

- K-FORDING RIVER 82(L)A

327

CONFIDENTIAL FILE

FORDING RIVER OPERATIONS

SUMMARY REPORT

1982 EXPLORATION AND DEVELOPMENT PROGRAM

ON

COAL LICENCE NUMBERS 330, 332, 336, 511

AND

B.C. COAL LEASES #1, #2 & #5

MINING DISTRICT: Fort Steele
LAND DISTRICT: Kootenay
N.T.S. LOCATION: 82J2W
LATITUDE: 50° 10'
LONGITUDE: 114° 52'
OWNER: Fording Coal Limited
Fording River Operations
Box 100
Elkford, B.C.
V0B 1H0
OPERATOR: Fording River Operations
Box 100
Elkford, B.C.
V0B 1H0
AUTHOR: K.A. Komenac, P. Eng.
Exploration Geologist
DATE OF THE WORK DONE: May to September, 1982
DATE REPORT SUBMITTED: June 17, 1983

OPEN FILE

GEOLOGICAL BRANCH ASSESSMENT REPORT

00 327

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OPEN FILE

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NOTE: None of the exploratory drillholes completed in 1982 intersected a coal seam which may be worked by underground methods, therefore, none of the drillholes required cementing.

LIST OF ILLUSTRATIONS

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| 1 | a. Index Map - Coal Properties Scale - 1:50,000 b. General Geology Map Scale - 1:25,000 |
| 2 | 1982 Exploration and Development Program Scale - 1:10,000 |
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| 4 ✓ | Henretta Creek Area Program Scale 1:2,000 |
| 5 | a. Eagle Mountain - 15 Seam Area Program Scale 1:2,000 b. Geological Cross Section 149,700N Scale 1:2,000 |
| 6 | a. East Spur - Brownie Ridge Area Program Scale 1:2,000 b. Geological Cross Section 149,700N Scale 1:2,000 c. Geological Cross Section 148,000N Scale 1:2,000 |
| 7 | a. Adit #19 Scale 1:250 b. Adit #20 Scale 1:250 |

FORDING RIVER OPERATIONS

SUMMARY REPORT

1982 EXPLORATION AND DEVELOPMENT PROGRAM

I. INTRODUCTION

1. General Geography and History

The Fording Coal Property is located in the Fording River and Upper Elk River Valleys, approximately 25 kilometres north of Elkford, B.C. Access is by paved road north from Elkford along the Fording River Valley or north along the Elk River Valley via the Forestry Service gravel road or the Kan-Elk Powerline road.

The Fording River minesite is situated within the front range of the southern Canadian Rocky Mountains. At least eight (8) major coal seams, generally greater than four (4) metres thick, are contained in the Mist Mountain Formation of the Kootenay Group.

The Elk River portion of the property was actively explored by the Canadian Pacific Railway Company in the period 1902-1908. Until 1947, the property was comprised of 10,276 hectares in 40 Crown Granted Lots. In that year, the holdings were reduced to 2,979 hectares in 15 Crown Granted Lots, which still form part of the Fording Coal Property. In 1967 and 1968, Canadian Pacific Oil and Gas re-acquired part of the coal lands which had been abandoned in 1947. At the present time, the Fording Coal Property consists of 19,637 hectares held on three (3) Coal Leases, 15 Crown Granted Lots, and sixty-seven (67) Coal Licences.

Mining operations, which commenced in 1972, have produced more than 28 million tonnes of cleaned metallurgical bituminous coal, primarily for export to Japan. Of this total, 3.9 million tonnes were produced in 1982.

1. General Geography and History (cont'd)

Reference: i) Illustration No. 1a: Index Map -
Coal Properties

2. Geology

i) Stratigraphy

The general stratigraphic succession on the Fording River Property is summarized in the following table:

| PERIOD | LITHO-STRATIGRAPHIC UNITS | PRINCIPAL ROCK TYPES |
|------------------------------------|---------------------------|--|
| Recent | | Colluvium |
| Quaternary | | Clay, silt, sand, gravel, cobbles |
| | Major Unconformity | |
| Lower Cretaceous | Blairmore Group | Massive bedded sandstones and conglomerates. |
| | Disconformity | |
| | Elk Formation | Sandstone, siltstone, shale, mudstone, chert pebble conglomerate, minor coal |
| Lower Cretaceous to Upper Jurassic | Mist Mountain Formation | Sandstone, siltstone, shale, mudstone, thick coal seams |
| | Moose Mountain Member | Medium to coarse grained quartz-chert sandstone. |
| | Weary Ridge Member | Fine to coarse grained, slightly ferroginous quartz-chert sandstone. |
| Jurassic | Fernie Formation | Shale, siltstone, fine-grained sandstone. |
| | Disconformity? | |
| Triassic | Spray River Formation | Sandy shale, shaley quartzite |
| | Unconformity | |
| Mississippian | Rundle Group | Limestone |

KOOTENAY

MORMON GROUP

FERRIS

2. Geology (cont'd)

The oldest rocks present on the Fording River property are the Rundle Group limestones located on the west bank of the Fording River near the southern property boundary. It is in faulted contact with the Kootenay Group to the west, and unconformable contact with Spray River quartzites to the north. The latter are best exposed on the eastern slope of the Brownie Creek Valley.

The Fernie Formation shales occur throughout the area, generally along the sides of valleys on the lower flanks of the mountains. The shales are recessive and, therefore, very poorly exposed. The Fernie Formation is in conformable contact with the Morrissey, through the "Passage beds" which are a transitional zone from marine to non-marine sedimentation.

The Morrissey Formation, which is the "basal sandstone" of the Kootenay Group, is a prominent cliff-forming marker horizon in many locations. On the Fording River property, the top of the Moose Mountain member (Morrissey Formation) is in sharp contact with #1 or A seam, the lowermost bed of the Mist Mountain Formation.

The Mist Mountain Formation contains all of the economic coal seams, and is the most widely occurring formation on Fording River property. This economically important formation is an interbedded sequence of sandstones, siltstones, silty shales, mudstones, and medium to high volatile bituminous coal seams. The volatile content of the coal increases up section, with decreasing rank. Lenticular sandstones comprise about 1/3 of the Mist Mountain sediments at Fording River, but very few laterally extensive sandstone beds exist.

2. Geology (cont'd)

The sandstone above and below seam #4 (B) and above 9 (F) are the most persistent units, and are often cliff-forming marker horizons.

The Mist Mountain formation is conformably overlain by strata of the Elk Formation. On the Fording property, this formation is commonly a succession of sandstone, siltstone, shale, mudstone, chert pebble conglomerate and sporadic, thin, high volatile bituminous coal seams. The coal seams are characterized by a high alginite content and referred to as "Needle" Coal. The Elk formation is observed near the tops of the mountains, mainly on the east side of the Elk Valley on the Greenhills range and northward to the Mount Tuxford area.

The top of the Elk formation marks the upward unit of the Kootenay Group, which is unconformably overlain by the basal member of the Blairmore Group. This thick bedded, cliff forming sandstone and conglomerate unit is observed on the upper slopes of Mount Tuxford.

ii) Structure

Subsequent to deposition, the sediments were involved in the mountain building movements of the late Cretaceous to early Tertiary Laramide orogeny. The major structural features of the Fording River property are the north-south trending synclines with near horizontal to steep westerly dipping thrust faults and only a few high angle normal faults. Some of the faults probably were folded, late in the tectonic sequence.

The formation of the major fold structures began early in the tectonic sequence. In the current mining area, two (2) asymmetric synclines are evident; the Greenhills Syncline to the west and the Alexander Creek Syncline to the east of the Fording River.

2. Geology (cont'd)

The thrust faulting (i.e. the Ewin Pass and Brownie Ridge Thrusts), was probably contemporaneous with the later stages of folding. The intervening anticline was subsequently faulted (Ericson Fault), then eroded.

The Alexander Creek Syncline can be traced from the southern property boundary on Castle Mountain to the northern end of the property, on Weary Ridge. The strata of the west limb, on the west face of Eagle Mountain, dips easterly at 20 to 25°, decreasing gradually to zero (0) as the axis is approached. The east limb, however, attains a 20° westerly dip within a much shorter (500m) distance of the axis. This asymmetry is possibly due, at least in part, to the influence of the Ewin Pass Thrust which subcrops 600 to 800 metres east of the synclinal axis. Further to the east, on Brownie Ridge, the strata dips westerly at a mean dip of 42°. The Brownie Ridge Thrust, which subcrops near the crest of the ridge, probably contributes to this steepening.

Within the mining areas, the axis of the Alexander Creek syncline plunges to the north at an average of 4°. Turnbull Mountain exhibits a localized series of en echelon fold structures, plunging both to the north and south. These subsidiary folds may be related to thrust faulting. From the south end of Mount Tuxford, the synclinal axis continues north-northwest along the base of Mount Veits and into the Elk River Valley, near Aldridge Creek.

On Mount Tuxford, the beds exposed are those of the Elk Formation and the overlying (non-coal bearing) Cadomin Formation. The area has not been extensively explored. The stratigraphic sequence of the east limb, in the more extensively explored Mist Mountain strata near Aldridge Creek (Elco property) closely resembles the east limb strata found on Henretta Mountain, 10 kilometres to the south.

2. Geology (cont'd)

On the north-west corner of Eagle Mountain, the lower Kootenay - upper Fernie section is the locus for a zone of near horizontal thrust faulting. The effect is to cause a double repetition of the lower coal seams and basal sandstone on the west synclinal limb. This fault zone is synclinal in form, and continuous with the Ewin Pass Thrust zone found on the east limb.

The Greenhills Syncline in the mining area, is essentially a "mirror-image" of the Alexander Creek structure. The east limb of the asymmetric syncline dips westerly at 15° to 25° , except in areas near the Ericson Fault, where 45 to 55° dips are common. The west limb exhibits much steeper dips; commonly in the 35 to 45° range. The Greenhills Syncline plunges northward (340 to 350°) at less than 5° , then apparently dies out to the north, in the area of the Osborne Creek depression.

The Ericson Fault, which locally runs along the base of the Greenhills Range west of the Fording River, is one of the major, through-going faults of the region. From south to north, this westerly dipping (40° to 70°) normal fault brings Mist Mountain strata progressively into contact with Rundle, Spray River, Fernie, and Morrissey strata. The downthrown block is to the west.

Near the south end of Lake Mountain, the Ericson Fault begins to "splay" into two (2) zones. The main fault runs along the eastern margin of Lake Mountain, and the subsidiary fault runs to the west, and appears to "die out" northward. The steep northward dip exhibited in the Lake Mountain strata could be due to influence from these flanking "splays" of the fault. The flat lying region to the north of Lake Mountain (Osborne Creek depression area) is completely void of outcrop, and the Ericson Fault has not been traced either through or to the north of this area.

2. Geology (cont'd)

Reference:

- i) Illustration No. 1b- General
Geology Map

3. Summary of Work Done in 1982

Sixty-six (66) drillholes were completed in 1982 for a total of 21,145 metres: 4,064 metres in seven (7) vertical HQ diamond core holes and 17,081 metres in fifty-nine (59) 5" reverse circulation rotary holes. The diamond core holes were drilled by Canadian Mine Services Ltd. using a skid mounted, unitized BB 56A drilling rig plus a skid mounted unitized Superdrill. The reverse circulation rotary drilling was done by SDS Drilling, using two (2) Gardner Denver 1700 rigs, both equipped with a down-hole hammer and 4½" CSR drill rods.

All holes were geophysically logged by Century Geophysical Corporation of Canada, using the gamma-neutron method. The diamond drillholes and deep rotary holes were also logged for hole deviation.

All coal seams intersected in centre-return rotary drillholes were sampled in 0.5 metre intervals. Representative composite samples for each major coal seam intersected in the hole were prepared at Fording's Process Plant laboratory and each composite sample was tested for Proximate Analysis, FSI, % Sulphur, and calorific value. Diamond drill seam cores were tested for washability, in addition to the aforementioned tests. Samples of selected seam composites were sent to Cascade Coal Petrography for petrographic analysis, to Fording's laboratory for fluidity and dilatation tests, and to Birtley Coal and Minerals Testing for ash analysis.

3. Summary of Work Done in 1982 (cont'd)

In addition to the drilling, two (2) adits (Nos. 19 and 20) were driven by Target Tunnelling Ltd. for a total drivage of 134 metres, including cross-cuts. Tunnel size is approximately two (2) metres high by 2.5 metres wide. Two (2) five tonne bulk channel samples were obtained from each adit, and sent to Birtley Coal and Minerals Testing for Bulk washing (seams 4 upper and 4 lower from Adit 19 and seams 5 upper and 5 lower from Adit 20). Representative clean coal samples were then sent to Canmet (Ottawa) for coking tests.

Pre-logging of all access road rights-of-way and drillsite locations in timbered areas was undertaken prior to their construction. All merchantable timber was recovered and sold. Non-merchantable material was slashed and buried. The pre-logging was done on contract by A. Latka Contracting and the road construction was done by Rudy A. Johnson Contracting Limited and Elkford Industries Ltd.

Staff surveyors provided the necessary mapping control, located the drillholes, and surveyed the adits.

Fording geologists and summer students:

- a) mapped the various outcrops, road cut exposures, and the adits;
- b) logged and photographed the diamond drill cores; and
- c) installed piezometers in selected drillholes.

3. Summary of Work Done in 1982 (cont'd)

The following table shows the drillholes and adit sites with respect to Leases and Coal Licences.

| <u>Lease, Licence</u> | <u>Drillhole, Adit</u> |
|-----------------------|--|
| CL #332 | RH #916 |
| CL #330 | RH #922 |
| CL #336 | RH #919 |
| CL #511 | RH's #1383, 1389, 1390, 1390A, 1391 1392, 1393, 1394, 1395 |
| B.C. Coal Lease #1 | RH #1902 |
| B.C. Coal Lease #2 | RH #1900, 1901, 1903, 1904, 1905, 1700, 1701, 1703, 1704, 1708, 1711, 1714, 1717, 1718, 1719, 1783, 1784, 1786, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1799, 1641, and 1635 DDH #1900, 1705, 1710, 1715, 1720, 1782 and 1785 |
| B.C. Coal Lease #5 | RH #1702, 1706, 1707, 1709, 1712, 1713, 1716, 1780, 1781, 1787, 1798, 1633, 1634, 1636, 1642 |
| | Adits 19 and 20 |

Reference: i) Illustration No. 2: 1982 Exploration and Development Program

II. INDIVIDUAL AREA PROGRAMS1. South Greenhills Boundary Areai) Objectives

One (1) rotary hole (RH #1300) drilled in this area in 1981, intersected four (4) major coal seams (> 5 metres thick) within 220 metres from the surface. Projecting these seams to the east along the indicated westerly dip of 40-50°, could bring the seams within dragline mineable depth (≈ 50m) before being cut off by the Ericson Fault.

The prime objective of the rotary drilling program was to assess the open-cut mining potential in the area, with an emphasis on dragline mining potential.

ii) Summary of Work Done

Eight (8) reverse circulation rotary holes were drilled for a total of 1,541 metres. A ninth hole, RH #1390, was abandoned at 74 metres due to poor ground conditions and excessive water volumes.

Outcrop occurrences were restricted to road cut exposures, all of which were mapped and surveyed.

iii) Results and Conclusions

The program area is underlain by sandstones, siltstones, mudstones and coal seams of the Mist Mountain Formation. Two (2) major structures affect the area: the Ericson Fault which forms the eastern limit of the program area, and the east limb of the Greenhills syncline which underlies the entire drilling area.

iii) Results and Conclusions (cont'd)

Four (4) drillholes (RH #1389, 1390A, 1392 and 1395) intersected the Ericson Fault and terminated in Rundle limestone. One (1) hole RH 1383, was collared to the east of the fault subcrop, in limestone. The remaining holes were in Mist Mountain strata for their entire length.

Several thick coal seams were intersected, and correlations between the holes, and with RH #1300 (1981) show the strata to be dipping into the hillside (west) at approximately 40° - 45° . The section in this area correlates with the middle to upper portion of Mist Mountain formation encountered in the Greenhills mining areas to the north. Seam identifications, however, are difficult, and additional drilling in the area between the Greenhills mining areas and the 1982 program area will be required before accurate seam identification will be possible.

The steep westerly dip of the bedding and the easterly sloping topography combine to make dragline mining of this area unfeasible. There exists, however, some potential for small scale truck/shovel mining in selected portions of the program area.

iv) Itemized Cost Statement - Coal Licence Group 196

Schedule B

| <u>Category of Work</u> | <u>Dimensions</u> (where applicable) | <u>Unit Cost</u> (where applicable) | <u>Cost</u> |
|--|---|--|-------------|
| <u>Geological Mapping</u> | | | |
| Reconnaissance | | | |
| Detail - Surface | | | |
| - Underground | | | |
| - Other (specify) | | | |
| <u>Geophysical/Geochemical Surveys</u> | | | |
| Method | | | |
| Grid | | | |
| Topographic | | | |
| * Other (specify) | | | |
| <u>Road Construction</u> | | | |
| On licences Nos. | | | \$15,867 |
| Access to | | | |
| <u>Surface Work</u> | | | |
| Trenching | | | |
| Seam tracing | | | |
| Crosscutting | | | |
| *Other (specify) | | | |
| <u>Underground Work</u> | | | |
| Test adits | | | |
| * Other workings | | | |
| <u>Drilling</u> | | | |
| Core: Diamond | | | |
| Wireline | | | |
| Rotary: Conventional | | | |
| Reverse circulation | | | \$91,014 |
| *Other (Specify) | | | |
| Contractor: | SDS Drilling | | |
| Where core stored | | | |
| <u>Logging</u> | | | |
| | | | \$ 6,000 |
| <u>Sampling</u> | | | |
| | | | |
| <u>Testing</u> | | | |
| | | | \$ 3,000 |
| *Other work: | | | |
| (specify details) | Casing, ties, bags, tags, etc. | \$ | 107 |
| Reclamation work (Permit No) | C-102 | | |
| ON PROPERTY COSTS | \$ | 115,988 | |
| OFF PROPERTY COSTS | \$ | -- | |
| TOTAL EXPENDITURES | \$ | 115,988 |/13 |

References:

- i) Illustration No. 3a: South Greenhills Boundary Area Program.
- ii) Illustration No. 3b: Geological Cross Section 144,500N
- iii) Appendix 1: Cost Details for Work Done on Coal Licences
- iv) Appendix 2: Drillhole Logs
- v) Appendix 3: Drillhole Sample Analyses

II. INDIVIDUAL AREA PROGRAMS (cont'd)

2. Henretta Creek Area

i) Objectives

The Henretta Creek bottom area is potentially suitable for dragline mining, having favourable topography and being readily accessible from current dragline mining areas.

This area, however, is relatively unexplored, although drilling to the north on Henretta Mountain and to the south on Turnbull Mountain, indicates that the Henretta Creek area may contain mineable coal seams.

The objective of the drilling program was to quickly assess the potential in the area, and to determine whether a more extensive drilling program was warranted.

ii) Summary of Work Done

Seven (7) rotary drillholes were proposed, with the program divided into two (2) phases. The results from the initial phase (3 holes) would determine the necessity of the second phase (4 holes).

Only the first phase of drilling, three (3) holes for 634 metres, was completed in 1982.

FC214

FORDING COAL OPERATIONS

MONTH OF SEP 1982

CAPITAL JOB REPORT

PAGE 25

END CHARGE: 15015

100.00

OPENED

CLOSED

| DESCRIPTION | A/P ITEM | PURCHASE ORDER | REF NO OR CLS | CHG TYP | CAP. NO. | CURRENT HOURS | CURRENT AMOUNT | YTD HOURS | YTD AMOUNT | JTD AMOUNT |
|---------------------|-------------|-------------------|------------------|------------|-------------|------------------|-------------------|--------------|---------------|---------------|
| | | | | 03 | C6120110 | 0.0 | 0.00 | 8.0 | 160.00 | 160.00 |
| CAMERON MCCUTCHEON | | | FR09762 | 05 | C6120110 | 0.0 | 108,900.31 | 0.0 | 0.00 | 0.00 |
| CODE ADJ: K KOMENAC | | | JE09111 | 05 | C6120110 | 0.0 | -75,000.00 | 0.0 | 0.00 | 0.00 |
| CODE ADJ: K KOMENAC | | | JE09137 | 05 | C6120110 | 0.0 | 7,853.33 | 0.0 | 0.00 | 0.00 |
| COALEX DRILLING | | | FR09515 | 05 | C6120110 | 0.0 | 7,244.08 | 0.0 | 0.00 | 0.00 |
| | | | SUB-TOTAL | 05 | C6120110 | 0.0 | 49,006.72 | 0.0 | 434,931.75 | 434,931.75 |
| * CHG FROM W055401 | | | W055401 | 15 | C6120110 | 0.0 | 43,353.98 | 0.0 | 0.00 | 0.00 |
| | | | SUB-TOTAL | 15 | C6120110 | 0.0 | 43,353.98 | 0.0 | 43,769.45 | 43,769.45 |
| | | | TOTAL | | C6120110 | 0.0 | 92,360.70 | 8.0 | 478,660.20 | 478,660.20 |

Job Cost Analysis

1982 EXPLORATION & DEVELOPEMENT PROGRAM
C 612



| Job Code | Description | Month of | | Date | | Est Co | YTD |
|-------------|--|----------|-----------|---------|-----------|-----------|-----------|
| | | Nov | Dec | at | YTD | | |
| | SOUTH GREENHILLS BOUNDARY AREA | | | | | | |
| 120 | Rotary Drilling | | | | | | |
| | | | 91,014 | | 91,014 | | 91,014 |
| 200 | Road Construction | | | | | | |
| | | | 15,867 | | 15,867 | | 15,867 |
| 300 | Geological Supervision | | | | | | |
| 400 | Truck Rental | | | | | | |
| 410 | Miscellaneous Equipment Supplies & Services | | | | | | |
| | | | 107 | | 107 | | 107 |
| 1500 | Geophysical Logging | | | | | | |
| | | | 6,000 | | 6,000 | | 6,000 |
| 1700 | Pre - Logging | | | | | | |
| 1800 | Room & Board | | | | | | |
| 1900 | Petrography | | | | | | |
| | | | 500 | 2,500 | 3,000 | | 3,000 |
| | SUB TOTAL | | 113,488 | 2,500 | 115,988 | | 115,988 |
| | GRAND TOTAL | | 2,219,400 | 170,200 | 2,389,600 | | 2,389,600 |



FORDING
DEC-1 1982
PURCHASING

CASCADE COAL PETROGRAPHY LIMITED

6619-4 Ave SE Calgary T2A 3U1
 538 CLEVELAND GREG. S.E. CALGARY, ALBERTA T2G 4A9
 272-2345
 TELEPHONE: 267-1214 - 287-1215

SOLD TO

SHIPPED TO

Mr. Ken Cominec
 Fording Coal Ltd
 P.O. Box 100
 ELKFORD, BC V0B 1H0

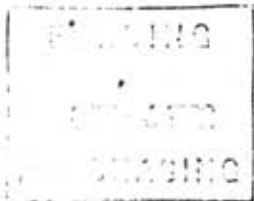
| DATE | DATE SHIPPED | SHIPPED BY | YOUR ORDER NO. | PRICE | TERMS | INVOICE NO. |
|-----------|--------------|------------|----------------|-------|-------|-------------|
| 15 Nov 82 | 23 Nov 82 | | FC 32835 | | | 1254 |

| QUANTITY | DESCRIPTION | PRICE | AMOUNT |
|-------------------|--|----------|------------|
| 38 | Petrographic Analysis of Fording RRH & DDH Samples | \$250.00 | \$950 0.00 |
| <i>OK 12/1/82</i> | | | |

FORDING PURCHASING
 05220 / C 6121900
 125
 APPROVAL
[Signature]

| | Code | Dr. | Cr. |
|------------------------|----------|-----|--------------------|
| Inter-Office Account | 08-15800 | \$ | \$ 9500 <i>OV.</i> |
| B.C. Sales Tax Payable | 08-15930 | | |

FC 32835-3849 05220/6121900 2500 *OV.*



CASCADE COAL PETROGRAPHY LIMITED

6619 - 4 Avenue S.E. Calgary, Alberta T2A 3V1
TELEPHONE: 267-1214 - 267-1215

SOLD TO

SHIPPED TO

Mr. Ken Cominec
Fording Coal Ltd
P.O. Box 100
Elkford, B.C. V0B 1H0

| DATE | DATE SHIPPED | SHIPPED VIA | ORDER NUMBER | QTY | GRADE | INVOICE NO |
|---------|--------------|-------------|--------------|-----|-------|------------|
| Sept 82 | 03 Oct 82 | | FC 32235 | | | 1250 |

| QTY | DESCRIPTION | PRICE | TOTAL |
|----------------------------------|---|----------------------|-----------|
| 20 | Petrographic Analysis of Fording DDH #'s 1389 | \$250.00 ea | \$5000.00 |
| | 1715 | | |
| | 1708 | | |
| | 1709 | | |
| | 1797 | | |
| | 1711 | | |
| | 05 C 6120900 | 54,500 ⁰⁰ | |
| | 05 C 6121900 | 9,500 ⁰⁰ | |
| <i>OK [Signature]</i> 4-10-82 | | | |

| | |
|------------|--|
| CASH DISC. | |
| PAID. | |
| APPROVAL | |



INVOICE

CENTURY GEOPHYSICAL CORPORATION OF CANADA
P.O. BOX 5700, POSTAL STATION "A", CALGARY, ALBERTA T2H 1Y2

TELEPHONE 287-1110
340 - 39th AVENUE
SOUTHEAST

Fording Coal Ltd.
Box 100
Elkford, B.C.
VOB 1H0.

INVOICE DATE 82/06/30

INVOICE No 9288 - A

TERMS: NET

ATTENTION: Ken Komenac

| DESCRIPTION | AMOUNT |
|-------------|--------|
|-------------|--------|

We DEBIT your account re: Surface Logging in the ELKFORD AREA OF BRITISH COLUMBIA, as follows:

BASIC RATE:

\$14,000.00 per month x 100% \$ 14,000.00

METERAGE CHARGE:

3194.2 meters (DEV) x .55¢/m \$ 1,756.81
5151.5 meters (9050) x .55¢/m \$ 2,843.33

ADDITIONAL LOGS:

Blueline Copies 85 x \$3.00 \$ 255.00

TOTAL..... \$ 18,845.14

05 - C 6 1 2 0 5 0 0 - 12,845.14
05 - C 6 1 2 1 5 0 0 - 6,000.00

Job No. 82-04-049
82/07/08



INVOICE

CENTURY GEOPHYSICAL CORPORATION OF CANADA
P.O. BOX 5700, POSTAL STATION "A", CALGARY, ALBERTA T2H 1Y2

TELEPHONE 287-1110
340 - 39th AVENUE SOUTHEAST

Fording Coal Ltd.
Box 100
Elkford, B.C.
VOB 1H0

INVOICE DATE 82/08/31

INVOICE No 9341-A

ATTENTION: Ken Komenac

TERMS: NET

| DESCRIPTION | AMOUNT |
|-------------|--------|
|-------------|--------|

We DEBIT your account re: Surface Logging in the ELKFORO AREA OF BRITISH COLUMBIA, as follows:

BASIC RATE:

\$14,000.00 per month x 87.1% \$ 12,194.00

OPTIONAL EQUIPMENT:

9030 Probe \$1500.00 per month x 87.1% \$ 1,306.50

Sonic Probe \$1500.00 per month x 87.1% \$ 1,306.50

METERAGE CHARGE:

6774.7 meters (9050) x .55¢/meter \$ 3,726.08

2868.5 meters (DEV) x .55¢/meter \$ 1,577.68

779.4 meters (9030) x .55¢/meter \$ 428.67

ADDITIONAL LOGS:

Blue-line Copies 60 x \$3.00 each \$ 180.00

TAPES:

To be billed in September -

MISCELLANEOUS:

Fuel: \$ 181.97

Meals: \$ 11.45

Extra Units: \$12500.00 per month x 10% \$ 1,250.00

Discount: \$ (4,291.67)

TOTAL..... \$ 17,871.18

OK
[Signature]

C-6120500 - 417 000.00
WD 55401 871.18

Job No. 82-04-040
82/09/10

Elkford Industries Ltd.

BOX 928, FERNIE, B.C. V0B 1M0
PHONE 423-4217

FORDING
SEP 27 1982
PURCHASING

September 21, 1982.

FORDING COAL LIMITED,

P.O. BOX 100,

ELKFORD, B.C. V0B 1H0.

DATE

No 427

| DATE | EXPLANATION | AMOUNT | | | | | | | | | | | | | | | |
|-----------|---|--------|---------|------|---|-----|----|----|---|---|-----|--|--|------|---|---|--|
| 1982. | <p>FC-36200: (K. Komenac)</p> <p>All Found Rate:</p> <p>*Rate Less Operator</p> <p>W.O. #3310 - Henrietta Cr. - C6120200:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <tr> <td style="text-align: center;">D* #22</td> <td style="text-align: center;">O.T.</td> <td style="text-align: center;">D.T.</td> </tr> <tr> <td style="border-top: 1px solid black;">4</td> <td style="border-top: 1px solid black;">4</td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;">6</td> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;">6</td> </tr> <tr> <td style="border-top: 1px solid black;">1.5</td> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">11.5</td> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">4</td> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">6</td> </tr> </table> <p>D8 Tractor : 11.5 hours @ \$144.00 - \$1,656.00 O.T. Differential: 4 " @ \$ 28.65 - \$ 114.60 D.T. " : 6 " @ \$ 38.20 - \$ 229.20</p> <p style="text-align: right; margin-right: 20px;">\$ 1,999.80</p> | D* #22 | O.T. | D.T. | 4 | 4 | | 6 | | 6 | 1.5 | | | 11.5 | 4 | 6 | |
| D* #22 | O.T. | D.T. | | | | | | | | | | | | | | | |
| 4 | 4 | | | | | | | | | | | | | | | | |
| 6 | | 6 | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | | | | |
| 11.5 | 4 | 6 | | | | | | | | | | | | | | | |
| August 14 | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | |
| | <p>W.O. #3301 - Eagle Mountain - C6120200:</p> <table style="margin-left: 40px; border-collapse: collapse;"> <tr> <td style="text-align: center;">D9 #12</td> <td style="text-align: center;">*D9 #12</td> </tr> <tr> <td style="border-top: 1px solid black;">7.5</td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;">7.5</td> <td style="border-top: 1px solid black;">*4</td> </tr> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">15</td> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">4</td> </tr> </table> <p>D9 Tractor: 15 hours @ \$167.00 - \$2,505.00 *D9 " : 7.5 " @ \$140.00 - \$ 560.00</p> <p style="text-align: right; margin-right: 20px;">\$ 3,065.00</p> <p style="text-align: right; margin-right: 20px;">\$ 5,064.80</p> | D9 #12 | *D9 #12 | 7.5 | | 7.5 | *4 | 15 | 4 | | | | | | | | |
| D9 #12 | *D9 #12 | | | | | | | | | | | | | | | | |
| 7.5 | | | | | | | | | | | | | | | | | |
| 7.5 | *4 | | | | | | | | | | | | | | | | |
| 15 | 4 | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | |
| Sept. 3 | | | | | | | | | | | | | | | | | |

| | Code | Dr. | Cr. |
|---|------------|----------|-----|
| Inter-Office Account | 08-15800 | \$ | \$ |
| B.C. Sales Tax Payable | 08-15930 | | |
| | 05C6120200 | 3,065.00 | |
| <i>ok</i> <i>[Signature]</i> 23-09-82 | W055401 | 1999.80 | |
| | Total | | |

Posted



Rudy A. Johnson
Contracting Ltd.

Box 1977
R.F. Sparwood, B.C. V0B 2G0 Telephone 425-2424

362

Date SEPT. 1/82

Order No. FC 36531

Leading Coal Ltd.
Box 100,
Elkford, B.C.

| Job No. | Description | Price |
|-------------------|--|-------------------|
| | RENTAL DSK at \$142.09 | |
| C6120200 | Brownie Ridge Aug. 17 / 10 hrs. 23 / 4 hrs. TOTAL 14 hrs. | \$1988.00 |
| 3841 | Kilmarnock CK. Aug. 18 - 3 hrs. TOTAL 3 hrs. | \$426.00 |
| W040102 | North Interceptor Aug. 16 - 8 hrs. 18 - 3 hrs. 19 - 8 hrs. 20 - 7 hrs. 23 - 4 hrs. 24 - 8 hrs. 25 - 8 hrs. 27 - 2 hrs. TOTAL 48 hrs. | \$6816.00 |
| W053401 | Henrietta CK. Aug. 18 - 2 hrs. 20 - 7 hrs. TOTAL 9 hrs. | \$1278.00 |
| NR605 | K-P.T Geology (Richard Dean) Aug. 27 - 2 hrs. TOTAL 2 hrs. | \$284.00 |
| OK <i>J. Rose</i> | | TOTAL \$10,792.00 |

ANDY LATKA CONT LTD
 BOX 475
 BLAIRMORE ALTA
 TOK-DEO

PURCHASE ORDER

26944

TO **FORDING COAL LTD** THIS NUMBER MUST APPEAR ON ALL INVOICES, PACKAGES, ETC.

ADDRESS **Box 100 ELKFORD BC.** REQ. NO. OR DEPT. **FC. 36534**

SHIP TO DATE **JUNE 14/52**

ADDRESS FOR

PLEASE NOTIFY US IMMEDIATELY IF YOU ARE UNABLE TO SHIP COMPLETE ORDER BY DATE SPECIFIED

| QUANTITY | PLEASE SUPPLY ITEMS LISTED BELOW | | PRICE |
|----------|----------------------------------|-------|----------|
| 1 | 10 DAYS 3/4 TON 4x4 | 4400 | 440 00 |
| 2 | 72 hrs FALLER | 3142 | 2262 24 |
| 3 | 16 hrs J.D 540 SKIDDER | 36.96 | 591 36 |
| 4 | 144 hrs BUCKER MEN | 24.65 | 3549 60 |
| 5 | | | |
| 6 | INVOICE #S 26939 - 26940 - 26941 | | |
| 7 | 26942 - 26943 | | |
| 8 | | | |
| 9 | A Latka | | |
| 10 | | | 56842 20 |

DATE REQUIRED _____ HOW SHIP _____ PLEASE SEND _____ COPIES OF YOUR INVOICE _____

TERMS **C 6121700** PURCHASING AGENT _____



SDS DRILLING

DIVISION OF SDS INDUSTRIES LTD.
4636 FIRST STREET S.E.
CALGARY, ALBERTA T2G 2L3
PHONE (403) 287-1460

Page .../2

Fording Coal Ltd.
P.O. Box 100
ELKFORD, B.C.
VOB 1H0

Attention: Mr. Ken Komenac, P. Geol.

Billing Period August 11, 1982 To August 20, 1982 Location Kilmarnook, B.C.

Invoice 2098 Continued

Date August 25, 1982

Client - Project No FC-36565

SDS - Job No Job 279
Rig 601-20

Hole No. 919 - T.D. 700 ft.

Drilling - 600.0 ft. @ \$15.00/foot
Standby - 6.5 hours @ \$155.00/hour

\$ 9,900.00
1,007.50

Sub 10,907.50

Hole No. 916 - T.D. 670 ft.

Drilling - 626.0 ft. @ \$15.00/foot
Standby - 1.0 hour @ \$155.00/hour

\$ 9,390.00
155.00

Sub \$ 9,545.00

Charge \$

C - 6120120 - \$34,732.⁵⁰
WD 55401 - \$31,215.⁰⁰

Terms:

Payment due 30 days from receipt
Interest charged at 2% per month over 30 days
Make cheques payable to above address

TOTAL

\$ 65,947.50



SDS DRILLING

DIVISION OF SDS INDUSTRIES LTD.
4636 FIRST STREET S.E.
CALGARY, ALBERTA T2G 2L3
PHONE (403) 287-1460

Invoice No 2102

Date August 27, 1982

Fording Coal Ltd.
P.O. Box 100
ELKFORD, B.C.
VOB 1H0

Client - Project No _____

SDS - Job No Project 200-401
Rig 650-58

Attention: Mr. Don Mills

Billing Period August 9, 1982 To August 15, 1982 Location Mine Site

Charges for Casing Exploration Holes

| Description | Unit | Amount |
|---|----------|-------------|
| Mobilization and Demobilization | Lump Sum | \$ 1,000.00 |
| Drilling - 57.0 hours @ \$140.00/hour | | 7,980.00 |
| Welder - 57.0 hours @ \$40.00/hour | | 2,280.00 |
| Standby - 7.5 hours @ \$120.00/hour | | 900.00 |
| Crew Travel - 10.0 hours @ \$50.00/hour | | 500.00 |
| 600' - 6-5/8" Casing @ \$8.75/foot | | 5,250.00 |

C-6120120 - \$10,000
WD 55401 - \$7,910.00

Terms:
Payment due 30 days from receipt
Interest charged at 2% per month over 30 days

TOTAL

\$17,910.00



DIVISION OF SDS INDUSTRIES LTD.
 4636 FIRST STREET S.E.
 CALGARY, ALBERTA T2G 2L3
 PHONE (403) 287-1460

Invoice **№ 2036**

Date June 21, 1982

Client - Project No FC 36566

SDS - Job No Project 279
Rig 601-18

Fording Coal Ltd.
 P.O. Box 100
 ELKFORD, B.C.
 VOB 1H0

FORDING
 JUN 23 1982
PURCHASING

Attention: Mr. Ken Komenac

Billing Period _____ To _____ Location Eagle Mountain, B.C.

As Per Attached Summary

Hole No. RH 1791 - T.D. 180 m.

Drilling - 590.5 feet @ \$15.00/foot
 Standby - .75 hours @ \$155.00/hour

\$ 8,857.50
 116.25

Sub 8,973.75

Hole No. RH 1794 - T.D. 157.5 m.

Drilling - 516.5 feet @ \$15.00/foot
 Standby - 1.5 hours @ \$155.00/hour

\$ 7,747.50
 232.50

Sub 7,980.00

Hole No. RH 1390 - T.D. 73.5 m.

Drilling - 241.0 feet @ \$15.00/foot
 Daywork - 1.0 hour @ \$168.00/hour
 Standby - 1.0 hour @ \$155.00/hour

\$ 3,615.00
 168.00
 155.00

Sub 3,938.00

Hole No. RH 1389 - T.D. 213 m.

Drilling - 698.5 feet @ \$15.00/foot
 Standby - 1.0 hour @ \$155.00/hour

\$10,477.50
 155.00

Sub 10,632.50

Hole No. HR 1390A - T.D. - 243 m.

Drilling - 700 feet @ \$15.00/foot
 Daywork - 8.0 hours @ \$168.00/hour
 Standby - 17.5 hours @ \$155.00/hour
 Bit Cost - 97 feet @ \$1.50/foot
 Plus 6% B.C. Tax
 Plus 10% Handling

\$10,500.00
 1,344.00
 2,712.50
 145.50
 8.75
 15.25

Sub 14,726.00

| | |
|---|--|
| FORDING PURCHASING | |
| DIST. <u>05C6120120</u> | |
| MARK THIS SQUARE IF PROV. TAX EXEMPT | <input type="checkbox"/> CFSM DISCT |
| MARK THIS SQUARE IF FED. TAX EXEMPT | <input type="checkbox"/> HMMED FAY <u>Jmm</u> |
| <u>AK</u> APPROVAL | |
| Sub | |

Hole No. RH 1383 - T.D. 25.75 m.

Drilling - 84.5 feet @ \$15.00/foot
 Standby - 7.0 hours @ \$155.00/hour

\$ 1,267.50
 1,085.00

Sub 2,352.50

Terms:

Payment due 30 days from receipt
 Interest charged at 2% per month over 30 days
 Make cheques payable to above address

TOTAL \$48,602.75

| | Code | Dr. | Cr. |
|------------------------|-----------------|------------------|------------------|
| Inter-Office Account | 08-15800 | \$ | \$ |
| B.C. Sales Tax Payable | 08-15930 | | |
| | <u>C6120120</u> | <u>16,953.75</u> | |
| | <u>C6121120</u> | <u>31,649.00</u> | |
| | | | <u>48,602.75</u> |

OK
 AK
 W. J. [Signature]
 82-06-29



SDS DRILLING

DIVISION OF SDS INDUSTRIES LTD.
4636 FIRST STREET S.E.
CALGARY, ALBERTA T2G 2L3
PHONE (403) 287-1460

Invoice No 2052

Date July 6, 1982

Client - Project No FC#36566

SDS - Job No 279
Rtg No. 601-18

Fording Coal Ltd.
P.O. Box 100
Elkford, B.C.
V0B 1H0

FORDING
JUL 12 1982
PURCHASING

Attention: Mr. Ken Komenac

Billing Period _____ To _____ Location Green Hills

As per Attached Summary:

| | |
|--|-----------|
| Hole #RH 1394 - T.D. - 304 1/2m | |
| Drilling - 700 Ft. @ \$15.00/ft. | 10,500.00 |
| Daywork - 28 1/2 hours @ \$168.00/hour | 4,788.00 |
| Standby - 4 hours @ \$155.00/hour | 620.00 |
| Bit Cost - plus 5% Button Bit @ | \$957.20 |
| - plus 6% B.C. Tax | 58.00 |
| - Plus 10% Handling | 102.50 |

1,127.70

Sub Total 17,035.70

| | |
|--------------------------------------|----------|
| Hole No. RH1395 T.D. 91m | |
| Drilling - 298 1/2 Ft. @ \$15.00/ft. | 4,477.20 |
| Standby - 1 hour @ \$155.00/hour | 155.00 |

Sub Total 4,632.20

| | |
|----------------------------------|----------|
| Hole No. RH1392 T.D. 164m | |
| Drilling - 538 Ft. @ \$15.00/ft. | 8,070.00 |
| Standby - 1 hour @ \$155.00/hour | 155.00 |

Sub Total 8225.00

| | |
|--|-----------|
| Hole No. RH 1391 - T.D. - 271m | |
| Drilling - 700 Ft. @ \$15.00/ft. | 10,500.00 |
| Daywork - 27 1/2 hours @ \$168.00/hour | 4,620.00 |
| Standby - 5 1/2 hours @ \$155.00/hour | 852.50 |
| Bit cost - 1 - 4 7/8 Rock bit @ | \$280.00 |
| - Plus 6% B.C. Tax | 16.80 |
| - Plus 10% Handling | 29.60 |

Sub Total 16,298.90

OK [Signature]

05 C 6121120

FORDING PURCHASING
[Stamp and signature]

Terms:
Payment due 30 days from receipt
Interest charged at 2% per month over 30 days
Make cheques payable to above address

TOTAL \$46,191.80

iii) Pro-rated Cost per Individual Licence

| <u>Coal Licence Group</u> | <u>Coal Licence Number</u> | <u>Pro-Rated Cost</u> |
|---------------------------|----------------------------|-------------------------|
| 196 | 511 | \$115,988 |
| 195 | 332 | \$ 14,150 |
| 198 | 336 | \$ 14,706 |
| | 330 | \$ 14,914 |
| <hr/> | | |
| Sub-Total 198 | | <u>\$ 29,620</u> |
| | TOTAL | <u><u>\$159,758</u></u> |

-K- FORDING RIVER 8262

327

CONFIDENTIAL

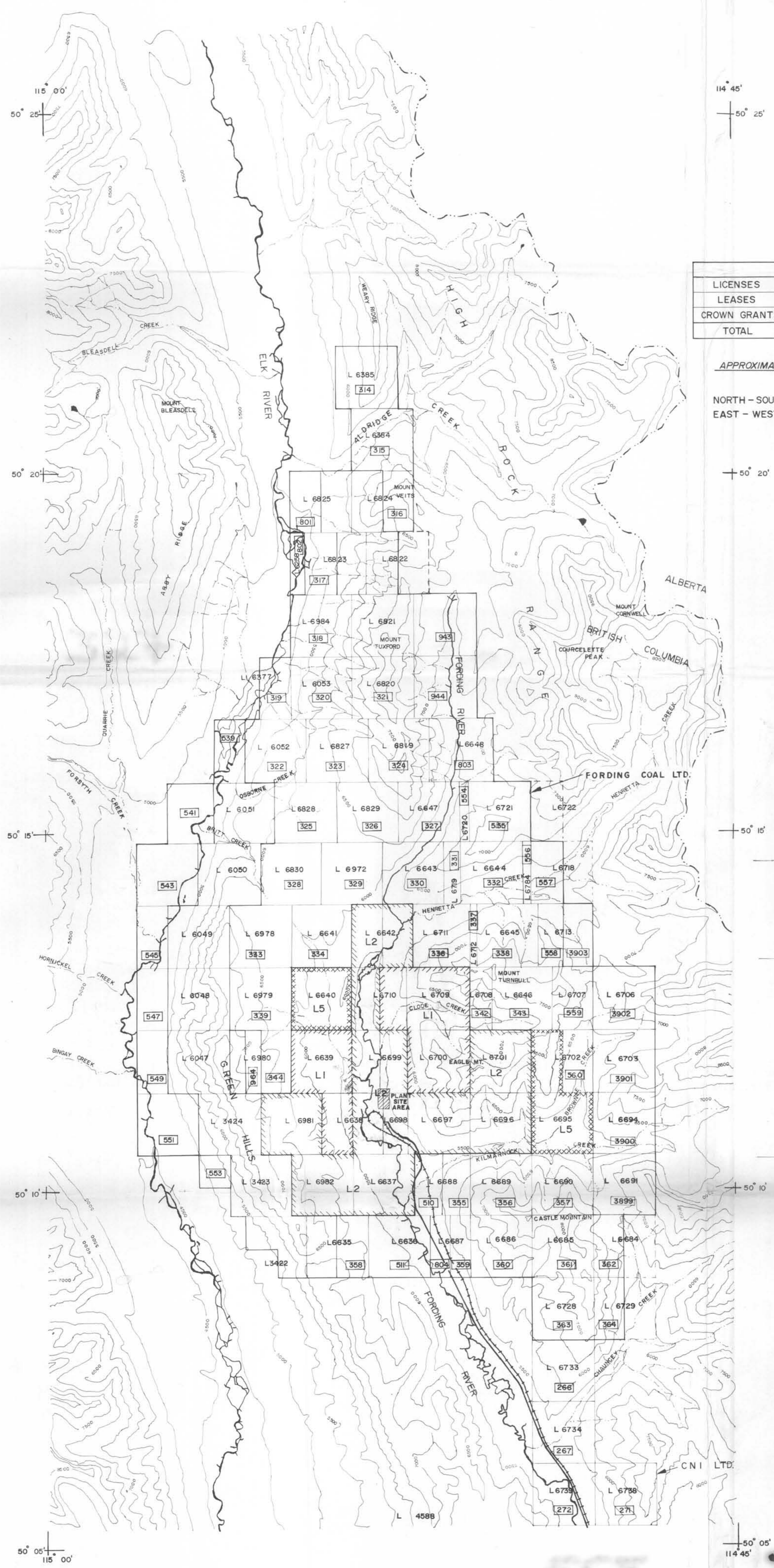
LIST OF ILLUSTRATIONS

| <u>ILLUSTRATION NO.</u> | <u>DESCRIPTION</u> |
|-------------------------|--|
| 1 | a. Index Map - Coal Properties Scale - 1:50,000 b. General Geology Map Scale - 1:25,000 |
| 2 | 1982 Exploration and Development Program Scale - 1:10,000 |
| 3 | a. South Greenhills Boundary Area Program Scale 1:2,000 b. Geological Cross Section 144,500N Scale 1:2,000 |
| 4 | Henretta Creek Area Program Scale 1:2,000 |
| 5 | a. Eagle Mountain - 15 Seam Area Program Scale 1:2,000 b. Geological Cross Section 149,700N Scale 1:2,000 |
| 6 | a. East Spur - Brownie Ridge Area Program Scale 1:2,000 b. Geological Cross Section 149,700N Scale 1:2,000 c. Geological Cross Section 148,000N Scale 1:2,000 |
| 7 | a. Adit #19 Scale 1:250 b. Adit #20 Scale 1:250 |

OPEN FILE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

00 327



LAND TENURE

| | NO. | AREA - ACRES | AREA - HECTARES |
|--------------|-----|--------------|-----------------|
| LICENSES | 67 | 31,529 | 12,766 |
| LEASES | 3 | 9,638 | 3,903 |
| CROWN GRANTS | 15 | 7,333 | 2,968 |
| TOTAL | | 48,500 | 19,637 |

APPROXIMATE MAXIMUM PROPERTY DIMENSIONS

NORTH - SOUTH 15.9 MILES ; 25.5 KILOMETRES
 EAST - WEST 8.4 MILES ; 13.5 KILOMETRES

LEGEND

COAL LEASES (NOS. , OWNERSHIP)

L 2 FORDING COAL LTD.

COAL LICENSES (NOS. , OWNERSHIP)

547 COMINCO LTD.

CROWN GRANTS (LOT NOS. , OWNERSHIP)

L 6048 COMINCO LTD.

RAILROAD
 EXISTING HIGHWAYS

327 ILLUSTRATION 1a

| FORDING RIVER OPERATIONS | | K - Fording River 8261a | |
|--------------------------|---------|-------------------------|--|
| RK | RK | COAL PROPERTIES | |
| RK | JULY 78 | FORDING COAL LIMITED | |
| J.S. | JUNE 83 | | |
| 1 : 50,000 | | OCT. 31, 1972 | |
| | | | |



RIC

Fording
COAL LIMITED

EXPLORATION & DEVELOPMENT
1982 DRILLING PROGRAM
SCALE 1:10,000

LEGEND

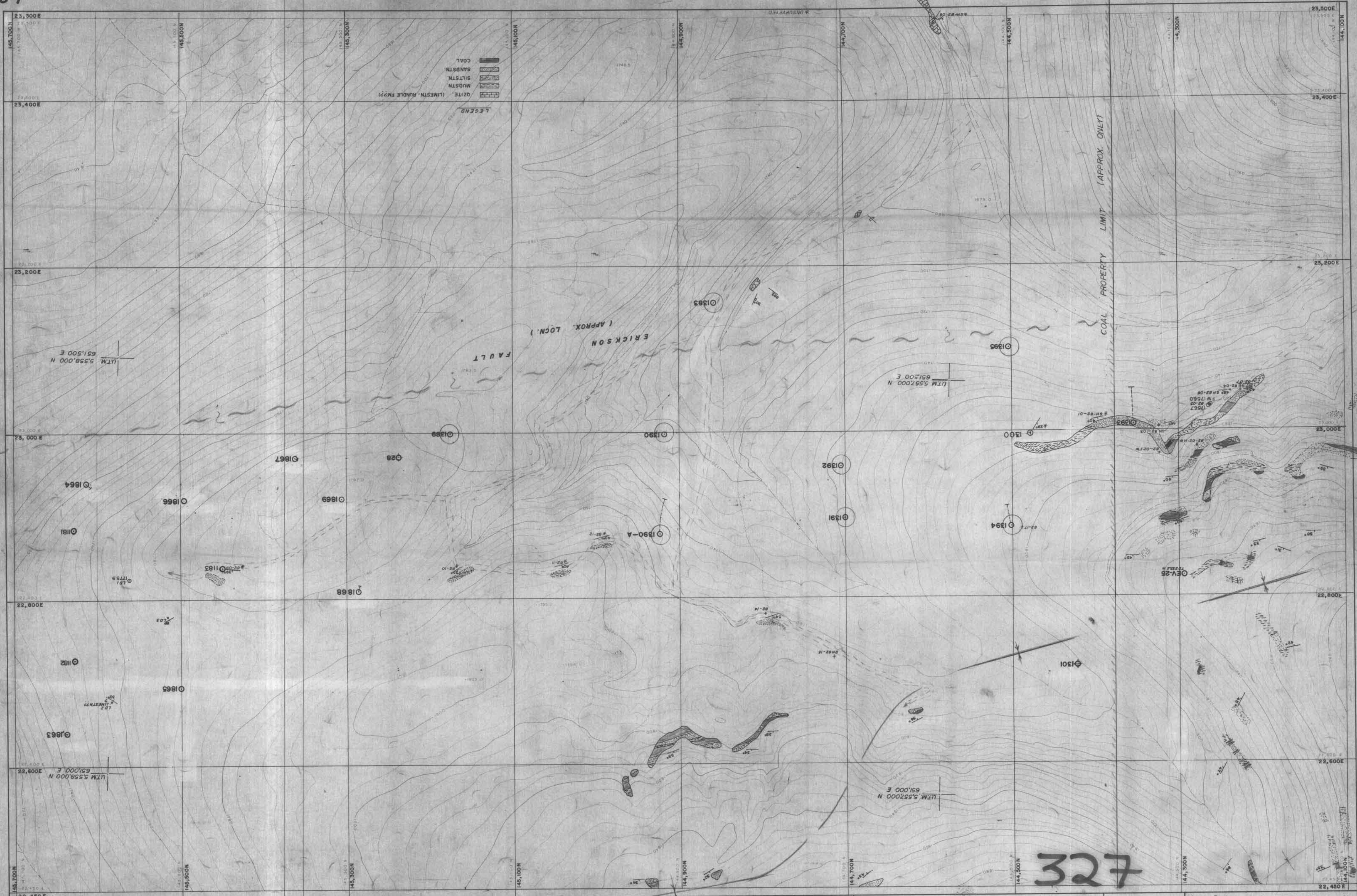
- 1982 DRILL HOLE (ACTUAL)
- ▨ LEASE BOUNDARIES
- Ⓢ Fording PROPERTY LIMIT
- LOT BOUNDARIES
- - - COAL LICENCE BOUNDARIES

ILLUSTRATION 2

K. Fording River S22A

327

L6728
CL 363



Job No. 06333-4 Date Plotted August 1977
 McELHANNAY SURVEYING & ENGINEERING LTD.
 1:2,000 L 25

| Metric Sheet Index | |
|--------------------|------|
| M-24 | M-25 |
| L-24 | L-25 |
| X-24 | X-25 |
| A-24 | A-25 |

| Function | Activity | Section | Job |
|----------|----------|---------|-----|
| | | | |

| Revisions | No. | Made by | Date | Description |
|-----------|-----|---------|------|-------------|
| | | | | |

| | | |
|-------------|------|---------|
| Drawn by | R.K. | JAN '80 |
| Checked by | | |
| Design Eng. | | |
| Proj. Eng. | | |

SOUTH GREENHILLS
BOUNDARY AREA
 ILLUSTR-3a K-FORDING RIVER 82(a)



Metric Scale 1:2,000
 L25

Co-ordinates and Elevations on this Map are in Metres

556,978 N
653,996 E
⊕916

556,733 N
653,194 E
⊕903

556,690 N
652,902 E
⊕902

556,337 N
652,873 E
⊕919

556,310 N
652,750 E
⊕284

556,548 N
651,952 E
⊕922

⊕916 - 1982 ROTARY DRILLHOLE

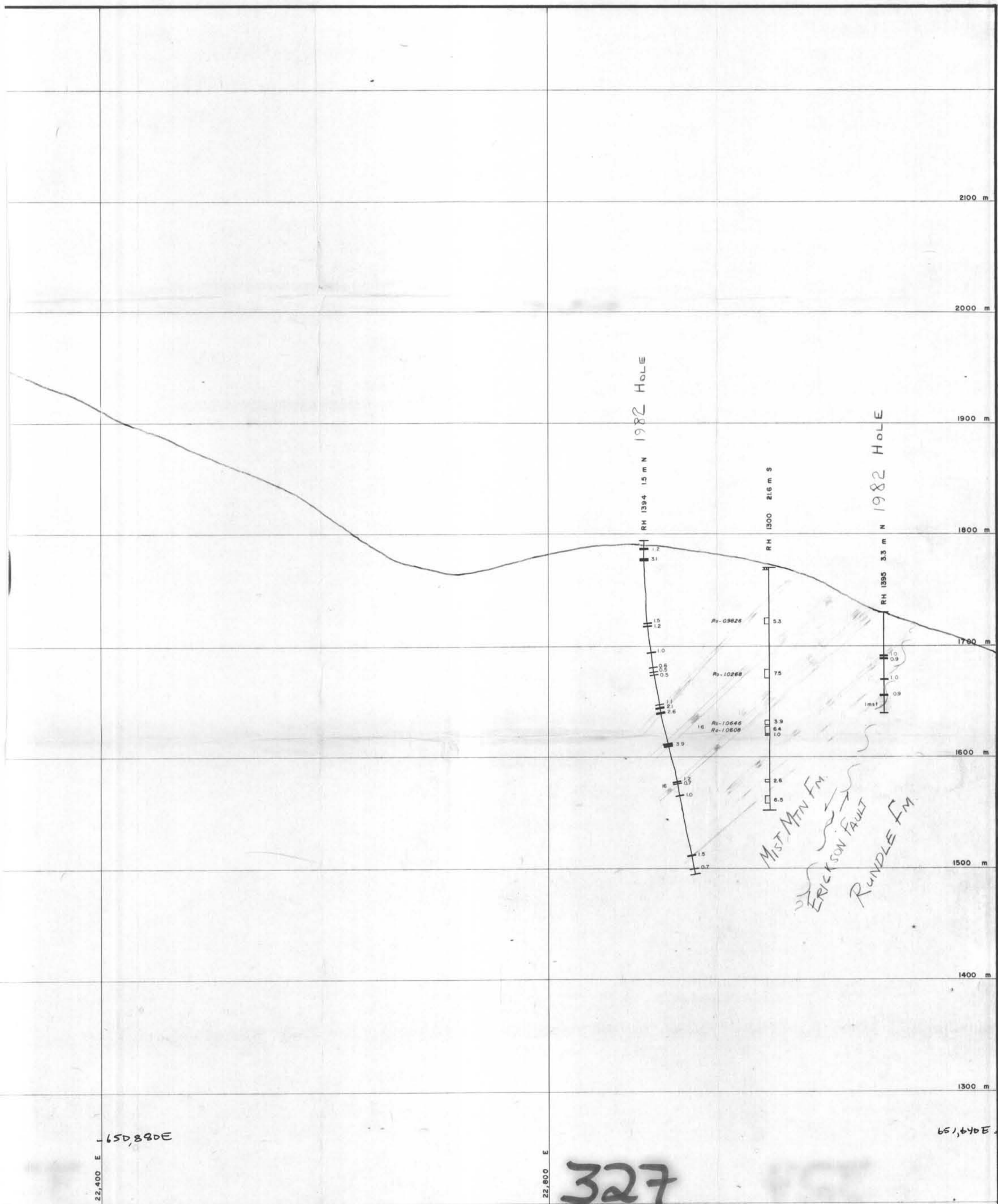
327
K-FORGING RIVER SLOPE ILLUSTRATION 4

Drawn by J. Y. R. K. DEC 74 J. DEC 80
Checked by J.S. JUNE 1983
Sign Eng.
Pl. Eng. Approved

HENRETTA RIDGE AREA
GENERAL GEOLOGY
PIC

Fording
ENGINEERING

Metric Scale
1:2,000
0 20 40 60 80 100
M19



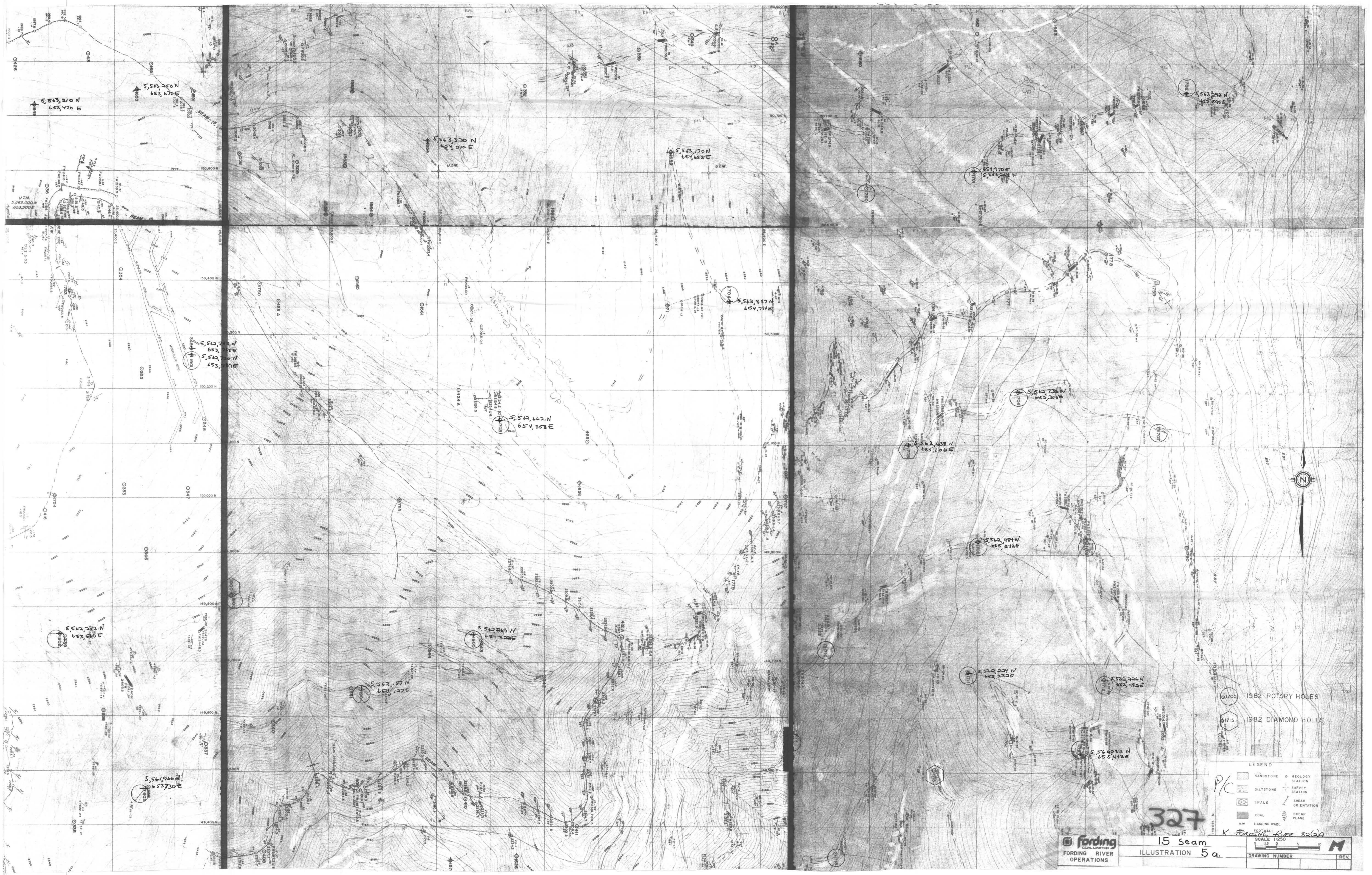
K-Fording Rivers 80/21 ILLUSTRATION 3b

DRAWN BY / DATE
 JS.JUN.14'82 Fording River Operations



McElwanney
 GEOLOGICAL SECTION - 144,500 N. S, 556,910W
 GREENHILLS SOUTHERN BOUNDARY AREA

METRIC SCALE 1:2000



N 078,539
E 078,539

N 069,539
E 069,539

N 013,539
E 013,539

N 017,539
E 017,539

N 018,539
E 018,539

N 857,759
E 857,759

N 557,759
E 557,759

N 562,738
E 553,308

N 562,638
E 557,108

N 562,418
E 553,208

N 078,539
E 078,539

N 078,539
E 078,539

N 017,539
E 017,539

N 069,539
E 069,539

N 069,539
E 069,539

N 078,539
E 078,539

327

LEGEND

- SANDSTONE
- SILTSTONE
- SHALE
- COAL
- HANGING WALL
- GEOLGY STATION
- SURVEY STATION
- SHEAR ORIENTATION
- SHEAR PLANE

1982 ROTARY HOLES

1982 DIAMOND HOLES

PC

SCALE 1:250

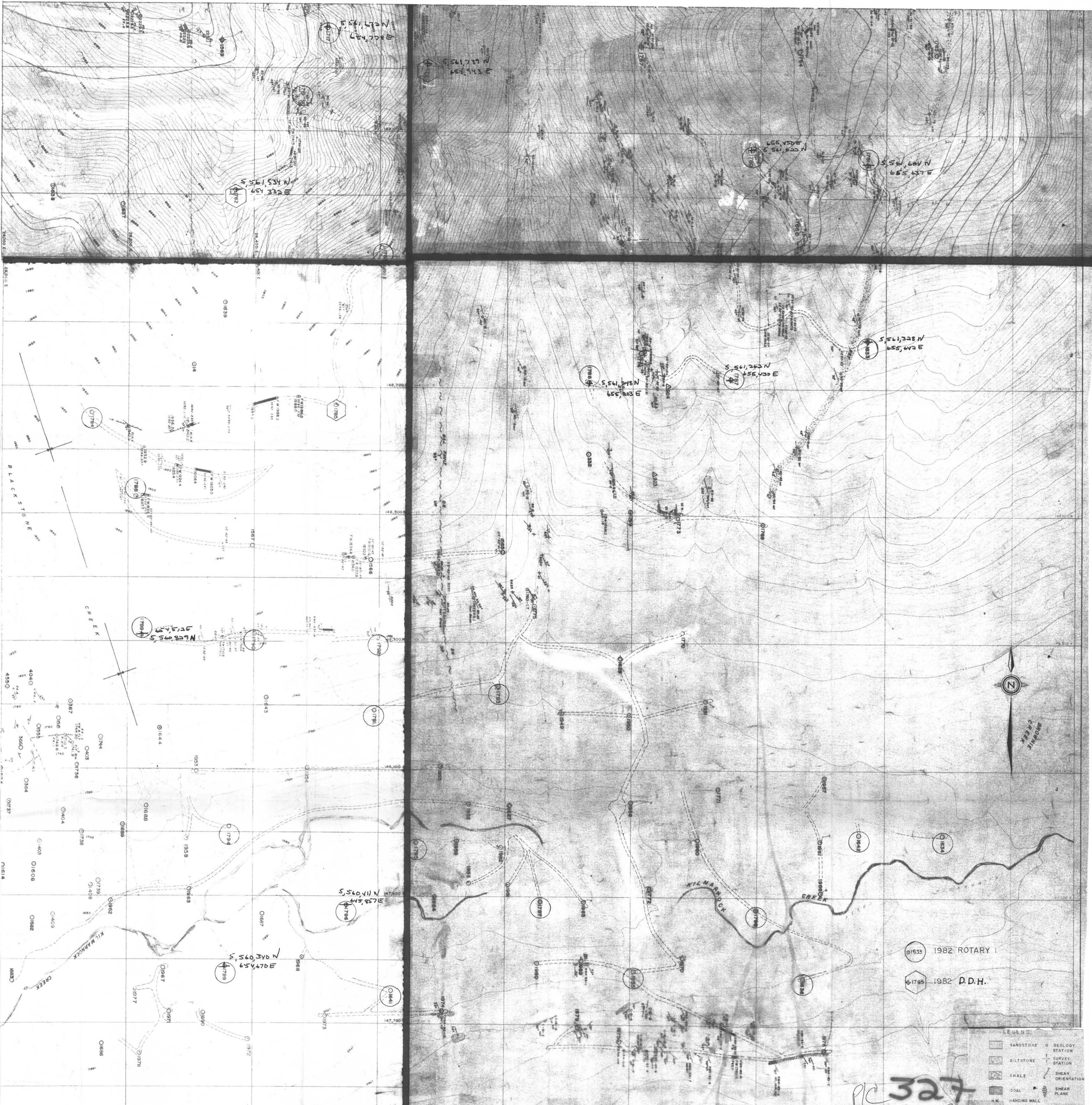
DRAWING NUMBER

REV

fording
FORDING RIVER
OPERATIONS

15 Seam
ILLUSTRATION 5a.

K-TORONTO RIVER 82(a)



SCALE 1" = 2000'

| NUMBER | REV |
|--------|-----|
| | |

DRAWN BY _____
 CHECKED BY _____
 DATE _____
 DATE _____

Fording
 COAL LIMITED
 FORDING RIVER
 OPERATIONS

Illustration 6a
 East Spur - Brownie
 Ridge Area

LEGEND

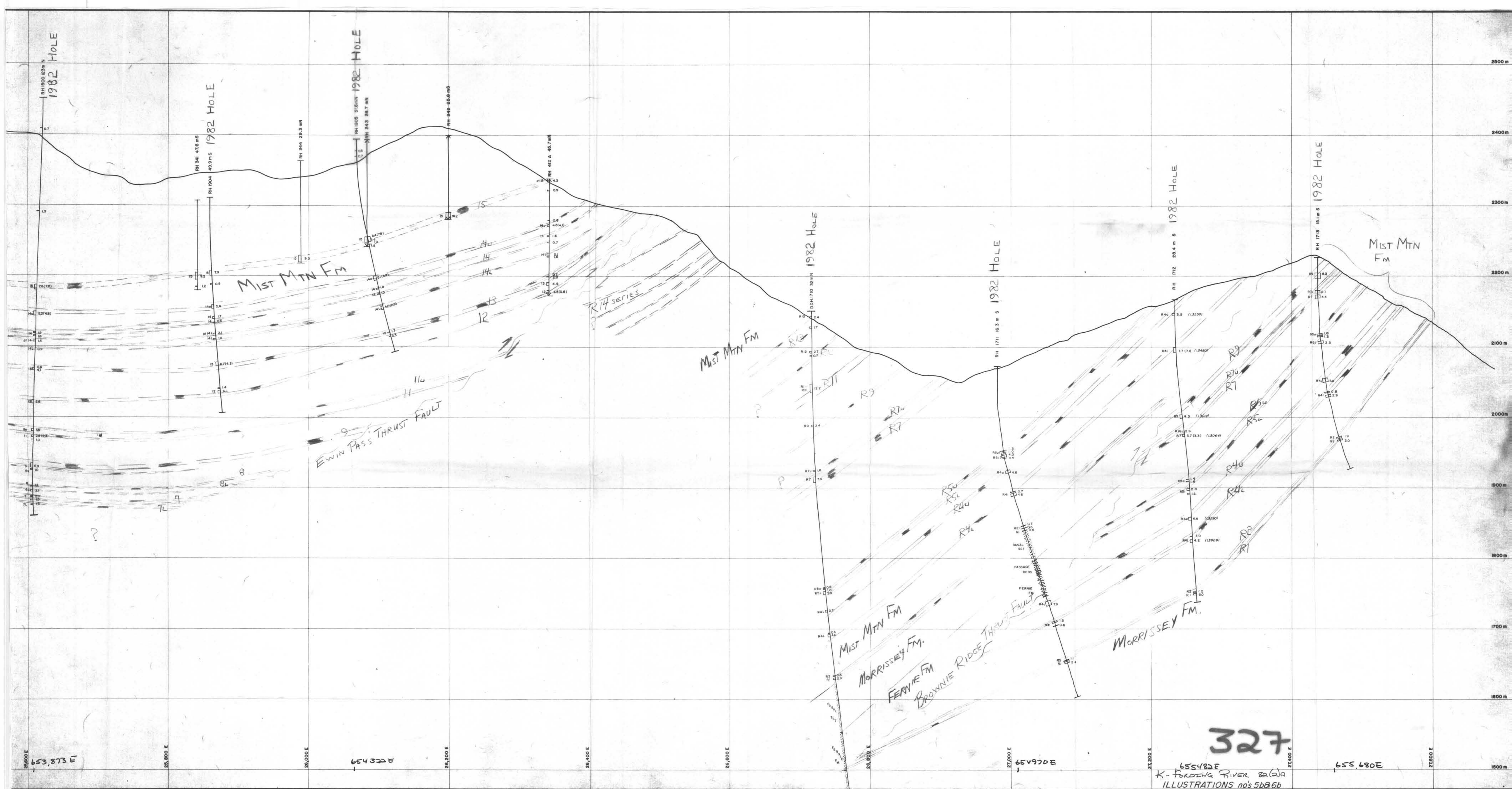
| | | | |
|----------|--------------|----------|-------------------|
| [Symbol] | SANDSTONE | [Symbol] | GEOLOGY STATION |
| [Symbol] | SILTSTONE | [Symbol] | SURVEY STATION |
| [Symbol] | SHALE | [Symbol] | SHEAR ORIENTATION |
| [Symbol] | COAL | [Symbol] | SHEAR PLANE |
| [Symbol] | HANGING WALL | [Symbol] | FOOTWALL |

1982 ROTARY I
 1982 D.D.H.

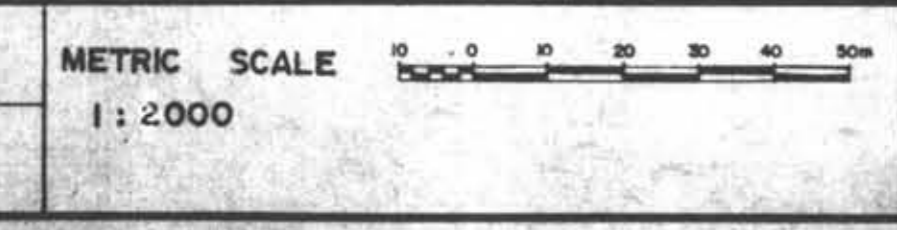
SCALE 1" = 2000'

DRAWING NUMBER _____ REV _____

PC 327
 K-Fording River



AL SECTION - 149,700 N
 MTN. WEST FACE AREA



| NO. | MADE BY | DATE | DESCRIPTION |
|-----|---------|------|-------------|
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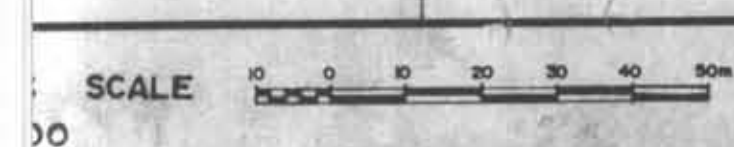
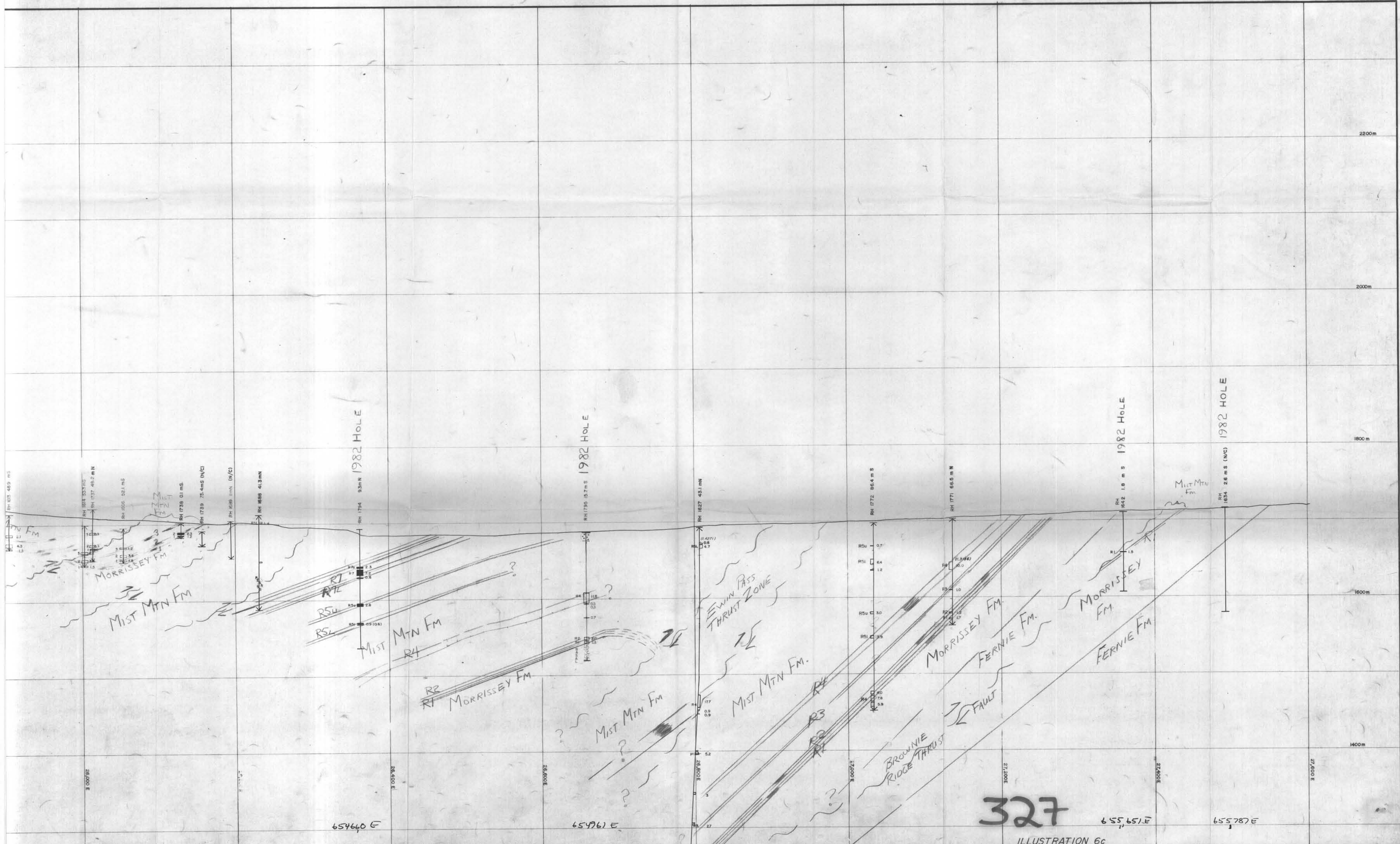
FORGING RIVER
 Operations



GEOLOGICAL SECTION - 149,700 N 5,542,250 N
 EAGLE MTN. WEST FACE AREA



655482E
 K-FOLDING RIVER 82(2)A
 ILLUSTRATIONS no's 5b86b
 ILLUSTR 6b



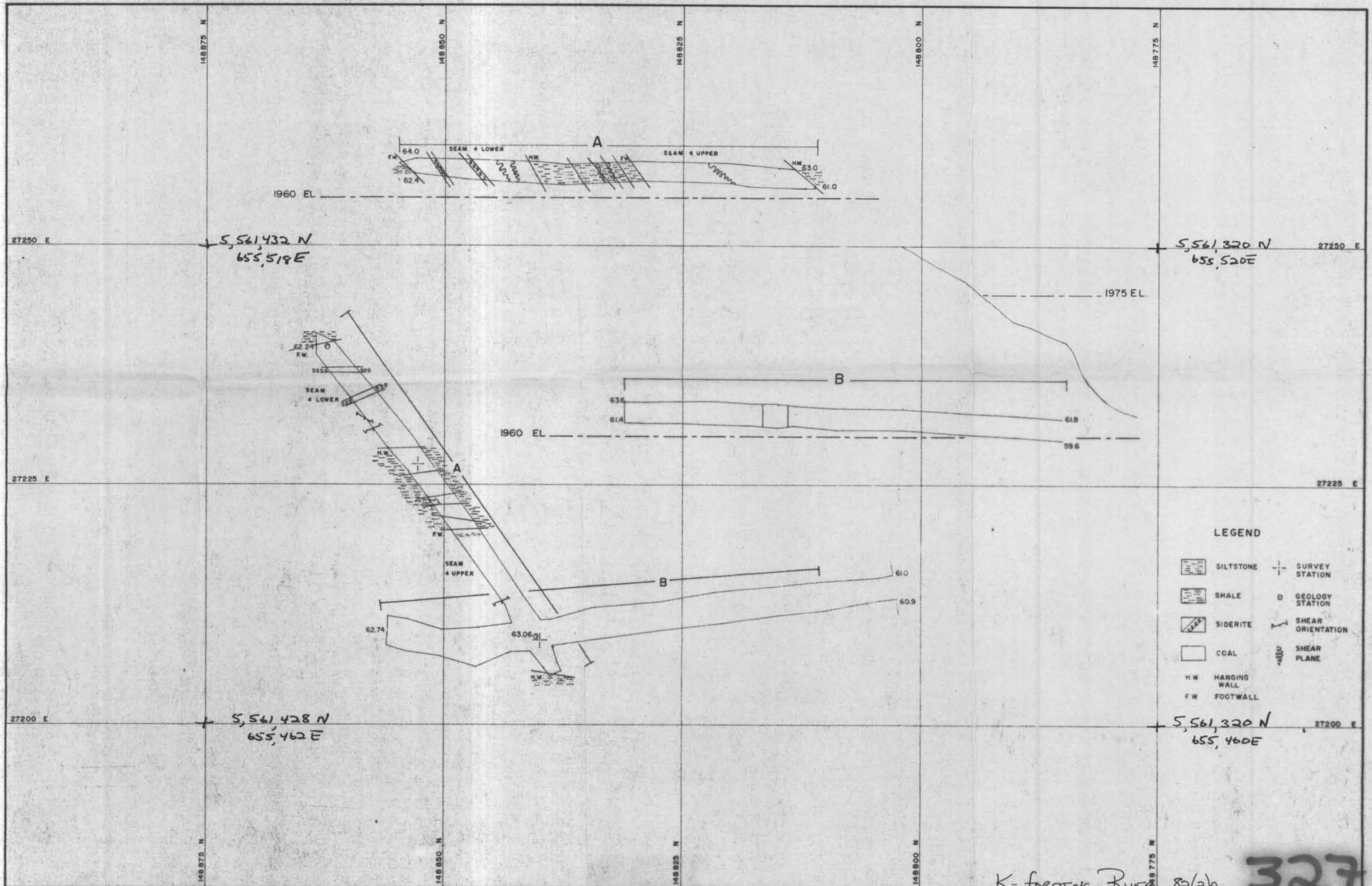
| NO. | MADE BY | DATE | DESCRIPTION |
|-----|---------|--------|---------------|
| 1 | DEM | FEB 81 | geol. update |
| 2 | D.E.M. | NOV-82 | GEOL. INTERP. |

| NO. | MADE BY | DATE | DESCRIPTION |
|-----|---------|--------|---------------|
| 1 | DEM | FEB 81 | geol. update |
| 2 | D.E.M. | NOV-82 | GEOL. INTERP. |

Fording River Operations
 Fording COAL LIMITED

327
 ILLUSTRATION 6c
 GEOLOGICAL SECTION -148,000 N 5,560,550 N
 EAGLE MTN. K-FORDING RIVER 82/8A





LEGEND

- SILTSTONE
- SHALE
- SIDERITE
- COAL
- SURVEY STATION
- GEOLOGY STATION
- SHEAR ORIENTATION
- SHEAR PLANE
- H.W. HANGING WALL
- F.W. FOOTWALL

K-fording River 82(2) 327

M SCALE 1:250
 5 2.5 0 5 10

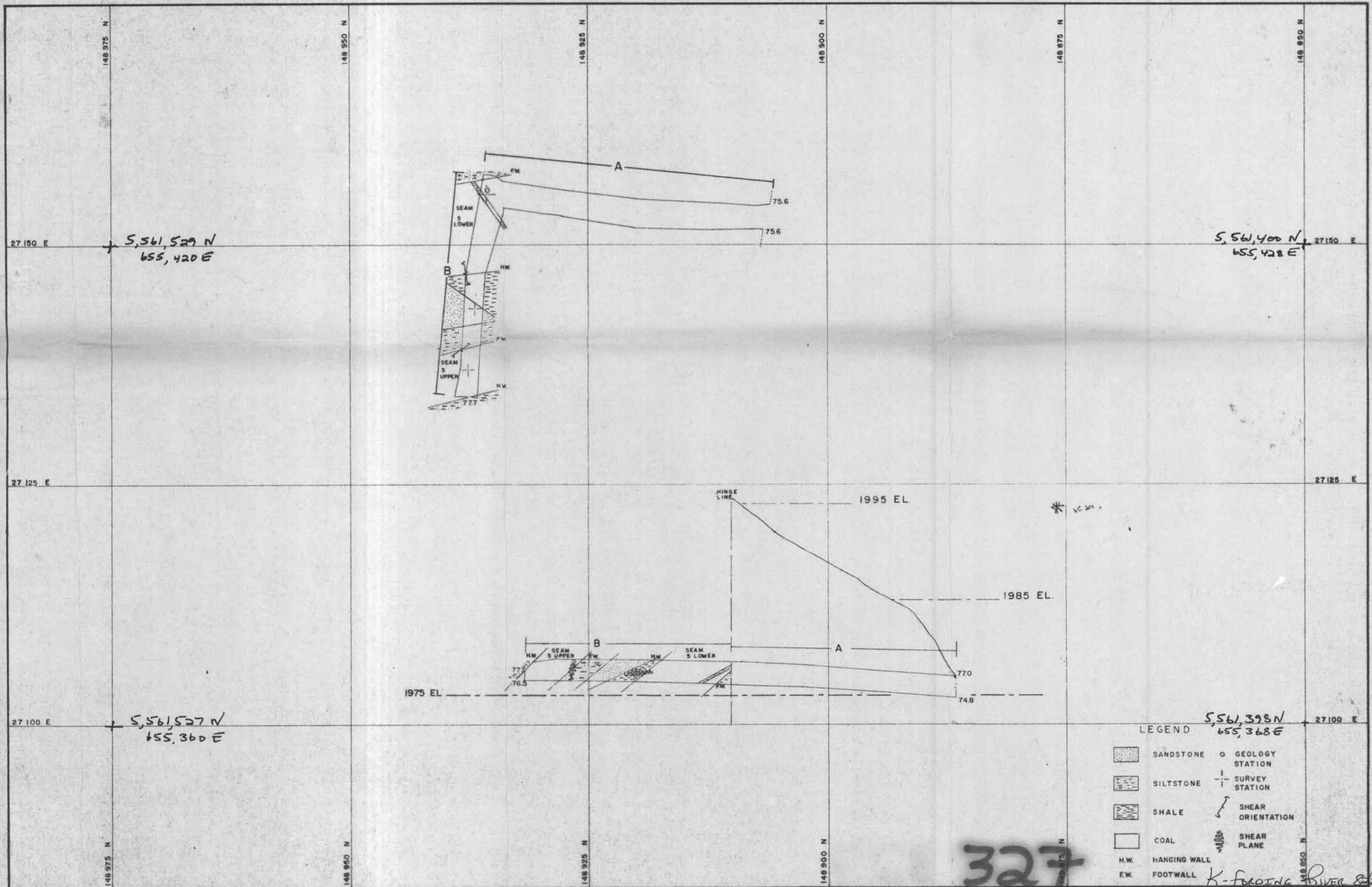
| REV. | MADE BY | DATE | DESCRIPTION |
|------|---------|------|-------------|
| | | | |

| | |
|------------------------|----------------------|
| DRAWN BY - J. STOKMANS | DATE - JUNE 21, 1983 |
| CHECKED BY - | DATE - |
| GEOLOGY BY D. MILLS | |
| APPROVAL | |

Fording
 COAL LIMITED
 FORDING RIVER
 OPERATIONS

| |
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| ADIT No. 19 |
| ILLUSTRATION 7a |

SCALE 1:250
 5 2.5 0 5 10
M
 DRAWING NUMBER REV.



M SCALE 1:250
 5 2.5 0 5 10
 REVISIONS
 MADE BY DATE DESCRIPTION

DRAWN BY -- J. STOKMANS
 CHECKED BY --
 GEOLOGY by D. MILLS
 DATE -- JUNE 21, 1983
 DATE --

Fording
 COAL LIMITED
 FORDING RIVER
 OPERATIONS

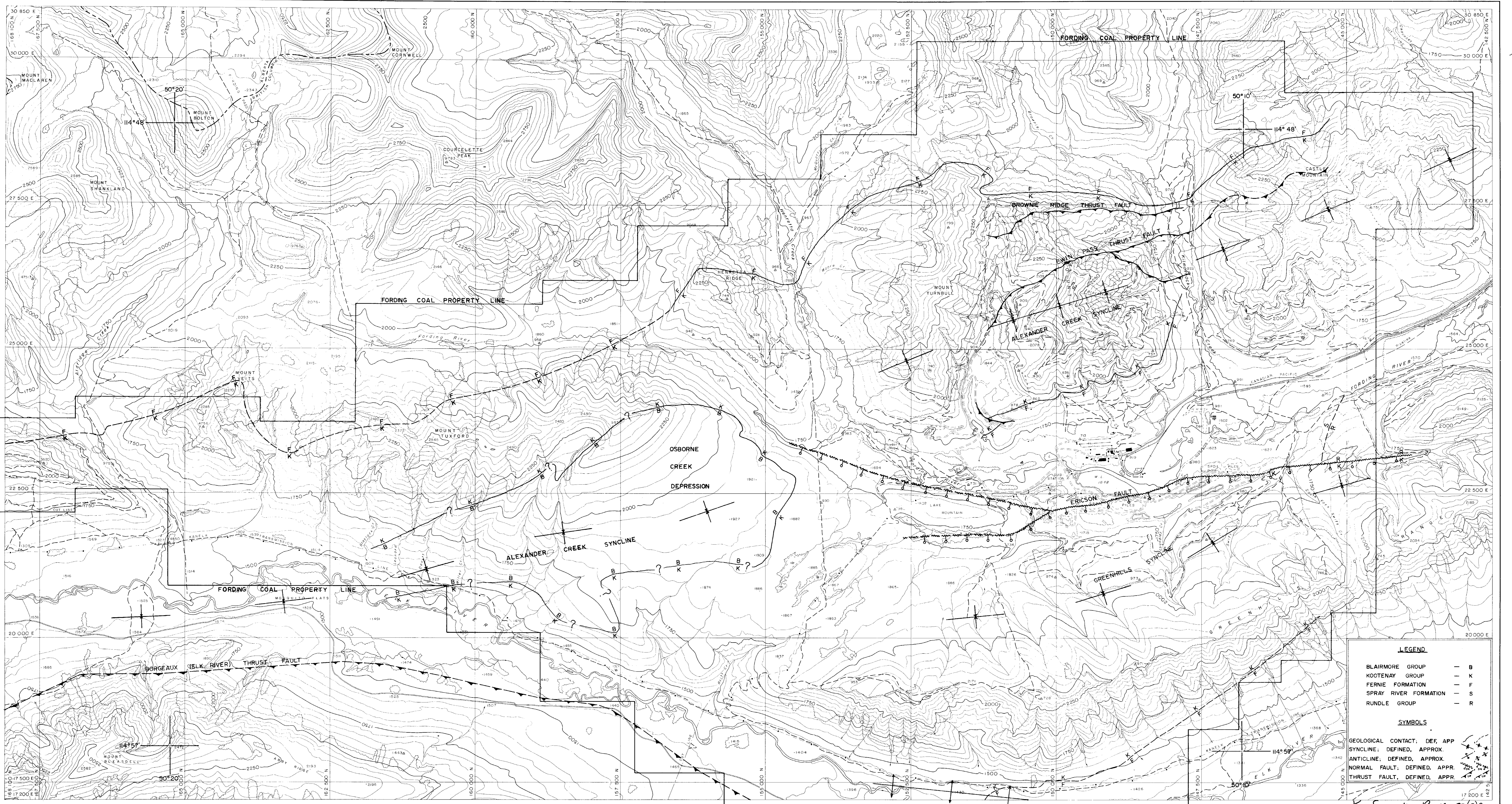
ADIT No. 20
 ILLUSTRATION 7b

SCALE 1:250
 5 2.5 0 5 10
 DRAWING NUMBER
 REV.

S, 561, 398 N
 655, 368 E

- LEGEND
- SANDSTONE
 - SILTSTONE
 - SHALE
 - COAL
 - H.W. HANGING WALL
 - F.W. FOOTWALL
 - GEOLOGY STATION
 - SURVEY STATION
 - SHEAR ORIENTATION
 - SHEAR PLANE

K-FORDING RIVER



LEGEND

BLAIRMORE GROUP — B
 KOOTENAY GROUP — K
 FERNIE FORMATION — F
 SPRAY RIVER FORMATION — S
 RUNDLE GROUP — R

SYMBOLS

GEOLOGICAL CONTACT: DEF APP

SYNCLINE: DEFINED, APPROX.

ANTICLINE: DEFINED, APPROX.

NORMAL FAULT: DEFINED, APPR.

THRUST FAULT: DEFINED, APPR.

Job No 06333-7 Date Plwn: August 1977
 MCELHANNAY SURVEYING & ENGINEERING LTD.
 1:25 000

| | |
|----------|--|
| Function | |
| Activity | |
| Section | |
| Job | |

| | |
|------------|----------------|
| Drawn by | J.S. JUNE 1983 |
| Checked by | |
| Design Eng | |
| Proj. Eng. | Approved |

| Revisions | No. | Made by | Date | Description |
|-----------|-----|---------|------|-------------|
| | | | | |
| | | | | |

GEOLOGY MAP — ILLUSTRATION 1b

fording ENGINEERING

Metric Scale 1:25 000

327

K-FORGING RIVER 82(3)A-1

327

CONFIDENTIAL

APPENDIX 2

DRILLHOLE LOGS

- i) Lithological and Geotechnical Logs

OPEN FILE

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

00 327

Rotary Drill Geological Log



FORDING RIV
OPERATION

| | | | | |
|------------------|-------------------------|-----------------------|--------------------|---------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | |
| Logged By: K. K. | 145 175. ² N | 22 998 ⁶ E | 1780. ² | 0.0 |
| Rock: | Sect: | Place: | App. Dip.: | Length: |
| | | GREENHILLS SOUTH | -90° | 213.0 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 0 | 4.4 | | | Mudstone or Overburden. | | | | |
| 4.4 | 5.4 | 14.5 | 17.5 | Coal 1m 3' | | | | |
| 5.4 | 10.2 | | | Mudstone with siltstone band in the middle. | | 1775.8 | 1.0 | |
| 10.2 | 15.3 | 33.5 | 50 | Coal 5. ¹ m 16.5' RO - 1.077 | | 1770.0 | 5.1 | |
| 15.3 | 21 | | | Mudstone | | | | |
| 21 | 28.5 | | | Siltstone with thin bands of mudstone. | | | | |
| 38.5 | 40' | 126 | 131 | Coal 1.5m 5' | | 1738.7 | 1.5 | |
| 40 | 42 | | | Mudstone | | | | |
| 42 | 44.4 | 137.5 | 145.5 | Coal 2.4 m 8' RO - 1.094 | | 1738.2 | 2.4 | |
| 44.4 | 45.9 | | | Mudstone | | | | |
| 45.9 | 47.5 | 150.5 | 155.5 | Coal 1.6m 5' | | 1734.3 | 1.6 | |
| 47.5 | 58 | | | Mudstone near top, interbedded mudstone and siltstone | | | | |
| 58 | 67 | | | Mudstone | | | | |
| 67 | 70 | | | Siltstone and mudstone | | | | |
| 70 | 75 | | | Mudstone, Erickson Fault at 75m | | | | |
| 75 | 127 | | | Qtzite, Rocky Mountain formation | | | | |
| 127 | 213 | | | Limestone | | | | |
| | | | | END OF THE HOLE | | | | |

Rotary Drill Geological Log



FORDING RIVER
OPERATION

Objective: _____ LATITUDE DEPARTURE ELEVATION

Logged By: R.K. Date: April 1983 144,923.0 N 22,878.0 E 1748.2

Block: _____ Sect: _____ Place: GREENHILLS SOUTH App. Bear: _____ App. Dip: -90° Length: 243.0m

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0 | 16 | | | Overburden - , silty sandstone | | | | |
| 16 | 18.4 | | | Mudstone | | | | |
| 18.5 | 20.7 | | | Sandstone and mudstone band at bottom. | | | | |
| 20.7 | 21.2 | 68 | 69.5 | Coal 0.5 m 1.5' | | | | |
| 21.2 | 33.2 | | | Sandstone, with thin interbeds of siltstone and mudstone. | | | | |
| 33.2 | 34.2 | 109 | 112 | Coal 1.0m 3' | | | | |
| 34.2 | 53 | | | Silty sandstone with interbeds of siltstone. | | | | |
| 53 | 54.5 | 174 | 179 | Coal 1.5 m 5' | | | | |
| 54.5 | 66 | | | Mudstone and siltstone, sandstone band at 61 m | | | | |
| 66 | 72.5 | | | Sandstone | | | | |
| 72.5 | 77 | | | Mudstone and siltstone. | | | | |
| 77 | 79 | 252.5 | 259 | Coal 2.0m 6.5' | | | | |
| 79 | 89 | | | Mudstone, silty near bottom | | | | |
| 89 | 94 | | | Sandstone | | | | |
| 94 | 126.5 | | | Siltstone, sandstone bands, mudstone band at bottom. | | | | |
| 126.5 | 129.7 | 415 | 425.5 | Coal 3.2m 10.5' R0 - | | | | |
| 129.7 | 135.9 | | | Mudstone, siltstone band near bottom. | | | | |
| 135.9 | 139.2 | 446 | 456.5 | Coal and shale : 0.5 m coal 0.6 m shale/0.7 mC/0.4m Sh./1.1 MC. | | | | |
| 139.2 | 168 | | | 2 m Mudstone at top, sandstone with sandy siltstone intervals. | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|-------------------|--|-----------|--|---------------|--|-------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Ave | |
| Logged By: John Stokmans | | Date: May 4, 1983 | | 144,700.8 | | 22,896.9 | | 1740.6 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | Length: 255.0 | | 0.0 | |

| From m | To m | From Ft | To Ft | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|--------|-------|---------|-------|---|--|-------------|-------------|---------|---------|
| 0.0 | 5.2 | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| 5.2 | 14.0 | | | Casing | | | | | |
| 14.0 | 29.3 | | | Siltstone | | | | | |
| 29.3 | 34.4 | 96.1 | 112.9 | Sandstone with Siltstone interbeds | | | | | |
| 34.4 | 37.5 | | | Coal. Siltstone Parting 30.6 - 32.0m | | | 1711.3 | 5.1 | 3.7 |
| 37.5 | 40.0 | 123.0 | 131.2 | Silty Sandstone | | | | | |
| 40.0 | 75.5 | | | Coal | | | 1703.1 | 2.5 | |
| 75.5 | 81.5 | | | Sandstone | | | | | |
| 81.5 | 89.0 | 267.4 | 292.0 | Siltstone | | | | | |
| 89.0 | 93.7 | | | Coal | | | 1659.1 | 7.5 | |
| 93.7 | 96.5 | 307.4 | 316.6 | Siltstone | | | | | |
| 96.5 | 147.8 | | | Coal | | | 1646.9 | 2.8 | |
| 147.8 | 156.9 | 484.9 | 514.9 | Sandstone. One minor silty band | | | | | |
| 156.9 | 161.5 | | | Coal | | | 1592.8 | 9.1 | |
| 161.5 | 197.2 | | | Muddy siltstone | | | | | |
| 197.2 | 198.0 | 647.0 | 650.0 | Sandstone | | | | | |
| 198.0 | 204.1 | | | Coal | | | 1543.4 | 0.8 | |
| 204.1 | 217.0 | | | Siltstone | | | | | |
| 217.0 | 220.8 | | | Sandstone | | | | | |
| 220.8 | 224.1 | 724.4 | 735.2 | Siltstone | | | | | |
| 224.1 | 231.4 | | | Coal | | | 1519.8 | | |
| | | | | Sandy Siltstone. Muddy Band above seam | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | |
|------------|-------|----------|--------|--|--|-----------|--|------------|---------|---|-----------------------------|----------|---------|
| Logged By: | | | | Date: | | | | | | 0.0 | | | |
| Block: | | | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | | | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | |
| | | | | | | | | | | TOP OF SEAM | ELEVATION M | TTL. TH. | NET TH. |
| 231.7 | 233.7 | 760.2 | 766.7 | Coal | | | | | | | 1508.9 | 2.0 | |
| 233.7 | 239.1 | | | Siltstone | | | | | | | | | |
| 239.1 | 241.3 | 784.4 | 791.7 | Coal | | | | | | | 1501.5 | 2.2 | |
| 241.3 | 254.4 | | | Siltstone with Sandy Bands | | | | | | | | | |
| E.O.H. | | | | | | | | | | | | | |
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| | | | | | | | | Hole No. | RH 1391 | Page | 2 | of | 2 |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|--------------------------|--|-------------------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: May 4, 1983 | | 144,704.8 | | 22,958.4 | | 1738.5 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° |
| | | | | | | Length: | | 163.0 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 6.0 | | | Casing | | | | |
| 6.0 | 8.1 | | | Muddy Siltstone | | | | |
| 8.1 | 11.2 | 26.6 | 36.7 | Coal | | 1730.4 | 3.1 | |
| 11.2 | 19.2 | | | Mudstone with Siltstone Band | | | | |
| 19.2 | 30.0 | | | Sandstone with Siltstone Band above Seam | | | | |
| 30.0 | 39.0 | 98.4 | 128.0 | Coal | | 1708.5 | 9.0 | |
| 39.0 | 40.5 | | | Siltstone | | | | |
| 40.5 | 41.5 | 132.9 | 136.2 | Coal | | 1698.0 | 1.0 | |
| 41.5 | 64.0 | | | Sandy Siltstone | | | | |
| 64.0 | 80.0 | | | Sandstone | | | | |
| 80.0 | 84.0 | | | Siltstone | | | | |
| 84.0 | 91.0 | 275.6 | 298.6 | Coal | | 1654.5 | 7.0 | |
| 91.0 | 95.0 | | | Siltstone | | | | |
| 95.0 | 94.5 | | | Sandstone | | | | |
| 94.5 | 110.0 | | | Siltstone | | | | |
| 110.0 | 111.2 | 360.9 | 364.8 | Coal | | 1628.5 | 1.2 | |
| 111.2 | 122.4 | | | Siltstone (Sandy) | | | | |
| 122.4 | 123.4 | 401.6 | 404.9 | Coal | | 1616.1 | 1.0 | |
| 123.4 | 135.5 | | | Sandy Siltstone | | | | |
| 135.5 | 138.0 | 444.5 | 452.8 | Coal (Not sampled) | | 1603 | | |
| 138.0 | 144.6 | | | Siltstone | | | | |
| 144.6 | 145.7 | 474.4 | 478.0 | Coal (Not sampled) - Top 1593.9m - 1.1m thick | | | | |
| 145.7 | 155.5 | | | Siltstone. Erickson Normal Fault @ 155.5m | | | | |
| 155.5 | 162.5 | | | (Rundle) Limestone | | | | |

Hole No. RH 1392 Page 1 of 1

E.O.H.

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|-------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: May 4, 1983 | | 144,352.9 | | 23,007.3 | | 1759.4 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 236.7m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|--|-------------|-------------|---------|---------|
| 0.0 | 0.6 | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| 0.6 | 11.0 | | | Casing | | | | | |
| 11.0 | 33.7 | | | Sandstone | | | | | |
| 33.7 | 34.7 | 110.6 | 113.8 | Interbedded Siltstone and Mudstone Coarsening gently upwards | | | | | |
| 34.7 | 40.0 | | | Coal | | | 1725.7 | 1.0 | |
| 40.0 | 41.0 | 131.2 | 134.5 | Interbedded Siltstone and Mudstone | | | | | |
| 41.0 | 52.0 | | | Coal | | | 1719.4 | 1.0 | |
| 52.0 | 68.2 | | | Sandstone with Siltstone interbeds | | | | | |
| 68.2 | 74.1 | 223.8 | 243.1 | Sandstone | | | | | |
| 74.1 | 79.4 | | | Coal. Siltstone interbed 68.9 - 70.1 m | | | 1691.2 | 5.9 | 4.7 |
| 79.4 | 107.9 | | | Siltstone | | | | | |
| 107.9 | 114.4 | 354.0 | 375.3 | Sandstone | | | | | |
| 114.4 | 125.0 | | | Coal | | | 1651.5 | 6.5 | |
| 125.0 | 131.0 | | | Sandstone with Silty Band Below Seam | | | | | |
| 131.0 | 146.6 | | | Siltstone | | | | | |
| 146.6 | 154.7 | 481.0 | 507.5 | Sandstone | | | | | |
| 154.7 | 156.6 | | | Coal | | | 1612.8 | 8.1 | |
| 156.6 | 166.4 | 513.8 | 545.9 | Siltstone. Possible fault at 156.0m | | | | | |
| 166.4 | 169.8 | | | Coal | | | 1602.8 | 9.8 | 7.7 |
| 169.8 | 170.8 | 557.1 | 560.4 | Siltstone | | | | | |
| 170.8 | 180.6 | | | Coal as per sampling record | | | 1589.6 | | |
| | | | | Siltstone | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 180.6 | 182.0 | 592.5 | 597.1 | Coal Shaly? | | 1578.8 | 1.4 | |
| 182.0 | 192.2 | | | Siltstone | | | | |
| 192.2 | 209.3 | | | Sandstone | | | | |
| 209.3 | 212.1 | | | Siltstone | | | | |
| 212.1 | 215.2 | 695.9 | 706.0 | Coal. Mudstone parting 212.6 - 213.9 m | | 1547.3 | 3.1 | 1.8 |
| 215.2 | 220.0 | | | Siltstone | | | | |
| 220.0 | 222.0 | | | Mudstone | | | | |
| 222.0 | 223.2 | | | Sandstone with mudstone band above seam | | | | |
| 233.2 | 234.2 | 765.1 | 768.4 | Coal | | 1526.2 | 1.0 | |
| 234.2 | 236.7 | | | Mudstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: May 5, 1983 LATITUDE 144,501.5 DEPARTURE 22,885.6 ELEVATION 1795.5m

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 304.4

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---------------------------------------|-------------|-------------|---------|---------|
| 0.0 | 3.0 | | | Casing | | | | |
| 3.0 | 7.6 | | | Siltstone | | | | |
| 7.6 | 8.8 | 24.9 | 28.9 | Coal | | 1787.9 | 12 | |
| 8.8 | 16.1 | | | Siltstone with muddy band above seam | | | | |
| 16.1 | 19.2 | 52.8 | 63.0 | Coal | | 1779.4 | 3.1 | |
| 19.2 | 23.5 | | | Mudstone | | | | |
| 23.5 | 64.1 | | | Sandstone | | | | |
| 64.1 | 74.9 | | | Siltstone with mudstone band | | | | |
| 74.9 | 78.7 | 245.7 | 258.2 | Coal. Mudstone parting 76.4 - 77.5m | | 1720.6 | 3.8 | 2.7 |
| 78.7 | 101.5 | | | Interbedded siltstone with mudstone | | | | |
| 101.5 | 102.5 | 333.0 | 336.3 | Carbonaceous Band | | | | |
| 102.5 | 109.5 | | | Sandstone | | | | |
| 109.5 | 114.6 | | | Banded siltstone and mudstone | | | | |
| 114.6 | 115.2 | 376.0 | 377.9 | Coal. Not sampled | | 1680.9 | 0.6 | |
| 115.2 | 119.2 | | | Silty mudstone | | | | |
| 119.2 | 121.5 | 391.4 | 398.6 | Coal. Mudstone parting 119.8 - 121.0 | | 1676.2 | 2.2 | 1.0 |
| 121.5 | 148.8 | | | Siltstone with sandy and muddy bands | | | | |
| 148.8 | 152.6 | 488.2 | 500.7 | Coal. Mudstone parting 149.9 - 150.5m | | 1646.7 | 3.8 | 3.2 |
| 152.6 | 154.3 | | | Mudstone | | | | |
| 154.3 | 156.9 | 506.2 | 514.8 | Coal | | 1641.2 | | |
| 156.9 | 184.6 | | | Siltstone with a sandy portion | | | | |

Hole No. RH 1394

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------|--|----------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: | | Date: | | | | | | 0.0 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: |
| | | | | | | | | Length: |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|--|--|--|--|-------------|-------------|---------|---------|
| 184.6 | 188.5 | 605.8 | 618.4 | Coal | | | | | | 1610.9 | 3.9 | |
| 188.5 | 193.0 | | | Sandstone | | | | | | | | |
| 193.0 | 219.8 | | | Siltstone | | | | | | | | |
| 219.8 | 222.6 | 721.1 | 730.3 | Coal. Sandstone parting 221.0 - 221.9m | | | | | | 1575.7 | 2.8 | 1.9 |
| 222.6 | 232.7 | | | Siltstone | | | | | | | | |
| 232.7 | 233.7 | 763.4 | 766.7 | Coal | | | | | | 1562.8 | 1.0 | |
| 233.7 | 239.5 | | | Siltstone | | | | | | | | |
| 239.5 | 243.9 | | | Sandstone | | | | | | | | |
| 243.9 | 248.8 | | | Siltstone | | | | | | | | |
| 248.8 | 265.5 | | | Sandy Siltstone | | | | | | | | |
| 265.5 | 273.4 | | | Sandstone | | | | | | | | |
| 273.4 | 287.8 | | | Interbedded siltstone and mudstone | | | | | | | | |
| 287.8 | 289.3 | 944.2 | 949.1 | Coal. Not sampled | | | | | | 1507.7 | 1.5 | |
| 289.3 | 299.6 | | | Siltstone | | | | | | | | |
| 299.6 | 300.3 | 982.9 | 985.2 | Coal. Not Sampled | | | | | | 1495.9 | 0.7 | |
| 300.3 | 303.8 | | | Siltstone with mudstone band below seam | | | | | | | | |
| E.O.H | | | | | | | | | | | | |

Hole No. RH 1394

Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: May 5, 1983 LATITUDE 144,503.3 DEPARTURE 23,100.5 ELEVATION 1729.3 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 90.4

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|----------|---------|
| 0.0 | 11.5 | | | | | | | |
| 11.5 | 38.4 | | | Sandstone | | | | |
| 38.4 | 39.4 | 126.0 | 129.3 | Coal | | 1690.9 | 1.0 | |
| 39.4 | 41.0 | | | Mudstone | | | | |
| 41.0 | 41.9 | 134.5 | 137.5 | Coal | | 1688.3 | 0.9 | |
| 41.9 | 43.5 | | | Mudstone | | | | |
| 43.5 | 59.0 | | | Sandstone with siltstone band 47.0 - 50.8m | | | | |
| 59.0 | 60.0 | 193.6 | 196.8 | Coal | | 1670.3 | 1.0 | |
| 60.0 | 73.0 | | | Interbedded siltstone and mudstone | | | | |
| 73.0 | 74.5 | 239.5 | 244.4 | Coal | | 1656.3 | 1.5 | |
| 74.5 | | | | Erickson Normal Fault | | | | |
| 74.6 | 89.9 | | | Limestone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | |
|------------|-----------------------|--|------------------|-------------|------------|--|------------|--|----------------------------|---------|--|
| Objective: | LATITUDE | | | DEPARTURE | | | ELEVATION | | Ore Classes & Aver. 0.0 | | |
| Logged By: | Date: August 20, 1982 | | | 154,484.8 N | | | 25,849.5 E | | | 1747.1 | |
| Block: | Sect: | | Place: | | App. Bear: | | App. Dip.: | | | Length: | |
| | | | South Greenhills | | 0.00 | | -90° | | | 205.1 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|------------|----------|-------------|-----------|---|--|-------------------|-----------|-------------|------------|
| 0 | 89.5 | | | Sandstone basal. | | | | | |
| 89.5 | 205.1 | | | Shale Ferric Formation | | | | | |
| E.O.H. | | | | | | | | | |
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2507 — NDN

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|------------|--|-----------------------|--|-------------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: | | Date: August 18, 1982 | | 153,881.7 N | | 24,743.0 E | | 1722.2 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip: | |
| | | | | | | 0.00 | | -90° | |
| | | | | | | Length: | | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 0 | 12.3 | | | Overburden | | | | |
| 12.3 | 13.9 | | | Coal | | 1709.9 | 1.6 | 1.6 |
| 13.9 | 15.0 | | | Mudstone parting. | | | | |
| 15.0 | 16.5 | | | Coal | | 1707.2 | 1.5 | 1.5 |
| 16.5 | 29.0 | | | Interbedded zone of mudstone and siltstone. | | | | |
| 29.0 | 29.7 | | | Coal | | 1693.2 | 0.7 | 0.7 |
| 29.7 | 34.5 | | | Mudstone | | | | |
| 34.5 | 36.5 | | | Coal | | 1687.2 | 2.0 | 2.0 |
| 36.5 | 49.3 | | | Interbedded zone of siltstone and mudstone. | | | | |
| 49.3 | 50.5 | | | Coal | | 1672.9 | 1.2 | 1.2 |
| 50.5 | 68.3 | | | Interbedded zone of siltstone and mudstone. | | | | |
| 68.3 | 69.5 | | | Coal | | 1553. | 1.2 | 1.2 |
| 69.5 | 71.7 | | | Mudstone parting. | | | | |
| 71.7 | 73.0 | | | Coal | | 1650.5 | 1.3 | 1.3 |
| 73.0 | 114.0 | | | Zone of siltstone and sandstone with mudstone bands. | | | | |
| 114.0 | 135.0 | | | Sandstone | | | | |
| 135.0 | 145.5 | | | Mudstone | | | | |
| 145.5 | 156.0 | | | Sandstone with mudstone stringers. | | | | |
| 156.0 | 163.0 | | | Mudstone | | | | |
| 163 | 168.5 | | | Siltstone | | | | |
| 168.5 | 171.5 | | | Two sandstone bands with siltstone band in the middle. | | | | |

Hole No. 919 Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|------------|--|----------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: | | Date: | | | | | | 0.0 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | |
| | | | | | | | | Length: | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 171.5 | 175.5 | | | | | | | |
| 175.5 | 178.5 | | | Siltstone | | | | |
| 178.5 | 181.7 | | | Mudstone | | | | |
| 181.7 | 183.5 | | | Coal | | 1540.5 | 1.8 | 1.8 |
| 183.5 | 187.5 | | | Mudstone | | | | |
| 187.5 | 188.5 | | | Siltstone | | | | |
| 188.5 | 190.0 | | | Sandstone | | | | |
| 190.0 | 204.0 | | | Zone of sandstone and mudstone bands. | | | | |
| 204.0 | 206.5 | | | Siltstone | | | | |
| 206.5 | 207.7 | | | Mudstone | | | | |
| 207.7 | 209.4 | | | Coal | | 1514.5 | 1.7 | 1.7 |
| 209.4 | 212.7 | | | Mudstone | | | | |
| E.O.H. | | | | | | | | |
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Hole No. 919

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____ 154,122.2 N 23,808.2 E 1733.2 0.0

Block: _____ Sect: _____ Place: South Greenhills App. Bear: 0.00 App. Dip: -90 Length: 215.7

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0 | 3.6 | | | Overburden | | | | |
| 3.6 | 6.0 | | | Mudstone | | | | |
| 6.0 | 8.0 | | | Siltstone | | | | |
| 8.0 | 11.0 | | | Mudstone | | | | |
| 11.0 | 30.5 | | | Siltstone | | | | |
| 30.5 | 32.0 | | | Sandstone | | | | |
| 32.0 | 40.5 | | | Siltstone | | | | |
| 40.5 | 43.5 | | | Sandstone | | | | |
| 43.5 | 47.3 | | | Siltstone | | | | |
| 47.3 | 53.5 | | | Sandstone | | | | |
| 53.5 | 54.2 | | | Mudstone | | | | |
| 54.2 | 56.5 | | | Sandstone | | | | |
| 56.5 | 57.5 | | | Siltstone | | | | |
| 57.5 | 58.5 | | | Sandstone | | | | |
| 58.5 | 71.5 | | | Interbedded zone of siltstone and mudstone | | | | |
| 71.5 | 74.1 | | | Coal | | 1661.7 | 2.6 | 2.1 |
| 74.1 | 75.7 | | | Mudstone | | | | |
| 75.7 | 80.0 | | | Siltstone | | | | |
| 80.0 | 80.5 | | | Mudstone | | | | |
| 80.5 | 84.5 | | | Interbedded zone of sandstone and siltstone | | | | |
| 84.5 | 101.5 | | | Siltstone | | | | |

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver.

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 101.5 | 104.0 | | | Sandstone | | | | |
| 104.0 | 113.5 | | | Interbedded zone of mudstone and sandstone | | | | |
| 113.5 | 119.0 | | | Sandstone | | | | |
| 119.0 | 130.7 | | | Mudstone | | | | |
| 130.7 | 150.5 | | | Siltstone | | | | |
| 150.5 | 152.7 | | | Mudstone | | | | |
| 152.7 | 159.1 | | | Coal | | 1580.5 | 5.4 | 4.6 |
| 159.1 | 190.0 | | | Siltstone with a few mudstone stringers. | | | | |
| 190.0 | 197.0 | | | Sandstone | | | | |
| 197.0 | 206.5 | | | Siltstone | | | | |
| 206.5 | 209.0 | | | Sandstone | | | | |
| 209.0 | 215.7 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |

0.0

2507 - NDN

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | |
|--------------------------|--|-------------------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: May 5, 1983 | | 148,776.3 | | 27,370.6 | | 1974.9m |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° |
| | | | | | | Length: | | 202.5 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|--|--|--|-------------|-------------|---------|---------|
| 0.0 | 1.2 | | | Casing | | | | | | | |
| 1.2 | 4.0 | | | Sandstone | | | | | | | |
| 4.0 | 16.6 | | | Siltstone with a mudstone band | | | | | | | |
| 16.6 | 53.5 | | | Mudstone Grading upwards into sandstone | | | | | | | |
| 53.5 | 55.2 | 175.5 | 181.1 | Coal | | | | R5U | 1921.4 | 1.7 | |
| 55.2 | 56.8 | | | Mudstone | | | | | | | |
| 56.8 | 58.0 | 186.3 | 190.3 | Coal | | | | R5U | 1918.1 | 1.2 | |
| 58.0 | 65.4 | | | Siltstone with mudstone band above seam | | | | | | | |
| 65.4 | 69.3 | 214.6 | 227.4 | Coal. Siltstone parting 67.4 - 68.2 | | | | R5L | 1909.5 | 3.9 | 3.1 |
| 69.3 | 74.0 | | | Mudstone | | | | | | | |
| 74.0 | 81.2 | | | Sandstone | | | | | | | |
| 81.2 | 103.3 | | | Siltstone | | | | | | | |
| 103.3 | 109.8 | 338.9 | 360.2 | Coal | | | | R4U | 1871.6 | 6.5 | |
| 109.8 | 120.1 | | | Silty Mudstone | | | | | | | |
| 120.1 | 125.8 | 394.0 | 412.7 | Coal | | | | R4L | 1854.8 | 5.7 | |
| 125.8 | 143.0 | | | Sandy Siltstone | | | | | | | |
| 143.0 | 162.0 | | | Sandstone | | | | | | | |
| 162.0 | 163.0 | | | Mudstone band. Probably R3 Shaled out | | | | R3 | | | |
| 163.0 | 189.4 | | | Sandstone | | | | | | | |
| 189.4 | 192.7 | 621.4 | 632.2 | Coal | | | | R2 | 1785.5 | 3.3 | |
| 192.7 | 194.3 | | | Siltstone | | | | | | | |
| 194.3 | 195.5 | 637.5 | 641.4 | Coal R1 - Top 1780.6 - 1.2m | | | | | | | |
| 195.5 | 200.2 | | | Basal Sandstone | | | | | | | |
| E.O.H. | | | | | | | | | | | |

Hole No. RH 1633 Page 1 of 1

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|------------|----------|-----------|-----------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|------------|----------|-----------|-----------|---------------------|

Logged By: John Stokmans Date: May 5, 1983

147,997.4 27,492.8 1716.7

0.0

| | | | | | |
|--------|-------|--------|------------|-----------------|---------------|
| Block: | Sect: | Place: | App. Bear: | App. Dip.: -90° | Length: 137.6 |
|--------|-------|--------|------------|-----------------|---------------|

| | | | | |
|---------|-------|----------|--------|---|
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO |
|---------|-------|----------|--------|---|

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---------------------------|-------------|-----------|---------|---------|
| | | | | | | M | | |
| 0.0 | 19.5 | | | Casing - 18.5m overburden | | | | |
| 19.5 | 46.5 | | | Basal Sandstone | | | | |
| 46.5 | 137.6 | | | Fernie Formation | | | | |
| E.O.H. | | | | | | | | |

2507 - NDN

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: May 6, 1983 LATITUDE 147,784.5 DEPARTURE 27,005.1 ELEVATION 1711.7m 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 304.4m

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 1.52 | | | Casing | | | | |
| 1.52 | 14.5 | | | Sandy Siltstone | | | | |
| 14.5 | 20.8 | | | Muddy Siltstone | | | | |
| 20.8 | 37.0 | 68.2 | 121.4 | Coal. Minor Siltstone Partings 27.5-28.0m; 33.7-34.1m | R4 | 169.09 | 16.1 | 15.3 |
| 37.0 | 48.5 | | | Mudstone. Fault Zone 40.0-46.3m | | | | |
| 48.5 | 57.6 | 159.1 | 188.6 | Coal | R9 | 1663.2 | 9.0 | |
| 57.6 | 106.2 | | | Siltstone | | | | |
| 106.2 | 112.7 | | | Sandy Siltstone | | | | |
| 112.7 | 114.4 | 369.7 | 375.3 | Coal | R74 | 1599.0 | 1.7 | |
| 114.4 | 120.0 | | | Mudstone | | | | |
| 120.0 | 124.7 | 393.7 | 409.1 | Coal. Siltstone and mudstone parting 120.7-121.2; 122.8-123.7m | R7 | 1591.7 | 4.7 | 3.6 |
| 124.7 | 131.8 | | | Siltstone with Mudstone Bands | | | | |
| 131.8 | 132.3 | 432.4 | 434.0 | Shaly Coal | | | | |
| 132.3 | 134.4 | | | Siltstone | | | | |
| 134.4 | 135.0 | 440.9 | 442.9 | Shaly Coal | | | | |
| 135.0 | 139.9 | | | Mudstone | | | | |
| 139.9 | 181.6 | | | Siltstone. Sandy towards bottom end of unit | | | | |
| 181.6 | 182.0 | | | Carby Band | | | | |
| 182.0 | 184.1 | | | Muddy siltstone | | | | |
| 184.1 | 186.5 | | | Coal | R5U | 1529.7 | 2.4 | |
| 186.5 | 211.9 | | | Siltstone | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: May 6, 1983

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____ 0.0

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO | | | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|--|--|--|-------------|-------------|---------|---------|
| 211.9 | 215.2 | 695.2 | 706.0 | Coal Siltstone parting | | | | R5L | 1499.8 | 3.3 | 2.9 |
| 215.2 | 225.0 | | | Silty mudstone | | | | | | | |
| 225.0 | 237.3 | | | Siltstone | | | | | | | |
| 237.3 | 249.5 | | | Sandstone | | | | | | | |
| 249.5 | 285.7 | | | Siltstone | | | | | | | |
| 285.7 | 298.5 | 937.3 | 979.3 | Coal. Siltstone parting 289.9 - 290.5m | | | | R4 | 1426.0 | 12.8 | 12.2 |
| 298.5 | 303.6 | | | Interbedded mudstone and siltstone | | | | | | | |
| E.O.H. | | | | | | | | | | | |
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2507 - NDN

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|------------------|--|-------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: J. S. | | Date: May 6, 1983 | | 147,774.1 | | 27,270.8 | | 1719.2 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 214.8 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|--|-------------|-----------|---------|---------|
| 0.0 | 1.5 | | | Casing | | | | | |
| 1.5 | 4.0 | | | Siltstone | | | | | |
| 4.0 | 20.6 | | | Sandstone | | | | | |
| 20.6 | 56.3 | | | Silty mudstone | | | | | |
| 56.3 | 61.7 | 184.7 | 202.4 | Coal | | R4U | 1662.9 | 5.4 | |
| 61.7 | 62.7 | | | Mudstone | | | | | |
| 62.7 | 70.7 | 205.7 | 232.0 | Coal | | R4L | 1656.5 | 8.0 | |
| 70.7 | 93.4 | | | Mudstone with siltstone bands in upper portion. | | | | | |
| 93.7 | 97.8 | | | Siltstone | | | | | |
| 97.8 | 98.8 | 320.9 | 324.1 | Coal | | R3 | 1621.4 | 1.0 | |
| 98.8 | 110.5 | | | Interbedded siltstone and mudstone. | | | | | |
| 110.5 | 114.0 | 362.5 | 374.0 | Coal | | R2 | 1608.7 | 3.5 | |
| 114.0 | 120.0 | | | Siltstone with mudstone below and above seam. | | | | | |
| 120.0 | 121.6 | 393.7 | 398.9 | Coal | | R1 | 1599.2 | 1.6 | |
| 121.6 | 200.0 | | | Basal sandstone. | | | | | |
| 200.0 | 214.8 | | | Fernie formation. | | | | | |
| E.O.H. | | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: J. S. Date: May 6, 1983

| | | | |
|-----------|-----------|-----------|---------------------|
| LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| 147,752.1 | 26,621.4 | 1703.5 m | 0.0 |

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 102.1 m

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 0.0 | 10.0 | | | Casing | | | | |
| 0.0 | 5.0 | | | Overburden. | | | | |
| 10.0 | 23.2 | | | Mudstone grading upwards into sandy siltstone. | | | | |
| 23.2 | 31.4 | 76.1 | 103.0 | Coal. Includes a muddy band. | | | | |
| 31.4 | 33.9 | | | Mudstone | R7 | 1680.3 | 8.2 | |
| 33.9 | 35.1 | 111.2 | 115.2 | Coal | | | | |
| 35.1 | 58.5 | | | Interbedded mudstone and siltstone. | R7L | 1669.6 | 1.2 | |
| 58.5 | 60.5 | 191.9 | 198.5 | Coal. | | | | |
| 60.5 | 81.5 | | | Siltstone with mudstone band above seam. | R5U | 1645.0 | 2.0 | |
| 81.5 | 83.9 | 267.4 | 275.0 | Coal. Siltstone parting 82.3 - 82.7 m | | | | |
| 83.9 | 101.4 | | | Sandstone with some siltstone interbeds. | R5L | 1622.0 | 2.4 | 2.0 |
| E.O.H. | | | | | | | | |

Hole No. RH 1641

Page 1 of 1

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: J. S. Date: May 6, 1983

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 106.8 m

| LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|-----------|-----------|-----------|---------------------|
| 147,998.2 | 27,359.4' | 1710.6 | 0.0 |

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|-------------------|-------------|-----------|---------|---------|
| 0.0 | 9.5 | | | Overburden. | | | | |
| 0.0 | 10.0 | | | Casing | | | | |
| 10.0 | 49.0 | | | Fernie formation. | | | | |
| 49.0 | 52.5 | | | Sandstone. | | | | |
| 52.5 | 54.0 | 172.2 | 177.2 | Coal | R1 | 1658.1 | 1.5 | |
| 54.0 | 106.8 | | | Basal sandstone. | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. Stokmans Date: May 3, 1983. LATITUDE 148,009.3 DEPARTURE 26,361.9 ELEVATION 1692.7 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 157.5m

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 0.0 | 11.0 | | | Overburden | | | | |
| 11.0 | 49.5 | | | Siltstone interbedded with mudstone. | | | | |
| 49.5 | 51.8 | 162.4 | 169.9 | Coal | R7u | 1643.2 | 2.3 | |
| 51.8 | 53.4 | | | Siltstone | | | | |
| 53.4 | 60.6 | 175.2 | 198.8 | Coal | R7 | 1639.3 | 7.2 | |
| 60.6 | 63.7 | | | Mudstone | | | | |
| 63.7 | 64.5 | 209.0 | 211.6 | Coal (not sampled) | | 1629.0 | 0.8 | |
| 64.5 | 83.8 | | | SANDY SILTSTONE FINING UPWARDS INTO MUDSTONE | | | | |
| 83.8 | 95.4 | | | SANDY SILTSTONE | | | | |
| 95.4 | 97.9 | | | Muddy siltstone. | | | | |
| 97.9 | 100.7 | 321.2 | 330.4 | Coal | R5u | 1594.8 | 2.8 | |
| 100.7 | 122.9 | | | Fine siltstone interbedded with mudstone. | | | | |
| 122.9 | 125.2 | 403.2 | 410.8 | Coal. Siltstone parting 123.8 - 124.4m | R5L | 1569.8 | 2.3 | 1.7 |
| 125.2 | 141.9 | | | Interbedded siltstone and mudstone. | | | | |
| 141.9 | 156.5 | | | Sandstone fining upwards into above unit. | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH 1794

Page 1 of 1

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: J. Stokmans Date: May 2, 1983 147,984.3 26,659.6 1686.5 0.0

Block: Sect: Place: App. Bear: App. Dip: Length:

-90° 169.6

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 10.7 | | | Overburden | | | | |
| 10.7 | 44.5 | | | Sandstone fining upwards into mudstone | | | | |
| 44.5 | 54.2 | | | Siltstone. | | | | |
| 54.2 | 79.6 | | | Siltstone grading upwards into sandstone. | | | | |
| 79.6 | 92.6 | 261.1 | 303.8 | Coal. Mudstone parting 91.4 - 92.1m | R4 | 1606.9 | 13.0 | 12.3 |
| 92.6 | 102.7 | | | Interbedded siltstone and mudstone. Carby band 93.7 -94.0m | | | | |
| 102.7 | 106.3 | | | Siltstone | | | | |
| 106.3 | 107.0 | 365.2 | 367.4 | Coal | R3 | 1580.2 | 0.7 | |
| 107.0 | 137.4 | | | Sandstone | | | | |
| 137.4 | 140.4 | 450.8 | 460.6 | Coal | R2 | 1549.1 | 3.0 | |
| 140.4 | 142.1 | | | Siltstone | | | | |
| 142.1 | 143.4 | 466.2 | 470.5 | Coal | R1 | 1544.4 | 1.3 | |
| 143.4 | 169.3 | | | Basal sandstone | | | | |
| E.O.B. | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: J. S. Date: May 2, 1983 147,885.8 26,548.6 1683.4 0.0

Block: Sect: Place: App. Bear: App. Dip: -90° Length: 151.7m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| | | | | | | m | | |
| 0.0 | 10.7 | | | Overburden | | | | |
| 10.7 | 31.1 | | | Siltstone | | | | |
| 31.1 | 33.4 | 102.0 | 109.5 | Coal | R5u | 1652.3 | 2.3 | |
| 33.4 | 57.8 | | | Siltstone with minor sandstone and mudstone banding. | | | | |
| 57.8 | 58.9 | 189.6 | 193.2 | Coal | R5L | 1625.6 | 1.1 | |
| 58.9 | 78.4 | | | Siltstone with minor sandstone bands. | | | | |
| 78.4 | 132.3 | | | Sandstone coarsening upwards with finer band at top. | | | | |
| 132.3 | 145.2 | 434.0 | 476.4 | Coal. Siltstone parting 143.6 - 144.8m | R4 | 1551.1 | 12.9 | 11.7 |
| 145.2 | 151.4 | | | Silty mudstone. | | | | |
| F.O.H. | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: J. S. Date: May 2, 1983.

147,892.6 26,856.6 1693.7 0.0

Block: Sect: Place: App. Bear: App. Dip.: -90° Length: 244.6m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|----------------|---------|---------|
| 0.0 | 5.5 | | | Overburden. | | | | |
| 5.5 | 36.3 | | | Siltstone | | | | |
| 36.3 | 40.0 | 119.1 | 131.2 | Coal | U | 1657.4 | 3.7 | |
| 40.0 | 50.1 | | | Mudstone | | | | |
| 50.1 | 58.7 | | | Siltstone | | | | |
| 58.7 | 69.7 | | | Mudstone | | | | |
| 69.7 | 122.0 | | | Siltstone - coarse to sandy 70.0 m on. | | | | |
| 122.0 | 144.5 | | | Sandstone | | | | |
| 144.5 | | | | Possible fault. | | | | |
| 144.5 | 191.3 | | | Siltstone | | | | |
| 191.3 | 244.4 | | | Sandstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. S. Date: May 2, 1983 LATITUDE 147,881.6 DEPARTURE 27,198.4 ELEVATION 1703.8 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 168.1

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 0.0 | 11.5 | | | Overburden | | | | |
| 11.5 | 38.6 | | | Mudstone with siltstone interbeds. | | | | |
| 38.6 | 69.9 | | | Mudstone grading upwards into siltstone. Includes a mudstone band. | | | | |
| 69.9 | 75.0 | 229.3 | 246.1 | Coal | R4 | 1633.9 | 5.1 | |
| 75.0 | 84.5 | | | Mudstone grading upwards into siltstone. Mudstone band below seam. | | | | |
| 84.5 | 94.1 | | | Siltstone fining upwards into mudstone. Mudstone band above seam. | | | | |
| 94.1 | 96.7 | 308.7 | 317.3 | Coal. | R3 | 1609.7 | 2.6 | |
| 96.7 | 107.3 | | | Interbedded siltstone and mudstone. | | | | |
| 107.3 | 109.9 | 352.0 | 360.6 | Coal. | R2 | 1596.5 | 2.6 | |
| 109.9 | 115.9 | | | Interbedded siltstone and mudstone. | | | | |
| 115.9 | 117.4 | 380.2 | 385.2 | Coal | R1 | 1587.9 | 1.5 | |
| 117.4 | 168.1 | | | Basal sandstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|------------------|--|-------------------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: J. S. | | Date: May 2, 1983 | | 147,789.8 | | 26,353.6 | | 1676.5 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° |
| | | | | | | Length: | | 108.6 |

0.0

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|------------|-------------|-------------|---------|---------|
| 0.0 | 11.9 | | | Overburden | | | | |
| 11.9 | 24.9 | | | Siltstone | | | | |
| 24.9 | 33.2 | 81.7 | 108.9 | Coal | R9 | 1651.6 | 8.3 | |
| 33.2 | 77.0 | | | Sandstone | | | | |
| 77.0 | 78.9 | 252.6 | 258.8 | Coal | R7u | 1599.5 | 1.9 | |
| 78.9 | 80.5 | | | Sandstone | | | | |
| 80.5 | 85.7 | 267.1 | 281.2 | Coal | R7 | 1596.0 | 5.2 | |
| 85.7 | 88.8 | | | Siltstone | | | | |
| 88.8 | 90.0 | 291.3 | 295.3 | Coal | R7L | 1587.7 | 1.2 | |
| 90.0 | 108.6 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: John Stokmans Date: April 28, 1983

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip: -90° Length: 305.0m

LATITUDE: 149,051.2 DEPARTURE: 27,370.0 ELEVATION: 2094.9 Ore Classes & Av: 0.0

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG | TOP OF SEAM | ELEVATION M | TTL. TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-------------|----------|---------|
| 0.0 | 12.2 | | | Siltstone | | | | |
| 12.2 | 52.3 | | | Sandstone | | | | |
| 52.3 | 61.5 | | | Siltstone | | | | |
| 61.5 | 62.5 | 201.8 | 205.1 | Coal | U | 2033.4 | 1.0 | |
| 62.5 | 67.9 | | | Mudstone | | | | |
| 67.9 | 79.4 | | | Siltstone | | | | |
| 79.4 | 82.9 | 260.5 | 272.0 | Coal. Siltstone parting 80.6 - 81.8m | R7U | 2015.5 | 3.5 | 2.3 |
| 82.9 | 94.3 | | | Siltstone Grading gently upwards | | | | |
| 94.3 | 98.1 | 309.4 | 321.8 | Coal. Mudstone parting 95.4 - 96.3 | R7 | 2000.6 | 3.8 | 2.9 |
| 98.1 | 145.6 | | | Siltstone with sandstone band 124.8 - 127.0m | | | | |
| 145.6 | 147.0 | 477.7 | 482.3 | Coal | R5U | 1949.3 | 1.4 | |
| 147.0 | 148.9 | | | Siltstone | | | | |
| 148.9 | 150.2 | 485.5 | 492.8 | Coal | R5U | 1946.0 | 1.3 | |
| 150.2 | 159.5 | | | Siltstone Fining upwards | | | | |
| 159.5 | 162.5 | 523.3 | 533.1 | Coal Siltstone parting 161.3 - 162.0m | R5L | 1935.4 | 3.0 | 2.3 |
| 162.5 | 190.5 | | | Siltstone | | | | |
| 190.5 | 195.4 | 625.0 | 641.1 | Coal | R4U | 1904.4 | 4.9 | |
| 195.4 | 231.0 | | | Siltstone | | | | |
| 231.0 | 237.9 | 757.9 | 780.5 | Coal. Siltstone parting 232.0 - 232.9m | R4L | 1863.9 | 6.9 | 6.0 |
| 237.9 | 248.5 | | | Mudstone | | | | |
| 248.5 | 277.7 | | | Sandstone | | | | |
| 277.7 | 284.2 | | | Siltstone | | | | |
| 284.2 | 304.7 | | | Sandstone | | | | |
| E.O.H | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____

Logged By: John Sto kmans Date: April 28, 1983

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: 518.4

LATITUDE: 148,917.5 DEPARTURE: 26,603.4 ELEVATION: 1999.6

Ore Classes & Aver. 0.0

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 3.6 | | | Sandstone | | | | |
| 3.6 | 19.0 | | | Siltstone | | | | |
| 19.0 | 51.6 | | | Interbedded siltstone and mudstone | | | | |
| 51.6 | 52.7 | 169.3 | 172.9 | Coal | | 1948.0 | 1.1 | |
| 52.7 | 62.5 | | | Mudstone with siltstone band | | | | |
| 62.5 | 67.2 | 205.1 | 220.5 | Coal. Mudstone parting 63.4 - 64.2 | | 1937.1 | 4.7 | 3.9 |
| 67.2 | 70.4 | | | Siltstone | | | | |
| 70.4 | 71.4 | 231.0 | 234.3 | Coal | | 1929.2 | 1.0 | |
| 71.4 | 110.8 | | | Interbedded siltstone and mudstone. Two Carby bands | | | | |
| 110.8 | 113.6 | 363.5 | 372.7 | Coal | | 1888.8 | 2.8 | |
| 113.6 | 124.0 | | | Mudstone | | | | |
| 124.0 | 133.5 | | | Siltstone | | | | |
| 133.5 | 137.1 | | | Mudstone | | | | |
| 137.1 | | | | Fault | | | | |
| 137.1 | 161.6 | | | Mudstone | | | | |
| 161.6 | 165.5 | 530.2 | 543.0 | Coal | | 1838.0 | 3.9 | |
| 165.5 | 166.9 | | | Siltstone | | | | |
| 166.9 | 206.0 | | | Coal | | 1832.7 | 39.1 | |
| 206.0 | 218.7 | | | Mudstone | | | | |
| 218.7 | 226.3 | | | Sandy siltstone | | | | |
| 226.3 | 241.6 | | | Mudstone | | | | |
| 241.6 | 246.5 | | | Siltstone | | | | |
| 246.5 | 247.5 | | | Shaly Coal as per sampling record | | | | |

Hole No. RH1783 Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|------------|----------|-----------|-----------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|------------|----------|-----------|-----------|---------------------|

| | | | | | |
|------------|-------|--|--|--|-----|
| Logged By: | Date: | | | | 0.0 |
|------------|-------|--|--|--|-----|

| | | | | | |
|--------|-------|--------|------------|------------|---------|
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: |
|--------|-------|--------|------------|------------|---------|

| | | | | | | |
|---------|-------|----------|--------|--|---|-----------------------------|
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---------|-------|----------|--------|--|---|-----------------------------|

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 247.5 | 268.5 | | | Mudstone grading upwards into siltstone | | | | |
| 268.5 | 269.0 | | | Shaly coal as per sampling record | | | | |
| 269.0 | 276.7 | | | Mudstone | | | | |
| 276.7 | 294.9 | | | Interbedded siltstone and mudstone | | | | |
| 294.9 | 312.8 | | | Siltstone | | | | |
| 312.8 | 315.4 | 1026.2 | 1034.8 | Coal | ? R7U | 1686.8 | 2.6 | |
| 315.4 | 330.8 | | | Mudstone with siltstone interbeds | | | | |
| 330.8 | 338.2 | 1085.3 | 1109.6 | Coal. Sandy siltstone parting 337.1 - 337.6 | R7 | 1668.8 | 7.4 | 6.9 |
| 338.2 | 340.8 | | | Muddy siltstone | | | | |
| 340.8 | 342.5 | 1118.1 | 1123.7 | Coal | R7L | 1658.8 | 1.7 | |
| 342.5 | 359.5 | | | Interbedded siltstone and mudstone | | | | |
| 359.5 | 400.5 | | | Sandstone fining upwards to mudstone | | | | |
| 400.5 | 402.0 | 1314.0 | 1318.9 | Coal | U | 1599.1 | 1.5 | |
| 402.0 | 411.4 | | | Mudstone | | | | |
| 411.4 | 431.0 | | | Siltstone | | | | |
| 431.0 | 447.5 | | | Sandstone | | | | |
| 447.5 | 471.1 | | | Siltstone | | | | |
| 471.1 | 473.5 | 1545.6 | 1553.5 | Coal | R4U | 1528.2 | 2.4 | |
| 473.5 | 490.6 | | | Siltstone | | | | |
| 490.6 | 495.0 | 1609.6 | 1624.0 | Coal | R5L | 1509.0 | 4.4 | |
| 495.0 | 518.4 | | | Siltstone | | | | |

| | | |
|--------|-----------------|-------------|
| E.O.H. | Hole No. RH1783 | Page 2 of 2 |
|--------|-----------------|-------------|

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: John Sto kmans Date: April 28, 1983 148,659.5 26,141.1 1931.4 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip: -90° Length: 177.0

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-------------|---------|---------|
| 0.0 | 15.6 | | | Siltstone interbedded with mudstone | | | | |
| 15.6 | 25.6 | 51.2 | 84.0 | Coal | 7 | 1915.8 | 10.0 | |
| 25.6 | 35.2 | | | Muddy Siltstone | | | | |
| 35.2 | 36.3 | 115.5 | 119.1 | Coal | 7L | 1896.2 | 1.1 | |
| 36.3 | 43.6 | | | Mudstone | | | | |
| 43.6 | 61.0 | | | Siltstone grading upwards into sandstone. Includes siltstone band | | | | |
| 61.0 | 91.0 | | | Sandstone fining upwards into mudstone | | | | |
| 91.0 | 125.1 | | | Interbedded siltstone and sandstone | | | | |
| 125.1 | 148.0 | | | Sandstone | | | | |
| 148.0 | 150.5 | 485.6 | 493.8 | Coal | SU | 1783.4 | 2.5 | |
| 150.5 | 165.5 | | | Siltstone | | | | |
| 165.5 | 166.5 | 543.0 | 546.2 | Coal | U | 1765.9 | | |
| 166.5 | 175.1 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: April 29, 1983

148,709.9 26,930.4 1863.9

0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 255.2m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 23.2 | | | Siltstone | | | | |
| 23.2 | 33.4 | | | Sandstone | | | | |
| 33.4 | 42.2 | | | Siltstone | | | | |
| 42.2 | 43.6 | 138.4 | 143.0 | Coal | U | 1821.7 | 1.4 | |
| 43.6 | 63.5 | | | Mudstone grad ng upwards into siltstone. Includes a carby band | | | | |
| 63.5 | 85.4 | | | Sandstone Fining upwards into siltstone | | | | |
| 85.4 | 111.4 | | | Siltstone | | | | |
| 111.4 | 119.4 | 365.4 | 391.7 | Coal | R7 | 1744.5 | 8.0 | |
| 119.4 | 125.9 | | | Siltstone | | | | |
| 125.9 | 143.0 | | | Silty mudstone | | | | |
| 143.0 | 144.9 | 469.2 | 475.4 | Coal | R5U | 1720.9 | 1.9 | |
| 144.9 | 150.3 | | | Siltstone and mudstone bands | | | | |
| 150.3 | 190.6 | | | Siltstone | | | | |
| 190.6 | 192.0 | 625.3 | 629.9 | Coal | R5L | 1673.3 | 1.4 | |
| 192.0 | 235.8 | | | Siltstone | | | | |
| 235.8 | 249.4 | 773.6 | 818.2 | Coal | R4 | 1628.1 | 13.6 | |
| 249.4 | 253.5 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|----------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: April 29, 1983 | | 148,715.7 | | 27,155.6 | | 1903.2 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 169.1 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|----------|---------|
| 0.0 | 10.3 | | | Siltstone with mudstone band above seam | | | | |
| 10.3 | 21.6 | 33.8 | 70.9 | Coal. Siltstone parting 10.9 - 11.3m | R4U | 1892.9 | 11.3 | 10.9 |
| 21.6 | 28.5 | | | Mudstone with silty band | | | | |
| 28.5 | 38.1 | 93.5 | 125.0 | Coal | R4L | 1874.7 | 9.6 | |
| 38.1 | 48.1 | | | Muddy siltstone | | | | |
| 48.1 | 66.8 | | | Sandstone fining upwards into siltstone | | | | |
| 66.8 | 67.4 | 219.2 | 221.1 | Coal | R3 | 1836.4 | 0.6 | |
| 67.4 | 96.8 | | | Sandstone | | | | |
| 96.8 | 99.0 | 317.6 | 324.8 | Coal | R2 | 1806.4 | 2.2 | |
| 99.0 | 103.7 | | | Siltstone | | | | |
| 103.7 | 104.4 | 340.2 | 342.5 | Coal | R1 | 1799.5 | 0.7 | |
| 104.4 | 169.1 | | | Basal sandstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|---------------------------|-----------|-----------|------------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: John Sto kmans | 148,527.6 | 26,212.2 | 1894.5m | 0.0 |
| Date: April 29, 1983 | | | | |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: -90° |
| | | | | Length: 293.4m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|---|-----------------------------|-------------|-------------|---------|---------|
| 0.0 | 3.5 | | | Overburden | | | | | | |
| 3.5 | 18.6 | | | Sandy siltstone | | | | | | |
| 18.6 | 42.5 | | | Siltstone | | | | | | |
| 42.5 | 57.7 | | | Sandstone | | | | | | |
| 57.7 | 58.6 | 189.3 | 192.3 | Coal | | | U | 1836.8 | | |
| 58.6 | 63.0 | | | Sandstone | | | | | | |
| 63.0 | 88.5 | | | Silty mudstone | | | | | | |
| 88.5 | 96.1 | | | Siltstone | | | | | | |
| 96.1 | 119.4 | | | Siltstone grading upwards into sandstone | | | | | | |
| 119.4 | 125.3 | 391.7 | 411.1 | Coal | | | R11? | 1775.1 | 5.9 | |
| 125.3 | 149.0 | | | Siltstone | | | | | | |
| 149.0 | 152.0 | | | Coal as per sampling record. Siltstone parting 150.0 - 151.0m | | | | | | |
| 152.0 | 171.7 | | | Siltstone | | | | | | |
| 171.7 | 177.1 | 563.3 | 581.0 | Coal | | | R9 | 1722.8 | 5.4 | |
| 177.1 | 192.2 | | | Siltstone | | | | | | |
| 192.2 | 208.8 | | | Sandstone | | | | | | |
| 208.8 | 211.3 | 685.0 | 693.2 | Coal | | | R7U | 1685.7 | 2.5 | |
| 211.3 | 219.2 | | | Siltstone | | | | | | |
| 219.2 | 221.8 | 719.2 | 727.7 | Coal | | | R7 | 1675.3 | 2.6 | |
| 221.8 | 224.4 | | | Siltstone | | | | | | |
| 224.4 | 224.9 | 736.2 | 737.9 | Coal | | | | 1670.1 | 0.5 | |
| 224.9 | 236.0 | | | Mudstone | | | | | | |
| 236.0 | 248.8 | | | Siltstone | | | | | | |

Hole No. RH1788 Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | |
|------------|-------|----------|------------|------------|-----------|--|-----------|--|--|-------------------|
| Objective: | | LATITUDE | | | DEPARTURE | | ELEVATION | | | Ore Classes & Ave |
| Logged By: | | Date: | | | | | | | | 0.0 |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: | | | | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION M | TTL. TH. | NET TH. |
|------------|----------|-------------|-----------|--|-------------------|----------------|-------------|------------|
| 248.8 | 264.6 | | | Sandstone | | | | |
| 264.6 | 266.2 | 868.1 | 873.2 | Coal | R5U | 1629.9 | 1.6 | |
| 266.2 | 292.7 | | | Siltstone with minor muddy and sandy bands. | | | | |
| E.O.H. | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

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|--------------------------|-------|----------|--------|---|--|------------|--|-----------------|--|---------------------|-----------|-------------|---------|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | |
| Logged By: John Stokmans | | | | Date: April 29, 1983 | | 148,309.9 | | 26,221.9 | | 1798.7 | | 0.0 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | | Length: 330.4 | | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
| 0.0 | 5.5 | | | Overburden | | | | | | | | | |
| 5.5 | 23.6 | | | Siltstone | | | | | | | | | |
| 23.6 | 35.8 | | | Sandstone | | | | | | | | | |
| 35.8 | 45.0 | | | Siltstone | | | | | | | | | |
| 45.0 | 59.4 | | | Sandstone | | | | | | | | | |
| 59.4 | 70.8 | | | Siltstone with a minor sandstone band | | | | | | | | | |
| 70.8 | 71.3 | | | Coal as per sampling record | | | | | | | | | |
| 71.3 | 82.8 | | | Muddy siltstone | | | | | | | | | |
| 82.8 | 83.3 | 271.7 | 273.3 | Coal | | | | | | U | 1716.4 | 0.5 | |
| 83.3 | 85.3 | | | Siltstone | | | | | | | | | |
| 85.3 | 90.6 | 279.9 | 297.2 | Coal | | | | | | R9 | 1713.4 | 5.3 | |
| 90.6 | 103.4 | | | Mudstone | | | | | | | | | |
| 103.4 | 133.9 | | | Siltstone, mudstone band above seam | | | | | | | | | |
| 133.9 | 135.6 | 439.3 | 444.9 | Coal | | | | | | | | | |
| 135.6 | 137.2 | | | Siltstone | | | | | | | | | |
| 137.2 | 141.1 | 450.1 | 462.9 | Coal | | | | | | R7 | 1661.5 | 3.9 | |
| 141.1 | 143.5 | | | Muddy siltstone | | | | | | | | | |
| 143.5 | 144.0 | | | Coal as per sampling record | | | | | | | | | |
| 144.0 | 152.6 | | | Interbedded siltstone and mudstone | | | | | | | | | |
| 152.6 | 163.0 | | | Sandy siltstone | | | | | | | | | |
| 163.0 | 175.8 | | | Siltstone | | | | | | | | | |
| | | | | | | | | | | Hole No. RH1789 | | Page 1 of 2 | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------|--|----------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: | | Date: | | | | | | 0.0 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: |
| | | | | | | Length: | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|---|--|-------------|-----------|----------|---------|
| 175.8 | 177.6 | 576.7 | 582.7 | Coal | | R5U | 1622.9 | 1.8 | |
| 177.6 | 196.2 | | | Siltstone with sandstone band above seam | | | | | |
| 196.2 | 201.0 | 643.7 | 659.4 | Coal. Siltstone partings, 196.8 - 198.1m, 199.3 - 200. m | | R5L | 1602.5 | 4.8 | |
| 201.0 | 208.6 | | | Muddy siltstone | | | | | |
| 208.6 | 224.5 | | | Siltstone | | | | | |
| 224.5 | 235.5 | | | Sandstone | | | | | |
| 235.5 | 263.0 | | | Siltstone with muddy band above seam | | | | | |
| 263.0 | 273.6 | 862.9 | 897.6 | Coal. Siltstone parting 272.8 - 273.2m | | R4 | 1535.7 | 10.6 | 10.2 |
| 273.6 | 289.4 | | | Siltstone with mudstone banding | | | | | |
| 289.4 | 290.0 | | | Coal | | R3 | | | |
| 290.0 | 317.6 | | | Sandstone | | | | | |
| 317.6 | 320.2 | 1042.0 | 1050.5 | Coal | | R2 | 1481.1 | 2.6 | |
| 320.2 | 321.5 | | | Siltstone | | | | | |
| 321.5 | 322.7 | 1054.8 | 1058.7 | Coal | | R1 | 1477.2 | 1.2 | |
| 322.7 | 330.4 | | | Basal Sandstone | | | | | |
| E.O.H. | | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Sto kmans Date: April 29, 1983 LATITUDE 148,312.5 DEPARTURE 26,400.6 ELEVATION 1786.8 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: 230.7

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|----------|---------|
| 0.0 | 25.4 | | | Siltstone interbedded with mudstone | | | | |
| 25.4 | 31.4 | 83.3 | 103.0 | Coal | R9 | 1761.4 | 6.0 | 5.5 |
| 31.4 | 41.4 | | | Siltstone | | | | |
| 41.4 | 48.5 | | | Mudstone | | | | |
| 48.5 | 59.4 | | | Sandstone | | | | |
| 59.4 | 63.4 | | | Siltstone | | | | |
| 63.4 | 72.9 | | | Sandstone with silty band above seam | | | | |
| 72.9 | 74.6 | 239.2 | 244.7 | Coal | R7U | 1713.9 | 1.7 | |
| 74.6 | 77.0 | | | Siltstone | | | | |
| 77.0 | 80.9 | 252.6 | 265.4 | Coal | R7 | 1709.8 | 3.9 | |
| 80.9 | 83.3 | | | Muddy siltstone | | | | |
| 83.3 | 83.8 | 273.3 | 274.9 | Coal | | | 0.5 | |
| 83.8 | 121.9 | | | Sandstone grading upwards into mudstone. Silt band above seam | | | | |
| 121.9 | 123.9 | 399.9 | 406.5 | Coal | R5U | 1664.9 | 2.0 | |
| 123.9 | 144.8 | | | Muddy siltstone Grading upwards into siltstone. Minor sandstone band | | | | |
| 144.8 | 149.0 | 475.1 | 488.8 | Coal. Siltstone parting 145.5 - 147.0m | R5L | 1642.0 | 4.2 | 2.7 |
| 149.0 | 211.1 | | | Siltstone | | | | |
| 211.1 | 221.9 | 692.6 | 728.0 | Coal | R4 | 1575.7 | 10.8 | |
| 221.9 | 229.0 | | | Mudstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. Sto kmans Date: April 29, 1983 LATITUDE 148,192.6 DEPARTURE 26,591.8 ELEVATION 1720.4 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 180.0m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-------------|---------|---------|
| 0.0 | 10.5 | | | Overburden | | | | |
| 10.5 | 33.3 | | | Siltstone with one minor sandy band | | | | |
| 33.3 | 35.3 | 109.3 | 115.8 | Coal | R5U | 1687.1 | 2.0 | |
| 35.3 | 55.0 | | | Siltstone with one sandy band | | | | |
| 55.0 | 56.1 | 180.4 | 184.1 | Coal | R5L | 1665.4 | 1.1 | |
| 56.1 | 117.3 | | | Siltstone with minor muddy bands | | | | |
| 117.3 | 128.0 | 384.8 | 419.9 | Coal | R4 | 1603.1 | 10.7 | |
| 128.0 | 142.1 | | | Silty Mudstone | | | | |
| 142.1 | 143.1 | 466.2 | 469.5 | Coal | R3 | 1578.3 | 1.0 | |
| 143.1 | 169.5 | | | Sandstone fining upwards into siltstone | | | | |
| 169.5 | 172.0 | 556.0 | 564.3 | Coal | R2 | 1550.9 | 2.5 | |
| 172.0 | 173.3 | | | Siltstone | | | | |
| 173.3 | 174.4 | 568.6 | 572.2 | Coal | R1 | 1547.1 | 1.1 | |
| 174.4 | 179.2 | | | Basal Sandstone | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|----------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: April 29, 1983 | | 148,307.2 | | 26,596.7 | | 1765.7 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 200.2m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|--|-------------|-------------|---------|---------|
| 0.0 | 3.7 | | | Overburden (Boundary not sure) | | | | | |
| 3.7 | 5.6 | | | Sandstone | | | | | |
| 5.6 | 11.7 | | | Siltstone | | | | | |
| 11.7 | 13.4 | 38.4 | 44.0 | Coal | | R7U | 1754.0 | 1.7 | |
| 13.4 | 17.8 | | | | | | | | |
| 17.8 | 21.8 | 58.4 | 71.5 | Coal | | R7 | 1747.9 | 4.0 | |
| 21.8 | 40.4 | | | Mudstone with Siltstone interbeds | | | | | |
| 40.4 | 76.0 | | | Siltstone | | | | | |
| 76.0 | 85.2 | | | Bandstone with silty band above seam | | | | | |
| 85.2 | 87.1 | 279.5 | 285.6 | Coal | | R5U | 1680.5 | 1.9 | |
| 87.1 | 102.7 | | | Siltstone | | | | | |
| 102.7 | 110.8 | | | Silty mudstone | | | | | |
| 110.8 | 114.8 | 363.5 | 376.6 | Coal | | R5L | 1644.9 | 4.0 | 3.4 |
| 114.8 | 118.6 | | | Mudstone | | | | | |
| 118.6 | 142.0 | | | Siltstone | | | | | |
| 142.0 | 174.4 | | | Sandstone | | | | | |
| 174.4 | 182.2 | | | Siltstone | | | | | |
| 182.2 | 200.1 | | | Siltstone | | R4 | 1583.5 | 13.3 | |
| E.O.H. | | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Sto kmans Date: May 2, 1983 LATITUDE 148,230.4 DEPARTURE 26,789.4 ELEVATION 1724.5m

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip: -90° Length: 218.7

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 17.0 | | | Overburden | | | | |
| 17.0 | 27.9 | | | Sandstone fining upwards into siltstone | | | | |
| 27.9 | 82.6 | | | Siltstone with sandy portions | | | | |
| 82.6 | 101.9 | | | Interbedded siltstone and sandstone | | | | |
| 101.9 | 107.3 | 334.3 | 352.0 | Coal | R5L | 1622.6 | 5.4 | |
| 107.3 | 145.5 | | | Sandy Siltstone | | | | |
| 145.5 | 185.1 | | | Siltstone | | | | |
| 185.1 | 202.5 | 607.3 | 664.4 | Coal | R4 | 1539.4 | 18.4 | |
| 202.5 | 206.5 | | | Siltstone | | | | |
| 206.5 | 207.5 | 675.9 | 680.8 | Coal (as per sampling record) | R4L | 1518.0 | 1.5 | |
| 207.5 | 210.2 | | | Mudstone | | | | |
| 210.2 | 218.7 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH1793

Page 1 of 1

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------------|--|-------------------|--|-----------|--|---------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: J. S. | | Date: May 2, 1983 | | 149,823.0 | | 25,623.6 | | 2451.1 m |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° |
| | | | | | | Length: 592.2 | | 0.0 |

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 14.0 | | | Wide bands of interbedded sandstone and siltstone. | | | | |
| 14.0 | 27.7 | | | Sandstone | | | | |
| 27.7 | 28.0 | | | Coal Stringer | | | | |
| 28.0 | 44.5 | | | Sandstone with one minor mudstone band. | | | | |
| 44.5 | 45.2 | 146.0 | 148.3 | Coal | | 2406.6 | 0.7 | |
| 45.2 | 70.0 | | | Sandstone | | | | |
| 70.0 | 78.0 | | | Interbedded siltstone and mudstone. | | | | |
| 78.0 | 93.0 | | | Sandstone. | | | | |
| 93.0 | 95.0 | | | Siltstone. | | | | |
| 95.0 | 105.1 | | | Sandstone with a minor mudstone band. | | | | |
| 105.1 | 108.5 | | | Mudstone and siltstone interbeds. | | | | |
| 108.5 | 130.9 | | | Sandstone with mudstone bands 119.5 - 120.8m; 125.7 - 126.8m | | 2320.2 | 1.0 | |
| 130.9 | 131.9 | | | Shaly coal. | | | | |
| 131.9 | 157.0 | | | Sandstone with minor carby and silty bands. | | | | |
| 157.0 | 160.0 | | | Siltstone. | | | | |
| 160.0 | 163.8 | | | Sandstone. | | | | |
| 163.8 | 165.1 | 537.4 | 541.7 | Coal. Mudstone parting 164.2 - 164.7m | | 2287.3 | 1.3 | 0.8 |
| 165.1 | 178.0 | | | Interbedded sandstone and siltstone and mudstone. | | | | |
| 178.0 | 191.0 | | | Sandstone. | | | | |
| 191.0 | 195.6 | | | Siltstone. | | | | |
| 195.6 | 197.6 | | | Mudstone with coaly stringer | | | | |
| 197.6 | 222.5 | | | Sandstone with siltstone and mudstone interbeds. | | | | |
| 222.5 | 243.1 | | | Interbedded sandstone and siltstone. | | | | |

Hole No. RH 1900

Page 1 of 4

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | |
|------------|----------|-----------|-----------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|------------|----------|-----------|-----------|---------------------|

| | | | | |
|------------|-------|--|--------|-----|
| Logged By: | Date: | | 2451.1 | 0.0 |
|------------|-------|--|--------|-----|

| | | | | | |
|--------|-------|--------|------------|------------|---------|
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: |
|--------|-------|--------|------------|------------|---------|

| | | | | | | |
|---------|-------|----------|--------|--|---|-----------------------------|
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|---------|-------|----------|--------|--|---|-----------------------------|

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|----------|---------|
| 243.1 | 243.4 | | | Coal stringer. | | | | |
| 243.4 | 251.2 | | | Interbedded sandstone and siltstone. | | | | |
| 251.2 | 251.5 | | | Coal stringer. | | | | |
| 251.5 | 266.0 | | | Sandstone. Fining upwards. Includes some mudstone bands. | | | | |
| 266.0 | 273.6 | 872.7 | 897.6 | Coal. Siltstone parting 271.7 - 272.3m. | 15 | 2185.1 | 7.6 | 7.0 |
| 273.6 | 277.2 | | | Siltstone and mudstone interbeds. | | | | |
| 277.2 | 278.6 | 909.4 | 914.0 | Coal | 15L | 2173.9 | 1.4 | |
| 278.6 | 295.1 | | | Siltstone with minor sandstone and mudstone bands. | | | | |
| 295.1 | 304.9 | | | Sandstone. | | | | |
| 304.9 | 310.1 | 1000.3 | 1017.4 | Coal, Siltstone parting 306.3 - 306.9m. | 14u | 2146.2 | 5.2 | 4.6 |
| 310.1 | 319.5 | | | Sandstone. | | | | |
| 319.5 | 324.9 | | | Mudstone with a sandstone band. | | | | |
| 324.9 | 332.8 | | | Siltstone | | | | |
| 332.8 | 334.7 | 1091.9 | 1098.1 | Coal. Mudstone parting 333.5 - 334.0m. | 14 | 2118.3 | 1.9 | 1.4 |
| 334.7 | 338.2 | | | Mudstone | | | | |
| 338.2 | 339.8 | 1109.6 | 1114.8 | Coal | 14 | 2112.9 | 1.6 | |
| 339.8 | 346.9 | | | Siltstone with mudstone band above seam. | | | | |
| 346.9 | 348.4 | 1138.1 | 1143.0 | Coal | pt 14 | 2104.2 | 1.5 | |
| 348.4 | 356.9 | | | Mudstone grading upwards into sandstone. | | | | |
| 356.9 | 357.8 | 1170.9 | 1173.9 | Coal | 14L | 2094.2 | 0.9 | |
| 357.9 | 361.0 | | | Interbedded sandstone and siltstone. | | | | |
| 361.0 | 382.1 | | | Sandstone. Mudstone band above seam. | | | | |

Hole No. RH 1900

Page 2 of 4

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____ 2151.1 _____ 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|----------------|---------|---------|
| 382.1 | 387.8 | 1253.6 | 1272.3 | Coal. Mudstone parting 382.7 - 383.7 m. | 13 | 2069.0 | 5.7 | 4.7 |
| 387.8 | 391.0 | | | Siltstone. | | | | |
| 391.0 | 426.4 | | | Sandstone with minor mudstone band at 400 m. | | | | |
| 426.4 | 429.4 | | | Mudstone with carby band. | | | | |
| 429.4 | 435.0 | 1408.8 | 1427.2 | Coal. | 12 | 2021.7 | 5.6 | |
| 435.0 | 450.9 | | | Siltstone with mudstone bands 438.5 - 439.5m; 445.5 - 447.6m. | | | | |
| 450.9 | 470.3 | | | Sandstone. Mudstone band above seam. | | | | |
| 470.3 | 473.8 | 1543.0 | 1554.5 | Coal. | 11u | 1980.8 | 3.5 | |
| 473.8 | 478.8 | | | Interbedded siltstone and mudstone. | | | | |
| 478.8 | 481.7 | 1570.9 | 1580.4 | Coal. Mudstone parting 479.2 - 479.8 m. | 11 | 1972.3 | 2.9 | 2.3 |
| 481.7 | 483.8 | | | Mudstone. | | | | |
| 483.8 | 484.9 | 1587.3 | 1590.9 | Coal. | p+ 11 | 1967.3 | 1.1 | |
| 484.9 | 487.0 | | | Mudstone. | | | | |
| 487.0 | 511.8 | | | Sandstone with some siltstone interbeds. | | | | |
| 511.8 | 514.2 | | | Mudstone. | | | | |
| 514.2 | 518.2 | | | Siltstone. | | | | |
| 518.2 | 525.1 | 1700.1 | 1722.8 | Coal. | 9 | 1632.9 | 6.9 | |
| 525.1 | 528.8 | | | Silty mudstone. | | | | |
| 528.8 | 529.8 | 1734.9 | 1738.2 | Coal. | 8u | 1622.3 | 1.0 | |
| 529.8 | 553.1 | | | Interbedded sandstone and siltstone. | | | | |

Hole No. RH 1900

Page 3 of 4

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|----------|---------|
| | | | | | | m | | |
| 553.1 | 554.5 | 1814.6 | 1819.2 | Coal | 8 | 1598.0 | 1.4 | |
| 554.5 | 557.2 | | | Mudstone. | | | | |
| 557.2 | 559.3 | 1828.1 | 1835.0 | Coal. | 8L | 1593.9 | 2.1 | |
| 559.3 | 566.4 | | | Sandstone | | | | |
| 566.4 | 568.4 | 1858.3 | 1864.8 | Coal. | 7 | 1584.7 | 2.0 | |
| 568.4 | 570.7 | | | Siltstone | | | | |
| 570.7 | 572.2 | 1872.4 | 1877.3 | Coal. | 7 | 1580.4 | 1.5 | |
| 572.2 | 577.2 | | | Interbedded sandstone and siltstone. | | | | |
| 577.2 | 578.5 | 1893.7 | 1898.0 | Coal. | 7L | 1573.9 | 1.3 | |
| 578.5 | 592.2 | | | Siltstone grading upwards into sandstone. | | | | |
| E.O.H. | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Sto kmans Date: April 25, 1983 LATITUDE 149,534.2 DEPARTURE 27,191.4 ELEVATION 2095.4 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip: -90° Length: 407.4m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 9.5 | | | Unknown - possibly weathered or overburden | | | | |
| 9.5 | 30.6 | | | Siltstone with mudstone band above seam | | | | |
| 30.6 | 35.5 | 100.4 | 116.5 | Coal | R4U | 2064.8 | 4.9 | |
| 35.5 | 71.8 | | | Siltstone with Minor mudstone interbeds | | | | |
| 71.8 | 72.8 | 235.6 | 237.9 | Coal (shaley) | | | | |
| 72.8 | 73.4 | | | Siltstone | | | | |
| 73.4 | 76.4 | 240.8 | 251.6 | Coal | R4L | 2022.0 | 3.3 | |
| 76.4 | 100.3 | | | Sandstone Fining upwards into mudstone | | | | |
| 100.3 | 139.6 | | | Sandstone | | | | |
| 139.6 | 140.2 | 458.0 | 460.0 | Coal | R2 | 1955.8 | 0.6 | |
| 140.2 | 142.9 | | | Siltstone | | | | |
| 142.9 | 144.5 | 468.8 | 474.1 | Coal | R1 | 1952.5 | 1.6 | |
| 144.5 | 150.0 | | | Basal Sandstone | | | | |
| 150.0 | | | | Fault | | | | |
| 150.0 | 150.6 | | | Siltstone | | | | |
| 150.6 | 151.8 | 494.1 | 498.0 | Coal | pt.R9 | 1944.8 | 1.2 | |
| 151.8 | 155.9 | | | Siltstone | | | | |
| 155.9 | 156.8 | 511.5 | 514.4 | Coal | pt.R9 | 1939.5 | 0.9 | |
| 156.8 | 175.5 | | | Sandstone with siltstone band 161.0 - 163.5m | | | | |
| 175.5 | | | | Fault | | | | |
| 175.5 | 181.2 | | | Muddy Siltstone | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | | |
|-----------------|-------|----------|--------|--|--|------------|--|---|-----------------------------|---------------------|---------|---------|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | |
| Logged By: J.S. | | | | Date: April 25, 1983 | | | | | | 0.0 | | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| | | | | | | | | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
| 181.2 | 183.7 | 594.4 | 602.7 | Coal | | | | | R7U | 1914.2 | 1.5 | |
| 183.7 | 187.6 | | | Mudstone | | | | | | | | |
| 187.6 | 191.6 | 615.5 | 628.6 | Coal. Siltstone parting 189.3 - 189.9 m | | | | | R7 | 1907.8 | 4.0 | 3.4 |
| 191.6 | 196.8 | | | Mudstone | | | | | | | | |
| 196.8 | 219.5 | | | Siltstone. | | | | | | | | |
| 219.5 | 222.0 | | | Mudstone. | | | | | | | | |
| 222.0 | 245.8 | | | Siltstone interbedded with mudstone. | | | | | | | | |
| 245.8 | 249.0 | 806.4 | 816.9 | Coal. Mudstone parting 246.8 - 247.9 m | | | | | R5U | 1849.6 | 3.2 | 2.1 |
| 249.0 | 255.1 | | | Siltstone. | | | | | | | | |
| 255.1 | 259.1 | 836.9 | 850.1 | Coal. | | | | | R5L | 1840.3 | 4.0 | |
| 259.1 | 265.5 | | | Mudstone. | | | | | | | | |
| 265.5 | 281.7 | | | Siltstone. | | | | | | | | |
| 281.7 | 286.8 | 924.2 | 940.9 | Coal | | | | | R4U | 1813.7 | | |
| 286.8 | 295.6 | | | Siltstone. | | | | | | | | |
| 295.6 | 300.0 | | | Mudstone. | | | | | | | | |
| 300.0 | 318.3 | | | Mudstone grading gently upwards into siltstone. | | | | | | | | |
| 318.3 | 319.6 | 1044.3 | 1048.5 | Coal | | | | | p+ R4L | 1777.1 | 1.3 | |
| 319.6 | 321.2 | | | Siltstone. | | | | | | | | |
| 321.2 | 325.1 | 1053.8 | 1066.6 | Coal | | | | | R4L | 1774.2 | 3.9 | |
| 325.1 | 341.5 | | | Fine siltstone. | | | | | | | | |
| 341.5 | 361.2 | | | Sandstone. | | | | | | | | |

Hole No. RH 1716

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|------------|----------|-----------|-----------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|------------|----------|-----------|-----------|---------------------|

| | | | | |
|-----------------|----------------------|-----|--|--|
| Logged By: J.S. | Date: April 25, 1983 | 0.0 | | |
|-----------------|----------------------|-----|--|--|

| | | | | | |
|--------|-------|--------|------------|------------|---------|
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: |
|--------|-------|--------|------------|------------|---------|

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|----------|---------|
| 361.2 | 378.1 | | | Sandstone grading upwards into siltstone. | | | | |
| 378.1 | 392.4 | | | Sandstone. | | | | |
| 392.4 | 394.4 | 1287.4 | 1293.9 | Coal. | R2 | 1703.0 | 2.0 | |
| 394.4 | 395.5 | | | Mudstone. | | | | |
| 395.5 | 398.4 | 1297.6 | 1307.1 | Coal | R1 | 1699.9 | 2.9 | |
| 398.4 | 406.7 | | | Basal sandstone. | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH 1716

Page 3 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

Logged By: J. S.

Date: Apr. 25, 1983

LATITUDE

DEPARTURE

ELEVATION

Ore Classes & Aver.

149,263.0

26,515.4

2130.5

0.0

Block:

Sect:

Place:

App. Bear:

App. Dip:
-90°

Length:

524.5

From m. To m. From Ft. To Ft.

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG

YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|----------------|---------|---------|
| 0.0 | 2.2 | | | Siltstone | | | | |
| 2.2 | 3.7 | 7.2 | 12.1 | Coal | U | 2128.3 | 1.5 | |
| 3.7 | 9.4 | | | Mudstone | | | | |
| 9.4 | 15.8 | | | Siltstone | | | | |
| 15.8 | 40.0 | | | Mudstone grading upwards into sandstone. | | | | |
| 40.0 | 78.5 | | | Interbedded siltstone and mudstone. | | | | |
| 78.5 | 81.0 | 257.5 | 265.7 | Coal | 9 | 2052.0 | 1.5 | |
| 81.0 | 109.8 | | | Interbedded siltstone and mudstone with sandstone. | | | | |
| 109.8 | 110.6 | 360.2 | 362.9 | Coal | 8U | 2020.7 | 0.8 | |
| 110.6 | 129.6 | | | Siltstone. | | | | |
| 129.6 | 130.6 | 425.1 | 428.5 | Coal | 8 | 2000.9 | 1.0 | |
| 130.6 | 157.2 | | | Siltstone | | | | |
| 157.2 | 174.0 | | | Sandstone with siltstone interbeds. | | | | |
| 174.0 | 174.8 | 570.9 | 573.5 | Coal | 7u | 1956.5 | 0.8 | |
| 174.8 | 187.8 | | | Interbedded siltstone and sandstone. | | | | |
| 187.8 | 191.0 | 616.1 | 626.6 | Coal | 7 | 1942.7 | 3.2 | |
| 191.0 | 225.0 | | | Siltstone | | | | |
| 225.0 | 237.5 | | | Mudstone | | | | |
| 237.5 | 240.0 | 779.2 | 787.4 | Coal | 5u | 1893.0 | 2.5 | |
| 240.0 | 247.5 | | | Siltstone | | | | |
| 247.5 | | | | Fault | | | | |
| 247.5 | 254.2 | | | Muddy siltstone | | | | |

Hole No. RH1717

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | |
|------------|--|-------|--|----------|--|------------|--|------------|--|---------------------|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: | | | | Date: | | | | | | 0.0 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|----------|---------|
| | | | | <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | |
| 254.2 | 254.7 | 834.0 | 835.6 | Coal (shaly) | u | 1876.3 | 0.5 | |
| 254.7 | 258.0 | | | Siltstone | | | | |
| 258.0 | 262.0 | 846.4 | 859.7 | Coal. Siltstone parting 259.1 - 260.0 m | R11u | 1872.5 | 4.0 | 3.1 |
| 262.0 | 262.8 | | | Mudstone | | | | |
| 262.8 | 272.8 | 862.2 | 895.0 | Coal. | R11 | 1867.7 | 10.0 | 9.3 |
| 272.8 | 345.6 | | | Siltstone coarsening gently upwards. Mudstone band above seam. | | | | |
| 345.6 | 348.5 | 1133.8 | 1143.4 | Coal | R9 | 1787.9 | 2.9 | |
| 348.5 | 408.6 | | | Interbedded siltstone and mudstone. | | | | |
| 408.6 | 412.0 | 1340.5 | 1351.7 | Coal | R7u | 1721.9 | 3.4 | |
| 412.0 | 419.5 | | | Interbedded siltstone and mudstone. | | | | |
| 419.5 | 427.2 | 1376.3 | 1401.6 | Coal | R7 | 1711.0 | 7.7 | |
| 427.2 | 442.8 | | | Interbedded siltstone and sandstone. | | | | |
| 442.8 | 463.6 | | | Sandstone | | | | |
| 463.6 | 469.1 | | | Siltstone | | | | |
| 469.1 | 471.0 | 1538.7 | 1545.3 | Coal | U | 1661.4 | 1.9 | |
| 471.0 | 503.5 | | | Siltstone | | | | |
| 503.5 | 512.7 | | | Sandstone | | | | |
| 512.7 | 524.5 | | | Siltstone | | | | |
| B.O.H. | | | | | | | | |

Hole No. RH 1717 Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|------------------|--|------------------|--|-----------|--|-----------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: J. S. | | Date: Apr. 25/83 | | 149,352.0 | | 26,737.2 | | 2029.5 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip: -90° | |
| | | | | | | Length: 516.9 m | | 0.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|----------|---------|
| 0.0 | 8.2 | | | Siltstone | | | | |
| 8.2 | 9.2 | 26.9 | 32.2 | Coal | p+ | R11 2021.3 | 1.0 | |
| 9.2 | 31.6 | | | Sandy siltstone | | | | |
| 31.6 | 32.8 | 103.7 | 107.6 | Coal | U | 1997.9 | 1.2 | |
| 32.8 | 72.2 | | | Sandy siltstone. Mudstone band above seam. | | | | |
| 72.2 | 74.7 | 236.9 | 245.1 | Coal | R9 | 1957.3 | 2.5 | |
| 74.7 | 93.4 | | | Mudstone grading upwards into siltstone. | | | | |
| 93.4 | 97.0 | | | Sandstone | | | | |
| 97.0 | 106.4 | | | Sandstone fining upwards into mudstone. | | | | |
| 106.4 | 125.5 | | | Sandstone | | | | |
| 125.5 | 127.2 | 411.7 | 417.3 | Coal | R7u | 1904.0 | 1.7 | |
| 127.2 | 136.8 | | | Interbedded siltstone and mudstone. | | | | |
| 136.8 | 144.3 | 448.8 | 473.4 | Coal | R7 | 1892.7 | 7.5 | |
| 144.3 | 160.0 | | | Sandstone fining upwards into mudstone. | | | | |
| 160.0 | 178.0 | | | Sandstone. | | | | |
| 178.0 | 186.6 | | | Siltstone. | | | | |
| 186.6 | 210.0 | | | Mudstone grading upwards to sandstone | | | | |
| 210.0 | 263.9 | | | SILTSTONE | | | | |
| 263.9 | 267.0 | 865.8 | 876.0 | Coal. Mudstone parting 264.7 - 265.3 m | R5u | 1765.6 | 3.1 | 2.5 |
| 267.0 | 270.0 | | | Mudstone | | | | |

Hole No. RH 1718

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

Logged By:

Date:

Block:

Sect:

Place:

App. Bear:

App. Dip.:

Length:

0.0

Ore Classes & Aver

LATITUDE DEPARTURE ELEVATION

From To From To
m. m. Ft. Ft.

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| | | | | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|--------|-------|--------|--------|---|-------------|-----------|---------|---------|
| 270.0 | 273.0 | 885.8 | 895.7 | Coal | | | | |
| 273.0 | 307.0 | | | Interbedded siltstone and sandstone and mudstone. | R51 | 1759.5 | 3.0 | |
| 307.0 | 312.9 | 1007.2 | 1026.6 | Coal | | | | |
| 312.9 | 327.7 | | | Interbedded siltstone and mudstone. | R4u | 1722.5 | 5.9 | |
| 327.7 | 334.4 | 1075.1 | 1097.1 | Coal | | | | |
| 334.4 | 352.0 | | | Interbedded siltstone and mudstone. | R41 | 1701.8 | 6.7 | |
| 352.0 | 389.9 | | | Sandstone. | | | | |
| 389.9 | 390.9 | 1279.2 | 1282.5 | Coal | | | | |
| 390.0 | 392.5 | | | Mudstone | R2 | 1677.5 | 1.0 | |
| 392.5 | 395.6 | 1287.7 | 1297.9 | Coal. Siltstone parting 393.9 - 394.7 m | | | | |
| 395.6 | 462.5 | | | Basal sandstone, fining upwards. | R1 | 1637.0 | 31.1 | 2.3 |
| 462.5 | 516.9 | | | Fernie formation, fining upwards. | | | | |
| E.O.H. | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|------------------|--|------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: J. S. | | Date: Apr. 27.83 | | 149,142.6 | | 26.,472.4 | | 2138.5 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 517.1 | |

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 4.5 | | | Silty mudstone | | | | |
| 4.5 | 5.5 | 14.8 | 18.0 | Coal | II | 2134.0 | 1.0 | |
| 5.5 | 20.0 | | | Sandstone grading upwards into mudstone. | | | | |
| 20.0 | 41.2 | | | Siltstone | | | | |
| 41.2 | 50.4 | | | Mudstone | | | | |
| 50.4 | 63.9 | | | Interbedded siltstone and mudstone | | | | |
| 63.9 | 77.0 | | | Sandy siltstone. | | | | |
| 77.0 | 86.3 | | | Siltstone | | | | |
| 86.3 | 90.7 | 283.1 | 297.8 | Coal. Siltstone parting 87.1 - 88.0 m | 9 | 2052.2 | 4.4 | 3.5 |
| 90.7 | 93.4 | | | Sandy siltstone. | | | | |
| 93.4 | 93.9 | 306.4 | 308.1 | Coal | II | 2045.1 | 0.5 | |
| 93.9 | 95.9 | | | Siltstone | | | | |
| 95.9 | 101.2 | | | Mudstone | | | | |
| 101.2 | 102.0 | 332.0 | 334.6 | Coal | | | | |
| 102.0 | 117.3 | | | Interbedded siltstone and mudstone with sandstone band above seam. | | | | |
| 117.3 | 118.5 | 384.8 | 388.8 | Coal | 8U | 2021.2 | 1.2 | |
| 118.5 | 135.1 | | | Siltstone with mudstone interbeds. | | | | |
| 135.1 | 138.6 | 443.2 | 454.7 | Coal | 8 | 2003.4 | 3.5 | |
| 138.6 | 151.5 | | | Mudstone | | | | |
| 151.5 | 183.5 | | | Interbedded sandstone and siltstone. | | | | |

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 183.5 | 184.5 | 602.0 | 605.3 | Coal | 7U | 1955.0 | 1.0 | |
| 184.5 | 190.5 | | | Interbedded siltstone and mudstone. | | | | |
| 190.5 | 193.6 | 625.0 | 635.2 | Coal | 7 | 1948.0 | 3.1 | |
| 193.6 | 196.4 | | | Siltstone | | | | |
| 196.4 | 196.8 | | | Coal 0.4 m | | | | |
| 196.8 | 198.2 | | | Mudstone | | | | |
| 198.2 | 198.6 | | | Poor coal 0.4 m | | | | |
| 198.6 | 205.0 | | | Siltstone | | | | |
| 205.0 | 205.5 | | | Coal (as per drillers) 0.5 m | | | | |
| 205.5 | 207.0 | | | Siltstone | | | | |
| 207.0 | 208.2 | | | Coal (as per drillers) 1.2 m | | | | |
| 208.2 | 226.0 | | | Mudstone grading upwards to siltstone. | | | | |
| 226.0 | 239.5 | | | Mudstone with siltstone band. | | | | |
| 239.5 | 242.3 | 705.1 | 794.9 | Coal | 5U | 1899.0 | 2.8 | |
| 242.3 | 248.0 | | | Mudstone | | | | |
| 248.0 | 261.4 | | | Siltstone | | | | |
| 261.4 | 300.0 | | | Mudstone with minor siltstone interbeds. | | | | |
| 293.5 | 298.4 | | | Fault zone. | | | | |
| 300.0 | 328.0 | | | Sandy siltstone | | | | |
| 328.0 | 372.7 | | | Siltstone | | | | |
| 372.7 | 400.4 | | | Interbedded siltstone and mudstone | | | | |

Hole No. RH 1719

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

Logged By: J.S.

Date: Apr. 28/83.

LATITUDE

DEPARTURE

ELEVATION

Ore Classes & Aver

Block:

Sect:

Place:

App. Bear:

App. Dip.:

Length:

0.0

| From m. | To m. | From Ft. | To Ft. |
|---------|-------|----------|--------|
|---------|-------|----------|--------|

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 400.4 | 409.8 | | | Sandy siltstone | | | | |
| 409.8 | 417.5 | | | Mudstone | | | | |
| 417.5 | 423.8 | | | Siltstone | | | | |
| 423.8 | 440.0 | 1390.4 | 1443.6 | Coal | | | | |
| 440.0 | 456.0 | | | Mudstone grading upwards into siltstone. | U | 1714.7 | 16.2 | |
| 456.0 | 461.0 | 1496.0 | 1512.4 | Coal | | | | |
| 461.0 | 472.9 | | | Mudstone | U | 1682.5 | 5.0 | |
| 472.9 | 479.5 | | | Sandstone and siltstone. | | | | |
| 479.5 | 480.5 | 1573.2 | 1576.4 | Coal | | | | |
| 480.5 | 495.9 | | | Mudstone grading upwards into siltstone. | U | 1659.0 | 1.0 | |
| 495.9 | 517.1 | | | Mudstone | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH 1719

Page 3 of 3

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. S. Date: Apr. 28, 1983 LATITUDE 149,074.8 N DEPARTURE 27,189.3 ELEVATION 2062.6 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 394.8 m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 24.2 | | | interbedded siltstone and mudstone | | | | |
| 24.2 | 27.6 | 79.3 | 90.6 | Coal. Silty mudstone parting 25.4 - 26.1 m | R5U | 2038.4 | 3.4 | 2.7 |
| 27.6 | 32.8 | | | Mudstone | | | | |
| 32.8 | 36.8 | 107.6 | 120.7 | Coal | R5L | 2029.8 | | |
| 36.8 | 88.6 | | | Sandstone fining upwards into siltstone. Siltstone band above seam. | | | | |
| 88.6 | 95.8 | 290.7 | 314.3 | Coal | R4U | 1974.0 | 7.2 | |
| 95.8 | 101.7 | | | Siltstone | | | | |
| 101.7 | 102.4 | 333.7 | 336.0 | Coal | U | 1960.9 | 0.7 | |
| 102.4 | 105.8 | | | Mudstone | | | | |
| 105.8 | 111.7 | 347.1 | 366.5 | Coal | R4L | 1956.8 | 5.9 | |
| 111.7 | 134.0 | | | Siltstone | | | | |
| 134.0 | 142.6 | | | Sandstone | | | | |
| 142.6 | 149.5 | | | Siltstone | | | | |
| 149.5 | 150.5 | 490.4 | 49.20 | Shaly coal. | R4L | 1956.8 | 5.9 | |
| 150.5 | 155.0 | | | Siltstone | | | | |
| 155.0 | 155.5 | 508.5 | 510.1 | Shaly coal | | | | |
| 155.5 | 201.1 | | | Sandstone | | | | |
| 201.1 | 207.2 | 659.8 | 679.8 | Coal | R2 | 1861.5 | 6.1 | 5.4 |
| 207.2 | 209.2 | | | Siltstone | | | | |
| 209.2 | 209.6 | 686.3 | 687.6 | Coal | pt R2 | 1853.4 | 0.4 | |
| 209.6 | 213.2 | | | Siltstone | | | | |

Hole No. RH 1780

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. S. Date: Apr. 28/83 _____ 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip: _____ Length: _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|------------------|-------------|-----------|----------|---------|
| 213.2 | 215.3 | 699.5 | 706.4 | Coal | R1 | 1849.4 | 2.1 | |
| 215.3 | 344.2 | | | Basal sandstone | | | | |
| 344.2 | 394.3 | | | Fernie Formation | | | | |
| E.O.H. | | | | | | | | |
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Hole No. RH 1780 Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | | |
|--------------------------|--|-------------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: May 3, 1983 | | 150,261.6 | | 25,545.1 | | 2285.8m | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 304.5 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|---|-----------------------------|-------------|-------------|---------|---------|
| 0.0 | 5.5 | | | Sandstone | | | | | | |
| 5.5 | 14.0 | | | Interbedded siltstone and mudstone | | | | | | |
| 14.0 | 14.5 | | | Coal as per sampling record | | | | | | |
| 14.5 | 26.0 | | | Interbedded siltstone and mudstone | | | | | | |
| 26.0 | 42.5 | | | Sandstone fining upwards | | | | | | |
| 42.5 | 47.0 | | | Interbedded siltstone and mudstone | | | | | | |
| 47.0 | 47.5 | | | Coal as per sampling record | | | | | | |
| 47.5 | 68.2 | | | Interbedded siltstone and mudstone | | | | | | |
| 68.2 | 73.7 | | | Sandstone | | | | | | |
| 73.7 | 76.8 | | | Mudstone | | | | | | |
| 76.8 | 78.1 | 252.0 | 256.2 | Coal | | | U | 2209.0 | 1.3 | |
| 78.1 | 94.5 | | | Sandstone interbedded with siltstone | | | | | | |
| 94.5 | 95.5 | 310.0 | 313.3 | Coal | | | U | 2191.3 | 1.0 | |
| 95.5 | 115.5 | | | Interbedded sandstone and siltstone | | | | | | |
| 115.5 | 123.1 | 378.9 | 403.9 | Coal - Mudstone parting 120.5 - 121.5 m | | | 15 | 2170.3 | 7.6 | 6.6 |
| 123.1 | 154.8 | | | Interbedded sandstone, siltstone and some mudstone | | | | | | |
| 154.8 | 155.8 | 507.9 | 511.1 | Coal | | | 14u | 2131.0 | 1.0 | |
| 155.8 | 167.5 | | | Sandstone with mudstone and siltstone bands | | | | | | |
| 167.5 | 170.3 | | | Siltstone Mudstone above seam | | | | | | |
| 170.3 | 171.0 | 558.7 | 561.0 | Coal (Not sampled) | | | pt 14u | 2115.5 | 0.7 | |
| 171.0 | 188.5 | | | Sandstone with siltstone and mudstone interbeds | | | | | | |
| 188.5 | 195.0 | | | Siltstone with mudstone band above seam | | | | | | |

Hole No. RH1901

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____ 2285.8 _____ 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: _____

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|----------|---------|
| 195.0 | 195.7 | 639.8 | 642.1 | Coal | 14 | 2090.8 | 0.7 | |
| 195.7 | 197.3 | | | Mudstone | | | | |
| 197.3 | 204.5 | | | Interbedded sandstone and siltstone | | | | |
| 204.5 | 210.5 | | | Mudstone | | | | |
| 210.5 | 211.3 | 690.6 | 693.2 | Coal | 14U | 2075.3 | 0.8 | |
| 211.3 | 230.7 | | | Sandstone, siltstone band 215.0 - 217.5 m | | | | |
| 230.7 | 231.8 | 756.9 | 760.5 | Coal | | 2055.1 | 1.1 | |
| 231.8 | 235.4 | | | Mudstone with carby band | | | | |
| 235.4 | 241.5 | 772.3 | 792.3 | Coal - Mudstone partings 235.9 - 237.2m; 239.5 - 240.8m | 13 | 2050.4 | 6.1 | 3.5 |
| 241.5 | 245.6 | | | Mudstone with minor siltstone band | | | | |
| 245.6 | 250.5 | | | Sandstone | | | | |
| 250.5 | 254.0 | | | Siltstone | | | | |
| 254.0 | 268.7 | | | Sandstone - 2m siltstone band above seam | | | | |
| 268.7 | 271.2 | 881.6 | 889.8 | Coal - Mudstone parting 269.8 - 270.4 m | 12 | 2017.1 | 2.5 | 1.9 |
| 271.2 | 277.7 | | | Sandstone with minor silt and mud bands | | | | |
| 277.7 | 279.5 | 911.1 | 917.0 | Coal | 12 | 2008.1 | 1.8 | |
| 279.5 | 283.0 | | | Siltstone | | | | |
| 283.0 | 294.0 | | | Sandstone | | | | |
| 294.0 | 295.6 | | | Siltstone | | | | |
| 295.6 | 304.5 | | | Sandstone | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH 1901

Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------------|--|-------------------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aven |
| Logged By: J. S. | | Date: May 3, 1983 | | 149,750.7 | | 25,303.4 | | 2,364.3 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: 0 -90 |
| | | | | | | Length: | | 304.0m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-------------|---------|---------|
| 0.0 | 3.0 | | | Mudstone | | | | |
| 3.0 | 12.4 | | | Sandstone with mudstone band at 9 m | | | | |
| 12.4 | 12.7 | | | Coal stringer | | | | |
| 12.7 | 15.0 | | | Mudstone | | | | |
| 15.0 | 20.3 | | | Sandstone | | | | |
| 20.3 | 21.3 | 66.6 | 69.9 | Coal | U | 2344.0 | 1.0 | |
| 21.3 | 28.1 | | | Siltstone | | | | |
| 28.1 | 32.0 | | | Sandstone | | | | |
| 32.0 | 35.5 | | | Mudstone | | | | |
| 35.5 | 42.0 | | | Sandstone | | | | |
| 42.0 | 42.7 | 137.8 | 140.1 | Coal | U | 2322.3 | 0.7 | |
| 42.7 | 44.5 | | | Siltstone | | | | |
| 44.5 | 45.0 | 146.0 | 147.6 | Coal | | | | |
| 45.0 | 49.0 | | | Siltstone with minor mudstone banding | | | | |
| 49.0 | 49.4 | | | Coal Stringer | | | | |
| 49.4 | 51.6 | | | Mudstone | | | | |
| 51.6 | 58.0 | | | Siltstone | | | | |
| 58.0 | 74.2 | | | Sandstone | | | | |
| 74.2 | 98.0 | | | Interbedded sandstone, siltstone and mudstone | | | | |
| 98.0 | 108.3 | | | Sandstone | | | | |
| 108.3 | 110.4 | | | Interbedded siltstone and sandstone | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____ 2364.3 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 110.4 | 111.6 | 362.2 | 366.1 | Coal | U | 2253.9 | 1.2 | |
| 111.6 | 128.8 | | | Sandstone with mudstone and some siltstone interbeds | | | | |
| 128.8 | 129.7 | 422.6 | 425.5 | Coal | U | 2235.5 | 0.9 | |
| 129.7 | 146.5 | | | Sandstone with a minor siltstone band. | | | | |
| 146.5 | 156.8 | 480.6 | 514.4 | Coal - siltstone parting 174.4 - 147.8m | 15 | 2217.8 | 10.3 | 9.9 |
| 156.8 | 171.0 | | | Siltstone | | | | |
| 171.0 | 175.5 | | | Sandstone | | | | |
| 175.5 | 177.5 | | | Siltstone with possible carby band | | | | |
| 177.5 | 183.2 | | | Sandstone | | | | |
| 183.2 | 185.0 | 601.0 | 606.9 | Coal | 14U | 2181.1 | 1.8 | |
| 185.0 | 187.7 | | | Siltstone | | | | |
| 187.7 | 190.4 | 615.8 | 624.7 | Coal - siltstone partings - 188.3 - 188.7 m; 189.1 - 189.6 m | 14U | 2176.6 | 2.7 | 1.4 |
| 190.4 | 197.0 | | | Siltstone with sandy bands | | | | |
| 197.0 | 214.3 | | | Sandstone with mudstone bands | | | | |
| 214.3 | 215.1 | 703.1 | 705.7 | Coal | p±14 | 2167.3 | 0.8 | |
| 215.1 | 222.5 | | | Sandstone, siltstone, and mudstone bands | | | | |
| 222.5 | 224.2 | 730.0 | 735.6 | Coal | 14 | 2141.8 | 1.7 | 1.3 |
| 224.2 | 230.1 | | | Siltstone with a minor mudstone band | | | | |
| 230.1 | 233.1 | | | Mudstone | | | | |

Hole No. RH1902

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | | | |
|------------|-------|----------|--------|---|------------|------------|-----------|---------------------|--|--|
| Objective: | | | | | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. | | |
| Logged By: | | | | | | | 2364.3 | 0.0 | | |
| Date: | | Sect: | | Place: | App. Bear: | App. Dip.: | Length: | | | |
| Block: | | | | | | | | | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | |

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 233.1 | 234.0 | 764.8 | 767.7 | Coal | 14U | 2131.2 | 0.9 | |
| 234.0 | 244.5 | | | Interbedded sandstone and siltstone | | | | |
| 244.5 | 259.0 | | | Sandstone | | | | |
| 259.0 | 267.2 | | | Siltstone with mudstone band above seam | | | | |
| 267.2 | 274.3 | 876.6 | 899.9 | Coal - mudstone parting 271.7 - 272.9 m | 13 | 2097.1 | 7.1 | 5.9 |
| 274.3 | 290.5 | | | Interbedded siltstone and mudstone | | | | |
| 2905. | 304.0 | | | Siltstone | | | | |
| E.O.H. | | | | | | | | |
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2507 — NDN

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

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|-----------------|--|-------------------|--|-----------|--|-----------------|--|--------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver | |
| Logged By: J.S. | | Date: May 4, 1983 | | 149,466.6 | | 25,459.0 | | 2340.0 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | Length: 304.0 m | | 0.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|------------------------------|-----------------------------|-------------|-------------|---------|---------|
| 0.0 | 5.0 | | | Sandstone | | | | | | |
| 5.0 | 12.5 | | | Siltstone with mudstone interbeds | | | | | | |
| 12.5 | 13.1 | 41.0 | 43.0 | Coal | | | U | 2327.5 | 0.6 | |
| 13.1 | 14.3 | | | Mudstone parting | | | | | | |
| 14.3 | 14.8 | 46.9 | 48.6 | Coal | | | | | | |
| 14.8 | 18.7 | | | Siltstone | | | | | | |
| 18.7 | 25.0 | | | Mudstone | | | | | | |
| 25.0 | 30.6 | | | Siltstone | | | | | | |
| 30.6 | 41.0 | | | Sandstone | | | | | | |
| 41.0 | 70.0 | | | Primarily siltstone with several mudstone interbeds | | | | | | |
| 70.0 | 77.5 | | | Sandstone | | | | | | |
| 77.5 | 85.0 | | | siltstone | | | | | | |
| 85.0 | 86.0 | 278.9 | 282.1 | Coal | | | U | 2255.0 | 1.0 | |
| 86.0 | 90.0 | | | Siltstone | | | | | | |
| 90.0 | 98.0 | | | Sandstone with minor mudstone band at 93.5 m | | | | | | |
| 98.0 | 99.0 | 321.5 | 324.8 | Coal | | | U | 2242.0 | 1.0 | |
| 99.0 | 118.7 | | | Sandstone with carby band at 108.0 m | | | | | | |
| 118.7 | 129.3 | 389.4 | 424.2 | Coal - Siltstone partings 120.1-120.8 m; 124.9-125.6m; 127.4-128.3m | | | 15 | 2221.3 | 10.6 | 8.3 |
| 129.3 | 130.8 | | | Mudstone | | | | | | |
| 130.8 | 146.3 | | | Siltstone with some mudstone bands | | | | | | |
| 146.3 | 152.7 | | | Sandstone, siltstone and mudstone interbeds | | | | | | |

Hole No. RH 1903

Page 1 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|------------|-------|----------|--------|---|--|-----------|--|------------|--|---------------------|-----------|---------|---------|---|----|---|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | | | | |
| Logged By: | | | | Date: | | | | | | 0.0 | | | | | | |
| Block: | | | | Sect: | | Place: | | App. Bear: | | App. Dip.: | Length: | | | | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. | | | |
| 152.7 | 158.6 | 501.0 | 520.3 | Coal | | | | | | 14U | 2187.3 | 5.9 | | | | |
| 158.6 | 173.1 | | | Sandstone | | | | | | | | | | | | |
| 173.1 | 178.0 | | | Siltstone | | | | | | | | | | | | |
| 178.0 | 180.5 | | | Sandstone | | | | | | | | | | | | |
| 180.5 | 190.0 | | | Siltstone with coal stringer at 179.7 m and sandstone band above seam | | | | | | | | | | | | |
| 190.0 | 190.9 | 623.4 | 626.3 | Coal | | | | | | p+14 | 2149.1 | 0.9 | | | | |
| 190.9 | 203.7 | | | Siltstone grading upwards into sandstone. Muddy band below seam. | | | | | | | | | | | | |
| 203.7 | 206.0 | 668.3 | 675.8 | Coal | | | | | | 14 | 2136.3 | 2.3 | | | | |
| 206.0 | 213.6 | | | Mudstone grading upward into siltstone | | | | | | | | | | | | |
| 213.6 | 215.0 | 700.8 | 705.4 | Coal | | | | | | 14L | 2126.4 | 1.4 | | | | |
| 215.0 | 251.3 | | | Sandstone | | | | | | | | | | | | |
| 251.3 | 254.1 | | | Siltstone | | | | | | | | | | | | |
| 254.1 | 258.5 | 833.7 | 848.1 | Coal. Siltstone parting 257.0-257.6 m | | | | | | 13 | 2085.9 | 4.4 | 3.8 | | | |
| 258.5 | 260.0 | | | Mudstone | | | | | | | | | | | | |
| 260.0 | 261.0 | 853.0 | 856.3 | Coal | | | | | | p+13 | 2080.0 | 1.0 | | | | |
| 261.0 | 262.8 | | | Mudstone | | | | | | | | | | | | |
| 262.8 | 263.6 | 862.2 | 864.8 | Coal | | | | | | p+13 | 2077.2 | 0.8 | | | | |
| 263.6 | 269.0 | | | Siltstone | | | | | | | | | | | | |
| 269.0 | 269.9 | 882.5 | 885.5 | Coal | | | | | | U | 2071.0 | 0.9 | | | | |
| | | | | | | | | | | Hole No. | RH1903 | | Page | 2 | of | 3 |

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | |
|------------|----------|-----------|-----------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
|------------|----------|-----------|-----------|---------------------|

| | | | | | |
|------------|-------|--|--|--|-----|
| Logged By: | Date: | | | | 0.0 |
|------------|-------|--|--|--|-----|

| | | | | | |
|--------|-------|--------|------------|------------|---------|
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: |
|--------|-------|--------|------------|------------|---------|

| | | | | | | |
|------------|----------|-------------|-----------|--|------------------------------|-----------------------------|
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
|------------|----------|-------------|-----------|--|------------------------------|-----------------------------|

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION m | TTL. TH. | NET TH. |
|------------|----------|-------------|-----------|--|-------------------|----------------|-------------|------------|
| 269.9 | 275.5 | | | Siltstone with mudstone band above seam. | | | | |
| 275.6 | 281.1 | 904.2 | 922.2 | Coal | 12 | 2064.4 | 5.5 | |
| 281.1 | 301.1 | | | Siltstone with mudstone band at 279.5 m | | | | |
| E.O.H. | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

Logged By: John Stokmans Date: May 4, 1983

Block: Sect: Place:

LATITUDE DEPARTURE ELEVATION

149,650.1

25,861.1

2309.9

Ore Classes & Aver

0.0

App. Bear:

App. Dip:
-90°

Length:
304.0

From m. To m. From Ft. To Ft.

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|----------------|---------|---------|
| 0.0 | 20.0 | | | Interbedded siltstone and mudstone. | | | | |
| 20.0 | 34.0 | | | Wide bands of sandstone and siltstone | | | | |
| 34.0 | 74.0 | | | Interbedded siltstone and mudstone. Minor carby bands. | | | | |
| 74.0 | 74.5 | | | Coaly stringer | | | | |
| 74.5 | 103.0 | | | Interbedded sandstone and siltstone; fining upwards | | | | |
| 103.0 | 110.9 | 337.9 | 363.8 | Coal. Siltstone parting 104.2-104.7 m | 15 | 2206.9 | 7.9 | 7.4 |
| 110.9 | 121.6 | | | Siltstone with sandstone band | | | | |
| 121.6 | 122.5 | 398.9 | 401.9 | Coal | 15L | 2188.3 | 0.9 | |
| 122.5 | 131.5 | | | Siltstone | | | | |
| 131.5 | 135.3 | | | Sandstone | | | | |
| 135.3 | 139.5 | | | Siltstone | | | | |
| 139.5 | 152.2 | | | Sandstone | | | | |
| 152.2 | 157.8 | 499.3 | 517.7 | Coal | 14U | 2157.7 | 5.6 | |
| 157.8 | 169.5 | | | Siltstone with sandstone interbeds. | | | | |
| 169.5 | 171.2 | 556.1 | 561.7 | Coal | 14 | 2140.4 | 1.7 | |
| 171.2 | 176.5 | | | Sandstone | | | | |
| 176.5 | 177.1 | 579.1 | 581.0 | Coal | p+14 | 2133.4 | 0.6 | |
| 177.1 | 179.0 | | | Siltstone | | | | |
| 179.0 | 186.6 | | | Sandstone | | | | |
| 186.6 | 193.3 | | | Siltstone | | | | |
| 193.3 | 195.4 | 634.2 | 641.1 | Coal | | | | |
| 195.4 | 201.3 | | | Sandstone. Silty bands below and above seams | 14L | 2116.6 | 2.1 | |

Hole No. RH 1904

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | |
|------------|-------|----------|------------|------------|---------------------|
| Objective: | | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: | | | | 2309.9 | 0.0 |
| Block: | Date: | Place: | App. Bear: | App. Dip.: | Length: |

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| | | | | | | m | | |
| 201.3 | 202.3 | 660.4 | 663.7 | Coal | 14L | 2108.6 | 1.0 | |
| 202.3 | 211.3 | | | Alternating bands of siltstone and sandstone. | | | | |
| 211.3 | 233.9 | | | Siltstone | | | | |
| 233.9 | 240.6 | 767.4 | 789.4 | Coal. Mudstone partings 234.5-235.5m; 237.0-237.5m; 238.5-239.5m; | 13 | 2076.0 | 6.7 | 4.2 |
| 240.6 | 270.3 | | | Sandstone fining upwards into siltstone | | | | |
| 270.3 | 279.1 | 886.8 | 915.7 | Coal. Mudstone parting 271.7-273.0 m; | 12 | 2039.6 | 8.8 | 7.5 |
| 279.1 | 304.0 | | | Siltstone with possible coaly band 291.0 - 292.0 m | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH1904

Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: May 4, 1983 LATITUDE 149,751.6 DEPARTURE 26,068.5 ELEVATION 2395.0 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 305.0

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 12.5 | | | Sandstone | | | | |
| 12.5 | 14.5 | | | Mudstone | | | | |
| 14.5 | 17.7 | | | Siltstone | | | | |
| 17.7 | 18.5 | 58.1 | 60.7 | Coal | U | 2377.3 | 0.8 | |
| 18.5 | 22.1 | | | Siltstone, mudstone band below seam. | | | | |
| 22.1 | 22.8 | 72.5 | 74.8 | Coal | U | 2372.9 | 0.7 | |
| 22.8 | 40.0 | | | Siltstone with some mudstone banding. | | | | |
| 40.0 | 65.5 | | | Sandstone with some siltstone banding. | | | | |
| 65.5 | 116.9 | | | Siltstone interbedded with mudstone. Two coaly stringers. | | | | |
| 116.9 | 140.6 | | | Sandstone with some siltstone interbeds. | | | | |
| 140.6 | 149.0 | 461.3 | 488.8 | Coal. Siltstone partings 142.5-142.8m; 146.8-147.1m | 15 | 2254.4 | | |
| 149.0 | 152.7 | | | Mudstone | | | | |
| 152.7 | 153.7 | 501.0 | 504.3 | Coal | 15L | 2242.3 | 1.0 | |
| 153.7 | 160.8 | | | Sandy Siltstone | | | | |
| 160.8 | 167.0 | | | Sandstone | | | | |
| 167.0 | 177.2 | | | Siltstone with a carby band | | | | |
| 177.2 | 199.1 | | | Sandstone with Silty Band above seam | | | | |
| 199.1 | 204.2 | 653.2 | 669.9 | Coal. Siltstone parting 200.1 - 200.5 m | 14U | 2195.9 | 5.1 | 4.7 |
| 204.2 | 215.7 | | | Siltstone | | | | |
| 215.7 | 217.5 | 707.7 | 713.6 | Coal | 14 | 2179.3 | 1.8 | |
| 217.5 | 224.4 | | | Siltstone Fining Upwards into Mudstone | | | | |

Hole No. RH 1905

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: Date:

Block: Sect: Place: App. Bear: App. Dip.: Length: 0.0

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION M | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|---|-----------------------------|----------------|---------|---------|
| | | | | | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| 224.4 | 225.4 | 736.2 | 739.5 | Coal | | | 14 | 2170.6 | 1.0 |
| 225.4 | 243.9 | | | Siltstone. Mudstone Band above seam | | | | | |
| 243.9 | 247.9 | 800.2 | 813.3 | Coal. Mudstone parting 245.7 - 246.9m | | | 14L | 2151.1 | 4.0 2.8 |
| 247.9 | 282.7 | | | Siltstone with minor sandstone bands. Carby band above seam | | | | | |
| 282.7 | 284.4 | 927.5 | 933.1 | Coal | | | 13 | 2112.3 | 1.7 |
| 284.4 | 288.4 | | | Silty Mudstone with Coaly stringers | | | | | |
| 288.4 | 288.9 | 946.2 | 947.8 | Coal | | | pt13 | 2106.6 | 0.5 |
| 288.9 | 304.5 | | | Siltstone with sandstone and carby band | | | | | |
| E.O.H. | | | | | | | | | |
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2507 -- NDN

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|------------------|-------|----------|--------|--|--|-------------|--|---|-----------------------------|---------------------|-----------|----------|---------|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | |
| Logged By: J. S. | | | | Date: Apr. 22/83 | | 149,683.7 N | | 26,981.5 E | | 2073.1 m | | | |
| Block: | | | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | | | |
| | | | | | | | | Length: 487.0 | | 0.0 | | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
| 0.0 | 40.2 | | | Siltstone fining upwards to muddy. | | | | | | | | | |
| 40.2 | 71.5 | | | Siltstone Fining downwards to muddy. | | | | | | | | | |
| 71.5 | 95.0 | | | Siltstone fining upwards. | | | | | | | | | |
| 95.0 | 106.5 | | | Interbedded mudstone, siltstone and sandstone; fining upwards | | | | | | | | | |
| 106.5 | 121.1 | | | Siltstone with mudstone band above seam. | | | | | | | | | |
| 121.1 | 124.3 | 397.3 | 407.8 | Coal 3.2 m(2.3m) 10.5' (7.6') mudstone parting 122.4-123.3m | | | | R5U | 1952.0 | 3.2 | 2.3 | | |
| 124.3 | 126.6 | | | Mudstone | | | | | | | | | |
| 126.6 | 131.7 | 415.4 | 432.1 | Coal 5.1m (4.5m), 16.8' (14.9') siltstone parting 130.6-131.2m | | | | R5L | 1946.5 | 5.1 | 4.5 | | |
| 131.7 | 150.4 | | | Interbedded sil- tone with mudstone. | | | | | | | | | |
| 150.4 | 155.0 | 493.4 | 508.5 | Coal 4.6 m (15.1') | | | | R4U | 1922.7 | 4.6 | | | |
| 155.0 | 169.0 | | | Interbedded siltstone and mudstone | | | | | | | | | |
| 169.0 | 185.0 | | | Silty mudstone | | | | | | | | | |
| 185.0 | 190.8 | 607.0 | 626.0 | Coal 5.8m (5.3m) 19.1' (17.4') minor muddy parting 185.7-186.2 | | | | R4L | 1888.1 | 5.8 | 5.3 | | |
| 190.8 | 198.0 | | | Siltstone interbedded with muddy siltstone. | | | | | | | | | |
| 198.0 | 218.5 | | | Sandstone fining gently upwards. | | | | | | | | | |
| 218.5 | 239.2 | | | Sandstone fining very gently upwards. | | | | | | | | | |
| 239.2 | 239.9 | 784.8 | 787.1 | Coal 0.7 m (2.3') | | | | R2 | 1833.9 | 0.7 | | | |
| 239.9 | 242.6 | | | Mudstone | | | | | | | | | |
| 242.6 | 243.2 | 795.9 | 797.9 | Coal 0.6m (2.0') | | | | R2 | 1830.5 | 0.6 | | | |
| 243.2 | 246.5 | | | Sandy siltstone | | | | | | | | | |
| 246.5 | 247.1 | 808.7 | 810.7 | Coal 0.6 m (2.0') | | | | R1 | 1826.6 | 0.6 | | | |
| 247.1 | 292.0 | | | Basal sandstone fining downwards | | | | | | | | | |
| 292.0 | 308.5 | | | Passage beds fining downwards | | | | | | | | | |

Hole No. RH 1711

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: 487.0

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 308.5 | 340.0 | | | Fernie formation fining dowards | | | | |
| 340.0 | | | | Possible fault | | | | |
| 340.0 | 350.0 | | | Siltstone | | | | |
| 350.0 | | | | Possible fault | | | | |
| 350.0 | 356.5 | | | Siltstone with small mudstone band above seam | | | | |
| 356.5 | 364.4 | 1169.6 | 1195.5 | Coal 7.9 m (25.9') | R4U | 1716.6 | 7.9 | |
| 364.4 | 388.0 | | | Interbedded siltstone and mudstone. | | | | |
| 388.0 | 396.5 | 1271.0 | 1300.9 | Coal 8.5 m (7.3m) 27.8' (23.8') | R4L | 1685.1 | 8.5 | 7.3 |
| 396.5 | 406.0 | | | Siltstone fining upwards. | | | | |
| 406.0 | 449.2 | | | Sandstone with some minor mudstone and siltstone partings | | | | |
| 449.2 | 450.3 | 1473.8 | 1477.4 | Coal 1.1 m (3.6') | R2 | 1623.9 | 1.1 | |
| 450.3 | 451.6 | | | Siltstone | | | | |
| 451.6 | 454.0 | 1481.6 | 1489.5 | Coal 2.4m (7.8') | R1 | 1621.5 | 2.4 | |
| 454.0 | 484.6 | | | Basal sandstone | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH1711

Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. S. Date: Apr. 22/83 LATITUDE 149,671.6 N DEPARTURE 27,233.3 E ELEVATION 2166.5 m Ore Classes & Aver. 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 431.0

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | Description | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 17.4 | | | interbedded siltstone and mudstone | | | | |
| 17.4 | 20.9 | 57.1 | 65.6 | Coal 3.5 m (8.5') | R4U | 2149.1 | 3.5 | |
| 20.9 | 65.8 | | | Interbedded siltstone and mudstone | | | | |
| 65.8 | 73.5 | 215.9 | 241.0 | Coal 7.7 m (7.1m) 25.1' (23.2') | R4L | 2100.7 | 7.7 | 7.1 |
| 73.5 | 110.5 | | | Siltstone fining upwards | | | | |
| 110.5 | | | | Fault | | | | |
| 110.5 | 163.6 | | | Sandstone coarsens upwards. | | | | |
| 163.6 | 167.9 | 536.7 | 550.9 | Coal 4.3m (14.2') | R9 | 2002.9 | 4.3 | |
| 167.9 | 180.0 | | | Mudstone | | | | |
| 180.0 | 185.6 | | | Siltstone, minor mudstone band above seam. | | | | |
| 185.6 | 188.2 | 609.0 | 617.5 | Coal 2.6m (8.5) | R7U | 1980.9 | 2.6 | |
| 188.2 | 190.8 | | | Mudstone | | | | |
| 190.8 | 194.5 | 625.0 | 638.1 | Coal 3.7m (3.3) 12.1' (10.8') siltstone parting 187.5m-188.0m | R7 | 1975.7 | 3.7 | 3.3 |
| 194.5 | 198.0 | | | Mudstone | | | | |
| 198.0 | 223.4 | | | Wide bands of interbedded siltstone and mudstone | | | | |
| 223.4 | 239.0 | | | Siltstone with some mudstone interbeds. | | | | |
| 239.0 | 254.5 | | | Siltstone | | | | |
| 254.5 | 259.1 | 835.0 | 850.1 | Coal 4.6m (3.0m) 15.1' (9.9') mudstone parting 255.9-257.5m | R5U | 1912.0 | 4.6 | 3.0 |
| 259.1 | 269.5 | | | Mudstone | | | | |
| 269.5 | 272.3 | | | Coal 2.8 m (9.2') | R5L | 1897.0 | 2.8 | |
| 272.3 | 274.6 | | | Muddy siltstone | | | | |

Hole No. RH 1712

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: _____ Date: _____ 0.0 _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--------------------------------------|-------------|-----------|---------|---------|
| 274.6 | 275.8 | 900.9 | 904.9 | Coal 1.2 m (4.0') | R5L | 1891.9 | 1.2 | |
| 275.8 | 308.9 | | | Siltstone with some muddy interbeds. | | | | |
| 308.9 | 314.4 | 1013.5 | 1031.5 | Coal 5.5m (18.0') | R4U | 1857.6 | 5.5 | |
| 314.4 | 337.4 | | | Mudstone with siltstone interbeds. | | | | |
| 337.4 | 338.4 | 1106.9 | 1110.2 | Coal 1.0m (3.3') | p+ R4L | 1829.1 | 1.0 | |
| 338.4 | 340.9 | | | Siltstone | | | | |
| 340.9 | 345.1 | 1118.4 | 1132.2 | Coal 4.2m (13.8') | R4L | 1825.6 | 4.2 | |
| 345.1 | 364.0 | | | Siltstone with mudstone interbeds. | | | | |
| 364.0 | 415.5 | | | Sandstone with siltstone interbeds | | | | |
| 415.5 | 416.7 | 1363.2 | 1367.1 | Coal 1.2m (3.9') | R2 | 1750.5 | 1.2 | |
| 416.7 | 418.1 | | | Mudstone | | | | |
| 418.1 | 421.1 | 1371.7 | 1381.6 | Coal 3.0m (9.9') | R1 | 1747.9 | 3.0 | |
| 421.1 | 430.8 | | | Basal sandstone | | | | |
| E.O.H. | | | | | | | | |

Hole No. RH 1712

Page 2 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|-----------------|--|------------------|--|-------------|--|--------------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: J.S. | | Date: Apr. 22/83 | | 149,684.9 N | | 27,438.4 E | | 2226.1 m | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | Length: 304.1 m | | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 21.6 | | | Mudstone coarsening upwards into siltstone | | | | |
| 21.6 | 29.9 | 70.9 | 98.1 | Coal 8.3m (27.2') | R9 | 2204.5 | 8.3 | |
| 29.9 | 47.6 | | | Interbedded siltstone and mudstone | | | | |
| 47.6 | 49.7 | 156.2 | 163.7 | Coal 2.1m (6.9') | R7U | 2178.5 | 2.1 | |
| 49.7 | 52.5 | | | Mudstone | | | | |
| 52.5 | 56.9 | 172.2 | 186.7 | Coal 4.4m (14.5') | R7 | 2173.6 | | |
| 56.4 | 107.9 | | | Interbedded siltstone with mudstone | | | | |
| 107.9 | 112.2 | 354.0 | 368.1 | Coal 4.3m (2.9m) 14.1' (9.5') mudstone parting 109.5-110.9m | R5U | 2118.2 | 4.3 | 2.9 |
| 112.2 | 119.3 | | | Siltstone with mudstone interbeds. | | | | |
| 119.3 | 121.6 | 391.4 | 399.0 | Coal 2.3m (7.6') | R5L | 2106.8 | 2.3 | |
| 121.6 | 129.0 | | | Mudstone coarsens upwards | | | | |
| 129.0 | 167.0 | | | Siltstone fining upwards ending with mudstone interbeds. | | | | |
| 167.0 | 173.0 | | | Muddy siltstone | | | | |
| 173.0 | 178.0 | 567.6 | 584.0 | Coal 5.0m (16.6') | R4U | 2053.1 | 5.0 | |
| 178.0 | 192.7 | | | Mudstone coarsening upwards into siltstone | | | | |
| 192.7 | 193.5 | 632.2 | 634.8 | Coal 0.8m (2.6') | p+ R4L | 2033.4 | 0.8 | |
| 193.5 | 196.1 | | | Interbedded siltstone and mudstone | | | | |
| 196.1 | 199.0 | 643.4 | 652.9 | Coal 2.9m (9.5') | R4L | 2030.0 | 2.9 | |
| 199.0 | 211.0 | | | Siltstone interbedded with mudstone | | | | |
| 211.0 | 218.5 | | | Siltstone | | | | |
| 218.5 | 226.0 | | | Muddy siltstone coarsens upwards. | | | | |
| 226.0 | 233.5 | | | Sandstone | | | | |

Hole No. RH 1713

Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: _____ Date: _____

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

Ore Classes & Aver. 0.0

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION | TTL. TH. | NET TH. |
|---------|-------|----------|--------|--|--|-------------|-----------|----------|---------|
| 233.5 | 251.0 | | | Siltstone | | | | | |
| 251.0 | 261.1 | | | Sandy siltstone | | | | | |
| 261.1 | 263.0 | 856.6 | 862.9 | Coal 1.9m (6.3') | | R2 | 1965.0 | 1.9 | |
| 263.0 | 264.7 | | | Siltstone | | | | | |
| 264.7 | 266.7 | 868.4 | 875.0 | Coal 2.0m (6.4') | | R1 | 1961.4 | 2.0 | |
| 266.7 | 303.9 | | | Basal sandstone | | | | | |
| E.O.H. | | | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: LATITUDE DEPARTURE ELEVATION Ore Classes & Aver.

Logged By: J.S. Date: Apr. 22/83 149,562.9 26,656.1 2161.6m 0.0

Block: Sect: Place: App. Bear: App. Dip.: -90° Length: 498.9 m

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-----------|---------|---------|
| 0.0 | 5.0 | | | Siltstone | | | | |
| 5.0 | 10.2 | | | Mudstone | | | | |
| 10.2 | 37.4 | | | Siltstone with sandy bands | | | | |
| 37.4 | 39.6 | 122.7 | 129.9 | Coal 2.2m (1.7m) 7.2' (5.6') siltstone parting 38.4-38.9m | R14L? | 2124.2 | 2.2 | 1.7 |
| 39.6 | 56.0 | | | Siltstone interbedded with mudstone | | | | |
| 56.0 | 82.5 | | | Siltstone with mudstone bands above seam | | | | |
| 82.5 | 85.0 | 270.7 | 278.9 | Coal 2.5m (8.2') | R13 | 2079.1 | 2.5 | |
| 85.0 | 111.8 | | | Siltstone | | | | |
| 111.8 | 113.4 | 366.8 | 372.0 | Coal 1.6m (5.2') | U | 2049.8 | 1.6 | |
| 113.4 | 125.0 | | | Siltstone with muddy interbeds. | | | | |
| 125.0 | 128.2 | | | Sandstone | | | | |
| 128.2 | 132.4 | | | Muddy siltstone. | | | | |
| 132.4 | 136.1 | 473.4 | 446.5 | Coal 3.7m (12.1') | R12 | 2029.2 | 3.7 | |
| 136.1 | 139.5 | | | Muddy siltstone | | | | |
| 139.5 | 142.0 | | | Assay results say coal, geoph. log says siltstone | | | | |
| 142.0 | 166.6 | | | siltstone | | | | |
| 166.6 | 169.1 | 546.6 | 554.8 | Coal 2.5m (8.2') | R11U | 1995.0 | 2.5 | |
| 169.1 | 169.7 | | | Siltstone parting | | | | |
| 169.7 | 178.5 | 556.8 | 585.6 | Coal | R11 | 1991.9 | 8.8 | |
| 178.5 | 179.5 | | | Siltstone | | | | |
| 179.5 | 180.8 | 588.9 | 593.2 | Coal | pt R11 | 1982.1 | 1.3 | |
| 180.8 | 182.4 | | | Siltstone | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J.S. Date: Apr. 22/83 _____ 0.0

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|--|-------------|-----------|---------|---------|
| 182.4 | 183.6 | 598.4 | 602.4 | Coal | | p+ | R11 | 1979.2 | 1.2 |
| 183.6 | 186.0 | | | Mudstone | | | | | |
| 186.0 | 187.8 | 610.2 | 616.1 | Coal - siltstone parting 186.5-186.9m | | p+ | R11 | 1975.6 | 1.8 1.4 |
| 187.8 | 217.8 | | | Siltstone with 25 m mudstone above seam | | | | | |
| 217.8 | 221.4 | 714.6 | 726.4 | Coal | | | R9 | 1943.8 | 3.6 |
| 221.4 | 240.6 | | | Interbedded siltstone and mudstone | | | | | |
| 240.6 | 251.5 | | | Siltstone | | | | | |
| 251.5 | 269.0 | | | Sandstone | | | | | |
| 269.0 | 270.4 | 882.5 | 887.1 | Coal | | | R7U? | 1892.6 | 1.4 |
| 270.4 | 273.0 | | | Mudstone | | | | | |
| 273.0 | 281.4 | | | Siltstone | | | | | |
| 281.4 | 289.6 | 923.2 | 950.1 | Coal | | | R7 | 1880.2 | 8.2 |
| 289.6 | 298.3 | | | Mudstone coarsening upwards into siltstone | | | | | |
| 298.3 | 319.7 | | | Sandstone fining upwards into siltstone | | | | | |
| 319.7 | 331.0 | | | Siltstone | | | | | |
| 331.0 | 345.5 | | | Sandy siltstone | | | | | |
| 345.5 | 358.4 | | | Mudstone coarsening upwards into siltstone | | | | | |
| 358.4 | 368.2 | | | Mudstone coarsening upwards into siltstone | | | | | |
| 368.2 | 416.7 | | | Siltstone | | | | | |

Hole No. RH 1714

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------|--|----------|--|-----------|--|------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: | | Date: | | | | | | 0.0 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: |
| | | | | | | Length: | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|------------------------------|-----------------------------|-------------|-----------|---------|---------|
| 416.7 | 419.5 | 1367.1 | 1376.3 | Coal, mudstone parting 417.5-418.3m | | | R5U | 1749.9 | 2.8 | 2.0 |
| 419.5 | 421.5 | | | Silty mudstone | | | | | | |
| 421.5 | 424.5 | 1382.9 | 1392.7 | Coal | | | R5L | 1740.1 | 3.0 | |
| 424.5 | 447.8 | | | Siltstone with mudstone interbeds | | | | | | |
| 447.8 | 451.3 | 1469.1 | 1480.6 | Coal | | | R4u | 1713.8 | 3.5 | |
| 451.3 | 473.7 | | | Siltstone with mudstone interbeds | | | | | | |
| 473.7 | 480.2 | 1554.1 | 1575.4 | Coal | | | R4L | 1687.9 | 6.5 | |
| 480.2 | 483.5 | | | Siltstone | | | | | | |
| 483.5 | 490.0 | | | Mudstone | | | | | | |
| 490.0 | 498.9 | | | Sandstone fining upwards into siltstone | | | | | | |
| E.O.H. | | | | | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|-----------------|--|-----------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: Dec. 1/82 | | 149,921.5 | | 27,201.2 | | 2161.0 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90° | |
| | | | | | | | | Length: 334.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|-------------|-------------|---------|---------|
| 0.0 | 34.2 | | | Interbedded siltstone and mudstone. | | | | |
| 34.2 | 39.3 | 112.2 | 128.9 | Coal 5.1 m (16.7') | R4L | 2126.8 | 5.1 | |
| 39.3 | 41.5 | | | Siltstone | | | | |
| 41.5 | 44.7 | | | Mudstone | | | | |
| 44.7 | 50.1 | | | Siltstone | | | | |
| 50.1 | 58.5 | | | Mudstone grading through siltstone to sandstone. | | | | |
| 58.5 | 101.0 | | | Sandstone with two minor siltstone bands. | | | | |
| 101.0 | | | | Assumed fault. | | | | |
| 101.0 | 117.1 | | | Sandstone | | | | |
| 117.1 | 119.4 | | | Siltstone | | | | |
| 119.4 | 125.3 | | | Sandstone | | | | |
| 125.3 | 133.5 | 411.1 | 438.0 | Coal 8.2 m (279.9') | R9 | 2035.7 | 8.2 | |
| 133.5 | 146.6 | | | Siltstone interbedded with mudstone | | | | |
| 146.6 | 151.0 | 481.0 | 495.4 | Coal 4.4 m (14.4') (11.5') siltstone parting 147.7-148.6m (484.6-487.5) | R7 | 2014.4 | 4.4 | 3.5 |
| 151.0 | 162.3 | | | Mudstone with silty bands. | | | | |
| 162.3 | 174.7 | | | Siltstone with minor sandstone and mudstone beds. | | | | |
| 174.7 | 177.5 | | | Mudstone | | | | |
| 177.5 | 183.0 | | | Medium grained siltstone | | | | |
| 183.0 | 189.5 | | | Coarse to sandy siltstone | | | | |
| 189.5 | 206.2 | | | Interbedded siltstone and mudstone gently fining downwards. | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: John Stokmans Date: Dec. 1/82 LATITUDE 149,921.5 m DEPARTURE 27,201.2 m ELEVATION 2161.0
 Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90° Length: 333.3

From m. To m. From Ft. To Ft. INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|--|-------------|-----------|---------|---------|
| 206.2 | 209.8 | 676.5 | 88.3 | Coal 3.6 m (2.0m) 11.8' (6.6') siltstone parting 207.2m-208.8m (679.8-685.0') | R5u | 1954.8 | 3.6 | 2.0 |
| 209.8 | 212.4 | | | Mudstone | | | | |
| 212.4 | 215.7 | | | Siltstone | | | | |
| 215.7 | 217.8 | 707.7 | 714.6 | Coal 2.1 m (6.9') | R5L | 1945.3 | 2.1 | |
| 217.8 | 220.1 | | | Mudstone | | | | |
| 220.1 | 223.1 | | | Siltstone | | | | |
| 223.1 | 228.2 | | | Mudstone | | | | |
| 228.2 | 232.1 | | | Silty mudstone | | | | |
| 232.1 | 234.3 | | | Mudstone | | | | |
| 234.3 | 251.1 | | | Siltstone with minor sandstone and mudstone bands. Fines upwards from 244.7 m. fines downwards from 244.7 m. | | | | |
| 5251.1 | 257.0 | | | Mudstone grading into sandstone | | | | |
| 257.0 | 260.6 | | | Sandstone grading into mudstone | | | | |
| 260.6 | 263.1 | | | Mudstone | | | | |
| 263.1 | 268.0 | 863.2 | 879.2 | Coal 4.9 m (16.0') | R4W | 1897.9 | 4.9 | |
| 268.0 | 272.5 | | | Siltstone | | | | |
| 272.5 | 276.2 | | | Mudstone | | | | |
| 276.2 | 284.1 | | | Interbedded siltstone and mudstone | | | | |
| 284.1 | 285.1 | 932.1 | 935.4 | Coal 1.0 m (3.3') | pH R4L | 1866.9 | 1.0 | |
| 285.1 | 288.0 | | | Siltstone | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. Stokmans Date: Apr. 22/83

Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: _____ Length: _____ 0.0

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | DESCRIPTION | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|-----------------------|-------------|-----------|---------|---------|
| 288.0 | 291.8 | 944.9 | 957.3 | Coal 3.8 m (12.4') | R4L | 1873.0 | 3.8 | |
| 291.8 | 294.0 | | | Mudstone | | | | |
| 294.0 | 302.5 | | | Siltstone | | | | |
| 302.5 | 307.3 | | | Sandstone | | | | |
| 307.3 | 317.5 | | | Siltstone | | | | |
| 317.5 | 333.3 | | | Sandstone | | | | |
| E.O.H. | | | | | | | | |
| | | | | Driller's depth 334.0 | | | | |
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2807 - MDM

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE DEPARTURE ELEVATION _____ Ore Classes & Aver. _____

Logged By: J. Stokmans Date: Nov. 24, 1982 LATITUDE: 150,198.0 N m DEPARTURE: 27,072.5m ELEVATION: 2263.1 m
 Block: _____ Sect: _____ Place: _____ App. Bear: _____ App. Dip.: -90 Length: 474.0 m

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG YES NO

| From m. | To m. | From Ft. | To Ft. | | TOP OF SEAM | ELEVATION m | TTL. TH. m | NET TH. m |
|---------|-------|----------|--------|--|-------------|-------------|------------|-----------|
| 0.0 | 6.5 | | | siltstone fining downwards into mudstone | | 2256.6 | | |
| 6.5 | 11.4 | 21.3 | 37.4 | coal 4.9 m (16.1') | R7 | 2256.6 | 4.9 | |
| 11.4 | 21.5 | | | mudstone grades to siltstone till 14.8m then fines to mudstone | | | | |
| 21.5 | 50.5 | | | interbedded siltstone and mudstone, carby stringer at 40.5 | | | | |
| 50.5 | 55.6 | | | mudstone | | | | |
| 55.6 | 62.0 | | | siltstone | | | | |
| 62.0 | 78.9 | | | mudstone with sandstone band (1.3m) at 67.5 m | | | | |
| 78.9 | 83.2 | | | siltstone with minor mudstone bands | | | | |
| 83.2 | 99.9 | | | sandstone with siltstone interbeds | | | | |
| 99.9 | 113.3 | | | siltstone fining downwards into mudstone | | | | |
| 113.3 | 128.0 | | | siltstone interbedded with mudstone | | | | |
| 128.0 | 129.0 | 419.9 | 423.2 | coal 1.0 m (3.3') | ptR5u | 2135.1 | 1.0 | |
| 129.0 | 131.0 | | | siltstone fining downwards into mudstone | | | | |
| 131.5 | 132.4 | 431.4 | 434.4 | coal 0.9 m (3.0') | ptR5u | 2131.6 | 0.9 | |
| 132.4 | 134.8 | | | siltstone fining downwards into mudstone | | | | |
| 134.8 | 138.9 | 442.3 | 455.7 | coal 4.1 m (13.4') | R5L | 2128.3 | 4.1 | |
| 138.9 | 153.0 | | | siltstone with minor mudstone interbeds | | | | |
| 153.0 | 157.9 | 501.9 | 513.0 | coal 4.9 m (16.1') | R4u | 2110.1 | 4.9 | |
| 157.9 | 167.5 | | | siltstone with minor mudstone interbeds. unit fines downward | | | | |
| 167.5 | 172.2 | | | siltstone | | | | |

Hole No. RH 1706

Page 1 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. | | | | |
|------------------------|-------|----------|--------|---|-------------|------------|---------------------|-------------|-----------|---------|---------|
| Logged By: J. Stokmans | | | | Date: Nov. 24, 1982 | 150,198.0 m | 27,072.5 m | 2263.1 m | 0.0 | | | |
| Block: | | Sect: | | Place: | App. Bear: | App. Dip.: | Length: | | | | |
| | | | | | | -90 | 474.0 m | | | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
| | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | | |
| 172.2 | 178.8 | | | siltstone fining downwards into mudstone | | | | | | | |
| 178.8 | 184.0 | | | coal 5.2 m (4.0m), 17.0' (13.1'), mudstone parting 179.5-180.7 m | | | | R4L | 2084.3 | 5.2 | 4.0 |
| | | | | (588.5 - 592.8') | | | | | | | |
| 184.0 | 189.6 | | | siltstone - muddy | | | | | | | |
| 189.6 | 193.6 | | | siltstone | | | | | | | |
| 193.6 | 216.0 | | | sandstone with minor siltstone band from 208.9 - 210.2 m | | | | | | | |
| 216.0 | | | | fault | | | | | | | |
| 216.0 | 218.1 | | | mudstone, possibly a product of faulting | | | | | | | |
| 218.1 | 227.2 | | | siltstone with minor muddy bands | | | | | | | |
| 227.2 | 238.1 | 745.4 | 781.2 | coal 10.9 m (35.8') | | | | R9 | 2035.9 | 10.9 | |
| 238.1 | 252.7 | | | interbedded siltstone and mudstone, 60/40 | | | | | | | |
| 252.7 | 253.9 | 829.1 | 833.0 | coal 1.2 m (3.9') | | | | R7u | 2010.4 | 1.2 | |
| 253.9 | 255.8 | | | mudstone | | | | | | | |
| 255.8 | 258.8 | 839.2 | 849.1 | coal 3.0 m (9.9') | | | | R7 | 2007.3 | 3.0 | |
| 258.8 | 271.2 | | | siltstone and mudstone interbeds | | | | | | | |
| 271.2 | 281.0 | | | muddy siltstone | | | | | | | |
| 281.0 | 294.1 | | | siltstone | | | | | | | |
| 294.1 | 308.9 | | | silty mudstone with siltstone band 297.5 - 299.8 | | | | | | | |
| 308.9 | 312.4 | 1013.5 | 1024.9 | coal 3.5m (1.7m), 11.4'(5.5') mudstone parting 309.9-311.7m(1016.7-1022.6') | | | | R5u | 1954.2 | 3.5 | 1.7 |
| 312.4 | 315.0 | | | mudstone | | | | | | | |
| 315.0 | 317.5 | | | siltstone | | | | | | | |
| 317.5 | 318.4 | | | mudstone | | | | | | | |

Hole No. RH 1706

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | |
|------------------------|-------|-------------|------------|-------------------|---------------------|
| Objective: | | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: J. Stokmans | | 150,198.0 m | 27,072.5 m | 2263.1 m | 0.0 |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: -90 | Length: 474.0 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|---|---|-------------|-----------|-----------|
| | | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| 318.4 | 320.5 | 1044.6 | 1051.5 | coal 2.1 m (6.9') | R5 L | 1944.7 | 2.1 | |
| 320.5 | 329.4 | | | interbedded siltstone and mudstone | | | | |
| 329.4 | 337.6 | | | siltstone fining downwards to mudstone | | | | |
| 337.6 | 363.7 | | | siltstone | | | | |
| 363.7 | 365.6 | | | mudstone | | | | |
| 365.6 | 370.3 | 1199.5 | 1214.9 | coal 4.7 m (15.4') | R4 u | 1897.5 | 4.7 | |
| 370.3 | 380.4 | | | interbedded mudstone with siltstone 60/40. fines downward | | | | |
| 380.4 | 381.0 | 1248.0 | 1250.0 | coal 0.6 m (2.0') minor | | 1882.7 | 0.6 | |
| 381.0 | 384.9 | | | silty mudstone | | | | |
| 384.9 | 387.2 | 1262.8 | 1270.3 | coal 2.3 m (7.5') | R4 L | 1878.6 | 2.3 | |
| 387.2 | 393.3 | | | muddy siltstone | | | | |
| 393.3 | 403.4 | | | siltstone fines upwards from 401.5 to 403.4 | | | | |
| 403.4 | 426.2 | | | sandstone | | | | |
| 426.2 | 433.6 | | | siltstone | | | | |
| 433.6 | 436.2 | | | sandstone | | | | |
| 436.2 | 445.9 | | | sandy siltstone | | | | |
| 445.9 | 447.3 | 1462.9 | 1467.5 | coal 1.4 m (3.6') | R2 | 1817.2 | 1.4 | |
| 447.3 | 449.6 | | | siltstone | | | | |
| 449.6 | 451.8 | 1475.1 | 1482.3 | coal 2.2 m (7.2') | R1 | 1813.5 | 2.2 | |
| 451.8 | 474.0 | | | sandstone gradually fining downwards: basal sandstone | | | | |
| | | | | E.O.H. | | | | |

Hole No. RH 1706

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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|------------------------|-------------------|------------|----------------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: J. Stokmans | 150,132.2 m | 27,332.8 m | 2250.9 m | 0.0 |
| Date: Nov. 30, 1982 | | | | |
| Block: | Place: Eagle Mtn. | App. Bear: | App. Dip.: -90 | Length: 280.1 m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL. TH. m | NET TH. m |
|---------|-------|----------|--------|---|---|-----------------------------|-------------|-------------|------------|-----------|
| 0.0 | 2.5 | | | overburden | | | | | | |
| 2.5 | 9.6 | | | mudstone | | | | | | |
| 9.6 | 20.6 | | | siltstone | | | | | | |
| 20.6 | 49.1 | | | siltstone grading into fine grained sandstone | | | | | | |
| 49.1 | 56.2 | 161.1 | 184.4 | coal 7.1 m (23.3') | | | R9 | 2200.9 | 7.1 | |
| 56.2 | 60.2 | | | mudstone | | | | | | |
| 60.2 | 66.2 | | | siltstone | | | | | | |
| 66.2 | 68.0 | | | mudstone | | | | | | |
| 68.0 | 71.4 | | | siltstone | | | | | | |
| 71.4 | 76.0 | | | silty mudstone | | | | | | |
| 76.0 | 77.4 | 249.3 | 253.9 | coal 1.4 m (4.6') | | | R7u | 2174.9 | 1.4 | |
| 77.4 | 79.3 | | | mudstone | | | | | | |
| 79.3 | 82.8 | 260.2 | 271.7 | coal 3.5 m (11.5') | | | R7 | 2171.6 | 3.5 | |
| 82.8 | 91.9 | | | silty mudstone | | | | | | |
| 91.9 | 97.0 | | | siltstone | | | | | | |
| 97.0 | 120.4 | | | silty mudstone slowly grading into coarse siltstone | | | | | | |
| 120.4 | 134.1 | | | mudstone with some siltstone interbeds | | | | | | |
| 134.1 | 137.8 | 439.9 | 452.1 | coal 3.7 m (1.1m) 12.2' (7.0'), parting of mudstone 135.2-136.8m | | | R5u | 2116.8 | 3.7 | 2.1 |
| | | | | (443.6'-448.8') | | | | | | |
| 137.8 | 145.7 | | | mudstone coarsening to sandstone at 144.1m. unit ends in mudstone | | | | | | |
| 145.7 | 147.8 | 478.0 | 484.9 | coal 2.1 m (6.9') | | | R5L | 2105.2 | 2.1 | |
| 147.8 | 153.1 | | | mudstone | | | | | | |
| 153.1 | 164.0 | | | siltstone | | | | | | |
| 164.0 | 167.0 | | | sandstone | | | | | | |

Hole No. RH 1707 Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|------------------------|-------------|------------|--------------------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: J. Stokmans | 150,132.2 m | 27,332.8 m | 2250.9 m | 0.0 |
| Date: Nov. 30, 1982 | | | | |
| Block: | Place: | App. Bear: | App.: Dip.: -90 | Length: 280.1 m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|---|---|-----------------------------|-------------|-------------|-----------|-----------|
| 167.0 | 193.1 | | | siltstone. possible 0.4 m carby stringer at 167.7-168.2m and small mudstone band at 169.4 - 170.3 m | | | | | | |
| 193.1 | 196.8 | | | mudstone | | | | | | |
| 196.8 | 200.4 | 645.7 | 657.5 | coal 3.6 m (6.8') | | | R4u | 2054.1 | 3.6 | |
| 200.4 | 208.5 | | | mudstone with minor siltstone bands | | | | | | |
| 208.5 | 213.9 | | | interbedded siltstone and mudstone. possible coal band 209.0-209.5 | | | | | | |
| 213.9 | 216.1 | 701.8 | 709.0 | coal 2.2 m (7.2') | | | R4L | 2037.0 | 2.2 | |
| 216.1 | 224.9 | | | muddy siltstone grading downwards to mudstone | | | | | | |
| 224.9 | 239.6 | | | siltstone | | | | | | |
| 239.6 | 252.4 | | | sandstone | | | | | | |
| 252.4 | 273.3 | | | mudstone grading downwards into sandstone | | | | | | |
| 273.3 | 274.6 | 896.7 | 900.9 | coal 1.3m (4.2') | | | R2 | 1977.6 | 1.3 | |
| 274.6 | 278.0 | | | siltstone | | | | | | |
| 278.0 | 279.5 | 912.1 | 917.0 | coal 1.5 m (4.9) entire seam probably not transected, upper and lower limit not properly defined. | | | R1 | 1972.9 | 1.5 | ? |
| | | | | E.O.H. | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | |
|------------------------|-------------|--------|------------|------------|-----------|--|---------------------|
| Objective: | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: J. Stokmans | 149,924.5 m | | 27,000.3 m | | 2150.4 m | | 0.0 |
| Date: Nov. 30, 1982 | Sect: | Place: | App. Bear: | App. Dip.: | Length: | | |
| Block: | | Eagle | | -90 | 473.0 m | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|--|-------------|-------------|-----------|-----------|
| 0.0 | 4.4 | | | siltstone | | | | |
| 4.4 | 7.8 | | | mudstone | | | | |
| 7.8 | 21.2 | | | interbedded mudstone and coarse siltstone fining downwards | | | | |
| 21.1 | 26.7 | | | siltstone grading into mudstone | | | | |
| 26.7 | 30.8 | | | siltstone grading into mudstone | | | | |
| 30.8 | 49.0 | | | interbedded siltstone and mudstone | | | | |
| 49.0 | 54.3 | | | mudstone | | | | |
| 54.3 | 76.5 | | | mudstone with regularly occurring siltstone interbeds 70/30 | | | | |
| 76.5 | 88.2 | | | siltstone interbedded with mudstone, fines upwards from sst | | | | |
| 88.2 | 95.7 | | | siltstone interbedded with mudstone, fines upwards, from sst | | | | |
| 95.7 | 104.0 | | | mudstone with 1m (3.3') band of sandstone starting at 100.6 m | | | | |
| 104.0 | 110.5 | | | siltstone | | | | |
| 110.5 | 119.0 | | | interbedded siltstone and mudstone | | | | |
| 119.0 | 123.5 | 390.4 | 405.2 | coal 4.5 m (3.2m) 14.8' (10.6') mudstone parting 120.2m-121.5m 2 | R5u | 2031.4 | 4.5 | 3.2 |
| 123.5 | 126.3 | | | silty mudstone (394.4' - 398.6) | | | | |
| 126.3 | 131.2 | | | coal 4.9 m (16.0') | R5L | 2024.1 | 4.9 | |
| 131.2 | 144.0 | 414.4 | 430.4 | interbedded siltstone and mudstone | | | | |
| 144.0 | 148.0 | | | sandstone degrading into mudstone | | | | |
| 148.0 | 151.8 | 485.6 | 498.0 | coal 3.8 m (12.4') | R4u | 2002.4 | 3.8 | |
| 151.8 | 163.2 | | | interbedded siltstone and mudstone | | | | |
| 163.2 | 168.6 | | | mudstone | | | | |
| 168.6 | 172.6 | | | interbedded siltstone and mudstone | | | | |
| 172.6 | 185.6 | | | siltstone fining downwards into mudstone | | | | |

Hole No. RH 1708 Page 1 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|---------------------|--|---------------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: Nov. 30, 1982 | | 149,924.5 N m | | 27,000.3 m | | 2150.4 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90* | |
| | | | | | | | | Length: 473.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|--|--|-------------|-------------|-----------|-----------|
| | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| 185.6 | 190.7 | 608.9 | 625.6 | coal 5.1m (4.5), 16.7' (13.6') mudstone parting 186.3m - 186.9m (611.2' - 613.2') | | R4L | 1964.8 | 5.1 | 4.5 |
| 190.7 | 195.1 | | | mudstone | | | | | |
| 195.1 | 196.6 | | | sandy siltstone | | | | | |
| 196.6 | 198.8 | | | mudstone | | | | | |
| 198.8 | 203.1 | | | siltstone | | | | | |
| 203.1 | 223.9 | | | sandstone, even grained | | | | | |
| 223.9 | 228.6 | | | muddy siltstone | | | | | |
| 228.6 | 246.3 | | | sandstone, even grained, with 0.5 m minor silty bands, at 229.5m and at 233.3m | | | | | |
| 246.3 | 250.3 | | | mudstone | | | | | |
| 250.3 | 251.7 | 821.2 | 825.8 | coal 1.4m (4.6') | | R2 | 1900.1 | 1.4 | |
| 251.7 | 255.5 | | | siltstone grading downwards into sandstone | | | | | |
| 255.5 | 257.0 | 838.2 | 843.2 | coal 1.5m (5.0') | | R1 | 1894.9 | 1.5 | |
| 257.0 | 268.0 | | | basal sandstone, last 3.0m is silty | | | | | |
| 268.0 | 288.0 | | | fault? | | | | | |
| 288.0 | 340.1 | | | predominantly siltstone with some sandstone and mudstone interbeds | | | | | |
| 340.1 | 343.2 | 1115.8 | 1126.0 | coal 3.1m (1.7m), 10.2' (5.7') siltstone parting 341.0m - 342.4m (1118.8' - 1123.3') | | R5u | 1810.3 | 3.1 | 1.7 |
| 343.2 | 347.9 | | | siltstone with 0.9m mudstone bed above seam | | | | | |
| 347.9 | 351.9 | 1141.4 | 1154.5 | coal 4.0m (3.0m), 14.1' (9.9') siltstone parting 349.9m - 350.9m (1148.0' - 1151.2') | | R5L | 1802.5 | 4.0 | 3.0 |
| 351.9 | 359.6 | | | muddy siltstone | | | | | |
| 359.6 | 378.2 | | | siltstone fining gradually into mudstone | | | | | |

Hole No. 1708

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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|---------------------|--|------------|--|----------------|--|--------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver | |
| Logged By: John Stokmans | | Date: Nov, 30, 1982 | | 149.924.5m | | 27.000.3m | | 2150.4 m | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip: -90* | |
| | | | | | | Length: 473.0m | | 0.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|--|---|-----------------------------|-------------|-------------|-----------|-----------|
| 378.2 | 382.7 | 1240.8 | 1255.6 | coal 4.5m (14.8') | | | R4u | 1772.2 | 4.5 | |
| 382.7 | 394.5 | | | mudstone with minor silty bands | | | | | | |
| 394.5 | 395.2 | 1294.3 | 1296.6 | coal 0.7 m (2.3') | | | ptR4L? | 1755.9 | 0.7 | |
| 395.2 | 397.4 | | | silty mudstone | | | | | | |
| 397.4 | 400.7 | 1303.8 | 1314.6 | coal 3.3m (10.8') | | | R4L | 1753.0 | 3.3 | |
| 400.7 | 406.0 | | | siltstone | | | | | | |
| 406.0 | 410.6 | | | muddy siltstone | | | | | | |
| 410.6 | 412.6 | | | siltstone, somewhat sandy | | | | | | |
| 412.6 | 417.5 | | | sandstone | | | | | | |
| 417.5 | 422.3 | | | siltstone | | | | | | |
| 422.3 | 455.6 | | | sandstone | | | | | | |
| 455.6 | 456.7 | | | coal 1.1m (3.6') | | | R2 | 1694.8 | 1.1 | |
| 456.7 | 458.8 | | | muddy siltstone | | | | | | |
| 458.8 | 460.8 | | | coal 2.0m (6.6') | | | R1 | 1691.6 | 2.0 | |
| 460.8 | 473.0 | | | basal sandstone | | | | | | |
| | | | | E.O.H. | | | | | | |

Hole No. 1708

Page 3 of 3

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | |
|--------------------------|-------|----------------------|------------|------------|---------|------------|-----|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: Sept. 24, 1982 | | 150,364. m | | 26,538.5 m | | 2,233.7 |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: | | 0.0 | |
| | | | | -90 | 516.0 | | | |

| From m | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL. TH. m | NET TH. m |
|-----------|----------|-------------|-----------|---|-------------------|----------------|------------------|-----------------|
| 0.0 | 75.0 | | | N.B. no neutron log of this section | | | | |
| 0.0 | 20.0 | | | mudstone ? | | | | |
| 20.0 | 21.0 | | | siltstone ? | | | | |
| 21.0 | 34.2 | | | mudstone ? | | | | |
| 34.2 | 47.5 | | | siltstone with some mudstone bands ? | | | | |
| 47.5 | 75.0 | | | mudstone with minor siltstone bands ? | | | | |
| 75.0 | 80.0 | | | sandstone | | | | |
| 80.0 | 87.0 | | | siltstone | | | | |
| 87.0 | 95.5 | | | interbedded sandstone and siltstone | | | | |
| 95.5 | 106.2 | | | siltstone with minor mudstone bands | | | | |
| 106.2 | 108.0 | | | siltstone possibly carbonaceous | | | | |
| 108.0 | 109.5 | 354.3 | 359.2 | coal 1.5 m (4.9') | ptR13 | 2125.7 | 1.5 | |
| 109.5 | 122.5 | | | siltstone with minor sandy and muddy bands | | | | |
| 122.5 | 124.0 | | | coal 1.5m (4.9') | ptR13 | 2111.2 | 1.5 | |
| 124.0 | 138.2 | | | siltstone interbedded with sandstone and mudstone | | | | |
| 138.2 | 144.2 | | | sandstone | | | | |
| 144.2 | 150.2 | | | siltstone partially muddy | | | | |
| 150.2 | 159.2 | 492.7 | 522.3 | coal 9.0 m (8.6), 29.6' (28.3) | R12 | 2083.5 | 9.0 | 8.6 |
| 159.2 | 164.3 | | | siltstone with mudstone bands | | | | |
| 164.3 | 168.6 | | | sandstone interbedded with siltstone | | | | |
| 168.6 | 182.0 | | | siltstone with some muddy banding | | | | |
| 182.0 | 184.1 | | | mudstone | | | | |
| 184.1 | 185.0 | | | sandstone | | | | |

Hole No. RH 1704

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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | | |
|------------------------|-------|----------|--------|---|--|-------------|--|---|-----------------------------|---------------------|-----------|-------|
| Objective: | | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | |
| Logged By: J. Stokmans | | | | Date: Nov. 24, 1982 | | 150,364.6 m | | 26,538.5 m | | 2233.7 | | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: | | |
| | | | | | | | | -90 | | 516.0 | | |
| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| | | | | | | | | | TOP OF SEAM | ELEVATION m | TTL TH. m | NET m |
| 185.0 | 196.2 | | | siltstone | | | | | | | | |
| 196.2 | 203.3 | 643.7 | 667.0 | coal 7.1 m (23.3') | | | | R11-11u | | 2037.5 | 7.1 | |
| 203.3 | 210.3 | | | siltstone | | | | | | | | |
| 210.3 | 219.6 | | | sandy siltstone | | | | | | | | |
| 219.6 | 235.1 | | | siltstone | | | | | | | | |
| 235.1 | 235.7 | 771.3 | 773.3 | minor coal seam 0.6 m (2.0') | | | | | | | | |
| 235.7 | 238.1 | | | mudstone | | | | | | | | |
| 238.1 | 240.4 | | | sandstone | | | | | | | | |
| 240.4 | 245.3 | | | mudstone | | | | | | | | |
| 245.3 | 347.7 | 804.8 | 812.7 | coal 2.4m (7.9') | | | | R9 | | 1988.4 | 2.4 | |
| 247.7 | 250.6 | | | silty mudstone to mudstone | | | | | | | | |
| 250.6 | 252.1 | | | sandstone | | | | | | | | |
| 252.1 | 256.0 | | | siltstone | | | | | | | | |
| 256.0 | 257.6 | | | mudstone | | | | | | | | |
| 257.6 | 262.0 | | | sandy siltstone | | | | | | | | |
| 262.0 | 279.3 | | | interbedded siltstone and sandstone | | | | | | | | |
| 279.3 | 297.1 | | | siltstone interbedded with sandstone and mudstone | | | | | | | | |
| 297.1 | 299.0 | 974.7 | 981.0 | coal 1.9m (6.3') | | | | R8 | | 1936.6 | 1.9 | |
| 299.0 | 301.2 | | | mudstone | | | | | | | | |
| 301.2 | 310.9 | | | sandstone with some siltstone interbeds | | | | | | | | |
| 310.9 | 319.0 | | | siltstone | | | | | | | | |
| 319.0 | 324.0 | | | sandstone | | | | | | | | |

Hole No. RH 1704

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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | |
|------------------------|--|---------------------|--|-------------|--|-----------------|--|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: J. Stokmans | | Date: Nov. 24, 1982 | | 158,364.6 m | | 26,538.5 m | | 2233.7 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: -90 |
| | | | | | | Length: 516.0 m | | 0.0 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|--|---|-----------------------------|-------------|-------------|-----------|-----------|
| 324.0 | 326.6 | | | siltstone | | | | | | |
| 326.6 | 329.2 | | | sandstone | | | | | | |
| 329.2 | 332.3 | | | mudstone | | | | | | |
| 332.3 | 333.8 | | | sandy siltstone | | | | | | |
| 333.8 | 337.2 | 1095.1 | 1105.2 | coal 3.4 m (10.2') | | | R7 | 1899.9 | 3.4 | |
| 337.2 | 344.4 | | | mudstone interbedded with siltstone | | | | | | |
| 344.4 | 351.2 | | | siltstone with mudstone interbeds | | | | | | |
| 351.2 | 353.7 | | | mudstone | | | | | | |
| 353.7 | 362.5 | | | sandstone to siltstone to mudstone bands, fining downwards | | | | | | |
| 362.5 | 373.0 | | | sandstone to siltstone to mudstone bands, fining downwards | | | | | | |
| 373.0 | 387.3 | | | siltstone | | | | | | |
| 387.3 | 391.5 | | | mudstone, fining upwards | | | | | | |
| 391.5 | 403.3 | | | mudstone grading into siltstone, fining upwards, starts with 1.2m sandstone band | | | | | | |
| 403.3 | 408.0 | | | sandstone | | | | | | |
| 408.0 | 413.7 | | | muddy siltstone | | | | | | |
| 413.7 | 416.3 | | | siltstone | | | | | | |
| 416.3 | 424.6 | | | mudstone coarsening into sandstone | | | | | | |
| 424.6 | 429.8 | | | siltstone | | | | | | |
| 429.8 | 441.5 | | | sandstone | | | | | | |
| 441.5 | 446.5 | | | siltstone | | | | | | |
| 446.5 | 453.7 | | | sandstone | | | | | | |
| 453.7 | 461.0 | | | muddy siltstone | | | | | | |

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|------------------------|--|---------------------|--|-------------|--|-----------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: J. Stokmans | | Date: Nov. 24, 1982 | | 158,364.6 m | | 26,538.5 m | | 2233.7 m | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip: -90 | |
| | | | | | | Length: 516.0 m | | 0.0 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION | TTL TH. | NET TH. |
|---------|-------|----------|--------|---|---------------|-------------|-----------|---------|---------|
| | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| 461.0 | 465.3 | 1512.4 | 1526.6 | coal 4.3 m (3.6m) | 14.2' (11.9') | R5L | 1772.7 | 4.3 | 3.6 |
| 465.3 | 472.3 | | | starts muddy siltstone, grades into sandstone | | | | | |
| 472.3 | 476.2 | | | starts sandstone, degrades into mudstone | | | | | |
| 476.2 | 486.0 | | | siltstone with some minor sandstone bands | | | | | |
| 486.0 | 487.7 | | | mudstone | | | | | |
| 487.7 | 494.8 | 1600.0 | 1623.3 | coal 7.1 m (23.3') | | R4u | 1746.0 | 7.1 | |
| 494.8 | 500.1 | | | muddy siltstone | | | | | |
| 500.1 | 503.6 | | | siltstone with minor mudstone band | | | | | |
| 503.6 | 505.8 | | | sandstone | | | | | |
| 505.8 | 509.6 | | | mudstone | | | | | |
| 509.6 | 516.0 | | | siltstone | | | | | |
| | | | | E.O.H. | | | | | |

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | |
|--------------------------|-------|----------------------|------------|-------------|---------|------------|---------|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: Sept. 23, 1982 | | 150,144.6 N | | 26,117.2 m | | 2,135.0 m |
| Block: | Sect: | Place: | App. Bear: | App. Dip: | Length: | | 522.6 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|---|-------------|-------------|-----------|-----------|
| 0.0 | 4.3 | 0.0 | 14.1 | Interbedded sandstone and siltstone | | | | |
| 4.3 | 6.3 | 14.1 | 20.7 | Coal 2.0 m (6.6') | 13 | 2,130.7 | 2.0 | |
| 6.3 | 18.5 | 20.7 | 60.7 | Interbedded siltstone and mudstone with carbonaceous band 12.4m-13.5 (40.7 - 44.3') | | | | |
| 18.5 | 26.0 | 60.7 | 85.3 | Siltstone | | | | |
| 26.0 | 31.5 | 85.3 | 103.3 | Mudstone | | | | |
| 31.5 | 56.0 | 103.3 | 183.7 | Sandy siltstone with siltstone and mudstone interbeds | | | | |
| 56.0 | 60.7 | 183.7 | 199.1 | Coal 4.7 m (15.4') | | | | |
| 60.7 | 63.5 | 199.1 | 208.3 | Sandstone | | | | |
| 63.5 | 75.5 | 208.3 | 247.7 | Siltstone | | | | |
| 75.5 | 79.3 | 247.7 | 260.2 | Mudstone with some siltstone just above seam | | | | |
| 79.3 | 81.3 | 260.2 | 266.7 | Coal seam indicated from drillers report and assay but not log. 2.0m (6.6') | 11u | 2,055.7 | 2.0 | |
| 81.3 | 85.6 | 266.7 | 280.8 | Interbedded siltstone and mudstone (parting if above seam, 11u, exits) | | | | |
| 85.6 | 92.3 | 280.8 | 302.8 | Coal 6.7 m (22.0') | 11u | 2,049.4 | 6.7 | |
| 92.3 | 102.1 | 302.8 | 335.0 | Mudstone | | | | |
| 102.1 | 104.1 | 335.0 | 341.5 | Coal 2.0 m (6.6') | 11 | 2,032.9 | 2.0 | |
| 104.1 | 119.0 | 341.5 | 390.4 | Mudstone. Gets finer grained down to 104 m (341.2') then coarsens. | | | | |
| 119.0 | 134.0 | 390.4 | 439.6 | Siltstone | | | | |
| 134.0 | 135.8 | 439.6 | 445.5 | Coal 1.8 m (5.9') | 9 | 2,001.0 | 1.8 | |
| 135.8 | 142.0 | 445.5 | 465.9 | Mudstone | | | | |
| 142.0 | 152.1 | 465.9 | 499.0 | Siltstone with mudstone bed, 147.5-149m (483.9-488.8') | | | | |

Hole No. RH 1703

Page 1 of 4

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|----------------------|--|-------------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: Sept. 23, 1982 | | 150,144.6 m | | 26,117.2 m | | 2,135.0 m | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | |
| | | | | | | | | Length: 522.6 | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|--|-------------------|-------------|-----------|-----------|
| 152.1 | 153.1 | 499.0 | 502.3 | | Coal 1.0 m (3.3') | | 1,636.0 | 1.0 |
| 153.1 | 167.0 | 502.3 | 547.9 | Siltstone | | | | |
| 167.0 | 168.0 | 547.9 | 551.2 | Fault Zone | | | | |
| 168.0 | 169.5 | 551.2 | 556.1 | Mudstone | | | | |
| 169.5 | 186.5 | 556.1 | 611.9 | Interbedded siltstone and sandstone | | | | |
| 186.5 | 195.0 | 611.9 | 639.8 | Interbedded sandstone and siltstone | | | | |
| 195.0 | 202.0 | 639.8 | 662.7 | Silty sandstone | | | | |
| 202.0 | 225.0 | 662.7 | 738.2 | Interbedded siltstone and sandstone | | | | |
| 225.0 | 239.1 | 738.2 | 784.4 | Siltstone | | | | |
| 239.1 | 241.6 | 784.4 | 792.7 | Coal 2.5 m (8.2') | R13 | 1,895.1 | 2.5 | |
| 241.6 | 244.0 | 792.7 | 800.5 | Siltstone | | | | |
| 244.0 | 245.0 | 800.5 | 803.8 | Coal 1.0 m (3.3') Probably part of R13 | | 1,891.0 | 1.0 | |
| 245.0 | 247.2 | 803.8 | 811.0 | Sandstone | | | | |
| 247.2 | 252.6 | 811.0 | 828.7 | Siltstone | R12 | 1,882.4 | 4.1 | |
| 252.6 | 256.7 | 828.7 | 842.2 | Coal 4.1 m (13.5') | | | | |
| 256.7 | 276.5 | 842.2 | 907.2 | Interbedded siltstone and mudstone, starts silty and gets finer | | | | |
| 276.5 | 282.5 | 907.2 | 926.8 | Mudstone | | | | |
| 282.5 | 293.0 | 926.8 | 961.3 | Interbedded siltstone and mudstone, starts muddy and gets silty | | | | |
| 293.0 | 293.5 | 961.3 | 962.9 | Minor coal seam 0.5 m (1.6') | | | | |
| 293.5 | 301.5 | 962.9 | 989.2 | Interbedded siltstone and mudstone | | | | |
| 301.5 | 302.8 | 989.2 | 993.4 | Sandstone | | | | |

Hole No. RH 1703 Page 2 of 4

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|--------------------------|-------------|------------|------------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: John Stokmans | 150,144.6 m | 26,117.2 m | 2,136.0 m | 0.0 |
| Date: Sept. 24, 1982 | | | | |
| Block: | Sect: | Place: | App. Bear: | App. Dip: |
| | | | | Length: 522.6 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|---|---|-----------------------------|-------------|-------------|-----------|-----------|
| 302.8 | 310.7 | 993.4 | 1019.4 | Mudstone | | | | | | |
| 310.7 | 315.8 | 1019.4 | 1035.1 | Siltstone | | | | | | |
| 315.5 | 319.4 | 1035.1 | 1047.9 | Mudstone | | | | | | |
| 319.4 | 326.1 | 1047.9 | 1069.9 | Coal 6.7m (5.8m) 22.0' (19.0') with siltstone parting 323.7-324.6m (1062.0-1065.0) | | | R11u | 1,815.6 | 6.7 | 5.8 |
| 326.1 | 333.5 | 1069.9 | 1094.2 | Interbedded siltstone and mudstone | | | | | | |
| 333.5 | 334.5 | 1094.2 | 1097.4 | Coal 1.0 m (3.3') | | | R11 | 1,801.5 | 1.0 | |
| 334.5 | 339.9 | 1097.4 | 1,115.2 | Interbedded siltstone and mudstone | | | | | | |
| 339.9 | 340.4 | 1,115.2 | 1,116.8 | Minor coal seam 0.5 m (1.6') | | | | | | |
| 340.4 | 344.4 | 1,116.8 | 1,129.9 | Interbedded siltstone and mudstone | | | | | | |
| 344.4 | 344.9 | 1,129.9 | 1,131.6 | Minor coal seam 0.5 m (1.6') | | | | | | |
| 344.9 | 345.6 | 1,131.6 | 1,133.9 | Mudstone parting | | | | | | |
| 345.6 | 346.1 | 1,133.9 | 1,135.5 | Minor coal seam 0.5 m (1.6') | | | | | | |
| 346.1 | 354.5 | 1,135.5 | 1,163.1 | Interbedded siltstone and mudstone with two minor carbonaceous bands | | | | | | |
| 354.5 | 359.5 | 1,163.1 | 1,179.5 | Mudstone | | | | | | |
| 359.5 | 362.0 | 1,179.5 | 1,187.7 | Siltstone | | | | | | |
| 362.0 | 366.7 | 1,187.7 | 1,203.1 | Mudstone | | | | | | |
| 366.7 | 369.4 | 1,203.1 | 1,211.9 | Coal 2.7 m (8.8') | | | R 9 | 1,768.3 | 2.7 | |
| 369.4 | 377.5 | 1,211.9 | 1,238.5 | Mudstone | | | | | | |
| 377.5 | 398.6 | 1,238.5 | 1,307.7 | Siltstone with minor mudstone bands. | | | | | | |
| 398.6 | 399.5 | 1,307.7 | 1,310.7 | Coal 0.9 m (3.0') | | | R 8 | 1,736.4 | 0.9 | |
| 399.5 | 407.5 | 1,310.7 | 1,336.9 | Siltstone degrading into siltstone interbedded with mudstone. This interval is possibly carbonaceous. | | | | | | |
| 407.5 | 417.5 | 1,336.9 | 1,364.8 | Interbedded siltstone and mudstone | | | | | | |

Hole No. RH 1703

Page 3 of 4

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | |
|--------------------------|--|----------------------|--|-------------|--|------------|--|--------------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: Sept. 24, 1982 | | 150,144.6 m | | 26,117.2 m | | 2,135.0 m |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: Length: 522.6 |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. | NET TH. |
|---------|-------|----------|---------|--|---|-----------------------------|-------------|-------------|---------|---------|
| 417.5 | 418.0 | 1,369.8 | 1,371.4 | Possible minor coal seam 0.5 m (1.6'). Not obvious on log but is from Drillers report. | | | | | | |
| 418.0 | 444.5 | 1,371.4 | 1,458.3 | Interbedded siltstone and mudstone | | | | | | |
| 444.5 | 452.8 | 1,458.3 | 1,485.6 | Coal 8.3 m (27.2') | | | R 7 | 1,690.5 | 8.3 | |
| 452.8 | 466.0 | 1,485.6 | 1,528.9 | Mudstone interbedded with siltstone. Probable carbonaceous band | | | | | | |
| 466.0 | 497.5 | 1,528.9 | 1,632.2 | Siltstone, grading down-wards into sandstone | | | | | | |
| 497.5 | 507.0 | 1,632.2 | 1,663.4 | Sandstone | | | | | | |
| 507.0 | 510.0 | 1,663.4 | 1,673.2 | Muddy siltstone | | | | | | |
| 510.0 | 512.0 | 1,673.2 | 1,679.8 | Sandstone | | | | | | |
| 512.0 | 514.5 | 1,679.8 | 1,688.0 | Mudstone | | | | | | |
| 514.5 | 516.0 | 1,688.0 | 1,692.9 | Sandstone | | | | | | |
| 516.0 | 522.6 | 1,692.9 | 1,714.6 | Interbedded siltstone and sandstone | | | | | | |
| | | | | E.O.H. | | | | | | |

Hole No. RH 1703

Page 4 of 4

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | |
|--------------------------|-------|----------------------|------------|-------------|---------|------------|---------|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: Sept. 23, 1982 | | 150,745.9 N | | 27,383.4 E | | 2,221.1 m |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: | | 138.6 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|--------|---|---|-----------------------------|-------------|-------------|-----------|-----------|
| 0 | 6.5 | 0.0 | 21.3 | Siltstone | | | | | | |
| 6.5 | 11.7 | 21.3 | 36.1 | Mudstone with siltstone band 8.0 - 9.5m (26.2'-31.2') | | | | | | |
| 11.0 | 19.0 | 36.1 | 62.3 | Sandstone | | | | | | |
| 19.0 | 25.3 | 62.3 | 83.0 | Siltstone | | | | | | |
| 25.3 | 34.5 | 83.0 | 113.2 | Sandstone | | | | | | |
| 34.5 | 36.4 | 113.2 | 119.4 | Mudstone | | | | | | |
| 36.4 | 43.6 | 119.4 | 143.0 | Coal 7.2 m (23.6') | | | R4u | 2,177.5 | 7.2 | |
| 43.6 | 55.3 | 143.0 | 181.4 | Interbedded siltstone and mudstone | | | | | | |
| 55.3 | 55.8 | 181.4 | 813.1 | Minor coal seam 0.5 m (1.6') | | | | | | |
| 55.8 | 62.2 | 183.1 | 204.1 | Interbedded siltstone and mudstone | | | | | | |
| 62.2 | 76.9 | 204.1 | 252.3 | Siltstone | | | | | | |
| 76.9 | 79.7 | 252.3 | 261.5 | Coal 2.8 m (9.2') | | | | | | |
| 79.7 | 88.2 | 261.5 | 289.4 | Interbedded siltstone and sandstone | | | R4L | 2,144.2 | 2.8 | |
| 88.2 | 94.0 | 289.4 | 308.4 | Interbedded sandstone and siltstone | | | | | | |
| 94.0 | 104.1 | 308.4 | 341.5 | Sandstone | | | | | | |
| 104.1 | 105.1 | 341.5 | 344.8 | Coal 1.0 m (3.3') | | | | | | |
| 105.1 | 111.2 | 344.8 | 364.8 | Siltstone | | | | | | |
| 111.2 | 118.5 | 364.8 | 388.8 | Mudstone | | | | | | |
| 118.5 | 121.1 | 388.8 | 397.3 | Siltstone | | | | | | |
| 121.1 | 122.6 | 397.3 | 402.2 | Coal 1.5 m (4.9') | | | R2 | 2,100.0 | 1.5 | |
| 122.6 | 125.6 | 402.2 | 412.1 | Siltstone | | | | | | |

Hole No. RH 1702 Page 1 of 2

Rotary Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | | | | | | | | | |
|--------------------------|--|----------------------|--|-------------|--|------------|--|---------------------|-----|---------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | |
| Logged By: John Stokmans | | Date: Sept. 23, 1982 | | 150,745.9 N | | 27,383 E | | 2,2221.1 m | 0.0 | | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: | |
| | | | | | | | | | | 138.6 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | | | TOP OF SEAM | ELEVATION m | TTL. TH. IN | NET TH. IN |
|---------|-------|----------|--------|--|--|--|--|-------------|----------------|-------------------|------------------|
| 125.6 | 127.8 | 412.1 | 419.3 | Coal 2.2 m (7.2') | | | | R1 | 2095.5 | 2.2 | |
| 127.8 | 129.5 | 419.3 | 424.9 | Siltstone | | | | | | | |
| 129.5 | 138.6 | 424.9 | 454.7 | Basal Sandstone | | | | | | | |
| | | | | E.O.H. | | | | | | | |
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Rotary Drill Geological Log



FORDING RIVER OPERATIONS

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|--------------------------|-------|----------------------|------------|-------------|---------|-----------|---------|---------------------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. |
| Logged By: John Stokmans | | Date: Sept. 22, 1982 | | 150,602.1 m | | 26,990.4 | | 2,225.7 m |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: | Length: | | 457.6 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. m. | NET TH. m. |
|---------|-------|----------|--------|---|-------------|-------------|------------|------------|
| 0.0 | 13.0 | 0.0 | 42.7 | Mudstone | | | | |
| 13.0 | 24.0 | 42.7 | 78.7 | Siltstone | | | | |
| 24.0 | 43.5 | 78.7 | 142.7 | Interbedded sandstone and siltstone | | | | |
| 43.5 | 76.0 | 142.7 | 249.3 | Siltstone interbedded with sandstone 80/20 | | | | |
| 76.0 | 78.0 | 249.3 | 255.9 | Siltstone possibly carbonaceous | | | | |
| 78.0 | 80.5 | 255.9 | 264.1 | Sandstone | | | | |
| 80.5 | 86.8 | 264.1 | 284.8 | Siltstone | | | | |
| 86.8 | 88.3 | 284.8 | 289.7 | Coal 1.5 m (4.9') | pt R5 | 2,138.9 | 1.5 | |
| 88.3 | 93.0 | 289.7 | 305.1 | Mudstone | | | | |
| 93.0 | 93.5 | 305.1 | 306.8 | Minor coal seam 0.5 m (1.6') | | | | |
| 93.5 | 95.4 | 306.8 | 313.0 | Mudstone | | | | |
| 95.4 | 104.6 | 313.0 | 343.2 | Coal 9.2 m (30.2') | R4u | 2,131.3 | 9.2 | |
| 104.6 | 127.4 | 343.2 | 418.0 | Interbedded siltstone and mudstone with sandstone parting 122 m - 123 m (400.3' - 403.5') | | | | |
| 127.4 | 136.0 | 418.0 | 446.2 | Coal 8.6 m (28.2') | R4L | 2,098.3 | 8.6 | |
| 136.0 | 146.9 | 446.2 | 482.0 | Interbedded siltstone and mudstone | | | | |
| 146.9 | 147.4 | 482.0 | 483.5 | Minor coal seam 0.5 m (1.6') | | | | |
| 147.4 | 151.9 | 483.6 | 498.4 | Interbedded sandstone and siltstone | | | | |
| 151.9 | 152.5 | 498.4 | 500.3 | Minor coal seam 0.6 m (1.9') | | 2,073.8 | 0.6 | |
| 152.5 | 157.0 | 500.3 | 515.1 | Siltstone | | | | |
| 157.0 | 159.0 | 515.1 | 521.7 | Sandstone | | | | |
| 159.0 | 172.0 | 521.7 | 564.3 | Siltstone | | | | |
| 172.0 | 196.0 | 564.3 | 643.0 | Sandstone with siltstone parting @ 177.7 m - 179.0 m (583.0' - 587.3') | | | | |

Hole No. RH 1701

Page 1 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|-------------------------|-------------|------------|------------|---------------------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION | Ore Classes & Aver. |
| Logged By: John Srokman | 150,602.1 m | 26k990.4 m | 2,225.7 m | 0.0 |
| Date: Sept. 23, 1982 | | | | |
| Block: | Sect: | Place: | App. Bear: | App. Dip.: |
| | | | | Length: 457.6 m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|--|---|-----------------------------|-------------|-------------|-----------|-----------|
| 196.0 | | 643.0 | | Fault | | | | | | |
| 196.0 | 197.7 | 643.0 | 648.0 | Siltstone | | | | | | |
| 197.0 | 198.5 | 648.6 | 651.2 | Coal 0.8 m (2.6') | | | | 2,028.7 | 0.8 | |
| 198.5 | 200.5 | 651.2 | 657.8 | Siltstone | | | | | | |
| 200.5 | 201.0 | 657.8 | 659.4 | Minor coal seam 0.5 m (1.6') | | | | | | |
| 201.0 | 203.5 | 659.4 | 667.7 | Mudstone | | | | | | |
| 203.5 | 206.0 | 667.7 | 675.9 | Coal 2.5 m (8.2') | | | R7 | 2,022.2 | 2.5 | |
| 206.0 | 226.0 | 675.9 | 741.5 | Interbedded siltstone and sandstone grading down ward into siltstone | | | | | | |
| 226.0 | 246.0 | 741.5 | 807.1 | Siltstone | | | | | | |
| 246.0 | 252.0 | 807.1 | 826.8 | Sandstone with siltstone partine @ 247-249.5 m (810.4'-818.6') | | | | | | |
| 252.0 | 254.0 | 826.8 | 833.3 | Mudstone | | | | | | |
| 254.0 | 265.3 | 833.3 | 870.4 | Siltstone interbedded with mudstone 60/40 | | | | | | |
| 265.3 | 269.1 | 870.4 | 882.9 | Coal 3.8 m (2.9m) 12.5' (1.9m) with mudstone partings 266.5-268.4m (874.3' - 880.6') | | | R5u | 1,960.4 | 3.8 | 1.9 |
| 269.1 | 276.1 | 882.9 | 905.8 | Mudstone with sandstone parting 272.8 -274.0 m (895.0'-899.0') | | | | | | |
| 276.1 | 277.9 | 905.8 | 911.7 | Coal 1.8 m (5.9') | | | R5L | 1,949.6 | 1.8 | |
| 277.9 | 317.0 | 911.7 | 1,040.0 | Siltstone with some minor carbonaceous, mudstone, and sandstone banding | | | | | | |
| 317.0 | 321.2 | 1,040.0 | 1,053.8 | Coal 4.2 m (13.8') | | | R4u | 1,908.7 | 4.2 | |
| 321.2 | 327.8 | 1,053.8 | 1,075.5 | Interbedded siltstone and mudstone | | | | | | |
| 327.8 | 331.5 | 1,075.5 | 1,087.6 | Sandstone with siltstone band 329.0 - 330.0 m (1,079.4' - 1,082.7') | | | | | | |
| 331.5 | 339.5 | 1,087.6 | 1,113.8 | | | | | | | |
| 339.5 | 347.3 | 1,113.8 | 1,139.4 | Interbedded sandstone and siltstone | | | | | | |

Hole No. RH1701

Page 2 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | |
|--------------------------|--|----------------------|--|-------------|--|------------|--|---------------------|--|---------|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | |
| Logged By: John Stokmans | | Date: Sept. 23, 1982 | | 150,602.1 m | | 26,990.4 m | | 2,225.7 m | | 0.0 |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: |
| | | | | | | | | | | 457.6 m |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|--|---|-----------------------------|-------------|-------------|-----------|-----------|
| 347.3 | 349.3 | 1,139.4 | 1,146.0 | Coal 2.0 m (6.6') | | | R4L | 1,086.3 | 2.0 | |
| 349.3 | 362.8 | 1,146.0 | 1,190.3 | Siltstone | | | | | | |
| 362.8 | 374.0 | 1,190.3 | 1,227.0 | Sandstone | | | | | | |
| 374.0 | 377.5 | 1,227.0 | 1,238.5 | Mudstone | | | | | | |
| 377.5 | 397.7 | 1,238.5 | 1,304.8 | Siltstone grading down wards into dandy siltstone | | | | | | |
| 397.7 | 399.0 | 1,304.8 | 1,309.1 | Coal 1.3 m (4.2') | | | R2 | 1,828.0 | 1.3 | |
| 399.0 | 400.0 | 1,309.1 | 1,312.3 | Mudstone | | | | | | |
| 400.0 | 402.4 | 1,312.3 | 1,320.2 | Siltstone | | | | | | |
| 402.4 | 404.9 | 1,320.2 | 1,328.4 | Coal 2.5 m (8.2') | | | R1 | 1,823.3 | 2.5 | |
| 404.9 | 406.5 | 1,328.4 | 1,333.7 | Siltstone | | | | | | |
| 406.5 | 457.6 | 1,333.7 | 1,501.3 | Basal sandstone, gets slightly silty as go down the hole | | | | | | |
| | | | | E.O.H. | | | | | | |

Hole No. RH1701

Page 3 of 3

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|--------------------|--|-----------------------|--|------------|--|----------------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: Sept. 20, 82 | | 150,570.5 m | | 26,791.2 m | | 2,215.3 m | |
| Block: | | Sect: | | Place: Eagle Mountain | | App. Bear: | | App. Dip.: Length: 518.0 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL. TH. m | NET TH. m |
|---------|-------|----------|--------|--|-------------|-------------|------------|-----------|
| 0.0 | 11.5 | 0.0 | 37.7 | Siltstone | | | | |
| 11.5 | 13.5 | 37.7 | 44.3 | Sandstone | | | | |
| 13.5 | 22.5 | 44.3 | 73.8 | Siltstone | | | | |
| 22.5 | 27.0 | 73.8 | 88.6 | Mudstone | | | | |
| 27.0 | 56.0 | 88.6 | 183.7 | Siltstone | | | | |
| 56.0 | 62.5 | 183.7 | 205.1 | Interbedded mudstone and siltstone | | | | |
| 62.5 | 63.0 | 205.1 | 206.7 | Minor coal seam 0.5m (1.6') | | | | |
| 63.0 | 73.0 | 206.7 | 239.5 | Mudstone with siltstone interbeds. 70/30 | | | | |
| 73.0 | 95.0 | 239.5 | 241.3 | Siltstone | | | | |
| 95.0 | 96.4 | 241.3 | 316.3 | Mudstone | | | | |
| 96.4 | 103.6 | 316.3 | 339.9 | Coal 7.2 m (23.6') | R7 | 2,118.9 | 7.2 | 7.2 |
| 103.6 | 122.0 | 339.9 | 400.3 | Mudstone with minor siltstone partings | | | | |
| 122.0 | 122.5 | 400.3 | 401.9 | Minor coal seam 0.5 m (1.6') | | | | |
| 122.5 | 124.1 | 401.9 | 407.2 | Mudstone | | | | |
| 124.1 | 124.6 | 407.2 | 408.8 | Minor coal seam 0.5 m (1.6') | | | | |
| 124.6 | 126.5 | 408.8 | 415.0 | Mudstone | | | | |
| 126.5 | 147.0 | 415.0 | 482.3 | Siltstone | | | | |
| 147.0 | 150.0 | 482.3 | 492.1 | Mudstone | | | | |
| 150.0 | 152.0 | 492.1 | 498.7 | Siltstone | | | | |
| 152.0 | 162.0 | 498.7 | 531.5 | Silty mudstone | | | | |
| 162.0 | 190.0 | 531.5 | 623.4 | Sandstone | | | | |
| 190.0 | 205.0 | 623.4 | 672.6 | Siltstone | | | | |
| 205.0 | 215.0 | 672.6 | 705.4 | Interbedded sandstone and siltstone | | | | |
| 215.0 | 215.5 | 705.4 | 707.0 | Minor coal seam 0.5 m (1.6') | | | | |

RH
Hole No. 1700

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | |
|--------------------------|--|--------------------|--|-------------|--|------------|--|---------------------|--|-----------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | | | |
| Logged By: John Stokmans | | Date: Sept. 22, 82 | | 150,570.5 m | | 26,791.2 m | | 2,215.3 m | | 0.0 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | | Length: 518.0 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|---|--|-------------|-------------|-----------|-----------|
| | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| 215.5 | 222.3 | 707.0 | 729.3 | Mudstone | | | | | |
| 222.3 | 223.2 | 729.3 | 732.3 | Coal 0.9 (3.0') | | R5u | 1,993.0 | 0.9 | 0.9 |
| 223.2 | 225.0 | 732.3 | 738.2 | Mudstone | | | | | |
| 225.0 | 228.0 | 738.2 | 748.0 | Coal 3.0 (9.8') | | R5L | 1,990.3 | 3.0 | 3.0 |
| 228.0 | 230.5 | 748.0 | 756.2 | Siltstone | | | | | |
| 230.5 | 234.0 | 756.2 | 767.7 | Siltstone | | | | | |
| 234.0 | 237.5 | 767.7 | 779.2 | Sandstone | | | | | |
| 237.5 | 243.5 | 779.2 | 798.9 | Siltstone with mudstone interbeds. | | | | | |
| 243.5 | 248.5 | 798.9 | 815.3 | Coal 5.0 m (16.4') | | R4u | 1,971.8 | 5.0 | 5.0 |
| 248.5 | 251.0 | 815.3 | 823.5 | Mudstone | | | | | |
| 251.0 | 269.5 | 823.5 | 884.2 | Siltstone | | | | | |
| 269.5 | 280.7 | 884.2 | 920.9 | Mudstone | | | | | |
| 280.7 | 283.9 | 920.9 | 931.4 | Coal 3.2 m (10.5') | | R4L | 1,934.6 | 3.2 | 3.2 |
| 283.9 | 285.5 | 931.4 | 936.7 | Mudstone | | | | | |
| 285.5 | 299.5 | 936.7 | 982.6 | Siltstone | | | | | |
| 299.5 | 305.0 | 982.6 | 1,000.7 | Sandstone | | | | | |
| 305.0 | 324.0 | 1,000.7 | 1,063.0 | Interbedded siltstone and sandstone | | | | | |
| 324.0 | 337.5 | 1,063.0 | 1,107.3 | Sandstone | | | | | |
| 337.5 | 345.2 | 1,107.3 | 1,132.5 | Coarse siltstone | | R2 | 1,870.1 | 2.1 | 2.1 |
| 345.2 | 347.3 | 1,132.5 | 1,139.4 | Coal 2.1 m (6.9') | | | | | |
| 347.3 | 351.0 | 1,139.4 | 1,151.6 | Siltstone | | | | | |

Hole No. RH 1700

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | |
|--------------------------|--|----------------------|--|-------------|--|------------|--|---------------------|--|
| Objective: | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | Date: Sept. 22, 1982 | | 150,570.5 m | | 26,791.2 | | 2,215.3 | |
| Block: | | Sect: | | Place: | | App. Bear: | | App. Dip.: | |
| | | | | | | | | Length: 518.0 m | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG | TOP OF SEAM | ELEVATION m | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|---|-------------|-------------|-----------|-----------|
| | | | | | | | | |
| 351.0 | 353.3 | 1,151.6 | 1,159.1 | Coal 2.3 m (7.2') | R 1 | 1,864.3 | 2.3 | |
| 353.3 | 389.5 | 1,159.1 | 1,277.9 | Basal Sandstone | | | | |
| 389.5 | | 1,277.9 | | Fault | | | | |
| 389.5 | 405.5 | 1,277.9 | 1,330.4 | Siltstone. Grades down into fine grained sandstone | | | | |
| 405.5 | 411.5 | 1,330.4 | 1,350.1 | Sandstone | | | | |
| 411.5 | 419.0 | 1,350.1 | 1,374.7 | Siltstone | | | | |
| 419.0 | 435.0 | 1,374.7 | 1,427.2 | Interbedded siltstone and mudstone | | | | |
| 435.0 | 436.9 | 1,427.2 | 1,433.4 | Mudstone | | | | |
| 436.9 | 437.8 | 1,433.4 | 1,436.4 | Coal 0.9 m (2.9') | R5u | 1,778.4 | 0.9 | |
| 437.8 | 441.5 | 1,436.4 | 1,448.5 | Interbedded siltstone and mudstone | | | | |
| 441.5 | 442.0 | 1,448.5 | 1,450.1 | Minor coal 0.5 m (1.6') | | | | |
| 442.0 | 445.4 | 1,450.1 | 1,461.3 | Interbedded siltstone and mudstone | | | | |
| 445.4 | 448.2 | 1,461.3 | 1,470.5 | Coal 2.8 m (2.3m) - 9.2' (7.6') Parting 446.8 - 447.0 m (1,465.9'-1,466.5') | R5L | 1,773.3 | 2.8 | 2.3 |
| 448.2 | 474.0 | 1,470.5 | 1,555.1 | Siltstone | | | | |
| 474.0 | 476.2 | 1,555.1 | 1,562.3 | Mudstone | | | | |
| 476.2 | 480.5 | 1,562.3 | 1,576.4 | Coal 4.3 m (14.1') | R4u | 1,739.1 | 4.3 | |
| 480.5 | 489.0 | 1,576.4 | 1,604.3 | Mudstone | | | | |
| 489.0 | 495.0 | 1,604.3 | 1,624.0 | Siltstone | | | | |
| 495.0 | 496.3 | 1,624.0 | 1,628.3 | Mudstone | | | | |
| 496.3 | 496.8 | 1,628.3 | 1,629.9 | Minor coal seam 0.5 m (1.6') | | | | |
| 496.8 | 503.0 | 1,629.9 | 1,650.3 | Mudstone | | | | |

Hole No. RH 1700

Page 3 of 4

Rotary Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | |
|--------------------------|--|--|------------|--|------------|--|---------------|--|---------------------|--|
| Objective: | | | LATITUDE | | DEPARTURE | | ELEVATION | | Ore Classes & Aver. | |
| Logged By: John Stokmans | | | 150,570.5 | | 26,791.2 | | 2,215.3 | | 0.0 | |
| Date: Sept. 22, 1982 | | | App. Bear: | | App. Dip.: | | Length: 518.0 | | | |
| Block: | | | Sect: | | Place: | | | | | |

| From m. | To m. | From Ft. | To Ft. | INTERSECTIONS TAKEN FROM GAMMA RAY - NEUTRON LOG | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | TOP OF SEAM | ELEVATION | TTL TH. m | NET TH. m |
|---------|-------|----------|---------|--|---|-----------------------------|-------------|-----------|-----------|-----------|
| 503.0 | 506.0 | 1,650.3 | 1,660.1 | Coal 3.0 m (9.8') | | | R4L | 1,712.3 | | |
| 506.0 | 511.5 | 1,660.1 | 1,678.1 | Mudstone with siltstone interbeds 70/30 | | | | | | |
| 511.5 | 518.0 | 1,678.1 | 1,699.5 | Siltstone | | | | | | |
| | | | | E.O.H. | | | | | | |
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Hole No. RH 1700 Page 4 of 4

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE: 150,101.2 DEPARTURE: 26870.2 ELEVATION: 2233.7m
 Logged By: E.M.D. Date: JUNE 11/82

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-----|----------|------|----------|------|-----------|-------|------------|------------------------|-------------|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 0 | 62' | | | | | | | | | | Boxes 1,2,3, have been disturbed, exact location of coal seam is not reliable. Approx. location is as follows. |
| 0 | 19' | | | | | sst. | med. | fgr. | 44° | broken | All joints are iron stained. Extreme crossbedding is visible throughout this section (to 17'). - bedding joints occur every 4" approx. until 17'. - calcite infilled discontinuous jts. at 8' (3 joints about 1" apart); 21° joint at 4'; at 15' there is a 8° clean, continuous joint. 17' to 18' bedding joints occur every 1". At 19' the bedding angle is 46° and the joint is 56° to c.a. (they cross each other). |
| 19' | 29' | | | | | sst. | med. | fgr. | 46° | broken | In this section the sst. changes to siltstone. Joints and/or fractures occur every 2". All surfaces contain Fe staining. - core is not recovered entirely, and is scrambled! |
| 29' | 35' | 25.9 | 50.9 | 7.9 | 15.5 | coal | dk. | - | - | broken | This is where the coal was, the coal is clean and shiny. R.12? - most parts are crumbled but some (2') is broken every 3". |
| 35' | 45' | | | | | shale | dk. | | | broken | A section within the 2nd box had no core recovery. Bedding joints (polished) every 4". Very fissile. |
| 45' | 68' | | | | | sst. | med. | fgr. | 51° | broken | Part of this section had no core. Cross-bedding is evident. Undulated bedding planes, silt. and sst. are interbedded. Bedding joints occur every 7" to 8" and are polished with some calcite infilling. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|-------------------|------|----------|-------|----------|------|------------------|-------|------------|------------------------|-------------|--|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 11/82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 68' | 75' | | | | | slt. | dk. | | 45° | broken | 68' to 69' is mst. with many plant impressions. 72' there is a calcite infilled joint. It is 46° to c.a. and crosses the bedding planes. At 75' the 8° to c.a. joint occurs. It is clean. Only 2 bedding planes occur in this section both are infilled with calcite. | | |
| 75' | 89' | | | | | sst. | med. | fgr. | 40 | | At 81' the bedding steepens to 28° to c.a. Bedding joints are clean and 4 occur at 81'. At 85' and 83' - 8° joint, both have calcite infilling. At 82.5' there is a 28° joint, calcite infilled. | | |
| 75' | 89' | | | | | sst. | med. | fgr. | 28 | broken | Fracture at 50° to c.a. at 87' approximately 3" of core is crumbled. | | |
| 89' | 98' | | | | | slt. | dk. | | 48° | broken | 89'-91' very broken. The 8° joint runs through this section. Many surfaces are highly polished. Most pieces are smaller than 1" in diamter. | | |
| | | | | | | | | | | | 91 - 96' - 2 parallel joints occur 8" apart running 64° to c.a. These joints are polished and continuous. | | |
| | | | | | | | | | | | 96' - 98' - this section is badly broken, no core is larger than a quarter ^{inch} in diameter. Fossils are abundant. | | |
| 98' | 161' | 158.1 | 169.9 | 48.2 | 51.8 | sst. | lgt. | fgr/med | 53° | broken | 98' - 101' - section is intact with 10 discontinuous calcite infilled joints, these joints are healed. When broken with hammer polished surfaces are depicted. 9 bedding joints from 101' to 108'. Cross-bedding occurs and some interbedding of fgr. sst. with mgr. sst. wavy. cont... | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-----|----------|-------|----------|------|------------------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 11/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 98 | 161 | | | | | sst. | lt. | fgr/med | 53° | broken | Cont.... 108-130' - undulating bedding, dker sst., is interbedded with lighter and coarser grained sst. smooth, clean and polished bedding joints are every 5" apart. 45 bedding joints occur (108' - 130'). At 139' there is a 44° to c.a. joint. It contains calcite infilling and crosses the bedding plane. 139.5' - 8° joint. clean. From 138' - 148' there are 15 continuous healed calcite infilled joints. They are 44° to c.a. From 145' - 148' - 8 bedding joints 60° to c.a. 148' - 159' approx. 4 bedding joints per foot. 2 - 8° to c.a. joints at 158' and 152'. | |
| 159 | 163 | | | | | shale | dk | - | 53 | broken | 159' - 163' - many plant impressions 162' there is a 8° joint (clean). This section is fissile and badly broken (only one piece over 4"). | |
| 163 | 193 | 171.3 | 194.2 | 52.7 | 59.2 | coal | dk. | - | - | broken | Very broken, no joints visible. Small partings of mudstone are present. 12 pieces are over 4" in length. <i>p. R11?</i> | |
| 193 | 200 | | | | | slt. | dk. | - | - | intact | 193' - 195' highly broken with polished surfaces not all core is recovered. 195' - 198' fossils present throughout, and carbonaceous infilling. 8° joint at 199' (clean and continuous). | |
| 200 | 206 | | | | | slt | dk. | - | 53 | broken | Very broken appears to be one 8° to c.a. joint running from 204' to 206', this surface is polished, carbonaceous infilling is also common in broken section. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|-------------------|----------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: E.M.D. | | | |
| Date: JUNE 14/82 | | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 206' | 207' | | | | | Coal | Dk. | - | - | broken | Clean coal and very broken. One 4" section in middle that is mudstone. | |
| 207 | 227 | | | | | sst. | dk. | | 47° | broken | From 207' to 213' joints occur every 4" approx. At 209' there is a 28° joint. It is polished and has carbonaceous infilling. At 211' and 212.5' there are 38° joints (also carbonaceously infilled) at 211.5' there is a joint at 28° to c.a. (same as last joint). Bedding joints are also infilled with carbonaceous material. From 217' to 219' - carbonaceous shale, it is very finely broken and joints and fractures are not clearly visible. 219' - 227' breaks occur every 6". Fractures occur at 221', 222.5' and 224'. At 222' there is a carbonaceous infilled joint at 22° to c.a. Small carbonaceous lenticles are also found throughout. | |
| 227 | 275 | | | | | sst. | med. | fgr. | 53 | broken | At 243', core bedding angle is 53°. At 273' core bedding angle is 45°. At 238' core bedding angle is 57°. At 229' and 230' a calcite infilled joint is at 41° to c.a. Bedding joints are approx. 1' apart. 235' - 245' there is fgr. sst. and mgr. sst. interbedding, undulating and cross-bedding is very visible. 231' there is a 28° to c.a. joint. It has iron staining. At 249' there is a clean joint at 41° to c.a. From 248' to 275' the core remains intact except for bedding joints or joints every 1.5'. At 259' there is a joint at 16° to c.a. (at 262' also) | |

Cont.....

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|-------------------|------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: E.M.D. | Date: JUNE 14/82 | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|-------|----------|------|-----------|-------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 227' | 275' | | | | | sst. | med. | fgr. | 53° | broken | Cont.... 2 joints 3" apart occur at 256' and are 55° to c.a. From 255' to 258' there is continuous and discontinuous calcite infilling along healed bedding joints. 262' cross-bedding is a very dominant feature. At 276' and 274' a clean 8° to c.a. joint occurs. At 272' there is a 38° joint (calcite infilled) and continuous. At 270' there is a 16° fracture (clean) | |
| 275 | 289 | | | | | slt. | med. | - | 57° | broken | 275' to 281' core remains intact, except for 8° joint at 276'. At 281' the 8° joint reoccurs and runs for 1.5' leaving core very broken. The 8° joint reoccurs at 287'. At 284' 2 parallel sets of 8° joints occur about 5" apart. At 286' bedding joints are clean. 2 occur 1" apart. | |
| 289 | 298 | 288.7 | 296.9 | 88.0 | 90.5 | coal | dk. | - | | broken | Clean coal and broken every 2 to 3". R9 | |
| 298 | 327 | | | | | slt. | med. | - | 56° | broken | 298' to 305' core is broken every 3" (bedding joints.) 3 coal lenticles approx 1/2" wide occur around 303' to 304'. These are parallel to bedding joints. 305' - 309' core is quite massive and not broken. 309' - 318' - bedding joints occur every 4". At 315' there is an 8° to c.a. joint. This reoccurs at 320' and 322'. 318' - 327' bedding joints at 70° to c.a. (all are clean and continuous). At 310' there is one 40° joint infilled with carbonaceous material. Pyrite crystals at 315'. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|------|----------|----|----------|----|------------------|-------|------------|------------------------|---------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 14/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 327' | 348' | | | | | sst. | lt. | mgr. | 56° | broken | 59° is the bedding angle at 340'. 56° is the bedding angle at 346'. Cross-bedding is visible throughout section. From 330' to 342' no joints are present At 343' two parallel joints occur at 44° to c.a. They are clean and continuous. At 344' and 348' there is a 16° joint. (both have polished surfaces). At 347' a 8° joint occurs, this is clean. At 350' this 8° joint reoccurs. From 346' - 348' (where 8° jt. occurs) the core is broken every 2". | |
| 348' | 378' | | | | | slt. | med. | - | 47 | broken | The 8° c.a. joint occurs at 349', 353', 354', 359', 362', and 364', there is more than one set present. At each 8° joint the core is broken into 2" pieces. This section normally is less than one foot long. A 1' wide band of sst. occurs at 362'. Cross-bedding occurs in this foot. A 16° to c.a. joint occurs at 367'. Core bedding angle changes to 55° to c.a. axis at 373'. From 367' to 378' bedding joints occur every 8". They are polished and contain carbonaceous material. | |
| 378 | 447 | | | | | sst. | med. | fgr. | 57° | broken/intact | 378' - 382' - quite massive and unbroken. 382' - 393' - bedding joints occur every 6" approx. They are infilled with carbonaceous material. 8° joints occur at 386'. At 388' a 8° joint starts, it runs through the core to 391', at 392' a second parallel 8° joint starts (clean joints). At 393' a 16° joint (clean and continuous). | |

Cont....

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|------|----------|----|----------|----|------------------|-------|------------|------------------------|----------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 14/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 378' | 447' | | | | | sst. | med. | fgr. | 57° | broken/intact. | Cont.... From 393' - 419' bedding joints occur every 2 feet. At 398' there is a calcite infilled joint at 18° to c.a.. It is also polished. From 397' - 407' cross-bedding is more easily seen. @ 405' the bedding angle is 47°. 419' -421' - runs on 8° joint. (calcite infilled). 425' to 428' there is a 8° joint. It continues from 428' to 433'. This joint is clean. 433' - 448'. This section is intact until 440'. A calcite infilled joint occurs at 441' at 22° to c.a. A discontinuous joint occurs at 443'. It has carbonaceous infilling and is 8° to c.a. Cross-bedding is again visible after 438'. From 443' - 447' clean bedding joints occur approx. every 8". At 445' there is a joint at 35° to c.a. | |
| 447 | 490 | | | | | sst. | lt. | cgr. | 47° | broken | At 449' and 448' there are 6" bands of siltsone. Surfaces of contact may indicate over bank deposits. From 448' to 449' there are 5 bedding joints. At 450' the bedding angle is 53° to c.a. At 453' there is a 22° to c.a. joint. It is clean. At 451' there is a 16° to c.a. joint. It is infilled with calcite, undulating bedding is also present between fgr. and cgr. sst. 5 joints occur from 456' to 458' at 30°. 4 sets of 22° to c.a. joints occur from 452' to 454'. At 458' there is an 8° to c.a. joint. At 466' there is a 22° to c.a. joint. At 466.5° this joint reoccurs. (2 sets). | |

Cont.....

1705

7

29

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|------|----------|-------|----------|-------|------------------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 14/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 447' | 490' | | | | | sst. | lt. | cgr. | 47° | broken | Cont... At 468' the 16° joint is clean. From 468' - 490' no bedding joints. Well indurated. At 469' a parallel pair of joints at 42° to c.a. occur. They are clean and continuous. At 473' a joint occurs at 28° to c.a. (clean also). At 476' a parallel pair of 26° to c.a. joints. These joints contain carbonaceous infilling. From 477' to 478' the core is broken every 1". Joints at 16° to c.a. occur at 479', 480, 481', 483', and 483.5'. They are all clean. At 486' there are small pockets of carbonaceous infilling. 22° to c.a. joints occur at 289' and 287'. They are infilled with carbonaceous material. 489' - 488' the core is broken to pieces smaller than one inch. Around 480' the bedding angle is 53° to c.a. | |
| 490 | 496 | | | | | mst. | dk. | - | - | broken | 491' - 492' core is very broken due to the presence of coal. A joint occurs at 42° to c.a. at 495' breaks occur every 5" in these 6 feet. | |
| 496 | 501 | 495.4 | 502.3 | 151.0 | 153.1 | coal | dk. | - | 53° | broken | Fairly well intact for coal. Bedding joints occur every 2". Clean and shiny. | |
| 501 | 506 | | | | | mst. | dk. | - | 53° | broken | This is very carbonaceous shale and mudstone. There is an 8° to c.a. joint at 505', this has carbonaceous infilling. Bedding joints occur every 3" and there is a great deal of carbonaceous infilling. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|------|----------|-------|----------|-------|------------------|-------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 14/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 506' | 508' | | | | | coal | dk. | - | 53° | broken | This coal has small partings of mst. | |
| 508' | 510' | | | | | slt. | dk. | - | 53° | broken | Only broken at 2 bedding joints that have carbonaceous infilling. | |
| 510' | 523' | | | | | sst. | med. | - | 40 | intact | The only breaks are at 523'. This joint is 58° to c.a. This section is well indurated, and undulating bedding is present. | |
| 523 | 527 | | | | | slt. | dk. | - | 47 | intact | Well intact and only one bedding joint present (clean). | |
| 527 | 532 | | | | | mst. | dk. | - | | broken | This is a carbonaceous shale and mudstone. It is very broken and surfaces are polished and infilled with carbonaceous material. | |
| 532 | 538 | | | | | slt. | med. | - | 47 | intact | 534' there is an 8° to c.a. joint. It is clean. | |
| 538 | 545 | | | | | sst. | lt. | mgr. | 47 | intact | At 541' there is a 8° and 51° to c.a. joint. Both are clean. Undulating and cross-bedding present. Interbedding of mgr. & fgr. sst. also occurs. At 544' a 38° to c.a. joint, at 545' an 8° to c.a. joint, at 8° joint the core is ^{very} broken. Other than this the section is intact and well indurated. | |
| 545 | 548 | | | | | mst. | dk. | - | - | broken | Carbonaceous mst. Very broken - 8° to c.a. joint present and infilled with carbonaceous material. | |
| 548 | 578 | 548.5 | 581.0 | 167.2 | 177.1 | coal | dk. | - | - | broken | 20 pieces of coal longer than 4". Very shiny and clean. R7 | |
| 578 | 584 | | | | | mst. | dk. | - | - | broken | Carbonaceous mst., breaks occur every 5". All surfaces are polished. | |
| 584 | 587 | | | | | slt. | med. | | 48 | broken | 3 breaks in this 3 foot area, driller induced and polished surfaces. | |
| 587 | 602 | | | | | sst. | med. | fgr. | 57 | intact | Clean and polished bedding joints every 6" throughout. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|------|----------|----|----------|----|------------------|-------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 15/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 602' | 611' | | | | | slt. | dk. | - | - | broken | At 604' there is an 8° to c.a. joint and parallel joint is also at 606'. Both are carbonaceously infilled which causes crumbling of core. Fractures occur every 6" to 7" within this section. Plant impressions are also visible. | |
| 611 | 614 | | | | | sst. | med. | fgr/mgr | - | broken | Cross-bedding visible. Fractures occur every 8" and contain carbonaceous material. | |
| 614 | 617 | | | | | mst. | dk. | - | 57 | broken | 3 carbonaceous infilled joints occur within this footage (61° to c.a.). | |
| 617 | 635 | | | | | slt. | med. | - | 57 | broken | 618' - 621' there are 9 bedding joints, all are infilled with carbonaceous material. (56° to c.a.) At 621' there is an 8° joint. This too has carbonaceous infilling. 627' to 628' - 5 breaks, all have carbonaceous infilling. 629' there are 6 bedding joints within 5". They contain thin carbonaceous bands. | |
| 635 | 669 | | | | | sst. | med. | fgr. | 57 | broken | Large amount of plant impressions. Fractures occur every 1.5' till 658'. Bedding joints are infilled with carbonaceous material. From 658' to 669' bedding joints every 6" at 57° to c.a. At 660' there is one 16° to c.a. joint, it is infilled with carbonaceous material. | |
| 669 | 674 | | | | | mst. | dk. | - | - | broken | Very broken. 670-672' runs on 8° joint. Throughout this section is carbonaceous infilling. No piece is bigger than 2" long. 672' - 674' a smaller 8° joint occurs, many fossils infilled with coal. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective:

Logged By: E.M.D.

Date: JUNE 15/82

LATITUDE

DEPARTURE

ELEVATION

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 674 | 680 | | | | | slt. | med. | - | 57° | broken | At 679' one joint at 62° to c.a. It is clean. Bedding joints are polished and occur every 5" throughout this footage. | |
| 680 | 697 | | | | | sst. | lt. | cgr. fgr. | 57° | broken | One 8° joint at 676' it causes approx. 1' to be very broken. Cross-bedding and some undulating bedding planes. Cgr. and mgr. sst. is interbedded until around 692' where it becomes fgr. sst. From 680' to 686' bedding joints occur every 2'. They are infilled with carbonaceous material. At 685' there is a joint at 34° to c.a., polished continuous with carbonaceous infilling. From 686' to 697' breaks occur every 8". At 695' a joint occurs at 14° to c.a. At 698' a joint occurs at 14° to c.a. Both have clean surfaces. | |
| 697 | 717 | | | | | slt. | med. | - | 57 | broken | At 699' there is a 36° to c.a. joint, (clean) 6 bedding joints within this foot leaves core very broken, all surfaces are polished and infilled with carbonaceous material. From 699' to 707' - 4 bedding joints at 18° to c.a. At 706' and 710' both are clean and continuous. At 710.5' the 18° joint reoccurs. From 710.5' to 717' bedding joints occur every 7". | |
| 717 | 718 | | | | | mst. | dk. | - | - | broken | Many plant impressions and coal interbedding. A 8° joint also runs through this foot. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|-------------------|------|----------|----|----------|----|------------------|-------|--------------|------------------------|-------------|---|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 15/82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 718' | 730' | | | | | sst. | lt. | fgr. mgr. | 57° | broken | At 725' one joint at 38° to c.a. calcite infilled. At 726' one joint at 8° to c.a. calcite infilled. Gradually the lithology changes from a fgr. to a med. grain sst. Mgr. and fgr. sst. interbedding, cross-bedding also. 8 bedding joints in the last 5 feet (725' - 730'). | | |
| 730 | 746 | | | | | sst. | med. | mgr. fgr. | 54 | broken | 730' - 733' - cgr. sst. with undulating and cross-bedding. Pockets of carb. infilling throughout. 8° joint infilled with carb. at 733'. Darker and finer grained sst. from 733' to 746'. Bedding joints about 1.5' apart from 733' to 746'. 739' joint at 24° to c.a. It has a polished surface and carbonaceous infilling. At 741' - 8° joint leaves 1' of core very broken. | | |
| 746 | 781 | | | | | sst. | med. | - | 57° | broken | At 746' - 8° joint causing 1.5' to be very broken (clean). At 750.5' - 16° joint, clean and continuous. Cross-bedding visible at 751'. 749' - 756' generally well intact. 756' - an 8° joint runs for 1' leaving core very broken. 8° joints at 756', 760' and 765'. (all clean). At 767' - a 26° joint (clean). At 767.5' - a 30° joint (clean). A 16° joint at 760.5' (clean and rough). From 758' and 760' - core is very broken - most surfaces contain layers of coal 1/4" thick. 30° joints at 769 and 771'. Section from 771' to 774' completely intact. 775 - 776' - core is broken to pieces smaller than 1" wide. | | |

Cont.....

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

Logged By: E.M.D.

Date: JUNE 16/82

LATITUDE

DEPARTURE

ELEVATION

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 746' | 781' | | | | | slt. | med. | - | 57° | broken | Cont.... 776' - 781' - bedding joints every 6". All are polished and carb. infilled. | |
| 781' | 811' | | | | | sst. | med. | fg. | 57° | broken | Until 794' sst. is cgr./mgr. sst., then sst. becomes much finer until 811' where it is close to slt. Cross-bedding is most noticeable in cgr./mgr. sst. but is also present in fgr. sst. 800' has a bedding angle of 47°. From 781' - 789' - bedding joints occur every 1.5'. All joints are clean. An 8° joint at 794'. It's clean and discontinuous. At 795.5' a 25° joint with slight calcite infilling. Undulating bedding joint at 804' 45° to c.a. 807' - 16° joint, clean and continuous. Plant impressions are now visible. 810' there is a clean 8° joint. 2 breaks at 811' indicate calcite healed bedding planes. | |
| 811' | 822' | | | | | est. | lt. | fg. | 57° | broken | This section is quite brittle. Breaks occur every 6" from 811' - 822'. 5 breaks before 813 - are bedding planes. They are polished & contain carb. material. Cross-bedding is visible from 817' - 819'. At 817' there is a joint at 24° to c.a. It is calcite infilled and rough. At 819' a similar joint (like 817') occurs. 823' - 8° joint, Clean surface, leaves ~ 1.5' very broken. 825' - 8° joint. Clean surface, carbonaceous infilling (¼" thick) from 825' to 826'. | |
| 822' | 825' | | | | | slt. | med. | - | 53° | broken | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---|--------|----------|----|----------|----|-----------|-------|------------|------------------------|-----------------|--|--|
| Logged By: E.M.D. Date: JUNE 17/82 | | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 825' | 826.5' | | | | | shale | dk. | - | 53° | broken | 826' - joint at 34° to c.a. It has polished surfaces. This section is fissile and carbonaceous. 3 bedding joints within 1.5'. | |
| 826.5' | 836' | | | | | slt. | med. | - | 53° | broken | 830' - 8° joint with carbonaceous infilling. 826'-829' intact. Around 835' bedding angle is 50° to c.a. At 826' - 8° joint leaves core broken for 1'. At 830' - 21° joint, clean and discontinuous. Most broken surfaces are highly polished. | |
| 836' | 896' | | | | | sst. | med. | fgr. | 45° | broken - intact | 836' - 846' - 3 bedding joints (clean). Otherwise intact and well indurated. At 851' and 852' - clean 8° joints. 846' - 850' - 6 fractures, clean and at 82° to c.a. 850' - 857' - 8° joint at 855'. It has a ½" carbonaceous infilling. At 857' clean 8° joint. Otherwise 850' - 857' is intact and well indurated. Small (thin) interbedding of fgr. sst. and mgr. sst. Cross-bedding also visible. 856' - 864' - no piece over 6" in length. Most bedding joints have thick carbonaceous infilling. At 862' - 864' - one clean and slightly polished 8° joint. At 865' - another clean 8° joint. 865' - 868' - intact, mgr. sst. and well indurated. Cross-bedding and undulating bedding planes visible. 871' and 871.5' - clean continuous 8° joints. 3 bedding joints 1.5" apart (clean) at 45° to c.a. and at 875'. At 877' bedding angle is 53°. Bedding angle is 53° till 896'. 875' - 881' - intact save 2 clean bedding joints (53°). At 881' - clean 8° joint. | |

Cont....

P/C

Diamond Drill Geological Log

FORDING RIVER

Objective: _____

Logged By: E.N.D. Date: JUNE 17/42

LATITUDE: _____ DEPARTURE: _____ ELEVATION: _____

| Core | Fed. Log | | Area | Total Depth | Core Status | Additional Information |
|------|----------|--------|-----------|-------------|-------------|------------------------|
| | (M) | (F) | | | | |
| From | To | Meters | Lithology | Color | Grain Size | Core Bedding |
| 9 | | | shale | dk. | 37" | broken |
| | | | slt. | red | 33" | broken |
| 83a | 891 | | slt. | red | 15" | broken |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: E.M.D. Date: JUNE 17/82

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|-----------|-------|------------|------------------------|-----------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| From | To | From | To | From | To | | | | | | | |
| 836' | 896' | | | | | sst. | med. | fgr. | 45° | broken - intact | Cont... | |
| | | | | | | | | | | | 881' - 888' - intact save 1 polished bedding joint. | |
| | | | | | | | | | | | At 888' and 889' - one parallel set of 16° to c.a. joints. | |
| | | | | | | | | | | | They have calcite on surfaces. Bedding joints occur every | |
| | | | | | | | | | | | 1', from 889' to 896' they have calcite infilling. At 895' | |
| | | | | | | | | | | | there is a joint at 11° to c.a. It is clean. | |
| 896' | 979' | | | | | sst. | med. | fgr-cgr | 53 | broken | 896' - 899' - very fgr. sst. 895.5' - 896' - all pieces are | |
| | | | | | | | | | | | smaller than 1" wide. At 897' one 27° joint. It has carb. | |
| | | | | | | | | | | | infilling. At 898' - 16° joint (clean). From 899' - 903' | |
| | | | | | | | | | | | thin interbedding of fgr. and lighter mgr. sst. cross-bedding | |
| | | | | | | | | | | | is visible and some bedding is undulating. At 899' - 8° joint | |
| | | | | | | | | | | | it is clean but some calcite infilling bisected the joint. | |
| | | | | | | | | | | | 903' - 914' - sst. is darker and fgr. At 904' a clean joint | |
| | | | | | | | | | | | at 20° to c.a. From 906' - 909' bedding joints occur every | |
| | | | | | | | | | | | 3". They are polished with both calcite and carb. infilling. | |
| | | | | | | | | | | | Some carb. lenticles are also here. 909' - 914' - fractures | |
| | | | | | | | | | | | (clean) every 6". At 914" - one 20° joint, calcite infilling | |
| | | | | | | | | | | | present. 914' - 918' - mgr. sst. cross-bedding. At 915' and | |
| | | | | | | | | | | | 916' - a pair of parallel joints at 16° to c.a. (calcite | |
| | | | | | | | | | | | infilled). @917' - 8° joint with carb. infilling. 917' - | |
| | | | | | | | | | | | 921' core intact. At 921' - a clean joint at 8° to c.a. | |
| | | | | | | | | | | | 921' - 935' fractures or bedding joints every 9". At 925' - | |
| | | | | | | | | | | | calcite infilled joint at 22° to c.a. Cont.... | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|-------------------|------|----------|----|----------|----|------------------|-------|-------------|------------------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 18/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information Cont.... |
| From | To | From | To | From | To | | | | | | |
| 896' | 979' | | | | | sst. | med. | fgr-cgr | 53° | broken | At 926' core bedding angle is 48° to c.a. At 927' the parallel set of joints at 22° to c.a. 935' - 396' calcite infilled joint at 8° to c.a. Pyrite crystals present. 939' - 941' - a parallel set of joints at 30° to c.a. Calcite infilled. At 944' a calcite infilled joint at 8° to c.a. Interbedding of mgr. and cgr. sst. From 946' - 956' 6 bedding joints, all are polished and infilled with carb. 951' - 956' sst. is cgr. 951' - 953' calcite crystals. At 957' a calcite infilled joint at 26° to c.a. 956' a calcite and carb. infilled joint at 8° to c.a. Part is highly polished. 956' - 979' core is mgr. sst. Despite fractures core is well indurated. At 963' a calcite infilled joint at 20° to c.a. At 965' a calcite infilled joint at 25° to c.a. 966' - 979' breaks occur every 6" to 7". At 974' - 5 discontinuous joints of calcite. They are healed and are all within 1/2". At 965' a calcite infilled joint at 25° to c.a. |
| | | | | | | | | mgr. | 47 | | 969' - 25° to c.a. infilled with calcite and continuous. 969.5 - 16° to c.a. 970' - 8° to c.a. Both are infilled with calcite and are continuous. At 976' - 8° joint. It is polished with carb. infilling. At 979' a joint at 25° to c.a. It has calcite infilling. |
| 979 | 1020 | | | | | sst. | med. | mgr. | 49 | broken | mgr. sst. until 1009' where sst. becomes finer grained and becomes darker in colour. Section is well indurated Cont.... |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-------|----------|--------|----------|-------|------------------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 18/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 979' | 1020' | | | | | sst. | med. | mgr. | 49° | broken | Cont... Cross-bedding throughout. At 981' one calcite healed joint at 27° to c.a. 984' calcite infilled joint at 23° to c.a. 984' calcite infilled joint at 23° to c.a. 988' calcite infilled joint at 14° to c.a. 995' clean 8° joint. Other than 4 joints in section (979'-1005') there are only 15 bedding joints. At 1005' calcite infilled joint at 36° to c.a. (parallel set 1" apart). At 1008' calcite infilled joint at 36° to c.a. At 1001' healed calcite joint at 25° to c.a. 1015' 8° joint. 2 - 8° joints at 1019.5' - 1020' (calcite healed) and with polished surfaces. | |
| 1020 | 1028 | | | | | sst. | med. | fgr. | 47° | broken | Core is now fgr. sst. Cross-bedding is still visible but core is much darker. Bedding joints occur every 6" and are infilled with carbonaceous material. Most surfaces are also polished. | |
| 1028 | 1048 | | | | | slt. | med. | - | 47° | broken | At 1037' one calcite infilled joint at 14° to c.a. Bedding joints every 1'. Generally intact and well indurated. 1043' calcite infilled joint at 24° to c.a. (continuous). | |
| 1048 | 1052 | | | | | mst. | dk. | - | - | broken | 1051 - 1048' breaks occur every 4". All have carbonaceous infilling and are polished. 1051' - 1052' very crumbled and contains small interbeddings of coal. | |
| 1052 | 1054 | 1052.2 | 1056.4 | 320.7 | 322.0 | coal | dk. | - | - | broken | 1052' - 1054' shiny and clean coal. ptR5u | |
| 1054 | 1057 | | | | | mst. | dk. | - | - | broken | 8° joint running from 1045' to 1055' - is infilled slightly with carbonaceous materials. Bedding joints every 4". All have carbonaceous infilling and are polished. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-------|----------|--------|----------|-------|------------------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 22/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1057' | 1075' | 1065.0 | 1068.6 | 324.2 | 325.7 | slt. | med. | - | 54° | broken | At 1065' and 1065.5' there is a pair of 12° joints. They are polished and infilled with carbonaceous material. | |
| | | | | | | | | | 47 | | 1066' - 1075' no piece over 4" long. 1069' carb. infilled joint at 24° to c.a. Bedding joints are all polished and carb. infilled. | |
| 1075 | 1076 | 1074.5 | 1086.9 | 327.5 | 331.3 | coal | dk. | - | | broken | Clean and shiny and very broken. A 3" mst. band around 1075.5. R 5L | |
| 1076 | 1093 | | | | | mst. | dk. | - | 55 | broken | Breaks occur every 4". All fractures are infilled with carbonaceous material. Small coal lenticles throughout. 8° joints are at 1079', 1081', and 1086'. These joints tend to run 1' through core at each footage indicated. At 1090.5 one coal band 3" thick. This is very crumbled. Section is carbonaceous mudstone. Some plant impressions visible. | |
| 1093 | 1101 | | | | | slt. | med. | - | 47 | broken | Bedding joints occur every 5". Core is quite brittle and contains small carbonaceous lenticles. Bedding joints are polished and infilled with carbonaceous material. At 1100' clean joint at 8° to c.a. | |
| 1101 | 1107 | | | | | sst. | med. | fgr. | 48 | broken | 1101.5' calcite infilled joint at 12° to c.a. Section shows cross-bedding. Core bedding angle is 48° but in areas goes up to 60° to c.a. 1112' one 8° joint runs from 1110' to 1112. It is clean but shows polished surfaces. | |
| 1107 | 1112 | | | | | slt. | med. | - | 48 | broken | Siltstone is between 2 fgr. sst. sections and is darker than the sst. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | | LATITUDE | | | DEPARTURE | | | ELEVATION | | | | |
|-------------------|-------|----------|--------|----------|-------|-----------|------------------|------------|------------------------|-------------|---|--|-----------|--|--|--|--|
| Logged By: E.M.D. | | | | | | | Date: JUNE 22/82 | | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | | | |
| From | To | From | To | From | To | | | | | | | | | | | | |
| 1112' | 1130' | | | | | sst. | med. | fgr. | 47° | broken | 1112' - 1117' bedding joints every 6", surfaces are polished. 1117' - 1130' bedding joints every 1'. At 1127' an 8" band of sst. (mgr.) much lighter in colour. | | | | | | |
| 1130 | 1138 | | | | | slt. | med. | - | 47° | broken | 1132' - clean, 8° joint. Also at 1135' (clean also). 1135' - 1138' carbonaceous lenticles throughout. Only 2 fractures in 3'. | | | | | | |
| 1138 | 1156 | 1140.1 | 1158.8 | 347.5 | 353.2 | coal | dk. | - | - | broken | Shiny and clean coal. 10 pieces of coal over 4". At 1154' <i>R4u</i> one 8° joint. | | | | | | |
| 1156 | 1158 | | | | | sst. | med. | fgr. | 49 | broken | At 1157' polished carbonaceous infilled joint at 36° to c.a. 1156' - 1157' carbonaceous lenticles. Bedding joints 6" apart and polished. Carb. infilling. | | | | | | |
| 1158' | 1163' | | | | | sst. | med. | fgr. | 47 | broken | 1163' - 1158' fgr. sst. with thin interbedding of mgr. sst. 10 bedding joints within footage, polished surfaces. At 1159' one joint at 22° to c.a. with calcite infilling. Plant impressions through out. At 1159.5 one joint at 14° to c.a. with polished surface. | | | | | | |
| 1163 | 1170 | | | | | slt. | med. | - | 45° | broken | At 1165' joint at 33° to c.a.. Polished surface. Cross-bedding visible and undulating bedding. Bedding joints every 6". 3 calcite healed bedding joints. | | | | | | |
| 1170 | 1205 | | | | | sst. | med. | fgr. | 45 | broken | At 1169' a clean 8° joint. Some polishing. At 1177' - calcite infilling. Sst. is fine grained but is interbedded with lighter mgr. sst. At 1175' a highly polished joint at 51° to c.a. At 1179' a parallel pair of 50° joints. Cont.... | | | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------|-------|----------|----|----------|----|------------|--------|------------|------------------------|-------------|--|--|
| E.M.D. | | | | | | JUNE 22/82 | | | | | | |
| Logged By: | | | | | | Date: | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1170' | 1205' | | | | | sst. | med. | fgr. | 45° | broken | Cont... Both have carbonaceous infilling and polished. From 1179' to 1187' core is well indurated and contains thicker mgr. sst. interbeds. At 1185' one calcite healed joint at 20° to c.a. At 1187' one carbonaceous infilled joint at 45° to c.a. 2 small carbonaceous lenticles at 1187', 1195' and 1196.5' 8 joints, polished with slight calcite infilling. Plant impression still common throughout. From 1197' - 1205' - only 5 bedding joints, most have carbonaceous infilling. | |
| 1205 | 1207 | | | | | sst. | med/dk | - | 50 | broken | 2 - 8° joints within 2', Bedding joints every 4". First 8° is calcite infilled, 2nd has a polished surface only. | |
| 1207 | 1229 | | | | | sst. | med. | fgr. | 50 | intact | 1209' - joint at 35° to c.a. (polished). At 1207.5' bedding joint healed with calcite. Undulating cross-bedding and interbedding of fgr. and mgr. Sst. at 1209'. 1207'-1217' - 5 bedding planes (joints) all clean, and polished. | |
| 1207 | 1229 | | | | | sst. | med. | fgr. | 54 | broken | 1218' joint at 26° to c.a. carbonaceous infilling. At 1218.5' fracture at 48° to c.a. Fe staining and carbonaceous infilling. 1221'-1221.5' mgr. sst. band. 1221.5'-1222.5' - clean 8° joint. 1227' ^{THREE} bedding joints, all with polished surfaces. 1228' one 8° joint, clean. | |
| 1229 | 1237 | | | | | sst. | lt. | mgr. | 55 | intact | 1229'-1236' interbedding of fgr. and mgr. sst. mgr. sst. has now become dominant. Core intact and well indurated. One calcite infilled bedding joint at 1233'. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-------|----------|--------|----------|-------|------------------|-------|------------|------------------------|---------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 22/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1237' | 1266' | | | | | sst. | med. | fgr. | 55° | broken | At 1238' one joint at 43° to c.a. It is well polished with calcite infilling. Intact from 1238' - 1242'. At 1242' calcite infilled joint at 16° to c.a. 1243'-1247' intact save one polished calcite infilled bedding joint. 1247' clean pair of 16° joints 1" apart. 1249' calcite infilled joint at 25° to c.a. 1252' one 8° joint (clean). Cross-bedding from 1249' - 1257'. 1253'-1262' - 7 bedding joints (all clean but polished). | |
| | | | | | | | | | | broken/intact | 1262'-1266' intact yet brittle. 1266' off-set bedding, possibly due to slumpage. At 1260' polished joint at 40° to c.a. At 1266.5'-53° joint crossing bedding plane. Calcite infilled and polished. | |
| 1266 | 1280 | | | | | slt. | dk. | - | 53 | broken | 1266'-1272' - bedding joints every 6". 1272' - 1272.5' bedding joints every 1". Surfaces are polished. 1272.5'-1273' - rumble. 1273-1274 - 4" pieces, all polished. 1274'-1280' - very broken, no piece over 4". Most surfaces polished with some carbonaceous and calcite infilling. | |
| 1280 | 1282 | 1281.8 | 1284.1 | 390.7 | 391.4 | coal | dk. | - | - | broken | Totally crumbled. 2-3" siltstone interbeddings. Clean and shiny coal. | |
| 1282 | 1285 | | | | | slt. | dk. | - | 53 | broken | At 1283' - 2 parallel 8° joints, clean and about 1" apart. 2 other bedding joints. | |
| 1285 | 1287 | | | | | coal | dk. | - | - | broken | 2 pieces over 4". Clean and shiny coal. rest crumbled. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|-------------------|---------|----------|--------|----------|-------|------------------|--------|------------|------------------------|-------------|---|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 22/82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 1287' | 1290.5' | | | | | slt. | med. | - | 53° | broken | 8 bedding joints with polished surfaces, some calcite infilling. 1289' - 2 parallel 8° joints 1" apart. | | |
| 1290.5 | 1307 | 1292.0 | 1307.1 | 271.8 | 378.6 | coal | dk. | - | - | broken | 1290.5-1294' - no pieces over 2". 1294'-1307' - coal is over 4" but no larger than 6". Very fragile. Coal is shiny and clean. | | |
| 1307 | 1310 | | | | | slt. | med. | - | 55 | broken | 4 bedding joints, polished with some calcite infilling. | | |
| 1310 | 1312 | | | | | slt. | med. | - | 55 | broken | Many fossils present. Coal lenticles throughout with 5" of coal just before 1312'. | | |
| 1312 | 1330 | | | | | sst. | lt. | fgr. | 54 | broken | 1312' - clean 8° joint. 5 joints from 1312'-1322'. 4 calcite healed joints at 1316', 1317', 1321' and 1321.5'. All are 24° to c.a. At 1322 and 1323.5' - clean 8° joints. From 1327'-1330' - 3 polished bedding joints. Very well indurated section. | | |
| 1330 | 1336 | | | | | slt. | med/dk | - | 50-55° | broken | 10 bedding joints, half are polished and contain carbonaceous infilling. At 1334' - a carbonaceously infilled joint at 8° to c.a. There are thin carbonaceous lenticles throughout. At 1336' - a polished joint at 9° to c.a. | | |
| 1336 | 1374 | | | | | sst. | med. | fgr. | 53 | broken | From 1336-1357' - core is intact except for 3 breaks and one joint at 1347' at 24° to c.a. It is infilled with calcite. This section is very fine grained, grain size gradually increases to mgr. at 1374'. 1354' and 1353' - a parallel set of calcite infilled joints at 16° to c.a. Otherwise intact and well indurated until 1360'. Cont.... | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------|-------|----------|----|----------|----|------------|--------|------------|------------------------|-------------|---|--|
| Logged By: | | E.M.D. | | Date: | | JUNE 22/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1336' | 1374' | | | | | sst. | med. | fgr. | 53° | broken | Cont.. At 1360' a clean joint at 24° to c.a. 1365' and 1365.5' - a pair of parallel calcite infilled joints at 52° to c.a. (this crosses the bedding plane). 4 calcite healed discontinuous joints from 1365' to 1365.5'. Cross-bedding is now visible. Interbedding of fgr. and mgr. sst. begins at 1365'. | |
| | | | | | | | | | | | 1368-1374' - interbedding of mgr. and fgr. sst., fgr. is more dominant. There are 8 bedding joints all with calcite infilling. 20 discontinuous or continuous joints, generally at 48° to c.a. and opposite to bedding joints. Cross-bedding and undulating bedding present. | |
| 1374 | 1383 | | | | | sst. | med/lt | fgr/mgr | 53 | broken | Interbedding throughout yet mgr. sst. is most dominant. Cross-bedding persists and 10 discontinuous calcite infilled joints (healed). 13 smooth and slightly polished bedding joints, therefore no piece over 5" in length. | |
| 1383 | 1405 | | | | | sst. | lt. | mgr-cgr | 54 | intact | Section is generally intact and very well indurated. Cross-bedding is present. Sst. is mgr-cgr and light in colour. breaks occur 1.5' apart. Calcite infilled joint at 1400' and approx. 42° to c.a. | |
| 1405 | 1407 | | | | | sst. | med. | fgr/cgr | 54 | broken | From 1405'-1407 - mgr.-cgr. sst. interbedded with fgr. sst. 3 bedding joints are rough and infilled with carbonaceous material. There are carbonaceous swirls and pockets throughout these 2'. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|-------------------|------|----------|----|----------|----|------------------|-------|-------------|------------------------|--|---|
| Logged By: E.M.D. | | | | | | Date: JUNE 23/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 1407 | 1414 | | | | | sst. | med. | fgr. | 53° | intact | fgr. sst. that is very well indurated intact and hard. At 1411' one joint at 25° to c.a.. It is polished with carbonaceous infilling. 4 drilling induced fractures. |
| 1414 | 1431 | | | | | sst. | med. | mgr. | 53 | broken | mgr. and fgr. interbedding. mgr. is dominant lithology. No cross-bedding but beds are undulating and rippled. Section 25 bedding joints most are polished. 3 discontinuous 8° joints at 1425', some Fe staining present. At 1428' one 8° calcite infilled joint. From 1426'-1428' - rumble. 1429'-1431' - section is very platy with bedding joints every ½" and infilled with carbonaceous material. |
| 1431 | 1454 | | | | | sst. | lt. | mgr. | 52 | broken | 1431'-1441' - generally intact save 3 bedding joints (all clean) and one calcite infilled joint at 1438' and 32" wrt. c.a. 1441' - 1454' - 14 bedding joints, all smooth and generally polished. At 1447' - one joint at 24° wrt c.a. (clean). Cross-bedding visible. |
| 1454 | 1469 | | | | | sst. | lt. | cgr. | 52 | broken | 1456' - 1457' - band of clean, shiny coal. cgr.sst. on both sides. Bedding joints 1.0' apart (most contain carb. infilling) Cross-bedding visible. Carbonaceous lenticles and pockets scattered 1.5' apart throughout section. |
| 1469 | 1482 | | | | | sst. | lt. | cgr. | 52 | intact | 1471' - 1472' - 15 inches of thinly laminated sst and v fg sst. very irregular, ripply laminations. 1473' - some thin carbonaceous beddings and some mud clasts. 1478' - Irregular fracturing and partially healed joints, possible faulting. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------------------|-------|----------|--------|----------|-------|----------------------|-------|------------|------------------------|-----------------------|--|--|--|
| Logged By: Paul Dudzinski | | | | | | Date: 28 June 82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | DDH 1705 South Eagle | | | | | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| 1482' | 1493' | | | | | slst | dk. | | 53° | stick* to semistick** | Slst. laminated thinly with vfg. sst. <i>OFFSET</i> laminations visible at 1488', some minor healed joints also (8°, c.a.). | | |
| | | | | | | | | | | | 1493' worm burrows. | | |
| 1493 | 1507 | | | | | sst. | lt. | cgr. | 42 | stick to semistick | Mostly cgr. sst. Some sections thinly laminated with dk. slst. 1496' cgr. sst. thinly laminated with dk. slst. | | |
| | | | | | | | | | | | Polished surfaces, core friable at 1498'. 1500' slickensides. | | |
| 1507 | 1510 | 1508.2 | 1512.1 | 459.7 | 461.2 | coal | dk. | | | semi-stick to rubble. | Hard. Bright with some dark bands Polished surfaces. R2 | | |
| 1510 | 1514 | | | | | slst. | dk. | | | rubble. | Dark carbonaceous siltstone. Poor recovery. Fine sst. laminations near end. | | |
| 1514 | 1524 | | | | | sst. | lt. | 45° | | semi-stick | Thinly laminated with dk. slst. | | |
| | | | | | | | | 53 | | | Numerous instances of worm burrows, rip-ups and minor cross-bedding. Also polished surfaces. Some ca-filled joints. | | |
| 1524' | 1536' | 1525.6 | 1531.5 | 465.0 | 466.8 | coal | dk. | | | semi-stick to rubble. | Dirty. Bright and dull. Polished surfaces. Somewhat soft 2 ft. carbonaceous shale split at 1532'. Poor recovery. } R1 | | |
| 1536' | 1538 | 1532.9 | 1536.7 | 467.2 | 468.4 | mst. | dk. | | | semi-stick to rubble. | Grades to slst. near end. Polished surfaces and minor slicks. Some minor ca on joints. | | |
| 1538 | 1546 | | | | | sst. | lt. | cgr. | 53 | semi-stick | Numerous slickensides and polished surfaces on joint. Healed joints contain carbonaceous material. Joints at 8° and 45°. | | |
| 1546 | 1553 | | | | | slst. | dk. | | 53 | semi-stick to rubble. | Approx 75% recovery. 1546'-1548' - rubble, poor recovery, slst. and mst. dk. Cont..... | | |

* STICK ≡ INTACT
 ** SEMI-STICK ≡ BROKEN

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: Paul Dudzinski Date: 28 June 82

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-------|----------|----|----------|----|-----------|------------|----------------|------------------------|----------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1546' | 1553' | | | | | slst. | dk. | | 53° | semi-stick to rubble | Cont.... 1548' - 1553' very fractured zone. Lots of drilling mud. Possible zone of lost circulation. Joint surfaces contain ca, polished surfaces. Joints at 8°, 25°. | |
| 1553' | 1622' | | | | | sst. | lt.to med. | cgr. | 53° | stick to rubble. | 1556'-1563' zone well fractured. Healed joints contain carbonaceous material. Good slickensides, minor polished surfaces. Some joints at 25°, some very irregular. 1563'-1571' - similar to above. Core more intact, some joints filled with ca. Unfilled joints around 1568'. Jointing at 20°, 49°. 1571'-1583' very good recovery. Some minor slicks. 1576' 46° joint. 1581' ca filled joints. 1583'-1600' minor slickensides and polished surfaces. 60° joint at 1585'. Core semi-stick in appearance. 1587' some thin laminations of slst. 40° joint. polished surfaces. 1590' 8° joint. 1599' 25° joints. 1600'-1604' 2 feet of dk. slst. well broken. 1 foot of laminated sst. and dk. slst. 1602' polished surface. 1603' polished surface. | |
| 1622' | 1760' | | | | | sst. | med. | coarse to med. | 50 | stick | 1604'-1622' - very good recovery. Very few breaks. Coarse grain. med. grey. consistent bedding. Medium grey sandstone. Very good recovery. Very few breaks. Consistent bedding. Occasional infrequent mud clasts. No polished surfaces 1673' 8° joint. 1685' 8° joint. Minor Fe stains. 1693' 8° joint. Cont.... | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------------------|------|----------|----|----------|----|------------------|-------|----------------|------------------------|-------------|--|--|--|
| Logged By: Paul Dudzinski | | | | | | Date: 29 June 82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 1622 | 1760 | | | | | sst. | med. | coarse | 48° | | Cont... 1694' 17° joints (3 each) 3 foot length. | | |
| | | | | | | | | to med. | | | v. minor slickensides. 1716' well fractured zone. Healed joints show ca. Unhealed joints show Fe and ca. Minor slickensides. Set of 3-17° joints. | | |
| | | | | | | | | | 50 | | 1725' 2 ft. section where sst. is thinly laminated with slst. and fine sst. Minor polished surfaces. 1733' 17° joint. | | |
| | | | | | | | | | | | 1737' - 1751' increased fracturing. Sst. and slst. thinly laminated. Slickensides and polished surfaces. Worm burrows and truncated bedding. 8°, 17° joint sets. Ca. infillings. | | |
| | | | | | | | | | | | 1755'-1759' same as above. Less slst. similar jointing. | | |
| 1760 | 1764 | | | | | slst | dk. | | 48 | semi-stick | Dk. slst. with laminations of fine sst. Irregular bedding. worm burrows. polished surfaces. Minor slickensides. 8°, 17° jointing. | | |
| 1764 | 1815 | | | | | sst. | med. | med. to coarse | 50 | stick | Med. grey sandstone. Good recovery. Consistent bedding. 1764' 37° joint set. Ca. filled. Minor slickensides. 1778' - 1797' disturbed zone. Entire zone well fractured, then healed, giving it a brecciated appearance. Carbonaceous and ca. infillings. Some ca. crystals present. Good polished surfaces. Some slickensides. Zone fairly resistant. Joints at 51°. 1802'-1805' reduced recovery. Core status: rubble. Some slickensides. Some ca. 1814'-1815' 1 ft. of coal and carbonaceous mst. Rubble to powder. | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------|-------|----------|--------|----------|-------|------------------|-------|------------|------------------------|--|---|--|
| Logged By: Paul Dudzinski | | | | | | Date: 29 June 82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1815' | 1852' | | | | | slst. | dk. | | 50° | semi-stick to rubble. | Dark grey siltstone. Occasional laminations of fine sst. ca. infillings. carbonaceous infillings. Polished surfaces. Jointing at 1826'. Approx. 1 ft. of coal and mst. powdery poor recovery. 1841' - 1847' fine to medium grain sst. med. grey. some ca. infillings. | |
| 1852 | 1855 | | | | | mst. | dk. | | | semi-stick to rubble. | Dark carbonaceous. Good polished surfaces. Minor slickensides. | |
| 1855 | 1859 | 1858.2 | 1861.9 | 566.4 | 567.5 | Coal | dk. | | | rubble | Moderately soft. Dull with bright bands. Friable. Good cleating. | |
| 1859 | 1870 | | | | | slst. | dk. | | 52 | semi-stick | Dark siltstone. Somewhat carbonaceous. Some polished surfaces. Joints at 1865'-1866' slst. laminated with med. and fine grain sandstone. Irregular bedding. Worm burrows. Truncated bedding. Some ca. infillings. | |
| 1870 | 1874 | | | | | coal | dk. | | | Rubble to powder | Soft. Somewhat shiny. Uncertain recovery. | |
| 1874 | 1885 | | | | | slst. | dk. | | 45 | semi-stick | Dark. Somewhat carbonaceous. Grades to carbonaceous mudstone in places. Polished surfaces. Minor slickensides. Carbonaceous lenticles. 1875' 8° joint. | |
| 1885 | 1897 | 1887.8 | 1899.6 | 575.4 | 579.0 | Coal | dk. | | | semi-stick to rubble | Hard. Bright. Some dull bands. Friable. Somewhat softer near end of section. | |
| 1897 | 1915 | | | | | slst. | dk. | | 55 | stick to rubble | Mainly dark siltstone. Some laminations of mst. and fine sst. minor slickensides and polished surfaces. 16° joint at 1908'. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------|-------|----------|--------|----------|-------|------------------|-------------|--------------|------------------------|-----------------------|---|--|
| Logged By: Paul Dudzinski | | | | | | Date: 30 June 82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1915 | 1972' | | | | | sst. | dk. to med. | vfg. | 55° | stick to semi-stick | Approx. 50% vfg.sst. and 50% slst. thinly laminated throughout. Plant impressions. Minor polished surfaces. Some ca. infillings. 1949' 8° joint. 1962' 8° joint. 1959' minor truncated bedding. 1968'-8° joint. | |
| 1972 | 1980 | | | | | slst. | dk. | | 46 | stick to semi-stick | Dark siltstone. Carbonaceous infillings. Plant impressions. Minor polished surfaces on carbonaceous infillings. 1976' 8° joint. | |
| 1980 | 1981 | | | | | mst. | dk. | | 50 | semi-stick | dark carbonaceous mudstone. | |
| 1981 | 1998 | 1981.6 | 2001.6 | 604.9 | 610.1 | coal | dk. | | | semi-stick to powder. | Dull with bright bands. Mostly soft. Some small (7"-6"), Carby mudstone splits, friable. 1993-1998 50% recovery. powder. R-4u | |
| 1998 | 2036 | | | | | slst. | dk. | | 55 54 | semi-stick to rubble. | Mainly dark siltstone with mudstone splits at: 2026'-1028' and, 2032'-2035'. Also laminated with fine grain sandstone at 2000' and 2021'. 2021' 8° joint. Ca. & carbonaceous infillings. Some polished surfaces. Plant impressions. R-4i | |
| 2036 | 2075 | 2062.0 | 2075.1 | 628.5 | 632.5 | mst. | dk. | | 60 | semi-stick to rubble. | Dark mudstone. Plant impressions, friable. some carbonaceous stringers. 2046' fractured zone, repaired with Ca. Joints at 60° (3 joints over 5 inches). 2051' 6" coal seam. | |
| 2075 | 2081 | | | | | sst. | med. | med. to fine | 55 | stick | 2078' 6" of med. grey mst. 2075' small carbonaceous lenticles. | |
| | | | | | | | | | | | 2081' END OF HOLE | |

CORE RECOVERY RECORD



| DDH- 1705 | | | LOCATION- S.E. EAGLE | | | | | |
|-------------------|----------|---------------|-----------------------|---------------|-------------------------------|-----------|-------------|----------|
| TOTAL DEPTH- 2081 | | | LOGGED BY- EMD.; P.D. | | DATE JUNE 11/82 → JUNE 30/82. | | | |
| SEAM | RAD. LOG | INTERSECTIONS | CORE | INTERSECTIONS | (COAL SEAMS) | | | |
| | FROM | TO | THICKNESS | FROM | TO | THICKNESS | ACTUAL CORE | % |
| | | | | | | CORE | RECOVERED | RECOVERY |
| R-11? | 20.2 | 35.0 | 14.8 | 29.0 | 35.0 | 6.0 | 6.0 | 100 |
| R-11? | 157.7 | 193.2 | 35.5 | 163.0 | 193.0 | 30.0 | 30.0 | 100 |
| | | | | 206.0 | 207.0 | 1.0 | 1.0 | 100 |
| R-9 | 288.7 | 296.9 | 8.2 | 289.0 | 298.0 | 9.0 | 9.0 | 100 |
| | 495.4 | 502.3 | 6.9 | 496.0 | 501.0 | 5.0 | 5.0 | 100 |
| | | | | 506.0 | 508.0 | 2.0 | 2.0 | 100 |
| R-7 | 548.5 | 581.0 | 32.5 | 548.0 | 578.0 | 30.0 | 30.0 | 100 |
| R-5a | 1052.0 | 1054.0 | 2.0 | 1052.0 | 1054.0 | 2.0 | 2.0 | 100 |
| R-5L | 1074.5 | 1076.0 | 1.5 | 1075.0 | 1076.0 | 1.0 | 1.0 | 100 |
| R-4a | 1138.0 | 1156.8 | 18.8 | 1138.0 | 1156.0 | 18.0 | 18.0 | 100 |
| | 1280.0 | 1282.0 | 2.0 | 1280.0 | 1282.0 | 2.0 | 2.0 | 100 |
| | | | | 1285.0 | 1287.0 | 2.0 | 2.0 | 100 |
| | 1290.5 | 1307.7 | 17.2 | 1290.5 | 1307.0 | 16.5 | 16.5 | 100 |
| R-2 | 1503.2 | 1513.1 | 9.9 | 1507.0 | 1510.0 | 3.0 | 3.0 | 100 |
| R-1 | 1524.0 | 1536.0 | 12.0 | 1524.0 | 1536.0 | 12.0 | 9.5 | 80 |
| | 1855.0 | 1859.0 | 4.0 | 1855.0 | 1859.0 | 4.0 | 4.0 | 100 |
| | | | | 1870.0 | 1874.0 | 4.0 | 4.0 | 100 |
| | 1885.0 | 1897.0 | 12.0 | 1885.0 | 1897.0 | 12.0 | 12.0 | 100 |
| R-4a | 1981.0 | 1998.0 | 17.0 | 1981.0 | 1998.0 | 17.0 | 14.0 | 82 |
| R-4a | 2062.0 | 2075.1 | 13.1 | | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | | LATITUDE | | | DEPARTURE | | | ELEVATION | | | | | |
|------------------------|-----|----------|------|----------|------|------------------------|----------------------|------------|------------------------|------------------------|---|---|-----------|--|--|--------|--|--|
| Logged By: Barry Musil | | | | | | | Date: July 9th, 1982 | | | 149732° | | | 26715.9 | | | 2151.5 | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth 822.9 m | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | | | | |
| From | To | From | To | From | To | | | | | | | | | | | | | |
| 0 | 11' | | | | | | | | | | Overburden | | | | | | | |
| 11' | 33' | | | | | sst | mgv. | Fgr. | ? | broken | Hard well indurated. Some carbonaceous smears. Plant Impressions (grass) present. Joint $\pm 26^\circ$ w.r.t. core Axis at 15' calcite infilling is common. Fe staining throughout. Core becoming very broken in places (most likely due to bit wear). | | | | | | | |
| 33' | 38' | 25.6 | 33.5 | 7.8 | 10.2 | coal | blk | — | — | | Hard black and shiny. Appears high quality. | | | | | | | |
| 38' | 96' | 71.9 | 77.4 | 21.9 | 23.6 | sst | dk.gry | Fgr | 68° | intact | Quite hard and brittle. Slickenside at 42' 1' interval of mgr. mst. at 47'. Controlled bedding at 47.5 → 49'. X-bedding (festoon) at 47.5. 240° w.r.t. core axis at 48.5'. Intervals of plant impressions throughout. Discontinuous jointing at 54' (contains calcite (CaCO ₃) infilling). Unit becoming banded at 54' continuous joint at 52' 7° w.r.t. core axis. 58° w.r.t. core axis at 81' (contin.) Discon. jointing at 71' (CaCO ₃ infilling). Carbonaceous smearing on joints were no CaCO ₃ infilling occurs. Slickenside at 91.5'. X-bedding at 92'. | | | | | | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | |
|------------------------|--------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: Barry Musil | Date: July 9, 1982 | | |

| Core | Rad. Log | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|------|----------|--|------|--|--|--|-------------|--|--|--|--|
|------|----------|--|------|--|--|--|-------------|--|--|--|--|

| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
|-------|------|-------|----|----------|----|-----------|------------|------------|------------------------|--------------------|--|
| From | To | From | To | From | To | | | | | | |
| 96' | 99' | | | | | slt. | dark grey | mgr. | 62° | intact → blocky | Some polished surfaces throughout. Thin lenticles of coal throughout, concoidal fracturing |
| 99' | 116' | | | | | sst. | mgr. | tgr. | 53° | | Hard well indurated contorted bedding at 101' Joint (cont.) at 102' 9°, w.r.t. core axis. Polished surface at 102'. Discontinuous joints at 102' (CaCO ₃ infilled). |
| 116' | 127' | | | | | slt. | dark grey | fgr. | 72° | intact | Hard and brittle. Joint with polished surface at 116' 45° w.r.t. core axis. Unit otherwise massive throughout. |
| 127' | 129' | | | | | mst. | dark grey | fgr. | 75° | intact | Hard brittle, showing many concoidal fractures. Very slight plant impressions. |
| 129' | 145' | | | | | sst. | light grey | fgr. | 55° | blocky | Hard and well indurated. Discontinuous jointing with calcite filling throughout. Carbonaceous smearing on bedding planes. |
| 145' | 155' | | | | | slt. | dark grey | fgr. | - | broken | Core very broken and brecciated, many polished surfaces (every 2"). Appears to be a minor fault zone. Average of joints is 24° w.r.t. core axis. Some calcite infilling on disc. joints. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------------------|--------|----------|-------|----------|------|------------------------|------------|------------|------------------------|-------------|---|--|--|
| Logged By: Barry Musil | | | | | | Date: July 9, 1982 | | | | | | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 155' | 167' | | | | | sst. | light grey | fgr. | 64° | intact | Hard and brittle (crumbly). Many joints throughout cont. and discont. contorted bedding at 156'. Average of joints is 31° w.r.t. core axis. Calcite filling present. | | |
| 167' | 180' | | | | | slt. | dark grey | fgr. | 73° | intact | Core on slt/sst border. Hard brittle, easily broken. Many polished surfaces present. Carbonaceous smears in bedding planes. Unit gradually going to mst. (going downsection). | | |
| 180' | 188' | | | | | mst. | black | fgr. | 58° | blocky | Brittle, shows concoidal fracturing throughout. Carbonaceous smearing on bedding planes. | | |
| 188' | 206.5' | 184.7 | 193.6 | 56.3 | 59.0 | coal | black | - | - | broken | Hard and brittle. Shiny coal. | | |
| | | 203.1 | 205.4 | 61.9 | 62.6 | | | | | | | | |
| 206.5 | 216' | | | | | mst. | black | fgr. | 38° | blocky | Crumbly, many polished surfaces. Δ 14° w.r.t. core axis at 209'. Carbonaceous infill throughout. Plant impressions with carbonaceous infill. | | |
| 216' | 223' | | | | | slt. | dark grey | fgr. | 57° | | Hard and brittle. Plant impressions with carbonaceous infill throughout. Coal lenticles throughout. | | |
| | | | | | | | | | | | | | |
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Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------------------|--------|----------|----|----------|----|---------------------|------------|------------|------------------------|-------------|---|--|
| Logged By: Barry Musil | | | | | | Date: July 11, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 223' | 244' | | | | | sst. | mgry | fgr. | 64° | intact | Hard well indurated calcite infilling in discontinuous jointing. Average of cont. joints is 45° w.r.t. core axis. Bioturbation at 232'. Bioturbation with some tangential contacts at 240'. | |
| 244' | 246' | | | | | slt. | light grey | fgr. | 53° | blocky | Hard brittle. Some slight sst interbedding. Some extensive bioturbation at 245' | |
| 246' | 330' | | | | | sst. | light grey | fgr. | 39° | intact | Main unit is fgr. sst. containing some silt bedding. Hard and well indurated. Discont. jointing throughout (containing CaCO ₃ infill). Contin. joint = 11° core axis @ 256'. Sharp sst/slt contacts. Average of joints throughout is 45° w.r.t. core axis. From 262' -- 264' core is brecciated and fractured. It is also healed (by CaCO ₃ (in this region)). Tangential contacts at 274'. Contorted twisting of bedding at 277', 282' -- 285. Polished surface with carbonaceous smearing at 293 56° w.r.t. core axis. Bedding planes contain carbonaceous smears. Contorted bedding at 311'. 313'. Cont. joint at 319' 22° w.r.t. core axis. | |
| 330' | 332.5' | | | | | slt. | dark grey | fgr. | 57° | intact | Hard, brittle. Some concoidal fracturing. No joints. Polished surface (carbonaceous infill) at 332'. | |
| 332.5' | 336' | | | | | sst | light grey | fgr. | 58° | intact | Hard, well indurated. Carbonaceous smears on bedding planes. Calcite (CaCO ₃) infill in discont. joints throughout. Contorted bedding at 333'. Hard and brittle. Polished surface at 336.5' | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: Barry Musil Date: July 11, 1982

LATITUDE: _____ DEPARTURE: _____ ELEVATION: _____

| Core | Rad. Log | | | | Area | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | |
|-------|----------|-------|----------|-------|-------|-------------|--|-------|------------|------------------------|---|
| | (Ft.) | | (Meters) | | | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status |
| From | To | From | To | From | To | | | | | | |
| 337.5 | 339.5 | | | | | mar | black | mgr. | 58° | blocky | Good bedding planes. (bedding planes have polished surfaces). Concoidal fracturing throughout. |
| 339.5 | 381' | 338.3 | 378.3 | 103.1 | 115.3 | coal | black | - | - | blocky | Shiny, hard, crumbly. |
| 381' | 408.5 | | | | | sst | mgy. | fgr. | 58° | intact | Mainly sst. although some alt. bedding present. Fairly well indurated. Massive otherwise. Cont. joint at 388' \angle 14° w.r.t. core axis. Coal in bedding planes. Mudclasts at 403'. |
| 408.9 | 411.5 | | | | | coal | black | - | - | | Hard black, shiny. |
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Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____

Logged By: Barry Musil Date: July 12, 1982

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-------|----------|----|----------|----|----------------|------------|------------|------------------------|-------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Eagle Mountain | | | | Core Status | Additional Information | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (°) | | | |
| 11.5 | 413 | | | | | slt. | dark grey | cgr. | 67° | intact | Hard brittle. Some plant impressions present. Carbonaceous smears present in bedding planes. | |
| 13 | 459' | | | | | sst. | light grey | fgr | 54° | intact | Hard, well indurated. Disc. joints throughout contain calcite filling. Average Δ of continuous joints is 16° w.r.t. core axis. Bedding planes contain carbonaceous smears. Bioturbation from 426.5' → 428', 446.5 → 447', 448' → 449'. From 449' → 459' structure is massive | |
| 19 | 460 | | | | | slt. | dark grey | fgr | - | intact | Hard and brittle. Massive throughout. | |
| 20' | 463' | | | | | mst. | dark grey | fgr | - | broken | Brittle, crumbly and broken concoidal fracturing present. Very carbonaceous. | |
| 23' | 475.5 | | | | | sst | light grey | fgr. | 54° | intact | Worm burrows at 463.5'. ^{HAND} Carby lenticles present. Disc. joint at 466' (calcite fill). Cont. joint at 468' Δ 30° w.r.t. core axis. Bioturbation from 468' → 471'. Carbonaceous infill on bedding planes. | |
| 5.5 | 485.5 | | | | | coal | black | - | - | friable | | |

Diamond Driii Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------------------|------|----------|-------|----------|-------|---------------------|-----------|------------|------------------------|-------------|---|--|--|
| Logged By: Barry Musil | | | | | | Date: July 13, 1982 | | | | | | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 485.5 | 518 | | | | | sst. | dark grey | fgr. | 54° | intact | Hard, well indurated. Bioturbation from 480' - 480.5', and 484' - 485'. Cross bedding from 494.5' - 495'. 16° cont. joint at 516'. Other strata massive. | | |
| 518' | 525' | | | | | slt. | dark grey | mgr. | 64° | intact | Brittle, hard, high carbon content massive unit. | | |
| 525' | 528' | | | | | mgt | black | fgr. | - | rubbly | Mach concoidal fracturing present. High carbon content. Uniform grading into next unit. | | |
| 528' | 540' | 528.2 | 536.1 | 161.0 | 163.4 | coal | black | - | - | broken | Crumbly soft slight mist.. Interbedding throughout. | | |
| 540' | 544' | | | | | slt | dark grey | fgr. | 56° | blocky | Brittle hard easily fractured. Carbonaceous lenticles present. Grades into next unit. | | |
| 544' | 548' | | | | | mst. | black | fgr. | - | blocky | Brittle, hard, concoidal fracturing throughout. Coaly lenticles present. | | |
| 548' | 561' | | | | | slt | black | mgr. | 55° | intact | Hard brittle. Contains many carbonaceous lenticles. Carbonaceous smearing on bedding planes. Joint at 561 (cont.) 22° w.r.t. core axis. | | |
| 561' | 566' | | | | | mst. | black | mgr. | 58° | intact | High carbon content. Many concoidal fractures present. 28° w.r.t. core axis at 566'. | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|------------------------|---------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: Barry Musil | Date: July 14, 1982 | | |

| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|----|---------------------|------------|------------|------------------------|---------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 566' | 567.5 | | | | | slt. grey | dark grey | mgr. | 48° | intact | Massive throughout. Hard and brittle. | |
| 567.5 | 589 | | | | | sst. med. grey | med. grey | fgr. | | intact | Hard well indurated. Disc. joints contain Calcite (CaCO ₃) infill. 1" bed of coal at 573'. Plant impressions throughout (carbonaceous infill). | |
| 589' | 597' | | | | | mst. dark grey | dark grey | cgr. | 60° | intact | Hard brittle. Slight plant impressions. Crumbly in places. Average of continuous joints is 7° w.r.t. core axis. 7° joints (cont.) always found in pairs. Hackly fracture throughout. | |
| 597' | 600' | | | | | sst. med. grey | med. grey | fgr. | 60° | intact | Hard well indurated. Cont. joint at 599.5' 14° w.r.t. core axis. Massive otherwise. | |
| 600' | 611' | | | | | mst. black | black | mgr. | 52° | intact | Polished surfaces on bedding planes. Core rubbly in places. Hard and brittle conchoidal fracturing throughout. 28° & 12° joints common throughout. | |
| 611' | 658' | | | | | sst. light grey | light grey | fgr. | 52° | intact/blocky | Hard well indurated. Slight carbon smearing on bedding planes. ↙ cont. joint at 616' 9° w.r.t. core axis. Joints contain Calcite (CaCO ₃) infill. Small carbonaceous lenticle at 625'. Polished bedding planes slight slt. bedding 636' → 658'. Trough cross bedding from 648' → 658'. | |
| 658' | 723' | | | | | sst. light grey | light grey | mgr. | 50° | intact | Hard and very well indurated. Typical salt & pepper sst. slight slt. bedding visible. Cont. joint at 668'; 7° w.r.t. core axis. 28° joint at 680'. Slight coal lenticulation at 683', 718' - 723' ↙ joint | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------------------|------|----------|----|----------|----|-----------------------|------------|------------|------------------------|--|--|--|
| Logged By: Barry Musil | | | | | | Date: July 20th, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1063 | 1070 | | | | | slt | dark grey | fgr. | 45° | blocky | Hard and brittle. Calcite infill in discontinuous joints. Polished surfaces with carbonaceous infill at 1063'. | |
| 1070 | 1131 | | | | | sst | light grey | fgr. | 66° | intact | Hard well indurated. Coal lentication at 1083', 1128' - 1130'. Massive from 1084' - 1103'. | |
| 1131 | 1133 | | | | | slt | dark grey | fgr. | | blocky | Brittle. Contains coaly lenticle. Many polished surfaces. Rubbly near end section. | |
| 1133 | 1192 | | | | | sst. | light grey | fgr. | 51° | intact | Hard well indurated, slight plant impressions throughout (carbonaceous infill) discont. & cont. joints both contain carbonaceous infill. Cont. joint at 1154' 49° w.r.t. core axis. Slt. interbedding present from 1149' - 1164'. | |
| 1192 | 1197 | | | | | slt | dark grey | fgr. | 51° | intact | Brittle, crumbly. Massive throughout. (i.e.: no joints, no bedding, or noticeable structure) | |
| 1197 | 1260 | | | | | sst | light grey | mgr. | 71° | intact | Very well indurated. Slight slt. bedding throughout. Bedding drops to 60° w.r.t. core axis @ 1231'. Coaly smears on bedding planes. Rip up mud clasts at 1230'. Calcite filling in discontinuous joints. Coal lentications from 1245' - 1255'. Massive from 1255' - 1260'. | |
| 1260 | 1294 | | | | | sst. | light grey | fgr. | 64° | intact | Turns darker grey where more slt. interbedding is present. Cross bedding at 1262. Polished surface @ 1272 (Polished carbonaceous) 35° w.r.t. core axis | |

Con. joint @ 1282 18° w.r.t. core axis.
Hole No. D.D.H. 1710 Page 12 of

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------------------|------|----------|-------|----------|-------|------------------------|------------|------------|------------------------|---------------|--|--|
| Logged By: Barry Musil | | | | | | Date: July 14, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 723' | 742' | | | | | sst. | light grey | fgr. | 64° | blocky | Hard well indurated, slight slst. bedding throughout (@ 64° w.r.t. core axis). Many carbonaceous lenticles throughout. Disc. joints contain Calcite (CaCO ₃) infill. Plant impressions present. (containing carbonaceous infill). | |
| 742' | 746' | 740.2 | 745.4 | 225.6 | 227.2 | coal | black | - | - | blocky/rubbly | Crumbly soft coal. | |
| 746' | 765' | | | | | slt | dark grey | fgr. | 52° | blocky | Slight interbedding with sst. throughout. 2" coal seam @ 757'. Smaller lenticles of coal throughout. Disc. joints contain calcite (CaCO ₃) infill. Section very thinly laminated. | |
| 765' | 773' | | | | | mst. | dark grey | fgr. | 64° | blocky | Much concoidal fracturing. Contains many coal lenticles. Soft, easily fractured. | |
| 773' | 794' | 768.4 | 792.7 | 241.2 | 241.6 | coal | black | - | - | rubbly | Soft, easily broken. Gets hard and shiny @ 778' → 786' (in this interval coal is intact - blocky. | |
| 794' | 797' | | | | | met. | black | fgr. | 58° | blocky | Concoidal fracturing throughout, also contains much coal lentication. Unit uniformly grades into slst | |
| 797' | 841' | | | | | sst. | med. grey | fgr. | 54° | intact | → sst. Uniform slst/sst (30/70) bedding throughout 2" coal seam @ 888'. Slight coal lentication @ 806' → 807'. Many small joints (½" - 1")(disc.) from 810' → 820' (no infill). 1" coal seam @ 832', cont. joint @ 830', 22° w.r.t. core axis. Some carbonaceous smearing on bedding planes. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____

Logged By: Barry Musil Date: July 14, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|----|------------------------|------------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 841' | 855' | | | | | sst. | light grey | mgr. | 48° | intact | Hard, well indurated. Darker colour in places (where sst. content increases). From 850' - 851.5 there is a large number of coal lenticles cont. joint @ 851' 18° w.r.t. core axis. | |
| 855' | 890' | | | | | sst. | light grey | mgr. | 62° | intact | Slight coal lentication throughout. Extremely hard where massive. (i.e. no structure). Slight mud clasting at 878'. Very large number of rip-up clasts at 884' - 885.5'. Coal lenticle @ 887'. | |
| 890' | 917' | | | | | sst | light grey | vfg. | 62° | intact | Hard well indurated, brittle in places. Tangential contacts from 893 - 896. Carbonaceous smearing on bedding planes. Cont. joint at 910. \angle 2° w.r.t. core axis. | |
| 917' | 934' | | | | | slt. | dark grey | fgr. | 68° | intact | many joints, hard and brittle. Very thinly laminated with sst.. Core blocky in places (\approx every 2.5') 24° & 7° joints very common. Most joints (cont. & non cont.) contain calcite infill. Coal lenticle at 933'. | |
| 934' | 1001' | | | | | sst | light grey | fgr. | 64° | intact | Very well indurated. Slight calcite infill present. Thinly laminated with sst throughout. Parallel 7° (w.r.t. core axis). Joints at 947'. Many 16° joints throughout. Brecciated from 973'-976. Tangential contacts @ 981'. Bedding @ 986 is 62° w.r.t. core axis. Carbonaceous smearing on bedding planes. Rip up clasts @ 991'. Cross bedding @ 1001'. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | | | DEPARTURE | | | | ELEVATION | | | |
|------------------------|------|----------|--------|----------|-------|------------------------|------------|------------|------------------------|-------------|--|--|--|-----------|--|--|--|
| Logged By: Barry Musil | | | | | | Date: July 21, 1982 | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | | | |
| From | To | From | To | From | To | | | | | | | | | | | | |
| 1294 | 1296 | 1285.4 | 1288.1 | 391.8 | 392.6 | coal | black | - | - | blocky | Hard, contains much mud. | | | | | | |
| 1296 | 1303 | 1292.3 | 1295.6 | 393.9 | 394.9 | slt | med grey | fgr. | 66° | blocky | Hard, brittle, many polished surfaces. Some plant impressions (grass, some small forms). Coal lenticle present. Slight concoidal fracturing in places. | | | | | | |
| 1303 | 1321 | 1301.2 | 1314.0 | 396.6 | 400.5 | coal | black | - | - | blocky | black hard, shiny. Appears to be good coal. | | | | | | |
| 1321 | 1393 | | | | | sst | light grey | fgr. | 65° | intact | Hard well indurated. Sltst interbedding throughout. Colour darker where slt. content increases. Some coal on bedding planes from 1336' - 1338'. Cont. joint at 1333' 18° w.r.t. core axis. Coal lentications at 1337', 1339' & 1342'. Cross bedding with bioturbation at 1361'. The disc. jointing throughout contains Calcite infilling. Cont. joint at 1367' 30° w.r.t. core axis. Core becoming blocky at 1380'. Disc. joint at 1379 parallel to core axis. | | | | | | |
| 1393 | 1399 | 1387.5 | 1396.3 | 422.9 | 425.6 | coal | black | - | - | rubbly | Black, dull. | | | | | | |
| 1399 | 1458 | | | | | sst | med grey | fgr. | 61° | intact | Interbedding with slt. throughout. Colour darker where slt. content higher. Slickens ide at 1401.5'. Plant impressions throughout (ferns & grasses). Quite well indurated. No joints. Bedding planes polished. | | | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------------------|------|----------|--------|----------|-------|---------------------|------------|------------|------------------------|-------------|--|--|--|
| Logged By: Barry Musil | | | | | | Date: July 22, 1982 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Eagle Mountain | | | | | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| 1477 | 1481 | | | | | sst | light grey | fgr. | 64° | intact | Hard well indurated. Calcite in disc. joints | | |
| | | | | | | | | | | | slt. interbedding. Bedding planes have polished surface. | | |
| 1481 | 1494 | | | | | slt. | dark grey | fgr. | 64° | blocky | Brittle, crumbly. Cont. joint at 1489' ↙ 35° w.r.t. core axis. Polished bedding planes. | | |
| 1494 | 1496 | 1490.8 | 1492.8 | 454.4 | 455.0 | coal | black | - | - | rubbly | Soft crumbly coal. | | |
| 1496 | 1500 | | | | | mst. | black | fgr. | 71° | intact. | Coaly lenticle, polished surfaces. | | |
| 1500 | 1513 | 1495.1 | 1510.2 | 455.7 | 460.3 | coal | black | - | - | rubbly | Soft, crumbly coal. | | |
| 1513 | 1515 | | | | | slt | dark grey | fgr. | 55° | intact | Coaly lenticles throughout. Hard brittle slight concoidal fracturing. | | |
| 1515 | 1572 | | | | | sst | light grey | fgr. | 71° | intact | Hard well indurated. 1515' - 1527' is massive. From 1527' - 1530 is interbedded with sst.. Cont. joint at 1527' ↗ 15° w.r.t. core axis. (no fill). Bedding planes have polished surface. Grass impressions present. Cross bedding at 1549'. Cont. joint @ 1542' ↙ 10° w.r.t. core axis. Cont. joint @ 1549' ↙ 8° w.r.t. core axis. From 1554 - 1572 unit is massive. | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | | | DEPARTURE | | | | ELEVATION | | | | | |
|------------------------|------|----------|--------|----------|-------|------------------------|------------|------------|------------------------|-------------|--|--|--|-----------|--|--|--|--|--|
| Logged By: Barry Musil | | | | | | Date: July 22, 1982 | | | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area Eagle Mountain | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | | | | | |
| From | To | From | To | From | To | | | | | | | | | | | | | | |
| 1572 | 1698 | | | | | sst | light grey | mgr. | 50° | intact | Hard well indurated. Frequent coal lentications throughout. Typical salt & pepper sst. Coal lentication at 1604, 1606, 1665 - 1668 & 1678. Carbonaceous smearing on bedding planes. Bioturbation @ 1591. Cross bedded @ 1596, 1618, 1625 & 1632. Slight slt. Banding throughout. Joints: @ 1655' 27° w.r.t. core axis. @ 1660' 23° w.r.t. core axis. @ 1673' 32° w.r.t. core axis. @ 1696' 29° w.r.t. core axis. Joints not infilled. | | | | | | | | |
| 1698 | 1702 | 1695.2 | 1697.8 | 516.7 | 517.5 | coal | black | - | - | rubbly | crumbly and soft. | | | | | | | | |
| 1702 | 1711 | | | | | sst | dark grey | fgr. | 66° | blocky | Carbonaceous smearing on bedding planes. Slt. interbedding throughout. Slight coal lentication at 1709'. Breaks easily on bedding planes. | | | | | | | | |
| 1711 | 1716 | 1707.3 | 1713.9 | 520.4 | 522.4 | coal | black | - | - | rubbly | Crumbly, soft. | | | | | | | | |
| 1716 | 1946 | | | | | sst | light grey | mgr. | 71° | intact | Hard well indurated. Slight slt. bedding throughout. Cross bedded @ 1734', 1751 - 1752. Very extensive unit joint @ 1768 24° w.r.t. core axis. Slight carbonaceous smearing on bedding planes. Calcite lense at 1878'. Cont. joint at 1854' 12° w.r.t. core axis. Discont. joint at 1903' 25° w.r.t. core axis. Slt bedding becoming | | | | | | | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | | | |
|------------------------|------|----------|----|----------|----|-----------------------|------------|------------|------------------------|----------------------|---|--|--|--|--|
| Logged By: Barry Musil | | | | | | Date: July 29th, 1982 | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | |
| From | To | From | To | From | To | | | | | | | | | | |
| 2124 | 2133 | | | | | slt. | black | mgr. | 71° | broken | Many joints, fractured throughout, polished surface | | | | |
| | | | | | | | | | | | Calcite present. Unit very friable. Fault zone. | | | | |
| 2133 | 2176 | | | | | sst. | med. grey | fgr. | 63° | blocky | Hard brittle. Many joints (disc. contains CaCO ₃ infill). 40° w.r.t. core axis. Joints have polished surfaces. Unit uniform throughout. | | | | |
| 2176 | 2181 | | | | | slt. | black | fgr. | 59° | fractured/ rubbly | Many polished surfaces throughout. Calcite swirling throughout fractures. Many cont. & discont. joints. | | | | |
| 2181 | 2259 | | | | | sst | light grey | mgr. | 71° | intact | Hard, well indurated throughout. Salt and pepper sst. Bedding planes have carbonaceous smearing. Cross bedded at 2185', 2228' & 2241'. Cont. joint with calcite infill at 2239' 22° w.r.t. core axis.. Bedding angle changes to 51° @ 2258'. | | | | |
| 2259 | 2405 | | | | | sst | light grey | fgr. | 49° | intact | Hard, well indurated. Cont. joint at 2267' 59° w.r.t. @ 2268' 39° w.r.t. core axis. Slight slt. bedding present throughout. Bedding changes to 69° @ 2325', at this point polished surfaces present on the bedding planes. Core thinly laminated. throughout. Cross bedded @ 2325'. 1" bed of mgr. slt. at 2348'. Cont. joint @ 2362.5' with calcite infill. 8° w.r.t. core axis. In this area bedding changes to 83° w.r.t. core axis. Calcite infill in disc. joints. Cross bedded at 2400. | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | | | |
|------------------------|------|----------|----|----------|----|------------------------------------|-----------|------------|------------------------|-------------|--|---|--|
| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
| Logged By: Barry Musil | | | | | | Date: July 30, 1982 / Aug. 6, 1982 | | 199732.0 | | 26715.9 | | 2151.5 | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 2405 | 2699 | | | | | sst. | dark grey | vfgr. | 85° | intact | Hard, fairly well indurated. Slt./sst. border. Dominantly sst.. Bedding planes have polished surfaces. Grass and fern impressions present. Cont. & disc. joints contain calcite infill. Belemnite at 2451. Typical Fernie section. Core green in colour (indicating Fe ⁺² presence) @ 2453'. Cont. joints at 2456' 40° w.r.t. core axis. @ 2473 20° w.r.t. core axis. Cont. joint @ 2499' 17° w.r.t. core axis. Bedding changes to 74° @ 2514'. Some calcite on bedding planes at 2524'. Disc joint at 2540' calcite infilled. Pyritized fossil at 2568' (worm or crinoid type) Pyrite present in nodules from 2568' - T.D.. Bedding 77° w.r.t. core axis @ 2610'. Calcite infill in discont. joints throughout. Sharp change in bedding at 2663' from 75° - 60° w.r.t. core axis. Cont. joint at 2680' 40° w.r.t. core axis. T.D. (total depth). | | |
| 2699 | | | | | | | | | | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|-------------------------|-------|----------|----|----------|----|---------------------------|-------|------------|------------------------|-------------|---|--------|--|
| Logged By: P. Dudzinski | | | | | | Date: 8 June 82 | | 149,505.7 | | 26,919.5 | | 2002.8 | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | DDH - 1715 Eagle Mountain | | | | 576m/1890ft | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (?) | Core Status | Additional Information | | |
| 0.0 | 17'8" | | | | | | | | | | 0.0 to 17' 8" casing. Minimal core recovery. | | |
| 17'8" | 38'0" | | | | | sst. | med. | mgr. | 56° | stick to | 29' 2 joints, Fe stains, minor Ca, 27°. 36' 5 Joints in 3 ft. | | |
| | | | | | | | | | | semi-stick | Fe stains, minor Ca. | | |
| 38'0" | 73' | | | | | sst. | lt. | cgr. | 53 | stick to | | | |
| | | | | | | | | | | semi-stick | Coarse grain sst. with bands of fgr. dk. grey sst. minor cross-bedding at 44'. 43' jointing with minor Fe. small rubble zone. | | |
| | | | | | | | | | | | 46'5" to 51'5" numerous joints. Minor Fe. bituminous infillings and healed cracks. Slickensides and polished surfaces. | | |
| | | | | | | | | | | | 53' bituminous infillings. Healed cracks up to 1/2" wide. | | |
| | | | | | | | | | | | sst. grading coarser. 57' 3/8" coaly "seam". Polished surfaces. Coal stringers and infilling continuous to 57'. | | |
| | | | | | | | | | | | 65' to 66' disturbed zone. Core status: rubble. Fe stains, bituminous infillings. slickensides. 71' jointing. bituminous stringers. Well broken core. Very minor Fe. | | |
| 73' | 87' | | | | | sst. | med. | mgr. | 53 | stick | Coarse sst. grades to mgr. sst., small sections of fine gr. sst infrequent Ca stringers and healed joints. Very good core recovery. 80' 12" zone of small Ca veins. One Ca filled healed joint. 87' 12" zone of disturbed bedding. Cross-beds. rip-ups. | | |
| 87' | 97' | | | | | sst. | med. | fgr. | 53 | intact | Coarse gr. sst. gradually becoming finer. Cross-bedding visible about 88', polished surfaces found on joint at 88', joints 70° to ca. found at 96' and 96.5' and 97', these joints are calcite infilled, plant impressions are visible from 95' | | |

To 97' .

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------------------|------|----------|----|----------|----|---------------------|-------|------------|------------------------|-------------|--|--|--|
| Logged By: Paul Dudzinski | | | | | | Date: 8 June 82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | DDH-1715 Eagle Mtn. | | | | | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| 97' | 127' | | | | | sst. | med. | fgr. | 53° | broken | Joints at 16° to ca. found at 103', one calcite filled healed joint at 16° to ca. at 99'. Plant impressions visible from 97' to 102', from 101' to 103' there are 4 bedding joints. On joint surface carbonaceous infilling is present. Joint at 20° to ca. at 131'. Cross-bedding is found throughout this section. | | |
| 127' | 137' | | | | | sst. | lt. | mgr. | 48 | broken | Cross-bedding throughout section. Undulated bedding found at 136'. Small discontinuous joints at 80° to ca. are healed by calcite infilling. From 135' to 137' discontinuous joints are also infilled with carbonaceous material. | | |
| 137 | 153 | | | | | sst. | lt. | mgr. | 48 | broken | Undulating bedding throughout. Continuous calcite healed joints at 50° and 25° to c.a., Approx 5/in. discontinuous carbonaceous infilled joints found from 143' to 145' and 147 to 153'. Fractures occur every 6" from 137' to 148'. These fractures are carbonaceous infilled. | | |
| 153' | 167 | | | | | sst. | lt. | mgr. | 53 | broken | From 154' to 160' calcite filled joints at 90° to c.a. occur every 6". Plant impressions are present throughout. Polished surfaces are found on some continuous joint surfaces. Many small undulating fractures (discontinuous) are found from 162' to 167'. These fractures are both carbonaceous and calcite infilled. | | |
| 167 | 179 | | | | | sst. | med. | mgr. | 53 | broken | Calcite infilled bedding joints found at 171', 171.5', 171.8', and 172'. Cont... | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-----|----------|----|----------|----|-----------------|-------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. | | | | | | Date: June 9/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 167 | 179 | | | | | sst. | med. | mgr. | 53 | broken | Cont.... Continuous joints at 0° to c.a. at 176' and 175' Other than bedding joints this section is well indurated, cross-bedding that is quite contorted. | |
| 179 | 197 | | | | | sst. | lt. | mgr. | 47 | intact | Two bedding joints located at 186' (2" apart). Cross-bedding occurs from 187' to 191'. Fractures at 194' and 195' occur at 56° to c.a., these are carbonaceously infilled. Continuous joints at 48° to c.a. occur at 191' and 192'. These are infilled with calcite. Generally this section is well indurated. Gradually core is becoming lighter in colour within this section. | |
| 197 | 209 | | | | | sst. | lt. | mgr. | 37 | broken | Fractures occur within 1" of each other from 197' to 198'. This foot contains fractures with carbonaceous infilling. From 197' to 202' joints (healed) and infilled with calcite. These joints occur approx. 5' apart. Joint (continuous and calcite infilled) at 200' at 25° to c.a. 3" of shaly mudstone found at 202'. From 202' to 209' there are only bedding joints every 1' approx. | |
| 209 | 265 | | | | | sst. | med. | fgr. | 53 | broken | Bedding joints occur every 6" from 209' to 214'. These joints are clean. Core is unbroken and well indurated from 214' -217'. At 217' there is a 1/2" wide joint infilled with calcite. Large continuous joint at 226' and at 8° to c.a. This is clean. 227' to 232' calcite infilled joints occur every 6". These are bedding joints (53° to c.a.). From 232' to 256' clean bedding joints occur every 1.5'. Basically it's well intact and indurated. Healed continuous ca.infilled joints may occur every 2'. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|-------------------|----------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: E.M.D. | | | |
| Date: JUNE 9/82 | | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|---|--|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | |
| From | To | From | To | From | To | | | | | | | | | |
| 265' | 307' | | | | | sst. | med. | fgr. | 40° | broken | Sst. is becoming more fine grain. At 166' a healed, calcite, continuous joint at 28° to c.a. At 277' and 277.5' bedding joints occur. One has a polished surface. The other is calcite infilled and healed. Plant impressions occur throughout. From 297' to 307' core is well indurated and breaks occur at 299' and 300' and 302'. These breaks are polished and one has carbonaceous infilling. | | | |
| 307 | 309 | | | | | slst. | dk. | | 53 | broken | Slst. interbedded with carbonaceous lenticles. At 308' a polished continuous joint at 8° to c.a. occurs. From 307' to 308' core is very broken and polished surfaces are common. | | | |
| 309 | 360 | | | | | sst. | lt. | fgr./mgr. | 53 | broken | Plant impressions continue throughout. Core gradually becomes mgr. sst. At 346' a 8° to c.a. calcite infilling joint occurs. This section is well indurated. At 325' bedding angle is approx. 48°. At 350' bedding angle returns to 53°. Undulating bedding occurs from 347' to 352'. Clean bedding joints may occur every 2' apart. Cross-bedding is also present from 352' to 357'. 8° to c.a. joints occur at 354' and 358'. These joints are clean. | | | |
| 360 | 435 | | | | | sst. | med. | mgr. | 48 | broken | Well indurated sst. 8° to c.a. joint at 377'. It is calcite infilled. Bedding joints that are clean every 1' - 1.5' from 360' to 427'. 8° to c.a. joint at 375'. This is clean. At 383' there is a 30° to c.a. joint (continuous). This joint has carbonaceous infilling. Cont.... | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-----------------------------------|-----|------------------|------------------|------------------|------------------|-----------|-------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. Date: JUNE 9/82 | | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 360 | 435 | | | | | sst. | med. | mgr. | 48° | broken | Cont...Entire section contains plant imprints. Cross-bedding from 397' - 400'. Core bedding angle is 53° at 397'. At 407' bedding angle is 40° bedding continuous. | |
| | | | | | | | | | 40 | broken | Joints are highly polished. 415' there is a clean, continuous 18° to c.a. joint. 418' a 15° to c.a. clean continuous joint. 420' - 425' large healed (calcite) continuous joints occurring every 1'. Approximately 15 discontinuous healed joints also occur in this section. From 418' - 420' bedding is quite contorted. From 425' - 435' core is dark and finer grained. Bedding joints occur every 1.5' and are carbonaceously infilled 432' joint (continuous and clean) at 26° to c.a. | |
| 435 | 438 | | | | | slst. | dk. | | 53 | broken | Core is broken every 4". This section contains many polished surfaces and joints (18° to c.a.) are filled with carbonaceous material. | |
| 438 | 445 | | | | | sst. | dk. | fgr. | | broken | At 440' there is a 47° continuous joint. It is polish and carbonaceously infilled. (2 occur about 1" apart). | |
| 445 | 449 | | | | | slst. | dk. | | | broken | This section is broken every 4". The breaks have polished surfaces. Throughout section there are plant imprints and carbonaceous lenticles. | |
| 449 | 451 | 134 ^m | 137 ³ | 132 ^m | 133 ³ | coal | dk. | | | broken | clean coal. | |
| 451 | 458 | | | | | sst. | med. | fgr. | 48 | broken | 451' - 452' is mudstone. Core gradually lightens in colour. Bedding joints occur every 4". They are carbonaceously infilled. At 158' there is a discontinuous joint at 22° to ca. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-------|----------|-----|----------|-----|------------------|-----------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 10/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 458 | 471.5 | 458 | 457 | 145 | 142 | coal | dk. | | | broken | clean coal. Broken but areas are still intact. <i>RSL 8/2/82</i> | |
| 471.5 | 473.5 | | | | | sst. | dk./ med. | fgr. | | broken | Continuous 48° to c.a. joints are found 5" to 6" apart throughout this footage. Joints are polished and carbonaceous. | |
| 473.5 | 474.5 | | | | | coal | dk. | | | broken | Clean coal. Joint at 9° to c.a. at 474'. | |
| 474.5 | 475 | | | | | slst. | med. | | | intact | | |
| 475 | 477.5 | | | | | mst. | dk. | | | broken | At 476' there are 2 continuous 8° to c.a. joints. They are polished and carbonaceous. | |
| 477.5 | 529 | | | | | sst. | med. | fgr. | 54° | broken | At 486' there is a clean, continuous joint. (18° to c.a.). 494' there is a clean continuous joint (18° to c.a.). 485' there is a bedding joint with a polished surface. From 487' to 492' the core is unbroken and well indurated. Bedding joints are smooth and clean every 8" from 504' to 507'. At 507' there is a 32° to c.a. polished joint. It is also carbonaceous. Clean polished bedding joints are found 8" apart from 507' to 517'. At 517' they are 2 continuous joints at 16° to c.a. At 517' bedding angle is 55°. From 517' to 529' the core is well indurated and unbroken save 3 clean bedding joints. At 529' there is one clean, continuous, 18° to c.a. joint. The bedding angle is 47° at 529'. From 525'-527' there are 6 discontinuous healed calcite infilled joints. | |
| 529 | 562 | | | | | sst. | fgr. | lt. | 53 | intact | Cross-bedding throughout section. 7 bedding joints from 529'-543'. All are clean. One 8° to c.a. calcite filled joint at 539'. 6 discontinuous calcite infilled healed joints from 529'- | |

543'. Cont....

Diamond Drill Geological Log



Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____

Logged By: E.M.D. Date: June 10/82

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|------|------------------|------------------|------------------|------------------|-----------|-------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 529' | 562' | | | | | sst. | med. | fgr. | 54° | broken | 38° to c.a. clean continuous joint at 540'. 38° joints at 551' and 550'. Both are clean. Plant impressions continue. Continuous healed, calcite infilled joints occur every 1.5' throughout section. 561' - 562' carbonaceous infilling occurs in bedding joints that are healed. | |
| 562 | 579 | 548 ² | 575 ³ | 172 ¹ | 172 ³ | coal | dk. | | | SEAM R4U | Coal is clean and shiny. Some places are fractured into pieces approx. 4" long. 567' there is a 8° to c.a. continuous joint. 571' there is a 8° to c.a. continuous joint. | |
| 579 | 581 | | | | | sst. | med. | fgr. | 53° | broken | sst. and coal interbedding. Polished surfaces are commonly found on interfaces. This footage contains no core over 2" long. | |
| 581 | 635 | | | | | sst. | med. | fgr. | 53 | broken | 587' there is a 8° to c.a. continuous clean joint. At 585' there is a calcite infilled joint at 20° to c.a. A similar joint is found again at 588'. Cross-bedding is quite evident. 591' there is a polished 21° joint. 2-25° to c.a. joints at 595'. From 595' to 601' core is fractured every 5". Fractures are carbonaceously infilled. From 607' to 610' there are 3 calcite infilled joints. At 25° to c.a. this section is well indurated. At 600' bedding angle is 45°. From 601' to 602' there is a small section of clean coal. Core is becoming darker, most bedding joints are infilled carbonaceously. Most have polished surfaces. At 617' there is a 25° to c.a. calcite infilled joint. 626' there is a fracture infilled | |
| 581' | 635 | | | | | | | | | | with coal. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: E.M.D. Date: JUNE 10/82

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
|-------|------|----------|-------|----------|-------|-----------|-------|------------|------------------------|-------------|---|--|--|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | |
| From | To | From | To | From | To | | | | | | | | | | |
| 635' | 640' | | | | | sst. | med. | | 53° | broken | Plant impressions are more evident than normal. 639' there is a 8° to c.a. joint. It is highly polished. | | | | |
| 640 | 653 | | | | | shale | dk. | | 57 | broken | Shale. Carbonaceous. It is fissile and fractures occur every 3" on average. Most fractures are infilled with carbonaceous material. Bedding joints are smooth and polished. | | | | |
| 653 | 672 | 644.7 | 668.3 | 196.5 | 203.7 | coal | dk. | | | broken | Coal section is generally clean. Around 670' some mudstone interbedding occurs. | | | | |
| 672 | 685 | | | | | sst. | med. | fgr. | 53 | broken | 683' - 34° to c.a. continuous joint. Some carbonaceous infilling. Generally well indurated. With only 4 bedding joints. | | | | |
| 685 | 749 | | | | | sst. | med. | fgr. | 51 | broken | 685' - 699' core is quite massive. Sst. is fgr. until 749' where it becomes mgr. sst. 685' - 699' there are no joints, save at 699' where there is one joint at 65° to c.a. It has a polished surface. 699' - 749' bedding becomes quite evident at approx. 51°. Cross-bedding also occurs. In this section fgr. est. and mgr. sst. are interbedded throughout. Bedding joints now occur every 6" and are generally polish with carbonaceous infilling. At 717' there is a clean joint that is 14° to c.a. Another similar joint occurs at 718' and 722'. Clean bedding joints occur at 726.5', 727', and 727.5'. At 726' and 728' clean continuous joints occur at 8° to c.a. At 734' there is a 35° to c.a. calcite infilled continuous joint. 10 joints and fractures occur between 735' and 739' 2 are 8' joints and the rest are bedding joints. Cont... | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------|--------|----------|----|----------|----|------------|-------|------------|------------------------|---------------|--|---|--|
| Logged By: | | E.M.D. | | Date: | | JUNE 10/82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 685' | 749' | | | | | sst. | med. | fgr. | 51° | broken | Cont...Core remains relatively intact until 747' where a clean 8° joint occurs. | | |
| 749' | 780' | | | | | sst. | lt. | cgr./mgr. | 57 | broken | Sst. has become much coarser. Cross-bedding is common. All joints are clean until 775', after which they become polished. Bedding joints occur every 6". From 749' to 760', breaks contain carbonaceous infilling. At 756' there are 2 joints 7" apart. They are 35° to c.a. and show only slight calcite infilling. At 763' there is a major clean joint at 8° to c.a. A 35° clean joint occurs at 773.5'. This cuts the bedding plane. A similar joint occurs at 780'. | | |
| 780' | 782' | | | | | slst | dk. | | 54 | broken | At 781' there is a 8° joint. It has a carbonaceous infilling. This section is broken by bedding joints every 3" to 4". | | |
| 782' | 782.5' | | | | | coal | dk. | | | broken | Coal section is broken by bedding joint every 1" and has slt. on both sides of the .5" section | | |
| 782.5' | 784' | | | | | sist | dk. | | | | At 783' there is a carbonaceous infilled joint at 28° to c.a. | | |
| 784' | 847' | | | | | sst. | med. | fgr. | 53 | broken/intact | sst. is fine grained at first but becomes mgr. around 797'. From 784' to 847' sst. varies between mgr. and cgr. Cross-bedding is very common. From 787' to 808' the core is well indurated and contains only clean bedding joints every 2'. At 812' to 817' there is a relatively clean joint running at 3° to c.a. This reoccurs at 817' and runs to 821'. There are two parallel sets. A similar joint (8°) occurs at 821' to 822'. Cont. | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|------------|-------|----------|------|----------|-------|------------|-------|-------------|------------------------|---|---|
| Logged By: | | E.M.D. | | Date: | | JUNE 11/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 784' | 847' | | | | | sst. | med. | fgr. | 53° | broken/intact | Cont... Bedding joints occur every foot from 825' to 840'. At 831' there is a calcite infilled, continuous joint at 24° to the core axis. At 838' there is a 34° to c.a. joint. It is clean. At 828' there is a 42° to c.a. joint. It is clean. At 840' there is a 8° fracture. It is unbroken but infilled with carbonaceous material. Other than one 8° fracture the section from 839' to 846' is relatively unbroken. The bedding angle is 47° to c.a. from 845' to 855'. |
| 847 | 855 | | | | | sst. | med. | mgr. | 47° | broken | 847' there is a 21° joint. It is infilled with carbonaceous material. At 850' to 850.5', 7 bedding joints occur. They are polished and have carbonaceous infilling. At 851' there is a polished carbonaceous infilled joint at 34° to c.a.. The rest of this section remains intact but contains carbonaceous infilling throughout bedding planes. |
| 855 | 870 | | | | | sst. | lt. | cgr. | 43 | broken | 858' there is an 8° joint. It is polished, discontinuous and has carbonaceous infilling. There is carbonaceous infilling throughout most bedding planes. Bedding planes (joints) occur approx. every 1'. 862' there is a 44° to c.a. joint. |
| 870 | 876.5 | 876.5 | 877' | 264.2 | 265.4 | coal | dk. | - | 46 | broken | Coal is broken every 3". Most are bedding joints clean and shiney. |
| 876.5 | 883 | | | | | sst. | lt. | mgr. | 47 | broken | From 86 5' to 880' polished bedding joints occur every 7". From 880' - 883' sst. remains intact. One foot of mst. at 876.5' to 877.5'. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|-------------------|-------|----------|------|----------|------|------------------|-----------|-------------|------------------------|--|---|
| Logged By: E.M.D. | | | | | | Date: JUNE 15/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 883' | 894' | 573' | 883' | 47' | 211' | coal | dk. | - | 53° | broken | 889' to 890' there is a mst. parting. Coal is clean and has bedding joints or breaks every 2". |
| 894' | 1029' | | | | | sst. | lt. | cgr. | 48 | intact | From 894' to 947' only bedding joints occur. They are basically clean but some are polished with slight carbonaceous infilling. These bedding joints occur at 902', 902.5', 925', 932', 933.5', 934', and 3 within 3" at 938'. At 937' there is a clean, continuous 8° to c.a. joint. Around 927' the bedding angle changes to 55° to c.a. From 947' to 1029' the core is entirely intact except due to drillers breakage. The core is well indurated and shows cross-bedding throughout. Around 1017' the grain size is mgr. and continues to get finer grained. |
| 1029' | 1198' | | | | | sst. | lt./ med. | cgr- fgr. | | | 1029' - 1037' completely intact. 3 bedding planes at 1038' to 1039' (55° to c.a.) at 1054' there is an 8° to c.a. joint. It is clean and continuous. |
| | | | | | | | | | 55° | broken | 1054.5' joint at 34° to c.a. calcite infilled and continuous. Cross-bedding from 1029' to 1198'. From 1059 to 1037 there are 14 bedding joints all 55° to c.a. and polished. Some (4) calcite healed continuous joints at 1067 and 1" apart. At 1077' there is an 8° joint. It is clean. At 1089' there are 4 bedding joints at 57° to c.a. they are clean. From 1096' to 1098 there are 8 polished bedding joints. At 1105' and 1108' there is a calcite infilled joint at 37° to c.a. (calcite is 1/2" thick). Cont... |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|-------------------|-------|----------|----|----------|----|------------------|--------------|--------------|------------------------|--|---|
| Logged By: E.M.D. | | | | | | Date: JUNE 15/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 1029' | 1198' | | | | | sst. | lt./ med. | cgr. fgr. | 55° | broken | From 1104' to 1109', 8 polished bedding joints. 1114' to 1117' - 4' joints at 65° to c.a. (polished) at 1118' there are 5 bedding joints (clean) in 5". 2 joints at 37° to c.a. occur at 1117.5' and 1121'. They are infilled with calcite. At 1130' there is a clean joint at 47° to c.a. This crosses the bedding planes. At 1135' and 1136.5' there is a parallel set of clean joints at 53° to c.a. (crossing the bedding). 1137' to 1157' bedding joints (polished) occur every 8". At 1138' there is a calcite infilled joint at 24° to the c.a. A parallel joint occurs at 1138.5' in this section (1137' to 1157') interbedding of cgr. and mgr. sst. is common. Undulating bedding is also visible. 1157' to 1161' 2 polished and calcite infilled joints occur. Otherwise intact. At 1167' the 8° to c.a. joint occurs and causes the core to be very broken for one foot. 1167' to 1187' only bedding joints 60° to c.a. At 1170' a 24° to c.a. joint occurs. Around 1177' sst becomes fgr. 1185' there are 3 discontinuous, calcite healed bedding joints. (2" apart). From 1187' to 1198' core has 3 bedding joints that are polished. At 1195' there is one calcite healed joint at 57° to c.a. |
| 1198' | 1353' | | | | | sst. | med. | fgr. | 52° | broken | From 1198' to 1344' the core is very fgr. sst. at 1344' . The sst. becomes cgr. 1198' - 1207' only 6 bedding joints at 52° to c.a. Cont... |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------|-------|----------|----|----------|----|------------------|-------|------------|------------------------|-------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 15/82 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1198' | 1353' | | | | | sst. | med. | fgr. | 52° | broken | These are polished and show plant impressions. 1207'-1217' | |
| | | | | | | | | | | | 5 clean bedding joints. 1217' - 1226' - 4 clean bedding joints. | |
| | | | | | | | | | | | (at 53 to c.a.). At 1229' there is a 30° joint clean and | |
| | | | | | | | | | | | continuous. 1226' - 1246' 5 clean polished bedding joints. | |
| | | | | | | | | | | | At 1244' there are 2 40° to c.a. (4" apart). 1246' - 1266' | |
| | | | | | | | | | | | 6 clean and slightly polished bedding joints. At 1253' a | |
| | | | | | | | | | | | discontinuous polished joint at 20° to c.a. At 1277' one 8° | |
| | | | | | | | | | | | joint. It is clean. At 1281' one 64°. Bedding is 54° at | |
| | | | | | | | | | | | 1281'. 1282' - 1287' some small discontinuous calcite | |
| | | | | | | | | | | | healed joints but fully intact. 1295' there is an 8° joint. | |
| | | | | | | | | | | | It has calcite infilling and slicken sides. 1296' - 1300' | |
| | | | | | | | | | | | intact save one bedding joint (clean) at 1299'. | |
| | | | | | | | | | | | 1300' - 1307' 4 clean bedding joints. 1307' - 1309' intact. | |
| | | | | | | | | | | | 1309' calcite infilled fracture. Bedding angle at 1327 is | |
| | | | | | | | | | | | 53° to ca. 1317' - 8° to c.a. clean continuous joint. | |
| | | | | | | | | | | | 1317' - 1327' 8 clean continuous joints. At 1324' one 53° | |
| | | | | | | | | | | | joint. 180° rotation. 1327 - 1337' - 3 calcite infilled | |
| | | | | | | | | | | | bedding joints generally well intact. From 1325' - 1337' | |
| | | | | | | | | | | | 5 continuous calcite infilled joints at 30° to c.a. At 1337' | |
| | | | | | | | | | | | and 1336' there is a pair of clean joints at 65° to c.a. | |
| | | | | | | | | | | | From 1337' - 1344' sst. is very fgr. Bedding joints and | |
| | | | | | | | | | | | fractures occur every 2". These surfaces are highly polished | |
| | | | | | | | | | | | and may be considered shears. 1344' | |

s. 1344' becoming cgr. sst.

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------------------------------|-------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. Date: JUNE 15/82 | | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1353' | 1367' | | | | | sst. | lt. | cgr. | 53° | broken | From 1345' to 1354' sst. is very light in colour. 1354' to 1367' becomes darker. 1350' - 8° joint, discontinuous and infilled with calcite. 1351' and 1351.5' - 2 bedding joints - polished and have carbonaceous infilling. Both are wavy due to undulating bedding. 1354' - 1367' - carbonaceous material increases. 1354' to 1355.5' - 8° to c.a. joint. It is polished and infilled with carbonaceous material. A parallel joint occurs at 1356'. 1358' - fracture at 81° to c.a. (infilled with carbonaceous material). Cross-bedding also present at 1359' - 16° joint with carbonaceous infilling. At 1352' - 47° joint with calcite infilling. 1361' - 3 clean joints at 65° to c.a. At 1362' and 1364' - 16° joints. They are infilled with carbonaceous material. 2 breaks at a 1367' - core is brittle in this area. | |
| 1367' | 1447' | | | | | sst. | lt. | cgr. | | broken | 1367' - 1377' - cgr. sst. with much carbonaceous marbling throughout. All pieces of core are ~ 5" long. At 1366' a carbonaceous infilled joint at 42° to c.a. | |
| | | | | | | | | | 53 | | 1370' and 1371' - joints at 20° to c.a. They are continuous carbonaceous infilled and healed. At 1378' - joint at 35° to c.a. smooth and infilled with calcite. At 1379' - joint at 8° to c.a. also calcite infilled. 1383' - 1385' very broken. No piece bigger than 4". Most surfaces are polished and cracked. Cont.... | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|---|----------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: E.M.D. Date: JUNE 16/82 | | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1367' | 1447' | | | | | sst. | lt. | cgr. | 53° | broken | Cont...1385.5' - joint at 65° to c.a. calcite infilled. 1386' - joint at 16° to c.a. calcite infilled. 1387' - 1388' - crumbled due to 8° joint to c.a. 1390' - another 8° joint also infilled with calcite. 1388' - 1397' - joints occur every 4" to 5". All are polished and infilled with carbonaceous material. At 1395' bedding angle is 60° to c.a. 8° joints are found at 1395', 1400', 1394', at 1402' a 15° joint, this joint is clean. 1402' - 1408' cgr. sst., well indurated, cross-bedding and well intact. 1408' core bedding angle is 49° to c.a. 1408' - 1427' bedding joints occur every 6". At 1410' - 30° joint, clean and discontinuous. One set (2 about 1" apart) at 1414' at 54° to c.a. This joint is crossing the bedding plane and infilled with carbonaceous material. 8° joints at 1416' and 1420' both rough and have carbonaceous infilling. 1420' - a 24° joint has carbon infilling. At 1420.5' - one undulating 8° joint intercepted by a 24° joint. (both have carb. infilling). 1437' - 1445' - bedding joints every 1.5'. Cross-bedding very visible. At 1440' - 1442' - 5' continuous and discontinuous healed fractures. healed with carb. 1442' - 1447' - well indurated 2 bedding joints. One calcite and one carb. infilled. Bedding is 54° to c.a., undulating and cross-bedding quite common. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____
 Logged By: E.M.D. Date: JUNE 16/82

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|--------|----------|-------|-----------|-------|------------|------------------------|---------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1447' | 1452' | | | | | sst. | lt. | c gr. | 56° | broken | 3 polished bedding joints at 57° to c.a. Cross-bedding visible throughout. well indurated. Calcite x-tals at 1448'. At 1451' - one 8° joint, healed with carb. material. | |
| 1452' | 1455' | 1447.8 | 1452.1 | 141.3 | 142.6 | coal | dk. | - | - | broken | No pieces over 4" in length. Coal is shiny and clean. <i>See R2</i> | |
| 1455' | 1461' | | | | | siltst. | med. | - | 63° | broken | Siltst. is very jointed. From 1455' to 1456' - 12 bedding joints ~ .5" apart. All have smooth relatively clean surfaces. 1456' - 1461' bedding joints 4" to 5" apart. At 1455.5' a joint at 40° to c.a. It too is clean and polished. | |
| 1461' | 1467' | 1455.7 | 1465.9 | 141.6 | 144.2 | coal | dk. | - | - | broken | Broken into small fragments. Clean and shiny. At 1467' <i>See R2</i> there is a contact between coal and cgr. sst. For ~ 3" the coal and sst. interbed. | |
| 1467' | 1535' | | | | | sst. | lt. | cgr. | 65° - 70° | broken/intact | This section is well indurated and shows cross-bedding. The bedding angle has flattened out to ~ 70° near the end footage. No joints present. From 1467' to 1535' bedding joints (~ half which are polished) occur every 2'. Thin light and dark interbedding present throughout. | |
| 1535' | 1621' | | | | | sst. | lt. | cgr. | 72 | intact | Entire footage is cgr. sst. Cross-bedding throughout. At 1547° - one 8° joint (clean). From 1535' to 1607' breaks occur every 3' to 4'. Sst. is very well indurated and light in colour. 1607' - 1621' - sst. becomes more breakable but is still strong and fairly well intact. From 1607' - 1609' - 7 bedding joints. They are at _____ to c.a. and have polished surfaces. Cont..... | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | | | | | |
|-------------------|-------|----------|----|----------|----|-----------|-------|------------|------------------------|------------------|--|--|--|-----------|--|
| Objective: | | | | | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
| Logged By: E.M.D. | | | | | | | | | | Date: JUNE 17/82 | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | |
| From | To | From | To | From | To | | | | | | | | | | |
| 1535' | 1621' | | | | | sst. | lt. | cgr. | 72° | intact | Cont... At 1553' there is one 24° joint. It has calcite infilling and is partly healed. At 1597' there is both a 16° and 8° joint. Both are clean and run ~ the same length. At 1621' the bedding angle is 68° to c.a. 1618' - 1621' - 7 clean bedding angles. Plant impressions are visible and sst. is almost mgr. | | | | |
| 1621 | 1687 | | | | | sst. | lt. | mgr. | 66° | broken | 1621 - 1627 - 10 bedding joints - polished surfaces with carb infilling. At 1650 - core bedding axis is 70° to c.a. 1627 - 1630 - bedding joints every 4". 1621 - 1630 - presence of over bank deposits. At 1631' - a parallel set of calcite infilled joints at 12° to ca. 1636' - 12° joint infilled with calcite. From 1630 - 1636' - 1645' - mgr.sst. well indurated. Cross-bedding present. 1670' bedding is 68° to c.a. At 1652' - calcite healed joint at 8° to c.a. At 1657' calcite infilled joint at 8° to c.a. 1645' - 1657' - bedding joints every 1'. Surfaces are polished and have carbonaceous infilling. 1660' - 1/2' of siltstone interbedding. There is cross-bedding and one joint at 8° to c.a. It is healed with calcite. 1667' - 1657' - 5 bedding joints polished. Section well indurated. Cross-bedding. 1667' - 1687' - sst. is becoming darker. Bedding joints are polished and occur every 3to 4". Calcite healed joints at 1677' and 1677.5' and 1680'. These are 22° to c.a. Cont... | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---|-------|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|---|--|
| Logged By: E.M.D. Date: JUNE 21/82 | | | | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1621' | 1687' | | | | | sst. | lt. | mgr. | 66° | broken | Cont.. At 1678' - calcite healed joint at 8° to c.a. 1687' - calcite infilled joint at 8° to c.a. From 1667' - 1687' throughout there is mgr. sst. and slt. interbedding. | |
| 1687 | 1790 | | | | | sst. | med. | fgr. | 65 - 70 | broken | Sst. has gradually become fine grain. Cross-bedding is still visible and core is becoming darker. Plant impressions throughout entire section. 1687' - 1697' - polished bedding planes occur every 8". At 1688' - discontinuous calcite infilled joint at 16° to c.a. 1700' - coal lenticles. 1713' and 1713.5' - parallel set of clean joints at 8° to c.a. 1697' - 1713' - core is brittle. Bedding joints every 5". Polished surfaces. 1724' - calcite infilled joint at 12° to c.a.. also clean 12° joint at 1728'. At 1730' - one 16° joint, clean. Cross-bedding present with some calcite healed bedding planes. 12° joints at 1741' and 1747' these are calcite infilled. Bedding joints every 1.5'. They are clean. At 1755' - 1756' mgr. sst. band. It also contains 3 calcite infilled joints at 16° to c.a. ~ 4" apart. 1757' - 1765' core is well intact and contains 3 2" bands of mgr. sst. 1765' - 1773' breaks occur every 1'. These are clean but reveal plant impressions. 1773' - 1790' coal clasts scattered throughout. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|-------------------|------|----------|----|----------|----|------------------|-------|-------------|------------------------|--|--|
| Logged By: E.M.D. | | | | | | Date: JUNE 21/82 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 1687 | 1790 | | | | | sst. | med. | fgr. | 70° | broken | sst. has become very fine grained. At 1777' - one clean 8° joint. 1777' - 1790' core is brittle and contains basically horizontal fractures (clean). Cross-bedding present with plant impressions throughout. Sst. has become darker. |
| 1790 | 1887 | | | | | sst. | med. | v.fgr. | 70 - 75 | broken | entire section is very fine grain sst. core is darker in colour and bedding is hard to see. 1794' clean joint at 16° to c.a. 1792' - 1805' intact save breaks 2' apart. 1805' - 1820' bedding joints ~ 1' apart, all appear clean. Many plant impression present throughout. 1820' - 1827' 7 bedding joints with slight carbonaceous infilling. 1846' - calcite infilled joint at 12° to c.a. section is well indurated. 1827' - 1847' breaks every ~ 2'. 1855' - polished, calcite infilled joint at 20° to c.a. 1855' - 1887' - core contains fractures every 2' to 2.5'. Very slight mgr. sst. interbedding within footages. At 1875' one calcite healed joint at 20° to c.a. |
| 1790 | 1887 | | | | | sst. | med. | v.fgr. | 70 - 75 | broken/intact | At 1887' one clean 8° joint. Small plant impressions throughout. 1877' - 1887' clean bedding joint ~ 2' apart. |
| | | | | | | | | | | | END OF 1715 |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--|-----|-------------|----|----------|----|--------------|-----------|------------|---|---|--|--|
| Logged By: PAUL DUDZINSKI Date: August 16th, 1982 | | | | | | 149,206° | | 22,671° | | 2,027.3 m | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | |
| | | SOUTH EAGLE | | | | 450.6 m | | | DIRECTIONAL SURVEY DONE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 0 | 13' | | | | | | | | | | → 0 to 13' casing | |
| 13' | 17' | | | | | MST. | dark gray | | 44° | Well broken | Shows some tan weathering. 75% recovery. Infrequent plant fragments. Grades to siltstone. 13' Joint at 37° some slickensides, Fe stains. | |
| 17' | 50° | | | | | SST | med. gray | fine grain | 57° | Broken to rubble | Entire zone has been well fractured & calcite infilled. Fine SST thinly laminated with dark SLST. Many examples of disturbed bedding. 19' 4° Joint 22' 2 10° Joints minor slickensides. 25' 35° Joint. Ca infilling. 27' 21° Joint. 28' 4° Jointing. Heavy fe staining and weathering. 31' Ca vein. 3/8" at 21°. 40' 32° Joint. fe staining weathered. 45' 8° Joint. Very small Ca crystals present. | |
| 50' | 57' | | | | | SLST/ MST | dark gray | | | Rubble | 50' → 57' Well fractured zone. Slightly carbonaceous. Good fe staining. Some pyrite smears. Some slickensides & polished surfaces. Possible fault zone | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------|--------|----------|----|----------|----|-----------|-------------------------|-------------|------------------------|------------------|---|--|--|
| Logged By: PAUL DUDZINSKI | | | | | | | Date: August 16th, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 57' | 87' | | | | | SST | med. gray | fine to med | 55° | Broken | Laminated with SLST. Numerous Ca infillings. Minor Slickensides & polished surfaces. 62' Joint 10°, Ca infilling. 69' Ca vein. 3/8" thick. | | |
| 87' | 90' | | | | | MST | dk gray to blk | | | Rubble | Well broken up. Some plant fragments present. Polished surfaces & slickensides, Ca infillings & smears. Small amounts of chalcopyrite present. | | |
| 90' | 110' | | | | | SST | dark gray | very fine | 55° | Broken | Very fine SST. with SLST. Ca staining & infillings. Slickensides & minor polished surfaces. Some infrequent plant fragments & minor pyrite. Jointing present, 5°, 10° and 35° 101' 6" of MST. well broken, carbonaceous, some pyrite stains. | | |
| 110' | 111.5' | | | | | COAL | Black | | | Rubble to powder | Soft, dull, friable. Some pyrite. | | |
| 111.5' | 152' | | | | | SST | lgt to md gray | fine to med | 61° | Broken | Thinly laminated with SLST. some Ca, slickensides and Plant fragments, polished surfaces. 140' → 147' extremely broken. large amount of Ca staining, slickensides. Possible fault zone? | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|---------------------------|------|----------|----|----------|----|-------------------------|-----------|--------------|------------------------|--|---|
| Logged By: PAUL DUDZINSKI | | | | | | Date: August 16th, 1982 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 152' | 160' | | | | | SST | dark gray | fine | 65° | Broken | Fine sandstone with siltstone. Plant fragments. Slickensides polished surfaces. Some Ca. |
| 160' | 174' | | | | | SLST | dark gray | | 60° | Well broken. | Small carbonaceous infillings. Plant fragments. Some polished surfaces. Minor Ca. |
| 174' | 175' | | | | | COAL | Black | | | Rubble to powder | Soft, shiney, somewhat friable. |
| 175' | 217' | | | | | SST | med. gray | fine to med. | 72° | Broken | Medium & fine SST. thinly laminated. Some Ca with large crystals in joints. Joints: 17°, 30° set of 4 at 30°, 183' 196' joint 26°, 205' joint 17°, rough surface. 215' joint 20° |
| 217' | 220' | | | | | MST. | dark gray | | 76° | Broken | Dark grey mudstone. Somewhat carbonaceous. Evidence of pyrite. Some slickensides & polished surfaces on carbonaceous surfaces. Minor plant fragments. |
| 220' | 232' | | | | | SST | med. gray | very fine | 69° | Broken | Approx. 50% V.E.G. SST. and 50% dark grey SLST. Somewhat carbonaceous, some plant fragments present. |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | |
|--|----------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: PAUL DUDZINSKI Date: August 17th, 1982 | | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|------|----------|-------|----------|------|-----------|-------------------------|------------|------------------------|------------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 232' | 234' | 227.7 | 230.0 | 69.4 | 70.0 | COAL | Black | | | Rubble | Soft. Bright & dull banding. Somewhat dirty. | |
| 234' | 286' | | | | | SST | lt/med fine gray to med | | 50° | Intact | Fine to med. grain SST with occasional laminations of SLST. Some small carbonaceous stringers & plant fragments are present. Mud clasts, worm burrows & evidence of disturbed bedding are present throughout. Very minor Ca. 257' joint 34° 278 joint 38° | |
| 286' | 287' | | | | | MST | dark gray | | 63° | Rubble | Very Carbonaceous, plant fragments. Some Ca & pyrite. Polished surfaces. | |
| 287' | 294' | 285.4 | 288.7 | 87.0 | 88.0 | Coal | Black | | | Rubble to powder | Soft, Dull, Dirty. Some pyrite present. Quite light weight. Polished surfaces. 92% recovery. | |
| 294' | 320' | | | | | SST | dark gray | Fine | 59° | Intact to broken | Somewhat similar to previous SST. Unit. Thinly laminated in places with occasional mud clasts & worm burrow. Plant fragments. | |
| 320' | 325' | | | | | SLST | dark gray | | 65° | Broken | Dark gray SLST. Plant fragments. Some calcite infillings. Polished surfaces & minor slickensides. | |

322' → 324' Very Carbonaceous coal with mudstone
Well broken up, dirty. Polished surfaces.
Hole No. D.D.H. 1720 Page 4 of 15

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____
 Logged By: PAUL ^{THE}DUIZINSKI Date: August 17th, 1982

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|-------|----------|-------|-----------|-----------|------------|------------------------|------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 325 | 428' | | | | | SST | dark gray | fine | 68° | Intact | Some carbonaceous stringers & plant fragments present. Ca infillings with good slickensides present. 341' → 341.5 Coal, soft, dirty. 342' 37° Joint Ca. good slickensides. 361' 2 joints 5°, 12° Carbonaceous infilling, polished surfaces. 365'-368 minor Ca strg's at 45-50° to C.A. 369' carbonaceous infilling of joint also at 370'. From 360' note bedding at 45°-50 to C.A. from 414' bedding 42° to C.A. 387' Ca infilling joint also at 395'. 389' and 392' carbonaceous infilling joint. 401' Ca filled joint dipping 40° to C.A. 400' possible shear zone, Ca infilled, slickensides present. rubble core. | |
| 428' | 433 | | | | | SLST | dark gray | | 45° | Broken | Carbonaceous, plant material, lamination of fn gr sst. | |
| 433' | 435' | | | | | MST | dark gray | | 45° | Broken | Carbonaceous, plant impressions. | |
| 435' | 447' | 431.8 | 442.9 | 131.6 | 135.0 | COAL | BLACK | | | Broken to powder | Clean, hard, bright, some polished surfaces. | |
| 447' | 461' | | | | | MST | dark gray | | | Broken | Carbonaceous, 6" coal seam at 455.0 to 455.5' plant: impressions, numerous coal stringers, coal seam 459' to 460', coal seam 461 to 461.5' | |
| 461' | 464 | | | | | SLST | dark gray | | 47° | Intact | Dk. Gray calcite, pyrite, some Fe stains, carbonaceous. | |
| 464 | 467 | | | | | MST | dark gray | | | Intact | Carbonaceous, dk gray, plant impressions, calcite, pyrite. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|-----------------------|-------------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: D. JOHNSON | Date: August 19th, 1982 | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|------------|------------|------------|------------------------|------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 467' | 477' | | | | | COAL | Black | | | Intact to rubble | Clean, hard, bright, polished surfaces. Numerous shale partings, shale partings 472'-473'. | |
| 477' | 478' | | | | | MST | dark gray | | | Intact | Carbonaceous, polished surfaces, coaly stringers. | |
| 478' | 479' | | | | | SST | dark gray | Fine | 55 | Intact | Plant material. | |
| 480 | 500' | | | | | SLTST | dark gray | Fine | 55 | Intact | Solid to 487. At 487-491 polished surfaces with calcite stringers 491-500 many polished surfaces, J2-22° incl. to 120°, CA. 150°, 180° | |
| 500' | 504' | | | | | MST. SHALE | dark gr-bl | Fine | 50 | Well broken | Numerous polished surfaces. Coal stringer 501-502. Coal stringer at 503.4, 3 inches thick. | |
| 504 | 507 | | | | | SLTST | dark gray | Fine | 43 | Broken-rubble | Polished surfaces to 506' | |
| 507 | 567' | | | | | SST | gray-dk gr | Fine | 35 | Intact | 507 - 515'. Calcite stringers | |
| | | | | | | | | | 36 | " | JNT, 512'-22°. JNT 513'-18° | |
| | | | | | | | | | 35° | " | 515-520'. Some calcite stringers. JNT 17° | |
| | | | | | | | | | 41° | " | 520-525. JNT 47°. JNT 4°. | |
| | | | | | | | | | 43° | " | 525-530'. Some calcite stringers | |
| | | | | | | | | | 46° | Broken | 530-535'. | |
| | | | | | | | | | 46° | Broken | 535' → 540' Calcite infillings. Some polished surfaces. Thinly laminated with dark gray SLST. | |
| | | | | | | | | | 44° | Broken | 540° → 545' Same as above. | |
| | | | | | | | | | 44° | Broken | 545' → 550' Increasing amount of SLST laminations. at 549' 6 inches of dark gray SLST. Well broken. Some thin carbonaceous stringers. | |
| | | | | | | | | | 49° | Intact | 550' → 555' Dark gray, fine grain SST, minor Ca, hard. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | |
|---------------------------|-------------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: PAUL DUDZINSKI | Date: August 23rd, 1982 | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|------|----------|----|----------|----|-----------|-----------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | 62° | Intact | 555' → 560' Same as above. | |
| | | | | | | | | | | | 560' → 565' Same as above. | |
| | | | | | | | | | | | 562' Joint 12° | |
| 567' | 586' | | | | | SST | Med. | Med. | 40° | Intact | Medium Grey, medium grain SST. Thinly laminated with fine SST. Some minor Ca infillings. No apparent plant fragments. Very minor polished surfaces & slickensides. | |
| | | | | | | | | | 42° | | 584' Joint, 37° | |
| 586' | 636' | | | | | SST | Med. | Coarse | 49° | Intact | Medium Grey, coarse grain SST. Thin calcite & carbonaceous stringers. Bedding visible throughout most of unit. Very resistant to hammer blows. Some polished surfaces on carbonaceous stringers. | |
| | | | | | | | | | | | 596' Joint, 15° | |
| | | | | | | | | | | | 608' Joint, 23° | |
| | | | | | | | | | 35° | | 623' Joint, 42°, Ca infilling. | |
| | | | | | | | | | | | 625' Joint, 47°, Minor slickensides present. | |
| | | | | | | | | | | | 633' 4 inch zone of numerous Ca infillings gives a brecciated appearance. Ca crystals visible on broken surface. Joint at 29°, slickensides, | |
| 636' | 697' | | | | | SST | dark gray | very fine | 46° | Intact | Dark gray, very fine to fine grain SST. Some SLST present. Core fairly soft for first 14' of unit, then more resistant. Polished surfaces present. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____

Logged By: PAUL DUDZINSKI Date: August 23rd, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|-------|----------|-------|-----------|----------------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | | | Some minor Ca & carbonaceous infillings. | |
| | | | | | | | | | | | 652' JOINT, 20° | |
| | | | | | | | | | 53° | | 667' JOINT, 28° | |
| | | | | | | | | | 50° | at 687' | | |
| 697' | 707' | | | | | SST | med. gray | Med. | 51° | Intact | Medium gray, medium grain SST. Many Ca infillings. | |
| | | | | | | | | | | | Very minor slickensides. | |
| 707' | 740' | | | | | SST | med to dk gray | Fine | 49° | Intact | Fine grain SST. Thinly laminated with Dark gray SLST. Evidence of disturbed bedding throughout. | |
| | | | | | | | | | | | Some minor Ca infillings. Very minor polished surfaces on Carbonaceous infillings. | |
| 740' | 741' | | | | | SLST | dark gray | - | 43° | Broken | Dark gray SLST. Grades into carbonaceous MST. | |
| | | | | | | | | | | | Some plant fragments present. Minor polished surfaces. | |
| 741' | 752' | 743.1 | 785.7 | 226.5 | 227.3 | COAL | Black | - | | Rubble | Mostly soft, dull coal with some bright banding. | |
| | | | | | | | | | | | Fairly dirty with some very small MST splits present. | |
| | | | | | | | | | | | Some polished surfaces present. | |
| 752' | 761' | | | | | SST | med. gray | Fine | 60° | Broken | Fine grain SST with some carbonaceous infillings present. | |
| | | | | | | | | | | | Minor Ca infillings present. Polished surfaces & slickensides present. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------|------|----------|-------|----------|-------|-------------------------|-----------|-----------------|------------------------|-------------|--|--|
| Logged By: PAUL DUDZINSKI | | | | | | Date: August 24th, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 761' | 768' | 761.1 | 765.1 | 232.0 | 233.2 | COAL | Black | | | Well broken | Soft, dull coal with some bright bands. Generally extremely dirty throughout whole unit. Polished surfaces present. | |
| 768' | 783' | | | | | SLST | dark gray | | 56° | Broken | Dark gray SLST. Somewhat carbonaceous in places. Plant fragments visible. Slickensides & polished surfaces. Some minor Ca infillings. 778' Joint, 8°. Polished surfaces. | |
| 783' | 808' | | | | | SST | dark gray | very fine grain | 48° | Intact | Very fine grain SST. Some v. minor Ca infillings. Slickensides present. No plant fragments. Some examples of disturbed bedding. 798' Joint, 36° | |
| 808' | 821' | | | | | SST | med. gray | Med. | 41° | Intact | 807' → 808' 8 inches of bright soft coal. Medium grain SST. Hard, clean. Very minor Ca & carbonaceous stringers. Some slickensides. 820' Joint, 50°. | |
| 821' | 892' | | | | | SST | Med. | Coarse | 37° | Intact | Salt & Pepper Gray, coarse grain SST. Some Ca & carbonaceous infillings. Bedding angle drops throughout unit. Some polished surfaces on carbonaceous surfaces. 867', Joint, 54° | |
| | | | | | | | | | 30° at 854' | | Larger carbonaceous infillings near end of unit. | |
| | | | | | | | | | 18° at 866' | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--------------------------|-------|----------|-------|----------|-------|-----------|-------------------------|-------------|------------------------|--|---|--|--|
| Logged By: PAUL DUZINSKI | | | | | | | Date: August 24th, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 892' | 960' | | | | | SLST | dark gray | | 68° | Intact | Approx. 75% SLST and 25% V. fine grain SST. Percentage of SST occasionally increased to above 50% Minor slickensides present. No bituminous or Ca infillings. No plant fragments. Fairly hard. Very difficult to determine bedding. 952' → 958' Interval has occasional thin lamination of fine SST. Bedding 35°. 958' → 960' Carbonaceous mudstone. Plant fragments visible. | | |
| 960' | 962' | 957.0 | 961.9 | 291.7 | 293.2 | COAL | Black | | | Rubble | Dull with bright bands. Fairly dirty. Very small pyrite stains visible. | | |
| 962' | 965' | | | | | MST | Black | | | Broken | Carbonaceous mudstone & SLST. Polished surfaces & plant fragments visible. | | |
| 965' | 966' | | | | | COAL | Black | | | Rubble | Dull with bright bands. Soft. | | |
| 966' | 1013' | | | | | SLST | dark gray | | 48° | Broken to intact | 75% SLST and 25% V. fine grain SST. Slickensides present. Carbonaceous stringers. 980' → 981' 50% coal & 50% carbonaceous mudstone. 984' → 991' Carbonaceous mudstone & siltstone mixture. 75% SLST & 25% MST. Plant fragments visible. Slickensides & polished surfaces. Broken. Bedding: 42° | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------|------|----------|----|----------|----|-------------------------|-----------|------------|------------------------|-------------|---|--|
| Logged By: PAUL DUDZINSKI | | | | | | Date: August 24th, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1013 | 1243 | | | | | SST | med. gray | fine | 44° 45° | | 1000' → 1002' Carbonaceous mudstone. Rubble. Fine SST. Thinly laminated with SLST. Some minor Ca infillings. Some polished surfaces on carbonaceous infillings. Evidence of some truncated bedding. 1029' Joint, 5° 1066' Jnt, 33°, 1080' Jnt, 62° 3 of them are healed BDG 55° @ 1065'. 1098'(5) Jnt 29°, BDG 53° @ 1105' Jnt 1126' 23°, Jnt 23° @ 1132', Jnt 15° @ 1133', Jnt 45° @ 1137', Jnt 10° @ 1141', Jnt 44° @ 1143', Jnt 44° @ 1146', Jnt 40° @ 1167', Jnt 20° @ 1169', Jnt 25° @ 1172', Jnt 15° @ 1192', Jnt 23° @ 1197'. Some bands of med gr SST. most fractures are Ca infilled, carbonaceous infilling around 1159 1222' → 1224' 2 feet of medium grain SST with some thin laminations of fine SST. some mud clasts visible, also minor Ca vein. 1224' → 1227' Well broken zone. fine SST. Good slickensides on joint surfaces, also Ca infillings No Apparent Fe staining. Jointing between 20° & 30° | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | |
|---------------------------|-------------------------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: PAUL DIDZINSKI | Date: August 25th, 1982 | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|--------|----------|-------|-----------|-----------|------------|------------------------|------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1243 | 1283' | | | | | SLST | dark gray | | 43° | Intact | Dark gray siltstone. Good slickensides & polished surfaces present. Minor Ca smearing on joints. Grasses & twigs visible. | |
| | | | | | | | | | 60° | | 1259' → 1262' Fine SST thinly laminated with SLST | |
| 1283 | 1288' | 1282.8 | 1289.4 | 391.0 | 393.0 | COAL | Black | | | Rubble | Soft, dull & bright banded, fairly dirty, small carbonaceous MST splits. | |
| 1288 | 1310' | | | | | SLST | dark gray | | 55° | Broken | Somewhat the same as previous SLST unit. Slightly more carbonaceous. Good slickensides with Ca smears present. | |
| | | | | | | | | | | | Grades into MST during last foot of unit. | |
| 1310 | 1324' | 1308.4 | 1316.3 | 398.8 | 401.2 | COAL | Black | | | Rubble to powder | Soft, dull & bright banded. Friable. Large pieces somewhat brittle. Difficult description due to extensive drilling mud contamination. | |
| 1323 | 1333' | | | | | SLST | dark gray | | 57° | | Dark gray SLST. Plant fragments. Polished surfaces visible on carbonaceous stringers. Minor Ca & slickensides. | |
| 1333 | 1422' | | | | | SST | med. gray | Fine | 62° | Intact | Medium gray, fine grain SST. Competent unit with minimal jointing present. Minor Ca & V. poor slickensides present on joints. Rare carbonaceous infillings. | |
| | | | | | | | | | 58° | | | |
| | | | | | | | | | 57° | at 1398' | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: TO AVOID LAYOFF.

LATITUDE

DEPARTURE

ELEVATION

Logged By: PAUL DUDZINSKI

Date: August 25th, 1982

| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|--------|----------|-------|-----------|-----------|------------|------------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 1422' | 1436' | | | | | SST | med. gray | Fine | 69° | Intact | 60% fine SST & 40% SLST. Grasses, twigs & fern-like leaves visible. Minor Ca infillings. Polished surfaces. |
| 1436' | 1448' | | | | | SST | med. gray | fine | 51° | Intact | Fine SST thinly laminated with SLST. Good examples of cross bedding & truncated bedding at 1437'. SLST banding present (no more than 6 inches wide). |
| 1448' | 1452' | | | | | SLST | dark gray | | 47° | Broken | Dark gray SLST. No calcite. No plant fragments. 1450' → 1452' Dark gray MST. Becomes very carbonaceous in last 1 foot of unit. |
| 1452' | 1459' | 1450.8 | 1457.7 | 442.2 | 444.3 | COAL | Black | | | Rubble | Moderately hard. Bright with dull bands. Some slickensides slightly friable. |
| 1459' | 1473' | | | | | SLST | dark gray | | 54° | Intact | Dark gray siltstone. Approx. 40% fine SST. Numerous plant fragments present. Extremely minor Ca. some slickensides. |
| 1473' | 1477' | | | | | COAL | Black | | | Rubble | Fairly soft, brittle, dull with bright bands. Dirty. Some slickensides. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____
 Logged By: PAUL DUDZINSKI Date: August 25th, 1982

| Core | | Rad. Log | | | | Area SOUTH EAGLE | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|----|------------------|-----------|------------|------------------------|------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1477 | 1481 | | | | | SLST | dark gray | | 58° | Broken | Dark gray SLST. Numerous plant fragments. Same as previous SLST. | |
| 1481 | 1485' | | | | | COAL | Black | | | Rubble | 1477' → 1478' Carbonaceous MST. Plant fragments. 25% Recovery, brittle, friable, dirty. <u>BREAK IN OLD RODS?</u> | |
| | | | | | | | | | | | <u>NE</u> 1485' Start of NQ Rods. | |
| | | | | | | | | | | | 1485' → 1492' 16% Recovery, core status: Rubble, Lithology appears to be made up of coal and carbonaceous MST. | |
| 1491 | 1512' | | | | | SLST | dark gray | | 40° | Broken to intact | Dark gray SLST. Plant fragments present. Minor Ca. Some polished surfaces. | |
| 1512 | 1532' | | | | | SST | med. gray | Fine | 51° | Intact | 1502' → 1504' Coal, soft, dull, friable. 25% recovery. Fine SST thinly laminated with SLST. Minor slickensides. Occasional plant fragments. | |
| 1532 | 1547 | | | | | SLST | dark gray | | 61° | Intact to broken | Dark gray SLST. Plant fragments. Some Ca veining. Polished surfaces, minor slickensides. | |
| 1547 | 1605' | | | | | SST | med gray | Fine | 70° | Intact | Fine grain, medium gray SST, Minimal Ca. Some plant fragments. Negligible slicks or polished surfaces. BDG 55° @ 1575' | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------------------|-----|----------------|----|----------|----|-------------------------|----------|------------|---|------------------|---|--------|--|
| Logged By: J. Stokmans | | | | | | Date: November 25, 1982 | | 149,007.6 | | 26,371.1 | | 2137.1 | |
| Core | | Rad. Log | | | | Area | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | |
| | | Eagle Mountain | | | | 676.0 m | | | DIRECTIONAL SURVEY DONE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 0 | 24 | | | | | | | | | no core | due to casing & some overburden. | | |
| 24 | 63 | | | | | slt | dk gry | fine | 60° | well broken | 24' - 40' is quite weathered, much iron oxide staining. infrequent minor sandstone beds are apparent 3° joint at 50'. coal stringer at 65.5'. some plant fragments throughout. | | |
| 63 | 136 | | | | | sst | grey | fine | 64° | intact to broken | vertical joint from 70' - 86' continues again from 88' - 96'. some calcite healing at 83'. Polished surfaces at 96' from 100' -102' iron staining along flat lying fractures. Bedding plane at 105' is 80° to c.a. From 106 to 108 iron stained fracture at 10-15° to c.a. Calcite healing at 109-110'. Locally beds become undulated. from 126' to 135' flat lying joint with iron staining and some calcite association. | | |
| 136 | 146 | | | | | slt | md gry | f - vf | | intact | grades to mst. towards lower contact. at 141' 5-10° to c.a. joint with iron staining. | | |
| 146 | 162 | | | | | coal | blk | | | broken | about 70% recovery dull, shaley over last 5'. | | |
| 162 | 188 | | | | | slt | md gry | r - vf | 55-60° | intact | shaley, locally in some plant impressions. At 176', irregular joint with carbonate infilling. | | |
| 188 | 196 | | | | | coal | blk | | | broken | shaley both at lower and upper contact, mainly dull color 5' recovery | | |
| 196 | 200 | | | | | slt | md gry | f - vf | | intact | shaley towards upper contact gradually increasing grain size towards lower contact, minor joint at 20-25° to c.a. at 200'. | | |
| 200 | 218 | | | | | sst | ltmd gry | fine | 75° | intact | undulations in bedding evident, 214 to 215 thin calcite filled joint at 15-20° to c.a. color becomes lighter towards lower contact | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------------------------|-----|----------|----|----------|----|----------------------|--------|------------|------------------------|--------------------|---|--|--|
| Logged By: C. Poulin/D. Johnsen | | | | | | Date: November 29/82 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 218 | 248 | | | | | coal | blk | | | broken | many polished surfaces due to shearing evident. very shaly 235' - 248' | | |
| 248 | 362 | | | | | slst | dk gry | md-fine | 63 ^u | intact | slst interbeds, minor calc. 6" coal strg at 268'-278' (hard bright coal) Jnt 20° @ 260' minor polished surfaces, very broken & polished @ 320'-335' possible fault or shear zone. Some slks abundant calcite becomes coarser grained from 330' - 335' numerous calc filled jnt surfaces (335'-362') med grained from 335-362', parallel jnts @ 300'. Jnt @ 277' Jnt 20 @ 291', Jnt 18° @ 296'. Numerous Jnts 330'-350'. 2 sets of 25-30° and 40-45°, numerous healed joints, core badly fractured | | |
| 362 | 380 | | | | | slst | dk gry | | 60° | intact | abundant calc, polished surfaces, plant impressions, some sst interbeds slks @ 378', shear zone?? Highly polished surfaces @ 379'-380' indicating movement of H.W. of coal seam. | | |
| 380 | 396 | | | | | coal | blk | | | rubble | dull, dirty coal 50% recovery, very shaly, best coal in bottom & top of seam 2'. | | |
| 396 | 400 | | | | | slst | dk gry | | | intact | polished surfaces, calc. | | |
| 400 | 506 | | | | | slst | dk gry | f-v.f. | 57° | intact-semi-intact | calc. polished surfaces, heavy calc @ 420' rubbly core @ 430' shear or fault zone from 430'-432', slks polished surfaces, very carbonaceous, repeat of same from 440'-442', some bioturbation in bdg, very well formed calcite along bdg @ 435' coal stringer 454' about 6", coaly shale @ 467' carbonaceous areas common throughout this interval, plant material common throughout, bdg very erratic | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: _____ Date: Dec. 2, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core (Ft.) | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|------------|-----|----------|----|----------|--|-----------|---------|------------|------------------------|-----------------------|--|--|
| From | To | From | To | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| 506 | 509 | | | | | slst | dk gry | | | broken | planty material, coaly strgs, carbonaceous | |
| 509 | 527 | | | | | coal | blk | | | rubbly | poor recovery (50%), 1' shale ptg @ 521' clean, hard bright coal | |
| 527 | 573 | | | | | sist | dk gry | | 53° | semi-intact | mudstone (542'-544'), shear zone 543', slks, polished, highly carbonaceous. This interval is highly carbonaceous, numerous coaly stringers, plant material common. Jnt (27°) @ 529', Jnt (20°) @ 557' and 558'. Jnt (8°) @ 556.5', Jnt 36° @ 563', Jnt 1° @ 562' (discontinuous), minor calc. throughout rubbly zone 572'-573', possible shear zone . Jnt 26° at 569', sharp contact with sst below | |
| 573 | 679 | | | | | sst | dk gry | fine | 75° | intact | highly variable bdg, numerous silt zones throughout, x-bdg, well indurated, calcite infilling common, breccia zone at 596', possible shear zone? minor polished surfaces, jnt 17° at 581', jnt(10) @ 596', jnt(22) @ 597', jnt(42) @ 604', jnt(23) @ 613', broken core @ 625', jnt(15) @ 632', jnt(20) @ 636', jnt(17) @ 642', core broken @ 635', 2 jnt (15) @ 665', jnt (24) @ 676'. | |
| 679 | 701 | | | | | slst | dk gry | | 70° | broken to semi-intact | coaly shaly (690'-692'), sst (693'-694'), carbonaceous plant material, zone of tlk calc, broken core 695'-697' | |
| 701 | 706 | | | | | sst | dk-ltgr | f-med | 80° | intact | well indurated, jnt(22) @ 703', contorted bdg, some slst bdg, minor calc. | |
| 706 | 708 | | | | | mst | dk gry | | | broken | highly carbonaceous, very broken, polished surfaces, concoidal fracturing, plant material. | |
| 708 | 723 | | | | | slst | dk gry | | | semi-intact | carbonaceous, laminations, plant material, minor calc., broken core at 718'. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------|-----|----------|----|----------|----|------------------------|--------|------------|------------------------|---|--|--|
| Logged By: | | | | | | Date: December 3, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 723 | 754 | | | | | coai | blk | | | rubble | very poor recovery (15%), dull shaly, although best coal lost is likely. | |
| 754 | 760 | | | | | mst | blk | | | broken | very carbonaceous, polished, plant material, calcite. | |
| 760 | 762 | | | | | slst | dk gry | | | broken | carbonaceous, polished surfaces, minor calcite, very broken possible shear zone. | |
| 762 | 786 | | | | | sst | gry | fine | 62° | intact | well indurated, calc infilling, bdg angle increases with depth, some slst interbeds, very competent, no joints, heavy calc zone @ 783' - possible shear zone. | |
| 786 | 789 | | | | | coal | blk | | | rubble | shaly, dull, low quality | |
| 789 | 808 | | | | | slst | dk gry | | | intact | coaly shale or shaly coal 797'-799', thick calc infilling @ 796' (shear?), carbonaceous, plant material, coaly stringers, polished surfaces minor shearing throughout. | |
| 808 | 858 | | | | | sst | gry | fine | 70° | intact | well indurated, very competent, jnt(2) @ 804', minor slst interbeds, minor coaly strngs, minor polished surfaces, minor calcite x-bdg, coal strg @ 844', core badly broken 844' to 850' and from 856'-857', jnt 25° @ 852' | |
| 858 | 868 | | | | | slst | dk gry | | 70° | intact | carbonaceous, coaly strgs, plant material, minor calc. | |
| 868 | 871 | | | | | sst | dk gry | fine | 70° | intact | calcite, well indurated, x-bdg, slst zones, fluvial. | |
| 871 | 888 | | | | | slst | dk gry | | 70° | semi-intact | coal (874'-875'), carbonaceous, polished surfaces, plant material, minor calcite, core badly broken (881'-882'), coaly strgs. | |
| 888 | 901 | | | | | sst | dk gry | fine | 70° | broken to intact | badly broken from 890'-895', calcite, well indurated, x-bdg, slst zones. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|------------|------|----------|----|----------|----|------------------------|--------|------------|------------------------|-----------------------|--|--|--|
| Logged By: | | | | | | Date: December 7, 1982 | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 901 | 908 | | | | | slst | dk gry | | 70° | intact | carbonaceous coaly strgs, plant material, minor calc. | | |
| 908 | 918 | | | | | coal | blk | | | broken | shale 911'-913' and 915' - 917', hard, clean, bright, shearing evident | | |
| 918 | 928 | | | | | slst | dk gry | | | intact | carbonaceous, polished surfaces, plant material, minor calc, coaly strgs, fault @ 928' - slks, calcite | | |
| 928 | 965 | | | | | sst | dk gry | fine | 85° | intact | well indurated, coaly strgs, bdg 50° from 953'-954', numerous calc infilling, regular bdg, polished surfaces. | | |
| 965 | 973 | | | | | slst | dk gry | | 85° | intact | carbonaceous, coaly strgs, polished surfaces, plant material, minor calc, shear zone @ 968' - slks & calcite. | | |
| 973 | 974 | | | | | mst | dk gry | | | broken | carbonaceous, highly polished, coaly stringers, plant material. | | |
| 974 | 978 | | | | | coal | blk | | | powder | dull, dirty, sheared. | | |
| 978 | 979 | | | | | slst | dk gry | | | intact | carbonaceous, polished, plant material, coal strgs. | | |
| 979 | 985 | | | | | sst | dk gry | f-v.fine | 70° | intact | minor calc, minor coaly strgs, plant material, coal lenses | | |
| 985 | 996 | | | | | slst | dk gry | | 70° | broken to semi-intact | polished surfaces, calc infilling, fairly clean. | | |
| 996 | 999 | | | | | coal | blk | | | rubble | hard, clean, bright, sheared. | | |
| 999 | 1009 | | | | | slst | dk gry | | 70° | intact | carbonaceous, polished surfaces, sheared, plant material, coaly stringers, minor calcite, badly sheared 1005'-1008'. | | |
| 1009 | 1015 | | | | | sst | dk gry | fine | 68° | intact | very dirty, plant material, slst interbeds, contorted bdg, fluvial, minor calc. | | |
| 1015 | 1037 | | | | | slst | dk gry | | 69° | intact | carbonaceous, polished, minor calc, coal strg @ 1021', plant material. | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------|------|----------|----|----------|----|------------------------|--------|-----------------|------------------------|------------------|--|--|
| Logged By: | | | | | | Date: December 8, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1037 | 1050 | | | | | sst | dk gry | fine | 75° | int- semi-intact | well indurated, minor calc, regular bdg, fault zone @ 1040'- calc, slks, bedding becomes 55° wrt near fault | |
| 1050 | 1052 | | | | | slst | dk gry | | 75° | intact | carby, plant material, minor calc. | |
| 1052 | 1059 | | | | | mst | blk | | | rubble | very carbonaceous, coaly in places, plant material, minor calc, very polished | |
| 1059 | 1064 | | | | | slst | dk gry | | | semi-intact | carby, polished surfaces, plant material, coal strgs. | |
| 1064 | 1066 | | | | | coal | black | | | broken | very shaly, very polished, sheared, fault zone, sull, dirty. | |
| 1066 | 1078 | | | | | slst | dk gry | | | intact | carby, polished surfaces, plant material, minor calc. | |
| 1078 | 1091 | | | | | sst | dk gry | v. fine | 75° | intact | well indurated, calc, wavy bdg, fluvial slst interbeds. | |
| 1091 | 1106 | | | | | coal | blk | | | rubble | very poor recovery (20%) clean, hard, bright, sheared, some shale | |
| 1106 | 1110 | | | | | slst | dk gry | | | intact | | |
| 1110 | 1114 | | | | | Sst. | Dk Gry | V. Fine to Fine | 78° | Intact | Well indurated, regular bdg., minor calcite dirty. | |
| 1114 | 1131 | | | | | Slst. | Dk Gry | | | Intact | Carbonaceous plant impressions, coal strgs, minor calc. shear zone @ 1122' - 1124'. | |
| 1131 | 1139 | | | | | Sst. | Dk Gry | V. Fine | 75° | Intact | Well indurated, dirty silty in places, minor calc. | |
| 1137 | 1152 | | | | | Slst. | Dk Gry | | 75° | Intact | Carbonaceous plant material, coal stringers, minor calc. | |
| 1152 | 1161 | | | | | Sst. | DkGry | V. Fine | 75° | Intact | Well indurated, dirty, silty in places, minor calcite, very few fractures. | |
| 1161 | 1176 | | | | | Slst. | DkGry | | | Intact | Carby plant material, coal stringers, minor calc. Some polished surface. | |
| 1176 | 1178 | | | | | Mst. | Black | | | Broken | Very carby, coaly in places, plant material. | |
| 1178 | 1182 | | | | | Coal | Black | | | Broken | Very shaly, dirty, dull, minor calcite sheared. | |
| 1182 | 1187 | | | | | Slst. | DkGry | | | Intact | Carby. plant material, coal stringers calc. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|------------|------|----------|----|----------|----|-------------------------|----------|--------------------|------------------------|--|--|
| Logged By: | | | | | | Date: December 14, 1982 | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 1187 | 1277 | | | | | Sst. | DkGry | Fine to Med. | 75° to 63° | Intact | Dirty, well indurated, minor calcite, X-bdg., bdg angle decreases with depth. Shear plane @ 1212', coal parting @ 1252' to 1253', polished surfaces, grain size becomes coarser with depth. |
| 1277 | 1278 | | | | | Coal | Black | | | Broken | Shaly, dirty, dull, sheared. |
| 1278 | 1281 | | | | | Slst. | DkGry | | | Broken | Carby., coal stringers, plant material, some mudstone (70/30) |
| 1281 | 1289 | | | | | Coal | Black | | | Broken | Dull, dirty, somewhat clean coal, shaly towards bottom, some shearing. |
| 1289 | 1300 | | | | | Slst. | Dk. Gry. | | | Semi-Intact | Coaly shale (1299'-1300'), carby, plant material (mostly in last 10'), minor calc., minor polished surfaces, shear @ 1295' |
| 1300 | 1358 | | | | | Sst. | DkGry | Fine | 80° | Intact | Fining upward sequence, med. grained @ 1330' abundant calc., calcite filled joints are common @ 1310'-1325', bdg. is regular well indurated especially 1330'-1338', lower contact very sharp, core very broken and fractured 1350-58'. |
| 1358 | 1368 | | | | | Slst. | DkGry | | 72° | Semi-Intact | First 6" very broken, polished, carbonaceous, silts, rest of unit is carby, plant material, minor calc., polished. |
| 1368 | 1388 | | | | | Sst. | DkGry | Fine | 70° | Intact | Gradational contact to above unit, irregular bdg., some slst bands, calcite, polished surfaces, well indurated, coaly stringers. |
| 1388 | 1419 | | | | | Slst. | DkGry | | 65° | Intact | Carby, plant material, minor calc., some sand bands, very few fractures, polished. |
| 1419 | 1426 | | | | | Sst. | DkGry | Fine | 80° | Intact | Well indurated, calc. infilling, polished surfaces, dirty silt bands, coal stringers. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------|------|----------|----|----------|----|--------------------------|-------|------------|------------------------|--|---|--|
| Logged By: | | | | | | Date: December 14, 1982. | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1426 | 1445 | | | | | Slst. | DkGry | | 70° | Intact. | Well indurated, sandy, could be very fine grained slt. in places, minor calcite, numerous calc unfilled joints @ 1444' with a very irregular pattern, polished surfaces. | |
| 1445 | 1538 | | | | | Sst. | DkGry | Fine | 45° | Broken | Well indurated, very fractured, abundant calc. numerous joints, regular bdg. core very broken in places, carbonaceous zones bdg. curves @ 1482' (axis of fold) polished surfaces and coal stringers near bottom of unit, med grained near bottom of unit. | |
| 1538 | 1540 | | | | | Mdt. | Black | | | Broken | Carbonaceous, coaly, sheared. | |
| 1540 | 1543 | | | | | Coal | Black | | | Rubble | Shaly, dull, dirty, sheared. | |
| 1543 | 1558 | | | | | Slst. | DkGry | | 72° | Intact | Some carbonaceous zones, no plant material, minor calc. some polished surfaces, fairly well indurated. | |
| 1558 | 1576 | | | | | Sst. | DkGry | Fine | 69° | Semi-Intact | Well indurated, calcite, core broken @ 1573' - possible shear zone, polished surfaces and calc. @ 1575' - shear zone. | |
| 1576 | 1608 | | | | | Slst. | DkGry | | 55-45° | Semi-Intact | Carby, plant material, minor calcite, shearing from 1594' to 1598' and between 1604'-1607' | |
| 1608 | 1637 | | | | | Coal | Black | | | Rubble | Shale (1610'-1613'), (1618'-1623'), (1626'-1627') coal is hard, clean, bright, some shearing is evident, shale ptgs are polished. | |
| 1637 | 1648 | | | | | Mst. | DkGry | | | Broken | Carby, lightly polished, sheared, plant material, calcite, coal stringers. | |
| 1648 | 1651 | | | | | Coal | Black | | | Powder | Shaly, dull, dirty. | |
| 1651 | 1660 | | | | | Mst. | DkGry | | | Broken | Carby., polished, plant material, calcite, sheared, core very broken. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|---------------------------------|------|----------|----|----------|----|---------------------------------|-------|------------|------------------------|-------------------------|---|--|
| Logged By: <u>JOHN STOKMANS</u> | | | | | | Date: <u>December 15, 1982.</u> | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1660 | 1679 | | | | | Slst. | DkGry | | Fine | Semi-Intact. | Calcite, plant material, indurated, carby, slicken sides some calcite stringers 39° joint @ 1664' and @ 1667'. 50' joint at 1668', 28° joint 1671' ends with plant imprints | |
| 1679 | 1683 | | | | | Carby Shale | Black | | | Well Broken | Mostly carby shale with polished surfaces and coal. | |
| 1683 | 1698 | | | | | Slt. | DkGry | | 40? | Intact | First two feet contain coaly stringers and polished surfaces. Intact and indurated 1685-1691. 25° joint @ 1697'. | |
| 1698 | 1709 | | | | | Sst. | DkGry | V.F.G. | 33° | Intact | Some coaly deposition along bedding planes 24° joint @ 1702' 27° joint @ 1703. Hard and well indurated. 27° Joint @ 1706'. No plant fragments or polished surfaces. | |
| 1709 | 1735 | | | | | Slt. | DkGry | | | Intact with some broken | Hard and well indurated 1709'-1721. Breaks into small pieces when hit 1721-1727. fair amount of plant fragments 1712 onward. Many polished surfaces 1725-1728. Minor coal stringers throughout 1728-1732. 25° joint @ 1732. Last two feet of unit fairly well broken with some polished surfaces. | |
| 1735 | 1746 | | | | | Coal | Black | | | Rubble | Doesn't look too good. Fairly dull, some muddy fractions. | |
| 1746 | 1788 | | | | | Slst. | DkGry | | | Broken | Coaly shale (1781-1782'), carby. plant material, minor calcite, shearing common, coal stringers, polished surfaces, well fractured. Jointed most joints avg. about 25° with C.A. | |
| 1788 | 1798 | | | | | Sst. | DkGry | V.F.G. | 10° | Semi-intact. | Indurated, minor calcite, siltstone inter-beds, dirty. fracturing and jointing less common than above unit. | |
| 1798 | 1813 | | | | | Slst. | DkGry | | | Broken | Very carbonaceous, calcium, highly fractured, polished surfaces sheared, coal stringers, plant fragments. | |
| 1813 | 1817 | | | | | Coal | Black | | | Powder | Shaly, sheared, some is hard but mostly dull, dirty. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

LATITUDE

DEPARTURE

ELEVATION

Logged By: CLAUDE POULIN

Date: December 16, 1982.

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|-----------|--------|------------|------------------------|-----------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1817 | 1822 | | | | | Slst. | DkGry | | | Intact | Indurated, carby, polished, plant fragments, calcite. | |
| 1822 | 1825 | | | | | Mst. | Black | | | Rubble | Coaly in places, highly carbonaceous, highly polished, minor calcite, sheared. | |
| 1825 | 1832 | | | | | Slst. | DkGry | | | Broken | Mst (1872'-1825') same, carby, plant frags., calcite, indurated, polished. | |
| 1836 | 1863 | | | | | Sst. | DkGry | V.Fine | | Semi-intact. | Indurated, dirty, minor calcite, some slst., interbeds, carby in places, some plant fragments. | |
| 1863 | 1908 | | | | | Slst. | DkGry | | 42° | Semi-intact | Shaly coal (1882'-1883.5') carby, plant fragments, polished indurated sheared in places | |
| 1908 | 1922 | | | | | Sst.-Sl | DkGry | Fine | 43° | Intact | Sandstone fine grained interbedded with siltstone bands bedding is irregular (ie 20 to 45° to C.A.) calcite healed fractures dipping 40° to C.A. at 1914 & 1915'. At 1916' 20° to C.A. joint. Grads finer grain toward lower contact. Local pyrite present. | |
| 1922 | 2092 | | | | | Sst. | Med.Gy | Fine | 15-20° | Semi-intact to intact | Sandstone, fine grained, bonding is visible, beds are undulating and frequently disturbed. From 1933 to 1943 numerous quartz and calcite filled joint. One joint 40° to 45° C.A. Some minor slickenside associated with these joints. At 1941' 20° to C.A. joint with smooth polished surface. Another joint set at 85° to C.A. from 1933 to 1943. Unit overall is indurated at 1958 45° to C.A. joint. From 1968 to 1976 thin quartz, calcite filled joints, are set 40° to C.A. another at 75° to C.A. some gouging evident. At 1975 joint dipping 15° to C.A. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: _____ Date: December 16, 1982.

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|----------|----|----------|----|-----------|----------------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | | | from 1975 to 1992 unit is very fine grained. At 1990' possible fault one foot of rubble, evidence of calcite filled fracture, pitted. From 2001' to 2034' dirty sandstone with 90° to C.A. joints at 2005', 2006'. At 2011' one 80° to C.A. joints calcite filled ground core (rubble at 2019') very little bedding visible from 2034' to 2039' irregular sub-horizontal calcite filled fracture, bedding is more visible and tends to be generally flatter. (about 5 to 15° to C.A.) at 2046' irregular network of calcite fractures stretching out to 2053. Also at 2046' 25 to 30° dipping joint, calcite and quartz filled. At 2062', 60° to C.A. joint wall as flat as lying joint. At 2066' joints at 85° to C.A.. At 2067' joint 45° to C.A. Overall bed ore still shows signs of disturbance. From 2079' unit shows no bedding, is dark grey, "dirty" appearance at 2080' 3 cm. quartz carb. filled fracture dipping 64° to C.A. At 2081' joint dipping 38° to C.A., at 2081.5 joint dipping at 15° to C.A. At 208'-2084' joint dipping 5° to C.A. | |
| 2092 | 2108 | | | | | Slt. | Med. to Dk gry | V. Fine | | Intact | Very fine grained, quite carbonaceous, numerous plant fossils, flat lying joint at 2094', quartz filled joint 22° to C.A. at 2098' joint dipping 74° to C.A. at 2099' with polished surfaces coal at 2099.5. At 2101' joint dipping 20° to C.A. At 2107' joint at 26° to C.A. from 2093' to 2100', 80% recovery. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|-------------------------|----|----------|----|----------|----|------------|-----------------------|------------|------------------------|--|--|--|--------|--|
| Logged By: E. Daignault | | | | | | | Date: August 10, 1982 | | 148,673.5 m | | 26,529.4 | | 1984.8 | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | |
| | | | | | | Eagle Mtn. | | | 612.3 m | DIRECTIONAL SURVEY DONE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | |
| From | To | From | To | From | To | | | | | | | | | |
| 0 | 14 | | | | | overburden | | | | | overburden | | | |
| 14 | 27 | | | | | sst | light | vfgr | 56° | broken | vfgr sst, with x-bedding throughout, Fe staining on most bedding joints. bedding joints occur every 4" from 14' - 18'. 18' - 27' - bedding joints every 1'. there are 8 calcite healed joints at 24° to c.a., some also contain Fe. Plant impressions are visible around 17'. | | | |
| 27 | 66 | | | | | sst | lt gry | fgr | 64° | broken | cross bedding visible throughout, Fe staining present on some bedding joints. bedding joints occur about every 8". 16° joints at 34.5' & 35', parallel set is 2" apart, both are Fe stained & continuous. At 40' - 41' core is highly broken with bedding joints every 1". At 46' there are 2 parallel joints at 16° to c.a. both have Fe staining. Around 50' bedding joints are filled with carbonaceous materials. from 50' to 66' sst has become very fine grain, interbedded with fgr sst. x-bedding is still very dominant. at 56' there is a Fe stained joint at 30° to c.a. at 58' there is a healed calcite joint at 30° to c.a. at 62 - 64' there are polished clean joints at 35° to c.a. from 63 - 64' is a small section of shale. It is very fissile, has polished surfaces & contains plant impressions & Fe staining. Core bedding angle is now around 50° at 65'. | | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____

Logged By: E. Daignault Date: August 10, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
|-------|-----|----------|-------|----------|------|-----------|--------|------------|------------------------|-------------|---|--|--|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | |
| From | To | From | To | From | To | | | | | | | | | | |
| 66 | 68 | | | | | sst | md gry | vfgr | 62° | intact | interbedding of fgr & vfgr sst, vfgr is dominant, mud clasts & much cross bedding, (x-bedding) is present. | | | | |
| 68 | 80 | | | | | slt | md gry | | 76° | broken | only 3 bedding joints present, one has Fe staining, other 2 are clean. At 70' - one clean, discontinuous joint at 6° to c.a. At 71.5' & 73' - clean joints at 25° to c.a. fossil impressions become very common at 77' - 80'. generally core is well indurated. | | | | |
| 80 | 92 | | | | | mst | dk gry | | 76° | broken | mudstone shows many clear fossil impressions throughout, from 88' - 92' area of ripples very thin laminations are also visible. At 87' & 87.4' - are clean, smooth joints at 14° to c.a. 80' - 92' section contains no core over 4" in length; mst cracks are visible. At 88' bedding joints show extensive Fe staining. generally bedding joints are every 3" apart. | | | | |
| 92 | 94 | | | | | slt | dk gry | | 63° | broken | section is very rubbly, all surfaces are polished & some have Fe staining. area contains some mst. | | | | |
| 94 | 100 | | | | | sst | md gry | vfgr | 58° | broken | vfgr sst-slt - bedding joints occur every 5". Most contain Fe staining. Plant impressions are very common. x-bedding is visible & most joints are polished & have carbonaceous infilling at 99.5' - calcite infilled joint at 34° to c.a. there are also 2 parallel calcite healed joints at 100' & 1" apart. They too are at 34° to c.a. | | | | |
| 100 | 150 | 104.7 | 111.9 | 31.9 | 34.2 | coal | dk blk | | | broken | mst parting from 104' to 112' - parting contains bedding joints every 2". all joints are polished & infilled with coal. | | | | |
| | | 119.1 | 129.9 | 36.3 | 39.6 | | | | | | | | | | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|-------------------------|-----|----------|-------|----------|------|-----------------------|--------|------------|------------------------|-------------|---|--|
| Logged By: E. Daignault | | | | | | Date: August 10, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 100 | 150 | 133.9 | 137.5 | 40.8 | 41.9 | 12 seam | | | | | plant impressions are clear. pyrite crystals are also present. | |
| | | 140.4 | 143.7 | 42.8 | 43.8 | | | | | | From 119.5' - 124' a second mst parting. this parting is similar to the first parting but it contains calcite too. | |
| | | | | | | | | | | | 135' - 138' - mst parting (similar too) coal is clean & shiny in most areas, yet becomes dirtier from 148' - 150' it has Fe staining & mst interbedding. | |
| 150 | 162 | | | | | sst | md gry | fgr | 42° | broken | sst at 151' is fgr-mgr gradually until 162'. sst becomes finer grained. It is very fine grained at 162'. from 151' to 156' core is marbled with calcite infilling. many of the joints have carbonaceous infillings & polished surfaces. at 155' & 155.5' & 157' there are calcite infilled joints at 37° to c.a. Fossil impressions are still visible throughout. | |
| 162 | 170 | | | | | slt | lt gry | | 45° | broken | section is marbled with calcite infilling. from 162' to 163' core is rubble. 163' - 168' fractures occur every 6". they have Fe staining and calcite infilling. from 168' - 169' bedding joints every 2" and are infilled with carbonaceous material (polished surfaces also) | |
| 170 | 177 | | | | | sst | lt gry | fgr | 54° | broken | sst contains plant impressions, bedding joints occur every foot & have polished surfaces. 26° joints at 170.5' & 175'. they are both clean. 175' - 177' intact. small pockets of carbonaceous material are found around 170.5'. | |
| 177 | 182 | | | | | slst | dk gry | | 62° | broken | dark grey slst. somewhat carbonaceous. numerous plant fragments present. minor ca, good slickensides & polished surfaces. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|----------------------------------|-----|----------|-------|----------|------|-----------------------|--------|----------------|------------------------|------------------|--|--|
| Logged By: E. Daignault | | | | | | Date: August 10, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | | | occasional thin laminations of fine grain slst. becomes more carbonaceous during last foot. | |
| 182 | 200 | 182.7 | 190.0 | 55.7 | 58.2 | coal | blk | | | rubble | soft, bright & dull banded. slickensides & polished surfaces. some dirty bands. | |
| | | | | | | | | | | | llu seam | |
| PAUL DUDZINSKI - August 26, 1982 | | | | | | | | | | | | |
| 200 | 206 | | | | | slst | dk gry | | 60° | broken | very similar to previous slst unit, somewhat carbonaceous, many plant fragments. 203' 6" of soft, dull, dirty coal; powder | |
| 206 | 220 | 205.1 | 214.6 | 62.5 | 65.4 | coal | blk | | | intact to rubble | bright with dull bands. fairly hard, very friable, some slickensides & polished surfaces, no visible pyrite. | |
| | | | | | | | | | | | 11 seam | |
| 220 | 264 | | | | | sst | md gry | fine to v.fine | 50° | intact | 209' - 210', 1 foot of v. carbonaceous slst fine grain sst thinly laminated with slst. evidence of worm burrows, mud clasts & disturbed bedding throughout. | |
| | | | | | | | | | | | ca. infillings & Fe staining on some joints. good slickensides on some joints. 227' joint, 21°, ca, good slkks. some Fe | |
| | | | | | | | | | | | 247' calcite infilling, approx, 1/2" thick. | |
| | | | | | | | | | 43° | | 249' joint, 12°, good ca, 256' joint, 40°, 263' jnt, 45° | |
| | | | | | | | | | | | 263' - 264' coal, bright, soft, friable | |
| 264 | 282 | | | | | slst | dk gry | | 45° | intact | dark grey slst. numerous plant fragments, some occasional carbonaceous stringers. minor ca present, slickensides present on most joints. 270' joint, 29°, joint surface appears 'platey' | |
| 282 | 285 | 285.4 | 287.1 | 87.0 | 87.5 | coal | blk | | | broken to rubble | soft, bright coal, crumbly, somewhat silty at both ends of unit | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective:

LATITUDE

DEPARTURE

ELEVATION

Logged By: Paul Dudzinski

Date: August 26, 1982

| Core | | Rad. Log | | | | Area South Eagle | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|----|----------|----|---------------------|----------|------------|------------------------|------------------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 285 | 298 | | | | | slst | dk gry | | 68° | broken | dark grey slst plant fragments visible some ca & slickensides present. many carbonaceous lenticles. very similar to previous slst unit | |
| 298 | 325 | | | | | sst | md gry | fine | 28° | intact to broken | fine sst thinly laminated with slst. some minor ca infillings. some disturbed bedding. | |
| 325 | 331 | | | | | mst | blk | | 62° | well broken | carbonaceous mst. numerous plant fragments. polished surfaces some minor ca, frequent carbonaceous infillings. | |
| 331 | 340 | | | | | slst | dk gry | | 38° | broken | dark grey slst with a small amount of very fine sst. some ca & slickensiding. Plant fragments. Polished just before seam. | |
| 340 | 342 | | | | | coal | blk | | | well broken | poor grade, silty both ends | |
| 342 | 343 | | | | | slt | dk gry | fine | | broken | carby stringers frequent | |
| 343 | 344 | | | | | coal | dull blk | | | well broken- powder | seam starts with calcite stringer. slickensiding, within seam. silty stringers throughout | |
| 344 | 360 | | | | | slt | dk gry | fine | 37° | intact to broken | numerous carby slickensides to 345'. much plant remains. 345' to 347' many calcite stringers throughout the entire section, slickensides are frequent with some plant imprints. Broken with much slickensides and carby bands at 350' to 351'. fairly clean 351' - 360'. 37°@ 360'. | |
| 360 | 363 | | | | | coal | blk | | | well broken | slickensides at both ends of seam, coal mostly powdered where there are no fragments. | |
| 363 | 368 | | | | | slt | dk gry | fine | | broken - intact | frequent fractures with slickensiding. some calcite traces in first two feet. Plant imprints last 3 feet in fractures. | |
| 368 | 404 | | | | | sst | lt gry | fine | 37° | intact | indurated. breaks occur about every foot, some calcite stringers | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--------------------------|-----|----------|-------|----------|-------|--------------------------|--------|------------|------------------------|-----------------|--|--|
| Logged By: John Stokmans | | | | | | Date: September 15, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 404 | 420 | 399.6 | 415.0 | 121.8 | 126.5 | coal | blk | | | broken - rubble | from about 370' to 375'. One larger one at 372'. grain size gets slightly coarser as proceed down section breaks about every 377' to 385'. A calcite stringer with a plant remain at 385'. 393'-some clacite stringers | |
| | | 9 seam | | | | | | | | | seam starts with shiny silt layer and ends with same. Mostly shiny slickensides for first foot. 405' - 407' coal is dull powder. Coal appears dull and oxidized. 407' - 412' dull rubble broken seemingly oxidized coal to end of seam. | |
| 420 | 428 | | | | | silt | dk gry | fine | 41° | intact | broken 423-424'. This 1 foot section is shiny and carbonaceous some calcite stringers are evident, coaly stringer at 427'. | |
| 428 | 429 | | | | | coal to silt | blk | | | rubble | highly polished to shiney slickensides throughout. | |
| 429 | 430 | | | | | silt | dk gry | fine | 40° | intact | fairly smooth and clean - no stringers. | |
| 430 | 516 | | | | | sst | lt gry | fine | 35° | intact | at 431' a 2" carby stringer, infrequent slickensiding. To 437' onward numerous calcite stringers. 439' - 30° bedding at 448' and 449' calcite infilled shears. sst getting progressively coarser but still fine grain banding evident. 459' - 461' broken sst with carby slickensides. the sst undulates slightly. Calcite stringers and slickensides common throughout. Shear zone from 470-472' with slickensides. 477' - 2 calcite infilled shears, silty broken-up band 482-485' 493 - 495' calcite in shear zone. 495-497' numerous shears with ca and many polished surfaces; possible fault zone. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--------------------------|-------|----------|----|----------|----|-----------|--------------------|------------|------------------------|-----------------|--|--|--|
| Logged By: John Stokmans | | | | | | | Date: Oct 20, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| | | | | | | | | | | intact | Cross bedding from 497' to 516'. Abrupt bedding change at 501' from 33° to 83°. numerous jointing 497' to 503'. | | |
| | | | | | | | | | | | Shear at 505' with slickensides and calcite stringers bordering each slickenside. This shear may be part of possible fault zone above. bedding about 75°. From 503-516' there are many polished surfaces in bedding planes. The odd calcite stringer is also evident. Two small coal stringers @ 515'. | | |
| 516 | 521 | | | | | slt | dk gry | fine | | intact | numerous polished surfaces along bedding and plant remains are evident at 521', Zone of calcite stringers at 519-520'. small sandstone band from 518'-519'. | | |
| 521 | 525 | | | | | mst | dk gry | v.fine | | broken | very carbonaceous mudstone with some coal stringers, polished surfaces and plant imprints | | |
| 525 | 528 | | | | | coal | blk | | | well broken | dull on many surfaces. coal includes a six inch parting at 5265 and has other shaley constituents. | | |
| 528 | 536.5 | | | | | slst | dk gry | v.fine | | intact | plant remains throughout. grades sharply into sandstone beginning with a calcite stringer. | | |
| 536.5 | 541 | | | | | sst | dk gry | fine | | intact | At 532'a polished shear. at 534'a calcite stringer along bedding plane. some plant remains at 536'. calcite stringers at 538'. Joint at 538.5'. some calcite stringers at 540'. The last eight inches of section grades from sst to slt to mst. The mudstone includes calcite stringers. | | |
| 541 | 544 | | | | | mst | | v. fine | | broken - powder | very carbonaceous except for 542- 544'. many polished surfaces and coaly bands. | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | | | |
|--------------------------|-----|----------|---------|----------|-------|------------------------|----------|------------|------------------------|----------------------------|--|--|--|--|--|
| Logged By: John Stokmans | | | | | | Date: October 20, 1982 | | | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | | | |
| From | To | From | To | From | To | | | | | | | | | | |
| 544 | 549 | | | | | coal | blk | | | powder to well- broken | shale parting 446-448'. The first two feet seem to be shaley. The last foot is shiney to dull coal. | | | | |
| 549 | 553 | | | | | mst | dk gry | v.f.g. | | intact to well - broken | some polished surfaces. Joint at 551' the last foot and a half is well broken, very polished and carbonaceous. | | | | |
| 553 | 604 | | | | | sst | dk gry | fine | 80-85° | intact | some calcite stringers - throughout calcite lined joint at 561' most calcite stringers lie along bedding, one 2" carby shale band at 571 and one @ 572'. Good cross bedding 578-580'. followed by two feet of very fine sst. 37° joint at 585', some plant remains 587-588'. 36° joint at 593', 596' and 600'. The last two are healed by calcite. 601' and 602' each have a 37° joint | | | | |
| 604 | 606 | | | | | mst | dk gry | v.f.g. | | broken to well- broken | This section is very "chewed up" and has a lot of calcite about midway through to end. At this point there is also the possibility of fault gouge. | | | | |
| 606 | 625 | | | | | sst | dk gry | fine | 80-85° | intact | joints at 606', 607', 620', 624', all are about 35° - 40° except 607' which is 14°. Calcite stringers occur throughout. Some polished surfaces just before 617'. | | | | |
| 625 | 631 | | | | | slt | dk gry | fine | | intact | some plant fragments and polished surfaces occur and a coaly band occurs at 631'. | | | | |
| 631 | 634 | | | | | mst | blackish | v.f.g. | | intact to broken | some polished surfaces and coaly bands. Roughly all carbonaceous plant remains evident. | | | | |
| 634 | 640 | 630.9 | 637.1 | 192.3 | 194.2 | coal | black | | | well broken | fairly good shiney coal some shaley partings | | | | |
| | | | 7u seam | | | | | | | | | | | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____
 Logged By: John Stokmans Date: October 20, 1982

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|-------|----------|-------|-----------|------------------|------------|------------------------|--------------------------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 640 | 654 | | | | | slt | dk gry | | | intact to well broken 50/50 | 28° joint at 641'. coaly band for 3" after this. At 642' another carby band, 12° joint at 644' with other calcite stringers This joint is in a foot long sst band. 647' to 652' is very carby with small coal bands at 647' & 651'. Many polished surfaces are evident. The last part of the section is very dark and contains many breaks and shiny surfaces. | |
| 654 | 664 | | | | | sst | gry to lt gry | fine | | intact | some calcite stringers. 12° joint at 658' and a 3° joint at 661' with calcite. | |
| 664 | 684 | 658.5 | 680.4 | 200.7 | 207.4 | coal | blk | | | intact to powder | coal holds together well. Dark and shiny. small parting (mst with polished surfaces) at 682'. | |
| 684 | 687 | | | | | slt | dk gry | fine | | intact | some polished surfaces and calcite stringers. | |
| 687 | 706 | | | | | sst | dk gry | fine | 65° | intact to broken | fairly flat bedding about 80°. Polished surfaces at 700'. Some coal stringers at 696'. 15° joint at 705'. 10° joint at 702'. | |
| 706 | 707 | | | | | slt | dk gry | fine | | intact | carby band just before 707'. | |
| 707 | 708 | 703.7 | 705.4 | 214.5 | 215.0 | coal | blk | | | broken | good shiny coal. | |
| 708 | 712 | | | | | slt | dk gry | fine | | | many polished surfaces in first 2'. Plant remains 710 - 712'. | |
| 712 | 732 | | | | | sst | grey | fine | 65° | intact | plant remains at 716'. Angle joint 8° at 717'. Polished surface & small coal stringer at 718'. Plant remains at 721' and polished surface. Polished surfaces and plant remains 724-726' 29° joint at 727'. Polished surfaces and plant remains 727-732 40° joint at 731'. | |
| 732 | 736 | | | | | slt | dk gry | fine | | intact to slightly broken | plant remains in breaks every foot with polished surfaces as well. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--------------------------|-----|----------|-------|----------|-------|------------------------|--------|-------------|------------------------|--------------------|--|--|
| Logged By: John Stokmans | | | | | | Date: October 20, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 736 | 738 | | | | | sst | grey | fine | 85° | intact | slight cross bedding | |
| 739 | 748 | 735.9 | 739.2 | 224.3 | 225.3 | coal | blk | | | intact-well broken | relatively hard, many spots have polished surfaces and seeming "shale-outs". eg. 740', 741', 743', 746'. Parting from 744' - 745'. Not good coal. | |
| 748 | 755 | | | | | slt | dk gry | fine | | intact | 8° joint, at 750'. some polished surfaces and plant remains along bedding planes. | |
| 755 | 759 | | | | | sst | grey | fine | | intact | calcite along bedding plane at 757' some cross bedding evident. | |
| 759 | 767 | 756.2 | 761.5 | 230.5 | 232.1 | coal | blk | | | broken-well broken | poor coal, mostly highly carbonaceous mst. with coaly stringers | |
| 767 | 770 | | | | | slt | dk gry | v. fine | | intact-well broken | first foot is very carbonaceous the rest has many polished surfaces and plant remains. | |
| 770 | 852 | | | | | sst | grey | fine to med | 63° | | entire section fines upwards. 807-817' has alternating 1' bands of light and dark sst, fine grain and med grain respectively. 3° joint at 789'. Polished surface at 818'. 3° joint along 825-827'. 8° joint at 834'. Clay clasts at 846'. 10° joint at 843'. Coaly lenticle at 851'. Abrupt change into mst. | |
| 852 | 856 | | | | | mst | blk | v. fine | | broken - rubble | numerous shiny surfaces throughout with many coal lenticles, plant fragments and small coal seams. 1" coal seam at 852'. 4" coal seam at 854'. | |
| 856 | 863 | 854.7 | 860.6 | 260.5 | 262.3 | coal | blk | | | broken - rubble | The first half of this seam is quite shaley with many dull areas and some shiny polished surfaces. The coal itself has a gray sheen to it. A predominately mst one foot parting occurs at 857'. The last two feet of this section are very friable. | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

| | | | |
|--------------------------|----------|-----------|-----------|
| Objective: | LATITUDE | DEPARTURE | ELEVATION |
| Logged By: John Stokmans | | | |
| Date: November 3, 1982 | | | |

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-----|----------|----|----------|----|-----------|----------|------------|------------------------|----------------------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 863 | 878 | | | | | mst | blk | v.f.g. | | mainly broken, some intact | 863' till 867' is same type of mst as previous section; has many polished surfaces & coal lenticles with small coal seams. 2" seam at 864', 1" seam at 864.5, 1" seam at 865', 1' seam at 872', 2" seam at 874', 52° joint at 871', 30° joint at 877'. | |
| 878 | 894 | | | | | slt | v.dk gry | f.g. | | intact | quite dull, plant impressions (grasses), numerous throughout some shiny surfaces at 883'. Sulphur staining accompanying small coal stringers at 886'. Last 5 feet of section are fairly void of plant remains. some shiny surfaces occur at 893' | |
| 894 | 900 | | | | | sst | grey | f.g. | 80° | intact | fairly massive. 3° joint at 897', 28° joint at 899', 10° jnt and 8° joint (one each) at 899.5'. 899' - 902' is a joint zone with calcite infilling and some quartz crystalization. | |
| 900 | 935 | | | | | sst | dk gry | v. fine | | intact | 2 - 28° joints at 901', 30° joint at 926' some shiny surfaces with fern and grass remains from 902' to 904'. Small coal stringer at 906' with sulphur staining. Hard and well indurated 910' - 917'. Shiny slickenside at 919'. Cross bedding apparent 922-923'. Small calcite stringer along bedding at 926' Some plant fragments at 928'. Entire section fines gently up. | |
| 935 | 952 | | | | | sst | grey | med | 75° | intact | This section is fairly fractured and jointed and has many calcite infillings. Many fractures contain coaly infillings and there are many coaly stringers and calcite stringers along the bedding planes. There is a set of 10 - 15 15° calcite healed joints at 940'-940.5'. A small shear plane occurs at 943.5'. Followed by an 8° joint at 944'. Another parallel | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|--------------------------|------|----------|----|----------|----|------------------------|--------|------------|------------------------|--|---|--|
| Logged By: John Stokmans | | | | | | Date: November 3, 1982 | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | | | 8° joint runs from 944-946'. A 3-5° healed joint runs from 946-947'. 947'-948.5' is quite sulphur stained including 948-949' is a coarser medium grained sst. 8° joint at 949-951' continues at 951.5 - 952', this last part being calcite healed F.G. sst 942-944'. | |
| 952 | 955 | | | | | sst | dk gry | fine | | intact | starts with a polished surface and ends with same. This section shows little bedding and contains some plant fragments. 18° joint at 853' and an 8° joint running from 853' to 955'. | |
| 955 | 966 | | | | | sst | gray | med | 57° | intact | same as section 935- 952'. Many coaly stringers along bedding planes. Fair amount of fracturing. 1" coal seam at 961'. 30° joint at 958'. Not as much calcite as last section. | |
| 966 | 978 | | | | | sst | dk gry | fine | 75° | intact | Breaks fairly easily. No plant fragments, but some shiny surfaces in first half of section. 36° joint at 974' shear zone 973-973.5'. | |
| 978 | 1004 | | | | | sst | gray | fine | 80° | intact | Most of this section alternates between bands of fine dk gray sst and coarser gray sst. Calcite stringers appear at 980', 981, 982, 983, 984, 989'. (984' & 989' are parallel to axis), 990', 994', 997', 998', 1000', 1002, about 8° joint at 992', 40° joint at 998'. | |
| 1004 | 1013 | | | | | sst | gray | med | 80° | intact | Calcite stringer at 1005'. Calcite and shiny surfaces at 1009'. 1009-1010 fractured section healed by calcite, polished surface at 1012'. | |
| 1013 | 1047 | | | | | sst | dk gry | fine | 80° | intact | Breaks fairly easily 43° joints, one each at 1014 and 1015'. | |

to med

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: John Stokmans Date: November 3, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|------------|------|----------|---------|----------|-------|-----------|---------------|-------------|------------------------|------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | | | | | | | | | | | 18° joint at 1017'. Infrequent polished surfaces. BDG 65° @ 1020', jnt(8°) @ 1025', jnt (34°) @ 1027', jnt (2°) @ 1032', sst is med.grain (1023-1043') polished surfaces become more frequent, calcite, coaly stringers (1040 - 1047'), slickensides | |
| D. JOHNSON | | November | 7, 1982 | | | | | | | | | |
| 1047 | 1061 | | | | | mst | dk gry | | | broken | coal stringers throughout, plant remains 6" coal seam @ 1052' numerous polished surfaces. | |
| 1061 | 1071 | 1057.7 | 1067.6 | 322.4 | 325.4 | coal | black | | | broken | shaly in places, poor quality, dull, best quality 1067-1069'. | |
| 1071 | 1073 | | | | | slst | dk gry | | | semi-intact | polished surfaces, coal stringers, plant remains. | |
| 1073 | 1152 | | | | | sst | gry to dk gry | fine to med | 65° | intact | fining upward sequence, becomes Fn GR @ 1100' X-BDG, shear @ 1101', some polished surfaces, some coal stringers, jnt (2°) @ 1105', jnt(26°) @ 1095', jnt (25°) @ 1092', jnt (25°) @ 1108' jnt (20°) @ 1110', jnt (15°) @ 1117'. very few fractures (1120' to 1150'), frequent polished surfaces @ 1150' to 1152'. | |
| 1152 | 1155 | | | | | slst | dk gry | | 65° | intact | highly polished, coaly in places, plant remains | |
| 1155 | 1171 | 1154.5 | 1167.6 | 351.9 | 355.9 | coal | blk | | | broken to rubble | hard, clean, shiny, good quality, some shale partings (1168') good recovery. | |
| 1171 | 1172 | | | | | mst | dk gry | | | intact | highly polished, calcite, possible shear. This is a parting. | |
| 1172 | 1175 | 1169.6 | 1173.2 | 356.5 | 357.6 | coal | black | | | broken | dull, shaley, poor quality | |
| 1175 | 1208 | | | | | sst | dk gry | fine | 85° | intact | Frequent polished surfaces, calcite, shearing, plant remains, coal stringers, dirty sst, fluvial environment, irregular bedding | |

Diamond Drill Geological Log



FORDING RIVER
OPERATIONS

Objective: _____

Logged By: C. Poulin Date: November 7, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|------|-----------|--------|----------|-------|-----------|---------------|----------------|------------------------|-------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 1208 | 1225 | | | | | slt | dk gry | fine to v.fine | | intact | unable to detect bedding angle, note joint set, 22° c.a. at 1215', 1219', 1221', 1224'. Calcite filling fractures at 1212' and 1222' minor coal along most joints, minor pyrite associated with fracture filling calcite at 1222'. | |
| 1225 | 1229 | | | | | mst | dk gry | v.fine | | broken | quite shaly, locally polished surfaces at lower contact, 5° to c.a. joint | |
| 1229 | 1232 | 1226.0 | 1228.7 | 373.7 | 374.5 | coal | blk | | | broken | dull, becoming shalier towards lower contact. | |
| 1232 | 1239 | | | | | sst | med to dk gry | fine | | intact | essentially a silty sandstone, 22° joint plane near lower contact minor carbonaceous sections along joints, coal stringer at 1236', | |
| 1239 | 1242 | 1235.6 | 1240.2 | 376.6 | 378.0 | coal | blk | | | broken | dull, locally shaley sections | |
| 1242 | 1248 | | | | | slt | md gry | fine to v.fine | | intact | minor coal stringers present locally. 50° to CA joint at 1245' | |
| 1248 | 1277 | | | | | sst | md gry | fine | 35° | intact | at 1249' joint dipping at 22° to c.a. overall unit grain size increasing towards lower contact. Bedding plane becomes evident at 1260' locally minor calcite filling of fracture. Coal stringers noted at 1251', 1261, 1262, 1263'. | |
| 1277 | 1279 | | | | | coal | blk | | | broken | dull, shaley | |
| 1279 | 1282 | | | | | sst | dk gry | fine | | intact | no bedding visible, 50° to c.a. joint at 1280', upper contact at 35° to c.a. | |
| 1282 | 1283 | NOT SHOWN | | | | coal | blk | | | broken | upper contact at 35° to c.a. more polished and cleaner than above unit. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|----------------------|------|-----------|----|----------|----|-----------|--------|------------|------------------------|-------------|--|--|--|
| Logged By: C. Poulin | | | | | | Date: | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| From | To | From | To | From | To | | | | | | | | |
| 1283 | 1302 | | | | | sst | md gry | f.vf. | | intact | fossil impressions near upper contact. most fractures are polished and show carbonaceous infilling. 45° dipping joint to c.a. at 1286'. Calcite infilling fracture at 1293' and 1294'. At 1295' 22° joint to c.a. from 1298 to 1301 set of 4 joints at 20° to c.a. all of which are displaying polished surfaces and carbonaceous infilling. | | |
| 1302 | 1304 | NOT SHOWN | | | | coal | blk | | | broken | very shaley, one joint, 45° to c.a. | | |
| 1304 | 1450 | | | | | sst | md gry | fine | 33° | intact | grades locally to siltstone extensive jointing present at 1309' joint 12° to c.a., at 1312' joint at 25° to c.a. from 1310' to 1325' joint sets, from 47 to 55° to c.a. Nearly all of these joint have calcite infilling and are smooth. bedding plane visible up to 1357'. At this point unit becomes finer grained at 1359' calcite filling joint dipping 20° to c.a. At 1361', 2 joints at 40° to c.a. with smooth surface. At 1369' 22° joint to c.a. At 1382' bedding plane becomes visible with dip of 22° to c.a. and getting shallower down the hole. Locally minor joints along bedding with minor qtz.carb.filling. From 1397' undulating beds predominate from 1417-1423 to 1428' Dips vary from parrallel to c.a. to 20° at 1401, 1402 core is rubbly joints dipping 17° to c.a. At 1408, 1409 joints (calcite filled) dipping 45° to c.a. Fault from 1417 to 1423 core is broken. intense calcite filling. Fault plane about 7° to c.a. slickensides present. From 1428' beds are still undulated | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|------------------------------|------|----------|--------|----------|-------|-----------|---------|-------------|------------------------|---|--|
| Logged By: <i>C. Poulin.</i> | | | | | | Date: | | | | | |
| Core | | Rad. Log | | | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| | | | | | | | | | | | but mainly from 10° to 30° to c.a. from 1446' unit could be called medium grained sandstone and is indurated at 1448' 12° and 40° joint to c.a. Lower contact at 1450' |
| 1450 | 1461 | | | | | slt | md gry | fine | 20° | intact | bedding planes are visible, local coal stringers, visible plant fossils at 1451' |
| 1461 | 1472 | | | | | mst | md gry | v. fine | | intact(loc. broken) | unit is quite shaley with minor coal stringers. Fossil impressions visible. |
| 1472 | 1550 | 1468.2 | 1547.2 | 447.5 | 471.6 | coal | blk | | | intact(loc. broken) | although unit is mainly intact it is locally friable, locally sections have dull appearance, most of unit is both vitreous and dull overall. |
| 1550 | 1634 | | | | | slt | md gry | vf-f | 40-45° | intact | from 1552' to 1553' one foot section of shaley coal, partly intact, overall unit is very fine grained and grading to fine down the hole to 1624', joint at 40° to c.a. at 1557', 1570', 1577'. Blocky ground from 1577 to 1591 is possible fault zone, 50 - 60 % recovery. This section is mudstone with numerous fossil imprints. From 1598.5 to 1599 plant fossils evident also from 1608- 1609 and at 1604' Fracture plane is about 30° to c.a. many show a polished surface. From 1624' to 1634' unit takes a more mudstone appearance. Joints are more frequent and display polished surfaces dipping 30° to c.a. |
| 1634 | 1648 | | | | | sst | mdltgry | fine | 40° | intact | bedding angle evident. Joint set dipping 45° to c.a. "dirty" sandstone joints are calcite filled. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------|---------------|----------|--------|----------|-------|-----------|----------|------------|------------------------|-------------|--|--|--|
| Logged By: | | | | | | Date: | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 1648 | 1664 | | | | | slt | md gry | vf-f | | intact | locally minor plant fossils. from 1652 to 1654 shallow dipping joint 10-15° to c.a. | | |
| 1664 | 1676 | | | | | mst | mddk gry | v.fine | | intact | minor plant fossils. at 1675 irregular dipping calcite filled fracture. | | |
| 1676 | 1682 | 1672.2 | 1680.1 | 509.7 | 512.7 | coal | blk | | | intact? | shaley, dull 50% recovery | | |
| 1682 | 1693 | | | | | slt | mddk gry | f-vf | | intact | locally carbonaceous along fractures, sometimes polished | | |
| 1693 | 1846 | | | | | sst | ltmd gry | fine | 20-25° | intact | undulated beds evident locally. at 1700' fracture filled with quartz, carbonaceous minor quartz xtals present. At 1707 and 1708 2 smooth joints dipping 20° to c.a. becoming coarser towards end of hole 15-20° to c.a. joint at 1799' good typical sst. At 1809' section quite broken up to 1811' quite carbonaceous, possible what is left of 2 seam? At 1837' short section with a coal stringer, possibly what is left of 1 seam? remainder of hole is typical sst. except for unit of siltstone from 1837 to 1846'. | | |
| JOHN STOKMANS | NOV. 24, 1982 | | | | | | | | | | | | |
| 1846 | 2007 | | | | | basal sst | lt gry | med | 17° | | fairly hard, till 1917 there is a series of 40 - 45° joints roughly all parallel. Bedding starts at 17° and by 1912' has dropped to 13°. Two bedding planes are calcite infilled at 1906' and 1907'. Pyrite at 1927' and 1935'. some cross bedding from 1938'- 1946'. From 1946' to 1952' there are many carby stringers at various orientations | | |
| | 1912 | | | | | | | | 13° | | There is also a mudclast bounded by coal and containing | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | | | | | | | | | | |
|------------|----|----------|----|----------|----|-----------|-------|------------|------------------------|-------------|---|---|--|
| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
| Logged By: | | | | | | Date: | | | | | | | |
| Core | | Rad. Log | | | | Area | | | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| | | | | | | | | | | | pyrite. Another small mudclast occurs at 1957' and 1960'. | | |
| | | | | | | | | | | | 1955- 1964' is relatively massive with little bedding | | |
| | | | | | | | | | | | evident. Calcite along bedding plane at 1967'. Carby | | |
| | | | | | | | | | | | infillings and stringers continue at 1970' and go to 1987'. | | |
| | | | | | | | | | | | This type of structure re-occurs at 1997' and continues to | | |
| | | | | | | | | | | | 2002'. Joints with slickensides occur at 1982' to 1983' @6° | | |
| | | | | | | | | | | | This joint is actually quite continuous through to 1988'. | | |
| | | | | | | | | | | | Another joint coal filled, occurs from 1998 - 2002' | | |
| | | | | | | | | | | | A calcite healed joint occurs from 1992 - 1995'. | | |
| | | | | | | | | | | | END OF HOLE 2007'. | | |

Diamond Drill Geological Log



FORDING
OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|---------------------------|-----|----------|----|----------|----|---------------------|-------|---|------------------------|---|---|
| Logged By: Paul Dudzinski | | | | | | Date: June 29, 1982 | | 149,822.2 m | | 2451.6 | |
| Core | | Rad. Log | | Area | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | |
| (Ft.) | | (Ft.) | | (Meters) | | Top of Eagle | | abandoned at 281.6m | | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |
| From | To | From | To | From | To | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| 0 | 10' | | | | | | | | | | overburden NOTE: 9* = 9° etc. NO/B - TRICONED. IN ROCK. |
| 10 | 21' | | | 6.4 | | sst | lt | fine | 72* | semi-intact | fine grain sandstone. shows tan weathering dark fe stains, some slst laminations & disturbed beds. joints at 28*, 18*, 10* |
| 21 | 27 | | | 8.7 | | slst | dk | | 68* | semi-intact to rubble | dark siltstone, somewhat carbonaceous, some fine sst lamina- tions near 27' dark fe stains, slickensides. some blue stains. |
| 27 | 40 | | | 12.7 | | sst | lt | fine | 80* | intact to powder | fine grain sst some slst laminations, cross bedding 27' 10* joint fe, ca. plant impressions 28' - 31' 2' of carbonaceous mst & 1' of broken coal. some slickensides, poor polished surfaces, mostly rubble 34' 10* joint dark Fe |
| 40 | 47 | | | 14.3 | | slst | dk | | 80* | semi-intact to rubble | dark siltstone, dark Fe stains occasional carbonaceous lenticles 46' - 47' 1' carbonaceous mudstone minor slicks |
| 47 | 109 | | | 33.2 | | sst | lt | fine | 85* | broken | Fn gr sst, calcite, Fe staining, some carby material 060 jnt (47*ca), 62' jnt (12* ca), 70' jnt (12* ca), 76' jnt (16* ca), 77' jnt (12* ca), 80' jnt (18*ca, 2), 90' jnt (4* ca), 98' jnt (17* & 4* ca), 103' Jnt (4*ca) |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

LATITUDE

DEPARTURE

ELEVATION

Logged By: D. Johnson

Date: June 29, 1982

| Core | | Rad. Log | | | | Area Top of Eagle | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|----|----------------------|-------|----------------|------------------------|--|---|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| | | | | | | | | | | | @ 83' carby interval about 3" thick, abundant x-bdg. |
| | | | | | | | | | | | @ 86' carby interval about 6" thick some wavy bdg some polished surfaces |
| 109 | 110 | | | 32.5 | | sst | dk | | 85* | broken | calcite, Fe staining |
| 110 | 110.5 | | | 33.7 | | coal | dk | | | broken | shaly |
| 110.5 | 125 | | | 38.1 | | sst | lt | Fn | 88* | semi-broken | fe staining, calcite, wavy bdg, some contorted bdg |
| | | | | | | | | | | | 111' jnt (15* ca), 113' jnt (10* ca), 116' jnts (16 & 18' ca) |
| | | | | | | | | | | | 118' jnt (4* ca), 121' jnt (4*ca) |
| 125 | 127 | | | 33.7 | | mst | dk | | | broken | polished carbonaceous, plant material |
| 127 | 148 | | | 45.1 | | sst | lt | Fn | 85* | broken to intact | calcite Fe staining wavy bdg, abundant jnts |
| | | | | | | | | | | | 131' jnt (17*ca), 134' jnt, (5*ca), 137' jnts (22* & 17* ca), 141' jnt (4*ca), 143' jnt (18*ca), 145 jnts 6*, 10*, 15*, & 22* ca) |
| 148 | 150 | | | 45.7 | | coal | | | | | somewhat shaly, polished, bottom 6" is hard & clean |
| 150 | 201 | | | 61.3 | | sst | lt | med. to coarse | 85* | intact | calcite, wavy bdg, abundant joints, Fe staining |
| | | | | | | | | | | | fining upwards, 156' jnt (6* ca), 162' jnt (17*ca) |
| | | | | | | | | | | | 165' jnt (17*ca), 167' jnt (4* ca), 172' jnt (12*ca) |
| | | | | | | | | | | | 178' jnt (15*ca). |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____ LATITUDE _____ DEPARTURE _____ ELEVATION _____
 Logged By: Paul Dudzinski Date: July 5, 1982

| Core | | Rad. Log | | | | Area Top of Eagle | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|----|----------|----|----------------------|-------|------------|------------------------|-----------------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 201 | 227 | | | 69.2 | | sst | lt | med | 72* | intact | 183' 21* joint, 186' 16* joint, 188' some mud clasts, 192-194' mud clasts thinly laminated with siltstone & mudstone clearly defined cross bedding, truncated bedding & mud clasts throughout entire unit. Fe stains, 205' 8* joint Fe stains, 207' 8* joint Fe stains, minor ca, 221' 8" of dark mst, 2 small (1 1/4") carbonaceous splits 224 - 227' well disturbed zone. rock state: rubble 8* fractures, Fe staining, small carbonaceous splits, plant fragments | |
| 227 | 258 | | | 78.6 | | sst | med | fine | 85* | intact to semi-intact | 50% fine sandstone 50% siltstone. Fe stains, plant fragments, some carbonaceous stringers 239 - 241' carbonaceous mudstone, plant fragments 243 - 245' carbonaceous mudstone. about 6" of hard, dull boney coal 254' polished surfaces 256 - 258' carbonaceous mudstone & dirty coal, well broken | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____
 Logged By: Paul Dudzinski Date: July 5, 1982

LATITUDE _____ DEPARTURE _____

ELEVATION _____

| Core | | Rad. Log | | | | Area Top of Eagle | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY - NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|----|----------|----|----------------------|-------|---------------|------------------------|-----------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 258 | 307 | | | 93.0 | | sst | lt | med to coarse | 85* | intact to rubble | finely laminated with dark siltstone 268 - 270' disturbed zone, rock well broken tan weathering, polished surfaces, Fe stains, 4*jnts 278 - 280' coaly mudstone & coal, well broken, polished surfaces, visible pyrite. 288 - 289' coaly mudstone & coal, 292' 8* jnt. 301' disturbed bedding, wavy, no set pattern | |
| 307 | 312 | | | 95.1 | | slst | dk | | 85* | semi-intact | dark siltstone with numerous carbonaceous stringers minor polished surfaces, 2" of coal at end of unit. | |
| 312 | 332 | | | 101.6 | | sst | lt | fine to med | 83* | semi-intact | laminated throughout. 10* jointing, 320' well defined cross bedding. 324 - 326' 2 feet of mudstone | |
| 332 | 337 | | | 102.7 | | mst | dk | | 85* | semi-intact to rubble | dark mudstone with some siltstone bands. Fe stains, minor slickensides. 335 - 337' coaly mudstone & dirty coal. minor polished surfaces, visible pyrite | |
| 337 | 347 | | | 105.8 | | sst | lt | fine to med | 87* | semi-intact | finely laminated with siltstone. minor ca & Fe stains 317' truncated bedding. 8* joint, minor ca | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | | |
|---------------------------|-----|----------|----|----------|-------|--------------------|------------------|--------------|------------------------|-----------------------|---|---|--|
| Logged By: Paul Dudzinski | | | | | | Date: July 5, 1982 | | | | | | | |
| Core | | Rad. Log | | | | Area | | Top of Eagle | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY -- NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | | |
| From | To | From | To | From | To | | | | | | | | |
| 347 | 349 | | | | 2.2 | slst | dk | | | semi-intact | 10* joint at 348' | | |
| 349 | 351 | | | | 2.5 | mst | dk | | | rubble | somewhat carbonaceous, minor slickensides & polished surfaces. 5* joint | | |
| 351 | 370 | | | | 112.3 | sst | lt med to coarse | | 85* | intact to semi-intact | thinly laminated with siltstone throughout. major Fe presence on joints. 359' 15* joint, 363' 15* joint, Fe staining. 365' worm burrows & mud clasts 367' 4* joint, Fe stains. polished surfaces (on bedding breaks) 370' minor pyrite. | | |
| 370 | 380 | | | | | sst | med fine | | 89* | intact to semi-intact | major Fe stains on joints. 372' 17* joint 377' 10* joint, some tan weathering shown | | |
| 380 | 395 | | | | 2.5 | sst | lt med | | 89* | semi-intact to rubble | thinly laminated with dark siltstone, polished surfaces, Fe staining. 382' extremely weathered joint heavy Fe staining, very soft rock. 45* 384' numerous carbonaceous infillings & stringers gives rock a brecciated appearance 391' 25* joint Fe stains | | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: Paul Dudzinski Date: July 5, 1982

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area Top of Eagle | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|-------|----------------------|-------|-------------|------------------------|-----------------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 395 | 399 | | | | 121.6 | Mst | dk | | 90° | semi-intact | carbonaceous mudstone some polished surfaces & carby stringers | |
| 399 | 416 | | | | 126.3 | sst | med | med to fine | 87° | intact to semi-intact | thinly laminated with siltstone, plant fragments, mud clasts | |
| 416 | 419 | | | | 127.7 | mst | dk | | | rubble | dark carbonaceous, 416.5' to 417' coal, hard, shiny pyrite. 418' to 419' coal, soft, friable, bright, pyrite. | |
| 419 | 431 | | | | 131.4 | sst | med | fine to med | 90° | intact | thinly laminated with siltstone, minor ca, infrequent plant fragments, 422' 14° joint minor ca | |
| 431 | 434.5 | | | | 132.4 | coal | dk | | | rubble | soft, dull, with infrequent bright bands, pyrite visible some Fe present, minor slickensides & polished surfaces. | |
| 434.5 | 437 | | | | 133.2 | mst | dk | | | semi-intact | some pyrite, minor carby stringers | |
| 437 | 487 | | | | 148.4 | sst | med | fine | 85° | semi-intact | good ca, minor Fe 442' thinly laminated with coarse sst, disturbed bedding. 454' to 455' one foot of hard bright coal. pyrite 459' to 467' numerous long, 4° joints, major Fe staining, minor ca. 477' 10° joint Fe stains | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| | | | | |
|---|--------------------|----------|-----------|-----------|
| Objective: Barry Musil Logged By: Paul Dudzinski | Date: July 6, 1982 | LATITUDE | DEPARTURE | ELEVATION |
|---|--------------------|----------|-----------|-----------|

| Core | | Rad. Log | | | | Area Top of Eagle | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO | DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO |
|-------|-------|----------|----|----------|----|----------------------|-------------|------------|------------------------|---------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 487 | 520 | | | 159.5 | | sst | lt | coarse | 73° | semi-intact | 479' 16° joint, Fe staining. 482' 25° joint, Fe stains, 486' 22° joint, Fe stains coarse sandstone, some small carbonaceous laminations minor ca & pyrite good Fe staining on joints 494' to 497' zone well fractured, good Fe stains 495' 15° joint, 506' 18° joint, good Fe stains 507' 10° joint, good Fe stains, 515' to 520' well fractured zone, deep Fe staining, minor tan weathering 8° jointing | |
| 520 | 524 | | | 159.7 | | slt | dk grey mgr | | 68° | intact/broken | mgr. slt. containing thin beds of coal as well as some plant impressions slickenslides present in minor form. Joints @ angle to core axis @ 14°, 14°, 8°, 9°. Some calcite infilling in joints. Joints at 515, 516, 520. | |
| 524 | 532 | | | 167.2 | | sst | md gry | fgr | 66° | intact | some bio turbidation at 526½', calcite infilling in joints. Note the presence of coal lentication at 527', 528'. joint at 531' at 16° w.r.t. core axis. core shows tangential contacts at 530' | |
| 532 | 535.5 | | | | | sst | dk gry | vfgr | 34° | blocky | sst/slt border core. full of plant impressions (grass). core is brittle. contains coal lentication. | |
| 535.5 | 539 | | | 169.5 | | sst | lt gry | fgr | 66° | broken | many joints thru out. all infilled and healed with calcite. sst itself is hard and well indurated. joint angles w.r.t. core axis 12°, 12°, 35° | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | |
|------------------------|-------|----------|----|----------|------|----------------------|--------|-------------|------------------------|--|--|
| Logged By: Barry Musil | | | | | | Date: July 7, 1982 | | | | | |
| Core | | Rad. Log | | | | Area Top of Eagle | | Total Depth | | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information |
| From | To | From | To | From | To | | | | | | |
| 539 | 546 | | | 16.4 | 16.4 | coal | blk | | | rubbly | 1' mst parting @ 541'. Coal is hard and shiny |
| 546 | 548 | | | 16.7 | 16.7 | slt | blk | fgc | --- | intact | brittle contains many plant impressions some polished surfaces |
| 548 | 552 | | | 16.3 | 16.3 | sst | lt gry | fgr | 66° | intact | hard and well indurated core shows much bio turbidation some slt interbedding Some healed joints in core. load casting at border with next interval. |
| 552 | 564 | | | 17.1 | 17.1 | slt | dk gry | cgr | 65° | blocky | coarse slt, grading into fgr. sst at 564', a 1' parting of fgr sst at 557', core contains many plant impressions. 3" bed of coal at 560' grading into mst then back to slt at 564'. |
| 564 | 598 | | | | | sst | dk gry | fgr | 65° | intact | lighter colored sst is hard and well indurated. Core shows bio turbidation. Some plant impressions. Joint at 569' @ 79" w.r.t. core axis. Angle of joint at 579' is 26° w.r.t. core axis. Joint is continuous. Discontinuous jointing with calc- ite infilling throughout. Bioturbation at 583'. Slight slt. interbedding throughout jnt 12° w.r.t. core axis at 590' Much bioturbation at 595' including worm burrowing and slight coal casting with some slt. |
| 598 | 630 | | | 16.4 | 16.4 | sst | lt gry | mgr | 79° | intact | hard and well indurated. some slt cross-bedding throughout otherwise typical salt and pepper mgr. sst. jnt 20° w.r.t. core axis at 600'. Calcite infilling healed joint at 612'. Calcite infilled jnt 20° jnt at 620'. Coal lentication throughout starting at 625'. |
| 630 | 643.5 | | | 17.6 | 17.6 | slt | dk gry | fgr | 78° | blocky | fairly well indurated. Some slt interbedding. Jnt 22° at 638' w.r.t. core axis. Slight bioturbation at 639'. 8° joint at 641'. |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

| Objective: | | | | | | LATITUDE | | DEPARTURE | | ELEVATION | | |
|------------------------|-------|----------|----|----------|----|-------------------|--------|------------|------------------------|--|---|--|
| Logged By: Barry Musil | | | | | | Date: | | | | | | |
| Core | | Rad. Log | | | | Area | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | | |
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 643.5 | 646.5 | | | 197.0 | | mst | blk | fgr | 79° | rubbly | mst. frequently laced with coal. Coal also in lenticles throughout. A very thorough mixture of coal and mst. Coal hard black and shiny. | |
| 646.5 | 660 | | | 201.2 | | sst | lt gry | fgr | 69° | intact | fairly well indurated. Bioturbidated throughout. \angle of joint w.r.t. core axis 14° @ 656'. | |
| 660 | 668 | | | 203.6 | | slt | dk gry | cgr | | rubbly | very brittle, slight coal lentication otherwise massive | |
| 668 | 674 | | | 205.4 | | sst | mgry | fgr | | intact | well indurated. Coal lenticle at 669.5' plant impressions @ 670'. | |
| 674 | 679 | | | 207.0 | | mst | blk | fgr | | blocky | a uniform mixture of coal and mst. There is a fine flecking of pyrite throughout. Many polished surfaces. | |
| 679 | 686 | | | 209.1 | | sst | m-gry | fgr | | intact | hard & well indurated calcite infilling in joints angles 14° w.r.t. core axis. Joint @ 684'. Bioturbation with swirling sst and slt at 684'. | |
| 687 | 699 | | | 213.1 | | slt | dk gry | mgr | 65° | intact | dominant lithology is slt but frequent interbedding with vfgr sst is common throughout. Coal lentication at 690'. | |
| 699 | 734 | | | 222.7 | | sst | lt gry | fgr/mgr | 76° | intact | much bioturbation at 700' (minor indications of rip-up clasts). Joint parrallel to core axis at 700-701'. Worm burrows at 702.5'. Plant impressions at 709.5'. More bioturbation from 722-726'. Angle of joint at 722' 27° w.r.t. core axis. Joint 35° w.r.t. core axis at 725'. Brittle from 725-724'. Core changes to diameter at 734'. | |
| 734 | 755 | | | 230.1 | | sst 40% sh 60% | md gry | fgr | 72° | blocky | uniform bedding of slt/sst. throughout healed joints at 748' (calcite infilled). | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective:

LATITUDE

DEPARTURE

ELEVATION

Logged By: Barry Musil

Date:

| Core | | Rad. Log | | | | Area | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-------|----------|----|----------|----|-----------|--------|------------|------------------------|---------------|---|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| | 755 | | | | | | | | | | Contorted bedding at 751-755'. Worm burrows at 755'. | |
| 755 | 777.5 | | | 237 | | sst/slt | lt gry | fgr | 82° | intacc/blocky | hard & well indurated. contorted bedding at 758', 766, & 777'. 50/50 coal lentication at 762, 767.5-768'. Rubbly section from 769-772'. Minor "firing" on sst/slt strata border at 772.5'. Slight coal lentication in this area. discontinuous joints with calcite infilling at 777.5'. | |
| 777.5 | 827.5 | | | 252 | | sst/slt | md gry | fgr | 78° | intact | uniform interbedding of slt/sst throughout. Some x-bedding at 782.5'. load casting at 798.5'. Some fine lenticles of coal at Tangential contacts at 792.5'. Worm burrows at 795'. 1' bed of coal/mst at 802'. Core getting slightly sandier at 807'. Good worm burrows at 808'. Disseminated pyrite at 785.5'. | |
| 827.5 | 830.5 | | | 253 | | mst | blk | fgr | 75° | crumbly | 80% mst, 20% coal. Many polished surfaces. Coal hard, black and shiny. | |
| 830.5 | 842 | | | 256 | | slt/sst | dk gry | | 79° | intact | coal lentication at 841.5'. Discontinuous jointing at 840' (no filling) | |
| 842 | 865 | | | | | sst | lt gry | fgr | 79° | intact | hard & well indurated. slight contorted bedding throughout. Bioturbation in the form of worm borrows at 852'. Cross-bedding at 850'. slight carbonaceous smears at 854'. Core blocky from 854' onto 865'. Joint at 856' angle 14° w.r.t. core axis. Jointed at 862' angle 7° w.r.t. core axis. Continuous with no filling. Slight plant impressions present. Polished surfaces at 861.5'. | |

Diamond Drill Geological Log



FORDING RIVER OPERATIONS

Objective: _____

Logged By: Barry Musil Date: _____

LATITUDE _____ DEPARTURE _____ ELEVATION _____

| Core | | Rad. Log | | | | Area Eagle Mtn. | | | | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG <input type="checkbox"/> YES <input type="checkbox"/> NO DIRECTIONAL SURVEY DONE <input type="checkbox"/> YES <input type="checkbox"/> NO | |
|-------|-----|----------|----|----------|-------|--------------------|--------|------------|------------------------|-------------|--|--|
| (Ft.) | | (Ft.) | | (Meters) | | Lithology | Color | Grain Size | Core Bedding Angle (°) | Core Status | Additional Information | |
| From | To | From | To | From | To | | | | | | | |
| 865 | 872 | | | | 265.8 | sst | lt gry | fgr | 69° | intact | hard, well indurated slight silt bedding, otherwise mainly massive. Carbonaceous smearing in bedding planes. | |
| 872 | 875 | | | | 266.7 | mst | blk | fgr | | blocky | hard brittle becoming softer as carbon content increases. Plant impressions present. | |
| 875 | 890 | | | | 271.3 | coal | blk | | | blocky | hard, shiny coal, slight mst interbedding at 877'. | |
| 890 | 909 | | | | 272.1 | silt | dk gry | fgr | | rubbly | core very broken and rubbly. Small pieces chewed up by the bit many polished surfaces throughout small (1cm) lenticles of coal throughout. | |
| 909 | 924 | | | | 282.6 | sst | lt gry | fgr | 85° | intact | fine interbedding throughout (with silt) Joint at 909' angle 12° w.r.t. core axis. Bedding very swirled at 910', Core turning light tan in color. | |
| | | | | | | | | | | | END OF HOLE | |
| | | | | | | | | | | | RH 1900 WAS DRILLED TO A GREATER DEPTH. THE DIAMOND HOLE 1900 WAS ABANDONED BECAUSE OF POOR GROUND. | |

| DEPTH | PERCENT CORE LOSS | | | RAC: S | | DESCRIPTION AND REMARKS | ROCK T. | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | | |
|-------|-------------------|----|----|--------|-----------|-------------------------|------------|-------------|-------------|------------------|---|--------------------------|-------------------------------------|---|----|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | | | | INCLINATION | ANGLE TO BEDDING | 4 | | 3 | 2 | 75 | 50 | 25 |
| 5 | | | | L1 | | 44° 8° | | | | | | | | | | | |
| 10 | | | | L1 | | 44° 8° | | | | | | | | | | | |
| 15 | | | | L1 | | 48° 8° | | | | | | | | | | | |
| 20 | | | | L1 | | 47° 32° | 2 of these | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 11 June 82

PROJECT No. _____

Q22A

150,101.2 N


26,870.2 E

2273.9 m elev.

Golder Associates

Hole No. 170S

SHEET 1 OF _____

| DEPTH | PERCENT CORE LOSS | | RAC | | | | DESCRIPTION AND REMARKS | ROCK TY. | GRAPHIC LOC | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | | |
|-------|-------------------|----|------|-----------|-------------|------------------|---|---|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|--|
| | 25 | 50 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | |
| | | | B | | 47° | | Core mixed up ∴ data unreliable (19' - 62') |  | | | | | | | | | | | | |
| 30 | | | B | W | 47° | | | | | | | | | | | | | | | |
| | | | S | | 80° | | | | | | | | | | | | | | | |
| 35 | | | B | | 47° | | | | | | | | | | | | | | | |
| 40 | | | B | | 44° | | 3 of these | | | | | | | | | | | | | |
| | | | S | W | 85° | | | | | | | | | | | | | | | |
| 45 | | | B | W | 45° | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 11 June 82
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | RAC | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|-------------------------------------|---|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | | 2 | 75 | 50 |
| | | | | W | | 44° | | | | | | | | | | | |
| 55 | | | | W | | 44° | | | | | | | | | | | |
| 60 | | | | W | | 44° | | | | | | | | | | | |
| | | | | W | | 46° | 210° | | | | | | | | | | |
| 65 | | | | W | | 44° | | | | | | | | | | | |
| 70 | | | | W | | 45° | | | | | | | | | | | |
| | | | | W | | 46° | 220° | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 11 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 3 OF _____

| DEPTH | PERCENT CURE LOSS | | | RAC S | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-------|-----------|-------------|-------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 40° | | | | | | | | | | | | | | |
| 80 | | | | B | | 28° | | | | | | | | | | | | | | |
| 85 | | | | B | | 40° | | | | | | | | | | | | | | |
| | | | | L1 | | 28° | 26° | | | | | | | | | | | | | |
| | | | | L1 | | 2° | | | | | | | | | | | | | | |
| 90 | | | | L1 | W | 48° | 8° | | | | | | | | | | | | | |
| | | | | L1 | | 48° | | | | | | | | | | | | | | |
| 95 | | | | L1 | W | 64° | 70° | Sealed | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 11 June 82
 PROJECT No. _____

Golder Associates

Hole No. 170S
 SHEET 4 OF _____

| DEPTH | PERCENT CORE LOSS | | | RACIALS | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|-------------------------|-------------------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| | | | | B | | 52° | | | | | | | | | | | | | |
| | | | | B | | 39° | 150° | | | | | | | | | | | | |
| 105 | | | | B | | 52° | | | | | | | | | | | | | |
| | | | | B | | 39° | 340° | | | | | | | | | | | | |
| 110 | | | | B | | 55° | | | | | | | | | | | | | |
| | | | | B | W | 38° | 96° | 3 of these sealed | | | | | | | | | | | |
| 115 | | | | B | | 53° | | | | | | | | | | | | | |
| | | | | B | | 8° | | | | | | | | | | | | | |
| 120 | | | | B | | 53° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 11 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 5 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRAC--S | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 155 | | | | B | | 53° | | | | | | | | | | | | |
| 160 | | | | B | | 80° | | | | | | | | | | | | |
| 170 | | | | B | | 80° | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 11 June 82
 PROJECT No. _____

Golder Associates

Hole No. 170S
 SHEET 7 OF _____

| DEPTH | PERCENT CORE LOSS | | | RAC | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO FEEDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | |
| 180 | | | | | | | | | | | | | | | | | | | | |
| 185 | | | | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | | | | |
| 195 | | | | 517 | | 230 | 80 | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 11 June 92
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 8 OF _____

| DEPTH | PERCENT CORE LOSS | | | RAC S | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GORGE BROKEN CORE | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------------------|-----------|-------------|-------------------------|-------------|-------------|--------------------------------|---|---|----------|----|----|--------------------------|---|----|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | |
| 205 | | | | L ₁ B | | 52° | | | | | | | | | | | | | | | |
| | | | | L ₂ B | | 28° | 20° | 2 up + Les. | | | | | | | | | | | | | |
| 210 | | | | L ₁ B | | 53° | | | | | | | | | | | | | | | |
| | | | | L ₂ B | | 39° | | 3 up + Les. | | | | | | | | | | | | | |
| 215 | | | | L ₁ B | | 52° | | | | | | | | | | | | | | | |
| | | | | L ₂ B | | 80° | | | | | | | | | | | | | | | |
| | | | | L ₁ B | | 58° | | 2 up + Les. | | | | | | | | | | | | | |
| 220 | | | | L ₁ B | | 47° | | | | | | | | | | | | | | | |
| | | | | L ₂ B | | 34° | | | | | | | | | | | | | | | |
| | | | | L ₁ B | | 26° | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 9 OF _____

| DEPTH | PERCENT CORE LOSS | | | RAC S | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 220 | | | | W | | 55° | 40F + lense | | | | | | | | | | | |
| | | | | W | | 40° | | | | | | | | | | | | |
| | | | | W | | 53° | | | | | | | | | | | | |
| | | | | W | | 28° | 2J + lense | | | | | | | | | | | |
| | | | | W | | 910° | | | | | | | | | | | | |
| 235 | | | | B | | 53° | | | | | | | | | | | | |
| 240 | | | | B | | 57° | | | | | | | | | | | | |
| 245 | | | | W | | 53° | | | | | | | | | | | | |
| | | | | W | | 41° | | | | | | | | | | | | |
| | | | | | | 910° | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 10 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRAC IS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 255 | | | | B | | 55° | | | | | | | | | | | | | |
| | | | | B | | 55° | 20° | 3 of these | | | | | | | | | | | |
| 260 | | | | B | | 55° | | | | | | | | | | | | | |
| | | | | B | | 55° | | | | | | | | | | | | | |
| | | | | B | | 60° | | 2 of these | | | | | | | | | | | |
| 265 | | | | B | | 45° | | | | | | | | | | | | | |
| | | | | B | | 45° | | | | | | | | | | | | | |
| | | | | B | | 80° | 150° | 3 of these | | | | | | | | | | | |
| | | | | B | | 70° | 90° | | | | | | | | | | | | |
| | | | | B | | 80° | | | | | | | | | | | | | |
| | | | | B | | 90° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 14 June 82
PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | FRAC | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE | | | BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|-------------|----------|----|----|--------------------------|---|----|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | |
| 280 | | | | F1 | | 57° | | | | | | | | | | | | | | | | |
| | | | | F2 | | 8° | | | | | | | | | | | | | | | | |
| | | | | F1 | | 57° | | | | | | | | | | | | | | | | |
| | | | | F2 | | 8° | | | | | | | | | | | | | | | | |
| 285 | | | | B | | 57° | | | | | | | | | | | | | | | | |
| | | | | F2 | | 8° | | | | | | | | | | | | | | | | |
| | | | | F2 | | 22° | | | | | | | | | | | | | | | | |
| | | | | | | | | 2 † these | | | | | | | | | | | | | | |
| | | | | | | | | 2 † these | | | | | | | | | | | | | | |
| 290 | | | | | | | | | | | | | | | | | | | | | | |
| 295 | | | | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 12 OF _____

| DEPTH | PERCENT CORE LOSS | | | TRACINGS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE (%) | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|------------------|-------------------------|-----------|-------------|------------------------------------|---|---|----------|----|----|--------------------------|----|----|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | |
| | | | | B | | 80° | | | | | | | | | | | | | | | | |
| 305 | | | | B | | 80° | | | | | | | | | | | | | | | | |
| 310 | | | | B | | 80° | | | | | | | | | | | | | | | | |
| 315 | | | | B | B | 55° | | | | | | | | | | | | | | | | |
| | | | | B | B | 70° | 100° | | | | | | | | | | | | | | | |
| 320 | | | | B | B | 55° | | 2 of these | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 17 JUNE 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 13 OF _____

| DEPTH | PERCENT CORE LOSS | | | RAC S | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 355 | | | | B | | 40° | 2.7 bluse | | | | | | | | | | | | |
| | | | | B | | 16° | | | | | | | | | | | | | |
| | | | | B | | 80° | | | | | | | | | | | | | |
| | | | | B | | 70° | | | | | | | | | | | | | |
| 360 | | | | B | | 40° | | | | | | | | | | | | | |
| 365 | | | | B | | 55° | | | | | | | | | | | | | |
| 370 | | | | B | | 55° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 14 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 15 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-------------|-----------|------------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 75 | 50 | 25 |
| | | | | R | | 57° | | | | | | | | | | | |
| 380 | | | | R R | R | 57° 8° | | | | | | | | | | | |
| 385 | | | | R R | R | 57° 8° | | | | | | | | | | | |
| 390 | | | | R R R | R | 57° 8° 16° | | | | | | | | | | | |
| 395 | | | | R R | R | 57° 16° | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 14 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 16 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 55° | | | | | | | | | | | | | |
| 405 | | | | B | | 49° | | | | | | | | | | | | | |
| 410 | | | | B | | 47° | | | | | | | | | | | | | |
| 415 | | | | B | | 48° | | | | | | | | | | | | | |
| 320 | | | | B | | 47° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 17 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------------------|-----------|----------------|-------------------------|-----------|-------------|---|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 430 | | | | B L ₂ | | 7° 8° | | | | | | | | | | | | | |
| 435 | | | | B L ₂ | | 7° 2° | 2 sets about 3cm apart | | | | | | | | | | | | |
| 440 | | | | B L ₂ | | 7° 16° 24' | | | | | | | | | | | | | |
| 445 | | | | B L ₂ | | 47° 35° 18° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 14 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 18 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|------------------|--------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 455 | | | | 52 | | 22° | 90° | 5 of these | [Dotted pattern] | [Empty grid] | | | | | | | | | |
| | | | | 52 | | 22° | 90° | | | | | | | | | | | | |
| 460 | | | | 52 | | 22° | 90° | | | | | | | | | | | | |
| | | | | 52 | | 22° | 90° | | | | | | | | | | | | |
| 465 | | | | 52 | | 22° | 90° | 3 of these | [Dotted pattern] | [Empty grid] | | | | | | | | | |
| | | | | 52 | | 22° | 90° | | | | | | | | | | | | |
| 470 | | | | 52 | | 22° | 90° | | | | | | | | | | | | |
| | | | | 52 | | 22° | 90° | | | | | | | | | | | | |

LOGGED BY: D. JOHNSON
 DATE: 14 JUNE 89
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 19 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|--------------------------------------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 75 | 50 | 25 |
| 480 | | | | L ₁ W | | 53° | 90° | 3 ↘ these | | | | | | | | | |
| 485 | | | | L ₁ B L ₁ R | | 52° 20° | 24° | 2 ↘ these | | | | | | | | | |
| 490 | | | | L ₁ W L ₁ R | | 53° 26° | 110° 25° | 2 ↘ these | | | | | | | | | |
| 495 | | | | L ₁ W | | 53° | 2° | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 June 89
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|----------|---|---|--------------------------|-------------------------------------|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | | | 75 |
| | | | | B | | 52° | | | | | | | | | | | |
| S05 | | | | B | | 40° | | | | | | | | | | | |
| S10 | | | | B | | 40° | | | | | | | | | | | |
| S15 | | | | B | | 40° | | | | | | | | | | | |
| S20 | | | | B | | 40° | 5° 20° | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 14 JUNE 89
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GAUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------------------|--|--|----------------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|---|---|----------|----|----|--------------------------|----|----|-------------------------------------|--|--|
| | | | | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | |
| | | | | B | | 53° | | | | | | | | | | | | | | | | |
| 530 | | | | B | | 55° | | | | | | | | | | | | | | | | |
| | | | | L ₁ | | 8° | 100° | | | | | | | | | | | | | | | |
| 535 | | | | B | | 47° | | | | | | | | | | | | | | | | |
| | | | | L ₁ | | 5° | 100° | | | | | | | | | | | | | | | |
| | | | | L ₂ | | 5° | 100° | | | | | | | | | | | | | | | |
| 540 | | | | B | | 47° | | | | | | | | | | | | | | | | |
| | | | | L ₁ | | 38° | 150° | 2y + Lese | | | | | | | | | | | | | | |
| | | | | L ₂ | | 8° | | | | | | | | | | | | | | | | |
| 545 | | | | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 14 June 92

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 92 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|--------------------------|-------------------------------------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | |
| 565 | | | | | | | | C O O L | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | | | |
| 570 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 15 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 23 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 880 | | | | B | B | 48° | | | | | | | | | | | | | |
| 885 | | | | B | B | 48° | | | | | | | | | | | | | |
| 890 | | | | B | | 55° | | | | | | | | | | | | | |
| 895 | | | | B | | 57° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 15 June 82
 PROJECT No. 1

Golder Associates

Hole No. 1705
 SHEET 24 OF

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | |
| 605 | | | | B | | 5° | | 2 ft less | | | | | | | | | | | | | |
| 610 | | | | B | | 5° | | | | | | | | | | | | | | | |
| 615 | | | | B | | 5° | | | | | | | | | | | | | | | |
| 620 | | | | B | | 5° | 12° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 15 June 92
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 25 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | W | | 57° | | | | | | | | | | | | | | |
| 630 | | | | B | | 57° | | | | | | | | | | | | | | |
| 635 | | | | B | | 57° | | | | | | | | | | | | | | |
| 640 | | | | B | | 57° | | | | | | | | | | | | | | |
| 645 | | | | B L2 | | 57° 54° | | | | | | | | | | | | | | |

LOGGED BY: J. Johnson
 DATE: 15 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 9C OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|-------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 680 | | | | B | | 50° | | | | | | | | | | | | | |
| 685 | | | | B | | 50° | | | | | | | | | | | | | |
| 690 | | | | B | | 50° | 10° | | | | | | | | | | | | |
| 695 | | | | B | | 50° | 0° | | | | | | | | | | | | |

V. Fract

LOGGED BY: D. Johnson
 DATE: 15 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 28 OF _____

| DEPTH | PERCENT CORE LOSS | | | ACTUAL | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|---------|-----------|-------------|-------------------------|--------------|-------------|------------------|---|---|--------------------------|-------------------------------------|---|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | | 2 | 75 | 50 |
| | | | | B | | 57° | | | | | | | | | | | |
| 705 | | | | B 42 | | 57° 16° | | | | | | | | | | | |
| 710 | | | | B 42 | B | 57° 20° | 115° | 2. of + Lese | | | | | | | | | |
| 715 | | | | B 42 | B | 57° 20° | 150° | | | | | | | | | | |
| 720 | | | | B 42 | B | 57° 8° | | 2. of + Lese | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 15 June 92

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 99 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LC | BRECCIA / GOUGE | | | BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|-------------------------|-----------|------------|------------------|---|---|-------------|----------|----|----|--------------------------|---|----|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | |
| 730 | | | | R | R | 5° | | | | | | | | | | | | | | | | |
| | | | | R | | 30° | | | | | | | | | | | | | | | | |
| | | | | R | | 8° | | | | | | | | | | | | | | | | |
| | | | | R | | 5° | | | | | | | | | | | | | | | | |
| 735 | | | | R | | 55° | | | | | | | | | | | | | | | | |
| | | | | R | | 24° | | | | | | | | | | | | | | | | |
| | | | | R | | 8° | 70° | 2y + less | | | | | | | | | | | | | | |
| 740 | | | | R | | 54° | | | | | | | | | | | | | | | | |
| | | | | R | | 8° | | | | | | | | | | | | | | | | |
| | | | | R | | 16° | | | | | | | | | | | | | | | | |
| 745 | | | | R | | 8° | | | | | | | | | | | | | | | | |
| | | | | R | | 8° | | | | | | | | | | | | | | | | |

LOGGED BY: J. Johnson
DATE: 15 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 30 OF _____

| DEPTH | PERCENT CORE LOSS | | | TYPE | FRACTURE | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | 42 | 57° | 54° | | | | | | | | | | | | | |
| 755 | | | | 52 | 57° | | | | | | | | | | | | | | |
| | | | | 52 | 80° | | | | | | | | | | | | | | |
| | | | | 52 | 70° | | | | | | | | | | | | | | |
| 760 | | | | 52 | 53° | | | | | | | | | | | | | | |
| | | | | 52 | 80° | | 2 ↓ + less | | | | | | | | | | | | |
| | | | | 52 | 16° | | 2 ↓ + less | | | | | | | | | | | | |
| 765 | | | | 52 | 56° | | | | | | | | | | | | | | |
| | | | | 42 | 50° | | | | | | | | | | | | | | |
| | | | | 42 | 26° | | | | | | | | | | | | | | |
| 770 | | | | 52 | 57° | | | | | | | | | | | | | | |
| | | | | 42 | 80° | | | | | | | | | | | | | | |
| | | | | 42 | 80° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 16 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 31 OF _____

| DEPTH | PERCENT CORE LOSS | | | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LC | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|------------------|-------------------------|-----------|------------|----------|---|---|--------------------------|-------------------------------------|----|----|
| | 25 | 50 | 75 | | | | | | | | 4 | 3 | 2 | | 75 | 50 | 25 |
| | | | | B | | S70 | | | | | | | | | | | |
| 780 | | | | B I2 | | S80 8° | | | | | | | | | | | |
| 785 | | | | B | | S70 | | | | | | | | | | | |
| 790 | | | | B I2 | | S80 8° | | | | | | | | | | | |
| 795 | | | | B I2 | | S50 25° | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 16 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 32 OF _____

| DEPTH | PERCENT CORE LOSS | | | ACT | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | | |
|-------|-------------------|----|----|------|-----------|-------------|---|-----------|-------------|------------------|---|---|--------------------------|-------------------------------------|----|----|---------|---|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | 2 | 75 | 50 | 25 | 5 |
| 805 | | | | B | W | 47° | Sealed | | | | | | | | | | V-Fr 25 | |
| | | | | B | W | 9° | | | | | | | | | | | | |
| | | | | B | | 46° | | | | | | | | | | | | |
| | | | | B | | 16° | | | | | | | | | | | | |
| 810 | | | | B | | 8° | 2 of these | | | | | | | | | | V-Fr 25 | |
| | | | | B | | 17° | | | | | | | | | | | | |
| 815 | | | | B | W | 24° | 2 of these seen at start 2 of these | | | | | | | | | | | |
| | | | | B | W | 57° | | | | | | | | | | | | |
| | | | | B | W | 24° | | | | | | | | | | | | |
| 820 | | | | B | W | 8° | | | | | | | | | | | | |
| | | | | B | W | 280° | | | | | | | | | | | | |
| | | | | B | W | 57° | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 16 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 33 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE | | | BROKEN CORE | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|-----------------|---|---|-------------|----|----|----------|----|----|--------------------------|--|--|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | | | | |
| 830 | | | | W | | 50° | | | | | | | | | | | | | | | | | | | |
| 835 | | | | W | W | 80° | | | | | | | | | | | | | | | | | | | |
| 840 | | | | W | | 10° | | 3 + less | | | | | | | | | | | | | | | | | |
| 845 | | | | W | | 4° | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 17 June 82
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | TYPE | ACTIVITY | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|-------------------------------------|----|----|
| | 25 | 50 | 75 | | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 75 | 50 | 25 |
| 855 | | | | FW | | 46° 8° | | | | | | | | | | | |
| 860 | | | | FW | | 45° 8° | | | | | | | | | | | |
| 865 | | | | FW | | 45° 60° 80° | | | | | | | | | | | |
| 870 | | | | B I2 | | 47° 8° | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 17 June 82
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | FACTORS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 880 | | | | R | W | 41° | | | | | | | | | | | | | |
| 885 | | | | R | W | 51° | | | | | | | | | | | | | |
| | | | | R | W | 53° | | | | | | | | | | | | | |
| | | | | R | W | 80° | | | | | | | | | | | | | |
| | | | | R | W | 160° | 180° | 2 of these | | | | | | | | | | | |
| 890 | | | | R | W | 58° | | | | | | | | | | | | | |
| 895 | | | | R | W | 52° | | | | | | | | | | | | | |
| | | | | R | W | 110° | | | | | | | | | | | | | |
| | | | | R | W | 120° | | | | | | | | | | | | | |
| | | | | R | W | 160° | 260° | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 17 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 36 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTORS | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|-------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 905 | | | | L1B | | 53° | 19° | | | | | | | | | | | | |
| 910 | | | | L1B | W | 55° | 10° | | | | | | | | | | | | |
| 915 | | | | L1B | | 52° | 25° | | | | | | | | | | | | |
| 920 | | | | L1B | | 50° | 25° | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 18 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 37 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-------|-----------|-------------|------------------|-------------------------|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | W | 50° | | 2 of these | | | | | | | | | | | | |
| 930 | | | | B | W | 32° | 90° | | | | | | | | | | | | | |
| | | | | B | W | 45° | | | | | | | | | | | | | | |
| 935 | | | | B | W | 45° | | | | | | | | | | | | | | |
| | | | | B | W | 16° | 160° | | | | | | | | | | | | | |
| | | | | B | W | 30° | 70° | | | | | | | | | | | | | |
| 940 | | | | B | W | 47° | | | | | | | | | | | | | | |
| | | | | B | W | 80° | 0° | | | | | | | | | | | | | |
| 945 | | | | B | W | 40° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 18 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 38 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACILITIES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE (%) | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------------|-----------|-------------|------------------|-------------------------|-----------|-------------|------------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 40° | | | | | | | | | | | | | | |
| 955 | | | | B | | 40° | | | | | | | | | | | | | | |
| | | | | L1 | | 80° | 90° | | | | | | | | | | | | | |
| | | | | L2 | | 26° | 220° | | | | | | | | | | | | | |
| 960 | | | | B | | 40° | | | | | | | | | | | | | | |
| | | | | L1 | | 20° | | | | | | | | | | | | | | |
| | | | | L2 | | 25° | | 2 1/2 + Lense | | | | | | | | | | | | |
| 965 | | | | B | | 40° | | | | | | | | | | | | | | |
| | | | | L1 | | 25° | 90° | 2 1/2 + Lense | | | | | | | | | | | | |
| | | | | L2 | | 16° | | | | | | | | | | | | | | |
| | | | | L1 | | 8° | | | | | | | | | | | | | | |
| 970 | | | | B | | 40° | | | | | | | | | | | | | | |
| | | | | L1 | | 8° | | | | | | | | | | | | | | |

LOGGED BY: D Johnson
DATE: 18 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 39 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|------------------|-------------------------|------------------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 980 | | | | B | | 47° | | 2 of these | [Dotted pattern] | | | | | | | | | | | |
| | | | | B | | 25° | | | | | | | | | | | | | | |
| | | | | B | W | 42° | | | | | | | | | | | | | | |
| | | | | B | W | 27° | | | | | | | | | | | | | | |
| 985 | | | | B | | 49° | | | | | | | | | | | | | | |
| | | | | B | | 14° | | | | | | | | | | | | | | |
| 990 | | | | B | | 50° | | | | | | | | | | | | | | |
| | | | | B | | 2° | | | | | | | | | | | | | | |
| 995 | | | | B | | 50° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 21 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 40 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / SOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-------|-----------|-------------|------------------|-------------------------|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1005 | | | | W | | 50° | 180° | 2 ↑ these | | | | | | | | | | | | |
| 1010 | | | | W | | 33° | 180° | | | | | | | | | | | | | |
| 1015 | | | | W | | 50° | | 2 ↑ these | | | | | | | | | | | | |
| 1020 | | | | W | | 80° | 340° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 21 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 41 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 47° | | | | | | | | | | | | | | |
| 1030 | | | | B | | 47° | | | | | | | | | | | | | | |
| 1035 | | | | B | | 47° | | | | | | | | | | | | | | |
| | | | | B | | 47° | 24° | | | | | | | | | | | | | |
| 1040 | | | | B | | 47° | 60° | | | | | | | | | | | | | |
| 1045 | | | | B | | 47° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 9 June 82

PROJECT No. _____

Golder Associates

Hole No. 170S

SHEET 4.9 OF _____

| DEPTH | PERCENT CORE LOSS | | | ACTUAL | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE (%) | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|------------------|-------------------------|-----------|-------------|------------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 45° | | | | | | | | | | | | | | |
| 1055 | | | | B 52 | | 47° 8° | | | | | | | | | | | | | | |
| 1060 | | | | B 52 | | 47° 12° | | 2g + Lense | | | | | | | | | | | | |
| 1065 | | | | B 52 | | 48° 24° | | | | | | | | | | | | | | |
| 1075 | | | | B | | 48° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 21 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 43 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACT | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 47° | | | | | | | | | | | | | |
| | | | | B | | 20° | | | | | | | | | | | | | |
| 1080 | | | | B | | 47° | | | | | | | | | | | | | |
| | | | | B | | 20° | | | | | | | | | | | | | |
| 1085 | | | | B | | 47° | | | | | | | | | | | | | |
| | | | | B | | 9° | | | | | | | | | | | | | |
| 1090 | | | | B | | 47° | | | | | | | | | | | | | |
| | | | | B | | 7° | | | | | | | | | | | | | |
| 1095 | | | | B | | 47° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 22 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 4 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE | | | BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-------|-----------|-------------|------------------|-------------------------|-----------|-------------|-----------------|---|---|-------------|----------|----|----|--------------------------|----|----|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 75 | 50 | 25 | 5 | 10 | 15 | | | |
| 1105 | | | | R | R | 45° | 35° | Lealed | | | | | | | | | | | | | | | |
| 1110 | | | | R | R | 45° | | | | | | | | | | | | | | | | | |
| 1115 | | | | R | R | 45° | | | | | | | | | | | | | | | | | |
| 1120 | | | | R | R | 45° | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 22 June 89
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 45 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUCCES / BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|-------------------|-------------------------|-----------|-------------|---------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO FLOORING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | |
| 1130 | | | | B | | 47° | | 2 ↓ these | | | | | | | | | | | | | |
| 1135 | | | | B | | 47° | | | | | | | | | | | | | | | |
| 1140 | | | | B | | 47° | | | | | | | | | | | | | | | |
| 1145 | | | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 22 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 46 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|---------------------------|------------------|-------------------------|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | |
| 1155 | | | | L2 | | 80° | | | | | | | | | | | | | | | |
| 1160 | | | | L2 W | | 40° 92° 140° 50° | 180° 50° | 3 of these | | | | | | | | | | | | | |
| 1165 | | | | L2 | | 40° 80° | | | | | | | | | | | | | | | |
| 1170 | | | | L2 | | 40° 50° | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: _____

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 47 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------------------|-----------|-------------------|------------------|----------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1180 | | | | B F ₂ | N | 45° 80° 20° | | 2 1/2 these 2 1/2 these | | | | | | | | | | | |
| 1185 | | | | B F ₂ | N | 47° 20° | | healed | | | | | | | | | | | |
| 1190 | | | | B F ₂ | N | 45° 45° 70° | | | | | | | | | | | | | |
| 1195 | | | | B F ₂ | N | 45° 80° | | 2 1/2 these | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 23 June 82
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | RACIALS | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------|-----------|-------------|-------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 1205 | | | | W | | 42° | | | | | | | | | | | | | |
| 1210 | | | | W | | 35° | 20° | | | | | | | | | | | | |
| 1215 | | | | W | | 50° | | | | | | | | | | | | | |
| 1220 | | | | W | | 26° | | | | | | | | | | | | | |
| | | | | W | | 42° | | | | | | | | | | | | | |
| | | | | W | | 51° | | | | | | | | | | | | | |
| | | | | W | | 80° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 23 June 89

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 49 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACT | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|------|-----------|-------------------|---------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 1230 | | | | B | | 53° 8° | | | | | | | | | | | | | |
| 1235 | | | | B | | 53° 43° 30° | | | | | | | | | | | | | |
| 1240 | | | | B | | 53° 16° | | | | | | | | | | | | | |
| 1245 | | | | B | | 55° 16° 25° | 2 of these about 3m apart | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 23 June 89

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 50 OF _____

| DEPTH | PERCENT CORE LOSS | | | STRUCTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | | | | | | | | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|------------------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|------------------|--|--|--|--|--|--|--|--|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | | | | | | | | |
| 1255 | | | | L2 | | 53° | | 2 of these | [Dotted pattern] | | | | | | | | | | | | | | | | | | | | | |
| 1260 | | | | L2 | | 54° | | | | | | | | | | | | | | [Dotted pattern] | | | | | | | | | | |
| | | | | L2 | N | 53° | 26° | | | | | | | | | | | | | | | | | | | | | | | |
| 1265 | | | | L2 | | 53° | | | | | | | | | | | | | | [Dotted pattern] | | | | | | | | | | |
| 1270 | | | | L2 | | 53° | | [Dotted pattern] | | | | | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 9.2 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 51 OF _____

44-1000-1-12-1000-1

LOGGED BY: D. Johnson
DATE: 23 June 82
PROJECT NO. _____

Golder Associates

Hole No. 1705
SHEET S2 OF _____

| DEPTH | PERCENT CORE LOSS | | | FACTORS | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------------------|-------------|--------------------------|------------------|--|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1305 | | | | | | | | | | | | | | | | | | | | |
| 1310 | | | | B | | 55° | | | | | | | | | | | | | | |
| 1315 | | | | B SS | W | 55° 38° | | healed, 3 of these | | | | | | | | | | | | |
| 1320 | | | | B SS SS SS | W W W | 55° 50° 26° 39° | 26° | 2 of these 2 of these 2 of these | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 23 June 82

PROJECT No. _____

Golder Associates

Hole No. 1705

SHEET 53 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|-------------------------|-----------|-------------|--------------------------------|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 1330 | | | | B | | 50° | | | | | | | | | | | | | |
| 1335 | | | | B | | 50° 9° | | | | | | | | | | | | | |
| 1340 | | | | B | | 50° | | | | | | | | | | | | | |
| 1345 | | | | B | | 50° 17° | | | | | | | | | | | | | |

LOGGED BY: P. J. J. J.
 DATE: 23 June 89
 PROJECT No. _____

Golder Associates

Hole No. 1905
 SHEET 54 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|------------------|--------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1355 | | | | W | | 50° | | 2 of these | [Dotted pattern] | [Empty grid] | | | | | | | | | | |
| | | | | W | | 54° | | | | | | | | | | | | | | |
| | | | | W | | 8° | | | | | | | | | | | | | | |
| 1360 | | | | W | | 55° | | | | | | | | | | | | | | |
| | | | | W | | 24° | | | | | | | | | | | | | | |
| 1365 | | | | B | | 55° | | | | | | | | | | | | | | |
| 1370 | | | | W | | 55° | | | | | | | | | | | | | | |
| | | | | W | | 8° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 24 June 89
PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 55° | | | | | | | | | | | | | |
| 1380 | | | | B | | 55° | | | | | | | | | | | | | |
| 1385 | | | | L/B | | 54° 8° | | | | | | | | | | | | | |
| 1390 | | | | B | | 53° | | | | | | | | | | | | | |
| 1395 | | | | B | | 54° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 24 June 82
 PROJECT No. _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|----------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1405 | | | | W | | 55° | 360° | | | | | | | | | | | | | |
| 1410 | | | | W | | 55° | 25° | | | | | | | | | | | | | |
| 1415 | | | | W | | 55° | | | | | | | | | | | | | | |
| 1420 | | | | W | | 55° | | 3 of these about 2cm apart | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 24 June 82

PROJECT No.

Golden Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|-------------------------|------------------|--------------|------------------|---|---|--------------------------|-------------------------------------|----|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | 2 | 75 | 50 | 25 |
| 1430 | | | | F2 | | 33° | | [Dotted pattern] | [Empty grid] | | | | | | | | |
| | | | | | | 20° | | | | | | | | | | | |
| | | | | | 33° | | | | | | | | | | | | |
| | | | | F3 | | 53° | | | | | | | | | | | |
| 1435 | | | | F2 | | 9° | | [Dotted pattern] | [Empty grid] | | | | | | | | |
| | | | | | | 52° | | | | | | | | | | | |
| | | | | | 33° | 240° | | | | | | | | | | | |
| 1440 | | | | F3 | | 51° | | [Dotted pattern] | [Empty grid] | | | | | | | | |
| 1445 | | | | F2 | | 54° | | [Dotted pattern] | [Empty grid] | | | | | | | | |
| | | | | | | 8° | | | | | | | | | | | |
| | | | | | 24° | 115° | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 24 June 82
 PROJECT No. _____

Golder Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---------------------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 35° | | | | | | | | | | | | | | |
| 1455 | | | | B | | 33° | | | | | | | | | | | | | | |
| 1460 | | | | B | | 53° | | | | | | | | | | | | | | |
| 1465 | | | | B | | 33° | | | | | | | | | | | | | | |
| 1470 | | | | B J ₂ | | 53° 8° | 80° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 24 June 82

PROJECT NO.

Golden Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1505 | | | | L12 | | 52° | | | | | | | | | | | | | |
| | | | | L12 | | 42° | 30° | | | | | | | | | | | | |
| 1510 | | | | L12 | | 45° | | | | | | | | | | | | | |
| | | | | L12 | | 8° | | | | | | | | | | | | | |
| 1515 | | | | B | | 53° | | | | | | | | | | | | | |
| 1520 | | | | L12 | | 64° | | | | | | | | | | | | | |
| | | | | L12 | | 48° | | | | | | | | | | | | | |
| | | | | L12 | | 55° | | 2 of these | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 28 June 82

PROJECT No.

Golder Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|---|---|---|----------|----|----|--------------------------|----|----|-------------------------------------|--|--------------------|--------------------|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | | |
| 1530 | | | | 52 | | 8° | | | | | | | | | | | | | | | | Carbonaceous shale | |
| 1535 | | | | | | | | | | | | | | | | | | | | | | | |
| 1540 | | | | 51 | | 52° | | | | | | | | | | | | | | | | | |
| 1545 | | | | 42 | W | 53° | 110° | | | | | | | | | | | | | | | | Carbonaceous shale |

LOGGED BY: D. Johnson
DATE: 28 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 62 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE | | | BROKEN CORE | | | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------------|------------------|-------------------------|-----------|-------------|-----------------|---|---|-------------|----|----|----------|----|----|--------------------------|--|--|-------------------------------------|--|--|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 | | | | | | |
| | | | | F1 F2 | W | S3c 8c | | | | | | | | | | | | | | | | | | | |
| 1555 | | | | F1 F2 | | S1c 25° | 180° | 2 + Lese | | | | | | | | | | | | | | | | | |
| 1560 | | | | F1 F2 | | S3c 8° | | | | | | | | | | | | | | | | | | | |
| 1565 | | | | F1 F2 | | S3c 32° | | | | | | | | | | | | | | | | | | | |
| 1570 | | | | F1 F2 | | S3c 26° 47° | 34° 170° | | | | | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 28 June 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 63 OF _____

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------------------|--|--|-----------|-----------|-------------|-------------------------|-----------|-------------|--|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|----|
| | | | | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | FLIP | | 51° | 34° | | | | | | | | | | | | | |
| 1580 | | | | N | | 51° | | | | | | | | | | | | | | |
| 1585 | | | | FLIP | N | 50° | 200° | | | | | | | | | | | | | |
| | | | | FLIP | | 46° | 34° | | | | | | | | | | | | | |
| 1590 | | | | FLIP | | 52° | 8° | | | | | | | | | | | | | |
| 1595 | | | | FLIP | N | 50° | 56° | | | | | | | | | | | | | |
| | | | | FLIP | | 35° | 56° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 28 June 82

PROJECT No.

Golder Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|-------------------------------------|---|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | | 2 | 75 | 50 |
| | | | | B | | 35° | | | | | | | | | | | |
| 1605 | | | | B | | 50° | | | | | | | | | | | |
| 1610 | | | | B | | 51° | | | | | | | | | | | |
| 1615 | | | | B | | 56° | | | | | | | | | | | |
| 1620 | | | | B | | 56° | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 28 June 82

PROJECT No.

Golder Associates

Hole No. 1705
 SHEET 65 OF

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION 75 50 25 | NATURAL FRACTURE FREQUENCY PER FOOT 5 10 15 | | |
|-------|-------------------------------|--|--|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------------------|--|----|----|
| | | | | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 5 | 10 | 15 |
| | | | | B | | 50° | | | | | | | | | | | |
| 1630 | | | | B | | 50° | | | | | | | | | | | |
| 1635 | | | | B | | 50° | | | | | | | | | | | |
| 1640 | | | | B | | 50° | | | | | | | | | | | |
| 1645 | | | | B | | 50° | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 29 JUNE 82

PROJECT No.

Golder Associates

Hole No. 1705

SHEET 66 OF

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|-----------|-------------|-------------------------|-----------|-------------|------------------|---|---|--------------------------|-------------------------------------|----|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | | | | ANGLE TO BEDDING | 4 | 3 | | 2 | 75 | 50 | 25 |
| | | | | B | | 40° | | | | | | | | | | | |
| 1655 | | | | B | | 40° | | | | | | | | | | | |
| 1660 | | | | B | | 45° | | | | | | | | | | | |
| 1685 | | | | B | | 8° | | | | | | | | | | | |
| 1690 | | | | B L2 | | 2.5° 60° | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 29 June 82
 PROJECT No.

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GORGE / BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------------------|--|--|-----------|-----------|----------------|-----------------------------|-----------|-------------|--|------------------|---|---|--------------------------|----|----|-------------------------------------|---|----|
| | | | | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 5 | 2 | 75 | 50 | 25 | 5 | 10 |
| | | | | N | | 56° | | | | | | | | | | | | | |
| 1680 | | | | N | | 56° | | | | | | | | | | | | | |
| 1685 | | | | N | | 47° 8° 85° | | | | | | | | | | | | | |
| 1690 | | | | N | | 49° 8° 80° | | | | | | | | | | | | | |
| 1695 | | | | N | | 49° 17° 30° | 3 ↓ + Lense 15 cm apart. | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 27 JUNE 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 68 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-----------------|------------------|--------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILL NO | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 48° | | | | | | | | | | | | | | |
| 1705 | | | | B | | 49° | | | | | | | | | | | | | | |
| 1710 | | | | B | | 50° | | | | | | | | | | | | | | |
| 1715 | | | | B 42 W | | 52° 17° 270° | | 3 of these seen apart | | | | | | | | | | | | |
| 1720 | | | | B | | 50° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
DATE: 29 JUNE 82
PROJECT No.

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG <input type="checkbox"/> BRIDGMAN / SOUGE <input type="checkbox"/> BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|---|-----------|--------------------------|--------------------|-------------------------|-----------|--|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO RECORDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | C ₀ | | | | | | | | | | | | | |
| 1730 | | | | B J ₂ | W | 52° 17° | | | | | | | | | | | | | |
| 1735 | | | | B | | 55° | | | | | | | | | | | | | |
| 1740 | | | | B J ₁ | W | 52° 8° | 90° | | | | | | | | | | | | |
| 1745 | | | | B J ₁ J ₂ J ₂ | W | 54° 50° 35° 50° | 24° 30° 35° | | | | | | | | | | | | |

LOGGED BY: D. Johnson

DATE: 29 JUNE 82

PROJECT NO.

Golden Associates

Hold No. 1705

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | UNSCALING FACTOR | CORRECTION FACTOR | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | | |
|-------|-------------------|----|----|-----------|----------|-------------|------------------|-------------------------|-----------|-------------|------------------|-------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|--|
| | 25 | 50 | 75 | TYPE | DIP/SLIP | INCLINATION | ANGLE TO BEDDING | | | | | | 1 | 2 | 3 | 75 | 50 | 25 | 5 | 10 | 15 | |
| 755 | | | | 1 | N | 15° | 75° | 2 of these | | | | | | | | | | | | | | |
| | | | | 1 | N | 16° | 75° | 3 of these | | | | | | | | | | | | | | |
| | | | | 1 | N | 15° | 75° | | | | | | | | | | | | | | | |
| 1760 | | | | 1 | N | 15° | 75° | | | | | | | | | | | | | | | |
| | | | | 1 | N | 15° | 75° | | | | | | | | | | | | | | | |
| | | | | 1 | N | 15° | 75° | 2 of these | | | | | | | | | | | | | | |
| 1765 | | | | 1 | N | 15° | 75° | 1 of these | | | | | | | | | | | | | | |
| | | | | 1 | N | 15° | 75° | 10 in apart | | | | | | | | | | | | | | |
| 1770 | | | | 1 | N | 15° | 75° | | | | | | | | | | | | | | | |
| | | | | 1 | N | 32° | 75° | 2 of these | | | | | | | | | | | | | | |

Sandy

LOGGED BY:
DATE: 29. 10. 92
PROJECT:

Golden ...

Hole No. 1785

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRFCCL / GOUSET BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|------------------|-------------------------|-----------|-------------|--|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1780 | | | | W | W | 53° | 85° | | | | | | | | | | | | | |
| 1785 | | | | B | W | 52° | 80° | | | | | | | | | | | | | |
| 1790 | | | | W | W | 50° | 80° | | | | | | | | | | | | | |
| 1795 | | | | W | W | 50° | 17° | | | | | | | | | | | | | |

LOGGED BY: D Johnson
DATE: 29 JUNE 82
PROJECT No. _____

Golder Associates

Hole No. 1705
SHEET 72 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUJEE BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|----------|-------------|------------------|-------------------------|-----------|-------------|---------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| 1808 | | | | W | W | 50° | | | | | | | | | | | | | | |
| | | | | W | W | 8° | | | | | | | | | | | | | | |
| 1810 | | | | W | W | 50° | | | | | | | | | | | | | | |
| | | | | W | W | 50° | 90° | | | | | | | | | | | | | |
| | | | | W | W | 50° | | 2 1/2 + less | | | | | | | | | | | | |
| 1815 | | | | W | W | 50° | | | | | | | | | | | | | | |
| | | | | W | W | 50° | | | | | | | | | | | | | | |
| 1820 | | | | W | W | 50° | | | | | | | | | | | | | | |
| | | | | W | W | 50° | | | | | | | | | | | | | | |

LOGGED BY:
DATE: 29 JUNE 82
PROJECT No.

Golder Associates

Hole No. 1705
SHEET 93 OF

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGET BRCKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|---------|-------------|------------------|-------------------------|-----------|-------------|---|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | FILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | LW | B | 55° | | | | | | | | | | | | | | |
| 1820 | | | | LW | B | 30° | | | | | | | | | | | | | | |
| | | | | LW | B | 50° | | | | | | | | | | | | | | |
| 1835 | | | | LW | B | 24° | | | | | | | | | | | | | | |
| | | | | LW | B | 57° | | | | | | | | | | | | | | |
| 1840 | | | | LW | B | 60° | | | | | | | | | | | | | | |
| | | | | LW | B | 24° | | | | | | | | | | | | | | |
| 1845 | | | | LW | B | 59° | | | | | | | | | | | | | | |
| | | | | LW | B | 28° | 180° | | | | | | | | | | | | | |

Sandy

LOGGED BY: D. Johnson
 DATE: 29 JUN 82
 PROJECT No. _____

Golder Associates

Hole No. 1705
 SHEET 74 OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURE | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGET / BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|----------|-----------|-------------|------------------|-------------------------|-----------|-------------|--------------------------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | B | | 57° | | | | | | | | | | | | | | |
| 1855 | | | | B | | 55° | | | | | | | | | | | | | | |
| 1860 | | | | B | | 47° | | | | | | | | | | | | | | |
| 1865 | | | | B | | 48° | | | | | | | | | | | | | | |
| | | | | B | | 50° | 70° | | | | | | | | | | | | | |
| | | | | B | | 8° | | | | | | | | | | | | | | |
| 1870 | | | | B | | 49° | | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 29 JUNE 89
 PROJECT No. _____

Golder Associates

Hole No. 170S
 SHEET 7S OF _____

| DEPTH | PERCENT CORE LOSS | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------|----|----|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|----------|---|---|--------------------------|----|----|-------------------------------------|----|----|
| | 25 | 50 | 75 | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 | 15 |
| | | | | 4W | | 50° | | | | | | | | | | | | | |
| 1765 | | | | 5W | | 60° | | | | | | | | | | | | | |
| 1760 | | | | 3 | | 53° | | | | | | | | | | | | | |
| 1915 | | | | 3 | | 55° | | | | | | | | | | | | | |
| 1920 | | | | 3 | | 53° | | | | | | | | | | | | | |

LOGGED BY: D. Johnson
 DATE: 30 JUNE 82
 PROJECT No.

Golder Associates

Hole No. 1705

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE | | | BROKEN CORE | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------------------|--|--|-----------|-----------|-------------|------------------|-------------------------|-----------|-------------|-----------------|---|---|-------------|----------|----|----|--------------------------|----|----|-------------------------------------|--|--|
| | | | | TYPE | INFILLING | INCLINATION | ANGLE TO BEDDING | | | | 4 | 3 | 2 | | 75 | 50 | 25 | 5 | 10 | 15 | | | |
| | | | | J2 | | 8° | | | | | | | | | | | | | | | | | |
| | | | | J2 | | 52° | | | | | | | | | | | | | | | | | |
| 1980 | | | | B | | 46° | | | | | | | | | | | | | | | | | |
| 1985 | | | | | | | | | | | | | | | | | | | | | | | |
| 1990 | | | | | | | | | | | | | | | | | | | | | | | |
| 995 | | | | 3 | | 55° | | | | | | | | | | | | | | | | | |
| | | | | J2 | | 41° 180° | | | | | | | | | | | | | | | | | |

| DEPTH | PERCENT CORE LOSS 25 50 75 | | | FRACTURES | | | DESCRIPTION AND REMARKS | ROCK TYPE | GRAPHIC LOG | BRECCIA / GOUGE <input type="checkbox"/> BROKEN CORE <input checked="" type="checkbox"/> | HARDNESS | | | ROCK QUALITY DESIGNATION | | | NATURAL FRACTURE FREQUENCY PER FOOT | | |
|-------|-------------------------------|--|----|-----------|-----------|-------------|-------------------------|-------------------------|-------------------------|---|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|-------------------------------------|-------------------------|-------------------------|
| | | | | TYPE | INFILLING | INCLINATION | | | | | ANGLE TO BEDDING | 4 | 3 | 2 | 75 | 50 | 25 | 5 | 10 |
| 2005 | | | | B | | 60° | 2 OF THESE | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] | [Vertical line pattern] |
| | | | J2 | | 41° | | | | | | | | | | | | | | |
| | | | J2 | | 20° | | | | | | | | | | | | | | |
| | | | J2 | | 51° | | | | | | | | | | | | | | |
| 2010 | | | B | | 50° | | | | | | | | | | | | | | |
| | | | J5 | B | 50° | | | | | | | | | | | | | | |
| 2015 | | | B | | 50° | | | | | | | | | | | | | | |
| | | | J5 | A | 60° | | | | | | | | | | | | | | |
| 2020 | | | B | | | | | | | | | | | | | | | | |
| | | | J5 | W | 8° | | | | | | | | | | | | | | |
| | | | J2 | | 60° | | | | | | | | | | | | | | |

