

Leslie Engineering (1988) Limited,
100 Adelaide Street West, Suite 1010,
Toronto, Ontario
M5H 1S3

February 22nd. 2000.

Sandy K Mines Limited,
c/o Pearson Geological Limited,
55 Bradbeer Cresnet,
Thornhill,
Ontario.

Attention: **Mr. William N. Pearson,**

Subject: Silver Recovery Project - Pre-Feasibility Study - Order of Magnitude Capital Cost Estimate

Dear Sir,

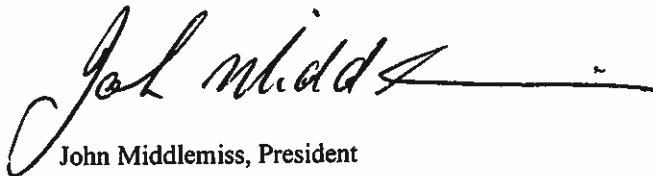
As per your request, we are pleased to submit the above noted cost estimate for your perusal.

The estimate was prepared based on the preliminary flow sheet supplied by Mr. G. Shadford, P.Eng., Consultant Metallurgist and without the benefit of layout drawings. In addition, the site was not visited therefor the locale has been assumed to be relatively flat, with soil of adequate bearing capacity for the equipment and structure loads. It has also been assumed that there are adequate local resources to supply the utility needs of the plant.

Historical data has been used to develop the pricing for this estimate since time constraints did not permit budget price sourcing from qualified bidders.

The estimate carries on accuracy of approximately +50%, -35%.

Yours sincerely,
For Leslie Engineering (1988) Limited



John Middlemiss, President

c.c. Mr. Peter Hooper. Fax: 905-951-6402
c.c. Mr. George Shadford Fax: 905-827-2811

Enclosures: Silver Recovery Project - Pre-Feasibility Study - Order of Magnitude Capital Cost Estimate

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Order of Magnitude Capital Cost Estimate Summary:

	\$ Can.
<i>Direct Costs:</i>	
General Site	567,000
Mill Building Foundations & Structure	1,270,000
Mechanical Supply and Installation	3,080,400
Utilities and Support Facilities - Supply & Installation	549,500
Piping - Supply and Installation	167,900
Electrical - Supply and Installation	676,000
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Total Direct Costs:	6,310,800
 <i>Indirect Costs:</i>	
Construction Indirects	126,216
Engineering / Procurement	441,756
Construction Management	126,216
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Total Indirect Costs:	694,188
 Contingency 50%	 3,155,400
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Total Capital Cost:	10,160,388

Note: *Applicable Taxes Extra*
For more detail, see the following area detail sheets

The estimate does not include the following items:

- Tailing Dam**
- Open Pit**
- Roads between Open Pit and Mill**
- Environmental**
- Permitting**
- Water Supply**
- Power Line to Sub-Station**
- Site Survey**
- Soils Testing**
- Laboratory Facilities**
- Maintenance Facilities for Mobile Equipment**
- Mobile Equipment or Mining Equipment Costs**
- Tailings Line Requirements Over 1500 ft.**

Project No: 0060

Order of Magnitude Capital Cost Estimate - Area Detail

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
<i>General Site:</i>							
GS005	Access Road Upgrade	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	50,000	50,000	
				Item cost:			50,000
GS010	General Site Grading	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	30,000	30,000	
				Item cost:			30,000
GS015	General Site Backfill	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	20,000	20,000	
				Item cost:			20,000
GS020	Ore Loading Ramp - To Mill	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	20,000	20,000	
				Item cost:			20,000
GS025	Employee & Visitor Parking	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	25,000	25,000	
				Item cost:			25,000
GS030	Property Fencing & Entrance Gates	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	40,000	40,000	
				Item cost:			40,000
GS035	Gatehouse & Scale Office - Trailer Unit	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	20,000	20,000	
				Item cost:			20,000
GS040	Administration Office - Trailer Unit	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	40,000	40,000	
				Item cost:			40,000
GS045	Washroom Facilities - Trailer Unit	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	62,000	62,000	
				Item cost:			62,000

Project No: 0060

Order of Magnitude Capital Cost Estimate - Area Detail

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
GS050	Cold Storage Buiding	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	30,000	30,000	
				Item cost:			30,000
GS055	Tailings Line	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	200,000	200,000	
				Item cost:			200,000
GS060	Sewage System	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	30,000	30,000	
				Item cost:			30,000
Total General Site:							<u>567,000</u>

Order of Magnitude Capital Cost Estimate-Area Detail

Item No.	Description	Units	Qty	Unit Cost	Sub-Total Cost	Total Cost
<i>Mill Building Foundation and Structure:</i>						
MB005	Mobilization	lot	1	Material	0	
				Labour	0	
				Subcont	50,000.00	50,000
				Item cost:		50,000
MB010	Demobilization	lot	1	Material	0	
				Labour	0	
				Subcont	10,000.00	10,000
				Item cost:		10,000
MB015	Overburden Excavation	lot	1	Material	0	
				Labour	0	
				Subcont	20,000.00	20,000
				Item cost:		20,000
MB020	Rock Excavation	lot	1	Material	0	
				Labour	0	
				Subcont	100,000.00	100,000
				Item cost:		100,000
MB025	Compacted Backfill	lot	1	Material	0	
				Labour	0	
				Subcont	20,000.00	20,000
				Item cost:		20,000
MB030	Foundation Drainage	lot	1	Material	0	
				Labour	0	
				Subcont	10,000.00	10,000
				Item cost:		10,000
MB035	Building Columns and Footings	lot	1	Material	0	
				Labour	0	
				Subcont	66,000.00	66,000
				Item cost:		66,000
MB040	Building Wall Foundations, Floor Slab & Equipment Foundations	lot	1	Material	0	
				Labour	0	
				Subcont	200,000.00	200,000
				Item cost:		200,000

Order of Magnitude Capital Cost Estimate-Area Detail

Item No.	Description	Units	Qty	Unit Cost	Sub-Total Cost	Total Cost
MB045	Masonry Walls	lot	1	Material	0	<u>7,500</u>
				Labour	0	
				Subcont	7,500.00	
				Item cost:	7,500	
MB050	Supply and Erect Building Envelope Steel	lot	1	Material	0	<u>275,000</u>
				Labour	0	
				Subcont	275,000.00	
				Item cost:	275,000	
MB055	Supply and Erect Secondary Steel, Stairs, Grating & Decking etc.	lot	1	Material	0	<u>253,000</u>
				Labour	0	
				Subcont	253,000.00	
				Item cost:	253,000	
MB060	Supply & Install Roof Cladding System	lot	1	Material	0	<u>97,000</u>
				Labour	0	
				Subcont	97,000.00	
				Item cost:	97,000	
MB065	Supply and Install Wall Cladding System	lot	1	Material	0	<u>105,000</u>
				Labour	0	
				Subcont	105,000.00	
				Item cost:	105,000	
MB070	Supply and Install Doors & Windows	lot	1	Material	0	<u>21,500</u>
				Labour	0	
				Subcont	21,500.00	
				Item cost:	21,500	
MB075	Supply and Install Heating and Ventilation System	lot	1	Material	0	<u>35,000</u>
				Labour	0	
				Subcont	35,000.00	
				Item cost:	35,000	
Total Mill Building Foundation and Structure:						<u><u>1,270,000</u></u>

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
<i>Mechanical Supply and Installation:</i>							
MECH005	Truck Dump Hopper c/w Grizzly	each	1	Material	75,000	75,000	
				Labour	35,000	35,000	
				Subcont		0	
				Item cost:			110,000
MECH010	6' x 12' Double Deck Screen c/w Chutes	each	1	Material	90,000	90,000	
				Labour	11,000	11,000	
				Subcont		0	
				Item cost:			101,000
MECH015	24' dia. x 10' lg Log Washer Type Repulper	each	1	Material	75,000	75,000	
				Labour	9,800	9,800	
				Subcont			
				Item cost:			84,800
MECH020	Pump Box - Repulper Discharge	each	1	Material	10,000	10,000	
				Labour	1,000	1,000	
				Subcont		0	
				Item cost:			11,000
MECH025	Pumps - Repulper Discharge - 8x6x18 SRL-C (1 - Operating & 1 - Standby)	each	2	Material	12,000	24,000	
				Labour	1,500	3,000	
				Subcont			
				Item cost:			27,000
MECH030	Pulp Holding Tank #1 - 20' dia. x 23' high	each	1	Material		0	
				Labour		0	
				Subcont	60,000	60,000	
				Item cost:			60,000
MECH035	Agitator - Pulp Holding Tank #1	each	1	Material	25,000	25,000	
				Labour	5,000	5,000	
				Subcont			
				Item cost:			30,000
MECH040	Pulp Holding Tank #2 - 20' dia. x 23' high	each	1	Material		0	
				Labour		0	
				Subcont	60,000	60,000	
				Item cost:			60,000

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
MECH045	Agitator - Pulp Holding Tank #2	each	1	Material	25,000	25,000	
				Labour	5,000	5,000	
				Subcont			
				Item cost:			30,000
MECH050	Pump Box - Pulp Holding Tank Discharge	each	1	Material	10,000	10,000	
				Labour	1,500	1,500	
				Subcont		0	
				Item cost:			11,500
MECH055	Pumps - Pulp Holding Tank Discharge - 8x6x18 SRL-C (1 - Operating & 1 - Standby)	each	2	Material	12,000	24,000	
				Labour	1,500	3,000	
				Subcont			
				Item cost:			27,000
MECH060	Sump Pump - Ore Slurry Area	each	1	Material	15,000	15,000	
				Labour	1,100	1,100	
				Subcont		0	
				Item cost:			16,100
MECH065	Ball Mill - 10'dia. x 10'lg - 600 HP	each	1	Material	800,000	800,000	
				Labour	90,000	90,000	
				Subcont		0	
				Item cost:			890,000
MECH070	Pump Box - Ball Mill Discharge	each	1	Material	12,500	12,500	
				Labour	1,100	1,100	
				Subcont		0	
				Item cost:			13,600
MECH075	Pumps - Cyclone Feed - 10x8x21 SRL-C (1 - Operating & 1 - Standby)	each	2	Material	15,000	30,000	
				Labour	1,500	3,000	
				Subcont		0	
				Item cost:			33,000
MECH080	Cyclones - 3 x 10" dia. mounted in Cyclopac (2 - Operating & 1 - Standby)	each	1	Material	25,000	25,000	
				Labour	2,000	2,000	
				Subcont		0	
				Item cost:			27,000
MECH085	Sump Pump - Grinding Area	each	1	Material	15,000	15,000	
				Labour	1,100	1,100	
				Subcont		0	
				Item cost:			16,100

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
MECH090	Trash Screen - 72" dia. Sweco	each	1	Material	20,000	20,000	
				Labour	1,100	1,100	
				Subcont		0	
				Item cost:			21,100
MECH095	Trash Hopper	each	1	Material	4,000	4,000	
				Labour	300	300	
				Subcont		0	
				Item cost:			4,300
MECH100	Primary Concentrator - 20" Falcon	each	1	Material	570,000	570,000	
				Labour	36,000	36,000	
				Subcont		0	
				Item cost:			606,000
MECH105	Secondary Concentrator - 10" Falcon	each	1	Material	220,000	220,000	
				Labour	22,000	22,000	
				Subcont		0	
				Item cost:			242,000
MECH110	Compressor - Concentrate Units	each	1	Material	8,000	8,000	
				Labour	1,000	1,000	
				Subcont		0	
				Item cost:			9,000
MECH115	Regrind Mill - 5' dia. X 6.5' lg. - 60 HP	each	1	Material	220,000	220,000	
				Labour	28,000	28,000	
				Subcont		0	
				Item cost:			248,000
MECH120	Pump Box - Regrind Cyclone Feed	each	1	Material	5,500	5,500	
				Labour	900	900	
				Subcont		0	
				Item cost:			6,400
MECH125	Pumps - Regrind Cyclone Feed - 3x3x10 SRL (1 - Operating & 1 - Standby)	each	2	Material	6,000	12,000	
				Labour	1,200	2,400	
				Subcont		0	
				Item cost:			14,400
MECH130	Regrind Cyclones - 2 x 6 dia. c/w Valves (1 - Operating & 1 - Standby)	each	2	Material	4,000	8,000	
				Labour	500	1,000	
				Subcont		0	
				Item cost:			9,000

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
MECH135	Pump Box - Tailings	each	1	Material	10,000	10,000	
				Labour	1,500	1,500	
				Subcont			
				Item cost:			11,500
MECH140	Pumps - Tailings - 8x6x18 SRL-C (1 - Operating & 1 - Standby)	each	2	Material	12,000	24,000	
				Labour	1,500	3,000	
				Subcont			
				Item cost:			27,000
MECH145	Sump Pump - Re grind Area	each	1	Material	15,000	15,000	
				Labour	1,500	1,500	
				Subcont			
				Item cost:			16,500
MECH150	Concentrate Surge Tank - 8' dia. x 10' high	each	1	Material	11,000	11,000	
				Labour	1,100	1,100	
				Subcont		0	
				Item cost:			12,100
MECH155	Agitator - Concentrate Surge Tank	each	1	Material	18,000	18,000	
				Labour	3,000	3,000	
				Subcont		0	
				Item cost:			21,000
MECH160	Pump Box - Concentrate Table Feed	each	1	Material	5,500	5,500	
				Labour	1,200	1,200	
				Subcont		0	
				Item cost:			6,700
MECH165	Pumps - Concentrate Table Feed - 3x3x10 SRL (1 - Operating & 1 - Standby)	each	2	Material	6,000	12,000	
				Labour	1,500	3,000	
				Subcont		0	
				Item cost:			15,000
MECH170	Pulp Splitter - Table Feed	each	1	Material	18,000	18,000	
				Labour	1,200	1,200	
				Subcont		0	
				Item cost:			19,200
MECH175	Concentrate Table #1 - "Gemini Type"	each	1	Material	30,000	30,000	
				Labour	2,500	2,500	
				Subcont		0	
				Item cost:			32,500

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
MECH180	Concentrate Table #2 - "Gemini Type"	each	1	Material	30,000	30,000	
				Labour	2,500	2,500	
				Subcont		0	
				Item cost:			32,500
MECH185	Concentrate Holding Tank	each	1	Material	11,000	11,000	
				Labour	800	800	
				Subcont		0	
				Item cost:			11,800
MECH190	Pumps - Filter Feed - 3x3x10 SRL (1 - Operating & 1 - Standby)	each	2	Material	6,000	12,000	
				Labour	1,500	3,000	
				Subcont		0	
				Item cost:			15,000
MECH195	Plate and Frame Filter Press	each	1	Material	60,000	60,000	
				Labour	7,000	7,000	
				Subcont		0	
				Item cost:			67,000
MECH200	Ball Storage & Handling Equipment	lot	1	Material	15,000	15,000	
				Labour	1,800	1,800	
				Subcont		0	
				Item cost:			16,800
MECH205	Maintenance Crane	each	1	Material	47,500	47,500	
				Labour	20,000	20,000	
				Subcont		0	
				Item cost:			67,500
Total Mechanical Supply and Installation:							3,080,400

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
<i>Utilities and Support Supply and Installation:</i>							
UTIL005	Truck Weigh Scale	each	1	Material	40,000	40,000	
				Labour	6,000	6,000	
				Subcont	15,000	15,000	
				Item cost:			61,000
UTIL010	Plant Air Compressor	each	1	Material	35,000	35,000	
				Labour	3,500	3,500	
				Subcont		0	
				Item cost:			38,500
UTIL020	Receiver - Plant Air	each	1	Material	6,000	6,000	
				Labour	1,000	1,000	
				Subcont			
				Item cost:			7,000
UTIL025	Instrument Air Compressor, Dryer, Receiver and Oil Separator	each	1	Material	40,000	40,000	
				Labour	1,800	1,800	
				Subcont		0	
				Item cost:			41,800
UTIL030	Standby Diesel Generator	each	1	Material	85,000	85,000	
				Labour	8,500	8,500	
				Subcont			
				Item cost:			93,500
UTIL035	Process Water / Fire Water Tank	each	1	Material		0	
				Labour		0	
				Subcont	56,700	56,700	
				Item cost:			56,700
UTIL040	Process Water Pumps (1-Operating & 1 Standby)	each	2	Material	12,000	24,000	
				Labour	2,500	5,000	
				Subcont			
				Item cost:			29,000
UTIL045	Gland Water Supply Pump (1-Operating & 1-Standby)	each	2	Material	4,500	9,000	
				Labour	1,500	3,000	
				Subcont		0	
				Item cost:			12,000

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
UTIL050	Electric Fire Pump	each	1	Material	13,000	13,000	
				Labour	3,000	3,000	
				Subcont			
				Item cost:			16,000
UTIL055	Diesel Fire Pump	each	1	Material	38,000	38,000	
				Labour	8,000	8,000	
				Subcont			
				Item cost:			46,000
UTIL060	Main Jockey Pump	each	1	Material	2,200	2,200	
				Labour	800	800	
				Subcont			
				Item cost:			3,000
UTIL065	Yard Hydrant System	each	1	Material	125,000	125,000	
				Labour	20,000	20,000	
				Subcont		0	
				Item cost:			145,000
Total Utilities and Support Supply and Installation:							549,500

Project No: 0060

Order of Magnitude Capital Cost Estimate - Area Detail

Item No.	Description	Units	Qty	Unit Cost	Sub-Total Cost	Total Cost
<i>Piping Supply and Installation:</i>						
PI005	Supply & Install Process Piping c/w valves fittings etc.	lot	1	Material	0	
				Labour	0	
				Subcont	90,000	90,000
				Item cost:		90,000
PI010	Supply and Install Process Water Piping	lot	1	Material	0	
				Labour	0	
				Subcont	27,000	27,000
				Item cost:		27,000
EI015	Supply and Install Potable Water Piping	lot	1	Material	0	
				Labour	0	
				Subcont	9,500	9,500
				Item cost:		9,500
EI020	Supply and Install Air Piping	lot	1	Material	0	
				Labour	0	
				Subcont	16,000	16,000
				Item cost:		16,000
EI025	Supply and Install Sanatary Piping	lot	1	Material	0	
				Labour	0	
				Subcont	9,400	9,400
				Item cost:		9,400
EI030	Supply and Install Tails Lines (to battery limits)	lot	1	Material	0	0
				Labour	0	0
				Subcont	16,000	16,000
				Item cost:		16,000
<i>Total Piping Supply and Installation:</i>						167,900

Order of Magnitude Capital Cost Estimate - Area Detail

Item No.	Description	Units	Qty		Unit Cost	Sub-Total Cost	Total Cost
<i>Electrical and Instrumentation Supply and Installation:</i>							
EI005	Supply & Install Sub-Station	lot	1	Material		0	
				Labour		0	
				Subcont	400,000	400,000	
				Item cost:			400,000
EI010	Supply Variable Frequency Drives	lot	1	Material	15,000	15,000	
				Labour	0	0	
				Subcont	0	0	
				Item cost:			15,000
EI015	Supply Motor Control Centre	lot	1	Material	50,000	50,000	
				Labour	0	0	
				Subcont	0	0	
				Item cost:			50,000
EI020	Supply and Install Grounding System	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	6,000	6,000	
				Item cost:			6,000
EI025	Supply and Install Power Distribution System	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	80,000	80,000	
				Item cost:			80,000
EI030	Supply and Install Lighting System	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	60,000	60,000	
				Item cost:			60,000
EI030	Supply and Install Instrument and Control System	lot	1	Material	0	0	
				Labour	0	0	
				Subcont	65,000	65,000	
				Item cost:			65,000
<i>Total Electrical and Instrumentation Supply and Installation:</i>							<u>676,000</u>