

ZEEHAN DEPOSITS

METALLURGICAL DRILL CORE ANALYSES

QUEEN HILL

DRILL HOLE G49 0.506% SN

DRILL HOLE G62 0.732% SN

SEVERN

DRILL HOLE G65 0.517% SN

DRILL HOLE G72 0.496% SN

DRILL HOLE G74 0.620% SN

ALL SAMPLES ARE $\frac{1}{4}$ CORE TAKEN OVER ENTIRE MINERALISED
INTERSECTION.

G.49 QUEEN HILL

+2440

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

WT.	%WT.	%SN	DIST
	23.85	0.05	3.69
	30.07	0.07	6.51
	22.75	0.31	21.84
	23.33	0.94	67.96

81.42	100.00	0.32	100.00
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+850

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	27.16	0.07	5.80
	16.75	0.10	5.12
	23.98	0.28	20.49
	32.11	0.70	68.59

854.72	100.00	0.32	100.00
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+300

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	22.91	0.07	4.95
	23.34	0.10	7.20
	13.95	0.30	12.92
	39.80	0.61	74.93

905.68	100.00	0.32	100.00
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+106

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	33.39	0.06	6.52
	13.26	0.12	5.18
	7.44	0.32	7.74
	45.91	0.54	80.57

662.57	100.00	0.31	100.00
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+53

2.90 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	32.58	0.05	4.80
	6.62	0.12	2.35
	4.83	0.26	3.71
	55.97	0.54	89.14

265.08	100.00	0.34	100.00
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G.62 QUEEN HILL

+2440

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

WT.	%WT.	%SN	DIST
	8.33	0.10	1.09
	24.83	0.06	1.96
	22.71	0.26	7.75
	44.13	1.54	89.20
141.45	100.00	0.76	100.00

+850

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	9.48	0.11	1.65
	23.37	0.05	1.85
	23.07	0.29	10.60
	44.08	1.23	85.90
707.12	100.00	0.63	100.00

+300

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	14.50	0.12	2.80
	18.63	0.06	1.80
	21.97	0.27	9.52
	44.90	1.19	85.88
	100.00	0.62	100.00

+106

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	13.55	0.09	2.12
	12.85	0.07	1.57
	12.53	0.17	3.71
	61.07	0.87	92.60
122.24	100.00	0.57	100.00

+53

2.90 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	26.71	0.07	3.62
	9.28	0.10	1.79
	13.62	0.20	5.23
	50.39	0.92	89.36
43.10	100.00	0.52	100.00

G.65 SEVERN - TOTAL CORE

+2440

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

WT.	%WT.	%SN	DIST
	23.92	0.14	7.80
	18.42	0.08	3.43
	31.43	0.16	11.73
	26.23	1.26	77.04
130.62	100.00	0.43 λ	100.00

+850

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	16.48	0.11	4.00
	25.89	0.07	3.9
	28.87	0.21	13.2
	28.76	1.26	78.9
723.28	100.00	0.45 λ	100.0

+300

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	27.87	0.08	4.53
	14.04	0.08	2.28
	27.69	0.23	12.93
	30.40	1.30	80.26
340.20	100.00	0.49 λ	100.00

+106

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	23.32	0.09	3.57
	7.23	0.12	1.48
	26.65	0.18	8.18
	42.80	1.19	86.77 \leftarrow
146.29	100.00	0.59 λ	100.00

+53

2.90 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	16.32	0.12	2.42
	27.86	0.11	3.77
	12.36	0.15	2.30
	43.46	1.71	91.51
49.36	100.00	0.81	100.00

G.72 SEVERN

+2440

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

WT.	%WT.	%SN	DIST
	14.68	0.05	1.34
	17.25	0.18	5.66
	49.86	0.22	19.96
	18.21	2.22	73.04
168.33	100.00		100.00

+850

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	10.65	0.14	1.62
	23.45	0.09	2.30
	46.25	0.24	12.10
	19.65	3.92	83.98
661.44	100.00		100.00

+300

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	17.45	0.14	4.87
	22.53	0.08	3.59
	37.58	0.25	18.64
	22.44	1.63	72.90
252.53	100.00		100.00

+106

2.80 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	16.51	0.05	1.48
	21.98	0.05	8.13
	28.13	0.24	12.17
	33.38	1.30	78.22
100.90	100.00		100.00

+53

2.90 FLOAT
2.96 FLOAT
3.31 FLOAT
3.31 SINK

	20.97	0.10	2.56
	19.94	0.09	2.16
	21.93	0.28	7.45
	37.96	1.95	87.83
34.15	100.00		100.00

SEVERN

SULPHIDE FLOTATION TEST

		<u>Wt</u>	<u>Sn %</u>	<u>Dist</u>	<u>%S</u>	<u>Dist</u>
Sulphide Concentrate	1	7.7	0.18	3.2	47.9	42.6
	2	7.8	0.15	2.7	35.4	31.8
	3	4.4	0.23	2.3	28.7	14.6
Tailing		<u>80.1</u>	<u>0.50</u>	<u>91.8</u>	1.2	<u>11.0</u>
		<u>100.0</u>	<u>0.43</u>	<u>100.0</u>		<u>100.0</u>

HEAVY LIQUID WORK ON SULPHIDE TAILING

	<u>Wt Gm</u>	<u>Sn %</u>	<u>Sn Dist</u>
<u>+150µm</u>			
2.96 FLOAT	21.0	0.06	9.4
3.31 FLOAT	8.1	0.21	12.6
3.31 SINK	<u>4.2</u>	<u>2.50</u>	<u>78.0</u>
	<u>33.3</u>	<u>0.40</u>	<u>100.0</u>
<u>+106µm</u>			
2.96 FLOAT	36.3	0.07	10.3
3.31 FLOAT	10.8	0.27	11.8
3.31 SINK	<u>6.9</u>	<u>2.80</u>	<u>77.9</u>
	<u>54.0</u>	<u>0.45</u>	<u>100.0</u>
<u>+75µm</u>			
2.96 FLOAT	33.2	0.08	8.8
3.31 FLOAT	10.8	(0.16) *	5.9
3.31 SINK	<u>5.8</u>	<u>4.30</u>	<u>85.3</u>
	<u>49.8</u>	<u>0.59</u>	<u>100.0</u>

HEAVY LIQUID WORK ON SULPHIDE TAILING

	<u>Wt Gm</u>	<u>Sn %</u>	<u>Sn Dist</u>
<u>+53μm</u>			
2.96 FLOAT	41.5	0.09	8.3
3.31 FLOAT	10.2	(0.29)*	10.2
3.31 SINK	6.9	5.25	81.5
	<u>58.6</u>	<u>0.52</u>	<u>100.0</u>

* The actual assays received were 0.71% Sn and 0.67% respectively, but by referring to Table 1, Period 7, it can be seen that these fractions assayed at 0.16% Sn and 0.24% Sn. These assays have been checked and are used hereunder:

Superpanning on combined 3.31 s.g. sink.

	<u>Wt</u>	<u>Wt %</u>	<u>Sn %</u>	<u>Sn Dist</u>
Concentrate	2.42	16.0	19.0	80.6
Tailing	12.9	84.0	0.88	19.4
	<u>15.3</u>	<u>100.0</u>	<u>3.80</u>	<u>100.0</u>

QUEEN HILL/SEVERN ORE CHARACTERISATION

-Simulation Test Flowsheet

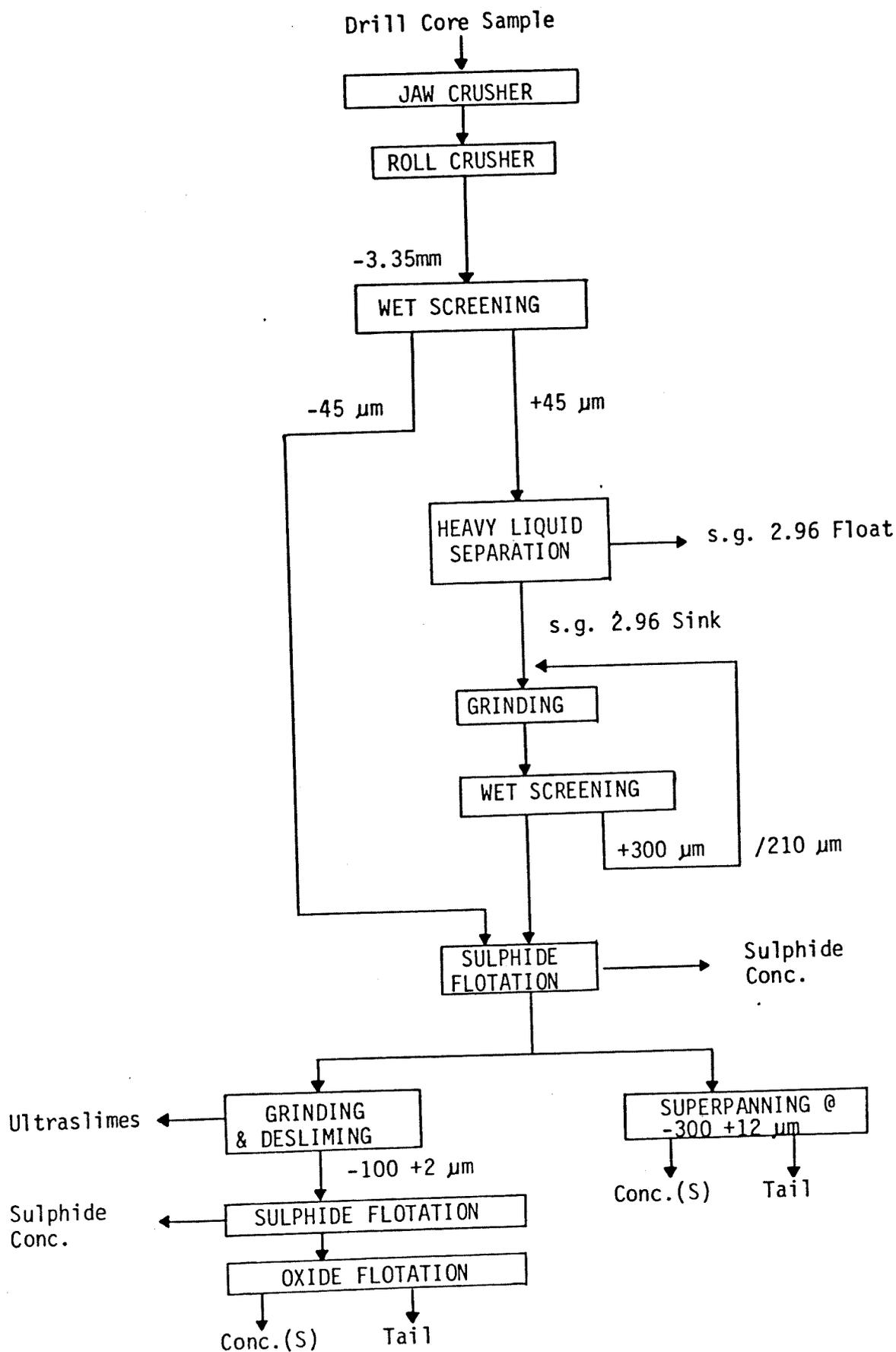


TABLE 1

PRECONCENTRATION TEST ON SEVERN ORE (-3.35 mm) - PRELIMINARY RESULTS (7.003)

Screen Size (µ)	FLOATS S.G. (-2.96)				MIDDS S.G. (+2.96 -3.31)				SINKS S.G. (+3.31)						
	Wts.	Wt. %	Mc%	Distn.	Wts.	Wt. %	Mc%	Distn.	Wts.	Wt. %	Mc%	Distn.	Wts.	Cal.	Assayed
+2440	108.26	40.45	0.08	5.14	79.87	29.85	0.21	9.95	79.48	29.70	1.80	84.91	267.61	0.63	
1680	91.29	38.20	0.06	4.19	73.40	30.71	0.24	13.47	74.29	31.09	1.45	82.34	238.98	0.55	
1016	75.62	38.92	0.09	6.57	58.19	29.95	0.26	14.61	60.49	31.13	1.35	78.82	194.30	0.53	
850	16.00	40.99	0.08	5.90	11.00	28.18	0.27	13.69	12.03	30.83	1.45	80.41	39.03	0.56	
600	23.62	41.58	0.06	4.58	15.10	26.58	0.28	13.65	18.09	31.84	1.40	81.77	56.81	0.55	
425	18.00	42.11	0.07	5.71	10.82	25.31	0.25	12.27	13.93	32.58	1.30	82.02	42.75	0.52	
300	13.65	41.62	0.08	6.24	8.18	24.94	0.26	12.18	10.97	33.44	1.30	81.58	32.80	0.53	
212	10.75	41.62	0.08	6.04	6.35	24.58	0.25	11.17	8.73	33.80	1.35	82.79	25.83	0.55	
150	7.36	36.67	0.08	4.34	5.32	26.51	0.22	8.62	7.39	36.82	1.60	87.04	20.07	0.68	
106	5.67	39.62	0.07	3.56	3.09	21.59	0.18	4.99	5.55	38.79	1.85	91.45	14.31	0.78	
75	3.84	37.03	0.10	4.40	2.50	24.11	0.16	4.63	4.03	38.86	1.95	90.97	10.37	0.83	
53	3.28	29.44	0.16	4.61	3.53	31.69	0.29	9.03	4.33	38.87	2.25	86.36	11.14	1.01	
Me=5	377.34	39.55	0.08	5.19	277.35	29.07	0.24	11.96	299.31	31.38	1.53	82.85	954.00	0.58	
+2440		0.45		2.10		4.90		16.81		23.7		81.06		8.68	
1680		0.60		2.43		4.20		13.66		25.5		83.92		9.15	
1016		0.70		2.82		5.90		12.09		26.1		85.09		9.66	
850		0.50		2.17		3.30		9.87		26.9		87.96		9.22	
600		0.30		1.27		3.10		8.41		27.4		90.72		9.80	
425		0.10		1.71		2.50		6.42		27.8		91.87		9.86	
300		0.30		1.24		2.10		5.18		28.3		93.58		10.11	
212		0.50		1.16		1.60		3.61		30.5		95.23		10.82	
150		0.20		0.63		1.20		2.73		30.6		96.64		11.66	
106		0.30		0.97		1.10		1.95		30.5		97.08		12.19	
75		0.60		1.61		1.20		2.10		34.1		96.34		13.76	
53		1.53		3.98		1.70		4.86		26.0		91.16		11.19	
Me=5		0.52		2.16		3.90		11.91		26.10		83.95		9.53	

FIGURE 1:

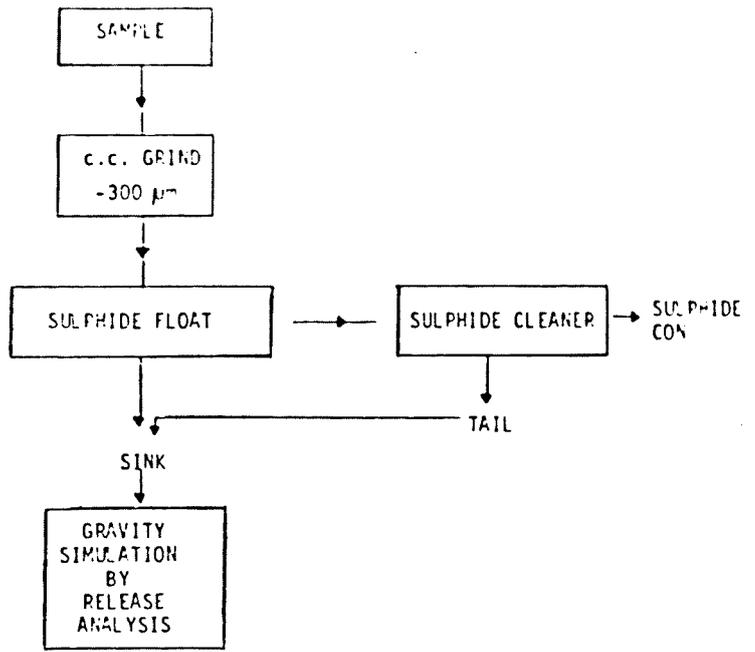


FIGURE 2:

