201

FORDING RIVER OPERATIONS

SUMMARY REPORT

1984 EXPLORATION & DEVELOPMENT PROGRAM

Appendix 2: Drillhole Logs

i) Lithological & Geotechnical Logs

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APPENDIX 2

DRILLHOLE LOGS

i) Lithological Logs

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: John Stokmans Date: July, 1984

LATITUDE	DEPARTURE	ELEVATION
148,608.654	27,102.413	1,850.664

Area Brownie East Spur

Total Depth 297.8m

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO

DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
0	12						med				no core.
12	16					slt	gr y	med	55	rubble	siltstone. Some calcite filled joints.
16	21					sst	gr y	fine	40	broken	Sandstone & SILTSTONE INTERBEDS
21	41					slt	gr y	med	43	broken	Siltstone badly wx 6" section @ 30'. wx - weathered
41	45					mst	dk. gry			broken	Mudstone. Some calcite filled joints.
45	49					sst	med gry	v. fine		semi-intect	Massive sandstone - not competant.
49	52					sst	med	fine		broken	Sandstone. Disturbed bedding.
52	54					sst	med gry	fine	46	intact	Sandstone. Even bedding.
54	72					slt	med gry		46	intact	Siltstone with sandstone interbeds. Most of the sandstone units
											are crossbedded.
72	73					mst	med gry	fine	37	intact	Some plant fragments along bedding.
73	78					slt	med gry	fine	50	intact	At 74 ft. there are some coaly stringers for about 6". At 77 ft
											there is a coal stringer approx. 1 cm. thick.
78	80					mst	med gry	fine	55	intact	Several bedding plan B at 80' are coal filled.
80	130					slt/ss	med gry	med			Sandy siltstone some minor displacement in bedding at 105 ft.
											Two - 2" sandstone bands @ 114 ft. Bedding generally even -
											No dis ruption. Bedding starts at 58° and steadily decreases
											to 49°.
130	132.5					mst	dk gry	v fine	47	broken	Badly cracked.
132.5	135.0			38.4	39.2	coal	black			broken	Quite hard.
135.0	137.0					mst	dk gry	v fine	47	broken	Some coal among bedding..
137.0	141.0			40.4	42.0	coal	black			broken	6" of siltstone 139.5 - 140 ft.
141.0	146.0					slt	med gry	fine	52	intact	Muddy siltstone. Some coal and plant.

Hole No. D.D.H. 1912 Page 1 of 4

NON

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
146.0	162.0			43.2		coal	black			intact some brkn	Remains along bedding. Coaly slickensides at 145.0 ft.
162.0	164.0					mst	black	v fine		intact	Some coal stringers.
164.0	165.0					slt	dk gry	fine		intact	Even bedding.
165.0	186.0				54.6	coal	black			intact to brkn	Fairly clean coal. Some sulphur and/or iron oxide evident.
186.0	187.0					mst	black	fine		intact	Shows slickensiding on f.w. of seam. Some coal along bedding
											planes.
187.0	198.5					slt	gr y	med	51	intact	Sandy lam. 3" coal stringers @ 193 ft.
198.5	207.0					mst	black	fine	56	intact	Slt. lam; disrupted lam. @ 201.4; slickensided coal stringers @
											202.2 - 204.0; woody matter throughout mst.
207.0	280.0					slt	gr y	med	50-40	broken	Grey to black slt, sandy laminae increased to bottom; bedding 50°
											at top decreases to 40° at bottom. Core heavily fractured
											parrallel to bdg. Locally fissile, minor cacite veins 20-30°
											Calcite infilling and slickensides @ 257 - 260.
280.0	291.5					sst	gr y	med	40	intact	Massive to silty laminations.
291.5	293					mst	black	fine	massive	broken	Bituminous slickensides 40° w.r.t CA.
293.0	296.0			88.0	89.0	coal	black			crumbled	Locally dull & muddy with vitreous inclusions.
296.0	299.0					mst/slt	black	f - m	45		Mst grading to lam. slt. organic matter; coal 297.4 - 297.6
299.0	394.5					sst	gr y	med	40-50	intact	Cross bedded, minor calcite veining perp.to bedding. Bitumen on
											bedding surfaces, minor slickensides.
394.5	402.5			119.5	119.5	coal	black			crumbly	Fairly clean and vitreous.
402.5	415					mst	black			semi-intact	Dull black carbonaceous mudstone, locally vitreous.
415	569					sst	gr y	med		intact	On footwall of coal seam; massive sst, bitumen slickensides,
											local pyrite chalopyrite (?) Rest of interval massive to

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
											laminated sst. Laminae consistently 45° - 47°. Minor clay veins
											and slickensides.
569	737					sst/mst	gr-bl	med-f	42	generally intact	Sst. with silty laminae and muddy interbeds. Proportion and
											thickness of muddy beds increases downwards; grades into mdst.
											Surfaces of muddy beds are generally polished and slickensides,
											occasionally sheared, and laminae disrupted. A massive sst.
											bed @ 610 - 620 ft. is extremely calcareous. Laminae very
											consistent throughout interval @ 42° - 45°, sst. cut by numerous
											calcite veins generally near perpendicular to bedding.
											Occasionally near perp. to core axis, and rarely longitudinal
											to the core. Veins are sometimes juggy, frequently contain
											brx. By about 686 ft. the unit is more nearly a silty to
											sandy laminated mudstone; and by 737 ft. it is into massive to
											silty lam. mudstone.
737	793					mst	blk	fine	44	intact	Massive to finely laminated mudstone; rare irregular calcite
											stringers. At 782 - 783 ft. contorted, tighly folded sst.
											laminated soft sediments. Possible slump feature?
793	805					slt	grey	med	mas.	intact	Very calcareous sandy siltstone; minor juggy calcite veins.
805	878					mst	blk	fine	40	intact	Massive mst; a few silty laminations weak calcite veins, sub-
											parallel to bedding.
878	884					mst	blk	fine		rubble	Slickensided rubble.
884	900					mst	blk	fine		semi intact	Calcite veins & brk. Grading into heavily sheared zone with
											mudstone and sandstone clasts in bituminous matrix slicks &

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Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
											shears @ 35 - 40° w.r.t. C.A.
900	926.5					sst	gr y	med	63	intact	Mst. rip up clasts in top 12 ft.
926.5	944			282.0	286.8	coal	black			rubble	Poor recovery - Average 50% over interval.
944	951.5					mst	bl	fine	63	fissile	Laminated black mst. slick'd bedding surfaces.
951.5	952			290.8		coal	bl			rubble	
952	955					mst	bl	fine	56	broken	Slick's laminated blocky mst.
955	961					coal	black			broken	Clean, vitreous, jet black color.
961	976.	T.D.			292.2	sst	gr y	med	54	intact	Cross bedded sst. Bitumen on fractures.
End	of Hole										

Hole No. D.D.H. 1912 Page 4 of 4

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: David D'Andrea Date: July 26/84

LATITUDE	DEPARTURE	ELEVATION
149,108.604	27,325.802	2,114.879

Area: Brownie East Spur

Total Depth: 300.8 m

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
13	31			3.4	9	sst	salt & pepper	f.g. with vfg	57	stick with brkn stick & minor	Cross bedding through out unit indicates beds are right side up,
								interbed	62	rubble	minor mudstone partings throughout, iron staining on fractures
											indicates light weathering, minor calcite partings.
31	34			9	10.2	m st	dk gry		57	rubble with broken stick	
34	38.2			10.2	11	sst	S&p	f.g.	60	stick	A/A . Core recovery 83%.
38.2	76			11	23	sl t	med gry		55 - 60	stick	Interbedded with white, f.g. sst. Soft sedimantary deformation
											(ssd) from 32.3 - 33.4, lightly fractured with iron staining on
											fractures. 11.5/12 = 96% recovery
76	90.5			23	28.4	m st	med gry			stick	The bottom 1.4 m is carbonaceous, friable, shaley. 23 - 28.4 m
											4.4/5.4 = 80% recovery most core loss is in the bottom 1/2 of
											section
90.5	102.6			28.5	33.5	coal			60	stick w/ broken stick & powder w/	Mostly clarain & duain very minor vitrian. 3.7 m/4.6 m
										rubble	80% coal recovery
102.6	108.8			33	34.5	mst	dk gry		48	brk stick w rubble	Minor carb. partings, slicks on partings.
108.8	111.1			34.5	35.5	coal				stk & rubble	Clarain &/or durain w/ minor vitrain. .4/1.0 = 40% coal recovery
111.1	135.5			35.5	42.9	mst	dk gry		53	stk & brk stk w/ rubble	Slightly carb. with white s/st interbeds, minor coal wisps &
											parting in mdst.
135.5	159.5			42.9	49	sl t	grey		50	stick	White v.f.g. interbeds of sst throughout bottom 1/2 meter.
											Minor carb mst. partings, relatively massive.
159.5	168			49	52.1	mst	dk gry			rubble & powder w/ stick near top	Lightly slicked.
168	168/7			52.1	52.27	coal				rubble	Durain & Clarain 4 seam
168/7	169/11			52.27	52.67	mst	med gry		53	poor rubble	

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
169.1	177.1			52.67	55.4	coal				rubble & powder	0.2 m mst. band in the bottom 1/2 m of coal, heavily slicked &
											gouged in the bottom 1/2 m. 3.3/3.3 = 100% coal recovery 4 sm
177.1	183.1			55.4	59.0	slt	med gry		55	brkn & sticks	Relatively massive in top half, 57.4 - 58.2 is med. gr. salt &
											pepper coloured parting, minor calcite rehealing in the siltstone
											2.1/3.6 = 58% recovery, core lost at top of section
183.1	185.6			59.0	60.5	mst	dk gry		55	brkn w/ stick	Slightly carb. .8/1.5 = 54% recovery.
185.6	222.6			60.5	72.0	slt	med gry		52 - 56	stick	Lightly fractured w/ minor calcite rehealing, approx. 1.5 m
											mst parting from 67.5 - 69 m, v.f.g. white laminae throughout
											11.3/11.5 = 98% recovery.
222.6	389.1			72.0	118.4	sst	salt & pepper	med	55-60	stick	Relatively massive, coal whisps and partings throughout the unit
											the coal seems to be ripup from the unnamed coal seam immediate
											ly underlying the sst. unit, pyrite blebs are evident; also
											minor calcite rehealing and mst parting are seen throughout.
											there is a large ironstone parting from 115.9 m - 116.3 m
											grey green in color brecciated & rehealed, high s.g.
389.1	391.1			118.6	119.	coal				rubble & powder	Extremely sheared & slicked, durain &/or clarain w/ minor
											vitrain 100% .6/.6
	393.7			119	119.6	mst	med gry			rubble & powder	Shaley, sheared & slicked
	394.8			119.6	120.3	coal				A/A	A/A .46/.8 = 58%
	397.8			120.4	120.8	mst	med gry		60	broken	Slicked on carbonaceous partings - 100%.
	400.2			120.8	121.6	coal				rubble	A/A .96/.8 = 100%
	402.6			121.6	122.8	mst	med gry		45	broken	Carb. on H.W. .7/11.2 = 58%

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Logged By: Tim Sandberg Date: Aug. 28/84

Area | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
	410.6			122.8	125.0	coal				rubble & powder	A/A w/ a sst parting similar to the large salt & pepper mst on
											top of the upper most coal seam; parting is 0.15 m thick located
											in the middle of the seam 2.4/2.2 = 100%
	411.3			125.7	126.3	mst	med gry		48	broken	Carbonaceous .2/.8 = 30% recovery
	413.3			125.8	126.4	coal				broken	Clarain &/or durain .6/.6 = 100% recovery
	417.3			126.4	127.3	mst	med gry			rubble	1.2/.9 = 100% recovery
	419.3			127.2	129,2	coal				powder	fault gouged, repeat of coal seams 123.8 - 126.4 - 80% recovery
	422.3			129.3	130.3	mst	med gry			broken	Moderately slicked on carby partings - 95% recovery
	423.3			130.3	130.8	coal				rubble	Clarain & durain - 60% recovery
423	432										? Unknown - must have been coal - all core sampled or perhaps
											some strange metric conversion factor was used (.309?)
432	438					slt	blk	f	63	broken	Slickensided bedding surfaces, heavily fractured.
438	445					slt	gry	m	63	broken	Laminated and cross-bedded in upper zone, grading downwards to
											massive slt. Weak jaggy calcite veining in sst.
445	458.5					slt/mst	gry blk	f		broken	Slt grading to massive mst. Fractured
458.5	461					mst/coal	blk	f	60	crumbly	Coal beds 2 - 3" wide separated by mst beds 2 - 3" wide
461	463			139.5		coal	blk	f		crumbly	Black, granular
463	466					mst	blk	f		intact	Massive
466	471				143.6	coal	blk		65	broken	Dull black to shiny coal, vitreous black stringers, minor
											mud laminae up to 5.0 mm wide.
471	474					mst	blk	f		rubble	Mst and coal rubble, 50% core loss.

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
474	497.5					mst	blk	f.g.	58	broken	Mudstone with laminae of vitreous black coal 1 cm - 5 cm wide
497.5	515			151.0	156.3	coal	blk		60	rubbly to broken	Vitreous black coal with minor muddy laminae. Two partings 15cm
											@501 ft., 507 - 510 ft
515	537					mst	blk	vfg	54	broken	Massive mst. grading down into silty lam. mst. Small stringers
											2 - 5 cm wide of granular vitreous coal, sometimes sheared,
											minor slick. on bedding surfaces.
537	580					slt	gry	f.g.	58	semi intact	Sandy lam. slt. Sheared coal stringers and slickensided bedding
											surfaces.
580	585			179.0	179.9	coal	blk		58	broken	Vitreous black granular coal with mud laminae .5 - 1 cm wide
585	597					slt	gry	f.g.	58	intact	Sandy lam. to massive slt. Minor irregular calcite veining.
597	611					mst	blk	vfg	50	broken	Heavily fractured mst., coal stringers 2 - 5 cm wide, slick.
											bedding. Disseminated pyrite at 610 ft.
611	616					mst	blk	vfg	60	broken	Mst. with 4 coal beds up to 15 cm wide.
616	619			187.1	188.1	coal	blk		60	crumbly	Vit. black coal, 1 cm. mud lam. Approximately 75% coal 25% mst.
619	645					mst	blk	vfg	65	intact to broken	Silty lam. to massive mst. with coal stringers 1 - 2 cm and
											4 coal beds 10 - 20 cm wide.
645	655.5					slt	gry	f.g.	45	Intact	Sandy lam. slt. Blebs of non-bedded coal. Irregular calcite
											vein ing; 653 - 654 ft.
655.5	661.5			199.3		coal	blk			broken	Dull to Vitreous black coal.
661.5	667					mst	blk	v.f.g		intact	Massive mst., coal slickensides.
667	672				204.5	coal	blk			broken	Vitreous granular coal
672	697.5					mst	blk	v.f.g.	40	intact	Massive black mst., sandy interbed from 681.5 - 686 ft. Coal
											694 - 695 ft. Coal slickensides throughout interval

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
697.5	708.5			212.0	215.3	coal	blk			intact - broken	Dull black to vitreous; 10 cm wide mst. parting at 705.5
708.5	791					mst/ slt	gr y	f - mg	40	intact	Mainly massive mudstone, minor sandy laminated slt interbeds.
											Minor bituminous slickensides, silty units weakly calcite
											veined.
791	806.5			241.0	246.0	coal	blk		45	broken, crumbly	Clean dull black coal with vitreous laminations.
806.5	911.5					mst/ slt	gr y	vf - f	40 - 50	intact	Massive to silty lam. mst., minor sandy lam. Slt. lam. @ 40°
											at top, increase to 55° at bottom. Very minor bedding plane
											slickensides.
911.5	913.5			277.5		coal	blk			crumbly	Vitreous granular coal.
913.5	917					mst	gr y	vf		broken	Massive grey mst, coal slickensides.
917	917.5					coal	blk			broken	Coal
917.5	918					mst	gry				parting
918	932				283.3	coal	black			broken-crumbly	Clean vitreous black. Parting 930 - 930.6 ft.
932	951					mst/slt	gr y		55	fractured	Heavily fractured massive mst. grading down to sandy lam. slt.
951	987					slt/sst	gr y		55	intact	Sandy lam. slt grading to silty lam sst to massive sst.
987		End of Hole									

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F., D.E.J. Date: 10/02/84

LATITUDE	DEPARTURE	ELEVATION
150954.627	26792.029	2069.300

Area: Brownie

Total Depth: 421.3m

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☒ YES ☐ NO
DIRECTIONAL SURVEY DONE ☒ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
0	25										Casing
25	40					Sst	light	mgr	57°	well indurated	Sst
40	47					Sst	light	fgr.	58°	well indurated	CaCo3 infillings; 1 per foot, mud clasts 45-46 ft., 46.5-47 ft.,
											Fractures are clean, some CaCo3 infilling, X-bed.
47	52					Sst	light	mgr	68°	well indurated	Sst grading upward from 52 medium at base to fine laminated Sst at
											47°, fractures are clean.
52	61					Sst	light	mgr	68°	well indurated	Similar to last unit. CaCo3 infilling at 56.5ft. Bottom very broken.
61	68					Sst	light	mgr	60°	well indurated	Some carbon filled fractures, well laminated at 65ft.
68						mdstn	dark	fgr	51° @ 74'	well indurated	Mainly black mudstone with short section of discordant sandstone at 75 -
									57° @ 89'		75.5 ft., tan silty mudstone 79.5-80.5 ft. and @ 99-99.5 mostly quite
									65° @ 99'		massive. Consid. fr'd 69-73, 75-78, 80-82 (<2" pces). Some calcite
											infilling, some slickensided joints.
68	110.5					mdstn.	brn black	v.fgr		fr'd c. 2"	
110.5	112.0			33.1	34.3	coal				mod. brkn.	20" of coal - 3 pces c. 4" long, the rest brkn.
112.0	119.5					mdstn	brn black			num. fractures	many irregular slickensided fr's. Core pces mostly <2".
119.5	133.5			36.1	40.4	Coal			58° @ 122'	mixed brkn.	Broken core 119.5 - 121, 122-123.5, 128.5 - 133.5 ft.
									54° @ 135'	and stick	
133.5	139					mdstn	brown		62° @ 135'	stick	mostly massive w. short thin bdd section
139	140			42.4	42.7	coal				brkn.	10" brkn coal
140	163					mdstn	dk brn		58° @ 142'	stick	mostly massive w. short interbedded silty layers
163	165					Sst	brn. lam		56° @ 163'		Becomes darker brn. toward base, vague laminations
165	167.5					mdstn.	dk.brn	.bl.			

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F., D.E. Date: 10/02/84

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
167.5	170					slt..	brown			stick	thin bdd-lam brn slt. and dk. mdstn.
170	171					mdstn	dk.bl.			brkn.	two thin (½") coal seams in mdstn.
171	192.5					slt	brn.		56°@ 175	stick	Mostly massive, some short sandy bdd sections
									51°@ 182		fractured
192.5	206			58.4	62.5	Coal				brkn.	Coal pces mostly 1" - 2"
206	208.5					mdstn	dark brn		42° @	fr'd, short pces	Low angle to core
208.5	210			63.5	64.0	Coal	dk				
210	232					mdstn.	brn gr y			mod. fr. stick	Mostly massive w/ short tbdd. slt. sections widely spaced calcite filled fr's
232	239					slt.	MED. BRN dark gry			stick	every 5" or so. Fairly massive, gradational contact.
239	251					mdstn	gr y-blk fgr			mod. fr.	Mainly mudstone but has one substantial slt.. layer from 241 to 243,
											begins to be consid. brkn. @ 243-246.
251	256					mdstn	dark gr y - black			highly fr'd	Small pieces with slickensided surfaces 1' core loss.
											Fault?
256	262.5					mdstn	dark gr y - black		53°@ 259'	fractured	Pieces are mostly 2" Possible Fault Zone
262.5	269					mdstn	"			small brkn pces	4' of fragments 2.5' core loss
269	298					mdstn	"		61°@ 270'	stick 6"-1' pces	Mostly mudstone with a short slt.stn. section @ 275-278.
									39 @ 278'		Well marked bedding planes; - calcite coated fr's.
									37°@287'		Irreg. bdg, // core from 282-286
									37°@ 297'		Fine laminated section 291-297
298	303					mdstn.	dark brn. - black			small pces	Numerous slick surfaces, 1.'5 core loss.
303	341					slt.stn	med.gry		44°@311	stick	Some hard zones, fairly massive - then thin bdd laminae.
									43°@ 315'		
									45°@ 318'		
									50° @ 331		

Hole No. D.D.H. 1906 Page 2 of 9

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: D.E.J. S.F. Date: OCT. 3/84

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
341	343					slt	dark gr.y/blk	fgr		med. fr.	Mainly mudstone but has one substantial slt layer from 241 to
											243, begins to be consid. brkn @ 243-246
251	256					mdstn	dark gr.y/blk			highly fr'd	Small pieces with slickensided surfaces 1' core loss
											Fault? Possible
256	262.5					mdstn	dark gr.y/blk		53@259'	fractured	Pieces are mostly less than 2" Fault
262.5	269					mdstn	"			small brkn pieces	4' of fragments 2.5' core loss Zone
269	298					mdstn	"		61@270'	6"-1' pieces	Mostly mudstone with a short slt section @ 275-278
									39@278'		well marked bedding planes; calite coated fr's
									37@287'		irreg. bdg, //core from 282-286
									37@297'		Fine laminated section 291-297
298	303					mdstn	dark brn -black			Small pieces	numberous slick surfaces, 1.5' core loss
303	341					slt.	med gry		44@311'	stick	Some hard zones, fairly massive - then thin bed laminae.
									43@315'		
									45@318'		
									50@331'		
341	343					slt				small pieces	badly broken up 1.5' core loss
343	348.5					silty mdstn	med drk gr.y			fractured	badly broken in the last 4"
349	356			105.5	112.1	Coal				broken & mashed	5' of material recoverd in 7' run
356	366			105.5	112.1	Coal			41@360'	fractured	Recov. 100% in two runs end of coal @ 366 ft.
366	376.9					mdstn	dark gr.y			stick	Somewhat silty. 8" of coal from 367 - 367.7 ft.
376.9	378.5			114.8	115.4	Coal	"			broken, sm pieces	
378.5	388					mdstn	dark gr.y		59@385'	stick	Some silty sections fairly massive
388	393					slt.	med gr.y			stick	Some sandy laminae

NDH

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
393	414					mdstn	dark gr y		58@402'	stick	mostly massive, some silty sections
414	436					slt	med gr y		43#416'	stick	thin bdd - laminated
						v. fine sst			58@424		grades thru very fine to medium sst @ base color is light
											yellowish grey 131-135
436	447.5					mdstn	dk-med gr y		69@446	fractured	fairly massive, occasional silty layers
447.5	450.6			136.1	137.4	Coal			60@459'	fractured	Good recovery (99%)
450.6	458					mdstn	dark gr y			fractured	broken up section 455-456 massive
458	465					slt.	med gr y		60@459'	stick	laminated grades to med. fine sst base @ 462
									58@465'		similar sequence 462-465
465	481					slt mdstn	brn gr y		57@476'	stick	Thin bdd laminated, slt lams in mdstn becomes predominately
											slt 476-481
481	507					sst	med gr y fgr		50@485'	stick	Finely laminated - fr's every 8" or so// lams a short silty
									50@493		mdstn bed @ 491.5-493.5
									44@507'		
507	527					sst	med lt gr y	mgr fgr to mgr		stick	Mainly massive with short laminated section 219-222
									61@525'		5" mdstn at top, 1' mdstn & rip up clasts @ 516 ft.
527	541					slt mdstn	dk brn gr y			stick	Mainly massive, 2" sst clast @ 530', lam sndstn bed
											@ 539.5-540ft.
541	546					sst	med lt gr y	mgr		stick	Laminated massive sst
546	548					mdstn	black			fr'd & brkn	Slickensided fr. planes, pieces decrease in size dwnwrd.
548	553.2			166.6	168.3	Coal				smashed up to 551	About 8" of core missing
										stick to 553.2	
553.2	560					slt	Bl & gry striped		60@556	stick	Thin wispy laminations of bl mdstn in gry slt

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
560	566					slt.	gr.y	fgr	42@564'	stick	Mainly massive, with some thinbeds of dark gry slt
566	574.5			172.2	174.9	Coal				brkn	Pieces mostly 2"-6", approx. 4" core loss
575.5	576.1					mdstn	brn black				massive
576.1	626.5					sst		mgr	60@580'	stick	laminations
									50@611'		
									39@620		finer grained in last 10'
626.5	631			191.0	192.1	Coal				smashed up	2.5' core represents 4.5' 2' core loss
631	639					mdstn	brn black			fractured	1.5' short pieces then fractured
638.8	652			194.7	197.3	Coal				small pieces	Not completely pulverized, some 2" pieces, 3" prtg @ 640
											6' core recov'd 13.2' cored 6.8' core lost
652	658					mdstn	dk gry			fault gouge	Many small pces w. slickenside surfaces
658	663					mdstn				fr'd	Similar to above but not brkn up
663	671					slt	gr y lam		50@669	stick	Mainly fine laminations
671	689					slty mdstn	dk brn gr y			stick	Fairly massive, hard lt. grey. silt @ 676 '
689	696					slt	med lt. gr y		40@690	stick	Bedded & laminated
696	706.3					slty mdstn	dk brn gr y			fr'd	Massive, fr's @ 4" - 10" spacing
706.3	710.5			215.2	216.6	Coal				brkn badly	Pieces less than 2" little core loss
710.5	733						slty mdstn		48@716	fr'd	Mainly massive. w. minor slt laminations
									40@730		
									52@735		
733	741					slt	lt brn	v. fgr		stick	well bdd, ~~736~~ highly contorted lams, & fragmented recemented

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
741	745					slty mdstn	drk brn black	v fgr		stick	massive
745	754					slt	brown	v fgr		stick	Bedded - interbeds of dark brn - grey silty mdstn belemnite?
											calcite elipse in brn slt @ base
754	773					mdstn	brn black		44@763	fr'd	Massive, consid, fr'd 759. Silty beds 762-765 three or four
											micro coal seams 768 - 770
773	784.5					slt	med gry		50@774	stick	Thin bdd & lam
									56@778		
784.5	791			238.9	241.5	Coal				brkn	good core, 100% recovery
791	794					mdstn	drk gry black			brkn	
794	797					coaly mdstn				smashed up	A couple of pieces of mdstn core in last foot
797	802					Coal				brkn	Last 2' are broken up into small pces. Recovery good.
802	806					slt	drk brn gry			brkn	Largely hard well indurated.
806	810					Coal				brkn	good core, recovery close to 100%
810	834.5					slty mdstn	drk brn gry	v fgr	54@817	stick	Thick bdd silty mdstn with slt interbeds
									49@823		
834.5	842					slt	lt brnsh gry	fgr		stick	fine lam. wispy
842	911					slty mdstn	drk brn gry	v fgr	53@842	stick	Mainly massive thick bdd, occasional siltstone bed becomes
									42@863		more thin bdd from 887 - 913
									54@880		
									56@905		
911	916.8					mdstn	drk gry black	v fgr		fr'd	massive
916.8	934			279.4	284.6	Coal			49@923	brkn	excellent core, complete recovery

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
934	938					slty mdstn	dkk brn gr y		52@938	brkn	
938	939.5			285.9	286.3	Coal				brkn	
939.5	945					slt mdstn				fr'd	Slt . hard lt brn grey - 941.5, Mdstn dkk grey - 945
945	946			288.0	288.3	Coal				Brkn small pces	Micro coal seams scattered
946	964.5					mdstn	dkk gr y			stick	Massive
964.5	978.5					slt	med lt gr y		54@966	stick	laminated
									58@971		
978.5	998					mdstn	dkk gr y black			stick	short (10") coal seam @ 989, micro seams @998
989	1006					slt	med lt gr y			stick	wispy lams - 1002 then thin bdd w. mdstn & coaly
											mdstn - 1006
1006	1007			306.6	306.9	Coal					10" coal low contact angle.
1007	1018					mdstn	d gry black			stick	- a couple of micro coal scams c. 1012
1018	1023					slt.	med gry		48@1021	stick	Bdd. vague laminations
1023	1031					mdstn	dkk gr y black			stick	Massive
1031	1034					slt	lt brn gr y		53@1031	stick	wispy lam
1034	1062					slty mdstn	dkk brn gr y		46@1046	stick	Mainly massive w scattered silty layers & lams
									45@1054		
1062	1076.5			323.8	328.0	Coal				fr'd	2.5" ptg @ 1062.5 Note - there was 1/2 m more coal in slots
											than was indicated by ftge blks.
1076.5	1085.6					mdstn	dkk brn gr y				Mainly massive w. two thin contorted slt bands @ 1084
1085.6	1086.8			330.5	331.5	Coal			59@1085.5	stick	About 3" carb ptg @ 1085.5

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Lithology	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
1086.8	1147					mdstn slt	dk gr y med lt gr y		64@1090	stick	Interbdd mdstn & slt. , mini coal seams at intervals - 1091
									57@1112		Slt beds display wispy lams, irreg contacts, flame struct.
									53@1127		
1147	1163					sst mdstn	lt grn gr y	mgr	56@1151	stick	Sst interbedded w. mdstn, small mdstn clasts common in
							brn black	fgr	61@1163		sandstone
1163	1173					mdstn	dk brn gr y			brkn	Mostly massive
1173	1176.5					sst	lt grn gr y	mgr fgr		stick	Massive
1176.5	1181					slty mdstn	dk gr y		50@1175	stick	Thin siltstone interbeds & lams
1181	1186			359.9	361.3	Coal				broken	Coal w/2" slt parting @ 1181.7, 6" carb sh @ 1182.2 ft
											1" carb sh @ 1181.3 ft.
1186	1200					mdstn	dk gr y		58@1195	stick	Mostly massive, some lam silt beds
1200	1202					sst	lt gr y		43@1202	stick	lam, mini coal @ base
1202	1218					mdstn	dk gr y			fr'd	Mini- coal along many bdg planes. 8" crushed core @1204
											and again @ 1209. Py.nodule @ 1207.3 ft.
1218	1233					mdstn	dk brn gr y				This mudstone is less carbonaceous, no mini coal seams
1233	1244					slty mdstn & sst			33@1234		Interbdd slty mdstn & sst & some slt (hard)
1244	1249			379.8	381.0	Coal				badly brkn - 1246.5	
1249	1250.5					carb m dstn				fr'd stick	
1250.5	1256					slt mdstn				stick	Thin bdd, interbeds of sst & mdstn
1256	1261					sst slt		fgr v.fgr	54@1261	stick	Massive
1261	1262.2					t bdd slt	striped lt gr y				
						mdstn	dk gr y		53@1262.6	stick	Very thin beds alternating slt & mdstn

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	(Meters) From	(Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
1262.6	1271			385.0	387.7	Coal				fr'd	Good recovery
1271	1272					carb mdstn	dk brn black				
1272	1386					sst	lt gry grn.	mgr fgr		stick	Massive sandstone to end @ 1386

Hole No. D.D.H. 1906 Page 9 of 9

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 10/09/84

LATITUDE	DEPARTURE	ELEVATION
150,558.585	27,263.079	2,340.404

Area: BROWNIE Total Depth: 371.0 M.

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO
DIRECTIONAL SURVEY DONE ☑ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Lithology	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
0	17					n/a	n/a	n/a	n/a	n/a	casing
17	18					SST	light	mgr.	50	well indurated	Bedding disturbed; mudstone interbeds
18	48					mst	drk	fgr.	50	very broken	Few pieces over 2" in length; Fe staining throughout; some minor carbonaceous bands 28'; poor core recovery 30% to 50%
48	54					Sst	light	fgr.	52	broken core	poor core recovery 50% to 60%; mudstone interbeds; $CaCO_3$ infilling; carbonaceous infilling; Fe staining at 48 - 50'
54	58			8.3	9.7	coal	drk		60	well indurated	100% recovery
58	96					silt	drk	fgr.	50	well indurated	Fe staining throughout only on fractures. $CaCO_3$ infilling
96	149					silt	light	fgr. mgr	60	well indurated	Sst interbeds. $CaCO_3$ infilling large blebs 130'. Carbonaceous infilling. Fe staining most prominent at 141'. Good core recovery over 95%. Some breccia evident at 126'. Areas of sst interbeds.
149	178					sst	light	mgr.	68/86	well indurated	X-bedding at 163'. 68° bedding angle before 86° after x-bedding bedding angle 68° at 174' all fracture are carbonaceous 2" mudstone band at 165' fracturesare $CaCO_3$ filled Sst well laminated.
178	180			54.2	54.9	coal	drk		58	very broken	good core recovery 95%
180	186					silt.	drk	fgr - mgr	60	broken	becoming very broken at 218'
186	188			56.7	57.3	coal	drk		60	broken	sst interbeds Fracture coal filled some with $CaCO_3$ filled at 20
188	213.5					sst	light	mgr	60-70	stick	area of disturb sst and siltstone layers
213.5	220					silt	drk	fgr	60	stick	carbonaceous infilling sst interbeds

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
220	225					mst	dr gy	fgr	70	broken	coaly mudstone. Area of sheared coal no mineable seam.
225	237					mst	dr gy	fgr	64	well indurated	Fe staining 234'. Fractures are carbon filled. Fractures are clean near 237'. sst. interbeds
237	247					silt	light	fgr	60	well indurated	sst. interbeds. Fe staining. Disturbed sst. beds at 245'. FeS_2 at 240.
247	328					sst	light	mgr	60	80% stick	mudstone & siltstone interbeds at start. Grading to massive sst. at 328. Carbonate infilling. mud clasts at 317' massive sst. looks like salt & pepper. Fe staining along fractures. minor x-bedding at 264' and 260'.
328	353.5			99.8	107.2	Coal			58@338	broken	mainly fractured Separations mainly on bdg. planes. Good recover, probably 90% if allowance made for drillers stretching the core.
353.5	356					mst	dk brn gry			fractured	Coaly partings, miniseams (5" @ 461, 1" @ 462, .5" @ 462.5)
356	425					mst silt	black med gry		43@358	stick	Mudstone with interbeds of siltstone. Siltstone about 25% - 33%.
									53@375		
									56@401		
									56@ 407		
									56@ 422		
425	434					mst	dk brn black			stick	Massive, a few hard, brown siltstone clasts near base.
434	438					silt	gr y		48@436	stick	laminated, mudstone interbeds
438	440					silt mst	dk brn gr y → gry			stick	Massive, indurated, quite hard at end

NON

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
440	460			133.6	140.3	Coal				broken	Carb. mst . parting @ 443.6 - 444.4. 24" coal between 445 -
											449. 2' core loss. 4" pce. of carb. mst . parting @ 449.
											4.5' coal core between 449 - 456. 2.5' core loss. 2' core
											between 456 - 460. 2' core loss.
460	467					mst	dk gry black			broken - 2" pces	One or two mini coal seams just below 460'.
467	491.5					mst silt	black med gry		52@ 468	stick	Mainly mudstone, massive (∠4' beds) with lam. silt interbeds
									53@ 478		
491.5	505					silt	med gry		51@ 503	stick	Predominant laminated silt , some f gr. sst & a short mst
											interbedded in the siltstone
505	548					silt mst	dk brn grey		54@ 521	stick	Massive - 521, thin bdg - 523, Massive - 548
548	595					silt	dk gry med gry	v. fine - fine	51@ 565	Stick	Siltstone predominates with interbeds of silty mst & sst
									56@ 571	several low ∠	Commonly massive laminated; locally thin bdd. fine sst .
									46@ 582	fr's 19@ 564;	sections from 561-566 & 579-582. mini coal seam @ 562 in
									47@ 593	13@570; 10@573	sst. . mst section from 595-600; coal laminage @ 600
595	600					mst				15@581; 15@594	Mst section from 595 - 600; coal laminae @ 600
595	600					mst	dk brn gry			Stick	Massive, coal laminae at 600
600	608					silt	med lt gry	v. fine	55@ 603	fr 18°@604'	Bdg, laminated
									39@ 607		
608	613					mst					Massive
613	626					silt	med lt gry	v. fine	42@ 617	Stick	Mainly massive w/ laminations
									38@ 621	low fr@ 617'	
626	631					mst	dk gry black			brkn	Massive

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
631	644					silt mst			48@ 638	Stick	Laminated siltstone with interbeds of mst up to 3'
									50@ 642		
644	657					mst	dk gry black			stick	Mainly massive, some short silt interbeds a few mini coal
											layers 653 - 657
657	660.5			199.8	201.6	Coal				brkn	47" of coal core from 42" of hole, no core loss
660.5	666.4					silt mst	lt grey dk grey				
666.4	671			202.7	204.4	Coal				badly brkn	36" of coal core from 3 60' of hole, 0.6' core loss
671	686					silt mst	med dk gr y		44@ 671	Brkn,	Well laminated with thin siltstone & fine sandstone
									31@ 675		
									59@ 680		
686	696			211.9	213.4	Coal	dk	fgr	70	broken	Fe staining @ 696
696	766					silt	dk	fgr	50	well indurated	Most fractures are clean. Sandstone at 736, 757, 755 sandstone
											interbeds. mud at 724
766	796					silt sst	light	mst	55	well indurated	area of sandstone & siltstone interbeds
796	798					sst	light	mst	55	well indurated	includes area of rip up clasts; mudstone
798	848					sst	light	mst	55	well indurated	massive sst. few joints.
848	856					silt	dk	fgr	60	well indurated	sst interbeds, very competent coals.
856	884					sst	light	mst	50	well indurated	silt & mudstone interbeds. more muddy at 884 ft. area of
											disturbed bedding at 863 to 864 ft.
884	888.5					mst	dark	v.fgr		broken	Massive, core pieces mostly < 6".
888.5	890					carb mst	dk gry black			Brkn	

NDN

Diamond Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Lithology	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
890	906			271.1	276.4	Coal	black		60@ 894	frd	Two thin partings # 896.5, Mostly good core but badly brkn
											from 898 - 900 ft.
906	931					silt mst	med gr y drk brn		60@ 907	fractured	Mainly mst with occasional silt beds & many mini
											coal layers, Coal @ 910.5-911.2' & 918.8-919.2'
931	938					silt	med gry		55@ 931	stick	laminated
									46@ 935		
938	942					mst	drk brn gr y			fractured	
942	944			287.1	287.7	Coal				brkn < 2" pces	
944	967					silt mst	drk brn gr y		46@ 952	stick	Mainly massive, some lam. bands. several coal layers & lenses
									65@ 967		
967	990					silt	gr y		67@ 976	fractured	laminated
									77@ 987		
990	993.5					sst	lt gr y		66@993.5	fractured	laminated
993.5	1006.5			302.6	308.3	Coal				brkn.	Coal has mst parting @ 999.3 - 1000.2. Approx. 3.5' core
											loss
1006.5	1014					mst	drk brn black			brkn & fr'd	
1014	1019					silt mst	med. gr y		67@1015	fractured	
1019	1031					mst	drk brn gr y			stick	Massive
1031	1042					silt mst	med grv drk brn		57@1032	stick	interbedded mudstone & lam. silt
									53@1039		
1042	1053					mst	drk brn gr y			brkn	Fairly massive, some fractures on bdg. lams, a few coal lams.
1053	1095					sst	lt grn gr y		61@1087	stick	Finely lam. - 1076 then massive with coal seams & some mst clasts - 1084, then laminated to 1095

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
1095	1095.5					mst					
1095.5	1096.2					Coal				small fragments	
1096.2	1125					m.st	dk brn gry		47@1101	stick	interbdd silt. & mst
						silt	md. gry				
1125	1140					silt	med gry		51@1139	stick	, fine lam.
1140	1176					ss+	med lt gry	fine	53@1158	stick	lam, silt. coarsening downward
									59@1168		
									55@1176		
1176	1183			358.9	360.7	Coal			45@1180	brkn, stick	Possibly 0.5' core loss, 0.2' carb. mst at top
1183	1194					silt	med gry dk			fractured	Well bedded. Breaks on bdg. planes
1194	1200			363.9	366.4	Coal				strongly fr'd & brkn.	Core loss 1.2'
1200	1216					ss+		fine to med	45@1214	fr'd stick	

Hole No. D.D.H. 1907 Page 6 of 6

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
149,770.574	27,312.695	2,180.663

Logged By: G.L. Date: 05/07/84; 10/07/84

Area BROWNIE

Total Depth 401.1 M.

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO

DIRECTIONAL SURVEY DONE ☑ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
Casing	to 40'									FROM G-N COAL	7.1-8.6 M. AND 11.1-12.6 M.
40.0	46					mst	blk	f.g.	40	broken	Slickensides along axis, yellow staining along some bedding planes
46	56					mst	dk gry	f.g.	45	broken	Slt. interbeds
56	64.5					mst	blk	f.g.	50	broken	silty interbeds
64.5	71					mst	blk	f.g.	50	rubble/stick	pyritic - "stick = core > 4" and well indurated"
71	74.5					mst	blk	f.g.	45	60% rubble	Silty interbeds." Long = Longitudinal, frac. = fracture"
74.5	81.5					mst	blk	f.g	40	broken	Pyritic
81.5	91.5					mst	blk	f.g.	55	stick	Some carbonaceous blebbs, $caco_3$ infilling
91.5	102					mst	blk	f.g.	35	stick	$CACO_3$ infilling
102	107					mst	blk	f.g.	50	stick	Pyritic, $CACO_3$, 1 minor coal stringer (1/8")
107	116					mst	blk	f.g.	40	stick	Slt. interbeds, $CACO_3$ infilling
116	120					mst	blk	f.g.	40	stick	$CACO_3$, pyritic
120	123					mst	blk	f.g.	40	rubble/stick	$CACO_3$, pyritic
123	130					mst	blk	f.g.	50	rubble/stick	$CACO_3$ infilling
130	140					mst	blk	f.g.	45	rubble/stick	$CACO_3$ infilling
140	145					mst	blk	f.g.	50	stick	$CACO_3$ infilling
145	150					sst	med gry	f.g.	70	stick	$CACO_3$ infilling
150	156					sst	med gry	f.g.	65	stick	$CACO_3$ infilling
156	166		↓			sst	med gry	f.g.	35	stick	
166	176					sst	med gry	f.g.	75	stick	Bituminous last 1/2 ft., minor pyrite
176	186					sst	med gry	f.g.	30, 60	stick	Bituminous
186	196					sst	med gry	f.g.	60	stick	Bituminous

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Logged By: Date:

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
196	206					sst	dk gry	f.g.	60	stick	$CACO_3$
206	216					sst	dk gry	f.g.	55	stick	$CACO_3$, bituminous
216	226					sst	med gry	f.g.	45	stick	mst. interbeds, x-bedding, $CACO_3$
226	236					sst	med gry	f.g.	50	stick	Brecciated 229 - 331, $CACO_3$
236	246					slt	dk gry	m.g.	35	stick	
246	256					slt	dk gry	m.g.			
256	266					slt	dk gry	m.g.	40		
266	274					mst	blk	f.g.	70	stick/broken	#51276 - 51297
274	309			83.0	93.5	coal	blk		40	stick/broken	samples @ 0.5 m intervals, 22 samples, last sample 0.4 m
309	316					mst	blk	f.g.	40	stick	bituminous, $CACO_3$
316	326					mst	blk	f.g.	45	stick	$CACO_3$
326	336					sst	med gry	f.g.	45	stick	slump bedding
336	346					sst	med gry	f.g.	45	stick	slump bedding
346	356					sst	med gry	f.g.	45	stick	slump bedding, mst interbeds
356	366					sst	med gry	f.g.	45	stick	mst interbeds, $CACO_3$
366	376					mst	blk	f.g.	45	stick	$CACO_3$
376	383					mst	blk	f.g.	55	stick	
383	394			116.6	119.2	coal	blk		40	stick	Sampled 0.5 m intervals #51298 - 51300, 51301 - 51304
394	395					mst	blk	f.g.	45	rubble	coaliferous, sample #51305
395	400.5					mst	blk	f.g.	40	broken	Coaliferous
400.5	414			121.7	125.8	coal	black		50	stick	Samples #51306 - 51313
414	426					mst	blk	f.g.	50	stick	Coaliferous
426	436					mst	blk	f.g.	45	stick	Silty interbeds

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
436	443					mst	blk	f.g.	45	stick	Slt interbeds, slump bedding, bituminous
Missing											
455	466					mst	blk	f.g.	45	stick	Bituminous
466	476					mst	blk	f.g.	50	stick	Slt. interbeds
476	486					slt	dk gry	f.g.	50	stick	$CACO_3$, extensive longitudinal fracturing
486	496					mst	blk	f.g.	45	stick	Poorly indurated
496	506					mst	blk	f.g.	40	stick	Silt interbeds
506	516					mst	blk	f.g.	50	stick	Slt. interbeds, some long fracturing
516	526					mst	blk	f.g.	50	stick	Slump bedding, long frac.
526	536					slt	dk gry	f.g.	45	stick	Mst interbeds, slump bedding, bituminous, minor long frac.
536	547					slt	med gry	m.g.	40	stick	Bituminous, mst interbeds, slump beds, minor long frac.
547	550			166.6	167.2	coal	blk		40	rubble	samples @ 0.5 m invervals #51314, 51315
550	561					slt	med gry	m.g.	50	stick	slump beds, mst interbeds
561	571					mst	blk	f.g.	35	broken	Coaliferous, slt interbeds
571	581					slt	med gry	f.g.	55	stick	Mst interbeds, $CACO_3$
581	592					mst	blk	f.g.	40	stick/broken	Coaliferous
592	602					mst	blk	f.g.	40	stick/broken	minor bituminous
602	610					mst	blk	f.g.	45	stick	slt interbeds
610	614			185.3	186.8	coal	blk		45	broken	0.5 m samples, last sample 0.25 m #51316 - 51318
614	620					mdst	blk	f.g.	50	broken	Bituminous
620	625			188.5	189.8	coal	blk		45	broken	0.5 m samples, #51319 - #51321
625	642					mst	blk	f.g.	50	broken/stick	Bituminous, $CaCO_3$
642	652			195.3	198.3	coal	blk		45	broken	samples #51322 - 51325, 51251, 51252

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Logged By: Date:

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
652	666					slt	med gry	f.g.	50	stick	mst interbeds, $CaCO_3$, minor long frac.
666	686					mst	blk	f.g.	50	stick	Slt. interbeds
686	786					silt	med gry	f.g.	45	stick	Mst. interbeds, $CaCO_3$, extensive long frac.
786	796					slt	med gry	f.g.	40	stick	Mst. interbeds, minor long frac.
796	806					slt	med gry	f.g.	45	stick	Mst. interbeds, $CaCO_3$
806	813					mst	blk	f.g.	45	stick	Bituminous
813	833			247.6	253.6	coal	blk		50	broken	samples #51253 - 51264
833	868					mst	blk	f.g.	55	stick	Bituminous, slt interbeds
868	893					mst	blk	f.g.	55	stick	slt interbeds, minor bitumen
893	895			271.6	272.5	coal	blk		50	broken	sample #51265
875	902					mst	blk	f.g.	45	stick	Friable
902	916			275.4	279.4	coal	blk		45	stick/rubble	#51266 - 51274
916	924					mst	blk	f.g.	50	stick	Bituminous
924	926					coal	blk		55	broken	51275
926	934					mst	blk	f.g.	50	stick/broken	
934	954					slt	lt gry	m.g.	50	stick	some long frac., $CaCO_3$
954	962					mst	blk	f.g.	45	stick	Bituminous
962	972					sst	gry	m.g.	50	stick	Bituminous
976	986					mst	blk	f.g.	50	stick	sst interbeds
986	996					sst	grey	m.g.	65	stick	Minor bitumen, well indurated.
996	1006					sst	grey	m.g.	50	stick	
1006	1016					sst	grey	mg	50	stick	
1016	1026					sst	grey	m.g.	50	stick	$CaCO_3$

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:	LATITUDE	DEPARTURE	ELEVATION
Logged By: Date:			

Area | Total Depth | COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
1026	1036					sst	lt gry	m.g.	45	broken	$CaCO_3$, extensive long frac, mst. clasts at 1035'.
1036	1046					sst	lt gry	m.g.	40	stick	Mst interbeds, minor long frac., $CaCO_3$
1046	1056					sst	lt gry	m.g.	45	stick	$CaCO_3$, long frac.
1056	1066					sst	lt gry	m.g.	45	stick	Binuminous, minor long frac.
1066	1076					sst	grey	m.g.	50	stick	
1076	1086					sst	dk gry	m.g.	55	stick	$CaCO_3$, slt interbeds
1086	1096					sst	dk gry	m.g.	45	broken	Mst interbeds, bituminous
1096	1106					sst	grey	m.g.	55	stick	Bituminous
1106	1141					sst	lt gry	m.g.	35	stick	Mst & pyrite clasts at 1135' - 1137', $CaCO_3$
1141	1146			347.6	349.4	coal	blk			rubble	samples #51201 - 51203
1146	1153					mst	blk	f.g.	55	broken	Rusted pyrite specks.
1153	1161			351.0	353.6	coal	blk		50	broken	samples #51204 - 51208
1161	1319					sst	lt gry	m.g.	60	stick	Basal moose mtn. sst, salt & pepper

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION
149,403.393	27,318.126	2,152.732

Area: BROWNIE - EAST SPUR

Total Depth: 298.1 M.

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO

DIRECTIONAL SURVEY DONE ☑ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
0	6			0	4.5	COAL				casing	COLLARED IN COAL
6	24					mst	dr	fgr	40	very broken	Zone of sst interbeds, dr = dark
24	54					mst	dr	fgr	50	broken	Larger pieces near 54', only broken along joints
54	60					mst	dr	fgr	54	broken	Some sst interbeds
60	62					mst	dr	fgr	37	broken	100% mst.
62	73.5					mst	dr	fgr	40	well indurated	
73.5	75.0					sst	light	medium	40	well indurated	Fe staining along joints, $CaCO_3$ along joints
75	76					mst	dr	fgr	40	well indurated	
76	77.5					sst	light	fgr	40	well indurated	Mst interbeds crossbedding at 77', disturbed beds
77.5	81.5					mst	dr	fgr	40	Well indurated	
81.5	84					sst	light	mgr	40	well indurated	Mst interbeds
84	117					mst	dr	fgr	38	well indurated	When wet it looks & feels like coal, sst interbeds
117	141			35.0	41.0	coal	dr		42	well indurated	
141	146					mst	dr	fgr	40	well indurated	$CaCO_3$ infilling
146	198					silt	light	fgr	45	well indurated	$CaCO_3$ infilling, disturbed bedding, sst & mst interbeds, coarsing towards 198'
198	246					sst	light	cgr	45	well indurated	
246	431					sst	light	cgr	40	well indurated	Salt & pepper looking, coaly infilling well sorted, mst clast zone of breccia at 330.
431	436			130.8	132.6	coal	dr	fine	50	broken	shaley
436	446					silt	dr	fine	58	broken	$CaCO_3$ veining, coaly infilling
446	460			135.5	140.0	coal	dr	fine	56	broken	
460	470					mst	dr	fine	54	broken	Some silt interbeds

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:	LATITUDE	DEPARTURE	ELEVATION
Logged By: Date:			

Area	Total Depth	COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
470	482					silt	light	fgr	50	well indurated	Sst interbeds
482	491					sst	light	mgr	50	well indurated	Silt interbeds
491	511					silt	light	mgr	53	well indurated	
511	520			155.8	158.5	coal	dr	fr	52	broken	Two small mst partings at 4" at 517, 1' at 516
520	532					mst	dr	fr	61	broken	
532	546			162.1	165.8	coal	dr	fr	52	broken	
546	584					silt	dr	fr	51	broken at start more indurated	Area of sst interbeds
										at end	
584	587					sst	light	medium	52	well indurated	dr silt interbeds
587	605					silt	dr	fr	59	well indurated	some sst interbeds
605	605.5					coal	dr	fr	52	broken	
605.5	616					silt	light	fr	62	well indurated	
616	618					sst	light	medium	55		Crossbedding noted at 617 disturbed beds $CaCO_3$ infilling and carbonaceous infilling
618	649					silt	light	medium	58		Some 6" bands of mudstone
649	700					mst	dr	fr	60		Some calcite infilling and bituminous infilling. Some coaly area but not wide enough to sample
700	704			213.0	214.5	coal	dr	mgr	52	broken	
704	709					silt	light	fgr	51	60° stick	Carbonaceous infilling
709	718			216.1	217.6	coal	dr	mgr	52	broken	Small 6" parting at 714
718	738					silt	light	mgr	60	well indurated	Sst interbeds
738	752			224.6	229.2	coal	dr	fgr	43	broken	
752	766					silt	light	mgr	55	well indurated	SSt interbeds calcite infilling

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
766	819					sst	light	mgr	50	well indurated	Silt interbeds $CaCO_3$ infilling
819	821					mst	dr	mgr	40	well indurated	
821	839					silt	light	fgr	60	broken	Sandstone interbeds
839	858			255.2	260.9	coal	dr	fgr	60	broken	
858	864					mst	dr	fgr	60	well indurated	
864	888					sst	light	mgr	50	well indurated	Siltstone interbeds $CaCO_3$ infilling coaly infilling
888	905.5					silt	light	fgr	50	well indurated	Sst interbeds $CaCO_3$ & coaly infilling
905.5	936					sst	light	mgr	50	well indurated	Coaly infilling & $CaCO_3$ infilling
936	948					mst	dark	fgr	55	well indurated	
948	950			288.5	289.4	coal	dr	fgr	58	broken	
950	956					mst	dr	fgr	55	well indurated	Clean infilling
956	973			291.5	295.5	coal	dr	fgr	60	broken	
973	EOH					mst	dr	fgr	60	well indurated	coaly infilling

Hole No. D.D.H. 1910 Page 3 of 3

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Tim Sandberg Date: Sept. 5 - Sept. 12/84

LATITUDE	DEPARTURE	ELEVATION
150,295.800	27,262.250	2,317.400

Area: Brownie East

Total Depth: 404.8 m

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☑ YES ☐ NO

DIRECTIONAL SURVEY DONE ☑ YES ☐ NO

Core M From	Core M To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
0	3.05									no core	
3.05	8.1					mst	gry	vf		rubble	Massive mst, no apparent core loss
8.1	9.7					mst	gry	vf	47	broken	Coal stringers 1 - 10 mm thick, at 47°
9.7	11.2			8.8	10.3	Coal	blk		50	broken-crumbly	Dull black coal with .5 - 5 cm beds of shiny crumbly coal.
											No apparent core loss.
11.2	14.7					mst	gr-blk	f	40	fairly intact	Grey grading down to black mst; increasing organic content,
											carbonaceous partings with leaves and twigs @ 40°
14.7	15.9			13.8	15.0	coal	black			broken - crumbly	dull black coal
15.9	19.4					mst	black	vf	37	broken	thin coal stringers throughout, coal beds 5 cm. to 20 cm. at
											16.2, 17.4, & 17.9 m
19.4	24.4			18.7	22.8	coal	black			broken	Mostly dull, some shiny
24.4	51.0					mst	gry-blk	vf-f	60	mostly broken	Massive mudstone - 24.4 - 40.0 m. Muddy coal - 25.1 - 26.0
											Bituminous slickensides on bedding surfaces throughout.
											40.0 - 43.2 - silty laminated mudstone with calcite veins.
				47.7	49.4	COAL					43.5 - 51.0 massive carbonaceous black mst. 49.4 - 49.7
											crumbly coal. 50.5 - a few calcite veins.
51.0	55.8			50.5	55.6	coal	blk			crumbly	shiny black coal, 40% core loss
55.8	58.2					mst	gry	f	43	broken	silty lam, irregular calcite veining
58.2	81.7					mst	blk	vf - f	60	broken, heavily	Massive carbonaceous and silty laminated mst. Interbedded
										fractures.	units up to 1 m. thick each. Bedding consistent at 60°.
										Numerous rubble	Carbonaceous units contain bituminous partings and coal inter-
										& gouge zone	beds 5 - 10 cm thick, all heavily slickensided. More competent
											silty units are calcite veined, sometimes parallel to bedding

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
											Sometimes parallel core axis. Sometimes irregular and
											brecciated. Bedding distorted by slumping of silty laminae.
81.7	111.6					slt	grey	vf-f	54	intact	Mainly massive siltstone, minor silty laminae and slickensided
											bituminous partings. Weak calcite veining.
111.6	113.2					mst	blk	vf		broken	Heavily fractured carbonaceous mst. Some slicks, but not much —
											just a couple.
113.2	113.8					coal	blk	vf		rubble	Dirty coal, many thin mst laminae up to 5 mm thick.
113.8	116.0					mst	blk	vf		broken to 115.2	Carb. mst, rubbly and heavily slicked to 115.2 m; intact to
										intact to 116	116.0 m 15 cm of muddy coal centered on 114.7 m. Contact with
											underlying slt irregular; faulted by calcite veins.
116.0	128.3					slt	grey	f-m	45-40	intact	Laminated sandy siltstone, minor muddy interbeds. Extensive
											calcite veining at 25° to 30° vs ca. Bedding decreases from
											45° at top to 40° at bottom of interval. Some cross bedding.
128.3	148.3					sst	grey	m	40	intact	Laminated and massive sandstone. Bituminous partings up to
											1 cm. thick, but usually only 2 - 3 mm are found throughout
											the interval, but are concentrated between 132 and 137 m.
											The partings are often discontinuous and wispy and commonly
											slickensided. A few rounded slt clasts 1.2 cm long and
											scattered throughout.
148.3	155.5			148.0	154.3	coal	blk		47	broken	~~148.3 - 148.6 - carb mst with thin seams of shiny coal~~
											148.6 - 149.7 - dull black coal with thin seams of shiny,
											and .5 cm thick mud laminae
											149.7 - 152.7 - shiny black with ~~seams of dull~~

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.)		Rad. Log (Ft.)		Rad. Log (Meters)		Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
From	To	From	To	From	To						
											152.7 - 154.2 - same, but 40% core loss
											154.2 - 5 cm mst parting
											154.2 - 155.5 shiny black crumbly coal, 55% loss
155.5	156.5					mst	black	f	50	broken	Blk carb. mst. Bituminous slicked bedding planes, two small coal seams 2 and 5 cm. respectively.
156.5	172.8					slt/mst	grey black	vf-f	app 55	intact	Silty lam. mst. and massive mst. bedding between 50 and 60°, average about 55°, commonly cross bedded, bedding planes contain plant remains and bituminous slicks. Minor calcite veining at 25° to core axis.
172.8	174.7					mst	blk	vf	54	broken	Carb mst. Coal stringers, crumbly and slicked, vf to 5 cm thick.
174.7	175.8			174.0	175.4	coal	blk		47	broken	Muddy dull black coal with thin seams 1 - 2 cm of shiny coal.
175.8	177.5					mst	blk	vf	47	broken	Carb mst with 1 - 2 cm wide stringers of shiny coal.
177.5	181.3			177.3	181.0	coal	blk		45	rubble	Dull black coal with muddy laminae and thin partings. Measurements indicate 87% core recovery, but is probably much worse than that, since the core is rubbly and has spread out. Recovery is actually not much better than 50 - 60%.
181.3	191.1					mst	blk	vf	59	intact - broken	Mst with slickensided bituminous laminae vf to 3 cm thick. Broken down to 184.1, broken at 186.5 and 188.7 m; otherwise intact. Minor silty laminae.
191.1	195.0					slt	grey	f	58	intact	lam. slt
195.0	209.3					mst	blk	vf	app 53	intact	Massive mst. bedding poorly defined by rip up clasts at 198.3
											Zone of slickensiding and heavy fracturing between 195.1 and

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
											196.5 m. Slicked surfaces lie between 30° and 55° to core ays.
209.3	223.5					slt	gry	f - m	app 50	intact	Lam. slt grading down to sandy slt. Cross bedding makes exact
											attitude hard to determine, but bedding is between 45° and 55°
											throughout. Some siltstone rip up clasts in the lower sandy
											portion. Pyrite blebs on fractured faces between 215/7 and
											218.2. From 218.0 to 223.5 m, there are numerous wispy
											bituminous stringers and slickensides.
223.5	225.7					mst	blk	vf	55	broken	Massive mst. with 2 - 5 cm. thick slickensided bitumen laminae
											oriented 50 - 55°
225.7	228.1					slt	grey	f	52	intact	muddy lam. slt.
228.1	237.0					mst	black grey	vf - f	55	intact	Massive carbonaceous mst with coal stringers. Minor silty
											laminae
237.0	238.1			236.8	237.9	coal	blk		56	intact	very muddy coal. Heavily laminated with mst.
238.1	240.1					mst	blk	f	56	intact	mst. wtih 2 - 3 mm wide coal stringers.
240.1	240.8			239.3	240.4	coal/ mst	blk	f	56	broken	About 50/50 mst and coal
240.8	247.9					mst	grey/ black	vf - f	50	intact	Massive carbonaceous to silty lam. mst. 2 - 3 cm wide coal
											seams in carb units.
247.9	248.7					coal	blk			intact	Dull black coal, fairly clean
248.7	250.4			247.5	249.7	coal	blk		52	intact - broken	Very heavily mud laminated dull coal. About 50/50 mud/coal
250.4	301.9					slt	grey	f - m	53 - 60	intact	Laminated and crossbedded siltstones. Bedding angle changes
											slowly from 53° in upper part to 60° in lower. Locally quite
											sandy, minor interbeds of massive muddy siltstone. 274-276.5
											wispy bitumen laminae, slickensided. Minor calcite veining

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	(Meters) From	(Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
											throughout interval, at app. 15° - 20° to core axis.
301.9	305.4					mst	blk	vf		broken	Increasing carbon content downhole. Massive mst. app. 10%
											core loss.
305.4	311.9			305.0	311.0	Coal	blk		54	broken	305.4 - 306.5 - dull black coal.
											306.5 - 310.0 - shiny coal with minor muddy laminae, but no
											partings.
											310.0 - 311.9 - shiny coal, 75% core loss.
311.9	328.3					mst	blk	vf	52	mostly broken	Massive to weakly laminated carbonaceous mst. Many bituminous
				320.2	321.1	COAL					stringers with slickensides. Small coal seams at:
				322.5	323.1	COAL					313.0 - 20 cm wide; 316.1 - 20 cm; 321.2 - 321.7; 322.9 - 10 cm
											323.4 - 10 cm.
325.3	331.0			328.0	330.7	coal	blk		app 55	broken	dull black coal, without muddy laminae
331.0	346.3					mst	blk		app 44	Fair intact	Massive mudstone. 5 - 10 cm wide coal beds at 331.5, 332.6,
											332.8 and 334.0. Gradational contact with underlying siltstone
346.3	352.3					slt	gry	f	58	intact	Laminated, Slickensided bitumen stringers between 350.2 and
											351.7 m grades into sst.
352.3	363.8					sst	gry	med to coarse	58	intact	Massive to laminated, Wispy bitumen in bottom meter.
363.8	364.5			363.3	364.3	coal	blk			rubble	Crumbly shiny black. 80% core loss.
364.5	368.5					mst	bry	f		intact	Massive mst - grades to slt.
368.5	382.6					slt	gry	f	55	intact	Laminated - sharp contact with underlying sst.
382.6	394.5					sst	gry	m	55	intact	Lam. sst. Mst rip-up clasts. 387.6 - 388.5. Abrupt contact
											with coal.

NDN

Diamond Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Area | Total Depth

COAL INTERSECTIONS CORRECTED BY GAMMA RAY — NEUTRON LOG ☐ YES ☐ NO
DIRECTIONAL SURVEY DONE ☐ YES ☐ NO

Core (Ft.) From	Core (Ft.) To	Rad. Log (Ft.) From	Rad. Log (Ft.) To	Rad. Log (Meters) From	Rad. Log (Meters) To	Litho-logy	Color	Grain Size	Core Bedding Angle (°)	Core Status	Additional Information
394.5	396.0			394.2	395.9	coal	blk			broken to rubbly	Shiny black clean - no apparent core loss.
396.0	399.2					mst	blk	f	54	intact	Silty lam. mst. slickensided bedding planes in upper 50 cm.
399.2	400.5			398.5	400.9	Coal	blk			broken to rubbly	Dull black muddy coal. A few stringers of shiny coal.
400.5	401.5					mst	black	vf	57	intact	Carbonaceous mst. Slick bedding planes. Sharp contact with
											underlying sst.
401.5	404.8					sst	gry	m	58	intact	Massive to weakly lam. Minor wispy bitumen stringers.
											MOOSE MTN. SST.

Hole No. D.D.H. 1908 Page 6 of 6

NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
145,092.4	22,733.8	1,796.9

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 12/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.00	227.5

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	11.0			Sandstone				
11.0	16.1			Mudstone				
16.1	17.1			Coal	Km_1		1.0	1.0
17.1	21.5			Mudstone				
21.5	23.5			Coal	K		1.8	1.8
23.5	30.0			Mudstone				
30.0	42.5			Sandstone				
42.5	52.5			Siltstone with sandstone interbeds				
52.5	62.7			Sandstone				
62.7	66.7			Coal	J_3		4.5	3.2
66.7	79.2			Mudstone				
79.2	80.4			Coal	J_2		1.2	1.2
80.4	81.0			Mudstone				
81.0	90.0			Sandstone				
90.0	100.5			Siltstone with coaly bands and sandstone interbeds				
100.5	101.2			Coal	J_1		0.8	0.8
101.2	105.0			Mudstone				
105.0	109.0			Dsnfdyonr				
109.0	112.5			Mudstone				
112.5	123.0			Siltstone				
123.0	125.2			Coal	I		2.2	2.2

Hole No. 1881

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

Logged By: Date:

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.
125.2	126.0			Mudstone				
126.0	135.0			Siltstone				
135.0	136.5			Sandstone				
136.5	138.7			Coal			0.7	0.7
138.7	143.5			Mudstone				
143.5	147.5			Sandstone				
147.5	151.5			Muddy sandstone				
151.5	152.6			Coal			1.1	1.1
152.6	166.0			Muddy siltstone				
166.0	167.0			Coal			1.0	1.0
167.0	172.5			Interbedded muds ¢ siltstone				
172.5	176.5			Siltstone				
176.5	186.2			Sandstone				
186.2	189.0			Coal			2.8	2.8
189.0	195.0			Silstone				
195.0	198.0			Sandstone				
198.0	199.5			Siltstone				
199.5	202.0			Silty sandstone				
202.0	203.5			Sandstone				
203.5	206.7			Mudstone				
206.7	216.3			Coal			10.1	10.1

Hole No. 1881

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
216.3	221.0			Mudstone				
221.0	223.3			Coal			2.3	2.3
223.3	227.5			Mudstone				

Hole No. 1881

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
145,293.4	22,648.069	1,798.8

Logged By: S. Fortin Date: November/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	195.3

Ore Classes & Aver. 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	25.5			Sandstone				
25.5	32.1			Mudstone				
32.1	33.4			Coal	Km_1		1.3	1.3
33.4	36.5			Mudstone				
36.5	44.5			Sandstone				
44.5	45.6			Mudstone				
45.6	47.4			Coal	K_1		1.8	1.8
47.4	57.5			Mudstone				
57.5	72.0			Sandstone				
72.0	82.0			Siltstone with mudstone interbeds				
82.0	83.0			Mudstone				
83.0	88.5			Siltstone				
88.5	91.5			Sandstone				
91.5	92.5			Mudstone				
92.5	97.5			Coal with 0.8 mudstone parting	J_3		5.0	4.2
97.5	99.0			Mudstone				
99.0	100.5			Siltstone				
100.5	104.2			Mudstone				
104.2	111.8			Coal with 2 1.6 m mudstone partings @ 105.0 & 108.7	J?		7.6	4.4

Hole No. 1880

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
111.8	122.5			Siltstone				
122.5	126.9			Mudstone				
126.9	129.4			Coal	J_1		2.5	2.5
129.4	131.5			Mudstone				
131.5	140.0			Sandstone				
140.0	147.5			Siltstone				
147.5	151.5			Sandstone with mudstone interbeds				
151.5	156.8			Coal 1.4 m mudstone parting at 153 m	I		5.3	3.9
156.8	165.0			Sandstone				
165.0	168.7			Coal	H		3.7	3.1
168.7	171.5			Mudstone				
171.5	180.0			Sandstone				
180.0	188.5			Siltstone				
188.5	195.3			Sandstone				

Hole No. 1880

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 12/11/84

LATITUDE	DEPARTURE	ELEVATION
144,915.3	22,754.1	1,768.2

Block: | Sect: | Place: | App. Bear: 0-00 | App.: Dip.: -90.0 | Length: 259.0

Ore Classes & Aver.

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	10.0			Silt				
0	10.0			Siltstone				
10.0	12.7			Coal			2.7	2.7
12.7	17.0			Siltstone				
17.0	19.0			Mudstone				
19.0	31.0			Siltsone				
31.0	47.5			Interbedded mudstone & sandstone				
47.5	55.5			Sandstone				
55.5	60,5			Siltstone				
60.5	63.0			Sandstone				
63.0	74.5			Siltstone				
74.5	81.5			Sandstone				
81.5	84.5			Coal	L		3.0	3.0
84.5	89.9			Mudstone				
89.9	90.5			Coal			0.6	0.6
90.5	96.0			Mudstone				
96.0	97.9			Coal	M		1.9	1.9
97.9	100.0			Mudstone				
100.0								
102.5	105.0			Sandstone				
105.0	108.0			Muddy Siltstone				

Hole No. 1882

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
108.0	117.0			interbedded mudstone & siltstone				
117.0	120.0			mudstone				
120.6	122.1			Coal	L		1.5	1.5
122.1	125.5			Siltstone				
125.5	137.5			interbedded mudstone & sandstone				
137.5	139.1			Coal			1.6	1.6
139.1	144.2			Mudstone				
144.2	146.7			Coal	Km_2		2.5	2.5
146.7	151.0			Mudstone				
151.0	162.0			Sandstone				
162.0	167.5			Siltstone				
167.5	170.0			Sandstone				
170.0	175.0			Siltstone				
175.0	178.5			Sandstone				
178.5	183.5			Siltstone				
183.5	184.7			Coal	K		1.2	1.2
184.7	189.0			Siltstone				
189.0	190.0			Sandstone				
190.0	192.0			Mudstone				
192.0	211.5			Sandstone				
211.5	212.5			Mudstone				

Hole No. 1882

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
212.5	215.6			Coal			3.1	3.1
215.6	217.1			Mudstone				
217.1	218.4			Coal			1.3	1.3
218.4	221.5			Siltstone				
221.5	222.5			Sandstone				
222.5	224.0			Siltstone				
224.0	227.0			Sandstone				
227.0	234.5			Siltstone				
234.5	236.5			Sandstone				
236.5	239.1			Siltstone				
239.1	243.1			Coal			4.0	4.0
243.1	246.0			Mudstone				
246.0	247.0			Coal			1.0	1.0
247.0	248.5			Mudstone				
248.5	250.3			Coal			1.8	1.8
250.3	252.4			Mudstone				
252.4	255.5			Coal			3.1	3.1
055.5	259.0			Mudstone				

Hole No. 1882

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 14/11/84

LATITUDE	DEPARTURE	ELEVATION
144,382.2	22,845.4	1,815.5

Ore Classes & Aver. 0.0

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	250.0

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	10.0			Sandstone				
10.0	22.2			Silty sandstone				
22.2	26.2			Coal with 0.9 m mudstone parting	M		4.0	3.1
26.2	28.8			Mudstone				
28.8	29.6			Coal			0.8	0.8
29.6	38.8			Silty sandstone				
38.8	40.3			Coal	L		1.5	1.5
40.3	50.3			interbedded siltstone and sandstone				
58.3	60.2			Coal mudstone parting	Km_2		2.0	1.5
60.2	75.0			Sandstone				
75.0	95.0			Siltstone				
95.0	95.8			Coal	Km_1		0.8	0.8
95.8	104.0			Siltstone				
104.0	107.9			Coal	K		3.5	3.5
107.9	112.5			Mudstone				
112.5	125.0			Sandstone				
125.0	132.4			Siltstone				
132.4	132.9			Coal			0.5	0.5
132.9	152.4			interbedded silt and sandstone				
152.4	155.4			Coal mudstone parting	J_3		3.0	2.1

Hole No. 1885

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
155.4	183.5			interbedded silt and sandstone				
183.5	187.0			Coal mudstone parting	J_2		3.5	2.5
187.0	191.4			Siltstone				
191.4	193.7			Coal mudstone parting	J_1		2.3	1.7
193.7	204.3			Siltstone				
204.3	205.8			Coal			0.5	0.5
205.8	221.7			Siltstone				
221.7	227.0			Coal mudstone parting	I		5.3	4.4
227.0	235.7			Mudstone				
235.7	241.3			Coal	H		5.6	5.6
241.3	250.0			Siltstone				

Hole No. 1885

2507 — NON

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION	Ore Classes & Aver.
144,496.1	22,788.3	1,788.9	0.0

Logged By: S. Fortin Date: 12/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	250.2

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	17.5			Siltstone				
17.5	19.0			Sandstone				
19.0	21.3			Mudstone				
21.3	22.8			Coal	L		1.5	1.5
28.8	34.5			Zone of interbedded mudstone & siltstone				
34.5	39.5			Sandstone				
39.5	41.1			Musdstone				
41.1	43.4			Coal	Km_2		2.3	2.3
43.4	45.5			Mudstone				
45.5	59.0			Siltstone fining upwards				
59.0	66.0			Mudstone				
66.0	73.5			Siltstone				
73.5	80.1			Mudstone				
80.1	81.1			Coal	Km_1		1.0	1.0
81.1	91.3			Siltstone				
91.3	93.3			Coal	K		2.0	2.0
93.3	147.7			Siltstone with mudstone interbeds				
147.9	151.3			Coal with 1.1 m mudstone parting	J_3		3.4	2.3
151.3	172.4			Interbedded mudstone & siltstones				
172.4	176.7			Coal with 1.3 m mudstone parting	J_3		4.3	3.1

Hole No. 1884

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
176.7	184.1			interebdded mudstone and siltstone				
184.1	187.1			Coal with 0.7 m mudstone parting	J_1		3.0	2.3
187.1	219.3			interbedded siltstone and sandstone				
219.3	220.8			Coal	I		1.5	1.5
220.8	222.0			Mudstone				
222.0	224.3			Coal	I		2.3	2.3
224.3	226.0			Mudstone				
226.0	229.4			Coal	I		3.4	3.4
229.4	240.0			Siltstone				
240.0	241.8			Coal	H		1.8	1.8
241.8	250.2			Siltstone				

Hole No. 1884

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
144,705.1	22,721.1	1,765.7

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 13/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	245.3

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	4.5			Sandstone				
4.5	5.0			Coal	Lu		0.5	0.5
5.0	10.0			Siltstone				
10.0	11.5			Coal	L		1.5	1.5
11.5	13.0			Mudstone				
13.0	21.0			Siltstone				
21.0	22.0			Mudstone				
22.0	31.0			Sandstone				
31.0	32.5			Siltstone				
32.5	34.1			Mudstone				
34.1	35.2			Coal	Km_2		1.1	1.1
35.2	36.6			Mudstone				
36.6	37.3			Coal			0.7	0.7
37.3	52.5			Sandy siltstone				
52.5	60.5			Siltstone				
60.5	73.1			Silty Sandstone				
73.1	74.6			Coal	K		1.5	1.5
74.6	79.0			Mudstone				
79.0	91.5			Silty Sandston e				
91.5	93.0			Siltstone				
93.0	94.5			Silty Sandstone				
94.5	98.5			Siltstone				

Hole No. 1883

2507 — NON

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
98.5	115.0			Silty sandstone				
115.0	116.0			Mudstone				
116.0	129.0			Siltstone				
129.0	133.3			Coal with 1.1 m mudstone parting	J_3		4.3	3.3
133.3	154.8			Siltstone				
154.8	158.7			Coal with 1.1 m mudstone parting	J_2		3.9	2.8
158.7	161.5			Mudstone				
161.5	163.0			Sandstone				
163.0	165.6			Siltstone				
165.6	167.3			Coal	J_1		1.7	1.7
167.3	194.0			Siltstone				
194.0	198.5			Coal	Iu		4.5	4.5
198.5	201.3			Mudstone				
201.3	203.8			Coal	I		2.5	2.5
203.8	245.3			Siltstone				

Hole No. 1883

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
149,603.6	25,480.0	2,359.2

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	287.0

Ore Classes & Aver.

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	10.5			Siltstone				
10.5	42.5			Sandstone				
42.5	51.0			Siltstone				
51.0	51.5			Coal			0.5	0.5
51.5	68.5			Siltstone				
68.5	78.5			Sandstone				
78.5	108.0			Siltstone				
108.0	110.5			Sandstone				
110.5	115.5			Siltstone				
115.5	120.0			Sandstone				
120.0	123.3			Siltstone				
123.3	124.3			Coal	17		1.0	1.0
124.3	136.2			Siltstone				
136.2	136.9			Coal	16		0.7	0.7
136.9	158.2			Sandstone				
158.2	167.2			Coal	15		9.0	9.0
167.2	168.6			Mudstone				
168.6	170.0			Coal	15L		1.4	1.4
170.0	182.3			Muddy Siltstone				
182.3	183.1			Coal			0.8	0.8
183.1	190.6			Sandy Siltstone				

Hole No. 1936

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
190.6	196.4			Coal	14u		5.8	5.8
196.4	223.6			Candstone & Siltstone intermix				
223.6	224.6			Coal	14		1.0	1.0
224.6	228.5			Mudstone				
228.5	229.2			Coal	14		0.7	0.7
229.2	239.9			Siltstone				
239.9	242.2			Coal	14L		2.3	2.3
242.2	249.7			Siltstone				
249.7	251.1			Coal	14L		1.4	1.4
251.1	287.0			Sandstone				

Hole No. 1936

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
149,936.3	25,685.3	2,418.5

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	341.7

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	21.0			Interbedded Siltstone & Sandstone				
21.0	22.0			Coal	1.1		1.0	1.0
22.0	55.8			Interbedded Siltstone and Sandstone				
55.8	56.5			Coal			0.7	0.7
56.5	100.0			same as 22 - 55.8				
100.0	101.0			Coal			1.0	1.0
101.0	116.5			Siltstone & Sandstone interbeds				
116.5	124.0			Sandstone				
124.0	132.5			Siltstone				
132.5	133.9			Coal	19		1.4	1.4
133.9	155.0			Siltstone				
155.0	161.5			Sandstone				
161.5	196.1			Siltstone				
196.1	197.6			Coal			1.5	1.5
197.6	214.0			Siltstone				
214.0	214.4			Coal	16		0.4	0.4
214.4	227.3			Sandstone				
227.3	234.5			Coal	15		7.2	7.2
234.5	242.3			Siltstone				
242.3	243.5			Coal	15L		1.2	1.2

Hole No. 1935

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
243.5	275.2			Siltstone				
275.2	280.3			Coal	14u		5.6	5.0
280.3	304.7			Siltstone				
304.7	306.9			Coal	14		2.2	1.5
306.9	312.0			Siltstone				
312.0	313.5			Coal	14		1.5	1.5
313.5	324.7			Sandstone				
324.7	325.7			Coal	14L		1.0	1.0
325.7	333.1			Sandstone				
333.1	334.2			Coal	14L		1.1	1.1
334.2	341.7			Siltstone				

Hole No. 1935

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 05/11/84

LATITUDE	DEPARTURE	ELEVATION
150,195.1	25,768.6	2,197.0

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	195.0

Ore Classes & Aver.

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	13.5			Sandstone				
13.5	25.0			Interbedded Siltstone & Mudstone				
25.0	29.0			Sandstone				
29.0	30.5			Mudstone				
30.5	35.0			Sandstone				
35.0	41.0			Siltstone				
41.0	53.0			Coal .8 mst parting	14u		5.3	4.0
53.0	72.6			Interbedded Silt & Mudstone				
72.6	73.4			Coal	14.0		0.8	0.8
73.4	79.0			Sandstone				
79.0	80.0			Coal	14		1.0	1.0
80.0	100.0			Sandstone				
100.0	112.0			Siltstone				
112.0	112.8			Coal	14L		0.8	0.8
112.8	118.8			Siltstone				
118.8	120.3			Coal			1.5	1.5
120.3	125.5			Siltstone				
125.5	133.0			Coal 1.5 mst parting @ 127.0				
133.0	161.7			Sandy Siltstone				
161.7	163.9			Coal	12.0		2.2	2.2
163.9	169.0			Siltstone				

Hole No. 1934

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

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.
169.0	171.0			Coal	12L		2.0	2.0
171.0	195.0			Siltstone				

Hole No. 1934

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
149,470.9	25,199.7	2,263.8

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

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.
0	10.5			Coal	15		10.5	10.5
10.5	12.0			Mudstone				
12.0	16.0			Siltstone				
16.0	18.0			Sandstone				
18.0	21.0			Siltstone				
21.0	23.0			Mudstone				
23.0	23.5			Shly coal				
23.5	27.5			Mudstone				
27.5	29.0			Coal	143		1.5	1.5
29.0	38.5			Siltstone				
38.5	41.5			Coal	141		3.0	1.8
41.5	55.3			Silty Sandstone				
55.3	56.0			Coal	14		0.7	0.7
56.0	59.8			Siltstone				
59.8	60.6			Coal	14		0.8	0.8
60.6	77.0			Silty Sandstone				
77.0	79.0			Coal with mst parting	142		2.0	2.0
79.0	81.5			Silty Mudstone				
81.5	82.2			Coal	144		0.7	0.7

Hole No. 1933

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

Logged By: Date:

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.
82.0	112.7			Siltstone with sandstone interbeds				
112.7	121.5			Coal 3 mst parting @ 115.7 - 0.6 m, 117.6 - 1.0 m, 119.6 - 0.9 m	13		8.8	6.3
121.5	140.0			Sandstone				
140.0	158.3			Siltstone				
158.3	163.1			Coal	12		4.8	4.8
163.1	185.3			Siltstone				
185.3	189.4			Coal	111		4.1	4.1
189.4	198.0			Siltstone				
198.0	204.4			Coal with mst parting @ 201.5 - 202.6	11		6.4	6.4
204.4	205.4			Mudstone				
205.4	208.9			Sandstone				

Hole No. 1933

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: K.K. Date: October, 1984

LATITUDE	DEPARTURE	ELEVATION
147,442.0	26,502.8	1,814.0

Block: | Sect: | Place: North Castle | App. Bear: | App.: Dip.: -90° | Length: 296.2

Ore Classes & Aver. 0.0

From m.	To m.	From Ft.	To Ft.	INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG ■ YES ☐ NO	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
0	5m			Overburden.				
5	7.5			Coal Bloom?				
7.5	38.5			Sandstone with siltstone interbeds.				
38.5	139.5			Siltstone.				
139.5	145.5			Coal.	9		6.0	6.0
145.5	190.0			Siltstone coarsing downward.				
190.0	202.8			Siltstone - fining downward.				
202.8	211.5			Coal.	7		8.7	8.7
211.5	213.0			Mudstone parting.				
213.0	214.7			Coal.	7:		1.7	1.7
214.7	232.0			Siltstone with sandstone interbeds.				
232.0	234.5			Carbonaceous mudstone.				
234.5	236.6			Coal.	5u		2.1	2.1
236:6	256			Siltstone.				
256.0	258.5			Coal.	5L		2.5	2.5
258.5	273.5			Siltstone.				
273.5	291.5			Sandstone - fining downward.				
291.5	296.2			Siltstone.				
				END OF HOLE.				

Hole No. R.H. #2001 Page 1 of 1

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:			LATITUDE	DEPARTURE	ELEVATION		Ore Classes & Aver.
Logged By: K.K.	Date: November, 1984		147,316.8	27,506.7	1,868.5		0.0
Block:	Sect:	Place: North Castle	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.
0	1.5m			Overburden.				
1.5	7.0			Siltstone.				
7.0	11.0			Sandstone.				
11.0	14.0			Mudstone.				
14.0	15.2			Coal.	5u		1.2	1.2
15.2	17.0			Mudstone.				
17.0	31.3			Silty sandstone fining downward to siltstone.				
31.3	33.7			Coal.	5L		2.4	2.4
33.7	38.0			Mudstone.				
38.0	50.0			Siltstone - fining downward.				
50.0	70.0			Siltstone.				
70.0	77.0			Sandstone.				
77.0	105			Interbedded siltstone and mudstone.				
105	109.5			Mudstone.				
109.5	119.2			Coal.	4		9.7	9.7
119.2	144			Interbedded mudstone and siltstone.				
144	147.6			Sandstone.				
147.6	148.8			Coal.	3		1.2	1.2
148.8	157.0			Silty mudstone - fining upward.				
157.0	159.5			Coal.	2		2.5	2.5
159.5	168.0			Interbedded mudstone and siltstone.				
168.0	184.5			Basal sandstone.				
				END OF HOLE.				

Hole No. R.H. #2005 Page 1 of 1

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: K.K. Date: November, 1984

LATITUDE	DEPARTURE	ELEVATION
147,430.8	27,266.7	1,866.9

Ore Classes & Aver. 0.0

Block: | Sect: | Place: North Castle | App. Bear: | App.: Dip.: 90° | Length: 273.0

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	30.5			Sandstone.				
30.5	33.2			Mudstone.				
33.2	34.0			Coal.			0.8	0.8
34.0	40.0			Mudstone.				
40.0	53.5			Sandstone.				
53.5	58.5			Silty mudstone - fining upward.				
58.5	76.0			Sandstone.				
76.0	86.0			Coal with 0.5m parting @ 84.5m.	9		10.0	9.5
86.0	91.3			Mudstone.				
91.3	94.0			Coal.			2.7	2.7
94.0	126.0			Sandstone.				
126.0	130.0			Coal.	7u		4.0	4.0
130.0	136.0			Mudstone.				
136.0	143.5			Coal.	7		7.5	7.5
143.5	183.0			Siltstone with mudstone interbeds.				
183.0	185.0			Mudstone.				
185.0	185.6			Coal.	P+5u		0.6	0.6
185.6	187.5			Mudstone.				
187.5	188.9			Coal.	5u		1.4	1.4
188.9	223.2			Siltstone - fining upward and downward from 204m.				
223.2	226.7			Coal.	5L		3.5	3.5

Hole No. R.H. #2007 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

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	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
226.7	235.5			Silty mudstone.				
235.5	249.5			Siltstone.				
249.5	270			Sandstone.				
270	273.0			Siltstone.				
				END OF HOLE.				

Hole No. R.H. #2007 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:			LATITUDE	DEPARTURE	ELEVATION		Ore Classes & Aver
Logged By: K.K.	Date: November, 1984		147,326.6	27,034.5	1,897.6		0.0
Block:	Sect:	Place: North Castle	App. Bear:	App.: Dip.: -90°	Length: 273.1		

From m.	To m.	From Ft.	To Ft.	INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG ■ YES ☐ NO	TOP OF SEAM	ELEVATION	TTL TH.	NET TH.
0	2.5			Overburden.				
2.5	5.5			Siltstone.				
5.5	7.5			Coal.			2.0	2.0
7.5	11.5			Mudstone.				
11.5	12.5			Coal.			1.0	1.0
12.5	19.7			Sandstone fining upward.				
19.7	22.5			Coal.			2.8	2.8
22.5	24.5			Sandstone.				
24.5	27.3			Mudstone.				
27.3	31.6			Coal.	5u		4.1	4.1
31.6	44.5			Sandstone with siltstone interbeds.				
44.5	47.8			Silty mudstone.				
47.8	53.2			Coal.	5L		5.4	5.4
53.2	62.0			Silty mudstone.				
62.0	65.5			Sandstone.				
65.5	70.0			Silty mudstone.				
70.0	91.0			Sandstone with siltstone interbeds.				
91.0	141.5			Interbedded sandstone and siltstone.				
141.5	147.7			Coal.	9		6.2	6.2
147.7	165.0			Interbedded sandstone and siltstone.				
165.0	182.5			Sandstone.				

Hole No. R.H. #2010 Page 1 of 2

2507 — MDH

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION	Ore Classes & Aver.
			0.0

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.
182.5	195.5			Interbedded siltstone and sandstone.				
195.5	198.0			Coal.				
198.0	199.2			Mudstone parting.				
199.2	203.8			Coal.	7		4.6	4.6
203.8	207.7			Mudstone.				
207.7	209.7			Coal.			2.0	2.0
209.7	230.0			Silty mudstone.				
230.0	233.0			Carbonaceous mudstone.				
233.0	235.4			Coal.	5u		2.4	2.4
235.4	259.5			Silty mudstone fining downward.				
259.5	263.5			Coal.	5L		4.0	4.0
263.5	265.5			Mudstone.				
265.5	273.1			Muddy siltstone.				
				END OF HOLE.				

Hole No. R.H. #2010 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
146,906.8	26,882.8	1,937.9

Logged By: K. Komenac Date: November/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				90°	287.0

Ore Classes & Aver.

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	15.5			Interbedded Siltstone and Sandstone				
15.5	18.0			Mudstone				
18.0	19.5			Coal			1.5	1.5
19.5	21.0			Mudstone				
21.0	27.8			Sandy Siltstone				
27.8	29.0			Coal			1.2	1.2
29.0	59.0			Interbedded Siltstone and Sandstone				
59.0	61.0			Mudstone				
61.0	84.8			Sandstone with siltstone interbeds				
84.8	97.7			Coal with 0.9 m parting @ 94.5 m	7		12.9	12.0
97.7	105.5			Interbedded Siltstone and mudstone				
105.5	115.0			Sandstone				
115.0	120.0			Muddy siltstone				
120.0	148.0			Sandstone				
148.0	153.0			Siltstone				
153.0	184.5			Silty Sandstone				
184.5	185.5			Coal			1.0	1.0
185.5	198.0			Silty Sandstone				
198.0	199.5			Mudstone				
199.5	202.0			Coal			2.5	2.5
202.0	204.5			Mudstone				

Hole No. 2018

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
204.5	207.5			Siltstone				
207.5	215.0			Carbonaceous Mudstone				
215.0	232.0			Sandstone				
232.0	250.5			Siltstone with sandstone interbeds				
250.5	254.0			Mudstone				
254.0	260.0			Coal			6.0	6.0
260.0	281.0			Siltstone with sandstone interbeds				
281.0	287.0			Sandstone				

Hole No. 2018

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
154.367	25,577.5	1741.6

Ore Classes & Aver.

0.0

Logged By: K.K. Date: October, 1984

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Henretta Creek		-90°	252m

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	19			Overburden				
19	24			Silty mudstone.				
24	26.1			Mudstone.				
26.1	31.3			Coal.	5u		5.2	5.2
31.3	33.0			Mudstone parting.				
33.0	35.5			Coal.	5L		2.5	2.5
35.5	59			Siltstone - coarsing downward.				
69	63.5			Sandstone.				
63.5	67.5			Siltstone.				
67.5	85.0			Sandstone with 1.5m siltstone band @ 78.5m.				
85.0	98			Siltstone with sandstone interbeds.				
98	101			Sandstone.				
101	102.5			Mudstone.				
102.5	104			Coal.	4u		1.5	1.5
104	120.5			Siltstone - fining downwards.				
120.5	123			Mudstone.				
123	129.3			Coal with 1.1m parting @ 125.9m.	4		6.3	5.2
129.3	135			Silty mudstone.				
135	143.5			Sandy siltstone.				
143.5	144.8			Coal.	2		1.3	1.3
144.8	149.9			Siltstone.				

Hole No. R.H. #917

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
149.9	151.3			Coal.	1		1.4	1.4
151.3	155			Mudstone.				
155	252			Basal sandstone grading through passage beds in to Fernie shale.				
				END OF HOLE.				

Hole No. R.H. #917 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
153,736.9	24,422.1	1,717.3

Logged By: K.K. Date: October, 1984

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Henretta Creek		-90°	228m

Ore Classes & Aver. 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	6.0			Overburden.				
6.0	10.3			Coal (Bloom?)			4.3	4.3
10.3	15.5			Mudstone.				
15.5	17.0			Sandstone.				
17.0	33.0			Mudstone with siltstone interbeds.				
33.0	39.5			Coal.			6.5	6.5
39.5	63.5			Muddy siltstone - coarsing downward.				
63.5	67.5			Coal.			4.0	4.0
67.5	72.9			Silty mudstone.				
72.9	75.5			Coal.			2.6	2.6
75.5	77.3			Mudstone parting.				
77.5	78.2			Coal.			0.7	0.7
78.2	95.0			Interbedded silstone and mudstone.				
95.0	101.3			Coal with 1m parting @ 97.4m.			6.3	5.3
101.3	102.3			Mudstone.				
102.3	102.8			Coal.			0.5	0.5
102.8	121.3			Siltstone coarsing downward to sandstone.				
121.5	136.7			Muddy siltstone.				
136.7	137.8			Coal.			1.1	1.1
137.8	144.1			Silty mudstone.				

Hole No. R.H. #920 Page 1 of 2

2607 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
144.1	147.3			Coal with 0.9m parting @ 145.0m.			3.2	2.3
147.3	148.5			Mudstone.				
148.5	168.5			Sandstone coarsing downward.				
168.5	176.0			Siltstone.				
176.0	184.3			Sandstone.				
184.5	195.0			Siltstone.				
195	200			Sandstone.				
200	201			Mudstone.				
201	108.5			Sandstone with siltstone interbeds.				
208.5	228			Sandstone coarsing downward.				
				END OF HOLE.				

Hole No. R.H. #920 Page 2 of 2

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
154,041.4	24,130.7	1,735.8

Ore Classes & Aver.

0.0

Logged By: K.K. Date: October, 1984

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Henretta Creek		-90^0	302m

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	15.0			Overburden.				
15.0	21.0			Siltstone.				
21.0	23.5			Sandstone.				
23.5	24.3			Coal.			0.8	0.8
24.3	47.1			Interbedded sandstone and siltstone.				
47.1	57.4			Coal.			10.3	10.3
57.4	66.1			Interbedded sandstone and siltstone.				
66.1	70.7			Coal.			4.6	4.6
70.7	90.0			Interbedded siltstone and sandstone.				
90.0	112.0			Sandstone.				
112.0	112.8			Mudstone.				
112.8	118.3			Coal with a 0.6m parting @ 115.9.			5.5	4.9
118.3	132.0			Interbedded sandstone and siltstone; fining downward.				
132.0	136.2			Silty mudstone.				
136.2	137.1			Coal.			0.9	0.9
137.1	143.3			Silty mudstone.				
143.3	146.3			Coal with 0.6m parting @ 144.1m.			3.0	2.4
146.3	168.5			Siltstone with sandstone interbeds.				
168.5	173			Mudstone.				
173	209.5			Silty mudstone.				
209.5	211.6			Coal.			2.1	2.1

Hole No. R.H. #921 Page 1 of 2

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

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.
211.6	228.5			Muddy siltstone.				
228.5	232.0			Silty mudstone.				
232.0	235.6			Coal.			3.6	3.6
235.6	245.6			Silty mudstone.				
245.6	249.5			Coal.			3.9	3.9
249.5	254.7			Silty mudstone.				
254.7	256.0			Coal.			1.3	1.3
256.0	276.5			Siltstone coarsing downward.				
276.5	292.5			Siltstone, coarsing downward.				
292.5	302			Muddy siltstone.				
				END OF HOLE.				

Hole No. R.H. #921 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:			LATITUDE	DEPARTURE	ELEVATION		Ore Classes & Aver.
Logged By: K.K.	Date: October, 1984		154,116.0	23,529.5	1,730.6		0.0
Block:	Sect:	Place: Henretta Creek	App. Bear:	App.: Dip.:	Length: 236m		

From m.	To m.	From Ft.	To Ft.	INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG ■ YES ☐ NO	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
0	4.5			Overburden.				
4.5	22.0			Siltstone.				
22.0	28.0			Sandstone.				
28.0	30.3			Mudstone.				
30.3	31.0			Coal.			0.7	0.7
31.0	128.0			Siltstone with sandstone interbeds.				
128.0	134.5			Sandstone.				
134.5	136.6			Silty mudstone.				
136.6	137.6			Coal.			1.0	1.0
137.6	142.5			Siltstone.				
142.5	157			Sandstone with siltstone interbeds.				
157	212.2			Interbedded siltstone and sandstone.				
212.2	215.0			Coal with 0.5m parting @ 213.5m.			2.8	2.3
215.0	225			Siltstone.				
225	230			Sandstone.				
230	236			Siltstone.				
				END OF HOLE.				

Hole No. R.H. #923 Page 1 of 1

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION	Ore Classes & Aver.
147,521	21,613	1,860.9	0.0

Logged By: S. Fortin Date: 15/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	121.7

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	25.7			intebedde siltstone and mudstone				
25.7	26.3			Coal			0.5	0.5
26.3	27.5			Mudstone				
27.5	28.0			Coal			0.5	0.5
28.0	48.4			Siltstone with sandstone interbeds				
48.4	52.0			Coal	K		3.6	3.6
52.0	60.0			Sandstone				
60.0	61.5			Mudstone				
61.5	62.5			Coal			1.0	1.0
62.5	63.8			Mudstone				
63.8	64.8			Coal			1.0	1.0
64.8	72.5			Sandstone with siltstone interbeds				
72.5	77.3			Coal	J_3		4.8	4.8
77.3	78.4			Mudstone				
78.4	79.5			Coal	J_2		1.1	1.1
79.5	80.4			Mudstone				
80.4	81.3			Coal			0.9	0.9
81.3	85.5			Mudstone				
85.5	86.0			Coal			0.5	0.5
86.0	101.0			Interbeded siltstone and mudstone				

Hole No. 691

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
147,521	21,613	1,860.9

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 15/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	121.7

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.
101.0	101.5			Coal			0.5	0.5
101.5	110.0			Siltstone and mudstone intermix				
110.0	117.3			Coal mudstone parting	I		7.3	6.3
117.3	121.7			Siltstone				

Hole No. 691

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 15/11/84

LATITUDE	DEPARTURE	ELEVATION
147,320	21,754	1,854.2

Ore Classes & Aver.

0.0

Block: Sect: Place: App. Bear: 0.00 App.: Dip.: -90.0 Length: 112.9

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	15.0			Siltstone				
16.2	16.2			Coal			1.2	1.2
16.2	17.8			Mudstone				
18.5	18.6			Coal				
18.6	26.3			Muddy siltstone				
26.3	27.0			Coal			0.7	0.7
27.0	32.0			Muddy siltstone				
32.0	37.0			Siltstone				
37.0	40.4			Coal	K		3.4	3.4
40.4	41.5			Mudstone				
41.5	43.0			Sandstone				
43.0	67.5			Siltstone				
67.5	73.5			Coal mudstone parting	J_2		6.0	3.6
73.5	102.4			Muddy siltstone				
102.4	107.5			Coal	I		5.1	5.1
	112.9			Siltstone				

Hole No. 692

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 15/11/84

LATITUDE	DEPARTURE	ELEVATION
147,755	21,448	1,884.9

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
			0.00	-90.0	145.1

Ore Classes & Aver.

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	3.5			Siltstone				
3.5	6.5			Sandstone				
6.5	7.5			Mudstone				
7.5	8.5			Coal			1.0	1.0
	10.5			Mudstone				
	12.5			Sandstone				
	14.5			Mudstone				
	15.5			Siltstone				
	17.0			Mudstone				
	20.0			Siltstone				
	22.5			Sandstone				
	28.5			Siltstone				
	34.0			Mudstone				
	34.5			Coal			0.5	0.5
	36.0			Mudstone				
	36.5			Coal			0.5	0.5
	38.0			Mudstone				
	42.5			Siltstone				
	57.0			Sandstone				
	59.8			Coal	K		2.8	2.8
	79.4			interbed siltstone and mudstone				

Hole No. 690

2507 — NON

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE | DEPARTURE | ELEVATION

Ore Classes & Aver.

Logged By: Date:

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.
79.4	83.0			Coal	J_3		3.6	3.6
83.0	85.4			Mudstone				
85.4	86.6			Coal	J_2		1.2	1.2
86.6	91.0			Mudstone				
91.0	94.8			Sandstone				
94.8	95.5			Coal			0.7	0.7
95.5	99.0			Mudstone				
	121.0			Sandstone with mudstone interbeds				
	127.0			Coal	I		6.0	6.0
	137.4			interbeded siltstone and sandstone				
	141.0			Coal			3.6	3.6
	145.1			Mudstone				

Hole No. 690

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F. Date: October, 1984

LATITUDE	DEPARTURE	ELEVATION
150,664.8	26,647.4	2,173.0

Ore Classes & Aver.

0.0

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Brownie Ridge	-0	-90°	166.8m

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	1.5			Mudstone.				
1.5	4.5			Sandstone.				
4.5	6.8			Mudstone.				
6.8	16.9			Coal.	11		10.1	10.1
16.9	18.3			Mudstone.	T.	2,166.2		
18.3	19.5			Siltstone.	B	2,156.1		
19.5	22.0			Mudstone.				
22.0	22.5			Siltstone.				
22.5	27.4			Mudstone.				
27.4	28.3			Coal.	10		0.9	0.9
28.3	29.0			Mudstone.	T	2,146.6		
29.0	41.0			Siltstone with sandstone interbeds.	B	2,144.7		
41.0	42.0			Mudstone.				
42.0	44.5			Sandstone.				
44.5	47.0			Mudstone.				
47.0	48.5			Siltstone.				
48.5	49.5			Mudstone.				
49.5	52.5			Coal.	9T	2,123.5	3.0	3.0
					B	2,120.5		
52.5	55.0			Mudstone.				
55.0	60.0			Siltstone.				
60.0	70.0			Sandstone.				
70.0	74.0			Mudstone.				

Hole No. R.H. #1913 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
74.0	85.0			Sandstone.				
85.0	93.5			Siltstone.				
93.5	103.9			Sandstone.				
103.9	104.5			Coal.	8		0.6	0.6
104.5	108.5			Mudstone.	T	2,069.1		
108.5	115.0			Siltstone.	B	2,068.5		
115.0	116.0			Mudstone.				
116.0	136.0			Sandstone.				
146.0	137.0			Mudstone.				
137.0	143.0			Coal.	7		6.0	6.0
143.0	145.5			Mudstone.	T	2,036.0		
145.5	152.5			Siltstone.	B	2,030.0		
152.5	154.5			Sandstone.				
154.5	157.0			Mudstone.				
157.0	159.3			Siltstone.				
159.3	159.8			Coal.				
159.8	161			Mudstone.				
161	162.5			Siltstone.				
162.5	163.5			Mudstone.				
163.5	166.8			Siltstone.				
				END OF HOLE.				

Hole No. R.H. #1913 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
150,497.1	26,514.7	2,237.5

Logged By: S.F. Date: October , 1984

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Brownie		-90.0°	301.0

Ore Classes & Aver.

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	12.5			Siltstone.				
12.5	14.0			Mudstone.				
14.0	18.0			Sandstone.				
18.0	26.5			Siltstone.				
26.5	30.5			Sandstone.				
30.5	31.5			Siltstone.				
31.5	37.5			Sandstone.				
37.5	38.5			Siltstone.				
38.5	44.5			Sandstone.				
44.5	48.5			Mudstone.				
48.5	49.2			Coal.				
49.2	51.5			Mudstone.				
51.5	55.0			Siltstone and sandstone interbeds.				
55.0	56.5			Coal.				
56.5	61.3			Mudstone with some coal stringers.				
61.3	62.4			Coal.				
62.4	74.3			Siltstone with sandstone interbeds.				
74.3	74.6			Coal.	14L		0.3	0.3
74.6	93.5			Siltstone coarsening to 93.5.				
93.5	94.3			Coal.	131		0.8	0.8
94.3	98.2			Mudstone.				
98.2	99.0			Coal.	130		3.9	3.9
99.0	100.2			Mudstone.				

Hole No. R.H. #1914

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION	Ore Classes & Aver.
			0.0

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.
100.2	101.6			Coal.	130		1.4	1.4
101.6	109			Sandstone.				
109	110.5			Mudstone.				
110.5	111.2			Coal.				
111.2	112.0			Mudstone.				
112.0	114.5			Coal.				
114.5	115.5			Mudstone.				
115.5	137.5			Sandstone with siltstone interbeds.				
137.5	139.5			Mudstone.				
139.5	147.0			Coal.	120		7.5	7.5
147.0	148.5			Mudstone.				
148.5	155.7			Siltstone.				
155.7	157.5			Sandstone.				
157.5	181.3			Siltstone.				
181.3	188.5			Coal.	110		7.2	7.2
188.5	195			Sandstone.				
195.0	197.5			Mudstone.				
197.5	204.6			Sandstone.				
204.6	206.7			Siltstone.				
206.7	207.6			Mudstone.				

2507 — NOM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
207.6	208.3			Coal.	100		0.7	0.7
208.3	210.5			Mudstone.				
210.5	214.5			Siltstone.				
214.5	215.0			Mudstone.				
215.0	221.0			Sandstone.				
211.0	227.6			Siltstone.				
227.6	230.8			Coal.				
230.8	239.5			Siltstone.				
239.5	245.5			Sandstone.				
245.5	249.0			Mudstone.				
249.0	270.7			Sandstone with siltstone interbeds.				
270.7	271.8			Coal.			1.1	1.1
271.8	278.5			Sandstone.				
278.5	285.0			Siltstone with coal stringers.				
285.0	290.9			Sandstone.				
290.9	291.7			Coal.	080		0.8	0.8
291.7	294.5			Mudstone with coal stringers.				
294.5	301.0			Sandstone.				
				END OF HOLE.				

Hole No. R.H. #1914 Page 3 of 3

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: October, 1984

LATITUDE	DEPARTURE	ELEVATION
150,475.9	27,381.1	2,346.6

Ore Classes & Aver.

0.0

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Brownie		-90.0°	199.7

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	16.5			Siltstone.				
16.5	34.0			Sandstone.				
34.0	37.5			Siltstone.				
37.5	39.5			Mudstone.				
39.5	45.8			Coal.	090		6.3	
45.8	55.0			Sandstone with siltstone interbeds.				
55.0	70.5			Siltstone with mudstone interbeds @ 57.5.				
70.5	71.6			Coal.	071		1.1	
71.6	73.1			Mudstone.				
73.1	76.6			Coal.	070		3.5	
76.6	90.5			Siltstone with sandstone interbeds.				
90.5	99.0			Sandstone.				
99.0	108.5			Siltstone.				
108.5	110.5			Mudstone.				
110.5	128.7			Siltstone, sandstone interbed @ 122.5, 125, coaly band @ 119.5.				
128.7	129.6			Coal.			0.9	
129.6	141.0			Siltstone, mudstone interbed @ 132.	051			
141.0	142.7			Coal.			1.7	
142.7	147.5			Siltstone.				
147.5	163.5			Sandstone with siltstone interbeds @ 152.5, 157, 159.5.				
163.5	169.5			Siltstone.				
169.5	178.6			Sandstone.				

Hole No. R.H. #1915 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

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	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
178.6	183.3			Coal.	041		4.7	
183.3	193			Siltstone with siltstone interbeds @ 184.5, 198, 199.				
193	199.7			Sandstone.				
				END OF HOLE.				

Hole No. R.H. #1915 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:			LATITUDE	DEPARTURE	ELEVATION		Ore Classes & Aver.
Logged By: S.F.	Date: November, 1984		150,119.8	26,599.2	2,280.7		0.0
Block:	Sect:	Place: Brownie	App. Bear:	App.: Dip.: -90.0	Length: 345.6		

From m.	To m.	From Ft.	To Ft.	INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG ■ YES ☐ NO	TOP OF SEAM	ELEVATION	TTL TH:	NET TH
0	14.3			Siltstone with mudstone interbeds.				
14.3	15.0			Coal.				
15.0	34.3			Siltstone with mudstone interbeds.				
34.3	68.0			Siltstone with sandstone interbeds.				
68.0	71			Mudstone.				
71	89.5			Sandstone.				
89.5	90.8			Mudstone.				
90.8	93.2			Coal (shaly).				
93.2	96.5			Mudstone.				
96.5	125.5			Sandstone with siltstone interbeds; Coaly layer @ 103.5 - 104.0.				
125.5	125.9			Mudstone.				
125.9	126.7			Coal.			0.8	0.8
126.7	149.0			Siltstone with mudstone interbeds.				
149.0	150.2			Mudstone.				
150.2	152.5			Coal.	131		2.3	2.3
152.5	159.0			Siltstone.				
159.0	162.0			Coal.	130		3.0	3.0
162.0	162.5			Mudstone.				
162.5	176			Sandstone with mudstone interbeds.				
176	188.3			Siltstone.				
188.3	189			Mudstone.				

Hole No. R.H. #1916 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — 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	TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
189	196.3			Coal.	12		7.3	7.3
196.3	227.3			Sandstone with siltstone interbeds.				
227.3	238.8			Coal.	11		11.5	11.5
238.8	243			Mudstone.				
243	269			Sandstone with mudstone interbeds.				
269	271.5			Mudstone.				
271.5	273.5			Coal.	0		2.0	2.0
273.5	275.5			Mudstone.				
275.5	295.0			Siltstone with sandstone interbeds.				
295.0	338.0			Sandstone with gamma-log showing a fining upwards.				
338.0	338.7			Coal.			0.7	0.7
338.7	340.5			Mudstone.				
340.5	345.6			Sandstone.				
				END OF HOLE.				

Hole No. R.H. #1916 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
154,264.3	25,236.6	1,735.6

Logged By: K.K. Date: October, 1984

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Henretta Creek		-90°	256m

Ore Classes & Aver.

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	10			Overburden.				
10	22.7			Sandy siltstone.				
22.7	23.7			Coal.			1.0	1.0
23.7	26.7			Siltstone.				
26.7	28.6			Coal.			1.9	1.9
28.6	77.5			Siltstone with mudstone interbeds.				
77.5	78.9			Mudstone.				
78.9	83.5			Coal with 0.6m parting @ 80.4m.			4.6	4.0
83.5	89.7			Siltstone.				
89.7	91.7			Coal.			2.0	2.0
91.7	101.5			Siltstone.				
101.5	103.7			Mudstone.				
103.7	105.2			Coal.			1.5	1.5
105.2	107.0			Mudstone parting.				
107.0	108.9			Coal.			1.9	1.9
108.9	124.0			Muddy siltstone.				
124	125.2			Coal.			1.2	1.2
125.2	179.0			Interbedded siltstone and mudstone.				
179.0	184.7			Coal.	5U		5.7	5.7
184.7	185.2			Mudstone parting.				
185.2	187.6			Coal.	5L		2.4	2.4

Hole No. R.H. #918

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION	Ore Classes & Aver.
			0.0

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	TOP OF SEAM	ELEVATION	TTL TH:	NET TH.
187.6	226.0			Siltstone coarsing downward to sandstone.				
226	232.5			Siltstone.				
232.5	256			Sandstone.				
				END OF HOLE.				

Hole No. R.H. #918 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F. Date: November, 1984

LATITUDE	DEPARTURE	ELEVATION
149,776.2	27,113.8	2,117.5

Block: | Sect: | Place: Brownie | App. Bear: | App.: Dip.: -90.0 | Length: 218.3

Ore Classes & Aver. 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	8.0			Sandstone.				
8.0	22.5			Silty sandstone.				
22.5	23.5			Coal.	5u		1.0	
23.5	24.6			Mudstone.				
24.6	25.9			Coal.	5u		1.3	
25.9	28.9			Mudstone.				
28.9	35.0			Coal.	5L		6.1	
35.0	36.0			Mudstone.				
36.0	37.0			Coal.	5L		1.0	
37.0	40.0			Mudstone.				
40.0	63.6			Sandy siltstone.				
63.6	68.8			Coal.	4u		5.2	
68:8	80.0			Sandy siltstone.				
80.0	102.5			Siltstone.				
102.5	105.6			Mudstone.				
105.6	106.5			Coal.	4L		0.9	
106.5	107.5			Mudstone.				
107.5	111.0			Coal.	4L		3.5	
111.0	127.5			Sandstone.				
127.5	130.5			Silty sandstone.				
130.5	144.5			Sandstone.				
144.5	146.0			Silty sandstone.				
146.0	163.5			Sandstone.				

Hole No. R.H. #1919 Page 1 of 2

2507 — NDK

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
163.5	166.0			Silty sandstone.				
166.0	176.7			Sandstone.				
176.7	178.7			Coal.	2		2.0	2.0
178.7	180.7			Mudstone.				
180.7	184.3			Coal.	1		3.7	3.7
184.3	218.3			Sandstone.				
				END OF HOLE.				

Hole No. R.H. #1919 Page 2 of 2

2507 — NON

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F. Date: 14 Nov. 89

LATITUDE	DEPARTURE	ELEVATION
149,555.5	26,782.1	2,059.9

Ore Classes & Aver. 0.0

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
		Brownie		-90.0	259.9

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	8.4			Coal.	110		8.4	8.4
8.4	9.9			Mudstone.				
9.9	11.3			Coal.	11.0		1.4	1.4
11.3	27.0			Sandstone.				
27.0	32.0			Coaly mudstone.				
32.0	45.0			Sandstone.				
45.0	46.7			Mudstone.				
46.7	49.3			Coal.	9		2.6	2.6
49.3	78.5			Sandy siltstone with sandstone bands at 57.5, 66, 73.5.				
78.5	106.0			Sandstone that shows that it is fining upwards.				
106.0	106.7			Mudstone.				
106.7	108.5			Coal.	7u		1.8	1.8
108.5	110.8			Mudstone.				
110.8	116.5			Siltstone.				
116.5	117.5			Mudstone.				
117.5	130.9			Coal.	7		13.4	13.4
130.9	136.3			Siltstone.				
136.3	138.0			Coaly mudstone.				
138.0	155			Siltstone with sandstone interbeds.				
155	160.5			Sandstone.				
160.5	173.5			Siltstone.				

Hole No. R.H. #1920

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

Logged By: Date:

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.
173.5	185.0			Sandstone.				
185.0	188.0			Sandy siltstone.				
188.0	189.0			Mudstone.				
189.0	190.0			Sandstone.				
190.0	191.5			Mudstone.				
191.5	194.5			Sandstone.				
194.5	209.5			Siltstone.				
209.5	214.3			Sandstone.				
214.3	233.5			Siltstone.				
233.5	251.3			Sandstone.				
251.3	252.1			Coal.	5u		0.8	0.8
252.1	252.6			Mudstone.				
252.6	254.2			Coal.	5u		1.6	1.6
254.2	255.9			Mudstone.				
255.9	259.9			Coal.	5L		4.9	4.9
259.9	263.5			Mudstone.				
263.5	283.0			Sandstone with evidence of fining upwards.				
283.0	287.9			Coal.	041		4.9	4.9
287.9	307.8			Siltstone with sandstone interbeds.				
307.8	315.0			Coal.	040		7.2	7.2
315.0	327			Siltstone with sandstone interbeds.				
				END OF HOLE.				

Hole No. R.H. #1920 Page 2 of 2

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F. Date: Oct. 84

LATITUDE	DEPARTURE	ELEVATION
149,403.4	27,095.6	2,079.7

Ore Classes & Aver. 0.0

Block:	Sect:	Place: Brownie	App. Bear:	App.: Dip.: -90.0	Length: 162.9

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	9.5			Siltstone.				
9.5	13.6			Sandstone.				
13.6	16.0			Siltstone.				
16.0	22.0			Sandstone.				
22.0	25.3			Mudstone.				
25.3	42.0			Siltstone with sandstone interbeds.				
42.0	43.0			Sandstone.				
43.0	48.5			Siltstone.				
48.5	50.0			Mudstone.				
50.0	55.3			Siltstone.				
55.3	56.8			Sandstone.				
56.8	64.3			Siltstone.				
64.3	66.0			Sandstone.				
66.0	72.4			Siltstone.				
72.4	73.7			Coal.	051		1.3	1.3
73.7	74.2			Mudstone.				
74.2	75.2			Coal.	051		1.0	1.0
75.2	78.5			Mudstone.				
78.5	83.0			Coal.	052		4.5	4.5
83.0	85.0			Mudstone.				
85.0	95.0			Siltstone.				
95.0	109.5			Sandstone.				
109.5	112.0			Mudstone.				

Hole No. R.H. #1921

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
112.0	117.0			Coal.	4u		5.0	5.0
117.0	150.1			Siltstone with sandstone interbed 1.0 meter mudstone bed @ 132.				
150.1	150.8			Coal.	4o		0.7	0.7
150.8	151.6			Mudstone.				
151.6	160.3			Coal.	4o		8.7	8.7
160.3	162.9			Mudstone.				
				END OF HOLE.				

Hole No. R.H. #1921 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S.F. Date: Oct. 84

LATITUDE	DEPARTURE	ELEVATION
149,423.3	27,459.9	2,208.5

Block: | Sect: | Place: Brownie R. | App. Bear: | App.: Dip.: -90.0 | Length: 231.9

Ore Classes & Aver. 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	52.2			Sandy siltstone with sandstone interbeds.				
52.2	61.5			Coal (9 seam 230 block).	9		9.3	9.3
61.5	82.4			Siltstone with sandstone interbeds.				
82.4	87.7			Coal (7 upper 230 block).	71		2.25	2.25
87.7	88.0			Mudstone.				
88.0	92.8			Coal (7 seam 230 block).	70		4.8	4.8
92.8	96.5			Mudstone.				
96.5	142.1			Sandstone with siltstone interbeds and some coaly bands.				
142.1	143.4			Coal (5 upper 230 block).	051		1.30	1.30
143.4	144.8			Mudstone.				
144.8	145.9			Coal.	051		1.15	1.15
145.9	154.1			Sandstone.				
154.1	157.9			Coal.	052		2.8	2.8
157.9	158.9			Mudstone.				
158.9	159.7			Coal.	052		0.8	0.8
159.7	192.6			Sandstone with siltstone interbeds.				
192.6	198.0			Coal.	041		5.4	5.4
198.0	217.7			Siltstone with sandstone interbeds.				
217.7	218.5			Coal.	042		0.8	0.8
218.5	220.8			Mudstone.				
220.8	224.0			Coal.	042		3.2	3.2
224.0	231.9			Sandstone.				

Hole No. R.H. #1922 Page 1 of 1

2507 -- NDM

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: October, 1984

LATITUDE	DEPARTURE	ELEVATION
149,189.7	26,905.8	1,934.6

Block: | Sect: | Place: Brownie Ridge | App. Bear: | App.: Dip.: -90.0 | Length: 208.1

Ore Classes & Aver.

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	15.0			Siltstone.				
15	19			Sandstone.				
19	22			Siltstone.				
22	25.5			Sandstone.				
25.5	28.0			Siltstone.				
28.0	35.5			Sandstone.				
35.5	43.5			Siltstone.				
43.5	45.5			Sandstone.				
45.5	53.5			Siltstone.				
53.5	56.5			Sandstone.				
56.5	107.2			Siltstone.				
107.2	110.0			Coal with 0.5 meter parting at 108.1.	5u		2.8	2.3
110.0	114.5			Mudstone.				
114.5	120.0			Coal.	5L			
120.0	167			Siltstone with interbedded sandstone.				
167.0	174			Coal with 0.9 parting at 172.1.	4u		7.0	6.1
174.0	186.5			Sandstone.				
186.5	192.8			Coal.	4		6.0	6.0
192.8	208.1			Siltstone.				
				END OF HOLE.				

Hole No. R.H. #1923 Page 1 of 1

2507 — NDH

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S. H. F. Date: Oct. 84

LATITUDE	DEPARTURE	ELEVATION
149,069.2	26,885.5	1,906.9

Ore Classes & Aver. 0.0

Block:	Sect:	Place:	App. Bear:	App.: Dip:	Length:
		Brownie		-90	218.2

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	16.5			Sandstone.				
16.5	22.0			Siltstone.				
22.0	25.0			Mudstone.				
25.0	39.3			Sandstone.				
39.3	40.,8			Coal.	6		1.5	1.5
40.8	53.5			Siltstone.				
53.5	55.0			Sandstone.				
55.0	77.0			Siltstone.				
77.0	83.5			Sandstone.				
83.5	103.5			Siltstone.				
103.5	113.8			Sandstone.				
113.8	114.5			Mudstone.				
114.5	117.3			Coal with .8 parting at 115.7.	5u		2.8	2.0
117.3	123.7			Mudstone.				
123.7	128.5			Coal.	5L		4.8	4.8
128.5	133.5			Mudstone.				
133.5	135.0			Sandstone.				
135.0	142.0			Siltstone.				

Hole No. R.H. #1924 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: Date:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

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.
142.0	148.0			Sandstone.				
148.0	149.0			Mudstone.				
149.0	155.5			Siltstone.				
155.5	175.5			Sandstone.				
175.5	182.3			Mudstone.				
182.3	192.3			Coal with two mudstone @ 184.8 - 07 @ 186.4 - 07m.	41		10.0	8.6
192.3	193.6			Mudstone.				
193.6	200.0			Coal.	40		6.4	6.4
200.0	206.2			Mudstone.				
206.2	213.0			Coal.	40		6.8	6.8
213.0	218.2			Mudstone.				
				END OF HOLE.				

Hole No. R.H. #1924 Page 2 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: November, 1984

LATITUDE	DEPARTURE	ELEVATION
149,055.2	27,051.8	1,991.8

Block: Sect: Place: Brownie Ridge App. Bear: App.: Dip.: -90.0 Length: 163.2

Ore Classes & Aver. 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	5.5			Sandstone.				
5.5	20.8			Siltstone.				
20.8	21.7			Coal.	6		0.9	0.9
21.7	24.0			Mudstone.				
24.0	26.4			Sandstone.				
26.4	28.0			Siltstone.				
28.0	29.8			Sandstone.				
29.8	60.5			Siltstone with sandstone interbeds.				
60.5	61.0			Mudstone.				
61.0	61.5			Coal.	5u		0.5	0.5
61.5	64.2			Mudstone.				
64.2	67.4			Coal with mudstone parting @ 65.3.	5u		3.2	2.7
67.4	73.0			Mudstone.				
73.0	79.2			Coal.	5L		6.2	6.2
79.2	80.8			Mudstone.				
80.8	83.8			Sandstone.				
83.8	87.0			Muddy siltstone.				
87.0	92.8			Siltstone.				
92.8	94.0			Sandstone.				
94.0	106.0			Siltstone.				
106.0	110.4			Muddy siltstone.				
110.4	115.8			Siltstone.				
115.8	120.4			Sandstone.				

Hole No. R.H. #1925 Page 1 of 2

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
120.4	131.8			Siltstone.				
131.8	140.4			Coal.	4u		8.6	8.6
140.4	144			Mudstone.				
144	147.8			Sandstone.				
147.8	149.4			Mudstone.				
149.4	156.8			Coal.	4		7.4	7.4
156.8	163.2			Mudstone.				
				END OF HOLE.				

Hole No. R.H. #1925 Page 2 of 2

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED — FORDING RIVER OPERATIONS

Objective:

Logged By: S H F Date: Nov. 84

LATITUDE	DEPARTURE	ELEVATION
149,028.7	27,491	2,084.8

Block: Sect: Place: Brownie App. Bear: App.: Dip.: -90 Length: 184.6

Ore Classes & Aver.

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	23.1			Siltstone.				
23.1	28.0			Coal with 1m mudstone parting @ 25.0 to 26.9	5u		5.0	3.1
28.0	32.0			Siltstone.				
32.0	35.0			Sandstone.				
35.0	36.5			Siltstone.				
36.5	41.6			Coal with 0.7m mudstone parting @ 39.8.	5L		5.1	4.4
41.6	54.5			Siltstone.				
54.5	70.8			Sandstone.				
70.8	76.3			Coal.	4u		5.5	5.5
76.3	84.0			Sandstone.				
84.0	103.7			Siltstone.				
103.7	109.8			Coal 0.8m mudstone parting @ 104.8.	4L			
109.8	113.5			Mudstone.				
113.5	141.0			Sandstone.				
141.0	143.0			Mudstone.				
143.0	174.0			Sandstone.				
174.0	178.0			Coal 0.6m mudstone parting @ 176.0	2		4.0	3.4
178.0	178.8			Mudstone.				
178.8	180.4			Coal.	1		1.6	1.6
180.4	184.6			Basal sandstone because Don said so.				
				END OF HOLE.				

Hole No. R.H. #1926 Page 1 of 1

2507 — NDM

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
148,904.2	27,099.5	1,978.0

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	136.0

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG [X] YES [ ] NO

From m.	To m.	From Ft.	To Ft.		TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
0	11.5			Siltstone				
11.5	17.5			Sandstone				
17.5	18.0			Mudstone				
18.0	18.5			Coal	?		0.5	0.5
18.5	21.1			Mudstone				
21.1	21.8			Coal	?		0.7	0.7
21.8	29.5			Siltstone				
29.5	32.9			Coal 0.8 m mudstone parting	5u		3.4	2.6
32.9	40.0			Siltstone				
40.0	44.8			Coal	5L		4.8	4.8
44.8	47.5			Mudstone				
47.5	61.5			Siltstone				
61.5	97.5			Sandstone				
97.5	98.5			Mudstone				
98.5	104.7			Coal	4u		6.2	6.2
104.7	110.8			Mudstone				
110.8	118.0			Coal	4		7.2	7.2
118.0	119.0			Mudstone				
119.0	127.5			Siltstone				
127.5	136.0			Sandstone				

Hole No. 1927 Page 1 of 1

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
148,903.8	27,357.7	2,041.6

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	230.4

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	26.0			Sandstone				
26.0	28.0			Siltstone				
28.0	30.0			Sandstone				
30.0	34.4			Siltstone				
34.4	37.8			Coal 0.6 mst parting @ 36.5	2		3.4	2.8
37.8	40.0			Mudstone				
40.0	41.1			Coal	1		1.1	1.1
41.1	57.5			Basal Sst				
57.5	66.9			Siltstone				
66.9	69.2			Coal			2.3	2.3
69.2	102.3			interbedded Siltstone & Sandstone				
102.3	103.1			Coal			0.8	0.8
103.1	105.0			Siltstone				
105.0	106.5			Sandstone				
106.5	123.5			Siltstone				
123.5	125.8			Sandstone				
125.8	130.2			Coal with mst parting @ 127 m	5u		4.4	2.6
130.2	136.5			Mudstone				
136.5	142.5			Sandstone				
142.5	143.4			Mudstone				
143.4	148.4			Coal	5L		5.0	5.0

Hole No. 1928

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION

Ore Classes & Aver.

0.0

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.
148.4	180.0			Siltstone with sandstone interbeds				
180.0	180.8			Mudstone				
180.8	189.3			Coal with mudstone parting @ 197.3 - 1.4 m	4u		8.5	7.1
189.3	200.0			Silstone with sandstone interbeds				
200.0	209.5			Sandstone				
209.5	211.3			Mudstone				
211.3	219.4			Coal 1 m mst parting @ 212.6	4L		8.2	7.2
219.4	223.0			Mudstone				
223.0	230.4			Sandstone				

Hole No. 1928

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

Logged By: S. Fortin Date: 05/11/84

LATITUDE	DEPARTURE	ELEVATION
148,887.6	26,884.3	1,972.6

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	218.1

Ore Classes & Aver.

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	10.0			Siltstone				
10.0	37.5			Sandstone				
37.5	46.0			Siltstone				
46.0	46.5			Mudstone				
46.5	48.0			Coal	6		1.5	1.5
48.0	117.0			Silty sandstone with some massive sst zone				
117.0	118.0			Mudstone				
118.0	121.0			Coal 0.5 m parting @ 119.6	5u		3.0	2.5
121.0	131.5			Mudstone				
131.5	137.0			Coal				
137.0	139.5			Mudstone				
139.5	141.0			Sandstone				
141.0	142.0			Siltstone				
142.0	144.0			Sandstone				
144.0	171.0			Siltstone				
171.0	171.5			Sandstone				
171.5	175.0			Siltstone				
175.0	177.5			Sandstone				
177.5	194.6			Siltstone				
194.6	198.2			Coal with 0.8 mst parting @ 195.2	4u		3.6	2.8
198.2	200.0			Sandstone				
200.0	218.1			Siltstone				

Hole No. 1929

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
148,805.4	27,221.4	1,961.5

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	231.9

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	6.2			Coal	4u		6.2	6.2
6.2	14.2			Mudstone				
14.2	22.2			Coal	4		8.0	8.0
22.2	54.5			Sandstone				
54.5	56.5			Mudstone				
56.5	87.0			Sandstone				
87.0	92.0			Coal 1.5 mst parting @ 90.5	2		5.5	4.0
92.0	93.5			Mudstone				
93.5	97.0			Coal	1		3.5	3.5
97.0	175.0			Basal sst				
175.0	177.5			Mudstone				
177.5	205.7			Siltstone				
205.7	211.1			Coal	41		5.5	5.5
211.1	220.9			Siltstone				
220.9	226.3			Coal	42		5.4	5.4
226.3	231.9							

Hole No. 1930

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
148,565.1	27,308.5	1,890.7

Ore Classes & Aver. 0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	199.1

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	18.5			Sandstone				
18.5	21.2			Coal	2		2.7	2.7
21.2	24.6			Mudstone				
24.6	26.2			Coal	1		1.6	1.6
26.2	80.0			Sandstone (basal sst)				
80.0	123.5			Siltstone (Fernie Fm)				
123.5	125.0			Mudstone				
125.0	133.4			Siltstone				
133.4	140.0			Coal	41		6.6	6.6
140.0	147.6			Mudstone				
147.6	154.0			Coal	42		6.4	6.4
154.0	165.0			Siltstone				
165.0	199.1			Silt Sandstone				

Hole No. 1931

2507 — NDN

Rotary Drill Geological Log

Fording COAL LIMITED

FORDING RIVER OPERATIONS

Objective:

LATITUDE	DEPARTURE	ELEVATION
151,293.8	25,614.1	1,930.8

Ore Classes & Aver.

0.0

Logged By: S. Fortin Date: 05/11/84

Block:	Sect:	Place:	App. Bear:	App.: Dip.:	Length:
				-90.0	185.9

INTERSECTIONS TAKEN FROM GAMMA RAY — NEUTRON LOG [X] YES [ ] NO

From m.	To m.	From Ft.	To Ft.		TOP OF SEAM	ELEVATION	TTL. TH.	NET TH.
0	8.9			Sandstone				
8.9	16.3			Coal with mst 0.9 m	14L			
16.3	24.0			Mudstone				
24.0	38.1			Sandstone				
38.1	39.0			Coal				
39.0	47.4			Muddy siltstone				
47.4	49.0			Coal				
49.0	51.0			Mudstone				
51.0	86.0			Interbedded sandstone and siltstone				
86.0	88.1			Coal	13			
88.1	108.0			Silty Sandstone				
108.0	109.0			Coal				
109.0	126.0			Silty Sandstone				
126.0	134.3			Coal with 2 mst parting @ 129.1 0.9m, 131 1.7 m	12			
134.3	150.0			Sandstone				
150.0	164.5			Siltstone				
164.5	168.5			Coal	11u			
168.5	185.9			Silty Sandstone				

Hole No. 1932

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