

AUSTRALIAN CONSOLIDATED INDUSTRIES LTD.  
MINERAL RESOURCES DIVISION  
TASMANIAN EXPLORATION, E.L. 16/68, BALFOUR  
REPORT ON DDH 20 AND 21, CENTRAL PROSPECT

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SUMMARY

DDH 20 at the Central Prospect was abandoned at a depth of 33.53 metres after the air drill hammer bit was lost down the hole and could not be recovered.

DDH 21, on the same site at DDH 20, was successfully completed at a depth of 106.68 metres after intersecting a chalcoppyritic mineralized zone between ~~38.10~~ and 55.20 metres.

42.05

The mineralized zone dips about 70° west, contains 0.57 percent Cu over an estimated true thickness of about 10.2 metres, and consists of three sub-zones.

(i) 38.10 to 42.05 metres (0.99% Cu)

Carbonaceous and graphitic slate containing a few chalcoppyrite quartz veins and segregations. A thin band of chloritic phyllite also contains sporadic chalcoppyrite associated with quartz.

(ii) 42.05 to 52.92 metres (0.47% Cu)

Mineralized chloritic siltstone and talc containing sporadic chalcoppyrite blebs and stringers commonly associated with quartz.

(iii) 52.92 to 55.20 metres (0.31% Cu)

Mineralized quartz containing minor chalcoppyrite occurring as disseminated blebs or as irregular stringers along incipient fractures.

Drilling costs directly attributable to DDH 20 and DDH 21 were about \$628 and \$2,429 respectively.

DDH 20 AND DDH 21, CENTRAL PROSPECT

Grid reference	437030N, 319240E
Elevation	197.5 metres
Angle	65°
Bearing	N 80° E (true)
Date drilled	

(i) DDH 20	9.1.72 to 10.1.72
(ii) DDH 21	10.1.72 to 15.1.72

1. OPERATIONAL DETAILS

1.1. Drilling details

DDH 20 was commenced on January 9th, 1972 and progressed satisfactorily, but slowly to 33.53 metres at which depth the hammer became bogged and the bit was lost. Several hours were spent in an unsuccessful attempt to recover the bit and the hole was abandoned. The rig was then moved off DDH 20 and DDH 21 was commenced on the same site on January 10th, 1972.

*Reaction to the  
 10.2 metre zone  
 values - 10.2 to 10.72*

NW casing was seated at 3.05 metres and the drillhole advanced slowly to 38.1 metres with the air drill. The hole was then cased with 38.1 metres of NW casing and continued with NQWL diamond coring equipment with a triple tube core barrel.

The hole progressed slowly through hard and broken ground and was completed at 106.68 metres on January 15th, 1972.

### 1.2. Drilling conditions

Drill runs and core recovery for DDH 21 are listed in Appendix A.

Air drilling progress was slow but satisfactory to 38.1 metres but partial collapse of the hole at this depth forced reduction of the hole to NQ and diamond coring commenced.

Diamond drilling made slow progress through hard silicified and broken ground and drill runs were generally short and averaged less than 1.1 metres with only one maximum drill run of 3.05 metres being recorded. Seven diamond bits were used.

Core recovery was generally satisfactory although averaging only about 91% in the mineralized zone.

The drill rods were frequently jammed in the hole and after changing bits it was common to have to ream the rods down the hole and to drill the last few metres to bottom.

### 1.3. Drillhole deviation

The results of the acid etch inclination surveys were as follows:

Collar	65°
30 metres	61°
60 metres	58°
90 metres	56°

## 2. GEOLOGY

The complete drill log is presented in Appendix B and may be briefly summarised as follows:

### AIR DRILLING

#### 0 to 38.10 metres

Carbonaceous and graphitic slate.

### DIAMOND DRILLING

#### 38.10 to 42.05 metres : MINERALIZED SLATE

Dark grey to black graphitic and carbonaceous slate. A 30 cm. band of chloritic phyllite contains traces of chalcopyrite associated with irregular quartz blebs and segregations. A few other quartz veins contain minor chalcopyrite.

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42.05 to 52.92 metres MINERALIZED CHLORITIC SILTSTONE  
AND TALC

Green, slightly slaty chloritic siltstone containing several white pyritic talc bands ( $\leq 30$  cm.).

Pyrite and chalcopryrite occur within both the siltstone and the talc, as disseminated blebs and associated with quartz veins and veinlets.

52.92 to 55.20 metres MINERALIZED QUARTZ

Massive, milky white, slightly pyritic quartz containing minor chalcopryrite occurring as irregular blebs and as irregular stringers along incipient fractures. The upper and lower boundaries are brecciated.

55.20 to 58.17 metres

Hard, grey, recrystallized and silicified sediments with many white quartz veins. Very rare chalcopryrite.

58.17 to 60.96 metres

Heavily silicified sediments containing common white quartz veins and bands with diffuse boundaries.

60.96 to 64.46 metres

Grey-green slightly silicified and recrystallized carbonaceous and slightly chloritic and graphitic sediments containing numerous irregular and discontinuous quartz blebs and veins.

64.46 to 65.83 metres

Hard, grey-green silicified and recrystallized sediments containing abundant irregular and discontinuous quartz bands, veins and segregations.

65.83 to 67.60 metres

Grey-green coarsely laminated chloritic and carbonaceous slate containing common pyritic and chloritic quartz veinlets.

67.60 to 76.80 metres

Hard, dark grey and grey-green silicified and recrystallized sediments containing several thick ( $\leq 15$  cm.) quartz bands. Minor chalcopryrite occurs in one band.

76.80 to 78.59 metres

Massive quartz with common incipient fractures.

78.59 to 80.57 metres

Hard, grey-green silicified and recrystallized sediments containing minor disseminated pyrite and a few irregular quartz and quartz-carbonate segregations.

80.57 to 82.78 metres

Hard, grey-white, heavily silicified sediments and quartz with numerous incipient fractures.

82.78 to 85.51 metres

Medium to dark grey and black deformed carbonaceous slate.

85.51 to 86.11 metres

Black graphitic shear zone.

86.11 to 94.24 metres

Hard, fine grained, grey and grey-green silicified and recrystallized sediments containing common quartz veins.

94.24 to 96.77 metres

Medium, hard, slightly to moderately silicified and recrystallized grey and grey-green, fine grained sediments.

96.77 to 100.74 metres

Hard, grey-green, fine grained, recrystallized, slightly chloritic, quartzitic sediment.

100.74 to 102.41 metres

Laminated and finely bedded carbonaceous slaty shale.

102.41 to 106.68 metres

Similar to the interval 100.74 to 102.41 metres.

### 3. SAMPLES AND ASSAYS

Percussion samples and core samples from DDH 21 were assayed with the following results.

#### (i) Percussion Samples

INTERSECTION (METRES)	SAMPLE NO. BAL.	ASSAY VALUE PPM CU
3.05 to 4.57	1601	37
4.57 " 6.10	1602	30
6.10 " 7.62	1603	30
7.62 " 9.14	1604	33
9.14 " 10.66	1605	49
10.66 " 12.19	1606	48
12.19 " 13.71	1607	47
13.71 " 15.24	1608	47
15.24 " 16.76	1609	37
16.76 " 18.29	1610	48
18.29 " 19.81	1611	45
19.81 " 21.34	1612	41
21.34 " 22.86	1613	39
22.86 " 24.38	1614	39
24.38 " 25.90	1615	42
25.90 " 27.43	1616	37
27.43 " 28.95	1617	46
28.95 " 30.48	1618	53
30.48 " 32.00	1619	56
32.00 " 33.52	1620	91
33.52 " 35.05	1621	82
35.05 " 36.57	1622	66
36.57 " 38.10	1633	94

The percussion samples were collected over intervals of 1.52 metres.

Background copper values only were recorded the assay values ranging from 30 to 94 ppm Cu with a mean

value of 49 ppm Cu. A gradual increase in copper content occurs with increasing depth as the mineralized zone is approached.

(ii) Core samples

The entire core from DDH.21 was split and assayed in order to obtain a geochemical copper profile of the recrystallized and silicified lithologies of the Central Prospect.

The assay values were as follows:

INTERSECTION METRES	INTERVAL METRES	SAMPLE NO. BAL.	ASSAY VALUE ppm % Cu
38.10 to 42.05	3.95	1638	0.99% 0.013
42.05 " 44.80	2.75	1639	0.01% 0.70
44.80 " 47.54	2.74	1640	0.7% 0.83
47.54 " 50.29	2.75	1641	0.8% 0.3%
50.29 " 52.92	2.63	1642	0.3% 0.31
52.92 " 55.20	2.28	1643	0.3% 0.4%
55.20 " 58.17	2.97	1644	325 ppm
58.17 " 60.96	2.79	1645	50
60.96 " 64.46	3.50	1646	68
64.46 " 65.83	1.37	1647	87
65.83 " 67.60	1.77	1648	20
67.60 " 70.70	3.10	1649	436
70.70 " 74.00	3.30	1650	49
74.00 " 76.80	2.80	1651	60
76.80 " 78.59	1.79	1652	402
78.59 " 80.57	1.98	1653	71
80.57 " 82.78	2.21	1654	40
82.78 " 85.51	2.73	1655	36
85.51 " 86.11	0.60	1656	32
86.11 " 89.00	2.89	1657	29
89.00 " 91.88	2.88	1658	51
91.88 " 94.24	2.36	1659	34
94.24 " 96.77	2.53	1660	41
96.77 " 100.74	3.97	1661	20
100.74 " 102.41	1.67	1662	19
102.41 " 106.68	4.27	1663	29

The mineralized zone is clearly defined by the anomalous assay values between 38.10 and 55.20 metres, this interval averaging 0.57% Cu over an estimated true thickness of 13.2 metres. Copper values below, or to the east of, the mineralized zone are of background level only with three anomalous values (samples BAL 1644, 1649 and 1652) defining intervals containing rare chalcopyritic quartz. The background values average about 43 ppm Cu with a range from 19 to 87 ppm Cu.

The Central Prospect mineralized zone as intersected by DDH 21, consists therefore of a significant thickness of chalcopyritic material situated between a barren hanging wall of carbonaceous and graphitic slate and a footwall of barren silicified and recrystallized sediments.

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4. CONCLUSION

DDH.21 at the Central Prospect successfully intersected a potentially economic zone of chalcopyritic mineralization with a true thickness of about 13.2 metres and assaying 0.57% Cu.

The mineralized zone, which dips about 70 degrees towards the west, appears to be situated between barren black slates to the west and barren silicified and recrystallized sediments to the east.

Core recovery from the mineralized zone averaged over 90% although two intervals of 1.52 metres recorded core recoveries of 20 and 70% respectively.

M.H. McINTYRE

FEBRUARY 22ND, 1972.

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APPENDIX A

DDH. 21 DRILL RUNS AND CORE RECOVERY

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INTERSECTION (METRES)		INTERVAL (METRES)	CORE RECOVERY	
			METRES	PER CENT
38.10	to 38.86	0.76	0.76	100
38.86	" 39.62	0.76	0.76	100
39.62	" 40.38	0.76	0.76	100
40.38	" 41.45	1.07	1.07	100
41.45	" 42.36	0.91	0.91	100
42.36	" 43.89	1.53	0.30	20
43.89	" 44.80	0.91	0.91	100
44.80	" 46.02	1.22	1.22	100
46.02	" 47.54	1.52	1.52	100
47.54	" 48.77	1.23	1.23	100
48.77	" 50.29	1.52	1.52	100
50.29	" 51.20	0.91	0.91	100
51.20	" 52.42	1.22	1.22	100
52.42	" 53.95	1.53	1.06	70
53.95	" 54.86	0.91	0.91	100
54.86	" 55.47	0.61	0.61	100
55.47	" 56.53	1.06	1.06	100
56.53	" 57.92	1.37	1.22	89
57.92	" 58.83	0.91	0.91	100
58.83	" 60.05	1.22	1.22	100
60.05	" 60.96	0.91	0.91	100
60.96	" 61.57	0.61	0.61	100
61.57	" 62.48	0.91	0.53	58
62.48	" 63.09	0.61	0.61	100
63.09	" 64.31	1.22	1.22	100
64.31	" 65.53	1.22	1.22	100
65.53	" 66.75	1.22	0.91	81
66.75	" 67.81	1.06	1.06	100
67.81	" 68.42	0.61	0.61	100
68.42	" 68.73	0.31	0.31	100
68.73	" 69.95	1.22	1.22	100
69.95	" 70.25	0.30	0.30	100
70.25	" 70.40	0.15	0.15	100
70.40	" 70.70	0.30	0.30	100
70.70	" 71.62	0.92	0.92	100
71.62	" 73.15	1.53	1.53	100
73.15	" 76.20	3.05	3.05	100
76.20	" 78.79	2.59	2.59	100
78.79	" 79.55	0.76	0.76	100
79.55	" 80.77	1.22	1.22	100
80.77	" 81.38	0.61	0.61	100
81.38	" 81.99	0.61	0.61	100
81.99	" 82.90	0.91	0.91	100
82.90	" 83.82	0.92	0.92	100
83.82	" 85.34	1.52	1.52	100
85.34	" 85.64	0.30	0.30	100
85.64	" 87.17	1.53	1.53	100
87.17	" 89.91	2.74	2.74	100
89.91	" 90.97	1.06	1.06	100
90.97	" 93.27	2.30	2.30	100
93.27	" 94.49	1.22	1.22	100
94.49	" 95.86	1.37	1.37	100
95.86	" 98.30	2.44	2.44	100
98.30	" 100.74	2.44	2.44	100
100.74	" 101.35	0.61	0.61	100
101.35	" 102.41	1.06	1.06	100
102.41	" 104.54	2.13	2.13	100
104.54	" 106.06	1.52	1.52	100
106.06	" 106.68	0.62	0.62	100

APPENDIX B

DDH. 21 CENTRAL PROSPECT

DRILL LOG

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Grid reference: 437033N, 319237E ) approximately  
 Elevation: 197.5 metres )  
 Angle: 65°  
 Direction: N80°E (true)  
 Date drilled: 11/1/72 to 15/1/72  
 Drilling rate: 10.67 metres per shift.

INTERSECTION (METRES)	DESCRIPTION
0 to 38.10	<p><u>AIR DRILLING</u></p> <p>Medium grey to black carbonaceous and graphitic shale and slate.</p>
38.10 to approx. 42.05	<p><u>DIAMOND DRILLING</u></p> <p>Dark grey to black graphitic and carbonaceous slate.</p> <p>A thin band (<math>\leq 30\text{cm}</math>) of pale green pyritic chloritic phyllite occurs between about 38.86 and 39.16 metres and contains rare traces of chalcopyrite associated with irregular quartz blebs and segregations.</p> <p>Two, white and slightly cavernous, quartz veins (dipping about <math>50^\circ</math>) with extremely irregular and brecciated boundaries between 39.2 and 39.4 metres contain minor disseminated chalcopyrite blebs. Vein quartz includes irregular angular fragments of graphitic and carbonaceous slate.</p> <p>Few other thin (<math>\leq 5\text{mm}</math>) pyritic quartz and quartz-chlorite veins and segregations, rarely with traces of chalcopyrite, and commonly irregular and discontinuous.</p> <p>Few small (<math>&lt; 1\text{mm}</math>) pale grey leucoxene(?) porphyroblasts.</p> <p>Total copper estimated <math>\leq 0.25\%</math> Cu.</p> <p>Bedding dips <math>30^\circ</math> at 38.4m, <math>30^\circ</math> to <math>35^\circ</math> at 39.0m, <math>40^\circ</math> to <math>45^\circ</math> at 40.2m, <math>40^\circ</math> at 41.6m.</p>
42.05 to approx. 52.92	<p><u>MINERALIZED CHLORITIC SILTSTONE AND TALC.</u></p> <p>Medium to dark green, slightly slaty chloritic siltstone, containing several white pyritic talc bands (<math>\leq 30\text{cm}</math>).</p> <p>Very fragmentary in parts and moderately cavernous in parts after sulphides and carbonate(?) The talc bands are conformable with the bedding.</p> <p>Chalcopyrite is present in both the siltstone and talc and occurs as disseminated irregular blebs and thin (<math>\leq 3\text{mm}</math>) irregular and discontinuous segregations which are commonly parallel or sub-parallel to bedding.</p> <p>The chalcopyrite, which is commonly tarnished, iridescent and associated with pyrite, also occurs with quartz in thin (<math>\leq 2\text{mm}</math>) irregular and discontinuous veinlets apparently filling fracture planes. Much of the chalcopyrite appears to have been removed by leaching, the core being slightly to moderately pitted and cavernous in parts.</p>

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The margins of the talc bands are commonly mottled grey-white and green due to inclusion of chloritic siltstone fragments within the talc.

Thin ( $\leq 10\text{cm}$ ) breccia bands and microfaulted zones occur within the chloritic siltstone, particularly at about 49.2 and 50.5 metres.

Chalcopyrite is commonly associated with irregular quartz blebs/segregations within the breccia and microfault zones.

Chalcopyrite-quartz veins ( $\leq 3\text{mm}$ ) showing evidence of post-mineralization microfaulting occur at about 44.35 metres. These veins commonly have a chalcopyrite core and quartz rim.

Disseminated euhedral pyrite is common ( $\leq 10\text{mm}$ ).

Talc is virtually absent below about 50.3 metres and in the zone 50.3 to 52.9 metres. The chloritic siltstone is pale green, chalcopyrite is much less common and the original bedding is better preserved. A few thin (generally  $\leq 2\text{mm}$ ) irregular pyritic quartz veins (rarely containing chalcopyrite) occur in this basal zone. Few chlorite porphyroblasts.

Copper assay estimated at:

- (i) 1.5 to 1.75% Cu in the interval 42.05 to 50.29 metres
- (ii)  $\leq 0.5\%$  Cu in the interval 50.29 to 52.92 metres.

52.92 to approx. 55.20

MINERALIZED QUARTZ ZONE

Massive, milky white, slightly pyritic quartz, fragmentary in parts and with common incipient fractures along many of which are irregular blebs and short irregular chalcopyritic stringers. Rare ( $\leq 2\%$ ) pale brown carbonate blebs or porphyroblasts. Minor carbonate also occurs along fractures.

Moderately cavernous in parts with cavities containing euhedral quartz crystals and pale brown weathered carbonate residue.

The upper and lower margins of this quartz sequence are brecciated, the quartz containing fragments of country rock.

The chalcopyrite is commonly tarnished, iridescent or coated with dark grey to black secondary copper minerals.

An irregular band ( $\leq 3\text{cm}$ ) of massive sulphides occurs at about 54.4 metres. Pyrite (80 to 85%) dominates chalcopyrite (20 to 15%) which is tarnished and iridescent.

Total copper estimated at 1.75 to 2.25% Cu.

55.20 to approx. 58.17

Hard, medium grey recrystallized and silicified carbonaceous(?) sediments containing many white quartz veins ( $\leq 2\text{cm}$ ) and segregations commonly with diffuse boundaries. The quartz veins are most commonly barren and solid but are slightly to moderately cavernous where associated with pyrite.

Very minor disseminated pyrite.

Rare traces of iridescent chalcopyrite at about 57.85 metres is associated with a quartz cemented breccia band. Total copper estimated at  $\leq 0.1\%$  Cu.

58.17 to approx.  
60.96

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100  
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Similar to the interval 55.20 to 58.17 metres but contains much more white quartz and pale grey and grey-green heavily silicified sediments.

Very fragmentary in parts, slightly to moderately cavernous in parts.

Minor breccia zone between about 60.0 and 60.15 metres.

Rare disseminated pyrite.

50.96 to approx.  
64.46

Grey-green, slightly silicified and recrystallized carbonaceous and slightly chloritic and graphitic sediments (siltstone and/or fine sandstone) containing numerous irregular and discontinuous anastomosing quartz blebs, veins and vein-like segregations.

Rare pyrite in sediments, minor euhedral pyrite in quartz.

Minor quartz cemented breccia bands in parts. Few microfaults. Graded bedding locally preserved.

Grey-white leucoxene(?) porphyroblasts occur in black graphitic band at about 64.2 metres.

Bedding dips  $50^\circ$  to  $55^\circ$ .

54.46 to approx.  
65.83

Hard, medium grey-green silicified and recrystallized sediments containing abundant irregular and discontinuous quartz bands ( $\leq 6\text{cm}$ ), veins, veinlets and vein-like segregations.

Rare disseminated pyrite in sediments, common coarse ( $\leq 3\text{mm}$ ) euhedral pyrite in the quartz.

The quartz is slightly cavernous in parts and contains rare flecks of brown carbonate.

55.83 to approx.  
67.60

Medium to dark grey-green, coarsely laminated chloritic and carbonaceous slate containing common thin ( $\leq 2\text{mm}$ ) discordant pyritic and chloritic quartz veinlets and a few thicker ( $\leq 5\text{mm}$ ) irregular and discontinuous pyritic quartz veins. The veins have a preferred dip of about  $30^\circ$ . Bedding dips  $5^\circ$  at 66.6m, 0 to  $5^\circ$  at 67.05m.

57.60 to approx.  
76.80

Hard, medium to dark grey and grey-green silicified and recrystallized sediments containing several thick ( $\leq 15\text{cm}$ ) white quartz bands which commonly have very irregular and/or diffuse boundaries. One slightly cavernous quartz band ( $\leq 10\text{cm}$ ) at 68.7 metres contains an estimated 3% Cu, the chalcopyrite occurring in a thin ( $\leq 5\text{mm}$ ) disrupted band parallel to quartz band/country rock contact. The remaining quartz bands are apparently barren or contain rare pyrite and are slightly cavernous. Several of the thicker quartz bands/veins dip  $50^\circ$  to  $60^\circ$ .

The sequence also contains many irregular and discontinuous quartz segregations, commonly with diffuse boundaries; also many slightly pyritic quartz veins.

The silicified sediments contain minor amounts of disseminated pyrite.

Bedding dips 0 to 5° at 71.1m, 25° at 73.8m, 15° at 75.3m, 20° at 76.0m.

76.80 to approx.  
78.59

Massive, off-white quartz containing numerous irregular incipient fractures which are commonly filled with dark green chlorite, and less commonly with pyrite.

Minor disseminated euhedral pyrite. Rare pale brown carbonate.

At about 77.9 metres are two irregular and disrupted bands (≤ 2cm) of pyrite.

78.59 to approx.  
80.57

Hard, medium grey-green silicified and recrystallized sediments containing minor disseminated pyrite, few irregular quartz and quartz-carbonate segregations, and rare discontinuous pyrite "veinlets".

A band of softer carbonaceous siltstone occurs between about 79.05 and 79.55 metres.

80.57 to 82.78

Hard, grey-white, heavily silicified sediments and quartz with numerous irregular incipient fractures which are commonly filled with chlorite. Few secondary quartz veins (≤ 1cm), commonly with diffuse boundaries.

Minor disseminated pyrite, rare cavities (after sulphides and/or carbonate).

The basal 2cm of the unit is brecciated.

82.78 to approx.  
85.51

Medium to dark grey and black (slightly green chloritic tinge in parts) deformed carbonaceous shales with pale to medium grey recrystallized quartzose laminae and beds containing sporadic pyrite. The original bedding is commonly deformed or poorly preserved but probably consisted originally of a sequence of graded carbonaceous beds.

Bedding planes are commonly crumpled suggesting pre-consolidation slumping.

Microfaults common.

Bedding and cleavage dips:

S<sub>0</sub> = 35° to 40°  
S<sub>1</sub> = 40° (opposite direction) } at 83.2m.

Dragfold defined by quartz filling has axial plane dip parallel to cleavage at 83.2m.

S<sub>0</sub> = 35° to 40°  
S<sub>1</sub> = 30° (opposite direction) } at 83.6m.

S<sub>0</sub> = 10° to 15°  
S<sub>1</sub> = 40° (same direction) } at 84.0m.

S<sub>0</sub> = 10° at 84.9m.

S<sub>0</sub> = 20° at 85.1m.

85.51 to approx.  
86.11

Black graphitic sheared zone with 6cm pyritic-carbonate-quartz band at base.

101  
26

37 102

86.11 to 94.24

Hard, fine grained, medium to dark grey and grey-green silicified and recrystallized sediments containing common quartz veins and irregular and diffuse quartzose segregations ( $\leq 1\text{cm}$ ). A few quartz veins contain minor amounts of pale brown carbonate.

The basal 1 metre is dominantly quartzose and pale grey and contains common irregular and discontinuous incipient fractures filled with chlorite and pyritic chlorite. These fractures appear to have a preferred orientation with a dip of about  $45^\circ$  to  $50^\circ$ .

Rare thin ( $\leq 5\text{cm}$ ) bands of dark grey to black carbonaceous and graphitic siltstone.

Rare disseminated pyrite.

Bedding dips  $45^\circ$  at 89.3m,  $45^\circ$  to  $50^\circ$  at 90.6m,  $30^\circ$  at 91.6m,  $40^\circ$  at 92.0m.

94.24 to approx. 96.77

Medium hard, slightly to moderately silicified and recrystallized pale to medium grey and grey-green, fine-grained sediment, probably siltstone and fine sandstone.

Few pyritic quartz veins and bands ( $\leq 15\text{cm}$ ), slightly cavernous (after carbonate?) and containing minor to rare pale brown carbonate.

Few thin bands of relatively soft pale to medium grey-green chloritic carbonaceous slate.

Bedding dips  $50^\circ$  at 94.6m,  $30^\circ$  to  $35^\circ$  at 95.4m,  $45^\circ$  to  $50^\circ$  at 96.6m.

96.77 to approx. 100.74

Hard to moderately hard, mottled medium grey-green recrystallized, fine grained; slightly chloritic quartzitic sediment (fine sandstone?)

Minor disseminated pyrite.

Few quartz veins, slightly pyritic and containing traces of chlorite and/or yellow-brown carbonate.

Rare, irregular diffuse vein-like quartz segregations.

Few chlorite porphyroblasts.

100.74 to 102.41

Finely and coarsely laminated and finely bedded carbonaceous slaty shale. Original bedding is well preserved and consists of alternating pale and medium to dark grey graded beds.

Rare disseminated pyrite, commonly aligned parallel to bedding planes.

Bedding dips  $35^\circ$  to  $40^\circ$  at 101.8m,  $35^\circ$  at 102.2m.

102.41 to 106.68

Similar to the interval 100.74 to 102.41 metres but original bedding less well preserved and chlorite is common occurring as porphyroblasts and in talcose chloritic phyllite.

Sporadic disseminated pyrite.

Bleached, very pale grey and green in parts.

Bedding dips  $30^\circ$  at 102.9m,  $25^\circ$  to  $30^\circ$  at 103.3m,  $30^\circ$  at 103.8m,  $30^\circ$  at 104.3m,  $40^\circ$  at 105.0m,  $30^\circ$  at 105.8m,  $25^\circ$  to  $30^\circ$  at 106.5m.