

# Open File Envelope

## No. 3635

**EL 509**

**DINGO HILL**

### **PROGRESS AND FINAL REPORTS TO LICENCE EXPIRY FOR THE PERIOD 21/8/79 TO 20/8/80**

Submitted by  
Australian Selection (Pty) Ltd  
1980

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**Enquiries:** Customer Services  
Ground Floor  
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000  
Facsimile: (08) 8204 1880



**PRIMARY INDUSTRIES  
AND RESOURCES SA**

TENEMENT: Exploration Licence No. 509

TENEMENT HOLDER: Australian Selection Pty. Ltd.

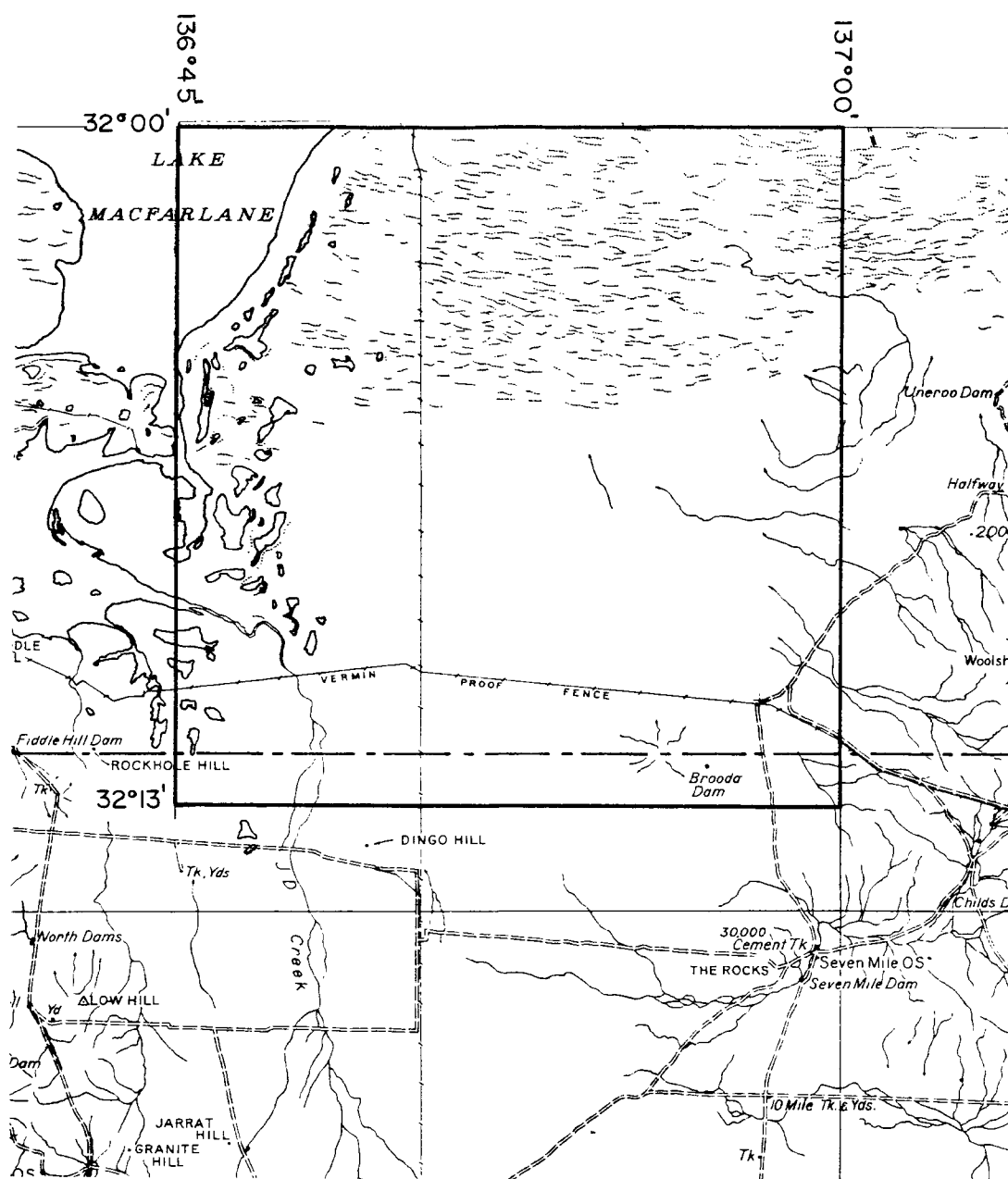
REPORTS: Dingo Hill E.L. 509 First Quarterly Report (pgs. 3-20)  
Second Quarterly (pgs. 21-24)  
Third Quarterly (pgs. 25-27)  
Final Quarterly (pgs. 28-30)

PLANS:

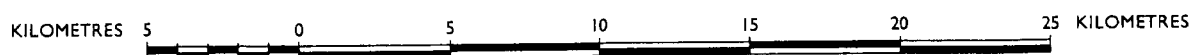
FIG. 1 Dingo Hill - E.L. 302 Geology & Drill Hole Locations (pg. 8)  
S.A. Exploration Licences (pg. 23)  
FIG. 2 Dingo Hill - E.L. 302 Geology & Drill Hole Locations (pg. 24)

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# SCHEDULE A



SCALE 1:250,000



APPLICANT: AUSTRALIAN SELECTION (PTY) LTD

DM: 170/79

AREA: 567

square kilometres

1:250 000 PLANS: PORT AUGUSTA

LOCALITY: DINGO HILL AREA — APPROX 100km. N.W. of PORT AUGUSTA

DATE GRANTED: 21-8-79

DATE EXPIRED: 20-8-80

EL No: 509

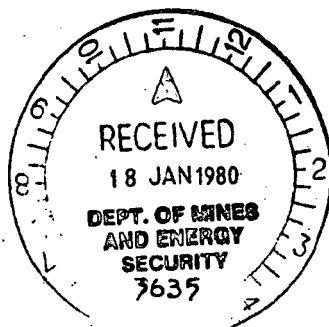
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AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

FIRST QUARTERLY REPORT

21ST AUGUST TO 20TH NOVEMBER, 1979



AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

FIRST QUARTERLY REPORT

21ST AUGUST TO 20TH NOVEMBER, 1979

04

C O N T E N T S

	<u>Page No.</u>
INTRODUCTION	1
PERSONNEL & EQUIPMENT	1
GEOLOGY	1
PETROLOGY	2
PERCUSSION DRILLING	3
HYDROLOGY	3
MINERALISATION	4
CONCLUSIONS & RECOMMENDATIONS	4
EXPENDITURE REPORT	

F I G U R E S

<u>Fig. No.</u>	<u>Title</u>	<u>Plan No.</u>
1	Dingo Hill Geology & Drill Hole Location Plan Scale 1:200,000	AS 8958
2	Dingo Hill Fence Diagram Scale 1:50,000	AS 9376

A P P E N D I C E S

Appendix 1	Percussion Drill Logs PDH - 4, 13, 14 and 15 Scale 1:500
Appendix 2	Petrological Report by J. Just REF EIM 790

## INTRODUCTION

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The Dingo Hill area, formerly E.L. 302, was regranted for 12 months from 21st August, 1979 as E.L. 509.

During this report period, three percussion holes were drilled to test the margin of the Tapley Hill Formation south of hole PDH - 12. Mapping was carried out to determine the stratigraphy of the rocks outcropping on the eastern side of the licence.

## PERSONNEL & EQUIPMENT

### Exploration Division

Two geologists and one field assistant were employed part time.

Equipment consisted of a Toyota Land Cruiser, Skipper Bailey Workvan Caravan and portable 240V lighting plant.

### Drilling Division

A three man percussion drilling crew was employed from 2nd to 14th May. A Schramm T64 rotary percussion rig mounted on a RFW six wheel drive truck equipped with Michelin super single tyres, two Leyland Boxer back-up trucks, a caravan and diesel generator comprised the equipment used.

Supervision and backup were as before.

## GEOLOGY

Hole PDH - 13, located towards the eastern side of the block, was designed to test the area where Tapley Hill and Cattle Grid Formations onlap Pandurra Sandstone. It drilled bimodal fine grained sandstone and siltstones of Yudnapinna Beds, Cattle Grid Formation to 196 metres,

000 06

thence dark grey dololaminites of Tapley Hill Formation to 319 metres. The hole was completed, after drilling 5 metres of Pandurra Formation siltstones, at 324 metres. The depth to Pandurra was much greater than predicted.

Holes PDH - 14 and 15, drilled several kilometres east of PDH - 13, intersected Cattle Grid Formation to 47 and 35 metres respectively then thin, completely weathered Tapley Hill Formation to 68 metres and 42 metres. The holes were completed in Pandurra Formation at 82 and 68 metres respectively. 66 ?

Drilling indicated a marked thinning of Tapley Hill Formation (and Cattle Grid Formation) between PDH - 15 and PDH - 13. This, together with an absence of the Tapley Hill Formation in PDH - 12 (to the north), indicates probable faulting between PDH - 13 and the more easterly holes. This faulting would have been active during deposition of the Tapley Hill Formation.

Figure 2, a fence diagram and cross section, shows a three dimensional interpretation of the geology.

#### PETROLOGY

A sample of dolerite from PDH - 4 was examined petrologically to determine whether it was an intrusive or extrusive rock (see Appendix 2).

The original mafic components of the rock are now altered to chlorite and haematite, plagioclase being the other main constituent. Texturally it is "half way between a basalt and dolerite". No vesicles were noted

in logging and chips with a Binocular Microscope and the rock is interpreted as a dolerite, intruding the Pandurra Formation.

### PERCUSSION DRILLING

Percussion drilling commenced on 2nd May and continued until 14th May. Difficulties included very heavy rainfalls, which halted work for a week. Collars were washed in and some contamination of samples occurred.

### Percussion Statistics

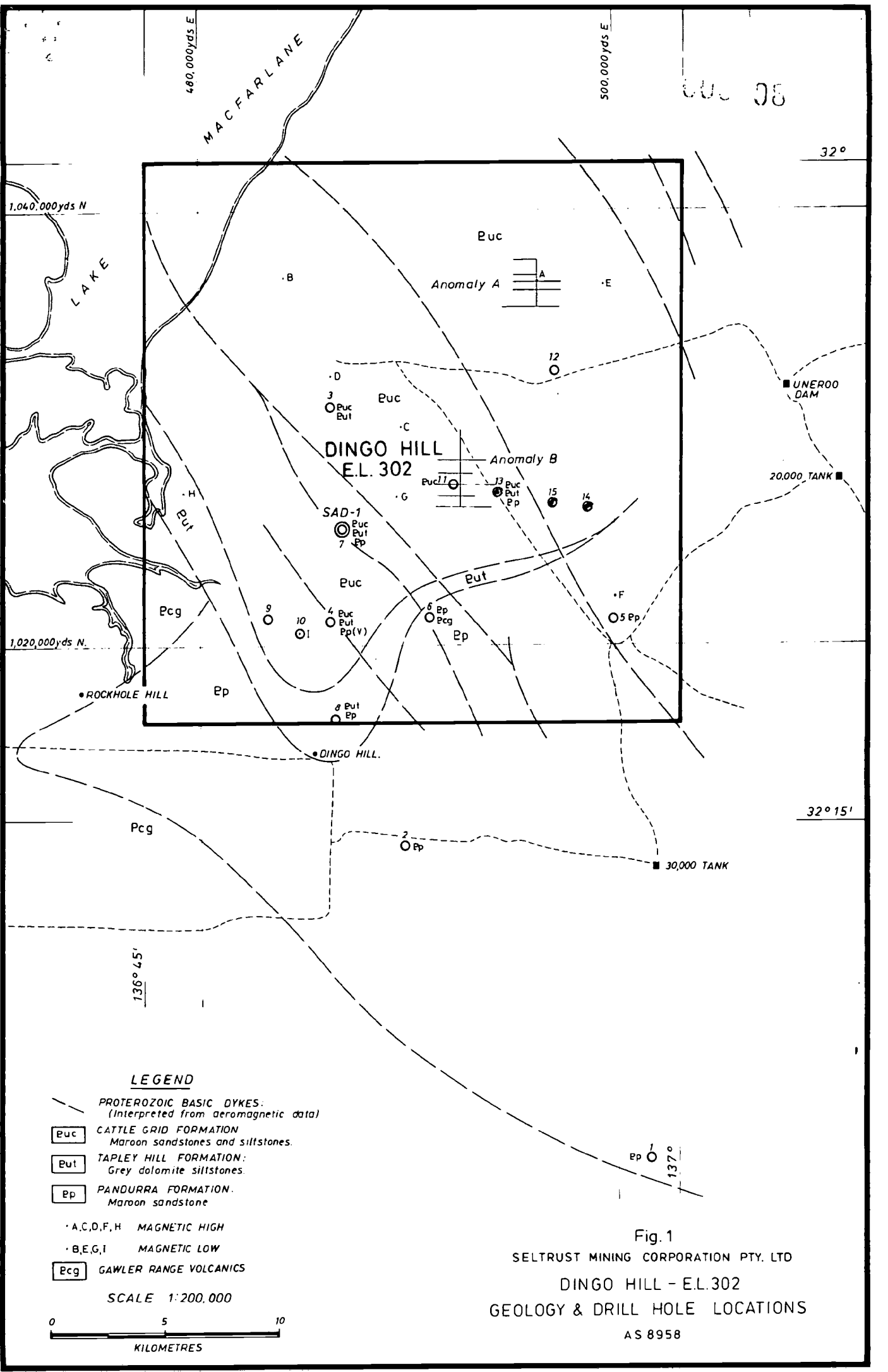
<u>Hole No.</u>	<u>Co-ords</u> <u>yds E</u>	<u>yds N</u>	<u>Advance</u> <u>(metres)</u>	<u>Comments</u>
PDH - 13	494300	1027000	324	Completed
PDH - 14	498600	1026300	82	Completed
PDH - 15	496900	1026400	66	Completed
Total Advance			472 metres	

### HYDROLOGY

Water flows were intersected in all three holes and are tabulated below:

<u>Hole No.</u>	<u>Est. Flow</u>	<u>Depth Cut</u>	<u>Water Level</u>	<u>Date</u>	<u>Comments</u>
PDH - 13	damp	42 m	29.6	13/5/79	sampled at 80m
PDH - 13	2000lph	48 m			steadily
PDH - 13	9000	100 m			increasing
PDH - 13	15000	200 m	24.3	9/6/79	
PDH - 14	7000	68 m	35.7	14/5/79	sampled at
PDH - 14	1500	74 m			82 m
PDH - 15	18000	50 m	35.4 3 hrs after drilling	14/5/79	sampled at 60 m

Water samples were collected as above for forwarding to the Department of Mines and Energy for analysis of contained salts.



**LEGEND**

- PROTEROZOIC BASIC DYKES:  
(Interpreted from aeromagnetic data)
- Euc** CATTLE GRID FORMATION  
Maroon sandstones and siltstones.
- Eut** TAPLEY HILL FORMATION:  
Grey dolomite siltstones.
- Ep** PANDURRA FORMATION.  
Maroon sandstone
- A,C,D,F,H MAGNETIC HIGH
- B,E,G,I MAGNETIC LOW
- Pcg** GAWLER RANGE VOLCANICS

SCALE 1:200,000

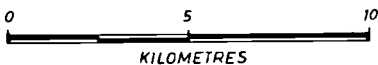


Fig. 1  
SELTRUST MINING CORPORATION PTY. LTD  
DINGO HILL - E.L.302  
GEOLOGY & DRILL HOLE LOCATIONS  
AS 8958

#### MINERALISATION

No base metal mineralisation was noted at the base of the Tapley Hill Formation. Values around 200 ppm Zn and 100 ppm Pb were recorded through most of the Formation. The normal characteristic copper "kick" at the top of the Tapley Hill Formation (300 ppm) was recorded.

#### CONCLUSIONS AND RECOMMENDATIONS

Percussion drilling has indicated a sharp change in thickness of the Cattle Grid Formation and Tapley Hill Formation in the eastern portion of the block. No significant mineralisation was noted in these holes.

The depth to basement over all but the western side of the block is considered to be greater than 500 metres.

The potential for discovery of base metal orebodies, either on the Pandurra Erosional Surface or Olympic Dam type bodies, is considered remote.

A.D. PEDLER,  
GEOLOGIST.

EXPENDITURE REPORTFIRST QUARTER21ST AUGUST TO 20TH NOVEMBER, 1979

	Expenditure for quarter	Total Expenditure E.L.'s 302, 509 to date
Exploration Staff	3,517	14,705
Exploration Logistics	1,397	5,625
Exploration Services	529	3,324
Property Costs	400	711
Diamond Drilling	-	5,846
Percussion Drilling	9,088	41,191
Exploration Administration	619	1,815
Management & Administration		
General	651	2,651
Depreciation	1,292	3,379
	<hr/>	<hr/>
Totals	\$ 17,493	\$ 79,247
	<hr/>	<hr/>

NOTE: Our accounting system is based on calendar months.  
The above figures represent the period ended  
31st October, 1979.

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APPENDIX 1

PERCUSSION DRILL LOGS PDH - 4, 13, 14 and 15

SCALE 1:500

PROJECT: SOUTH AUSTRALIA AUSTRALIAN COLLECTION (PVL) HOLE NO: PDH - 4  
STUART SHELF LOG OF PERCUSSION DRILL HOLE  
PROSPECT: Dingo Hill Port Augusta 1:250,000 Atlas Sheet R.L. COLLAR  
LOCATION 5.9 km. N. Dingo Hill CO-ORDS 486500y E. 1021100y N 600 12 INCLINATION: -90°  
DIRECTION:

CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM				REMARKS
				Cu	Pb	Zn	Co	
CRINOZOIC	CALCRETE - white & red - nodules 25% CO <sub>2</sub>		5	10	40	55	10	50% red nodules
	AEOLIAN CLAYEY SAND - red - m.g. qtz		10	10	40	35	15	20% calcareous nodules & CO <sub>2</sub> dis.
	sand, 20% c.g. - well rounded - 30% hematite pigmented clay.		10	10	35	35	10	
			5	5	35	45	10	No calcareous
			5	5	25	40	10	
CATTLE GRID FORMATION	SANDY SILTSTONE - white & yellow qtz silt - 30% f.g. - m.g. qtz - no chips - c.w.	10 m		5	20	25	5	
				5	20	35	10	
				5	15	40	15	
				10	30	30	25	Water injection commenced 20m.
				5	25	35	20	
500gph. CATTLE GRID FORMATION	FINE GRAINED SANDSTONE - pale - f.g. 20% m.g. - c.g. scattered qtz - well rounded - c.w. - H.W. - 20% qtz silt, 20% clay. 50% c.g., yellow	20 m		5	40	15	10	
				5	35	25	20	
				5	25	10	10	10% pebbles of f.g. qtz & G.R.V.
				20	25	25	5	
				25	20	35	5	
TABLEY HILL FORMATION	CONGLOMERATE - yellow - pebbles of qtz, f.g. to 10mm, f.p.	30 m		15	50	25	10	
	SILTSTONE - mostly qtz silt, 30% clay, 10% f.g. qtz sand - very soft - white, E.W.			10	100	25	15	
				15	50	20	15	
				35	30	20	15	Drag bit used to 58 metres
				60	30	20	10	
500gph. TABLEY HILL FORMATION		40 m		385	30	55	50	
				35	35	55	60	
				30	40	60	45	20% sandy layers
				25	35	30	95	40% sandy layers
				35	25	35	40	50% sandy layers, 10% sandstone pebbles, 5% rare malachite
500gph. TABLEY HILL FORMATION		50 m		30	40	125	65	minor malachite
				25	35	85	35	minor malachite
				40	40	95	75	1% malachite, 3% p.
				35	35	175	70	
	UNCONFORMITY - minor azurite							
500gph. TABLEY HILL FORMATION	SILTSTONE - grey/buff indurated almost sandstone	60 m						
500gph. TABLEY HILL FORMATION	BASIC INTRUSIVE - DOLERITE - Finegrained - dark green (marginal?)	70 m						Logged by G. Mase
500gph. TABLEY HILL FORMATION	Medium grained - 55% laths plag. 40% chlorite originally pyroxene. minor opaques. All altered.	80 m						Petrology sample
500gph. TABLEY HILL FORMATION	END OF HOLE 82m.							
500gph. TABLEY HILL FORMATION		90 m						
500gph. TABLEY HILL FORMATION		100 m						
500gph. TABLEY HILL FORMATION		110 m						

Blocked at 12.5m

SCALE 1:500

DRILL TYPE: Schramm. DATE DRILLED: 28th Oct 1976  
DRILLER: R. CRAWFORD. LOGGED: J.A. OAKES  
DRG NO: 15 635C

PROJECT: SOUTH AUSTRALIA  
STUART SHELF  
PROSPECT: E.L.302 DINGO HILL

AUSTRALIAN SELECTION (PTY) LTD  
LOG OF PERCUSSION DRILL HOLE

HOLE N° PDH-13

PORT AUGUSTA 1:250000 SHEET:  
LOCATION: 22.5 Km W. Yudnapinna HS. CO-ORDS: 494300 yds E; 1027000 yds S

R.L. COLLAR: .....

INCLINATION: VERTICAL

13 DIRECTION: -

WATER CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM. (p.p.m.)				REMARKS
				Cu.	Zn.	Pb.		
Water flow reduced to ~9000 litre/hr after foam used. Below 250m.	SILTSTONE: As above. Hard, dark grey, slightly shaley with many darker carbonaceous lamellae. 5-10% dolomite.  Few sandy dolomitic + quartz bands, usually with dissem. sulphides, mostly py. Occasional anhydrite layers, rare thin transgressive quartz veins.	240		40	185	95		Minor Sphal and cpy in dolomite bands
				45	100	90		
				40	170	90		
				40	145	95		
				45	70	95		Sphal. frequent in dolomite.
		250		40	400	85		
				45	150	85		
				45	135	85		
				45	110	85		
				50	165	110		
	Decreasing black shaley lamellae. 5-10% dol., rest siltstone	260		45	115	85		Pyrite common in sandy + dol. layers;
				50	65	85		+ traces cpy and sphal. throughout.
				45	60	75		
				45	55	80		
				50	55	85		
		270		50	185	80		
				45	255	80		
				45	75	75		
				50	105	85		
				50	80	75		
	10% black shaley carbonaceous bands. 10% sl. paler grey dolomite layers.	280		50	70	75		
				50	75	80		
				50	75	75		
				50	55	80		
				50	80	80		
		290		50	85	80		
				55	155	95		
				50	55	85		
				50	115	90		
				50	75	95		
	10%-20% greenish + white mg - cg sandstone layers. 20-30% grey f-g dolomite; <5% black shale. Rest dark grey siltstone.	300		50	55	90		
				45	85	90		
				45	120	90		
				40	70	95		Pyrite commonly dissem in sandstone, and to lesser extent in dolomite. Minor cpy, sphal and traces galena also present.
				40	100	115		
	50%-60% grey impure dolomite, with coarse pink GRV, fclsp. + qtz grains. 90% grey gritty dolomite and quartz sandstone. Rest siltst. as above.	310		40	200	195		
				45	150	180		
				40	85	225		
				35	50	115		
				30	40	75		
	ACID VOLCANICS: Red pink, vfg. with sparse round green chlorit'd vesicles. Thin volc. gravel at top.	320		30	55	85		
				40	90	75		
				35	45	70		
				35	50	75		~50% Tapleys Contam.
				40	65	55		No S" in Volcs.
	Hole completed at 324m.  Drilled with 43-15 hammer with 5 1/2 bit to 100m. 6" steel casing set to 24m to case out soft Cattlegrid Fmn. Foam used after 250m. Casing withdrawn on completion and 5" PVC pipe left in hole, to 42m (hole had washed out below casing). ① = water sample at 80m, for salinity analysis.	330		30	70	55		
		340						

Scale 1:500.

HOLE TARGET: See first page.

DRILL TYPE: Schramm 4

DRILLER: KEN WRIGHT

Comm. 2ND MAY to 52m.  
DRILLED FIND 10-13" MAY 79.

LOGGED: P. SIMPSON

DRG No. A.S. 8757

SAMPLE Nos:

K106716 - 720  
K107001 - 040  
K20907, 20908

HOLE N° PDH-13

## LOG OF PERCUSSION DRILL HOLE

PROSPECT E.L.302 DINGO HILL.

PORT AUGUSTA 1:250 000 SHEET

**R.L. COLLAR**

INCLINATION: VERTICAL

LOCATION: 22.5 km W. Yudnapinna HS. CO-ORDS: 494300yds E: 1027000 yds N.

**DIRECTION**

WATER CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM (ppm)			REMARKS						
				Cu.	Zn.	Pb							
FORMATION CATTLEGRID	<p>SILTY SANDSTONE: As above: - very fine grained choc. brown sandstone of qtz grains in silty-clay matrix, ~5%.</p> <p>Rare layers are bimodal, with ~5% coarse rounded qtz grains. Otherwise uniform appearance. Few greenish-grey layers.</p> <p>20% <u>Green-grey layers</u>.</p> <p>Some more silty layers, v. slightly darker.</p> <p>Flakes of mica &lt;1% of rock. 1-2% Grey-green layers.</p> <p>Rare rounded clasts to 1cm; mostly qtz and some ?dolomite.</p> <p>5% <u>grey-green layers</u>.</p> <p>10% <u>grey green layers</u> 60% " " " " 10% C-g.</p>	<p>120</p> <p>130</p> <p>140</p> <p>150</p> <p>160</p> <p>170</p> <p>180</p> <p>190</p>	<p>10</p> <p>10</p> <p>15</p> <p>15</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p> <p>10</p>	<p>20</p> <p>25</p> <p>25</p> <p>25</p> <p>25</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p> <p>20</p>	<p>25</p> <p>30</p> <p>30</p> <p>25</p> <p>30</p> <p>25</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p> <p>30</p>	<p>← Rounded 1cm clast of S"-bearing ?Pandurra.</p> <p>Sample is sandy slurry.</p> <p>← GRVols. clast: 5m</p> <p>Water inject. Used after 150m</p> <p>← 1cm rounded GRV pebble.</p> <p>← Few S"-bearing arkose clasts.</p> <p>180-196 m: Fine gr. pyrite dissem and in clots. Shows pref. for green layers.</p>							
							FORMATION TAPLEY HILL	<p>SILTSTONE: Dark grey, hard, f.g. Weakly laminated with fine darker carbonaceous laminae. Composition - qtz, mica, chlor. ? and 2-3% fine pyrite. Few anhydrite veins.</p> <p>~2% sl. paler grey dolomite bands.</p> <p>Slightly shaley - more fine black carbonaceous partings.</p>	<p>200</p> <p>210</p> <p>220</p> <p>230</p>	<p>120</p> <p>235</p> <p>300</p> <p>145</p> <p>45</p> <p>45</p> <p>55</p> <p>40</p> <p>40</p> <p>35</p> <p>45</p> <p>35</p> <p>40</p> <p>45</p> <p>40</p> <p>40</p> <p>45</p> <p>45</p> <p>40</p> <p>45</p>	<p>135</p> <p>110</p> <p>115</p> <p>320</p> <p>170</p> <p>295</p> <p>300</p> <p>215</p> <p>215</p> <p>295</p> <p>210</p> <p>320</p> <p>200</p> <p>550</p> <p>225</p> <p>285</p> <p>225</p> <p>255</p> <p>100</p>	<p>95</p> <p>95</p> <p>90</p> <p>150</p> <p>175</p> <p>115</p> <p>110</p> <p>105</p> <p>105</p> <p>90</p> <p>125</p> <p>95</p> <p>100</p> <p>140</p> <p>95</p> <p>90</p> <p>85</p> <p>100</p> <p>100</p>	<p>Minor cpy, py in frs. and bedding planes.</p> <p>← Minor galena and sphalerite.</p> <p>Pyrite on fractures. Occasional white sphalerite.</p> <p>Pale sphal + traces galena in dolomite bands</p>

**Scale 1:500.**

HOLE TARGET: See first page

**SAMPLE Nos:**  
K106559 to 560  
K106621 to 640  
K106661 to 680  
K106701 to 716

DRILL TYPE: Schramm. 4

DRILLER: KEN WRIGHT  
Comm. 2ND MAY Finished  
DRILLED 10"-13" MAY 1979.

LOGGED: P. SIMPSON

DRG No. A.S. 8757

PROJECT: SOUTH AUSTRALIA

AUSTRALIAN SELECTION (PIY) LTD

HOLE N° PDH-13

STUART SHELF

## LOG OF PERCUSSION DRILL HOLE

PROSPECT: E.L. 302 DINGO HILL

R.L. COLLAR:

PORT AUGUSTA 1:250000 SHEET:

INCLINATION: VERTICAL

LOCATION: 22.5 Km W. Yudnapinna HS

CO-ORDS: 494300 yds E; 1027000 yds S

15

DIRECTION: -

WATER CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM. (p.p.m.)				REMARKS
				Cu	Zn	Pb		
Water flow reduced to ~9000 litre/hr after foam used below 250m.	SILTSTONE; As above. Hard, dark grey, slightly shaley with many darker carbonaceous lamellae. 5-10% dolomite.  Few sandy dolomitic + quartz bands, usually with dissem. sulphides; mostly py. Occasional anhydrite layers, rare thin transgressive quartz veins.	240		40	185	95		Minor Sphal. cpy in dolomite bands.
				45	100	90		
				40	170	90		
				40	145	95		
				45	70	95		
		250		10	400	85		Sphal frequent in dolomite.
				45	150	85		
				45	135	85		
				45	110	85		
				50	165	110		
	Decreasing black shaley lamellae. 5-10% dol., rest siltstone.	260		45	115	85		Pyrite common in sandy + dol layers; traces cpy and sphal. through
				50	65	85		
				45	60	75		
				45	55	80		
				50	55	85		
		270		50	185	80		
				45	255	80		
				45	75	75		
				50	105	85		
				50	80	75		
	10% black shaley carbonaceous bands. 10% sl. paler grey dolomite layers.	280		50	70	75		
				50	75	80		
				50	75	75		
				50	55	80		
				50	80	80		
		290		55	85	80		
				55	155	95		
				50	55	85		
				50	115	90		
				50	75	95		
TAPLEY	10%-20% greenish + white mg - cg sandstone layers. 20-30% grey f-g dolomite; <5% black shale. Rest dark grey siltstone.  50%-60% grey impure dolomite, with coarse pink GRV, fclsp. + qtz grains. 90% grey gritty dolomite and quartz sandstone. Rest siltst. as above.	300		50	55	90		Pyrite common! dissem in sandstone, and to lesser extent in dolomite. Minor cpy, sphal and traces galena also present.
				45	85	90		
				45	120	90		
				40	70	95		
				40	100	115		
		310		40	200	195		
				45	150	180		
				40	85	225		
				35	50	115		
				30	40	75		
Pencil	SILTSTONE: Red pink vfg. with sparse round green chlorite spots. Thin gravel at top.	320		30	55	85		~50% Tapleys Contam. No S.
				40	90	75		
				35	45	70		
				35	50	75		
				40	65	55		
HILL	Hole completed at 324m.  Drilled with 43-15 hammer with 5 1/2" bit to 100m. 6" steel casing set to 24m to case out soft Cattlegrid Fmn. Foam used after 250m. Casing withdrawn on completion and 5" PVC pipe left in hole to 42m (hole had washed out below casing). ① = Water sample at 80m, for salinity analysis.	330		30	70	55		
		340						

Scale 1:500.

HOLE TARGET: See first page.

SAMPLE Nos:  
K106716 - 720  
K107001 - 040  
K20907, 20908.

DRILL TYPE: Schramm 4  
DRILLER: KEN WRIGHT  
Comm. 2nd MAY to 52m.  
DRILLED: FIN'D 10-13" MAY 79  
LOGGED: P. SIMPSON

PROJECT: SOUTH AUSTRALIA

AUSTRALIAN SELECTION (PTY) LTD

HOLE N°

PDH-14

STUART SHELF

## LOG OF PERCUSSION DRILL HOLE

PROSPECT: EL 302 DINGO HILL

PORT AUGUSTA 1:250000 SHEET

R.L. COLLAR

LOCATION: 18.5 km W Yudnapinna HS

CO-ORDS: 498600 yds E; 1026300 yds N

16

INCLINATION: VERTICAL

DIRECTION: —

WATER CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM. (p.p.m.)				REMARKS
				Cu	Zn	Pb		
← Water level 14 May 79.	SANDY CLAY: Red-br clay with qtz sand Qtz sand Paler - weak calcare dev. Is cg-fg. mostly Fe-stained. orange-br. Sand ~ 50%  Becomes light green-grey and orange-br, layered. 10% cg-fg qtz sand.	10	ca	20	30	30		← Few rounded lateritised Sandst. pebbles.
				20	30	30		
				25	60	45		
				15	40	30		
				10	30	25		
				25	40	40		
				20	45	40		
				20	30	30		
				15	15	30		
				10	10	25		
← Water level 14 May 79.	SILICRETE: Hard, pale, fg. SILTY SANDSTONE: Vfg qtz sand, even grain size, with 50-60% white silty-clay matrix. White. Soft.  off-white  grey-brown.  brown.  Darker brown. soft to moderately hard.  Few layers with ~5% cg.	20	si	10	10	25		Dry Samples till 32 m.
				10	10	25		
				30	15	30		
				15	15	20		
				10	15	20		
				45	15	35		
				15	15	25		
				40	20	35		
				15	25	35		
				20	30	50		
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	30		15	15	20		Sample mostly soft slurry, few lumps.
				45	15	35		
				15	15	25		
				40	20	35		
				15	25	35		
				20	30	50		
				15	30	50		
				20	30	45		
				10	30	40		
				10	150	35		
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	40		10	70	30		Slurry with sandy clay lumps.
				10	65	30		
				10	110	35		
				10	70	35		
				5	65	35		
				5	55	40		
				10	60	35		
				10	55	35		
				30	45	40		
				10	35	35		
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	50		10	35	30		← Much pyrite cementing fg. sandstone.
				10	35	30		
				10	30	30		
				10	30	30		
				10	30	30		
				30	30	30		
				10	25	30		
				10	30	25		
				20	35	30		
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	60						Much contam: Includes ? coarse Pandurra clasts (few at 70-72m.) hard flat Tapleys chips, (Dolomite + Siltst.); Silcrete, white clay
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	70						Note - Few Hard unweath'd Tapleys Siltst. chips seen around drill collar though not found in samples.
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	80						Note - Few Hard unweath'd Tapleys Siltst. chips seen around drill collar though not found in samples.
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	90						Note - Few Hard unweath'd Tapleys Siltst. chips seen around drill collar though not found in samples.
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	100						Note - Few Hard unweath'd Tapleys Siltst. chips seen around drill collar though not found in samples.
← Water level 14 May 79.	CLAY: Purple-brown, with few hard chips green grey fg sstn. Purple grey-brown, some sstn. Purplish grey, few fg grey-green sstn. chips.  Blue-grey, very clayey. " " with 5% greenish-blue fg bimodal sandstone, 5% cg qtz grains.  SANDSTONE: Brown, fg, silty, dark matrix of ?haem-sericite. Mostly dark brown, some mid-brown. Well sorted, even grained, mostly fine qtz grains. Mod. hard.	110						Note - Few Hard unweath'd Tapleys Siltst. chips seen around drill collar though not found in samples.

Scale 1:500.

SAMPLE Nos:  
K1070-61 to  
K107100  
Also K21168HOLE TARGET: BASE OF TAPLEYS AND/OR  
TOP OF PANDURRA.DRILL TYPE: Schramm. 4  
DRILLER: KEN WRIGHT  
DRILLED: 12-13 MAY 1979  
LOGGED: P. SIMPSON

DRG No. A.S. 8758

PROJECT: SOUTH AUSTRALIA

AUSTRALIAN SELECTION (PTY) LTD

HOLE N°

PDH-15

STUART SHELF

## LOG OF PERCUSSION DRILL HOLE

PROSPECT: E.L. 302 DINGO HILL

R.L. COLLAR

INCLINATION: VERTICAL

LOCATION: 20 km W Yudnapinna HS

PORT AUGUSTA 1:250 000 SHEET:  
CO-ORDS: 496900 yds E; 1026400 yds N

17

DIRECTION: —

WATER CUT	DESCRIPTION	DEPTH METRES	LOG	GEOCHEM (p.p.m.)				REMARKS
				Cu.	Zn.	Pb		
Water level 3 hours after drilling finished	SANDY CLAY Brown to light br; weak calcrete 0-4m.		Ca	20	30	35		Sand 50% Clay "
	Fine to cg qtz orange-brown grains, sub-rd, orange-br (50%) in clay matrix and whitish layers	10		20	35	30		
	Becomes less sandy			20	45	30		
	SILCRETE: white, f.g.; hard.			20	45	30		
	SILTY SANDSTONE: white, very fg, fine evenly sorted qtz grains in 50-60% white clay-silt matrix.	20		20	45	35		
	off-white			35	50	45		Sample is white, powdery.
				20	45	40		
				10	10	30		
				10	10	25		
				5	10	25		
Flow of Est. 18000 litres/hour at 50m.				15	10	25		Sample is lumpy slurry.
				25	20	30		
				15	15	30		
				15	15	35		
				10	15	40		
	Potty coloured. Yellowish: 10%-20% mg-cg qtz sand layers.	30		10	15	30		Slurry with 750% chips. ~5% contam, mostly from top 20m.
				15	15	35		
				10	15	25		
				10	15	30		
				10	20	30		
Flow of Est. 18000 litres/hour at 50m.	CLAY: Purple grey to mid-grey. Few hard chips of very fine green-grey sstn.	40		10	30	30		Slurry with 750% chips. ~5% contam, mostly from top 20m.
				10	30	30		
				10	80	35		
				10	65	30		
				20	40	30		
	SANDSTONE: Dark brown to mid brown, very fine grains (95% qtz - also felsps etc.) in haem-stained clay or sericite matrix. Few paler whitish layers, below 50m. Rare layers are bimodal, with ~5% cg qtz grains.	50		10	30	30		Slurry with 750% chips. ~5% contam, mostly from top 20m.
				10	30	30		
				10	30	25		
				10	30	30		
				10	30	30		
Flow of Est. 18000 litres/hour at 50m.	5% layers with 2-5% cg.	60		15	30	30		Slurry with 750% chips. ~5% contam, mostly from top 20m.
				10	35	30		
				10	35	30		
				10	30	30		
				10	30	30		
Flow of Est. 18000 litres/hour at 50m.	Hole ended at 66m: — reached target formations	70						No casing used. Drilled with 43-15 hammer; 5½" bit. Water Injection after 50m.
	No casing used. Drilled with 43-15 hammer; 5½" bit.	80						
	Water Injection after 50m.							
Flow of Est. 18000 litres/hour at 50m.	Water sample taken at 60m.	110						

Scale 1:500.

HOLE TARGET: Base of Tapleys and top of Pandurra formation.

SAMPLE Nos:

K107141 -

→ K107173

DRILL TYPE: Schramm 4

DRILLER: KEN WRIGHT

DRILLED: 13-14 MAY 1979

LOGGED: P. SIMPSON

DRG No. A.S. 8759

APPENDIX 2

66 18

PETROLOGICAL REPORT BY J. JUST REF EIM 790



# Seltrust Mining Corporation Pty. Ltd.

(A subsidiary of Seltrust Holdings Limited)

50 St. George's Terrace, Perth, W.A. 6000

Telephone 325 41  
Telex AA 93  
Telegrams "Selmin" Po

Correspondence to  
Box R 1274, G.P.  
Perth, W.A. 60

19

For intergroup correspondence only. Use separate sheet for each subject.

To M.G. MASON  
FROM JIRI JUST

Date

15th October, 1979

Reference No. EIM 790

Subject/Heading

DINGO HILL  
PEGROLOGY

File No.

JJ 912 PDH - 4 80 - 82m

Altered basalt or dolerite.

Texture: subophitic.

Minerals identified microscopically: plagioclase, chlorite, hematite, limonite, titanite (?)

XRD: albite > chlorite (diabantite) >> quartz

The rock consists mostly of albite and chlorite. The three sectioned chips are essentially the same rock type and they differ only in size of the plagioclase lamellae. In the finer grained chip the lamellae are slender and up to 600 $\mu$  long, in the two coarser grained chips the lamellae are more stoutish and up to 1000 x 150 $\mu$  in size. In both cases the matrix consists of fine grained green chlorite, locally stained with fine grained hematite and limonite and with abundant fine grained (< 10 $\mu$ ) titanite (? leucoxene). Hematite pseudomorphs are present in all chips.

The rock is an altered basalt or dolerite and only field evidence could decide which one it is. The two coarser chips are too coarse for ordinary basalt and too fine for dolerite. The texture is about half way between that of basalt and that of dolerite.

Fig. 1, 2.

J. JUST,  
MINERALOGIST.

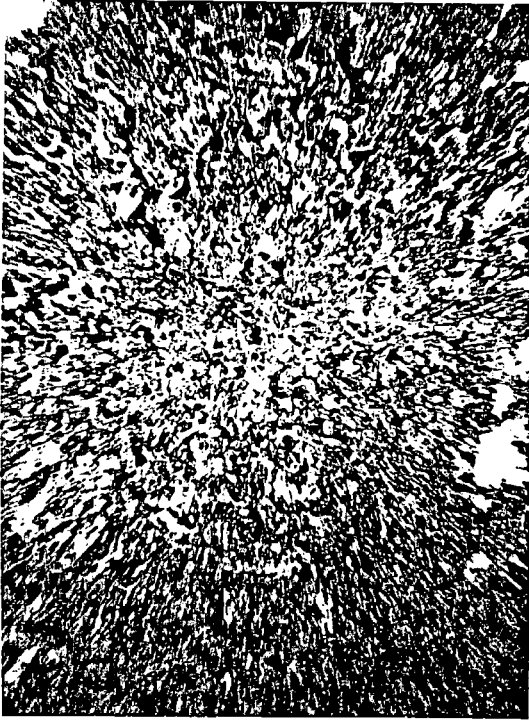


Fig. 1. JJ 912

Altered basalt or dolerite,  
fine grained. General view  
of the texture.

Magn. 20x, nic.//.



Fig. 2. JJ 912

Altered basalt or dolerite,  
coarser grained. General  
view of the texture.

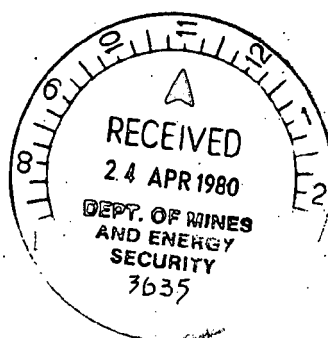
Magn. 20x, nic.//.

AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

SECOND QUARTERLY REPORT

21ST NOVEMBER, 1979 TO 21ST FEBRUARY, 1980



DINGO HILL E.L. 509SECOND QUARTERLY REPORT

22

21ST NOVEMBER, 1979 TO 21ST FEBRUARY, 1980.

No field work was carried out by Seltrust Mining Corporation Pty Ltd (Technical Managers to Australian Selection (Pty) Limited) on the Dingo Hill E.L. 509 during the quarter. The South Australia Department of Minerals & Energy electrically logged the three percussion holes drilled in the previous quarter.

Hole PDH - 13 was logged for gamma, neutron PR and SP responses. The log is of good quality and reflects the geological units identified in the lithological log. Holes PDH - 14 and 15 were only logged for gamma and neutron responses and are of relatively poor quality. This is mostly due to the degree of weathering, plus the incompleteness of the logs due to the holes being blocked. The originals of these logs are held by the S.A.D.M.E.

Due to end of year accounting procedures, expenditure figures for the quarter are not presently available. These will be forwarded as soon as possible.

F I G U R E S

<u>Fig. No.</u>	<u>Title</u>	<u>Plan No.</u>
1	South Australia E.L.'s Scale 1:3,000,000	AS 8782
2	Dingo Hill E.L. 509 Geology & Drill Hole Location Plan Scale 1:200,000	AS 8958
3	Dingo Hill Fence Diagram Scale 1:50,000.	AS 9376

B.J. UREN,  
SENIOR GEOLOGIST.

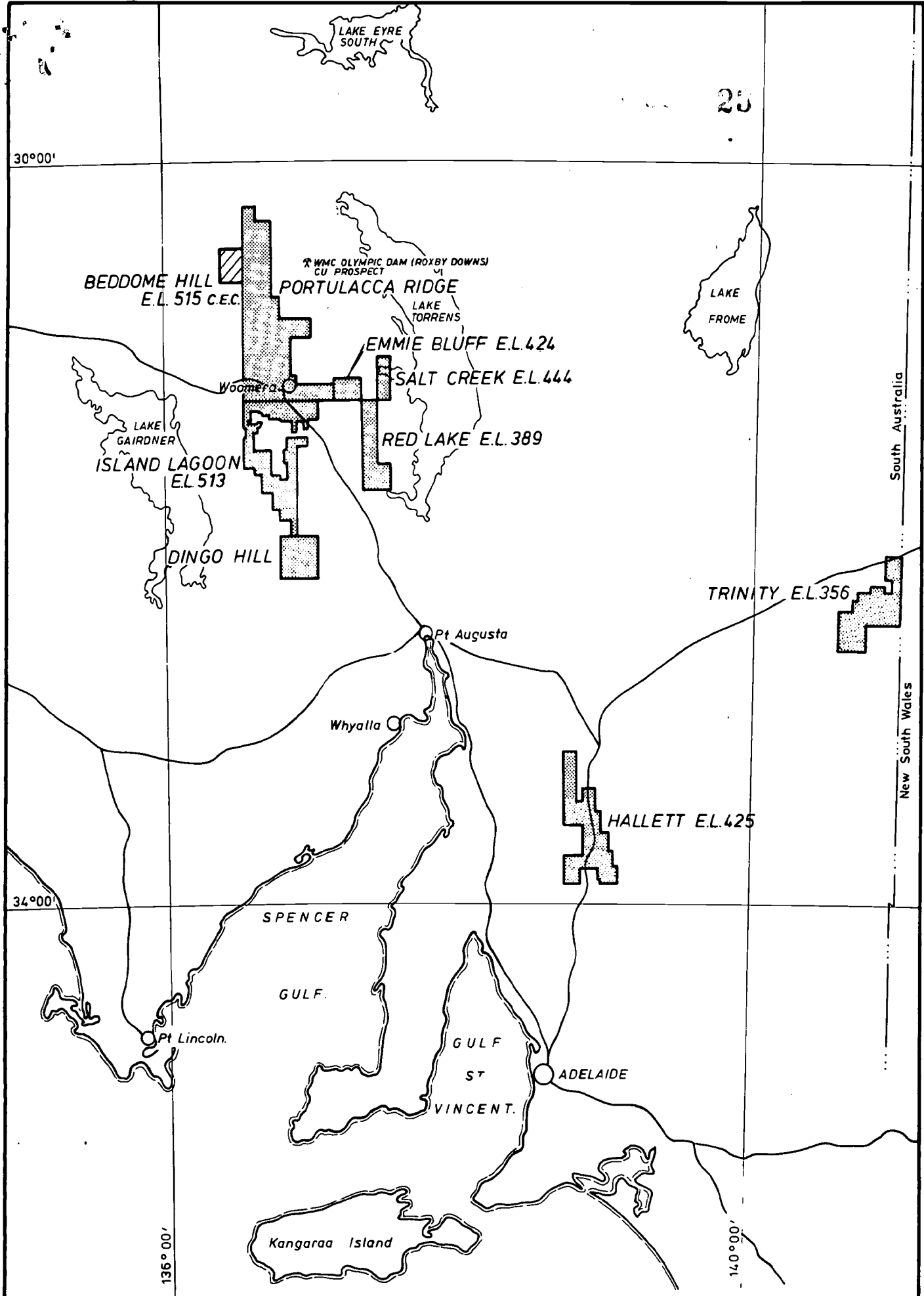
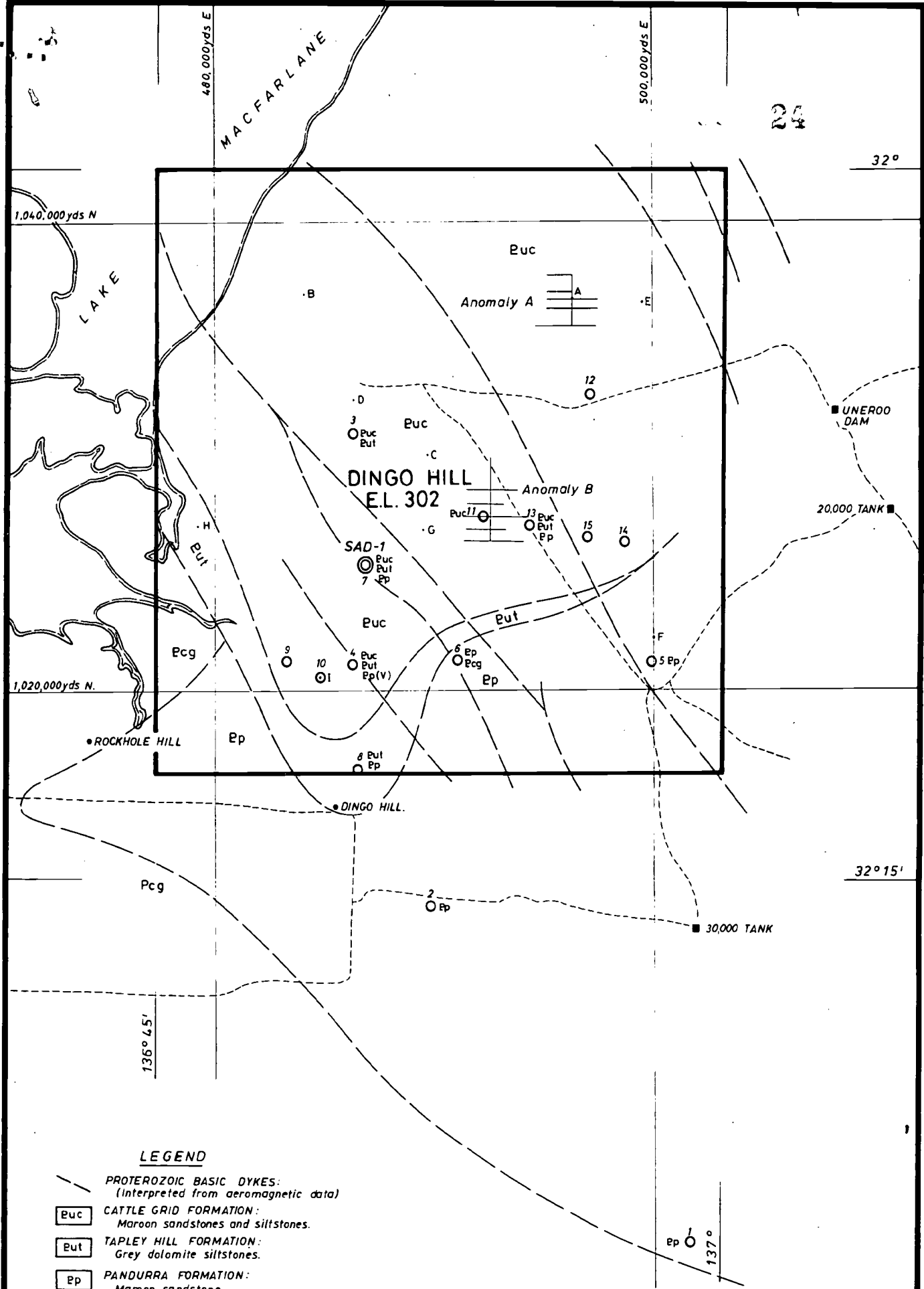


Fig. 1.

SELTRUST MINING CORPORATION PTY LTD.  
SOUTH AUSTRALIA  
EXPLORATION LICENCES  
AS 8782



**LEGEND**

— PROTEROZOIC BASIC DYKES:  
(Interpreted from aeromagnetic data)

**Puc** CATTLE GRID FORMATION:  
Maroon sandstones and siltstones.

**Put** TAPLEY HILL FORMATION:  
Grey dolomite siltstones.

**Ep** PANDURRA FORMATION:  
Maroon sandstone.

• A,C,D,F,H MAGNETIC HIGH

• B,E,G,I MAGNETIC LOW

**Pcg** GAWLER RANGE VOLCANICS

SCALE 1:200,000



Fig. 2  
SELTRUST MINING CORPORATION PTY. LTD.  
DINGO HILL - E.L.302  
GEOLOGY & DRILL HOLE LOCATIONS  
AS 8958

AUSTRALIAN SELECTION (PTY) LIMITED

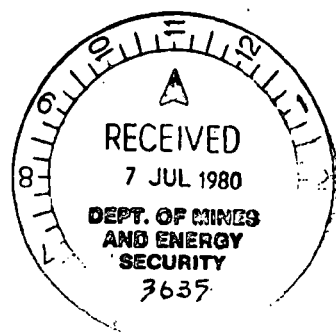
25

DINGO HILL E.L. 509

THIRD QUARTERLY REPORT

21ST FEBRUARY TO 20TH MAY, 1980

Seltrust Mining Corporation Pty Ltd  
Technical Managers



AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

THIRD QUARTERLY REPORT

21ST FEBRUARY TO 20TH MAY, 1980

26

No field work was carried on the area during the quarter. Compilation and field work are scheduled for recommencement in the next period.

An expenditure report is attached.

B.J. UREN,  
SENIOR GEOLOGIST.

DINGO HILL E.L. 509

EXPENDITURE REPORT

SECOND AND THIRD QUARTERS

27

21ST NOVEMBER, 1979 TO 20TH MAY, 1980

	Expenditure for 2nd and 3rd quarters E.L. 509	Total Expenditure E.L.'s 302, 509 to date
Exploration Staff	1,173	15,878
Exploration Logistics	195	5,820
Exploration Services	12	3,336
Property Costs		711
Diamond Drilling		5,846
Percussion Drilling	-143 (Cr.)	41,048
Exploration Administration	155	1,970
Management & Administration		
General	174	2,825
Depreciation	-808 (Cr.)	2,571
	<hr/>	<hr/>
	758	80,005
	<hr/>	<hr/>

Note: Our accounting system is based on calendar months. The above figures represent the period 1st November, 1979 to 31st May, 1980. No expenditure report was issued with the second quarterly report for E.L. 509

28

AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

FINAL QUARTERLY REPORT

21ST MAY TO 20TH AUGUST, 1980



AUSTRALIAN SELECTION (PTY) LIMITED

DINGO HILL E.L. 509

FINAL QUARTERLY REPORT

29

21ST MAY TO 20TH AUGUST, 1980

No further work was carried out on this licence as the ground is now considered to have been adequately tested. The licence has therefore been allowed to lapse. All data relevant to this licence have been presented in previous quarterly reports.

An expenditure report is attached.

M.G. MASON,  
CHIEF GEOLOGIST.

DINGO HILL E.L. 509

EXPENDITURE REPORT

FOURTH QUARTER

30

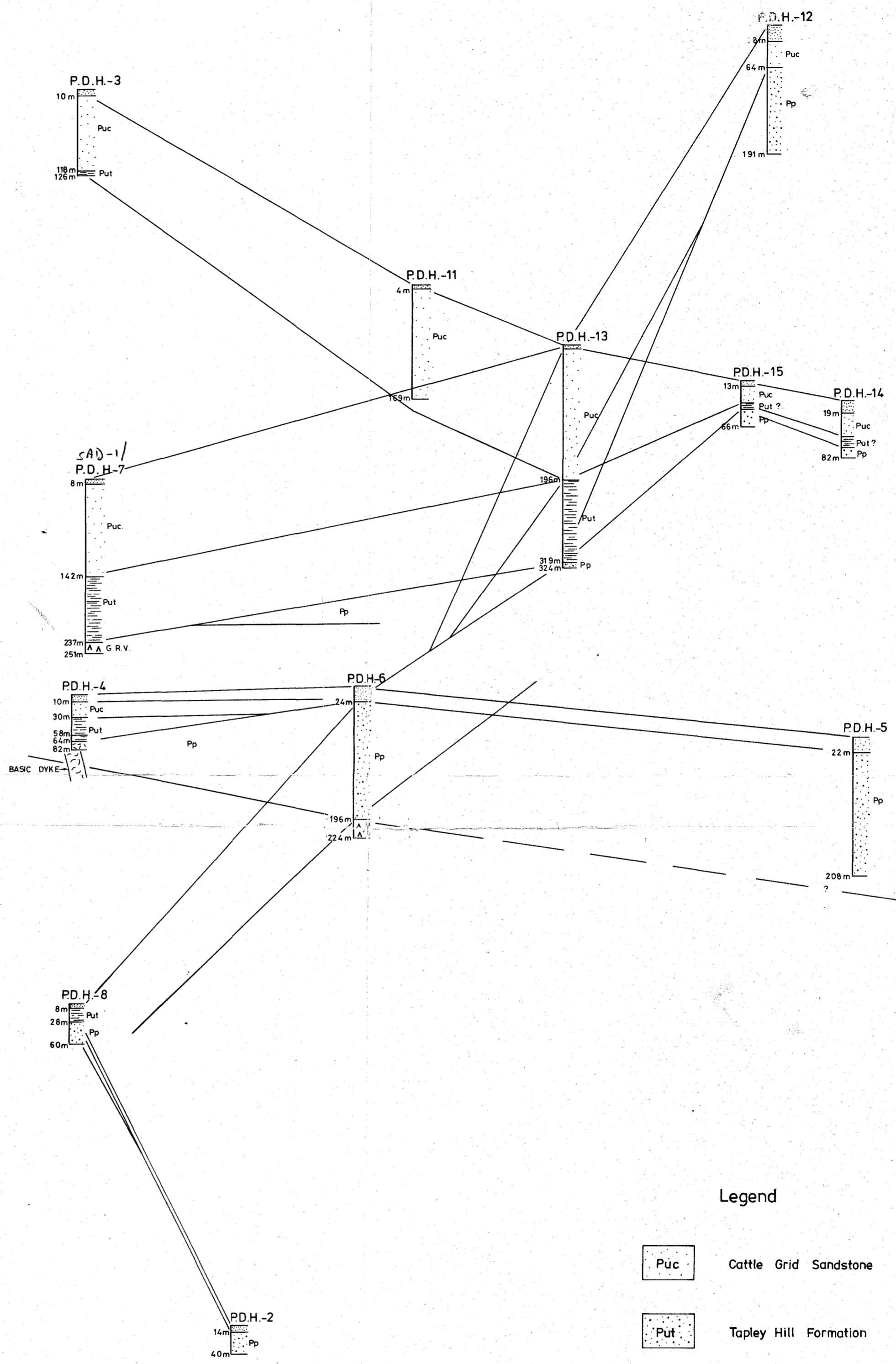
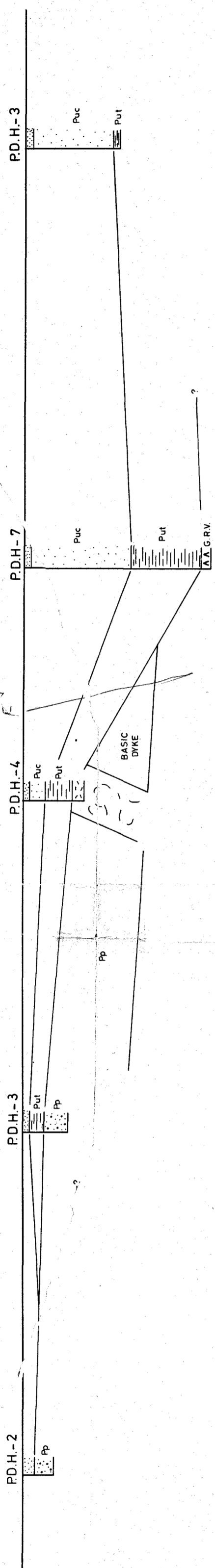
21ST MAY TO 20TH AUGUST, 1980

	E.L. 509 4th Quarter	Total Expenditure E.L.'s 302, 509 to date
Exploration Staff	36	15,914
Exploration Logistics	79	5,899
Exploration Services	-	3,336
Property Costs	-	711
Diamond Drilling	-	5,846
Percussion Drilling	-	41,048
Exploration Administration	-	1,970
Management & Administration		
General	-	2,825
Depreciation	-476 (Cr.)	2,095
	<hr/>	<hr/>
Totals	\$ -361 (Cr.)	\$ 79,644
	<hr/>	<hr/>

# GEOLOGICAL CROSS SECTION

NORTH

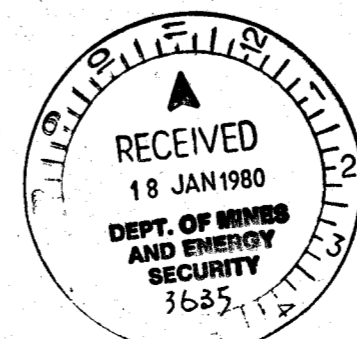
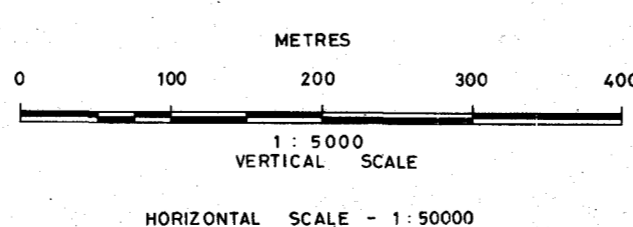
SOUTH



## Legend

- Cattle Grid Sandstone
- Tapley Hill Formation
- Pandurra Sandstone
- Gawler Range Acid Volcanic

3635-1



SELTRUST MINING CORPORATION PTY. LTD.				
DINGO HILL E.L. 509				
GEOLOGICAL FENCE DIAGRAM				
DRILL HOLES				
Revisions	Date	Compiled by:		Date
		Drawn by:	NIGEL DUNCAN	OCT. '79
		Traced by:	S. L. C.	NOV. '79
		Checked by:		
PLAN NUMBER: A.S. 9376				