

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 176BL

HOLE TYPE	CORE
EASTING	590,319 M AM GRID
NORTHING	5,401,334 M AM GRID
ELEVATION	486.23 M
TOTAL DEPTH DRILLED	108.95 M
DRILLING STARTED	03/11/82
DRILLING TIME	7 DAYS
CORE SIZE	100.0 MM
HOLE SIZE	170.0 MM
LENGTH CASED	14.00 M
INITIAL WATER LEVEL	
WATER LEVEL AT GEOPHYSICAL LOGGING	
DRILLING FLUID	
DRILLING CONTRACTOR	ASSOCIATED DIAMOND DRILLERS
GEOPHYSICAL LOGGING CONTRACTOR	
LITHOLOGICAL DESCRIPTION BY	P. SANSON
INFORMATION AVAILABLE :	SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION
PETROPHYSICAL WIRELINE LOGS RUN :	NIL

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
13.50	13.50			100X DOLERITE	SCREE.
23.50	10.00			100X SEDIMENTARY ROCK	
*** CHIP DESCRIPTION ***					
23.82	0.32	100		100X SANDSTONE, MEDIUM GRAINED	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS.
23.99	0.17	100		60X SANDSTONE, MEDIUM GRAINED 40X MUDSTONE	LIGHT GREY. BANDS, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK.
24.50	0.51	80		100X MUDSTONE	BADLY BROKEN, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
24.61	0.11	100		100X MUDSTONE	CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
24.83	0.22	100		100X MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
25.40	0.57	100		100X MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
25.70	0.30	100		100X CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY WEAK ROCK.
25.73	0.03	100		100X MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
25.92	0.19	100		100X MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
26.50	0.58	100		65X COAL, DULL 20X COAL, DULL WITH FEW BRIGHT BANDS 15X CARBONACEOUS MUDSTONE	BLACK. BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
26.81	0.31	100		100X SANDSTONE, FINE GRAINED	CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
26.93	0.12	100		55X MUDSTONE 45X CARBONACEOUS MUDSTONE	GREY. DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK.
27.29	0.36	100		100X MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
27.63	0.34	100	T1	100X MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
TOP OF MT. NICHOLAS MIDDLE 2 : 458.60 M R.L.					
27.69	0.06	100	A1	100X COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
27.70	0.01	100	A1	100X CARBONACEOUS MUDSTONE	BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
27.71	0.01	100	A1	100X COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
27.72	0.01	100	A1	100X MUDSTONE	BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK.
27.74	0.02	100	A1	100X CARBONACEOUS MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC X	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
*** CORE DESCRIPTION ***					
27.77	0.03	100	A1	100% COAL, HEAVY DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
27.80	0.03	100	A1	75% COAL, HEAVY DULL 25% CARBONACEOUS MUDSTONE	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
27.85	0.05	100	A1	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
27.86	0.01	100	A1	90% CARBONACEOUS MUDSTONE 10% TONSTEIN	GREY. UNWEATHERED, MODERATELY WEAK ROCK.
28.30	0.44	100	A1	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
28.32	0.02	100	A1	100% MUDSTONE	BANDS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
28.78	0.46	100	A1	65% COAL, DULL WITH FEW BRIGHT BANDS 35% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
28.79	0.01	100	A1	100% MUDSTONE	BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
28.97	0.18	100	A1	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
29.04	0.07	100	A1	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
BASE OF MT. NICHOLAS MIDDLE 2 : THICKNESS= 1.41 M; SAMPLED THICKNESS= 1.41 M					
29.11	0.07	100	T2	100% CARBONACEOUS MUDSTONE	BLACK, UNWEATHERED, VERY WEAK ROCK.
29.41	0.30	100	T2	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
29.50	0.09			100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
*** CHIP DESCRIPTION ***					
102.60	73.10			100% SEDIMENTARY ROCK	UNWEATHERED.
*** CORE DESCRIPTION ***					
102.87	0.27	100		90% SILTSTONE 10% SANDSTONE, MEDIUM GRAINED	GREY. LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK.
106.45	3.58	100		100% SANDSTONE, MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
106.84	0.39	100	T3	100% SANDSTONE, MEDIUM GRAINED	MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
TOP OF MT. NICHOLAS LOWER 2 : 379.39 M R.L.					
106.89	0.05	100	A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
106.90	0.01	100	A2	100% COAL, BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.

DEPTH TO BASE M	THICKNESS M	REC %	SAMPLE NUMBER	ROCK TYPE	GEOLOGICAL DESCRIPTION
*** CORE DESCRIPTION ***					
107.00	0.10	100	A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.03	0.03	100	A2	100% CARBONACEOUS MUDSTONE	BROWN, UNWEATHERED, MODERATELY WEAK ROCK.
107.06	0.03	100	A2	100% CLAYSTONE	CARBONACEOUS, BLACK, UNWEATHERED, VERY WEAK ROCK.
107.12	0.06	100	A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.13	0.01	100	A2	55% COAL, BRIGHT 45% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
107.32	0.19	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.44	0.12	100	A2	100% COAL, MID LUSTROUS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.54	0.10	100	A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.55	0.01	100	A2	55% COAL, BRIGHT 45% COAL, DULL	LENSES, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
107.74	0.19	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.76	0.02	100	A2	100% TONSTEIN	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
107.82	0.06	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
107.87	0.05	100	A2	100% TONSTEIN	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
107.88	0.01	100	A2	100% CLAYSTONE	LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK.
107.99	0.11	100	A2	100% COAL, DULL WITH FEW BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
108.00	0.01	100	A2	55% COAL, BRIGHT 45% COAL, DULL	BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK.
108.05	0.05	100	A2	100% COAL, DULL	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
108.07	0.02	100	A2	100% TONSTEIN	LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK.
108.12	0.05	100	A2	100% COAL, INTERBANDED DULL AND BRIGHT	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
108.17	0.05	100	A2	100% COAL, DULL WITH NUMEROUS BRIGHT BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
108.25	0.08	100	A2	100% COAL, BRIGHT WITH NUMEROUS DULL BANDS	BLACK, UNWEATHERED, MODERATELY WEAK ROCK.
BASE OF MT. NICHOLAS LOWER 2 : THICKNESS= 1.41 M; SAMPLED THICKNESS= 1.41 M					
108.27	0.02	100	T4	100% CLAYSTONE	BROWN, UNWEATHERED, VERY WEAK ROCK.
108.34	0.07	100	T4	100% MUDSTONE	CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK.
108.60	0.26	100	T4	100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
108.64	0.04	100		100% MUDSTONE	GREY, UNWEATHERED, MODERATELY WEAK ROCK.
108.95	0.31	100		100% MUDSTONE	SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK.