underground - oxidized.
45 gal. drum.
open road.
5-10%
1 samples
-Tony 847-9580
2-5 gal pails of core.

Dome Mtn.

860139

EXECUTIVE SUMMARY

Teeshin Resources Ltd.

Smithers
MPD 847-5666

SUMMARY OF FEASIBILITY STUDY

Location	38 km east of Smithers, on Chapman Lake Road.	
Mineable Ore Reserves (undiluted)	245,445 Metric tonnes at	14.57 g/tonne Au 96.79 g/tonne Ag
	269,989 Short tons at	0.425 opt Au 2.823 opt Ag
(diluted)	294,545 Metric tonnes at	12.17 g/tonne Au 80.66 g/tonne Ag
	324,000 Short tons at	0.355 opt Au 2.352 opt Ag
Production	Mine Day 457 tonnes	5 days/wk
	Mill Day 326 tonnes	7 days/wk
	Annual 119,000 tonnes	
Mining Method	75% Shrinkage stoping (in areas over 45° dip) 25% Open stoping (in areas under 45° dip)	
Milling Method	Standard cyanidation	
Schedule	Construction period 6 months Run-in of mill 2 months	
Capital Costs	$16,864,000	
Operating Costs ($/tonne)	Mining	$34.13
	Milling	20.79
	Plant	7.66
	General & Admin.	15.19
		$77.77
($/oz)	C$209/oz US $178/oz	
Royalties	4% net smelter return	
Recoveries	Au - 95% Ag - 40%	
Prices:	Au US $360.00 Ag US $5.00 Exchange C $85.00	

ORE RESERVES

ORE RESERVE SUMMARY

Ore has been identified in quartz-carbonate veins in a major shear zone that has been traced for 3.2 kilometres (2 miles) striking east-west across the property. Two similar shear structures lie to the south of this structure and holds promise of further ore development. Two ore zones, denoted the Boulder Zone and Argillite Zone contain the present reserves. The Boulder Zone has a strike length of approximately 350 m (1150 ft) and remains open to depth and the east with vein widths ranging from 0.5 m to 3.7 m (1.6 to 21.1 ft) and an average dip of 45-50^{o} south. The veins are plunging to depth in an easterly direction at 30^{o} with indications that ore will be encountered for a least another 550 m (1800 ft). The Argillite Zone is an off-chute of the main Boulder Zone striking approximately south-70^{o}-east with a strike length of 160m (525 ft), and widths ranging from 0.5 m to 3.5 m (1.6 to 11.5 ft) and variable dip to the south-west. A similar off-chute has been encountered approximately 200 m (660 ft) to the east.

Diluted proven and probable minable ore reserves at 20% dilution are estimated at 294,545 tonnes (324,000 short tons) with an average grade of 12.17 gm. gold (0.355 o.p.t) and 80.66 gm. silver (2.35 o.p.t.). These numbers do not include possible reserves in the balance of the known strike length.

GENERAL MINE DESIGN

SUMMARY

The primary development access to the mine will be through the existing 1370 Portal. A ramp will be started off the north end of the 1370 crosscut. This ramp (No.2) will be driven in the footwall of the ore zone from 1370 to the future 1290 Level. As it leaves the Boulder Zone and enters the Argillite Zone, it will be driven on the Argillite vein. Ramp No. 3 will be collared off of Ramp No.2 and provide access to the hangingwall stope 'D', the bottom of 'E' stope and then serve as a "pillar" drift and vent and escapeway for the Argillite stopes. Ramp No.1 will be driven from surface at the west end of the Boulder Zone to mine out a shallow block of ore. A new portal will be established at 1290 Level and can be extended to the north to intersect the eastern extension of the Boulder ore zone. This Level will generally be used for haulage. A compressor room and shop will be excavated in a suitable area. The crosscut will intercept the ramp down from 1370, and an ore pass and ventilation and escape raise will connect to the upper levels. Fresh air will be forced down the vent raise and be released at each level by controlled openings. Exhaust air will work its way up the ramp and out the lower portal. Mine Design is being reviewed to take into consideration the added strike length to the east.

METALLURGY

Metallurgical testwork was carried out on five samples as follows:

- Bulk sample from the Boulder Zone;
- Hanging wall sample from the Argillite Zone;
- Composite sample of ore from the Argillite Zone;
- Graphitic hanging wall sample from the 9800 Zone;
- Arsenopyritic ore from the 9800 Zone.

Metallurgical testwork completed in this study indicates:

1. The Boulder Zone and Argillite Zone ore is readily amenable to a cyanidation milling process with recoveries exceeding 95% in ore grade material (rising to 99% in some material).

2. Leach extractions improved with finer grinds over the range tested (to 85% minus 200-mesh).

3. Reagent consumptions of 0.75 kg/tonne cyanide and 1.2 kg/tonne lime are moderate.

4. Flotation recoveries were good, but this approach was not pursued in view of the excellent results from direct cyanidation which proved more economic.

It is proposed to install a Merrill-Crowe gold recovery system because silver levels are quite high. Initial data indicated no particular problem with filtration rates. A C.I.P. plant capital costs would not be significantly different to the Merrill-Crowe plant.

Details of metallurgical testing are contained in the feasibility study.

This data was also confirmed by further metallurgical testing carried out by Lakefield Research.

GENERAL MILL DESIGN

It is proposed to construct a 315 - 409 tonne per day (350 - 450 short ton per day) mill housed in a 50 feet by 120 feet building at a site on Lower Federal Creek.

Complete descriptions of the Coarse Ore Storage, Crushing, Grinding, Thickening, Cyanidation, Filtering, Precipitation and Refining ore is set out in the Feasibility Study.

TAILINGS IMPOUNDMENT

Tailings from the mill process will be deposited in a secure impoundment facility, designed to minimize the environmental impact of the project. The tailings facility will be designed to be a closed system, such that cyanide will not escape to the environment and effluent recycled to the mill. Provision is also made for ultimate closure and reclamation of the tailings facility.

The tailings facility is designed to accommodate 425,000 cubic metres (555,900 cu. yd.) of tailings, with provision made for staging the embankment construction. Suitable construction materials for embankment core, shell and drainage zones exist in the vicinity of the site.

Full details of the studies conducted and pond design are detailed in the Feasibility Study.

SERVICES

ROADS

It is proposed that 5.2 km (3.2 miles) of new class 4 road be constructed from the Chapman Lake Road. The Mill site is 1 km from the road and a further 4.2 km (2.6 miles) of road would be required internally. The total distance from Smithers to the site is equal to 69 km (43 miles), approximately 50 minutes.

ACCOMMODATION

During the construction phase of the property, the contractors and mine development crew will be housed on site in a temporary camp facility. When production commences, personnel will be expected to provide their own housing and daily transportation requirements.

POWER

British Columbia Hydro will supply power to the mine site. A new three-phase line will be required for twenty-one kilometers.

WATER

The main supply for the mill will be Federal Creek. Recycling of water from the tailings will reduce the demand on the creek. The mine water supply will come from Boulder Creek. The 1370 level will require a pressurized system but the lower levels will have sufficient head pressure to accommodate the operation.

COMMUNICATIONS

Voice communication, Fax and computer connections are required and will have to be brought in from the Chapman Lake road.

SURFACE BUILDINGS

Shops, dry, warehouses, and offices will be constructed in a single 40 feet by 140 feet building at the Mill site. Lunch rooms and toilets will be provided at both portals.

ENVIRONMENTAL

The key document in the environmental approval process in British Columbia is the Stage I Report, which is an omnibus report

addressing all components of mining plans (mine plans, processing, reserves, socioeconomic aspects) as well as environmental issues relating to water quality, hydrology, acid generation, fisheries, wildlife, vegetation, soils, and sediments.

The Stage I Report was submitted to all pertinent government agencies on April 22, 1988 and was reviewed with the steering committee on April 29, 1988 and the technical government personnel in Smithers on May 13, 1988. Approval-in-principle was received in November, 1988. Final Stage III permitting is now proceeding.

PREPRODUCTION COSTS

PREPRODUCTION COST SUMMARY

Preproduction Capital Costs

Site preparation, roads, dam	284,000
Mine site plant	862,000
Mill & assay plant, tailings	6,055,000
Site infrastructure	1,705,000
Surface mobile equipment	85,000
Underground equipment	715,000
Underground installations	205,000
Construction indirects	640,000
TOTAL	10,551,000

Preproduction Development Cost

Direct mining Costs	$ 2,209,000
General mine expense	717,000
Plant costs	419,000
Administrative costs	648,000
TOTAL	3,993,000
Working Capital, Inventory Buildup	2,320,000
TOTAL INVESTMENT FUNDS	$16,864,000

OPERATING COST

OPERATING COSTS SUMMARY

	$/Tonne
Mining	34.13
Milling	20.79
Plant	7.66
General & Administration includes Royalties	15.19
TOTAL	77.77

DOME MOUNTAIN PROJECT
FINANCIAL PROJECTIONS
(ØØØ'S)

FACTORS:				
	GOLD	36Ø.ØØ	GRADE	.355 Au 2.35 Ag
	SILVER	5.ØØ	RECOVERY	95% Au 4Ø% Ag
	EXCHANGE	Ø.85	OPERATING COST	$72.36/TON
	DEBT	832Ø	PER OUNCE	$2Ø9 CDN $178 US

VARIABLES : NONE

		Year 1	Year 2	Year 3	Year 4	Year 5	Total
TONS MILLED		33	131	131	131	131	557
TONNES MILLED		3Ø	119	119	119	119	5Ø5
RECOVERED METAL							
Gold(oz/ton)		11	44	44	44	44	188
Gold(g/tonne)		382	1515	1515	1515	1515	6441
Silver(oz/ton)		31	123	123	123	123	524
Silver(g/tonne)		1Ø64	4226	4226	4226	4226	17967
REVENUE		4896	19436	19436	19436	19436	82642
OPERATING COSTS	Per ton						
Mining	31.Ø3	1Ø24	4Ø65	4Ø65	4Ø65	4Ø65	17284
Milling	17.42	575	2282	2282	2282	2282	97Ø3
Plant	5.78	191	757	757	757	757	3219
Admin	7.72	255	1Ø11	1Ø11	1Ø11	1Ø11	43ØØ
Royalty	4%	196	777	777	777	777	33Ø6
TOTAL COSTS		224Ø	8893	8893	8893	8893	37812
OPERATING PROFIT		2656	1Ø543	1Ø543	1Ø543	1Ø543	44831Ø
CUMM. OPERATING PROFIT		2656	13199	23743	34286	44831Ø	
INVESTMENT							
Capital		1Ø551	Ø	Ø	Ø	Ø	1Ø551
Ongoing Exp & Dev		5ØØ	5ØØ	15ØØ	15ØØ	15ØØ	55ØØ
Prepro. Dev.		3993	Ø	Ø	Ø	Ø	3993
TOTAL CAPITAL AND DEV.		15Ø44	5ØØ	15ØØ	15ØØ	15ØØ	2ØØ44
CASH FLOW SUMMARY							
Operatin Profit		2656	1Ø543	1Ø543	1Ø543	1Ø543	44831Ø
Capital & Dev.		15Ø44	5ØØ	15ØØ	15ØØ	15ØØ	2ØØ44
Debt Service		34Ø	76Ø	Ø	Ø	Ø	11ØØ
Working Capital		232Ø	Ø	Ø	Ø	Ø	232Ø
BEFORE TAX CASH FLOW		-15Ø48	9283	9Ø43	9Ø43	9Ø43	21366
Taxes		Ø	Ø	511	3617	3617	7746
AFTER TAX CASH FLOW		-15Ø48	9283	8532	5426	5426	136ØØ

DOME MOUNTAIN PROJECT
(ØØØ'S)

NET AFTER TAX CASH FLOW
FINANCIAL SENSITIVITY ANALYSIS

VARIABLE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
BASE CASE	-15Ø48	9283	8532	5426	5426	13619
GOLD $38Ø PER OUNCE	-14797	1Ø281	8631	6Ø25	6Ø25	16165
GOLD $4ØØ PER OUNCE	-14545	11279	8622	6624	6624	18Ø4
GOLD $425 PER OUNCE	-14231	12527	8854	7372	7372	21894
GRADE + 1Ø%	-14584	11124	8714	653Ø	653Ø	18314
GRADE - 1Ø%	-15512	7443	72Ø3	5468	5468	1ØØ7Ø
CAPITAL COST + 1Ø%	-161Ø3	9283	8954	5426	5426	12986
CAPITAL COST - 1Ø%	-13993	9283	811Ø	5426	5426	14252
OPERATING COST + 1Ø%	-15252	8473	8233	5158	494Ø	11552
OPERATING COST - 1Ø%	-14844	1ØØ94	8612	5913	5913	15688