

DRILLING RECORD

Ref No ~~13061~~

AREA: COAL RESOURCES INVESTIGATION		CO-ORDINATES: E: 589 kyd 519 ft N: 871 kyd 900 ft	HOLE No. C2
LOCATION: FINGAL		ON LINE: BEARING: AT CH.	FILE No.
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN: BEARING: DIST:	
DATES (a) DRILLED: July, '65 (b) WATER TABLE:		SURFACE COLLAR WATER TABLE	SHEET 1 OF 9 SHEETS
METHOD: D.D. E1000 DIAMETER: No. 4, MMLC		1700	
SITE REMARKS:		HOLE DRILLED ANGLE FROM HORIZONTAL 90°	DIRECTION

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
0'				2						CL - clay gyp - gypsum se - slickensides py - pyrite lim - limonite
5'										0'0" - 13'11" Mudstone weathered to greenish grey clay
10'			No. 4							13'11" - 15'2" Grey massive mudstone
15'										15'2" - 17'0" Partly weathered grey siltstone
20'										17'0" - 21'6" Weathered, jointed feldspathic sandstone with limonite staining
25'										21'6" - 54'7" Brown to grey, medium to coarse grained feldspathic sandstone
30'										24'3" - 25'0" Cavities left by leached coal seams up to 1/8" wide. Clay pellet conglomerate phases as shown.
35'										35'0" - 46'6" Coal lenses up to 1/8" ore spaced from 1/4" to 12".
40'										
45'										54'7" - 60'0" Dark grey, slightly carbonaceous mudstone with some thin vitreous coal lenses up to 1/4". One 1" band of dull coal at 59'9"
50'										60'0" - 62'7" Mudstone with dull coal bands up to 3".
55'										62'7" - 63'5" Dull, jointed and broken coal with thin vertical gypsum veins and some pyrite.
60'										63'5" - 64'1" Weathered mudstone
65'										64'1" - 64'7" Dull coal
70'										64'7" - 66'7" Mudstone containing small (< 1/4") carbonaceous pellets
75'										66'7" - 69'9" Dull and vitreous coal with mudstone bands up to 4".
80'										69'9" - 71'4" Carbonaceous mudstone with coal beds up to 1"
85'										71'4" - 72'0" Dull coal with vitreous bands.
90'										72'0" - 76'6" Carbonaceous mudstone
95'										76'6" - 81'10" Dirty dull coal beds up to 8" interbedded with slightly weathered mudstone.
										81'10" - 84'1" Slightly carbonaceous mudstone
										84'1" - 87'2" Fine-grained feldspathic sandstone
										87'2" - 89'0" Mudstone and siltstone

see detail sheet -

# DRILLING RECORD

AREA: <b>COAL RESOURCES INVESTIGATION</b>		CO-ORDINATES: E: <b>589 kyd 515 ft</b> N: <b>871 kyd 900 ft</b>	HOLE No. <b>C2</b>
LOCATION: <b>FINGAL</b>		ON LINE: BEARING: AT CH:	FILE No.
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN: BEARING: DIST:	
DATES (a) DRILLED: <b>July, '85</b> (b) WATER TABLE:		SURFACE COLLAR WATER TABLE	SHEET <b>2</b> OF <b>3</b> SHEETS
METHOD: <b>D.D. E1000</b> DIAMETER: <b>No. 4, NMLC</b>		LEVEL: <b>1700</b>	
SITE REMARKS:		INCL. HOLE DRILLED ANGLE FROM HORIZONTAL DIRECTION	
		VERT/HOR. LINE: <b>90°</b>	

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No Per Feet.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
100'							Drilling mud			
105'										
110'					m					89'10" - 126'10" Grey to brown medium grained feldspathic sandstone. A few very thin (< 1/16") coaly bands from 91" - 92". Brown color and slightly weathered from 99'6" to 110'0"
115'										
120'										
125'										126'10" - 131'10" Grey siltstone
130'					N					131'10" - 132'8" dull coal
135'					N					132'8" - 133'3" Partly weathered mudstone
140'					N					133'3" - 137'2" Coal with vitreous layers up to 1/4". Thin gypsum veins and some pyrite on joints
145'					N					137'2" - 137'9" weathered mudstone
150'					N					137'9" - 147'8" Coal with vitreous layers up to 1". Severely broken from 146'0" - 147'5". Some mudstone beds up to 3".
155'					N					147'8" - 160'10" Grey mudstone and siltstone
160'					N					
165'					N					160'10" - 169'3" Medium-grained grey feldspathic sandstone. 1" of vitreous coal at 168'8"
170'					N					169'3" - 171'0" fine grained grey mudstone
175'					N					171'0" - 171'5" siltstone
180'					N					
185'					N					171'5" - 203'0" Medium grained feldspathic sandstone
190'					N					182'0" - 182'3" Vitreous coal lenses and bands up to 3/4"
195'					N					189'1" - 189'6" Broken mudstone due to fretting.

see detail sheet 2

BROKEN

CL, Q  
SE

white

DRILLING RECORD

REF 13063

AREA: <b>COAL RESOURCES INVESTIGATION</b>		CO-ORDINATES: <b>E. 589 Kyd 515 R. N. 871 Kyd 900 R.</b>	HOLE No. <b>C2</b>
LOCATION: <b>FINGAL</b>		ON LINE: BEARING: AT CH:	FILE No.
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN: BEARING: DIST:	
DATES (a) DRILLED: <b>July, '65</b> (b) WATER TABLE:		SURFACE COLLAR WATER TABLE	SHEET <b>3</b> OF <b>9</b> SHEETS
METHOD: <b>D.D. E1000</b> DIAMETER: <b>NMLC</b>		LEVEL: <b>1700</b>	
SITE REMARKS:		HOLE DRILLED ANGLE FROM HORIZONTAL DIRECTION	
		INCL. VERT./HORIZ./INC. <b>90°</b>	

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
200'										Sl - Slickensides
203'										203'0" - 204'2" Carbonaceous mudstone
204'										204'2" - 206'0" Dull coal with vitreous bands up to 1/8". Gypsum veins up to 1/8". Two 1" bands of clayey weathered carbonaceous mudstone at 204'5" and 205'3"
206'										206'0" - 210'3" Sheared grey siltstone. Clay in the thicker joints
210'										210'3" - 220'8" Dull coal with some vitreous bands
215'										218'6" - 219'4" Brecciated band containing clay and broken coal
220'										220'8" - 222'6" Carbonaceous mudstone and siltstone.
225'										
230'										
235'										
240'										
245'										
250'										
255'										
260'										
265'										
270'										
273'										
275'										
280'										
285'										
290'										
295'										

# DRILLING RECORD

AREA: <b>COAL RESOURCES INVESTIGATION</b>		CO-ORDINATES: E: <b>589 Kyd 519 ft</b> N: <b>871 Kyd 900 ft</b>	HOLE No. <b>C2</b>
LOCATION: <b>FINGAL</b>		ON LINE: BEARING: AT CH:	FILE No.
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN: BEARING: DIST:	
DATES (a) DRILLED: <b>July, '65</b> (b) WATER TABLE:		SURFACE COLLAR WATER TABLE	SHEET <b>4</b> OF <b>9</b> SHEETS
METHOD: <b>D.D. E1000</b> DIAMETER: <b>NMLC</b>		<b>1700</b>	
SITE REMARKS:		HOLE DRILLED ANGLE FROM HORIZONTAL <b>90°</b> DIRECTION	
		VERT./HOR./INC.	

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY %	GRAPHIC LOG	JOINTS No Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS	
										CL - clay	SL - slickensides
300'											
305'											
310'					m/c						
315'											
320'					f						
325'											
330'											
335'											
340'											
345'											
350'											
355'											
360'					m/c						
365'											
370'											
375'											
380'											
385'											
390'											
395'					m/c						

285'1" - 316'10" Medium to coarse grained feldspathic sandstone.

316'10" - 317'5" Broken, jointed, slickensided mudstone with sandstone lenses

317'5" - 317'9" Feldspathic sandstone with irregular mudstone lenses up to 1" thick. Some lenses are carbonaceous

317'9" - 329'9" Coarse siltstone to fine sandstone with small groups of very thin carbonaceous lenses.

329'9" - 330'3" Coal with vertical gypsum veins. 1/2" brecciated clayey coal at 330'0".

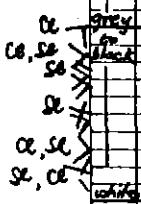
330'3" - 341'6" Mudstone with many slickensided joints, some containing clay.

341'6" - 344'0" Grey siltstone

344'0" - 379'10" Medium to coarse grained feldspathic sandstone.

379'10" - 380'7" 2" coal lens, 1" sandstone, 4" slickensided mudstone, 2" slickensided coal

380'7" - 456'7" Medium to coarse grained feldspathic sandstone



DRILLING RECORD

REF 13063

AREA: COAL RESOURCES INVESTIGATION		CO-ORDINATES:	E: 589 Kyd. 519 ft	N: 871 Kyd. 500 ft.	HOLE No.
LOCATION: FINGAL		ON LINE:	BEARING:	AT CH:	C2
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN:	BEARING:	DIST:	FILE No.
DATES (a) DRILLED: July, '85 (b) WATER TABLE:		SURFACE	COLLAR	WATER TABLE	SHEET 5 OF 9 SHEETS
METHOD: D.D. 1000 DIAMETER: NMLC		1700			
SITE REMARKS:		INCL. HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION	
		VERT/HOR. ANG.	90°		

2  
1  
3  
3

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
400'				2			white			
405'										
410'										
415'										
420'										
425'					m/c					380'7" - 456'7" Medium to coarse-grained feldspathic sandstone
430'										
435'							dirty white			
440'										
445'										
450'										
455'										456'7" - 458'7" Carbonaceous siltstone
460'										458'7" - 460'0" Medium grained feldspathic sandstone with clay-pellet conglomerate phase. Pellets or lenses are carbonaceous and are up to 2" thick with most wider than 1/2".
465'										
470'					m					460'0" - 484'11" Medium grained feldspathic sandstone with clay-pellet phase
475'										
480'										
485'					f					484'11" - 485'7" feldspathic sandstone containing thick carbonaceous mudstone lenses and pellets
490'										485'7" - 488'6" fine grained feldspathic sandstone
495'					f					488'6" - 489'9" Carbonaceous siltstone
										489'9" - 499'5" Banded fine grained sandstone to siltstone. Bands are carbonaceous beds up to 1" and some small lenses.

# DRILLING RECORD

AREA: <b>COAL RESOURCES INVESTIGATION</b>		CO-ORDINATES: E: 589 Kyd 519 R N: 871 Kyd 900 Ft		HOLE No. <b>C2</b>
LOCATION: <b>FINGAL</b>		ON LINE:	BEARING:	AT CH
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN:	BEARING:	DIST:
DATES (a) DRILLED: <b>July '65</b> (b) WATER TABLE:		SURFACE	COLLAR	WATER TABLE
METHOD: <b>D.D. Elong</b> DIAMETER: <b>NMLC</b>		LEVEL: <b>1700</b>		FILE No.
SITE REMARKS:		HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION
		VERT./HOR./INC.	<b>30°</b>	

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
500										
505										
510										
515										
520										
525										499'5" - 521'10" Mainly mudstone with some siltstone phases. Very carbonaceous from 504'8" to 505'7"
530										
535										
540										
545										
550										
555										
560										
565										
570										
575										
580										
585										
590										
595										

see detail sheet 3

CL, SL

BROKEN

W

SL

BROKEN

SL

DRILLING RECORD

REF 13063

AREA: COAL RESOURCES INVESTIGATION		POSITION	CO-ORDINATES:	E: 589 1/4 519 ft.	N: 871 1/2 900 ft.	HOLE No. C2
LOCATION: FINGAL			ON LINE:	BEARING:	AT CH:	
GEOLOGICAL PLAN: SURVEY PLAN:		LEVEL:	AT STN:	BEARING:	DIST:	FILE No.
DATES (a) DRILLED: July, '65 (b) WATER TABLE:			SURFACE	COLLAR	WATER TABLE	
METHOD: D.D. El000 DIAMETER: NMLC		INCL:	1700			SHEET 7 OF 9 SHEETS
SITE REMARKS:			HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION	
			VERT. HOR. INC.	90°		

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
600										Cl - clay
605										Sl - stickensides
610										596'3" - 602'6" Mudstone
615										602'6" - 609'4" Dull coal with some thin vitrinite layers. Partly broken
620										603'4" - 607'0" Black, very carbonaceous mudstone. Density too high for coal.
625										607'0" - 615'6" Mudstone, banded in places, with carbonaceous mudstone and siltstone beds.
630										615'6" - 617'2" Partly broken dull coal with thin vitrinite layers. Vertically jointed.
635										617'2" - 624'11" Brown to grey fine-grained mudstone or claystone.
640										Decomposed to clayey silt from 618'3" - 618'10", + 621'2" - 621'6".
645										624'11" - 625'8" Dull coal with vitrinite bands up to 1/2"
650										625'8" - 632'10" Carbonaceous mudstone
655										
660										
665										
670										
675										
680										
685										
690										
695										
700										
705										
710										
715										
720										
725										
730										
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945										
950										
955										
960										
965										
970										
975										
980										
985										
990										
995										

35 173

# DRILLING RECORD

AREA: <b>COAL RESOURCES INVESTIGATION</b>		CO-ORDINATES: E: 589 Kyd 519 R	N: 871 Kyd 300 R	HOLE No. <b>C2</b>
LOCATION: <b>FINGAL</b>		ON LINE:	BEARING:	
GEOLOGICAL PLAN:      SURVEY PLAN:		AT STN:	BEARING:	DIST:
DATES (a) DRILLED: <i>July '85</i> (b) WATER TABLE:		SURFACE	COLLAR	WATER TABLE
METHOD: <i>QDE/1000</i> DIAMETER: <i>NMLC</i>		<i>1700</i>		
SITE REMARKS:		HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION
		VERT./HOR./INC.	<i>90°</i>	

SHEET  
**8**  
OF  
**9**  
SHEETS

DEPTH	CORE DRAIN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
700							white			
705					m		gray			697'4" - 711'4" Medium grained feldspathic Sandstone
710										
715										
720										711'4" - 722'4" Mudstone with some siltstone
725										
730										
735										722'4" - 725'10" Siltstone
740										
745										
750										
755										
760										
765										
770										
775										
780										
785										
790										
795										
800										
805										
810										
815										
820										
825										
830										
835										
840										
845										
850										
855										
860										
865										
870										
875										
880										
885										
890										
895										
900										

1" quartz vein

DRILLING RECORD

REF 13063

AREA: COAL RESOURCES INVESTIGATION		CO-ORDINATES:	E-589 Kyd 519 A	N-871 Kyd 900 A	HOLE No.
LOCATION: FINGL		ON LINE:	BEARING:	AT CH:	C2
GEOLOGICAL PLAN: SURVEY PLAN:		AT STN:	BEARING:	DIST:	FILE No.
DATES (a) DRILLED: July, '65 (b) WATER TABLE:		SURFACE	COLLAR	WATER TABLE	SHEET 9 OF 9 SHEETS
METHOD: DD E1000 DIAMETER: NMLC		1700			
SITE REMARKS:		HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION	
		VERT./HOR./INC.			

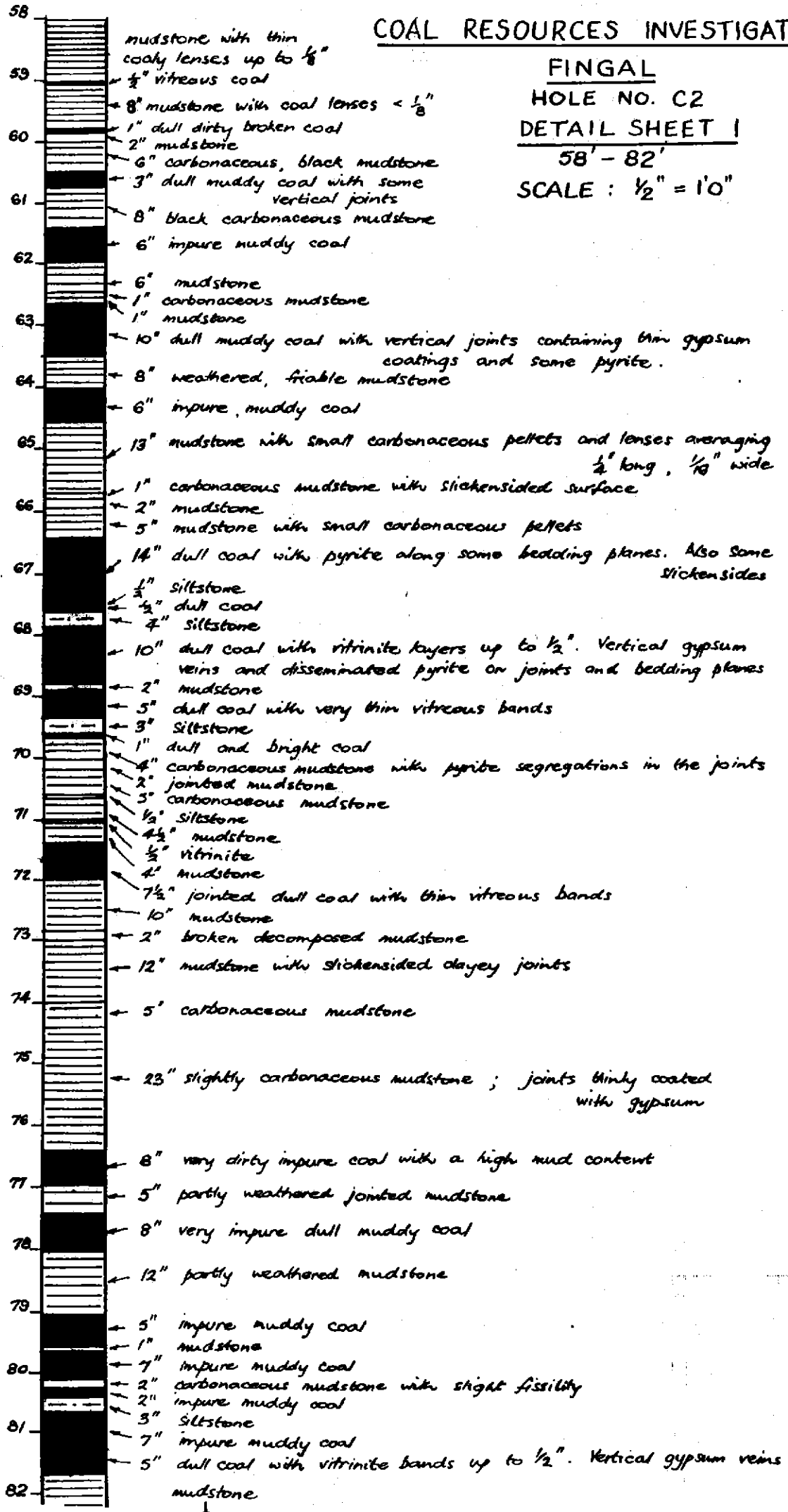
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DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
80'0"										
80'5"										805'1" - 806'8" pebble conglomerate containing rounded quartz pebbles and many clay pellet lenses.
81'0"										The Triassic - Permian boundary lies at 805'1" where the mudstone - siltstone - feldspathic sandstone changes to a pebbly greywacke lithology.
81'5"										806'8" - 821'0" Grey, sub-greywacke with a few very small white pebbles. From 815'9" - 818'3" the rock is brecciated and weathered and probably represents a fault zone. The weathered rock consists of angular rock fragments in a black clayey matrix.
82'0"										
82'5"										
83'0"										
83'5"										
84'0"										Hole completed at 821'0"
84'5"										
85'0"										
85'5"										
86'0"										
86'5"										
87'0"										
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90'0"										
90'5"										
91'0"										
91'5"										
92'0"										
92'5"										
93'0"										
93'5"										
94'0"										
94'5"										
95'0"										

Logged T. Murro July 1965

# COAL RESOURCES INVESTIGATION

FINGAL  
HOLE NO. C2  
DETAIL SHEET 1  
58' - 82'  
SCALE: 1/2" = 10'



COAL RESOURCES INVESTIGATION

FINGAL

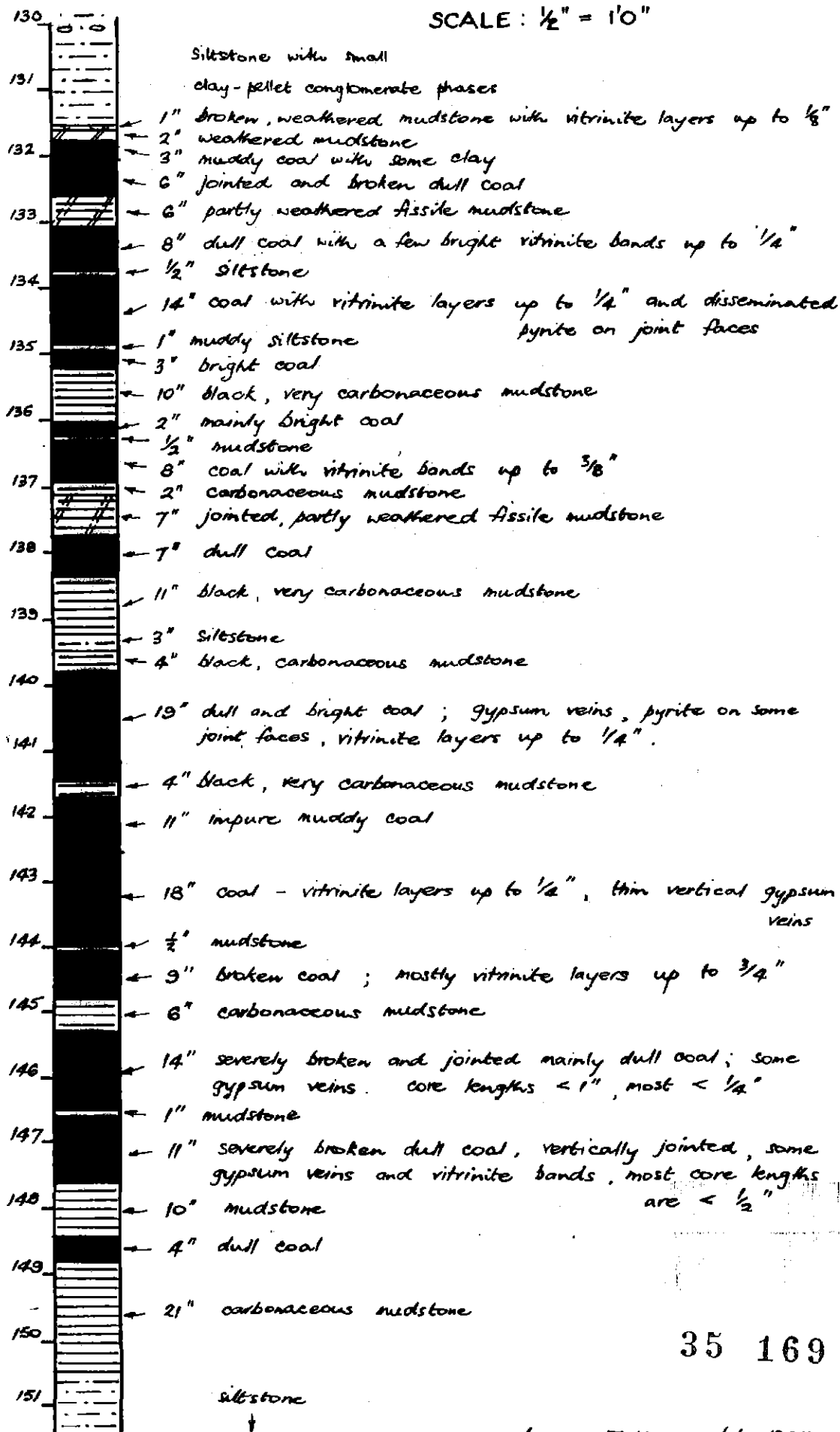
REF 13063

HOLE NO. C2

DETAIL SHEET 2

130'-151'

SCALE: 1/2" = 1'0"



35 169

# COAL RESOURCES INVESTIGATION

## FINGAL

HOLE NO. C2

### DETAIL SHEET 3

520' - 535'

SCALE:  $\frac{1}{2}$ " = 10"

