

SHELL DESMARAIS

K-29

Drilling Authority No. 291  
Date Issued December 4, 1967

WELL NAME Shell Deepwater 1-29  
FIELD  
LOCATION: Unit K Area:  
Section 29 Grid 61-00-116-45  
Latitude 50-58-30.02 Longitude 116-49-57.48  
From Established Reference Marker

U.S.L.R. 60.97501 -- 116.83243  
U.S.T.No. 300K296100116450

Rig Release Date: Dec 18/67  
Status D-LL  
Information Release Date

CHANGE OF NAME:

| DATE RECEIVED              | INDEX                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Dec. 2, 1967 -<br>Jan 3/68 | Application for a Drilling Authority.<br>Well Completion Data.<br>Well History Report.                                 |
|                            | Application to Amend a Drilling Authority.                                                                             |
|                            | Application to change a Well Name.                                                                                     |
| 24 Dec 67                  | Application to Abandon a Well or Suspend Drilling.                                                                     |
|                            | Application to Alter Condition of a Well.<br>Well History Supplement.<br>Well Completion Data.<br>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.                                                    |
|                            | A.A.P.R. — Oil — Calculations.                                                                                         |
|                            | New Oil Well Report                                                                                                    |
|                            | New Gas Well Report.                                                                                                   |
|                            | Well Inspection Report.                                                                                                |
|                            | Rig Inspection Report.                                                                                                 |
|                            | Battery Inspection Report.                                                                                             |
|                            | Equipment Report.                                                                                                      |
|                            | Well Card.                                                                                                             |
|                            | New Service Well Report.                                                                                               |
|                            | Monthly Water Flood Operations Report                                                                                  |
|                            | Monthly Water Receipts and Disposal of Fluids Report<br>Logs. Large scale Small scale                                  |



| CEMENTING RECORD (Plug, Squeeze, etc.) |      |      |                                                                                                                          | PERFORATING RECORD (Pallet, Jet) |      |    |         | SERVICING RECORD (Acidizing, Fracing, etc.) |      |    |         |
|----------------------------------------|------|------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------|------|----|---------|---------------------------------------------|------|----|---------|
| Date                                   | From | To   | Remarks                                                                                                                  | Date                             | From | To | Remarks | Date                                        | From | To | Remarks |
| Dec. 18/67                             | 1791 | 1310 | w/ 125 sxs Portland neat cement - plug down 1:30 PM                                                                      | NONE                             |      |    |         | NONE                                        |      |    |         |
| Dec. 18/67                             | 340  | 220  | w/ 40 sxs Portland + 20 CaCl <sub>2</sub> . Plug down 2:15 PM. Felt at 217 w/ 1000 lbs. Dec. 18/67 @ 10:15 PM. Held O.K. |                                  |      |    |         |                                             |      |    |         |

5 sacks cement in surface casing. Cut off oag. 3' below ground level, welded on plate and erected sign.

#### DRILL STEM TESTS

| No.  | Date | Formation | From | To | V.O. Mins. | I.S.I. Mins. | F.S.I. Mins. | I.S.I.R.H.P. | F.S.I.R.H.P. | L.F.R.H.P. | F.F.R.H.P. | L.H.P. | F.H.P. | REMARKS |
|------|------|-----------|------|----|------------|--------------|--------------|--------------|--------------|------------|------------|--------|--------|---------|
| NONE |      |           |      |    |            |              |              |              |              |            |            |        |        |         |

#### ANALYSIS

| Lab. No. | Sample | From | To | Source | Remarks | PRESENT STATUS OF WELL |  |            |  |
|----------|--------|------|----|--------|---------|------------------------|--|------------|--|
| NONE     |        |      |    |        |         | Oil                    |  | (Interval) |  |
|          |        |      |    |        |         | Gas                    |  | (Interval) |  |
|          |        |      |    |        |         | Dry                    |  |            |  |
|          |        |      |    |        |         | Susp.                  |  |            |  |

Company Shell Canada Limited

Original

Signed by J. Macleod (for) A.M. Macdonald

Title Manager, Edmonton Division

Production

Date January 3, 1968

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



DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES  
RESOURCE MANAGEMENT DIVISION

**Application to Abandon a Well ~~Exploratory 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 **Shell Desmarais K-29**

Location: Unit **X** Section **29** Grid **61° 00', 116° 45'**  
Latitude **60° 58' 30.02"** Longitude **116° 49' 57.48"**

From Established Reference Marker **Geodetic Trig. station at McAllie**

Universal Well Location Reference - Lat. **60.97401° N.** Long. **116.8263° W.**

Permit No. **4236**

Lease No.

**Shell Canada Limited**

(Permitter, Lessor, Lessee)

Date of commencement of proposed program **December 18, 1967**

**OIL, GAS, AND WATER ENCOUNTERED**  
(Depths)

Oil at **Nil**

Gas at **Nil**

Water at

Total Depth **1791**

Present condition of well

**Plugged and Abandoned** Date of last operations **December 19, 1967**

**CASING RECORD**

| Casing Size O.D. inches | Weight     | Amount        | Set At -    | Sack of Cement and Additives | Amount Pulled |
|-------------------------|------------|---------------|-------------|------------------------------|---------------|
| 1. <b>7"</b>            | <b>200</b> | <b>6 jts.</b> | <b>272'</b> | <b>114 sacks Portland</b>    | <b>Nil</b>    |
| 2.                      |            |               |             | <b>+ 2t CaCl<sub>2</sub></b> |               |
| 3.                      |            |               |             |                              |               |
| 4.                      |            |               |             |                              |               |
| 5.                      |            |               |             |                              |               |

**PROPOSED ABANDONMENT PROGRAM**

| No. | Plug Position         | Geological Formation                         | Number of Sacks of Cement | Remarks                                                |
|-----|-----------------------|----------------------------------------------|---------------------------|--------------------------------------------------------|
| 1   | <b>1791' - 1310'</b>  | <b>(Bear Rock to) Devonian (Slave Point)</b> | <b>125 sacks</b>          |                                                        |
| 2   | <b>340' - 220'</b>    | <b>(Surface ) Devonian (Casing Shoe)</b>     | <b>40 sacks</b>           | <b>Peel after 8 hrs. W.O.C.</b>                        |
| 3   | <b>Surface Casing</b> | <b>Surface Casing</b>                        | <b>5 sacks</b>            | <b>Cut off casing, weld on Plate, erect well sign.</b> |

The following logs have been run **IES, BNC SGR-C**  
Other operations proposed **None**

Operations to be carried out by **Big Indian Drilling Co. Ltd.** Contractor Licence No. **18213**  
Address **Calgary, Alberta** Address **Calgary, Alberta**

Responsible Agent in field **G. Ranney**

Dated at **Edmonton**, this **20** Day of **December** 19 **67**

Signed by **E. A. HOPKIN** Company **Shell Canada Limited**

Title **Production** Operator's Exploratory Licence No. **1877**

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

(For RESOURCE MANAGEMENT DIVISION use only)

**APPROVAL**

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

**Confirming oral approval given by Mr. B.H.J. Thomas.**

Dated **26th December**, 19 **67**

*B.H.J. Thomas*  
Oil Conservation Engineer

Forms to be submitted in triplicate to Oil Conservation Engineer, Calgary, Alberta

Drilling Authority No. 281

Project No. 27-11-4-67-2

File No.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT  
RESOURCE MANAGEMENT DIVISION

## Application for a Drilling Authority

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

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

Name and number of well Shell Decemaris K-29

Location: Unit K Section 29 G-14 61-00', 116-49'

Latitude 60° 08' 10.02" Longitude 116° 49' 57.48"

From Established Reference Marker

Universal Well Location Reference Lat. 60.97501° N., Long. 116.83263° W.

Elevation: Ground 558.4 K.B. 507.4 feet above sea-level.

Well is expected to produce from Slave Point formation at a depth

of about 1020 feet. Expected total final depth 1350

Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. 4236

Lease No.

Acreage 21,082

Permittee, licensee, or leasee Shell Canada Limited

Exploratory Licence No. 1877

Surface owned by Crown or Crown

(If alienated submit name and address of owner and occupant.)

Petroleum and natural-gas rights owned by Shell Canada Limited

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. 7"                     | 20.5             | J 55  | New         | 300'            | 105 Sacks       |
| 2. 7"                     | 23.5             | N 80  | New         | 300'            | 105 Sacks       |
| 3.                        |                  |       |             |                 |                 |
| 4.                        |                  |       |             |                 |                 |
| 5.                        |                  |       |             |                 |                 |

Expected water, gas, and oil horizons and type of control equipment

Slave Point

6" Series 900 Type B Hydraulic Double Shaeffer

6" Series 900 CK Hyd-11

Well will be drilled with Rotary Rig No. 17 by Big Indian Drilling Co. Ltd.

(Drilling Contractor or company)

Responsible agent of applicant:—

Contractor's business Licence No. 18213

At well G. Kenney

At registered office A. M. McLachlin

Address P. O. Box 186, Edmonton

Address P. O. Box 186, Edmonton

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

Dated at Edmonton, this 1 day of December 1967

Signed by [Signature] Company Shell Canada Limited

Title Manager-Edmonton Division Production's Licence No. 1877

(For Resource Management Division use only)

### APPROVED

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

The Company will submit to this office, on Tuesday of each week,  
the latest reports received by radio on the progress of the well.

Dated 4th December 1967

Oil Conservation Engineer

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

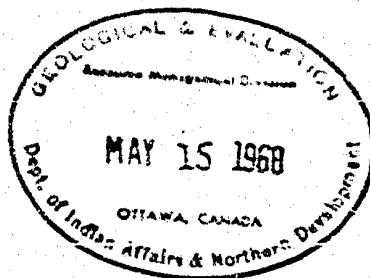
IAND 52-90-1 (3-67)

Unique Well Identifier - 300K296100116450

SHELL DESMARAIS K-29

60°58'30.02"N    116°49'57.48"W

WELL HISTORY REPORT



WELL HISTORY REPORT  
SHELL DESMURRAIS K-29  
SHELL CANADA LIMITED  
APRIL 11, 1968

SMALL DECMARIS K-29

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SECTION 1 - SUMMARY OF WELL DATA

- (a) Well Name and Number  
Shell Bonanza K-29
- (b) Permitted  
Shell Canada Limited
- (c) Name of Operator  
Shell Canada Limited
- (d) Location  
Unit K Section 29      Grid 61°00' 116°45'  
Latitude 60°58' 30.02"      Longitude 116°49' 57.48"
- (e) Permit Number  
4236
- (f) Drilling Contractor  
Big Indian Drilling Co. Ltd., Rig #17
- (g) Drilling Authority  
Drilling Authority No. 281  
Issued December 1, 1967.
- (h) Classification  
Wildcat
- (i) Elevation  
Ground 558.4, K.B. 567.4
- (j) Spudded  
December 9, 1967.
- (k) Completed Drilling  
December 17, 1967.
- (l) Abandoned  
December 18, 1967
- (m) Total Depth and Plugged Back Total Depth  
T.D. 1791 (Driller)  
P.B.T.D. Surface

(n) Well Status

Dry and Abandoned

(o) Rin Released

December 18, 1967.

(p) Hole Size

9 7/8" to 203'  
6 1/4" to 1791' (T.D.)

(q) Casing

7", J55, 204', set at 272.40' K.B. , with 114 sacks Portland cement  
+ 2% CaCl<sub>2</sub>

(r) Universal Well Location Reference

Lat. 60.97501° N.  
Long. 116.83263° W.

(s) Unique Well Identifier

300K296100116450

# SECTION II GEOLOGICAL SUMMARY

## (a) Formation Tops

| <u>Formation</u> | <u>Depth</u> |
|------------------|--------------|
| Slave Point      | 1182 (-615)  |
| Island River     | 1370 (-803)  |
| Huse             | 1593 (-1028) |
| Bear Rock        | 1767 (-1200) |

## (b) Cores

No cores cut.

## (c) Sample Description

As attached report.

SECTION III      ENVIRONMENTAL MONITORING

(a) Drilldown Tests

None

(b) Casing Record

| Size | Weight | Grade | Amount | Depth      | Cement                                       |
|------|--------|-------|--------|------------|----------------------------------------------|
| 7"   | 20#    | J55   | 6 Jts. | 272.40K.B. | 114 sacks Portland<br>+ 2% CaCl <sub>2</sub> |

(c) Bit Record

| No. | Size   | Type | Depth Out | Feet Cut | Hours  |
|-----|--------|------|-----------|----------|--------|
| 1A  | 9 7/8" | DT   | 288       | 288      | 22 3/4 |
| 1   | 6 1/4" | DTJ  | 1060      | 772      | 18 1/2 |
| 2   | 6 1/4" | DTJ  | 1360      | 320      | 17     |
| 3   | 6 1/4" | DTJ  | 1560      | 130      | 13 3/4 |
| 4   | 6 1/4" | DTJ  | 1736      | 176      | 18 1/4 |
| 5   | 6 1/4" | SU2  | 1791      | 55       | 5 1/2  |

(d) Mud Record

| Gel      | Caustic | Spersene | CMC    |
|----------|---------|----------|--------|
| 56 sacks | 5 sacks | 10 sacks | 1 sack |

(e) Deviation Record

| Depth | Deviation (Totco°) |
|-------|--------------------|
| 70    | 7/8                |
| 279   | 1/2                |
| 608   | 1/4                |
| 1349  | 3/4                |

(f) Abandonment Plugs

| Date     | Interval  | Cement & Additives              | Remarks                                                              |
|----------|-----------|---------------------------------|----------------------------------------------------------------------|
| 12/18/67 | 1791-1310 | 125 sacks Portland              |                                                                      |
| 12/18/67 | 340-220   | 40 sacks + 2% CaCl <sub>2</sub> | Felt plug at 217'                                                    |
|          |           | 5 sacks in surface csg.         | Cut off csg 3' below ground level, welded on plate and erected sign. |

(g) Lost Circulation Zones

None

(h) Blowouts

None

SECTION IV - LOGS

| <u>Date</u> | <u>Interval</u> | <u>Type</u> |
|-------------|-----------------|-------------|
| 12/18/67    | 1796-269        | INCSGR-C    |
| 12/18/67    | 1797-268        | IEL         |

Three copies of each log forwarded February 22, 1968.

SECTION V. ANALYSIS

(a) Core Analysis

None

(b) Water Analysis

None

(c) Gas Analysis

None

(d) Oil Analysis

None

SECTION VI COMPLETION RECORD(a) Tubing Record

None

(b) Perforation Record

None

(c) Cementation Record

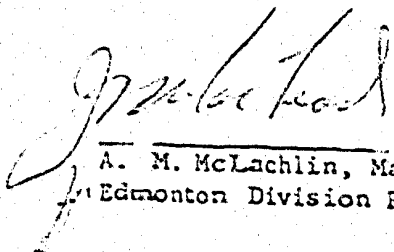
| <u>Plug No.</u> | <u>Date</u> | <u>Interval</u> | <u>Formation</u> | <u>Cement</u>                     |
|-----------------|-------------|-----------------|------------------|-----------------------------------|
| 1               | 12/18/67    | 1791-1310       | Slave Point      | 125 sacks Ptland                  |
| 2               | 12/18/67    | 340-220         | Surface csg      | 40 sacks " + 2% CaCl <sub>2</sub> |

(d) Acidization and Fracturing Record

None

(e) Back Pressure and Production Tests

None

  
 A. M. McLachlin, Manager,  
 Edmonton Division Production.

SHRILL DESVARAIS K - 29

T.D. 1791

K.R. 567

LATITUDE: 60° 55' 30.02" N.

LONGITUDE: 116° 49' 57.48" W.

|          |           |                                                                                                            |
|----------|-----------|------------------------------------------------------------------------------------------------------------|
| 0' -10'  | Sandstone | Sandstone, orange to buff, unconsolidated, calcareous, with some lime mud.                                 |
| 10' -20' | Sandstone | Sandstone, orange to buff, unconsolidated, calcareous, with some lime mud.                                 |
| 20' -30' | Sandstone | Sandstone, orange to buff, unconsolidated, with traces of limestone and siltstone.                         |
| 30' -40' | Sandstone | Sandstone, orange to buff, unconsolidated, with traces of limestone and siltstone.                         |
| 40' -50' | Sandstone | Sandstone, orange to buff, unconsolidated, with traces of limestone and siltstone.                         |
| 50' -60' | Sandstone | Sandstone, orange to buff, unconsolidated, traces of siltstone, shale and small amounts of limestone.      |
| 60' -70' | Sandstone | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale and siltstone. |
| 70' -80' | Sandstone | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale and siltstone. |
| 80' -90' | Sandstone | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale and siltstone. |

|            |                          |                                                                                                             |
|------------|--------------------------|-------------------------------------------------------------------------------------------------------------|
| 90' -100'  | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale and siltstone.  |
| 100' -110' | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale, and siltstone. |
| 110' -120' | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale, and siltstone. |
| 120' -130' | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale, and siltstone. |
| 130' -140' | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale, and siltstone. |
| 140' -150' | Sandstone                | Sandstone, orange to buff, unconsolidated, with small amounts of limestone, traces of shale, and siltstone. |
| 150' -160' | Sandstone -<br>Limestone | Sandstone, orange to buff, unconsolidated, with small amounts of shale, and light brown grey limestone.     |
| 160' -170' | Sandstone -<br>Limestone | Sandstone, orange to buff, unconsolidated, with small amounts of shale, and light brown grey limestone.     |
| 170' -180' | Limestone                | Limestone, light brown grey, with unconsolidated sandstone, traces of shale.                                |
| 180' -200' |                          | SAMPLES MISSING.                                                                                            |
| 200' -210' | Sandstone -<br>Limestone | Sandstone, orange to buff, with traces of shale, and small amounts of light brown limestone.                |

|            |           |                                                                                         |
|------------|-----------|-----------------------------------------------------------------------------------------|
| 210' -220' | Sandstone | Sandstone, orange to buff, with light brown limestone, traces of shale.                 |
| 220' -230' | Sandstone | Sandstone, orange to buff, with light brown limestone, traces of shale.                 |
| 230' -240' | Limestone | Limestone, light brown, some orange-buff sandstone, traces of pyrite, shale, siltstone. |
| 240' -250' | Limestone | Limestone, light brown, some orange-buff sandstone, traces of pyrite, shale, siltstone. |
| 250' -260' | Limestone | Limestone, light brown, with calcareous sandstone, traces of shale, pyrite.             |
| 260' -270' | Limestone | Limestone, light brown, with calcareous sandstone, traces of shale, pyrite.             |
| 270' -280' | Limestone | Limestone, light brown, with calcareous sandstone, traces of shale, pyrite.             |
| 280' -420' |           | SAMPLES MISSING.                                                                        |
| 420' -430' | Shale     | Shale, medium grey-black, traces of limestone, calcareous sandstone.                    |
| 430' -440' | Shale     | Shale, medium grey-black, traces of limestone, and calcareous sandstone.                |
| 440' -450' | Shale     | Shale, medium grey-black, traces of limestone, and calcareous sandstone.                |
| 450' -460' | Shale     | Shale, medium grey-black, trace of bentonite, some calcareous sandstone.                |
| 460' -470' | Shale     | Shale, medium grey-black, trace of bentonite, some calcareous sandstone.                |

|             |       |                                                                                              |
|-------------|-------|----------------------------------------------------------------------------------------------|
| 470' - 480' | Shale | Shale, medium grey-black, trace of bentonite, some calcareous sandstone, trace of limestone. |
| 480' - 490' | Shale | Shale, medium grey-black, trace of bentonite, some calcareous sandstone, trace of limestone. |
| 490' - 500' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 500' - 510' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 510' - 520' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 520' - 530' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 530' - 540' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 540' - 550' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 550' - 560' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |
| 560' - 570' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.       |

|            |       |                                                                                         |
|------------|-------|-----------------------------------------------------------------------------------------|
| 570' -580' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 580' -590' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 590' -600' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 600' -610' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 610' -620' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 620' -630' | Shale | Shale, medium grey-black, trace of bentonite, and limestone, some calcareous sandstone. |
| 630' -640' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 640' -650' | Shale | Shale, medium grey-black, trace of bentonite and limestone, some calcareous sandstone.  |
| 650' -660' | Shale | Shale, medium dark grey, silty, calcareous.                                             |
| 660' -670' | Shale | Shale, medium dark grey, silty, calcareous.                                             |
| 670' -680' | Shale | Shale, medium dark grey, silty, calcareous.                                             |
| 680' -690' | Shale | Shale, medium dark grey, silty, calcareous.                                             |

|            |       |                                                                 |
|------------|-------|-----------------------------------------------------------------|
| 690' -700' | Shale | Shale, medium dark grey, silty, calcareous.                     |
| 700' -710' | Shale | Shale, medium grey, silty, calcareous.                          |
| 710' -720' | Shale | Shale, medium grey, silty, calcareous.                          |
| 720' -730' | Shale | Shale, medium grey, silty, calcareous.                          |
| 730' -740' | Shale | Shale, medium grey, silty, calcareous.                          |
| 740' -750' | Shale | Shale, dark grey-black, very calcareous, silty.                 |
| 750' -760' | Shale | Shale, dark grey-black, very calcareous, silty.                 |
| 760' -770' | Shale | Shale, dark grey-black, very calcareous, silty.                 |
| 770' -780' | Shale | Shale, medium green, calcareous, silty.                         |
| 780' -790' | Shale | Shale, medium green, calcareous, silty.                         |
| 790' -800' | Shale | Shale, medium grey, limy, silty.                                |
| 800' -810' | Shale | Shale, medium grey, limy, silty.                                |
| 810' -820' | Shale | Shale, medium grey, limy, silty.                                |
| 820' -830' | Shale | Shale, medium dark grey, trace of light brown limestone, silty. |
| 830' -840' | Shale | Shale, medium dark grey, trace of light brown limestone, silty. |
| 840' -850' | Shale | Shale, medium dark grey, trace of light brown limestone, silty. |

|              |                      |                                                                                  |
|--------------|----------------------|----------------------------------------------------------------------------------|
| 850' -860'   | Shale                | Shale, medium grey, trace of light brown limestone, silty.                       |
| 860' -870'   | Shale                | Shale, medium grey, trace of light brown limestone, silty.                       |
| 870' -880'   | Shale                | Shale, medium dark grey, trace of light brown limestone, silty, trace of pyrite. |
| 880' -890'   | Shale                | Shale, medium dark grey, trace of light brown limestone, silty, trace of pyrite. |
| 890' -900'   | Shale                | Shale, medium dark grey, trace of light brown limestone, silty, trace of pyrite. |
| 900' -910'   | Shale                | Shale, medium grey-green, medium soft, fair fissility, trace of limestone.       |
| 910' -920'   | Shale                | Shale, medium grey-green, medium soft, fair fissility, trace of limestone.       |
| 920' -930'   | Shale                | Shale, medium grey-green, medium soft, fair fissility, trace of limestone.       |
| 930' -1020'  |                      | VERY POOR SAMPLES. All material indicated to be cavings.                         |
| 1020' -1023' | Limestone            | Limestone, medium grey, fossiliferous, with some shale.                          |
| 1023' -1030' | Shale                | Shale, medium grey-green, with streaks of limestone.                             |
| 1030' -1040' | Shale -<br>Limestone | Shale, medium grey-green and medium grey limestone, fossiliferous.               |
| 1040' -1050' | Shale -<br>Limestone | Shale, medium grey-green, and medium grey limestone, fossiliferous.              |
| 1050' -1060' | Shale -<br>Limestone | Shale, medium grey-green, and medium grey limestone, fossiliferous.              |

|              |                      |                                                                                 |
|--------------|----------------------|---------------------------------------------------------------------------------|
| 1060' -1070' | Shale -<br>Limestone | Shale, medium grey-green, and medium grey limestone, fossiliferous.             |
| 1070' -1080' | Shale -<br>Limestone | Shale, medium grey-green, and medium grey limestone, fossiliferous.             |
| 1080' -1090' | Limestone            | Limestone, sucrosic, medium light brown-grey, with some shale, trace of pyrite. |
| 1090' -1100' | Limestone            | Limestone, sucrosic, medium light brown-grey, with some shale, trace of pyrite. |
| 1100' -1105' | Limestone            | Limestone, sucrosic, medium light brown-grey, with some shale, trace of pyrite. |
| 1105' -1110' | Shale                | Shale, medium grey-green, with minor amounts of limestone.                      |
| 1110' -1120' | Limestone            | Limestone, medium grey, sucrosic, with minor amounts of shale.                  |
| 1120' -1130' | Limestone            | Limestone, medium grey, sucrosic, with minor amounts of shale.                  |
| 1130' -1135' | Limestone            | Limestone, medium grey, sucrosic, with minor amounts of shale.                  |
| 1135' -1140' | Shale                | Shale, medium dark grey, with minor amounts of limestone.                       |
| 1140' -1145' | Limestone            | Limestone, medium grey, sucrosic, with minor amounts of shale.                  |
| 1145' -1150' | Shale                | Shale, medium dark grey, with minor amounts of limestone.                       |
| 1150' -1155' | Limestone            | Limestone, medium grey, sucrosic, with minor amounts of shale.                  |
| 1155' -1160' | Shale                | Shale, medium dark grey, with minor amounts of limestone.                       |

|              |                      |                                                                                                                  |
|--------------|----------------------|------------------------------------------------------------------------------------------------------------------|
| 1160' -1165' | Limestone            | Limestone, medium grey, suc-<br>rosic, with minor amounts of<br>shale.                                           |
| 1165' -1170' | Shale                | Shale, medium dark grey, with<br>minor amounts of limestone.                                                     |
| 1170' -1175' | Limestone            | Limestone, medium grey, suc-<br>rosic, with minor amounts of<br>shale.                                           |
| 1175' -1180' | Shale                | Shale, medium dark grey, with<br>minor amounts of limestone.                                                     |
| 1180' -1190' | Shale                | Shale, dark brown-grey, with<br>some fragmental limestone.                                                       |
| 1190' -1200' |                      | SAMPLES MISSING.                                                                                                 |
| 1200' -1210' | Shale                | Shale, dark brown, hard, blocky,<br>poor fissility, appears bitum-<br>inous, with minor amounts of<br>limestone. |
| 1210' -1290' |                      | VERY POOR SAMPLES. All material<br>indicated to be all drilling<br>mud and cavings.                              |
| 1290' -1300' | Shale -<br>Limestone | Shale, dark brown, and fossil-<br>iferous limestone..                                                            |
| 1300' -1310' | Shale -<br>Limestone | Shale, dark brown, hard, blocky,<br>and fossiliferous limestone.                                                 |
| 1310' -1320' | Shale -<br>Limestone | Shale, dark brown, hard, blocky,<br>and fossiliferous limestone.                                                 |
| 1320' -1330' | Limestone            | Limestone, medium brown-grey,<br>trace of shale.                                                                 |
| 1330' -1340' | Limestone            | Limestone, medium brown-grey,<br>trace of shale.                                                                 |
| 1340' -1350' | Limestone            | Limestone, medium brown-grey,<br>trace of shale.                                                                 |
| 1350' -1360' | Limestone            | Limestone, medium brown-grey,<br>trace of shale.                                                                 |
| 1360' -1370' | Limestone            | Limestone, medium dark brown-<br>grey, trace of shale.                                                           |

|              |           |                                                                        |
|--------------|-----------|------------------------------------------------------------------------|
| 1370' -1380' | Limestone | Limestone, medium dark brown-grey, traces of shale and pyrite.         |
| 1380' -1390' | Limestone | Limestone, medium dark brown-grey, traces of shale and pyrite.         |
| 1390' -1400' | Limestone | Limestone, medium dark brown-grey, traces of shale and pyrite.         |
| 1400' -1410' | Limestone | Limestone, medium dark brown-grey, traces of shale and pyrite.         |
| 1410' -1420' | Limestone | Limestone, medium brown-grey, traces of shale and pyrite.              |
| 1420' -1430' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1430' -1440' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1440' -1450' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1450' -1460' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1460' -1470' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1470' -1480' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1480' -1490' | Limestone | Limestone, medium dark brown-grey, fossiliferous, trace of shale.      |
| 1490' -1500' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale and pyrite. |

|              |           |                                                                  |
|--------------|-----------|------------------------------------------------------------------|
| 1500' -1510' | Limestone | Limestone, medium dark brown-grey, some fossils, trace of shale. |
| 1510' -1520' | Limestone | Limestone, medium dark brown-grey, some fossils, trace of shale. |
| 1520' -1525' | Limestone | Limestone, medium dark brown-grey, some fossils, trace of shale. |
| 1525' -1530' | Limestone | Limestone, dark brown-grey with white, fossils.                  |
| 1530' -1540' | Limestone | Limestone, dark brown-grey, with white; fossils.                 |
| 1540' -1550' | Limestone | Limestone, dark brown-grey, with white; fossils.                 |
| 1550' -1560' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1560' -1570' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1570' -1580' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1580' -1590' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1590' -1600' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1600' -1610' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1610' -1620' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1620' -1630' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1630' -1640' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |
| 1640' -1650' | Limestone | Limestone, medium dark grey, fossiliferous, trace of shale.      |

|              |           |                                                             |
|--------------|-----------|-------------------------------------------------------------|
| 1650' -1660' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1660' -1670' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1670' -1680' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1680' -1690' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1690' -1700' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1700' -1710' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1710' -1720' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1720' -1730' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1730' -1740' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1740' -1750' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1750' -1760' | Limestone | Limestone, medium dark gray, fossiliferous, trace of shale. |
| 1760' -1770' | Dolomite  | Dolomite, medium buff.                                      |
| 1770' -1780' | Dolomite  | Dolomite, medium buff, with traces of white anhydrite.      |
| 1780' -1791' | Dolomite  | Dolomite, medium buff, with traces of white anhydrite.      |

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|                                           |  |                                         |  |                                     |  |                               |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
|-------------------------------------------|--|-----------------------------------------|--|-------------------------------------|--|-------------------------------|--|-----------------------------------------|--|--------------------|--|-----------------------|--|-----------------------|--|--------------------------------|--|-------------------|--|----------------------|--|----------------------|--|------------------------------|--|------------------------------|--|------------------|--|------------|--|
| OPERATOR<br>SHELL CANADA LIMITED          |  | LOCATION<br>605830-22 N 116 49 57 48 W  |  | SEC.<br>TWP.<br>RGE.<br>W.          |  | WELL NAME<br>SHELL DES MARAIS |  | No.<br>K 29                             |  | PROVINCE<br>N.W.T. |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| CONTRACTOR<br>Barr Indian Drilling Co Ltd |  | RIG No.<br>17                           |  | DRILL PIPE STRING NO. SIZE<br>1 3/4 |  | TOOL JOINT<br>4 7/8 OD        |  | PUMPS<br>MANUFACTURER<br>GARDNER DENVER |  | TYPE<br>6 X 0      |  | STROKE LENGTH<br>16   |  | CASING & LINER RECORD |  | SIZE                           |  | WT. & GR.         |  | DEPTH SET FROM TO    |  | PERFORATIONS FROM TO |  | CEMENT USED                  |  | OTHER                        |  |                  |  |            |  |
| OPERATOR'S REPRESENTATIVE<br>[Signature]  |  | CONTRACTOR'S TOOL PUSHER<br>[Signature] |  | NO.                                 |  | MANUFACTURER                  |  | TYPE                                    |  | STROKE LENGTH      |  | CASING & LINER RECORD |  | SIZE                  |  | WT. & GR.                      |  | DEPTH SET FROM TO |  | PERFORATIONS FROM TO |  | CEMENT USED          |  | OTHER                        |  |                              |  |                  |  |            |  |
| TIME DISTRIBUTION—HOURS                   |  | NO.                                     |  | DRILLING ASSEMBLY                   |  | BIT RECORD                    |  | HRS. DRLD.                              |  | CORE NO.           |  | FROM                  |  | TO                    |  | FORMATION (SHOW CORE RECOVERY) |  | ROTA- RY R.P.M.   |  | WT.ON BIT 1000#      |  | PUMP PRESS.          |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD |  |
| DRILLING ACTUAL                           |  | STANDS DP                               |  | 1768 FT.                            |  | RUN NO.                       |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| REAMING                                   |  | SNGLS. DP                               |  | FT.                                 |  | SIZE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| CIRCULATING                               |  | D.C. ID                                 |  | FT.                                 |  | MFG.                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| TRIPS                                     |  | RMR BODY OD                             |  | FT.                                 |  | NOZ. NO.                      |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| DEVIATION SURVEY                          |  | STB BODY OD                             |  | FT.                                 |  | SIZE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| TEST B.O.P.                               |  | SUBS OD                                 |  | FT.                                 |  | SER. NO.                      |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| CUT OFF DRILL LINE                        |  | BIT OR C.B.                             |  | FT.                                 |  | DEPTH OUT                     |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| REPAIR RIG                                |  | KELLY DOWN                              |  | FT.                                 |  | CUMULATIVE HOURS RUN          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| CORING                                    |  | TOTAL                                   |  | FT.                                 |  | REAMER CUTTER NO.             |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| WIRE LINE LOGGING                         |  | WT. OF STRING                           |  | LBS.                                |  | TYPE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| OTHER                                     |  | DRILLER                                 |  |                                     |  |                               |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| FISHING                                   |  | NO.                                     |  | DRILLING ASSEMBLY                   |  | BIT RECORD                    |  | HRS. DRLD.                              |  | CORE NO.           |  | FROM                  |  | TO                    |  | FORMATION (SHOW CORE RECOVERY) |  | ROTA- RY R.P.M.   |  | WT.ON BIT 1000#      |  | PUMP PRESS.          |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD |  |
| COMPLETING (A) PERFORATING                |  | STANDS DP                               |  | FT.                                 |  | RUN NO.                       |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| (B) RUNNING TUBING                        |  | SNGLS. DP                               |  | FT.                                 |  | SIZE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| (C) SWABBING                              |  | D.C. ID                                 |  | FT.                                 |  | MFG.                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| (D) TESTING                               |  | RMR BODY OD                             |  | FT.                                 |  | NOZ. NO.                      |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| (E) ACIDIZING                             |  | STB BODY OD                             |  | FT.                                 |  | SIZE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| (F) ADDITIONAL                            |  | SUBS OD                                 |  | FT.                                 |  | SER. NO.                      |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| TOTALS                                    |  | BIT OR C.B.                             |  | FT.                                 |  | DEPTH OUT                     |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| TIME SUMMARY (OFFICE USE ONLY)            |  | KELLY DOWN                              |  | FT.                                 |  | CUMULATIVE HOURS RUN          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| CONTRACTOR'S TIME HRS.                    |  | TOTAL                                   |  | FT.                                 |  | REAMER CUTTER NO.             |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| OPERATOR'S TIME:                          |  | WT. OF STRING                           |  | LBS.                                |  | TYPE                          |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| HRS. W/D.P.                               |  | DRILLER                                 |  |                                     |  |                               |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |
| HRS. WO/D.P.                              |  | NO.                                     |  | DRILLING ASSEMBLY                   |  | BIT RECORD                    |  | HRS. DRLD.                              |  | CORE NO.           |  | FROM                  |  | TO                    |  | FORMATION (SHOW CORE RECOVERY) |  | ROTA- RY R.P.M.   |  | WT.ON BIT 1000#      |  | PUMP PRESS.          |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD |  |
| HRS. STANDBY                              |  | STANDS DP                               |  | FT.                                 |  |                               |  |                                         |  |                    |  |                       |  |                       |  |                                |  |                   |  |                      |  |                      |  |                              |  |                              |  |                  |  |            |  |

## SEWING YOUR

DATE Dec. 16/67

|                                  |  |                                   |  |                        |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|----------------------------------|--|-----------------------------------|--|------------------------|--|------------------------|--|----------------------------|--|-----------------------|--|-----------------|--|-------------|--|--------------------------------|--|
| OPERATOR<br>SHELL CANADA LIMITED |  | LOCATION<br>22-02 N 116 49.57 118 |  | SEC.<br>W.             |  | RGE.<br>W.             |  | WELL NAME<br>SHELL DESEMAN |  | No.<br>K 89           |  | PROVINCE<br>NWT |  |             |  |                                |  |
| CONTRACTOR                       |  | RIG NO.                           |  | BALL JOINT<br>NO. SIZE |  | TOOL JOINT<br>NO. SIZE |  | PUMPS                      |  | Casing & Liner Record |  | PERFORATIONS    |  | CEMENT USED |  | OTHER                          |  |
| OPERATOR'S REPRESENTATIVE        |  | CONTRACTOR'S TOOL PUSHER          |  | NO.                    |  | MANUFACTURER           |  | TYPE                       |  | STROKE LENGTH         |  | SIZE            |  | WT. & GR.   |  | DEPTH SET                      |  |
| TIME DISTRIBUTION—HOURS          |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
| DRILLING ACTUAL                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 3                          |  | 734                   |  | 1440            |  | 1540        |  | 150 14 500 4 44                |  |
| REAMING                          |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
| CIRCULATING                      |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
| TRIPS                            |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
| DEVIATION SURVEY                 |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
| TEST B.O.P.                      |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 40697                      |  |                       |  |                 |  |             |  |                                |  |
| CUT OFF DRILL LINE               |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  |                            |  |                       |  |                 |  |             |  |                                |  |
| REPAIR RIG                       |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 11 1/2                     |  |                       |  |                 |  |             |  |                                |  |
| CORING                           |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
| WIRE LINE LOGGING                |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
| OTHER                            |  | DRILLER                           |  | 8                      |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
| FISHING                          |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
| COMPLETING (A) PERFORATING       |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 3 4                        |  | 3 1/2                 |  | 1540            |  | 1579        |  | 500 6 44                       |  |
| (B) RUNNING TUBING               |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4 6 1/4                |  |                       |  |                 |  |             |  |                                |  |
| (C) SWABBING                     |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH SMITH                |  |                       |  |                 |  |             |  |                                |  |
| (D) TESTING                      |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
| (E) ACIDIZING                    |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
| (F) ADDITIONAL                   |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 40697 44491                |  |                       |  |                 |  |             |  |                                |  |
| TOTALS                           |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 1560                       |  |                       |  |                 |  |             |  |                                |  |
| TIME SUMMARY (OFFICE USE ONLY)   |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 13 3/4 1 1/4               |  |                       |  |                 |  |             |  |                                |  |
| CONTRACTOR'S TIME HRS.           |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
| OPERATOR'S TIME                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
| HRS. W/D.P.                      |  | DRILLER                           |  | 300                    |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
| HRS. WO/D.P.                     |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
| HRS. STANDBY                     |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
| WIRE LINE RECORD                 |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
| REEL NO.                         |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
| NO. OF LINES                     |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
| SIZE                             |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
| FEET SLIPPED                     |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
| FEET CUT OFF                     |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
| PRESENT LENGTH                   |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
| TON MI. OF TRIPS SINCE LAST CUT  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
| CUMULATIVE TON MI. OF TRIPS      |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
| NO. OF DAYS FROM SPUD            |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
| CUMULATIVE ROTATING HRS.         |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | BIT OR C.B.                       |  | FT.                    |  | DEPTH OUT              |  | 4 1/2                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | KELLY DOWN                        |  | FT.                    |  | CUMULATIVE HOURS RUN   |  | 5 3/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | TOTAL                             |  | FT.                    |  | REAMER CUTTER NO.      |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | WT. OF STRING                     |  | LBS.                   |  | TYPE                   |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | DRILLER                           |  | 2 Bonner               |  |                        |  |                            |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | NO.                               |  | DRILLING ASSEMBLY      |  | BIT RECORD             |  | HRS. DRLD.                 |  | CORE NO.              |  | FROM            |  | TO          |  | FORMATION (SHOW CORE RECOVERY) |  |
|                                  |  | STANDS DP                         |  | FT.                    |  | RUN NO.                |  | 4                          |  | 4 1/4                 |  | 1579            |  | 1666        |  | 100 14 500 6 44                |  |
|                                  |  | SNGLS. DP                         |  | FT.                    |  | SIZE                   |  | 6 1/4                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | D.C.                              |  | ID                     |  | MFG.                   |  | SMITH                      |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | RMR BODY OD                       |  | FT.                    |  | NOZ.                   |  | NO.                        |  | NO.                   |  | NO.             |  | NO.         |  | NO.                            |  |
|                                  |  | STR BODY OD                       |  | FT.                    |  | SIZE                   |  | REG                        |  |                       |  |                 |  |             |  |                                |  |
|                                  |  | SUBS OD                           |  | FT.                    |  | SER. NO.               |  | 44491                      |  |                       |  |                 |  |             |  |                                |  |

[illegible]

|                                          |  |                                                |  |                                   |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
|------------------------------------------|--|------------------------------------------------|--|-----------------------------------|--|-------------------------|--|------------------------------------------|--|-----------------------|--|-------------------------------------------------------------------------|--|---------------------|--|------------------|--|-------------|--|------------------------------|--|------------------------------|--|------------------|--|-----------------------|--|
| OPERATOR<br>SHELL CANADA LIMITED.        |  | LOCATION<br>60° 34' 30.02" N 116° 49' 57.48" W |  | TWP.<br>SHELL                     |  | WELL NAME<br>Desmarais  |  | No.<br>K-29                              |  | PROVINCE<br>N.W.T.    |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| CONTRACTOR<br>BIG INDIAN DRILLING        |  | RIG No.<br>17                                  |  | DRILL PIPE STRING NO. SIZE<br>100 |  | TOOL JOINT<br>TYPE THD. |  | PUMPS<br>MANUFACTURER TYPE STROKE LENGTH |  | CASING & LINER RECORD |  | SIZE WT. & GR. DEPTH SET FROM TO PERFORATIONS FROM TO CEMENT USED OTHER |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| OPERATOR'S REPRESENTATIVE<br>[Signature] |  | CONTRACTOR'S TOOL PUSHER<br>[Signature]        |  | NO.                               |  | 1.                      |  | 2.                                       |  | 3.                    |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| TIME DISTRIBUTION—HOURS                  |  | NO. DRILLING ASSEMBLY                          |  | BIT RECORD                        |  | HRS. DRILL              |  | CORE NO.                                 |  | FROM TO               |  | FORMATION (SHOW CORE RECOVERY)                                          |  | ROTA- RY R.P.M.     |  | WT. ON BIT 1000# |  | PUMP PRESS. |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD            |  |
| DRILLING ACTUAL 6:24 5:23:4              |  | STANDS DP 744.04 FT.                           |  | RUN NO. 1                         |  | SIZE 6 1/4              |  | 619 930                                  |  |                       |  |                                                                         |  | 150 12 500 6 1/2    |  |                  |  |             |  |                              |  |                              |  |                  |  | TIME                  |  |
| REAMING                                  |  | ID 744.04 FT.                                  |  | MFG. SMITH                        |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | WEIGHT                |  |
| CIRCULATING                              |  | OD 148.99 FT.                                  |  | TYPE DTJ                          |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | VISC                  |  |
| TRIPS 3                                  |  | RMR BODY OD                                    |  | FT. NO. 3                         |  | NOZ. SIZE 18            |  | DEVIATION RECORD: 808 1/4                |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | W.L.C.C.              |  |
| DEVIATION SURVEY 1/4                     |  | STB BODY OD                                    |  | FT. NO. 3                         |  | NOZ. SIZE 18            |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | FLTR. CK.             |  |
| TEST B.O.P. 1/4                          |  | SUBS OD                                        |  | FT. SER. NO. 43745                |  |                         |  | REMARKS 3                                |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | SD. CONT.             |  |
| CUT OFF DRILL LINE                       |  | BIT OR C.B.                                    |  | FT. DEPTH OUT                     |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| REPAIR REG 1 1/2                         |  | KELLY DOWN                                     |  | FT. COND. OF BIT                  |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| CORING                                   |  | TOTAL 930.00 FT.                               |  | REAMER CUTTER NO.                 |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| WIRE LINE LOGGING                        |  | WT. OF STRING 12.000 LBS.                      |  | TYPE                              |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| OTHER 2                                  |  | DRILLER                                        |  | Dwayne De Ford                    |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| FISHING                                  |  | NO. DRILLING ASSEMBLY                          |  | BIT RECORD                        |  | HRS. DRILL              |  | CORE NO.                                 |  | FROM TO               |  | FORMATION (SHOW CORE RECOVERY)                                          |  | ROTA- RY R.P.M.     |  | WT. ON BIT 1000# |  | PUMP PRESS. |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD            |  |
| COMPLETING (A) PERFORATING               |  | STANDS DP 874 FT.                              |  | RUN NO. 1                         |  | SIZE 6 1/4              |  | 5 1/2 930 1054                           |  |                       |  |                                                                         |  | 190 12 500 6 1/2 44 |  |                  |  |             |  |                              |  |                              |  |                  |  | TIME 8:00 10:00 20:00 |  |
| (B) RUNNING TUBING                       |  | ID 874 FT.                                     |  | MFG. SMITH                        |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | WEIGHT 9.4 9.4 9.7    |  |
| (C) SWABBING                             |  | OD 148.99 FT.                                  |  | TYPE DTJ                          |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | VISC 38 51 40         |  |
| (D) TESTING                              |  | RMR BODY OD                                    |  | FT. NO. 3                         |  | NOZ. SIZE 18            |  | DEVIATION RECORD: 800                    |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | W.L.C.C. 6.7 7.7      |  |
| (E) ACIDIZING                            |  | STB BODY OD                                    |  | FT. NO. 3                         |  | NOZ. SIZE 18            |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | FLTR. CK. 7/32 1/32   |  |
| (F) ADDITIONAL                           |  | SUBS OD                                        |  | FT. SER. NO. 43745                |  |                         |  | REMARKS 8:15                             |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | PH 9                  |  |
| TOTALS 8 5 4                             |  | BIT OR C.B.                                    |  | FT. DEPTH OUT                     |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  | SD. CONT.             |  |
| TIME SUMMARY (OFFICE USE ONLY)           |  | KELLY DOWN 27 FT.                              |  | COND. OF BIT                      |  |                         |  |                                          |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| CONTRACTOR'S TIME HRS: 24                |  | TOTAL 1054 FT.                                 |  | REAMER CUTTER NO.                 |  |                         |  | 1115                                     |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| OPERATOR'S TIME: 0                       |  | WT. OF STRING 15 LBS.                          |  | TYPE                              |  |                         |  | 215                                      |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| HRS. W/D.P.                              |  | DRILLER                                        |  | John Forsyth                      |  |                         |  | 3:00                                     |  |                       |  |                                                                         |  |                     |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |
| HRS. WO/D.P.                             |  | NO. DRILLING ASSEMBLY                          |  | BIT RECORD                        |  | HRS. DRILL              |  | CORE NO.                                 |  | FROM TO               |  | FORMATION (SHOW CORE RECOVERY)                                          |  | ROTA- RY R.P.M.     |  | WT. ON BIT 1000# |  | PUMP PRESS. |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN |  | MUD RECORD            |  |
| HRS. STANDBY                             |  | STANDS DP 979.42 FT.                           |  | RUN NO. 1 1                       |  | SIZE 6 1/4 6 1/4        |  | 18 1/2 1054 1060                         |  |                       |  |                                                                         |  | 190 12 500 6 1/2 44 |  |                  |  |             |  |                              |  |                              |  |                  |  |                       |  |



**EVENING TOUR**



|                                          |  |                                          |  |                                                           |  |                         |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
|------------------------------------------|--|------------------------------------------|--|-----------------------------------------------------------|--|-------------------------|--|--------------------|--|-----------------------|--|----------------------|--|----------------------|--|--------------------------------|--|-----------------|--|------------------|--|-------------|--|------------------------------|--|------------------------------|--|----------------------|--|------------|--|
| OPERATOR<br>SHELL CANADA LIMITED         |  | LOCATION<br>60 58 30.02 N 116 49 57.48 W |  | SEC.<br>TWP.<br>RGE.<br>W.<br>WELL NAME<br>SHELL DECMANIS |  | No.<br>K 29             |  | PROVINCE<br>N.W.T. |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| CONTRACTOR<br>BIG INDIAN DRILLING 17     |  | RIG No.<br>17                            |  | DRILL PIPE<br>NO. SIZE                                    |  | TOOL JOINT<br>TYPE THD. |  | PUMPS              |  | CASING & LINER RECORD |  | SIZE WT. & GR.       |  | DEPTH SET<br>FROM TO |  | PERFORATIONS<br>FROM TO        |  | CEMENT USED     |  | OTHER            |  |             |  |                              |  |                              |  |                      |  |            |  |
| OPERATOR'S REPRESENTATIVE<br>[Signature] |  | CONTRACTOR'S TOOL PUSHER<br>[Signature]  |  | NC.                                                       |  | MANUFACTURER            |  | TYPE               |  | STROKE LENGTH         |  | 1.                   |  | 2.                   |  | 3.                             |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| TIME DISTRIBUTION—HOURS                  |  | NO.                                      |  | DRILLING ASSEMBLY                                         |  | BIT RECORD              |  | HRS. DRLD.         |  | CORE NO.              |  | FROM                 |  | TO                   |  | FORMATION (SHOW CORE RECOVERY) |  | ROTA- RY R.P.M. |  | WT. ON BIT 1000# |  | PUMP PRESS. |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN     |  | MUD RECORD |  |
| DRILLING ACTUAL 7 1/4 14 2               |  | STANDS DP                                |  | FT.                                                       |  | RUN NO. 1A              |  | 7 1/4              |  |                       |  | 17                   |  | 80                   |  | 80-100 ALL                     |  | 600             |  | 82               |  | 52          |  |                              |  |                              |  | TIME 12 00 4 00 6 00 |  |            |  |
| REAMING                                  |  | SNGLS. DP                                |  | FT.                                                       |  | SIZE 9 7/8              |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | WEIGHT 40 45 50      |  |            |  |
| CIRCULATING                              |  | ID                                       |  | MFG.                                                      |  | SMITH                   |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | VISC 40 45 50        |  |            |  |
| TRIPS                                    |  | D.C.                                     |  | OD 28.42                                                  |  | FT.                     |  | TYPE DT            |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | W.L.C.C.             |  |            |  |
| DEVIATION SURVEY                         |  | RMR BODY OD                              |  | FT.                                                       |  | NOZ. NO.                |  | DEVIATION RECORD:  |  | DEPTH                 |  | DEV.                 |  | DIRECTION            |  | DEPTH                          |  | DEV.            |  | DIRECTION        |  | DEPTH       |  | DEV.                         |  | DIRECTION                    |  | FLTR. CK.            |  |            |  |
| TEST B.O.P                               |  | STB BODY OD                              |  | FT.                                                       |  | NOZ. SIZE               |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | PH                   |  |            |  |
| CUT OFF DRILL LINE                       |  | SUBS OD                                  |  | 3.39                                                      |  | FT.                     |  | SER. NO. 67558     |  | 12 00                 |  | DRILL 9 7/8 HOPE     |  | DRILLING ON ROCKS    |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | SD. CONT.            |  |            |  |
| REPAIR RIG                               |  | BIT OR C.B.                              |  | FT.                                                       |  | DEPTH OUT               |  |                    |  | 15 30                 |  | Rig SER              |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| CORING                                   |  | KELLY DOWN                               |  | FT.                                                       |  | COND. OF BIT            |  | IN                 |  | 3 30                  |  | PRK up 1/4 section   |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| WIRE LINE LOGGING                        |  | TOTAL                                    |  | FT.                                                       |  | REAMER CUTTER NO.       |  |                    |  | 6 00                  |  | DRILL 9 7/8 HOPE     |  | DRILLING ON ROCKS    |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| OTHER                                    |  | WT. OF STRING                            |  | LBS.                                                      |  | TYPE                    |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| FISHING                                  |  | DRILLER                                  |  | Duane D. Ford                                             |  |                         |  | 8                  |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| COMPLETING (A) PERFORATING               |  | NO.                                      |  | DRILLING ASSEMBLY                                         |  | BIT RECORD              |  | HRS. DRLD.         |  | CORE NO.              |  | FROM                 |  | TO                   |  | FORMATION (SHOW CORE RECOVERY) |  | ROTA- RY R.P.M. |  | WT. ON BIT 1000# |  | PUMP PRESS. |  | PUMP NO. 1 LINER SIZE S.P.M. |  | PUMP NO. 2 LINER SIZE S.P.M. |  | METHOD PUMPS RUN     |  | MUD RECORD |  |
| (B) RUNNING TUBING                       |  | STANDS DP                                |  | FT.                                                       |  | RUN NO. 1A              |  | 1 1/4              |  |                       |  | 50                   |  | 99                   |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | TIME 8 8             |  |            |  |
| (C) SWABBING                             |  | SNGLS. DP                                |  | FT.                                                       |  | SIZE 9 7/8              |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | WEIGHT 40 70 130     |  |            |  |
| (D) TESTING                              |  | ID                                       |  | MFG.                                                      |  | SMITH                   |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | VISC 40 70 130       |  |            |  |
| (E) ACIDIZING                            |  | D.C.                                     |  | OD 59.00                                                  |  | FT.                     |  | TYPE DT            |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | W.L.C.C.             |  |            |  |
| (F) ADDITIONAL                           |  | RMR BODY OD                              |  | FT.                                                       |  | NOZ. NO.                |  | DEVIATION RECORD:  |  | DEPTH                 |  | DEV.                 |  | DIRECTION            |  | DEPTH                          |  | DEV.            |  | DIRECTION        |  | DEPTH       |  | DEV.                         |  | DIRECTION                    |  | FLTR. CK.            |  |            |  |
| TOTALS 8 3 3                             |  | STB BODY OD                              |  | FT.                                                       |  | NOZ. SIZE 3/4           |  |                    |  | 70                    |  | 1 1/8                |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | PH                   |  |            |  |
| TIME SUMMARY (OFFICE USE ONLY)           |  | SUBS OD                                  |  | 3.39                                                      |  | FT.                     |  | SER. NO. 67558     |  | 8 00                  |  | DRILL 9 7/8 Boulders |  | KBTGR 9.50           |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  | SD. CONT.            |  |            |  |
| CONTRACTOR'S TIME HRS. 24                |  | BIT OR C.B.                              |  | FT.                                                       |  | DEPTH OUT               |  |                    |  | 8 45                  |  | WORK OUT GRAVEL      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| OPERATOR'S TIME: 0                       |  | KELLY DOWN                               |  | 37                                                        |  | FT.                     |  | COND. OF BIT       |  | 9 15                  |  | CONN & SURVEY        |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| HRS. W/D.P.                              |  | TOTAL                                    |  | 99.99                                                     |  | FT.                     |  | REAMER CUTTER NO.  |  | 9 45                  |  | WORK ON MUDLINE      |  | Rig SERVICE          |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |
| HRS. WO/D.P.                             |  | WT. OF STRING                            |  | LBS.                                                      |  | TYPE                    |  |                    |  |                       |  |                      |  |                      |  |                                |  |                 |  |                  |  |             |  |                              |  |                              |  |                      |  |            |  |

| OPERATOR                    |  | LOCATION                 |  | LSD.                       |  | SEC.       |  | TWP. |  | RGE.  |  | W.                    |  | WELL NAME |  | No.       |  | PROVINCE  |  |              |  |             |  |       |  |
|-----------------------------|--|--------------------------|--|----------------------------|--|------------|--|------|--|-------|--|-----------------------|--|-----------|--|-----------|--|-----------|--|--------------|--|-------------|--|-------|--|
| SHELL CANADA LIMITED        |  | 60°58'30.02"N            |  | 116°49'57.48"W             |  |            |  |      |  |       |  | Shell Desmarais       |  | K-29      |  | N.W.T.    |  |           |  |              |  |             |  |       |  |
| CONTRACTOR                  |  | RIG NO.                  |  | DRILL PIPE STRING NO. SIZE |  | TOOL JOINT |  | OD   |  | PUMPS |  | CASING & LINER RECORD |  | SIZE      |  | WT. & GR. |  | DEPTH SET |  | PERFORATIONS |  | CEMENT USED |  | OTHER |  |
| BIG INDIAN Drilling Co. Ltd |  | 17                       |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
| OPERATOR'S REPRESENTATIVE   |  | CONTRACTOR'S TOOL PUSHER |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |
|                             |  |                          |  |                            |  |            |  |      |  |       |  |                       |  |           |  |           |  |           |  |              |  |             |  |       |  |