

REPORT TC14-01
LAUNCESTON.

THIESS COAL SYSTEM
GEOLOGICAL LOG REPORT

PAGE 150 11/11/82 15:42:42
ATP EL2080 TENEMENT 2080
LAUNCESTON

EL2080 LAUNCESTON, C0064

Easting: 487150.000
Northing: 5410980.000
Grid Type: Australian Mapping Grid
Accuracy: Approximate
Crl: 160.00

Logging Organisation: CSR Exploration and Evaluation Group
Logged By: ELLIS
Drilling Contractor: Deadline Drilling
Geophysical Logging: Century Geophysical Corp.

Datum: Approximate Level - Not Surveyed

Sheet Reference:

County:

Sheet Index:

Parish:

Total Depth: 21.00

Portion:

Drilling Commenced: 11/04/82

Drilling Completed: 11/04/82

Inclination:

Plug Depths:

Azimuth:

Hole Diameter: 140

Standing Water Level:

Core Diameter: 100

Cased Depths:

Core Barrel: Triefus Triple Barrel

Available Data:

- Gamma Logs
- Neutron Logs
- Density Logs
- Self Potential Logs
- Resistivity Logs
- Caliper Logs

Drill Bits: Blades
Tungsten Carbide

ALL ROCKS ARE FRESH UNLESS OTHERWISE INDICATED

EL2080 LAUNCESTON, C0064

628297

STRAT NAME	SEG NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
				R	1.50	1.50	CLAY	Light to medium brown, firm, low plasticity (clay).
				R	2.00	0.50	CLAY	Kaolinitic, light to medium grey, firm, low plasticity (clay).
				R	2.40	0.40	SAND	Quartzose, clayey, light to medium orange, medium dense, non-plastic, medium grained, uniform, well sorted, subrounded, equant, gradational base.
				R	3.50	1.10	SAND	Quartzose, clayey, light to medium yellow, medium dense, non-plastic, medium grained, uniform, well sorted, subrounded, equant;
POSSIBLY DERIVED FROM TRIASSIC STRATA								
				R	4.00	0.50	SAND	Clayey, quartzose, light to medium brown, medium dense, non-plastic, medium grained, uniform, well sorted, subrounded, equant.
				R	5.00	1.00	CLAY	Sandy, micaceous, light to medium brown, firm, low plasticity (clay).
				R	6.50	1.50	CLAY	Sandy, micaceous, light to medium grey, firm, low plasticity (clay); Additional features include: kaolinitic.
				R	7.56	1.06	CLAY	Light to medium brown, firm, low plasticity (clay); Bands include: LIGNITE, dark brown, soft, friable.
				R	9.06	1.50	CLAY and CLAY	Interbedded 70:30, CLAY: light to medium brown - grey, firm, low plasticity (clay); CLAY: silty, light to medium brown, firm, low plasticity (clay).
				C0212	9.07	0.01	CLAY	Light to medium brown - grey, firm, high plasticity (clay), abundant woody fragments; Additional features include: occasional resin aggregates.
				C0212	9.09	0.02	INFERIOR LIGNITE	Woody textured, peaty, dark brown - black, low strength, brittle.
				C0212	9.11	0.02	CLAY	Medium to dark brown - grey, firm, low plasticity (clay), occasional resin aggregates.

EL2080 LAUNCESTON. C0064

296

387223

628298

REPORT TC14-01

THIESS COAL SYSTEM

PAGE 152 11/11/82 15:42:48

LAUNCESTON.

GEOLOGICAL LOG REPORT

ATP EL2080 TENEMENT 2080

LAUNCESTON

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
				C0212	9.31	0.20	CLAY	Light to medium grey - brown, firm, low plasticity (organic), occasional resin aggregates; ROOTS ABUNDANT
				C0212	9.35	0.04	CLAY	Light to medium brown, firm, high plasticity (clay); ROOTS ABUNDANT
				C0212	9.41	0.06	CLAY	Sandy, light to medium brown, firm, high plasticity (clay), common bioturbation.
				C0212	9.48	0.07	CLAY	Sandy, light to medium brown - grey, firm, high plasticity (clay), common bioturbation.
				C0212	9.61	0.13	CLAY	Sandy, light to medium grey - brown, firm, high plasticity (clay); ROOTS COMMON
				C0212	9.70	0.09	CLAY	Sandy, light to medium grey, firm, high plasticity (clay).
				C0212	9.84	0.14	CLAY	Sandy, light to medium grey - green, firm, high plasticity (clay).
				C0212	9.89	0.05	SAND	Clayey, quartzose, light to medium grey - green, firm, low plasticity (clay), medium grained.
				C0212	9.94	0.05	CLAY	Sandy, light to medium grey - green, firm, high plasticity (clay).
				C0212	10.01	0.07	CLAY	Sandy, light to medium brown - grey, firm, high plasticity (clay).
				C0213	10.17	0.16	CLAY and INFERIOR LIGNITE	Intermixed 60:40. CLAY: sandy, medium to dark brown, firm, low plasticity (organic); INFERIOR LIGNITE: dark brown, firm, friable, abundant bioturbation.
				C0213	10.39	0.22	INFERIOR LIGNITE	Clayey, dark brown - black, firm, friable, abundant bioturbation.

EL2080 LAUNCESTON. C0064

628299

LAUNCESTON.

GEOLOGICAL LOG REPORT

ATP EL2080
LAUNCESTON

TENEMENT 2080

STRAT NAME	SEQ NO.	SEAM NAME	WGRK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
				C0213	10.47	0.08	INFERIOR LIGNITE and CLAY	Intermixed 60:40. INFERIOR LIGNITE: clayey, dark brown, firm, friable, abundant bioturbation; CLAY: light to medium brown - grey, firm, high plasticity (clay).
				C0213	10.54	0.07	CLAY	Light to medium brown - grey, firm, high plasticity (clay), occasional woody fragments.
				C0213	10.62	0.08	INFERIOR LIGNITE	Clayey, dark brown, firm, friable, abundant bioturbation.
				C0213	10.77	0.15	CLAY	Light to medium brown - grey, firm, low plasticity (organic).
				TOP OF SEAM SA1		10.77		
		SA1		C0214	10.80	0.03	CLAY	Silty, light to medium brown, firm, low plasticity (organic).
		SA1		C0214	10.89	0.09	LIGNITE	Clayey, medium to dark brown, firm, friable, sharp irregular base, common bioturbation.
		SA1		C0214	11.48	0.59	LIGNITE	Clayey, woody textured, dark brown - black, firm, friable, occasional resin aggregates; Additional features include: abundant bioturbation.
		SA1		C0214	11.50	0.02	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic).
		SA1		C0214	11.58	0.08	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA1		C0214	11.70	0.12	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic).
		SA1		C0214	11.78	0.08	LIGNITE	Clayey, dark brown, firm, friable.
		SA1		C0214	11.79	0.01	LIGNITE	Woody textured, peaty, dark brown, low strength, brittle.
		SA1		C0214	11.83	0.04	LIGNITE and LIGNITE	Interbedded 50:50. LIGNITE: clayey, dark brown, firm, friable; LIGNITE: woody textured, peaty, dark brown - black, low strength, brittle.
		SA1		C0214	12.06	0.23	LIGNITE	Woody textured, dark brown - black, firm, friable, occasional bioturbation.
		SA1		C0215	12.17	0.11	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA1		C0215	12.19	0.02	INFERIOR LIGNITE	Clayey, dark brown, firm, low plasticity (organic).

EL2080 LAUNCESTON. C0064

298
387225

628300

REPORT TC14-01
LAUNCESTON.

THIESS COAL SYSTEM
GEOLOGICAL LOG REPORT

PAGE 154 11/11/82 15:42:33
ATP EL2080 TENEMENT 2080
LAUNCESTON

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
		SA1		C0215	12.21	0.02	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
		SA1		C0215	12.24	0.03	CLAY	Medium to dark brown, firm, low plasticity (organic).
		SA1		C0215	12.34	0.10	LIGNITE	Clayey, dark brown - black, firm, friable, occasional bioturbation.
		SA1		C0215	12.37	0.03	LIGNITE	Clayey, woody textured, dark brown, firm, friable, occasional bioturbation.
		SA1		C0215	12.45	0.08	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA1		C0215	12.48	0.03	LIGNITE	Clayey, dark brown - black, firm, slickensides on fracture, friable, sparse, oblique joints, angle of joints 40 degrees.
		SA1		C0215	12.49	0.01	LIGNEOUS CLAY	Dark brown - black, firm, slickensides on fracture, low plasticity (organic), sparse, oblique joints, angle of joints 40 degrees.
		SA1		C0215	12.51	0.02	CLAY	Light to medium brown, firm, high plasticity (clay), gradational base.
		SA1		C0215	12.53	0.02	CLAY	Light to medium brown - grey, firm, high plasticity (clay), gradational base.
		SA1		C0215	12.57	0.04	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic).
		SA1		C0215	12.65	0.08	LIGNITE	Clayey, dark brown - black, firm, friable, sharp planar base, beds dip at 00 degrees.
		SA1		C0215	12.70	0.05	LIGNEOUS CLAY	Dark brown - grey, firm, low plasticity (organic), gradational base.
		SA1		C0215	12.75	0.05	CLAY	Light to medium grey - brown, firm, high plasticity (clay).
		SA1		C0215	12.78	0.03	LIGNEOUS CLAY	Dark brown, firm, high plasticity (clay), abundant bioturbation.
		SA1		C0215	12.95	0.17	LIGNITE	Clayey, dark brown - black, firm, friable, occasional bioturbation.
		SA1		C0215	13.11	0.16	LIGNITE	Clayey, dark brown, firm, friable, occasional bioturbation.
		SA1		C0215	13.12	0.01	INFERIOR LIGNITE	Clayey, dark brown, firm, low plasticity (organic).

EL2080 LAUNCESTON. C0064

628301

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
		SA1		C0215	13.25	0.13	LIGNITE	Clayey, dark brown - black, firm, friable, occasional bioturbation.
		SA1		C0215	13.26	0.01	CLAY	Light to medium grey - brown, firm, high plasticity (clay).
		SA1		C0215	13.48	0.22	LIGNITE	Clayey, dark brown - black, firm, friable, common bioturbation.

 BASE OF SEAM SA1 13.48 2.71

				C0216	13.50	0.02	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic), common bioturbation.
				C0216	13.54	0.04	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
				C0216	13.56	0.02	CLAY	Light to medium grey - brown, firm, high plasticity (clay).
				C0216	13.62	0.06	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
				C0216	13.67	0.05	CLAY	Light to medium grey - brown, firm, high plasticity (clay).
				C0216	13.71	0.04	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
				C0216	13.74	0.03	CLAY	Light to medium grey - brown, firm, high plasticity (clay).
				C0216	13.78	0.04	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
				C0216	13.88	0.10	CLAY	Silty, light to medium brown, firm, high plasticity (clay).
				C0216	13.99	0.11	CLAY and CLAY	Intermixed 60:40. CLAY: silty, light to medium brown, firm, high plasticity (clay); CLAY: sandy, light grey, firm, low plasticity (organic).
				C0216	14.08	0.09	CLAY	Light to medium brown, firm, high plasticity (clay); SANDY WISPS OCCASIONAL
				C0216	14.13	0.05	CLAY and CLAY	Intermixed 80:20. CLAY: light to medium grey - brown, firm, high plasticity (clay); CLAY: sandy, light grey, firm, high plasticity (clay).
				C0216	14.27	0.14	CLAY	Light to medium brown, firm, high plasticity (clay).

300

38727

REPORT TC14-01
LAUNCESTON.

THIESS COAL SYSTEM
GEOLOGICAL LOG REPORT

PAGE 156 11/11/82 15:42:59
ATP EL2080 TENEMENT 2080
LAUNCESTON

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
				C0216	14.32	0.05	CLAY	Medium to dark brown, firm, high plasticity (clay).
				C0216	14.35	0.03	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic).
				C0217	14.43	0.08	INFERIOR LIGNITE	Clayey, dark brown - black, firm, friable, occasional resin aggregates; Additional features include: common bioturbation.
				C0217	14.48	0.05	CLAY	Light to medium brown, firm, high plasticity (clay).
				C0217	14.53	0.05	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
				C0217	14.58	0.05	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic), common bioturbation.
				C0217	14.93	0.35	INFERIOR LIGNITE	Clayey, dark brown - black, firm, friable, common bioturbation.
				C0217	14.98	0.05	CLAY	Medium to dark brown, firm, high plasticity (clay).
				C0217	15.05	0.07	CLAY	Silty, light to medium brown - grey, firm, high plasticity (clay).
				TOP OF SEAM SA2		15.05		
		SA2		C0217	15.06	0.01	LIGNEOUS CLAY	Dark brown, firm, low plasticity (organic).
		SA2		C0218	15.13	0.07	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA2		C0218	15.14	0.01	LIGNITE	Woody textured, dark brown - black, firm, friable.
		SA2		C0218	15.15	0.01	CLAY	Light to medium brown - grey, firm, high plasticity (clay).
		SA2		C0218	15.22	0.07	LIGNITE	Clayey, dark brown, firm, friable, occasional bioturbation.
		SA2		C0218	15.24	0.02	CLAY	Light to medium brown - grey, firm, low plasticity (clay).
		SA2		C0218	15.26	0.02	LIGNITE	Clayey, dark brown, firm, friable.
		SA2		C0218	15.28	0.02	CLAY	Medium to dark brown - grey, firm, low plasticity (clay).
		SA2		C0218	15.29	0.01	LIGNITE	Clayey, dark brown, firm, friable, sharp oblique base, beds dip at 10 degrees.

EL2080 LAUNCESTON. C0064

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
		SA2		C0218	15.35	0.06	CLAY	Medium to dark brown - grey, firm, high plasticity (clay).
		SA2		C0218	15.91	0.56	LIGNITE	Clayey, dark brown - black, firm, friable, rare bioturbation.
		SA2		C0218	15.94	0.03	CLAY	Ligneous, medium to dark brown - grey, firm, high plasticity (clay).
		SA2		C0218	15.97	0.03	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA2		C0218	16.02	0.05	LIGNITE	Clayey, dark brown, firm, friable.
		SA2		C0218	16.18	0.16	LIGNITE	Clayey, woody textured, dark brown, firm, friable, rare bioturbation. Additional features include: occasional bioturbation.
		SA2		C0218	16.32	0.14	CLAY	Light to medium brown, firm, high plasticity (clay), common ligneous wisps.
		SA2		C0219	16.65	0.33	LIGNITE	Clayey, dark brown - black, firm, friable.
		SA2		C0219	16.71	0.06	INFERIOR LIGNITE	Clayey, dark brown, firm, low plasticity (organic).
		SA2		C0219	16.79	0.08	LIGNITE	Clayey, dark brown - black, firm, friable, sharp planar base, beds dip at 00 degrees, occasional bioturbation.
		SA2		C0219	16.84	0.05	CLAY	Ligneous, medium to dark brown - grey, firm, high plasticity (clay), sharp planar base, beds dip at 00 degrees, occasional resin aggregates.
		SA2		C0219	16.91	0.07	LIGNITE	Clayey, dark brown, firm, friable, common bioturbation.
		SA2		C0219	17.56	0.65	LIGNITE	Clayey, dark brown - black, firm, friable, common bioturbation.
				BASE OF SEAM SA2		17.56	2.51	
				C0220	17.58	0.02	CLAY	Light to medium brown, firm, high plasticity (clay).
				C0220	17.61	0.03	CLAY	Medium to dark brown, firm, high plasticity (clay), common bioturbation.
				C0220	17.65	0.04	CLAY	Light to medium brown, firm, high plasticity (clay), common bioturbation.

EL2080 LAUNCESTON C0064

302
387229

628304

303

REPORT TC14-01

THIESS COAL SYSTEM

PAGE 158 11/11/82 15:43:05

LAUNCESTON.

GEOLOGICAL LOG REPORT

ATP EL2080
LAUNCESTON

TENEMENT 2080

STRAT NAME	SEQ NO.	SEAM NAME	WORK SECT	SAMPLE NUMBER	DEPTH (m)	THICK (m)	ROCK TYPE	GEOLOGICAL DESCRIPTION OF STRATA
				C0220	17.69	0.04	CLAY	Medium to dark brown - grey, firm, high plasticity (clay).
				C0220	17.77	0.08	CLAY	Light to medium brown - grey, firm, high plasticity (clay); Additional features include: expanding clay.
				C0220	17.82	0.05	CLAY	Ligneous, medium to dark brown, firm, high plasticity (clay), abundant bioturbation.
				C0220	18.10	0.28	CLAY	Light to medium grey - brown, firm, high plasticity (clay); Additional features include: expanding clay.
				R	21.10	3.00	NO RECORD	

SUMP DRILLED TO TD SO THAT WIRELINE

GEOPHYSICAL SONDES COULD LOG BASE
OF THE LIGNEOUS ZONE

END OF BORE AT 21.10 m

EL2080 LAUNCESTON C0064

628305