
2	Subs O.D.	8.00 Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	20.60 Ft.	Cond. of Bit	
	Total	2700.00 Ft.	Reamer No.	
Wt. of String	82,000	Lbs.	Reamer Type	
Pipe in Hole	69	Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks	135	Jts.	Trucker	LOADER 2 HRS
Total Pipe on Lease	204	Jts.	Trucker	
			Trucker	

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.6		9.6
Visc.-Sec.	135		145
W.L.-C.C.	9.0		8.8
FL TR. CK.	2/32		2/32
PH	10		10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	900 lbs.		
CMC	50 lbs.		

Driller: Brian Burtchaw

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700													

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.00	2						Circ. & Condition Hole & Mud
10.00	12.15	2¼						Hoist Out To Collars & Strap Out Pipe
								Tight From 2640-2680 (Hoist Slow)
12.15	2.30	2¼						Run In (Slow) & Ream Bridges From
								2640-2680 (Otherwise Hole Good)
2.30	4.00	1½						Circ. Cond. Hole & Mud.
								Meas. -2146.48
								Pipe Tally - 2145.71
								Diff. - .77
								No Correction Made

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
23	Stands D.P.	2145.71 Ft.	Bit No.	6
	Singles D.P.	Ft.	Size	8¾
16	D.C. 6¼		Mfg.	SEC.
2	I.D. 7 O.D.	525.69 Ft.	Type	M44N
	D.C. I.D. O.D.	Ft.	Nozzle No.	3
			Nozzle Size	13
	Stb. Body O.D.	Ft.	Ser. No.	391123
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	2700
2	Subs O.D.	8.00 Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	20.60 Ft.	Cond. of Bit	
	Total	2700.00 Ft.	Reamer No.	
Wt. of String	82,000	Lbs.	Reamer Type	
Pipe in Hole	69	Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks	135	Jts.	Trucker	
Total Pipe on Lease	204	Jts.	Trucker	
			Trucker	

MUD RECORD

Time	6:00	9:00	
Weight	9.2		
Visc.-Sec.	135		
W.L.-C.C.	6.4		
FL TR. CK.	2/32		
PH	10.0		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel			

Driller

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700.													

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.30	½						Circ. Cond. Hole
4.30	5.45	1¼						Hoist Out To Collars (Slow)
5.45	6.45	1						Run In To Bottom (Slow)
6.45	8.30	1¾						Circ. Condition Hole
8.30	10.45							Hoist Out To D Collars Slow
	10.45	2¼						Run In To Bottom
10.45	12.00	1¼						Circ Condition Hole

No. 6528

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease
Well Name UNION OIL JAPEX BLACKWATER E-11
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date MARCH 3 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source ___ Miles Hauled ___ Pumped ___ | Camp Distance from Rig ___ Reason for Extra L. Plant

OPERATOR
UNION OIL CO.

Rig No. 3 DWKS IDECO | Drill Pipe String No. 4 Size 4½ | Tool Joint 5½ O.D. Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER W Miller

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	oilwell	214-P	14
2.	"	71	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MAHN	32.3 H40	22	791	1345	787	

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual			
Reaming		7½	
Conditioning Mud & Circulating			
Trips		1½	
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	

DRILLING ASSEMBLY AT END OF TOUR

NO.			
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¾		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.60	Ft.
	Total	2700.00	Ft.

Wt. of String 82000 Lbs.
Pipe in Hole 64 Jts.
Pipe on Racks 135 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	6
Size	8¾
Mfg.	SEC.
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	391123
Depth Out	
Depth In	2700
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges Reg. Hrs. O.T. Hrs.
Trucker LOADER 4
Trucker
Trucker

MUD RECORD

Time	2:00	3:00	6:00
Weight	9.4	9.6	9.2
Visc.-Sec.	50	68	92
W.L.-C.C.			10.8
FL TR. CK.			2/32
PH			10.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	2000#		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
9700								950	6	57			

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾						CLEAN RAMP @ From 1400 To 1650
1245	115	½						RUN IN To 1700 & CLEAN BRIDGE
115	300	1¾						1700' To 1800
300								CIRC & REAM BRIDGE @ 1800
	800	5.00						SLOUGHING Shale
								mix MUD

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¾		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.60	Ft.
	Total	2700.00	Ft.

Wt. of String 81,000 Lbs.
Pipe in Hole 69 Jts.
Pipe on Racks 135 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	6
Size	8¾
Mfg.	SEC.
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	391123
Depth Out	
Depth In	2700
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges Reg. Hrs. O.T. Hrs.
Trucker LOADER 4
Trucker
Trucker

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.6	9.6	9.6
Visc.-Sec.	95	110	110
W.L.-C.C.	11	11.2	11.3
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	800 lbs		

Driller Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2700													

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800		7						CLEAN BRIDGES FROM 1800' TO 2300' &
	300	7						CIRC. & WORK TIGHT SPOTS.
300	330	½						RUN IN 3 STDS. & 1 SINGLE TO 2624'
330	400	½						WORK TIGHT SPOT @ 2624

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
	D.C. I.D. O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.60	Ft.
	Total	2700.00	Ft.

Wt. of String 82000 Lbs.
Pipe in Hole 69 Jts.
Pipe on Racks 135 Jts.
Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	6
Size	8¾
Mfg.	M44N
Type	
Nozzle No.	
Nozzle Size	
Ser. No.	
Depth Out	
Depth In	
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges Reg. Hrs. O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time	6:00	9:00	
Weight	9.6		
Visc.-Sec.	132		
W.L.-C.C.	11.2		
FL TR. CK.	2/32		
PH	10.5		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	800 lbs		

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	600	2						CLEAN 76' TO BOTTOM.
600	715	1¼						CIRC. & COND. HOLE PRIOR TO TESTING.
715								HOIST OUT 1 STD + 1 SINGLE (TIGHT); PICK UP
	1045	3¼						KELLY & PUMP OUT 15 SINGLES
1045	1200	1¼						Hoist

WIRE LINE RECORD

Reel No.	M10092
No. of Lines	8
Size	1/8
Feet Slipped	
Feet Cut Off	
Present Length	3790
Ton Mi. or Trips Since Last Cut	345
Cumulative Ton Mi. or Trips	12606
No. of Days From Spud	11
Cumulative Rotating Hrs.	

TIME SUMMARY (Office Use Only)

Day Work	
Hrs. W/DP	
Hrs. WO/DP	
Hrs. Standby	
Total Day Work	

CONSERVATION ENGINEER MAR 30 1972 YELLOWKNIFE, N.W.T.

No. 552

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease — Well Name UNION OIL JAPEX BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date MARCH 2 1972

Weather Condition | Road Conditions | Nearest Town WRIGLEY | Water - Source ___ Miles Hauled 5 Pumped ___ | Camp Distance from Rig 200 YARDS Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS IDECO

Drill Pipe String: No. 2 Size 4½

Tool Joint 5 1/4 O.D. Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Lendrum

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: W. J. Mills

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	OILWELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN	32.3-H40	22	791	1345	787	

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual			
Reaming			
Conditioning Mud & Circulating		4¾	
Trips		1	
Lubricate Rig			
Deviation Survey			
Test B.O.P.			
Cut & Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other STUCK IN HOLE		2¼	
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. M10092

No. of Lines 6 Size 1 1/4

Feet Slipped

Feet Cut Off

Present Length 3740

Ton Mi. or Trips Since Last Cut 2592

Cumulative Ton Mi. or Trips 10543

No. of Days From Spud

Cumulative Rotating Hrs. 27¼

MAR 7 1972

NO.	DRILLING ASSEMBLY AT END OF TOUR		
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	16.00	Ft.
	Total	2700.80	Ft.
	Wt. of String	82000	Lbs.
	Pipe in Hole	69	Jts.
	Pipe on Racks	135'	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	5
Size	8 3/4
Mfg.	SEC
Type	588
Nozzle No.	3
Nozzle Size	13
Ser. No.	911679
Depth Out	2700
Depth In	2620
Total Ftg.	81
Total Hr. Run	6½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges Reg. Hrs. O.T. Hrs.

Trucker Loader 4 hrs

Trucker ___

Trucker ___

MUD RECORD

Time	1:00	4:00	6:00
Weight	9.1	9.1	9.2
Visc.-Sec.	35	37	45
W.L.-C.C.			
FL TR. CK.			
PH	12.0		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	82 00 #		
Caustic	50 #		

Driller

FOOTAGE

From	To	Ftge.
	2700	

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

Deviation Record: Depth 2700. | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200								CIRC. CONDITION MUD FOR TESTING
	100	5						SLOUGHING SHALE WORK PIPE
500	800	3						PULL STAND WORK TIGHT HOLE @ 130 OFF BOTTOM
								STUCK IN HOLE - WORKED FREE

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.16	Ft.
	Total	2700.00	Ft.
	Wt. of String	82,000	Lbs.
	Pipe in Hole	69	Jts.
	Pipe on Racks	135	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	5
Size	8 3/4
Mfg.	SEC.
Type	588
Nozzle No.	3
Nozzle Size	13
Ser. No.	911679
Depth Out	2700
Depth In	2620
Total Ftg.	81
Total Hr. Run	6½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges Reg. Hrs. O.T. Hrs.

Trucker LOADER 4 HRS.

Trucker ___

Trucker ___

MUD RECORD

Time		1:00	4:00
Weight		9.3	9.3
Visc.-Sec.		39	40
W.L.-C.C.		12	12
FL TR. CK.		5/32	2/32
PH		10.5	10.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	± 3000 lbs		
CAUSTIC	± 200 lbs		

Driller Brian Bertelsen

FOOTAGE

From	To	Ftge.
2700		

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	930	1½						CIRC. & WORK TIGHT HOLE
930	945	¼						TRY TO PULL OUT OF HOLE (HOISTED 1 SINGLE)
945	1200	2¼						WORK STUCK PIPE (COULDN'T CIRC.)
1200	230	2½						CIRC. & WORK PIPE
230	315	¾						PUMP OUT & LAY DOWN 2 SINGLES
315		¾						CIRC. & MIX GEL & CAUSTIC PRIOR TO PULLING
	400							OUT OF HOLE
								STUCK @ APPRX. 2560

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	15.16	Ft.
	Total	2700.00	Ft.
	Wt. of String	82,000	Lbs.
	Pipe in Hole	69	Jts.
	Pipe on Racks	136	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	5	6
Size	8 3/4	8 3/4
Mfg.	SEC.	SEC
Type	588	3044N
Nozzle No.	3	3
Nozzle Size	13	13
Ser. No.	911679	3911163
Depth Out	2700	
Depth In	2620	2700
Total Ftg.	81	
Total Hr. Run	6½	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges Reg. Hrs. O.T. Hrs.

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time	6:00		
Weight	9.4		
Visc.-Sec.	50		
W.L.-C.C.	11		
FL TR. CK.	2/32		
PH	11.0		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.
2700		

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400		3½						CIRC. & COND. MUD PRIOR TO PULLING OUT OF HOLE FOR TEST. (MUD RING PROBLEMS (LOTS OF SHALE & CAVINGS COMING OVER
	730							PUMP 2 SINGLES OUT.
730	845	1 1/4						PULL OUT
845	1030	1 3/4						RUN IN W/BIT TO 1380
1030	1130	1						CLEAN OUT & TIGHT HOLE @ 1380
1130	1200	½						

No. 6526

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name UNION Oil JAPEX BLACKWATER E-11 Date MARCH 1 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition | Road Conditions | Nearest Town WRIGLEY | Water - Source ___ Miles Hauled 5 Pumped ___ | Camp Distance from Rig ___ Reason for Extra L. Plant ___

OPERATOR: UNION Oil Co.

Rig No. 3 DWKS IDECO

Drill Pipe String: No. ___ Size ___

Tool Joint Type Thd. F.H. O.D. 5½

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Lambert

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: W. J. Miller

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14"
2.	OIL WELL	214-P	14"
3.			

LAST CASING / TUBING OR LINER

Size	Make	Wt. & Gr.	No. Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MANN	32.3-H40	22	791	13.45	787	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¾	1½	6½
Reaming TO BTM		1	½
Conditioning Mud & Circulating			¾
Trips		3½	
Lubricate Rig	¼		
Deviation Survey			¼
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig		7¾	
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other CONS. BOARD DRILLS		¼	
Fishing			8

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. M10092

No. of Lines 8 Size 1⅛

Feet Slipped

Feet Cut Off

Present Length 3780

Ton Mi. or Trips Since Last Cut 189

Cumulative Ton Mi. or Trips 12241

No. of Days From Spud 9

Cumulative Rotating Hrs. 89¾

MAR - 7 1972 — DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT — CONSERVATION ENGINEER — EDMONTON, ALBERTA

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.	1960.89	Ft.
	Singles D.P.	61.30	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	42.00	Ft.
	Total	2603.12	Ft.

Wt. of String 78000 Lbs. | Pipe in Hole 65 Jts. | Pipe on Racks 139 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	4
Size	8¾
Mfg.	SEC
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	911679
Depth Out	
Depth In	2535
Total Ftg.	66
Total Hr. Run	9¾
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___

Trucker LOADER 4 HRS.

Trucker T. Dill

Trucker ___

MUD RECORD

Time	1.00	3.00	6.00
Weight	9.2	9.1	9.0
Visc.-Sec.	36	35	36
W.L.-C.C.			
FL TR. CK.			
PH		8.0	
SD. Cont. %			9.0
Pressure Gradient			10.2
		over flows	9.1

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	2500 #		
BENEX	10 #		

Driller Dave Gurholt

FOOTAGE

From	To	Ftge.
2555	2603	48

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY)

Rotary RPM	Wt. on Bit 1000 Lbs.	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
79	40	1150	6"	60			
79	42	1100	6"	60			

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	2.00	2						DRILLING 8¾" HOLE
2.00	2.15	¼						RIG SERVICE
2.15	8.00	5¾						DRILLING

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
22	Stands D.P.	2053.19	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	27.68	Ft.
	Total	2620.00	Ft.

Wt. of String 78,000 Lbs. | Pipe in Hole 66 Jts. | Pipe on Racks 138 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	4
Size	8¾
Mfg.	SEC.
Type	M44N
Nozzle No.	3
Nozzle Size	13
Ser. No.	911679
Depth Out	2620
Depth In	2535
Total Ftg.	85
Total Hr. Run	11¼
Cond. of Bit	6-2-1
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. ___ O.T. Hrs. ___

Trucker LOADER 4 HRS

Trucker ___

Trucker ___

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.0		9.0
Visc.-Sec.	35		35
W.L.-C.C.			
FL TR. CK.			
PH	8.0		8.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Brian Birtles

FOOTAGE

From	To	Ftge.
2603	2620	17

DR-D RM-R Core-C: D | Core No. | FORMATION (SHOW CORE RECOVERY)

Rotary RPM	Wt. on Bit 1000 Lbs.	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
79	42	1100	6	60	6	—	S

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	9.30	1½						DRILLING 8¾" HOLE
9.30	10.45	1¼						WORK ON WASHED OUT MUD LINE UNDER SUB STRUCTURE
10.45	12.15	1½						HOIST OUT FOR BIT CHANGE (SLOW) TIGHTSPOT @ 1240
12.15	1.45	1½						FINISH WELDING MUD LINE
1.45	2.30	1¾						RUN IN W/BIT #5 - SLOW DUE TO SLOUGHING SHALE @ 1240'
2.30	3.30	1						REAM BRIDGES FROM 1240' TO 1400'
3.30	3.45	¼						CONSERVATION BOARD INSPECTION. (O.K.)
3.45	4.00	¼						RUNELN

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
23	Stands D.P.	2145.71	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	160.80	Ft.
	Total	2700.80	Ft.

Wt. of String 29 000 Lbs. | Pipe in Hole 69 Jts. | Pipe on Racks 135 Jts. | Total Pipe on Lease 204 Jts.

BIT RECORD

Bit No.	5
Size	8¾
Mfg.	SEC.
Type	M88
Nozzle No.	3
Nozzle Size	13
Ser. No.	911679
Depth Out	2700
Depth In	2620
Total Ftg.	80
Total Hr. Run	6½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges: Reg. Hrs. 21 O.T. Hrs. ___

Trucker T.N.T.

Trucker Loader 4 hrs

Trucker ___

MUD RECORD

Time		10.00	11.00
Weight		9.1	9.1
Visc.-Sec.		31	32
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	2700 #	Gel	
Caustic	500 #		
Baroxin	1500 #		

Barold Gel Stems After Today

Driller

FOOTAGE

From	To	Ftge.
2620	2700	80

DR-D RM-R Core-C: D | Core No. | FORMATION (SHOW CORE RECOVERY)

Rotary RPM	Wt. on Bit 1000 Lbs.	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
52	40	700	6"	57			
52	40	950	6"	57			

Deviation Record | Depth: 2634 | Dev.: 0° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.30	½						CLEAN 60' FILL TO BOTTOM.
4.30	6.00	1½						DRILLING 8¾" HOLE
6.00	6.15	¼						SURVEY
6.15	11.15	5						DRILLING
11.15	11.45	½						CIRC SAMPLES
11.45	1.00	1¼						CIRC CONDITION MUD

No. 6475

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER E-11 | Date: FEB 29 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition: 24— | Road Conditions | Nearest Town: WRIGLEY | Water - Source ___ Miles Hauled 4 Pumped ___ | Camp Distance from Rig 300 | Reason for Extra L. Plant

OPERATOR: UNION Oil Co.

Rig No. 3 DWKS IDECO | Drill Pipe String: No. 4 Size 4½ | Tool Joint 5½ O.D. | Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.K. Hodder

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sield NW

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14
2.	"	"	"
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9 5/8	MANN	32.3-H40	22	791	1345	787	
TUBING OR LINER								

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¾	7¾	2½
CLEANING Reaming			2¼
Conditioning Mud & Circulating			
Trips			3 5/4
Lubricate Rig			
Deviation Survey	¼	¼	¼
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	8		8

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. M16092

No. of Lines 8 Size 1/8

Feet Slipped 180

Feet Cut Off 270

Present Length 3780

Ton Mi. or Trips Since Last Cut 123

Cumulative Ton Mi. or Trips 12103

No. of Days From Spud 8

Cumulative Rotating Hrs. 55

MAR 7 1972

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
20	Stands D.P.	1866.99	Ft.
1	Singles D.P.	31.32	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	29.56	Ft.
	Total	2460.00	Ft.
	Wt. of String	78000	Lbs.
	Pipe in Hole	61	Jts.
	Pipe on Racks	143	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	3	
Size	8¾	
Mfg.	~~SMITH~~ H.W.	
Type	X16	
Nozzle No.	2	1
Nozzle Size	12	13
Ser. No.	36691	
Depth Out		
Depth In	2231	
Total Ftg.	229	
Total Hr. Run	18¼	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges Reg. Hrs. O.T. Hrs.

Trucker LOADER 1 HRS.

Trucker ___

Trucker ___

MUD RECORD

Time	1:00	4:00	6:30
Weight	9.1	9.1	9.2
Visc.-Sec.	32	32	33
W.L.-C.C.			
FL TR. CK.			
PH			10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Dave Quelch

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2369	2460	84				79	35	1100	6	60			
						79	37	1100	6	60			
						79	37	1150	6	61			

Deviation Record: Depth 2410 | Dev. ¼° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	3:30	3½						DRILLING 8¾" HOLE
3:30	3:45	¼						SURVEY RIG SERVICE
3:45	8:00	4¼						DRILLING

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
21	Stands D.P.	1960.89	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	29.98	Ft.
	Total	2530.00	Ft.
	Wt. of String	78,000	Lbs.
	Pipe in Hole	63	Jts.
	Pipe on Racks	141	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	3	
Size	8¾	
Mfg.	H.W.	
Type	X16.	
Nozzle No.	2	1
Nozzle Size	12	13
Ser. No.	36691	
Depth Out	IN.	
Depth In	2231	
Total Ftg.	299	
Total Hr. Run	26	
Cond. of Bit	IN.	
Reamer No.		
Reamer Type		

Water Charges Reg. Hrs. O.T. Hrs.

Trucker LOADER 5 HRS.

Trucker ___

Trucker ___

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.4	8.9	8.9
Visc.-Sec.	32	33	32
W.L.-C.C.			
FL TR. CK.			
PH	10.0	8.5	8.5
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
1800 # Gel			
3 bags Benex			

Driller Brian Richardson

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2460	2530	70				78	40	1100	6	60	6	—	S

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:15	1¼						DRILLING
9:15	9:30	¼						RIG SERVICE & B.O.P. ✓ (O.K.)
9:30	4:00	6½						DRILLING.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.	30.50	Ft.
	Singles D.P.	1960.89	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	25.00	Ft.
	Total	2555.52	Ft.
	Wt. of String	78 000	Lbs.
	Pipe in Hole	64	Jts.
	Pipe on Racks	140	Jts.
	Total Pipe on Lease	204	Jts.

BIT RECORD

Bit No.	3	4
Size	8¾	8¾
Mfg.	H.W.	SEC.
Type	X16	M44N
Nozzle No.	2 1	3
Nozzle Size	12 13	13
Ser. No.	36691	911679
Depth Out	2535	
Depth In	2231	2535
Total Ftg.	304	20
Total Hr. Run	26½	2
Cond. of Bit	7-2-1	
Reamer No.		
Reamer Type		

Water Charges Reg. Hrs. O.T. Hrs.

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time	6:00	9:00	10:00
Weight			9.1
Visc.-Sec.			32
W.L.-C.C.			7.2
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	1000 #		
BENEX	6 #		

Driller ___

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2530	2555	25	0			78	40	1100	6	60			

Deviation Record: Depth 2535 | Dev. ¼° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:30	½						DRILLING
4:30	4:45	¼						SURVEY
4:45	6:45	2						HOIST FOR BIT CHANGE. (LIGHT 3 SPOTS FROM 2200'-1240')
6:45	7:45	1						RUN IN W/BIT #4 (BRIDGES FROM 1200'
7:45	10:00	2¼						TO 1350 BRIDGE @ 1440 TO 1530 & @ 1900 TO 2450 CLEAN 15' TO BOTTOM
10:00	12:00	2						DRILLING

No. 0474

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: UNION JAPEX BLACKWATER E-11 — Date: FEB 28 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition: -20 WINDY — Road Conditions: ROUGH — Nearest Town: WRIGLEY — Water - Source ___ Miles Hauled 5 Pumped ___ — Camp Distance from Rig 200 FEET — Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 DWKS IDECO — Drill Pipe String: No. 7, Size 4½ — Tool Joint 5½ O.D. — Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sudd

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING	9 5/8	MANN	32.3-H40	22	791	1345	787	
TUBING OR LINER								

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	7¾	7¾	7¾
Reaming BAILOUS TO BTM		1¾	
Conditioning Mud & Circulating SAMPLE		¼	
Trips		2	
Lubricate Rig			
Deviation Survey	¼		¼
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. M10092
No. of Lines 8 — Size 1/16
Feet Slipped 180
Feet Cut Off 270
Present Length 3780
Ton Mi. or Trips Since Last Cut 66
Cumulative Ton Mi. or Trips 11980
No. of Days From Spud 7
Cumulative Rotating Hrs. 86¼

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
17	Stands D.P.	1587.48	Ft.
2	Singles D.P.	62.76	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	30.63	Ft.
	Total	2220	Ft.
Wt. of String		73000	Lbs.
Pipe in Hole		53	Jts.
Pipe on Racks		151	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	2
Size	8¾
Mfg.	Smith
Type	SDG-H
Nozzle No.	3
Nozzle Size	12
Ser. No.	HN889
Depth Out	
Depth In	1780
Total Ftg.	440
Total Hr. Run	25½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	2:00	3:30	6:00
Weight	8.6	8.5	8.6
Visc.-Sec.	35	34	37
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	200#		
BENEX	8 #		

Driller: Dave Sackett

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2150	2220	70	D			78	24	1100	6	62			
						79	27	1180	6	62			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	2188	¾°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1:45	1¾						DRILLING 8¾ HOLE
145	200	¼						SURVEY
200	800	6						DRILL
								FUEL 1'2"

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
18	Stands D.P.		Ft.
1	Singles D.P.	1710.99	Ft.
	D.C. I.D. O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	9.78	Ft.
	Total	2260.00	Ft.
Wt. of String		75,000	Lbs.
Pipe in Hole		55	Jts.
Pipe on Racks		149	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	2	3
Size	8¾	8¾
Mfg.	SMITH	H.W.
Type	SDG-H	X16
Nozzle No.	3	2 1
Nozzle Size	12	12 13
Ser. No.	HN889	36691
Depth Out	2201	
Depth In	1780	2231
Total Ftg.	451	29
Total Hr. Run	26½	2¾
Cond. of Bit	2-2-1	IN.
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker LOADER 5
Trucker TANK 18
Trucker ___

MUD RECORD

Time	8:00	12:00	4:00
Weight	9.0		9.0
Visc.-Sec.	38		52
W.L.-C.C.			
FL TR. CK.			
PH	10.0		10.6
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Brian Bertilsen

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2220	2260	40	D			80	30	1100	6	63	6	—	S

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	2231	⅛							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	900	1						DRILLING 8¾ HOLE
900	915	¼						CIRC. 2230' SAMPLE UP
915	930	¼						SURVEY RIG SERVICE & B.O.P. ✓ (O.K.)
930	1130	2						TRIP FOR BIT CHANGE
1130	115	3¾						REAM BRIDGES FROM 1240' TO BOTTOM.
115	400	2¾						DRILLING

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
18	Stands D.P.	1774.07	Ft.
1	Singles D.P.	81.12	Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.64	Ft.
	D.C. I.D. O.D.		Ft.
1	Stb. Body O.D.	5.44	Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	7500	Ft.
	Total	2369.32	Ft.
Wt. of String		75000	Lbs.
Pipe in Hole		58	Jts.
Pipe on Racks		146	Jts.
Total Pipe on Lease		204	Jts.

BIT RECORD

Bit No.	3
Size	8¾
Mfg.	H.W.
Type	X16
Nozzle No.	2 1
Nozzle Size	12 13
Ser. No.	36691
Depth Out	
Depth In	2231
Total Ftg.	138
Total Hr. Run	10½
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker LOADER 4
Trucker ___
Trucker ___

MUD RECORD

Time	6:00	8:00	10:00
Weight	8.9	8.9	8.9
Visc.-Sec.	32	34	33
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2260	2369	109	D			78	30	1100	6	61			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	2323	½°							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	830	4½						DRILLING 8¾" HOLE
830	845	¼						SURVEY RIG SERVICE
845	1200	3¼						DRILL

No. 5473

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION Tapex Blackwater E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: FEB 27 1972

Weather Condition: -20 | Road Conditions: Rough | Nearest Town: WRIGLEY | Water - Source: Slough | Miles Hauled: 5 | Pumped ___ | Camp Distance from Rig: 300 YDS | Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No.: 3 DWKS IDECO | Drill Pipe String: No. 7, Size 4½ | Tool Joint: 5¾ O.D., Type Tbd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [illegible]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Wm A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214 P	14"
2.	OILWELL	214 P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	MAYN	32.3-H40	22	791	13.45	787	K.B. Howard 1.345
							K.B. CSG flange 13.45

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling, Actual		7½	3¼
Reaming			-
Conditioning Mud & Circulating			
Trips			1¼
Lubricate Rig			
Deviation Survey		½	
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	

TIME SUMMARY (Office Use Only)

Day Work | Hrs. W/DP | Hrs. WO/DP | Hrs. Standby | Total Day Work

WIRE LINE RECORD

Reel No. M10092 | No. of Lines 8 | Size 1¼ | 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.		
14	Stands D.P.	1304.83 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
7	I.D. 7 O.D.	525.64 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
	Stb. Body O.D.	Ft.
1	Stabilizer Body O.D.	5.44 Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	26.04 Ft.
	Total	1875 Ft.

Wt. of String: 70m. Lbs. | Pipe in Hole: 42 Jts. | Pipe on Racks: Jts. | Total Pipe on Lease: Jts.

BIT RECORD

Bit No.	2
Size	8¾
Mfg.	Sm-Th
Type	SDGH
Nozzle No.	3
Nozzle Size	3-12
Ser. No.	HN889
Depth Out	
Depth In	1780
Total Ftg.	95
Total Hr. Run	3¼
Cond. of Bit	IN.
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.: Trucker ___ Trucker ___ Trucker ___

MUD RECORD

Time	4:30	6:00	7:00
Weight	8.8	8.8	9.0
Visc.-Sec.	28	28	29
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	200C #		
SODA ASH	100 #		
BENEX	8 #		

Driller: Dave Zuckerbrot

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
1790	1875	95				78	20M	1200	6	62			

Deviation Record: Depth 1761 | Dev. ¼° | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200								Pick up STABILIZER &
	1:15	1¼						RUN IN W/ BIT #2
115	430	3¼						CLEAN FROM 1200. TO BOTTOM
430	500	½						DRILL
500	515	¼						SURVEY
515	800	2¾						DRILL
								Stabilizer 60' above Bit

DRILLING ASSEMBLY AT END OF TOUR

NO.		
16	Stands D.P.	Ft.
1	Singles D.P.	1525.58 Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
	Stb. Body O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	10.29 Ft.
	Total	2075.00 Ft.

Wt. of String: 70,000 Lbs. | Pipe in Hole: 49 Jts. | Pipe on Racks: 155 Jts. | Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	2
Size	8¾
Mfg.	SMITH
Type	SDG-H
Nozzle No.	3
Nozzle Size	12
Ser. No.	HN889
Depth Out	
Depth In	1780
Total Ftg.	295
Total Hr. Run	10¾
Cond. of Bit	IN.
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.: Trucker T.N.T. 16 | Trucker ___ | Trucker ___

MUD RECORD

Time	9:00	12:00	4:00
Weight	9.1	9.2	9.2
Visc.-Sec.	28	28	28
W.L.-C.C.			
FL TR. CK.			
PH	10.0	10.0	10.0
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Gel	500 #		
Benex ~~Hvy~~	2 LBS.		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
1875	2075	200	D			60/80	25	1100	6	60	6	-	E

Deviation Record: Depth 1890 | Dev. ½° | Direction | Depth 1983 | Dev. ½ | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼						DRILL 8¾ HOLE.
815	830	¼						SURVEY; RIG SERVICE & B.O.P. (O.K.)
830	1115	2¾						DRILLING. (ROUGH)
1115	1130	¼						SURVEY
1130	400	4½						DRILLING.

DRILLING ASSEMBLY AT END OF TOUR

NO.		
17	Stands D.P.	1587.48 Ft.
	Singles D.P.	Ft.
16	D.C. 6¼	
2	I.D. 7 O.D.	525.69 Ft.
	D.C. I.D. O.D.	Ft.
1	Stb. Body O.D.	5.44 Ft.
	Stb. Body O.D.	Ft.
	Rmr. Body O.D.	Ft.
2	Subs O.D.	8.00 Ft.
	Bit or C.B.	Ft.
	Kelly Down	24.00 Ft.
	Total	2150. Ft.

Wt. of String: 72000 Lbs. | Pipe in Hole: 51 Jts. | Pipe on Racks: 153 Jts. | Total Pipe on Lease: 204 Jts.

BIT RECORD

Bit No.	2
Size	8¾
Mfg.	SMITH
Type	SDGH
Nozzle No.	3
Nozzle Size	12
Ser. No.	HN889
Depth Out	
Depth In	1780
Total Ftg.	370
Total Hr. Run	17¾
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.: Trucker ___ | Trucker ___ | Trucker ___

MUD RECORD

Time	6:00	11:00	12:00
Weight	9.2	8.6	9.6
Visc.-Sec.	28	38	37
W.L.-C.C.			
FL TR. CK.			
PH	10.0	10.0	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
2075	2150	75				78	25	1100	6	62	6	-	S

Deviation Record: Depth 2076 | Dev. ¼ | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼						SURVEY
415	830	4¼						DRILLING.
830	845	¼						MOTORS AIR LOCKED BLEED OFF MOTORS
845	1000	1¼						DRILLING
1000	1030	½						CLEAN MUD TANK
1030	1100	1½						DRILL

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACKWATER #1 — Date: FEB 26 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition · Road Conditions · Nearest Town: WRIGLEY · Water - Source ___ Miles Hauled 5 Pumped ___ · Camp Distance from Rig 300 YARDS · Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 — DWKS — TOFCO

Drill Pipe String: No. 7 — Size 4½

Tool Joint 5¾ O.D. — Type Thd. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Snedden

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OILWELL	214-P	14"
2.	OILWELL	214-P	14"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	MANN	32.3-H40	92	791	13.45	787	K.B. Ground 13.45
							K.B. CSG flan 13.45

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual		16¾	6¾
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig			
Deviation Survey		¼	¼
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	

TIME SUMMARY (Office Use Only)

Day Work

Hrs. W/DP

Hrs. WO/DP

Hrs. Standby

Total Day Work

WIRE LINE RECORD

Reel No. M/10092

No. of Lines 8 Size 1⅛

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		
7	Stands D.P.	654.84	Ft.
2	Singles D.P.	62.47	Ft.
16	D.C. 6¼"	525.69	Ft.
2	I.D. 7" 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.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	20.00	Ft.
	Total	1270	Ft.

Wt. of String 54 M Lbs.

Pipe in Hole 23 Jts.

Pipe on Racks Jts.

Total Pipe on Lease Jts.

BIT RECORD

Bit No.	1
Size	8¾
Mfg.	SMITH
Type	DT-J
Nozzle No.	2 1
Nozzle Size	11 12
Ser. No.	HN097
Depth Out	
Depth In	787
Total Ftg.	483
Total Hr. Run	13¼
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker Loader — Hours 1½

Trucker

Trucker

MUD RECORD

Time	1:30	4:00	6:00
Weight	8.4	8.5	8.6
Visc.-Sec.	28		
W.L.-C.C.			
FL TR. CK.			
PH	11.0	10.0	
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Bicarbonate of Soda	100#		
Soda	200#		

Driller: Dave Gardner Jr.

FOOTAGE

From	To	Ftge.
789	1270	483

DR-D RM-R Core-C — Core No.

FORMATION (SHOW CORE RECOVERY)

Rotary RPM	Wt. on Bit 1000 Lbs.	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
100	25M	1150	6	58			
100	35M	1200	6	54			
100	30	1200	6	54			

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
850	1½°		915	¼°		1015 / 1136	½°	1168 ½°

DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	
12:00	1:15	1¼						Drill 8¾" Hole
1:15	1:30	¼						Survey
1:30	2:45	1¼						Drill
2:45	3:00	¼						Survey
3:00	5:00	2						Drill
5:00	5:15	¼						Survey
5:15	6:15	1						Drill
6:15	6:30	¼						Survey
6:30	7:00	½						Drill
7:00	7:15	¼						Survey
7:15	8:00	¾						Drill
								Fuel 3 Ft 9 in

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
13	Stands D.P.	1216.14	Ft.
	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
9	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	31.00	Ft.
	Total	1780.	Ft.

Wt. of String ___ Lbs.

Pipe in Hole ___ Jts.

Pipe on Racks ___ Jts.

Total Pipe on Lease ___ Jts.

BIT RECORD

Bit No.	1
Size	8¾
Mfg.	SMITH
Type	SDT-J
Nozzle No.	2 1
Nozzle Size	11 12
Ser. No.	HN097
Depth Out	1780
Depth In	787
Total Ftg.	993
Total Hr. Run	14
Cond. of Bit	2-2-1
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. O.T. Hrs.

Trucker ___

Trucker LOADER

Trucker ___

MUD RECORD

Time	7:00	9:00	12:00
Weight	8.7		
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH	10.0		
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.
1605	1780	81

DR-D RM-R Core-C — Core No.

FORMATION (SHOW CORE RECOVERY)

Rotary RPM	Wt. on Bit 1000 Lbs.	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
60/45	15M	1150	6	58	6		G

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
1699	⅛°		1761	1°				

DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	
1:00	6:45	2¾						Drilling (Rough)
6:45	7:00	¼						Survey
7:00	9:15	2¼						Drilling
9:15	9:30	¼						Survey
9:30	10:15	¾						Repair Rotary Torque
10:15	10:45	½						Drill
10:45	12:00	1¼						Trip & Measure out of Hole

CONSERVATION DIVISION OIL & GAS DEPARTMENT MAR 3 1972 FILE COMPLETE N.W.T. ALBERTA

No. 041

GUTHRIE, McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Tapen Blackwater F-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: 25 Feb 1972

Weather Condition: Snow -20 | Road Conditions: Rough | Nearest Town: Wrigley | Water - Source: Slough | Miles Hauled: 4 | Pumped: ___ | Camp Distance from Rig: 300 yards | Reason for Extra L. Plant: ___

OPERATOR: Union Oil Co.

Rig No. 3 | DWKS Ingle

Drill Pipe String: No. 2 | Size 4½

Tool Joint: 5-3/4 O.D. | Type Thd. F11

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Ken Hudson.

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bird

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oil Well	214-P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9 5/8	Mann	32.3-H 40	22	791	13.15	787	

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Rut Actual			1¼
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig			¼
Deviation Survey			
Test B.O.P.			½
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other			6
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		
4	Stands D.P.		Ft.
6	Singles D.P.	4165.23	Ft.
	D.C.		
12	I.D. O.D.	347.15	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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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	

Water Charges | Reg. Hrs. | O.T. Hrs.

Trucker ___ Trucker ___ Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Barney Read

FOOTAGE

From	To	Ftge.

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

6"

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:00	1						Drain Casing & Make Final (WOC)
1:00	4:00	3						Weld On Bowl (WOC)
4:00	8:00	4						Head Up

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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	

Water Charges | Reg. Hrs. | O.T. Hrs.

Trucker TNT | 12 hours | Trucker ___ | Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Dougeuk Lyle

FOOTAGE

From	To	Ftge.
787		

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	12:00	4						Head Up
12:00	1:30	1½						Change Rams From 3½ To 4½
1:30	3:30	2						Drill Mouse Hole
3:30	4:00	½						Pressure Test Blind Ram 1000 Lbs. (OK)

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
2	Stands D.P.	206.50	Ft.
1	Singles D.P.		Ft.
16	D.C. 6¼		
2	I.D. 7 O.D.	525.69	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
2	Subs O.D.	8.00	Ft.
	Bit or C.B.		Ft.
	Kelly Down	37.81	Ft.
	Total	780.00	Ft.
Wt. of String		60m -	Lbs.
Pipe in Hole		7	Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD

Bit No.	1
Size	8 3/4
Mfg.	Smith
Type	DT-J
Nozzle No.	2 1
Nozzle Size	11 12
Ser. No.	HN097
Depth Out	
Depth In	787
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges | Reg. Hrs. | O.T. Hrs.

Trucker ___ Trucker ___ Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.
Bicarbonate of soda	300#		

Driller: Brian Bertelsen

FOOTAGE

From	To	Ftge.
787		
725	780	55

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | 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

60 | 10 | 800 | 6 | 50 | 6 | — | R

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	1/4						Rig Service
4:15	5:30	1¼						Try To Get Mouse Hole In; Rocks Falling In.
5:30	7:45	2¼						Redrill Mouse Hole W/ No Pump & Put Mouse Hole In
7:45	10:00	2¼						Run In To Drill Out & Pick Up 6 Drill Collars & Caliper Same
10:00	10:30	½						Hit Top Of Cement @ Approx 725'
10:30	10:45	¼						Press Test Hydril & Pipe Rams To 1000 PSI (O.K)
10:45	12:00	1¼						Check Motor Shutoffs (O.K)
								Drill Out

No. 5470

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Union Tapes Blackwater E-11 | Location — Lsd. — Sec. — Twp. — Rge. — W. — M. | Date: Feb 24 1972

Weather Condition | Road Conditions: Rough | Nearest Town: Watiley | Water - Source: Stream | Miles Hauled — Pumped — | Camp Distance from Rig: 300 Yards | Reason for Extra L. Plant

OPERATOR: Union Oil Co.

Rig No. 3 DWKS Torco | Drill Pipe String: No. 2, Size 5½ | Tool Joint O.D. 5¾ | Type Thd. FH

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14
2.	"	"	"
3.			

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sirdal

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
9⅝	Mann-	32.3-H40	22	791		787	csg bowl 10"-3000# Rockwell-McEvoy Type S

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling Actual	3¾		
Reaming			
Conditioning Mud & Circulating	½		
Trips	2	1¾	
Lubricate Rig			
Deviation Survey	¼		
Test B.O.P.			
Cut Off Drilling Line			
Repair Rig			
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other	1½		
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		
4	Stands D.P.		Ft.
D	Singles D.P.	405.23	Ft.
	D.C.		
12	I.D. O.D.	347.15	Ft.
	D.C.		
	I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
3	Subs O.D.	11.32	Ft.
1	Bit or C.B.	1.60	Ft.
	Kelly Down	22.44	Ft.
	Total	787	Ft.

Wt. of String 41,000 Lbs. | Pipe in Hole 92 Jts. 787 Ft. | Pipe on Racks Jts. | Total Pipe on Lease Jts.

BIT RECORD		
Bit No.	~~1-3/4~~	2-B
Size		13¾
Mfg.		HW
Type		OSC
Nozzle No.		Nil
Nozzle Size		
Ser. No.		19311 ~~17591~~
Depth Out		
Depth In		351
Total Ftg.		436
Total Hr. Run		14½
Cond. of Bit		2-1-1
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker — — —
Trucker — — —
Trucker — — —

MUD RECORD			
Time	12:00	4:00	7:30
Weight	11.6	10.6	10.5
Visc.-Sec.	45	46	47
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
SAWDUST			42 sk
GEL			$300
LIME			10 sk

Driller: Bennie Sokal

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
722	787	65	D			120	8	400	6	66			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	787	3/4							

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:30	½						Drill.
12:30	2:00	1½						Mix Loss Circ Mat. (Losted 80 Bbls Mud Into Formation). Regain Full Circ.
2:00	3:45	1¾						Dummy Trip & Strap Out. 40' Tight Hole @ About 120 Had To Ream In Hole
3:45	7:00	3¼						Drill.
7:00	7:30	½						Circ Clean Hole
7:30	7:45	¼						Survey
7:45	8:00	¼						Trip

FULL 7 INCHES

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.
	Kelly Down		Ft.
	Total		Ft.

Wt. of String — Lbs. | Pipe in Hole — Jts. | Pipe on Racks — Jts. | Total Pipe on Lease — Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker — — —
Trucker T.W.T. 10
Trucker — — —

MUD RECORD			
Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Csg landed at 787'
KB.-Rkly in plow @ 315 PM

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	½						Finish Out
8:30	9:30	1						Rig To Run Csg
9:30	3:15	5¾						Run Csg
3:15	3:45	½						Circ & Work Csg
3:45	3:15	½						Cement & Pump Plug
7:15	4:00	¾						W.O.C.

RAN 22 jts of 9⅝" 32.3# H-40 ST&C Mannesmann New Casing - Total of 791.00', equipped with 2 centralizers 1 guide shoe & 1 float collar. 10 Bbls of water ahead, Cmtd with 600 sx of Oilwell Cement plus 2% CACL2 Good cmt returns - pressure csg to 1000 PSI - Held back & float held. JFS

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.
	Kelly Down		Ft.
	Total		Ft.

Wt. of String — Lbs. | Pipe in Hole — Jts. | Pipe on Racks — Jts. | Total Pipe on Lease — Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker — — —
Trucker — — —
Trucker — — —

MUD RECORD			
Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	11:15	7¼						W.O.C.
11:15	12:00	¾						Cut Casing.

No. 6469

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: Union Japex Blackwater Fill
Location — Ld. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.
Date: Feb 23 1972

Weather Condition: Clear Cold | Road Conditions: Rough | Nearest Town: Wrigley | Water - Source: Slough, Miles Hauled ___ Pumped ___ | Camp Distance from Rig: 300 Feet, Reason for Extra L. Plant

OPERATOR: Union Dev Co.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature]

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint
3 DWKS Ideco	3	4½	Type Thd. FH, FH 5 3/10 O.D.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oilwell	214-P	14
2.	Oilwell	214-P	14
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	7		Co½
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig			¼
Deviation Survey	1		1¼
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

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.
11	D.C. I.D. O.D.	321.12	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.	13.35	Ft.
	Bit or C.B.	1.00	Ft.
	Kelly Down	10.33	Ft.
	Total	346	Ft.

Wt. of String 35,000 Lbs.
Pipe in Hole ___ Jts.
Pipe on Racks ___ Jts.
Total Pipe on Lease ___ Jts.

BIT RECORD

Bit No.	1-S
Size	13 3/4
Mfg.	SEC
Type	S3-J
Nozzle No.	CON
Nozzle Size	
Ser. No.	95842
Depth Out	
Depth In	54
Total Ftg.	292
Total Hr. Run	12 3/4
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	1:00
Weight	
Visc.-Sec.	60.
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bernie Hall

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
174	346	172	D			120	10	200	6¼	66			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	229	¼		288	½		346	¾	

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:45	2¾						Drill Surface Hole
2:45	3:15	½						Survey
3:15	5:15	2						Drill
5:15	5:30	¼						Survey
5:30	7:45	2¼						Drill
7:45	8:00	¼						Survey

7:00 AM Fuel Delivery

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
1	Stands D.P.	98 56	Ft.
1	Singles D.P.	31 30	Ft.
19	D.C. I.D. O.D.	349 16	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.	11.32	Ft.
	Bit or C.B.	1.00	Ft.
	Kelly Down	42.00	Ft.
	Total	528.34	Ft.

Wt. of String 40M Lbs.
Pipe in Hole ___ Jts.
Pipe on Racks ___ Jts.
Total Pipe on Lease ___ Jts.

BIT RECORD

Bit No.	1-S	2-S
Size	13 3/4	13 3/4
Mfg.	SEC	HW
Type	S3-J	OSC3
Nozzle No.		CON.
Nozzle Size	OPEN	19311
Ser. No.	95842	121737
Depth Out	351	1776
Depth In	54	351
Total Ftg.	297	1779
Total Hr. Run	13 3/4	5 1/4
Cond. of Bit	2-1-1	
Reamer No.		
Reamer Type		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.N.T. 10
Trucker ___
Trucker ___

MUD RECORD

Time	10.00	12.00	4.00
Weight	9.5	9.5	9.6
Visc.-Sec.	34	35	37
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Dave Sutherland

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
346	528	182				120	5M	300	6½	76			

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	375	1°	-	425	⅞°		450	¾°	

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	900	1						Drill
9:00	10:00	1						Trip
10:00	11:00	1						Drill
11:00	11:15	¼						Survey
11:15	1:30	2¼						Drill
1:30	1:45	¼						Survey
1:45	2:15	½						Drill
2:15	2:30	¼						Survey
2:30	4:00	1½						Drill

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
4	Stands D.P.	342 94	Ft.
	Singles D.P.		Ft.
19	D.C. I.D. O.D.	349.16	Ft.
	D.C. I.D. O.D.		Ft.
	Stb. Body O.D.		Ft.
	Stb. Body O.D.		Ft.
	Rmr. Body O.D.		Ft.
3	Subs O.D.	11.32	Ft.
1	Bit or C.B.	1.00	Ft.
	Kelly Down	17.58	Ft.
	Total	722	Ft.

Wt. of String ___ Lbs.
Pipe in Hole 12 Jts.
Pipe on Racks ___ Jts.
Total Pipe on Lease ___ Jts.

BIT RECORD

Bit No.	2-S
Size	13 3/4
Mfg.	HW
Type	OSC
Nozzle No.	CON.
Nozzle Size	19311
Ser. No.	121737
Depth Out	
Depth In	351
Total Ftg.	371
Total Hr. Run	11 3/4
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___
Trucker ___
Trucker ___

MUD RECORD

Time	4:30	8:30	11:00
Weight	9.6	9.9	10.5
Visc.-Sec.	37	38	40
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

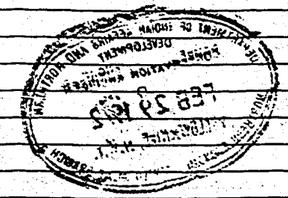
Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
527	722	195	D			120	10M	400	6¼	78	6½		

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction
	510	¾°		572	¾°	657 1°	684	⅞°	715 1°

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	¼						Survey
4:15	1:15	9						Drill
1:15	1:30	¼						Survey
1:30	9:15	1 3/4						Drill
8:15	8:30	¼						Rig Ser.
8:30	8:45	¼						Survey
8:45	10:00	1¼						Drill
10:00	10:15	¼						Survey
10:15	11:30	1¼						Drill
11:30	11:45	¼						Survey
11:45	12:00	¼						Drill



No. 5468

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION TAPES BLACKWATER F-81 | Date: FEB 22 1972

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Weather Condition: CLEAR -10 | Road Conditions: ROUGH | Nearest Town: WRIGLEY

Water - Source: SLOUGH | Miles Hauled ____ Pumped ____ | Camp Distance from Rig: 300 YARDS | Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No. 3 | DWKS | Drill Pipe String: No. 3, Size 4½ | Tool Joint: 6 3/4 O.D., Type Thd. FH

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14
2.	OILWELL	214-P	14
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			4 3/4
Reaming			
Conditioning Mud & Circulating			2 1/2
Trips			
Lubricate Rig			
Deviation Survey			3/4
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

TIME SUMMARY (Office Use Only)

Day Work	
Hrs. W/DP	
Hrs. WO/DP	
Hrs. Standby	
Total Day Work	

WIRE LINE RECORD

Reel No. M100

No. of Lines 8 Size 1/8

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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		

Water Charges | Reg. Hrs. | O.T. Hrs.

Trucker ____ Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bruce Hart

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.		Ft.
	Singles D.P.		Ft.
1	D.C. I.D. O.D.	30 6 8	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.	13.55	Ft.
	Bit or C.B.	1.00	Ft.
	Kelly Down	42.00	Ft.
	Total	86.23	Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

BIT RECORD

Bit No.	1	
Size	13 3/4	
Mfg.	~~HTC~~	SEC
Type	~~OSC3~~	S-33
Nozzle No.	CON	
Nozzle Size		
Ser. No.		95842
Depth Out		
Depth In	54	
Total Ftg.	32	
Total Hr. Run	1	
Cond. of Bit		
Reamer No.		
Reamer Type		

Water Charges: Trucker J. N. I. | Reg. Hrs. 8 | O.T. Hrs. ____

Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Dave Sychuk

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	Stands D.P.		Ft.
	Singles D.P.		Ft.
4	D.C. I.D. O.D.	118.75	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.	13.55	Ft.
	Bit or C.B.		Ft.
	Kelly Down	40.70	Ft.
	Total	174	Ft.
Wt. of String		28,000	Lbs.
Pipe in Hole	NIL		Jts.
Pipe on Racks	21		Jts.
Total Pipe on Lease			Jts.

BIT RECORD

Bit No.	1R	
Size	13 3/4	
Mfg.	~~HTC~~	SEC
Type	~~OSC3~~	S-33
Nozzle No.	CON	
Nozzle Size		
Ser. No.		95842
Depth Out		
Depth In	54	
Total Ftg.	120	
Total Hr. Run	~~5~~ 3 3/4	
Cond. of Bit	T.B.I.	
Reamer No.		
Reamer Type		

Water Charges | Reg. Hrs. | O.T. Hrs.

Trucker ____ Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.
GEL	~~2600~~	2000	
LIGNITE	200		
SAW DUST	20		

Driller

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8						DIG RAT HOLE (LOT OF BIG ROCKS)
								18ft RAT HOLE MADE.

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
54	86	32				100	100	50	6½	66			

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	12:00	4						Big RAT Hole
12:00	3:00	3						Rig up to Spud
3:00	4:00	1						Spud Drill 13¾" Hole

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
86	174	8				120	10,000	500	6½	66			

Deviation Record: Depth 116 | Dev. 7/8 | Direction | Depth 146 | Dev. 3/4 | Direction | Depth 174 | Dev. ½ | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	1:30	2½						Drill 13¾" Hole
1:30	9:00	2½						Losing Mud in Formation
								Mixing Mud
9:00	9:15	¼						Survey
9:15	10:15	1						Drill
10:15	10:30	¼						Survey
10:30	11:45	1¼						Drill
11:45	12:00	¼						Survey

STRESS

No. 6467

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION JAPEX BLACK WATER K-1 | Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M. | Date: FEB 21 1972

Weather Condition: CLEAR 20 | Road Conditions: | Nearest Town: WRIGLEY | Water - Source: SLOUGH | Miles Hauled ___ Pumped ___ | Camp Distance from Rig: 300 YRDS | Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Thd.	Tool Joint O.D.
3 DWKS	2	4½	FH	5¾

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	9/14-P	14
2.	"	"	14
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			
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			

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ Trucker ___ Trucker ___

MUD RECORD: Time / Weight / Visc.-Sec. / W.L.-C.C. / FL TR. CK. / PH / SD. Cont. % / Pressure Gradient

Mud & Chemicals Added: Type / Amt. / Type / Amt.

Driller: Reg Hoard

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	1:30	1½						WOC WELD SERVICE
1:30	8:00	6½						WOC. Rig Up To Put Pump Shop & Dr Serv

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker T.W.T. 7 Trucker ___ Trucker ___

MUD RECORD: Time / Weight / Visc.-Sec. / W.L.-C.C. / FL TR. CK. / PH / SD. Cont. % / Pressure Gradient

Mud & Chemicals Added: Type / Amt. / Type / Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	4:00	8						W.O.C. Rig up Shop

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker ___ Trucker ___ Trucker ___

MUD RECORD: Time / Weight / Visc.-Sec. / W.L.-C.C. / FL TR. CK. / PH / SD. Cont. % / Pressure Gradient

Mud & Chemicals Added: Type / Amt. / Type / Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00								
8:00	11:00	3						Put Up Prefabs Between Light Plant Bull Pens, Water Tank & Shop.
11:00	12:00	1						Rig Up To Drill Rat Hole

NORTHERN AFFAIRS AND NATIONAL RESOURCES — NORTHERN ENGINEERING BRANCH — FEB 29 1972 — YELLOWKNIFE, N.W.T.

No. 6466

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION APEX BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: FEB 20 1972

Weather Condition | Road Conditions | Nearest Town | Water - Source ___ Miles Hauled ___ Pumped ___ | Camp Distance from Rig ___ Reason for Extra L. Plant

OPERATOR: Union Oil Co.

Rig No. 3 DWKS | Drill Pipe String: No. 2, Size 4½ | Tool Joint: Type Thd. ___, O.D. 5¾

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Sinclair

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Oil Well	214-P	14
2.	"	"	"
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks

TIME DISTRIBUTION — HOURS

	Mern	Day	Eve
Rig Up & Tear Down			
Drilling Actual Con Hole	8		
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			

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Donald Vacek

FOOTAGE

From	To	Ftge.
37	53	16

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | Pump Press | Pump No. 1: Liner Size, S.P.M. | Pump No. 2: Liner Size, S.P.M. | Method Run SGL-S Par'el-P Com'd-C

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8						Drill Con Hole. 16' Hole Made Total 53

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker T.N.T — 2

Trucker ___

Trucker ___

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.
	54	1

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | Pump Press | Pump No. 1: Liner Size, S.P.M. | Pump No. 2: Liner Size, S.P.M. | Method Run SGL-S Par'el-P Com'd-C

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:15	2¼						Drill Conductor Hole
10:15	1:00	2¾						Run Conductor BBL & Cement Conductor BBL
1:00	4:00	3						Wait on Cement - Conductor.

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.

DR-D RM-R Core-C | Core No. | FORMATION (SHOW CORE RECOVERY) | Rotary RPM | Wt. on Bit 1000 Lbs. | Pump Press | Pump No. 1: Liner Size, S.P.M. | Pump No. 2: Liner Size, S.P.M. | Method Run SGL-S Par'el-P Com'd-C

Deviation Record | Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
3:00	12:00	9						W.O.C. Conductor, Put Up Mud House

DEPARTMENT OF MINES AND PETROLEUM RESOURCES ... FEB 29 1972 ... ALBERTA

No. 6465

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: UNION TAPER BLACKWATER E-11

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date: FEB 19 19 52

Weather Condition: 15 Road Conditions: ROUGH Nearest Town: WATSON LAKE

Water - Source: SLOUGH Miles Hauled ___ Pumped ___ Camp Distance from Rig: 300 FEET

Reason for Extra L. Plant

OPERATOR: UNION OIL CO.

Rig No.: 3 DWKS IDECO

Drill Pipe String: No. 3 Size 4½

Tool Joint: 5¾ O.D. Type Thd. EH

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H K Scoddell

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.	OIL WELL	214-P	14
2.	OIL WELL	214-P	14
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks

MORNING TOUR

TIME DISTRIBUTION—HOURS

	Morn	Day	Eve
Rig Up & Tear Down			
Drilling, Ream Hole	5¾	2	7½
Reaming			
Conditioning Mud & Circulating			
Trips			
Lubricate Rig			
Deviation Survey			
Test B.O.P.			
Cut Off Drilling Line			
Repair Bucket	1¾	4	½
Coring			
Wire Line Logging			
Running Casing & Cementing			
Waiting on Cement			
Drill Stem Test			
Other	½	2	
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.

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.
	Kelly Down		Ft.
	Total		Ft.

Wt. of String ___ Lbs.

Pipe in Hole ___ Jts.

Pipe on Racks ___ Jts.

Total Pipe on Lease ___ Jts.

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	

Water Charges ___ Reg. Hrs. ___ O.T. Hrs. ___

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Ronald Loch

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
0	21	21											

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:30	½						RIG UP TO DRILL CONDUCTOR HOLE
12:30	1:00	½						DRILL CONDUCTOR HOLE
1:00	2:45	1¾						REPAIR BUCKET
2:45	8:00	5¼						DRILL CONDUCTOR HOLE 21' HOLE MADE

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.
	Kelly Down		Ft.
	Total		Ft.

Wt. of String ___ Lbs.

Pipe in Hole ___ Jts.

Pipe on Racks ___ Jts.

Total Pipe on Lease ___ Jts.

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	

Water Charges: 9 hours TNT ___ Reg. Hrs. ___ O.T. Hrs. ___

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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
21	37	14											

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:00	2						BLAST ROCKS IN CONDUCTOR HOLE
10:00	12:00	2						REPAIR BUCKET W/ WELDER
12:00	2:00	2						DRILL CONDUCTOR HOLE 7' HOLE MADE
2:00	4:00	2						WELD CONDUCTOR BUCKET

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.
	Kelly Down		Ft.
	Total		Ft.

Wt. of String ___ Lbs.

Pipe in Hole ___ Jts.

Pipe on Racks ___ Jts.

Total Pipe on Lease ___ Jts.

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	

Water Charges ___ Reg. Hrs. ___ O.T. Hrs. ___

Trucker ___

Trucker ___

Trucker ___

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:30	½						REPAIR BUCKET W/ WELDER
4:30	12:00	7½						DRILL CONDUCTOR HOLE 84 HOLE MADE

N. 0464

GUTHRIE McLAREN DRILLING LTD.

DAILY DRILLING REPORT

Form 6

Well Name Blackwater E-17 | Date Feb 18 1972

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Weather Condition -30 | Road Condition Rough | Nearest Town Wrigley | Water - Source Slaughter | Miles Hauled ___ | Pumped ___ | Camp Distance from Rig 300 yds | Reason for Extra L. Plant

OPERATOR: Union Oil Co. 535 Ellen

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Ian Stoddart

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sulek

Rig No. 3 DWKS

Drill Pipe String No.	Size	Tool Joint Type Thd.	O.D.

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

Size	Make	Wt. & Gr.	No Joints	Feet	R.K.B. to CSG. HD.	Set at	Remarks

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			
Casing			
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	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
Fl. TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Erwin Lock

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Rig up Perfetos flown out Pumps thanks

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker T.W.T.	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
~~8.00~~	~~6.00~~							~~Rig up~~
8.00	4.00	8						Rig up

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	6.00	2						Rig up
6.00	12.00	6						Dig Rat hole very hard

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
ENVIRONMENTAL PROTECTION BOARD
YELLOWKNIFE, N.W.T.
FEB 25 1972
RECEIVED

No. 0463

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease Well Name: Blackwater E-11

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: FEB 17 19 92

Weather Condition: -30 | Road Conditions | Nearest Town | Water - Source: SLOUGH | Miles Hauled: 7 | Pumped | Camp Distance from Rig: 300 yds | Reason for Extra L. Plant

OPERATOR: Unocal Oil

Rig No.: 3 DWKS

Drill Pipe String: No. ____ Size ____ | Tool Joint: Type Thd. ____ O.D. ____

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Hodder

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Euler

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
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			
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			

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ ____ ____

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker T.N.T. 4 hours

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:00	14						~~5 HR.~~ MOVE ~~7~~ DWKS. PREPARE DERRICK TO RAISE AND RAISED SAME RIG UP FLOOR LAY WATER AND STREAM LINES. STARTED UP BOTH BOILERS

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.
	Kelly Down	Ft.
	Total	Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ ____ ____

Trucker ____ ____ ____

Trucker ____ ____ ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

No. 0462

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease
Well Name
Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date FEB 16 1972

Weather Condition -30 | Road Conditions | Nearest Town | Water - Source | Miles Hauled | Pumped | Camp Distance from Rig | Reason for Extra L. Plant

OPERATOR
Union Oil

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Thd.	Tool Joint O.D.
DWKS				

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING								
TUBING OR LINER								

SIGNATURE OF OPERATOR'S REPRESENTATIVE
H. Studer

SIGNATURE OF CONTRACTOR'S TOOL PUSHER
A. Bird

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			
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			

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Bernard Hackett

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	16:00	14						PIN DERRICK, STREAD 210 Bags GEL & SAWDUST FOR MUD HOUSE & SHOP & FOR LIGHT PLANT BOILER & WATER & FUEL TANK, SPOT MUD TANKS, PUMPS, RE-HYDERATION TANK, LIGHT PLANT BOILER, WATER & FUEL TANK, JUNK BOX, DOG & TOOL HOUSE, SPOT CAT WALKS & PIPE RACKS UNLOAD 6 TRUCK OF PIPE, COLLARS ETC.

moved 240 D. Smaller
Madin G

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DEPARTMENT OF MINES AND NATURAL RESOURCES PETROLEUM AND NATURAL GAS CONSERVATION BOARD CALGARY, ALBERTA FEB 23 1972

N- 6101

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease
Well Name

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date Feb 15 19____

Weather Condition -30 | Road Conditions | Nearest Town | Water - Source | Miles Hauled | Pumped | Camp Distance from Rig | Reason for Extra L. Plant

OPERATOR
Union Oil

SIGNATURE OF OPERATOR'S REPRESENTATIVE
H. Goddard

SIGNATURE OF CONTRACTOR'S TOOL PUSHER
A. Sidell

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Thd.	Tool Joint O.D.
DWKS				

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
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			
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			

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	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Bernie Sroch

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller [illegible]

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Put up Camp Trailers Put 150 sks Gel Gluss sand dust underneath mattress ~~floor~~ ~~sand floor~~ lay matting for sub Put spreaders in suction & rel Spot Pump Trucks, Put Derrick together H/P

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
			Type	
	D.C. I.D. O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Stb. Body O.D.	Ft.	Depth Out	
	Rmr. Body O.D.	Ft.	Depth In	
	Subs O.D.	Ft.	Total Ftg.	
	Bit or C.B.	Ft.	Total Hr. Run	
	Kelly Down	Ft.	Cond. of Bit	
	Total	Ft.	Reamer No.	
Wt. of String		Lbs.	Reamer Type	
Pipe in Hole		Jts.	Water Charges	Reg. Hrs. O.T. Hrs.
Pipe on Racks		Jts.	Trucker	
Total Pipe on Lease		Jts.	Trucker	
			Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
FH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

No. 6460

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name: _____ Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: Feb 14 1972

Weather Condition: -40 Road Conditions: _____ Nearest Town: _____ Water - Source: _____ Miles Hauled: _____ Pumped: _____ Camp Distance from Rig: _____ Reason for Extra L. Plant: _____

OPERATOR: Union Oil

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Haddad

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sidel

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Thd.	Tool Joint O.D.
DWKS				

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
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			
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			

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.		Mfg.		Visc.-Sec.	
	I.D. O.D.	Ft.	Type		W.L.-C.C.	
	D.C.		Nozzle No.		FL TR. CK.	
	I.D. O.D.	Ft.	Nozzle Size		PH	
	Stb. Body O.D.	Ft.	Ser. No.		SD. Cont. %	
	Stb. Body O.D.	Ft.	Depth Out		Pressure Gradient	
	Rmr. Body O.D.	Ft.	Depth In			
	Subs O.D.	Ft.	Total Ftg.		Mud & Chemicals Added	
	Bit or C.B.	Ft.	Total Hr. Run		Type / Amt. / Type / Amt.	
	Kelly Down	Ft.	Cond. of Bit			
	Total	Ft.	Reamer No.			
Wt. of String		Lbs.	Reamer Type			
Pipe in Hole		Jts.	Water Charges	Reg. Hrs.	O.T. Hrs.	
Pipe on Racks		Jts.	Trucker			
Total Pipe on Lease		Jts.	Trucker			
			Trucker		Driller: Bernie Lacoste	

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

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.		Mfg.		Visc.-Sec.	
	I.D. O.D.	Ft.	Type		W.L.-C.C.	
	D.C.		Nozzle No.		FL TR. CK.	
	I.D. O.D.	Ft.	Nozzle Size		PH	
	Stb. Body O.D.	Ft.	Ser. No.		SD. Cont. %	
	Stb. Body O.D.	Ft.	Depth Out		Pressure Gradient	
	Rmr. Body O.D.	Ft.	Depth In			
	Subs O.D.	Ft.	Total Ftg.		Mud & Chemicals Added	
	Bit or C.B.	Ft.	Total Hr. Run		Type / Amt. / Type / Amt.	
	Kelly Down	Ft.	Cond. of Bit			
	Total	Ft.	Reamer No.			
Wt. of String		Lbs.	Reamer Type			
Pipe in Hole		Jts.	Water Charges	Reg. Hrs.	O.T. Hrs.	
Pipe on Racks		Jts.	Trucker			
Total Pipe on Lease		Jts.	Trucker			
			Trucker		Driller: Robert McCathren	

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Move Camps to new location
								Start up Camps
								120 mile move

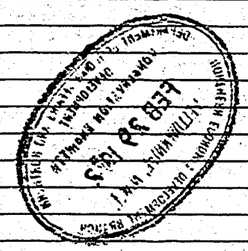
EVENING TOUR

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.		Mfg.		Visc.-Sec.	
	I.D. O.D.	Ft.	Type		W.L.-C.C.	
	D.C.		Nozzle No.		FL TR. CK.	
	I.D. O.D.	Ft.	Nozzle Size		PH	
	Stb. Body O.D.	Ft.	Ser. No.		SD. Cons. %	
	Stb. Body O.D.	Ft.	Depth Out		Pressure Gradient	
	Rmr. Body O.D.	Ft.	Depth In			
	Subs O.D.	Ft.	Total Ftg.		Mud & Chemicals Added	
	Bit or C.B.	Ft.	Total Hr. Run		Type / Amt. / Type / Amt.	
	Kelly Down	Ft.	Cond. of Bit			
	Total	Ft.	Reamer No.			
Wt. of String		Lbs.	Reamer Type			
Pipe in Hole		Jts.	Water Charges	Reg. Hrs.	O.T. Hrs.	
Pipe on Racks		Jts.	Trucker			
Total Pipe on Lease		Jts.	Trucker			
			Trucker		Driller	

FOOTAGE From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record	Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS



N- 695

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease
Well Name

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date FEB 13 19 72

Weather Condition | Road Conditions | Nearest Town | Water - Source / Miles Hauled / Pumped | Camp Distance from Rig / Reason for Extra L. Plant

OPERATOR: Union Oil Co.

Rig No. 3 DWKS

Drill Pipe String: No. ___ Size ___

Tool Joint: Type Thd. ___ O.D. ___

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Sandstad

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
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			
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			

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	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
	D.C. I.D. O.D.	Ft.	Type	
	Stb. Body O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Rmr. Body O.D.	Ft.	Depth Out	
	Subs O.D.	Ft.	Depth In	
	Bit or C.B.	Ft.	Total Ftg.	
	Kelly Down	Ft.	Total Hr. Run	
	Total	Ft.	Cond. of Bit	
	Wt. of String	Lbs.	Reamer No.	
	Pipe in Hole	Jts.	Reamer Type	
	Pipe on Racks	Jts.	Water Charges Reg. Hrs. O.T. Hrs.	
	Total Pipe on Lease	Jts.	Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bernie Lach

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								M. Hawthorn Swamp & Drive For Iron Horse Truck
								M. Johnson Swamp & Drive For TNT Unit #32
								M. Mattatton Swamp & Drive For TNT Unit 21
								R. Morton Swamp Swap For Baker TNT
								D. Sukora Swamp & Help Drive For Three

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
	D.C. I.D. O.D.	Ft.	Type	
	Stb. Body O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Rmr. Body O.D.	Ft.	Depth Out	
	Subs O.D.	Ft.	Depth In	
	Bit or C.B.	Ft.	Total Ftg.	
	Kelly Down	Ft.	Total Hr. Run	
	Total	Ft.	Cond. of Bit	
	Wt. of String	Lbs.	Reamer No.	
	Pipe in Hole	Jts.	Reamer Type	
	Pipe on Racks	Jts.	Water Charges Reg. Hrs. O.T. Hrs.	
	Total Pipe on Lease	Jts.	Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Lach

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Tear Out Camp Preps & Put In Back & Get Camp Ready For Move.
								Load Up 3½ Pipe & Collars & Testing Tool & (3½ Equement) Was Taken To Wrigley
								Note Steel Shop Badly Damaged On Move Truck No #32 - TNT.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	Stands D.P.	Ft.	Bit No.	
	Singles D.P.	Ft.	Size	
	D.C. I.D. O.D.	Ft.	Mfg.	
	D.C. I.D. O.D.	Ft.	Type	
	Stb. Body O.D.	Ft.	Nozzle No. / Size	
	Stb. Body O.D.	Ft.	Ser. No.	
	Rmr. Body O.D.	Ft.	Depth Out	
	Subs O.D.	Ft.	Depth In	
	Bit or C.B.	Ft.	Total Ftg.	
	Kelly Down	Ft.	Total Hr. Run	
	Total	Ft.	Cond. of Bit	
	Wt. of String	Lbs.	Reamer No.	
	Pipe in Hole	Jts.	Reamer Type	
	Pipe on Racks	Jts.	Water Charges Reg. Hrs. O.T. Hrs.	
	Total Pipe on Lease	Jts.	Trucker	

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

No. 6458

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease / Well Name

Location — Lsd. ____ Sec. ____ Twp. ____ Rge. ____ W. ____ M.

Date: FEB 12 1972

Weather Condition: -25 | Road Conditions | Nearest Town | Water - Source | Miles Hauled | Pumped | Camp Distance from Rig | Reason for Extra L. Plant

OPERATOR: Imperial Oil Co.

Rig No.: DWKS

Drill Pipe String: No. | Size

Tool Joint: Type Thd. | O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. C. Scudder

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Sikora

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
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			
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			

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.
Kelly Down		Ft.
Total		Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bonnie Baker

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								M. Anton Rig on Swamp & Drive For ~~Use~~ Iron Horse Truck
								M Johnson Swamp & Drive For Int Unit #32
								P. Morton Swamp For Picker Int'l
								D. Sikora Swamp & Drive For Falcon

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.
Kelly Down		Ft.
Total		Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: [illegible]

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								9 Trucks Loaded
							1	Shop ~~fuel~~
							1	Water Tank & Logging Unit
							1	Sub ⅓
							1	Draw Works & Base Floor & Table.
							1	Pump-Stand By
							2	Derrick & Planks - Etc
							2	Matting, Spreaders & Propane Tank & Sundries.

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.
Kelly Down		Ft.
Total		Ft.
Wt. of String		Lbs.
Pipe in Hole		Jts.
Pipe on Racks		Jts.
Total Pipe on Lease		Jts.

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		

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker ____ Trucker ____ Trucker ____

MUD RECORD

Time			
Weight			
Visc.-Sec.			
W.L.-C.C.			
FL TR. CK.			
PH			
SD. Cont. %			
Pressure Gradient			

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth | Dev. | Direction | Depth | Dev. | Direction | Depth | Dev. | Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DEPARTMENT OF MINES AND NATURAL RESOURCES CONSERVATION BRANCH DEVELOPMENT FEB 23 1972 EDMONTON, ALBERTA

No. 5457

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease
Well Name

Location — Lsd. ___ Sec. ___ Twp. ___ Rge. ___ W. ___ M.

Date Feb 11 19 72 | Weather Condition -30 | Road Conditions | Nearest Town | Water - Source / Miles Hauled / Fumped | Camp Distance from Rig / Reason for Extra L. Plant

OPERATOR: Aerion Oil Co

Rig No.	Drill Pipe String No.	Drill Pipe String Size	Tool Joint Type Thd.	Tool Joint O.D.
DWKS				

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Jim Goodall

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Field

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			
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			

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: Bernie Lach

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Mr Matisation swamp & drive TNT #21
								Mr. Johnson swamp & drive TNT #32
								Mcentonation swamp & help drive Iron horse truck
								D. Sikora swamps & help drive Dolon truck

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller: L D McCarthur

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
								Load out trucks Emitting 3 mud tanks doghouse & toolhouse, & D8 cat

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.
	Kelly Down		Ft.
	Total		Ft.
Wt. of String			Lbs.
Pipe in Hole			Jts.
Pipe on Racks			Jts.
Total Pipe on Lease			Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.
Trucker
Trucker
Trucker

MUD RECORD

Time				
Weight				
Visc.-Sec.				
W.L.-C.C.				
FL TR. CK.				
PH				
SD. Cont. %				
Pressure Gradient				

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record

Depth	Dev.	Direction	Depth	Dev.	Direction	Depth	Dev.	Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

N- 6450

GUTHRIE McLAREN Drilling Ltd.

DAILY DRILLING REPORT

Form 6

Lease — Well No. — Date

Location — Sec. — Twp. — Rge. — W. M. — Feb 10 19 22

Weather Condition — 25° — Road Conditions — Nearest Town — Water - Source — Miles Hauled — Pumped — Camp Distance from Rig — Reason for Extra L. Plant

OPERATOR

Rig No. 3 DWKS

Drill Pipe String: No. — Size — Type Thd. — Tool Joint O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER

PUMPS

No.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

	Size	Make	Wt. & Gr.	No Joints	Feet	RKB. to CSG. HD.	Set at	Remarks
LAST CASING								
TUBING								
OR LINER								

MORNING TOUR

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			
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			

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.

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.
Kelly Down		Ft.
Total		Ft.

Wt. of String — Lbs.

Pipe in Hole — Jts.

Pipe on Racks — Jts.

Total Pipe on Lease — Jts.

BIT RECORD

Bit No.	
Size	
Mfg.	
Type	
Nozzle No.	
Nozzle Size	
Ser. No.	
Depth Cut	
Depth In	
Total Ftg.	
Total Hr. Run	
Cond. of Bit	
Reamer No.	
Reamer Type	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller Bergie Steele

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth — Dev. — Direction — Depth — Dev. — Direction — Depth — Dev. — Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

Haul Girl, Cement Pump & Boiler to next location

Road 120 miles very rough

Mr Gentenation swamp and help Drive Team back Trucks

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.
Kelly Down		Ft.
Total		Ft.

Wt. of String — Lbs.

Pipe in Hole — Jts.

Pipe on Racks — Jts.

Total Pipe on Lease — Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller L. McArthur

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth — Dev. — Direction — Depth — Dev. — Direction — Depth — Dev. — Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

Mr Johnsen swamp and help Drive T.N.T No 32

Mr Gentenation swamp and help Drive T.N.T #21

Check chains in Derrick

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.
Kelly Down		Ft.
Total		Ft.

Wt. of String — Lbs.

Pipe in Hole — Jts.

Pipe on Racks — Jts.

Total Pipe on Lease — Jts.

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	

Water Charges — Reg. Hrs. — O.T. Hrs.

Trucker

Trucker

Trucker

MUD RECORD

Time	
Weight	
Visc.-Sec.	
W.L.-C.C.	
FL TR. CK.	
PH	
SD. Cont. %	
Pressure Gradient	

Mud & Chemicals Added

Type	Amt.	Type	Amt.

Driller

FOOTAGE

From	To	Ftge.	DR-D RM-R Core-C	Core No.	FORMATION (SHOW CORE RECOVERY)	Rotary RPM	Wt. on Bit 1000 Lbs.	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

Deviation Record: Depth — Dev. — Direction — Depth — Dev. — Direction — Depth — Dev. — Direction

Hour Started	Hour Stopped	Elapsed Time	A	B	C	D	Acc. D.T.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION BRANCH
RECEIVED
FEB 28 1922
ACCOUNTANT, N.W.T.
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT