MEMO

To: **Division of Oil, Gas, & Mining - 801-359-3940**
-Wayne Hedberg
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-Dennis Fredrick

From: Lee "Pat" Gochnour

Subject: Final Reclamation Costs - Lisbon Valley Project

Date: January 21, 1997 — 12:36

Sent via Fax - 4 pages

Tery McParland pointed out a descrepency on the last page of the spreadsheet for final reclamation numbers. Line 21 on page 3 should read $55,000, not $5,500. A revised page 3 is attached and should replace the one I sent to each of you yesterday afternoon.

Please call if you have any questions.

Thanks,

Pat G.!

FILENAME: [SUMLVRC2.XLW]RECLAIM 1 REV 5
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION:RECLAMATION COSTS
D 21-Jan-97

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

10:03 AM

	DESCRIPTION	QTY	UNIT	LABOR HR PER UNIT	UNIT COSTS MATL	LABOR	RENTAL EQUIPMEN	SUBCONT	EXTENDED COSTS MATERIAL	LABOR	RENTAL	SUBTOTAL	TOTAL
1	**RECLAMATION OF WASTE DUMPS**												
2													
3	**WASTE DUMP "A"--190 ACRES**												
4	AREA OF TOP	456,444	SY										
5	AREA OF SLOPE	462,680	SY										
6	SCARIFY TOP (FLAT) AREA	456,444	SY					0.20				91,289	
7	12" SOIL ON TOP OF DUMP	152,148	CY					1.25				190,185	
8	12" SOIL ON SLOPE	154,227	CY					1.25				192,783	
9	SEED ENTIRE SURFACE	190	ACRE					174				33,060	
10	TOTAL--WASTE DUMP "A" RECLAMATION												$507,317
11													
12	**WASTE DUMP "B"--94 ACRES**												
13	AREA OF TOP	197,222	SY										
14	AREA OF SLOPE	258,240	SY										
15	SCARIFY TOP (FLAT) AREA	197,222	SY					0.20				39,444	
16	12" SOIL ON TOP OF DUMP	65,741	CY					1.25				82,176	
17	12" SOIL ON SLOPE	86,080	CY					1.25				107,600	
18	SEED ENTIRE SURFACE	94	ACRE					174				16,356	
19	TOTAL--WASTE DUMP "B" RECLAMATION												$245,576
20													
21	**WASTE DUMP "C"--120 ACRES**												
22	AREA OF TOP	344,222	SY										
23	AREA OF SLOPE	238,633	SY										
24	SCARIFY TOP (FLAT) AREA	344,222	SY					0.20				68,844	
25	12" SOIL ON TOP OF DUMP	114,741	CY					1.25				143,426	
26	12" SOIL ON SLOPE	79,544	CY					1.25				99,430	
27	SEED ENTIRE SURFACE	120	ACRE					174				20,880	
28	TOTAL--WASTE DUMP "C" RECLAMATION												$332,580
29													
30	**LEACH PAD--254 ACRES***												
31	RINSE HEAP	18	MOS.										
32	LIME 2.5 LBS/TON X $0.025/LB X 5,9	1	LOT					405,625				405,625	
33	LABOR, POWER, AND PUMP FOR DRAIN-												
34	DOWN AND EVAPORATION (18 MON	1	LOT					446,640				446,640	
35	**SUBTOTAL FOR HEAP RINSE**												852,265
36	AREA OF TOP	788,556	SY										
37	AREA OF SLOPE	441,653	SY										
38	12" CLAY CAP ON TOP	262,852	CY					2.50				657,130	
39	12" CLAY CAP ON SLOPE	147,218	CY					2.50				368,045	
40	24" CRUSHED ROCK ON TOP	525,704	CY					2.50				1,314,260	
41	24" CRUSHED ROCK ON SLOPE	294,436	CY					2.50				736,090	
42	12" SOIL ON TOP	262,852	CY					1.25				328,565	
43	12" SOIL ON SLOPE	147,218	CY					1.25				184,022	
44	SEED ENTIRE SURFACE	254	ACRE					174				44,196	
45	**SUBTOTAL--CAP, ROCK, SOIL, SEEDING**												$3,632,308
46													
47	*This number varies from the Plan of Operations acreage of 266 acres. The 12 additional acres is considered buffer area												
48	around the leach pad and is accounted for in other areas. (pond area, plant and crusher area, powerline corridor, etc.)												
49	TOTAL												$5,570,045

FILENAME: RECC2.XLS REV 5
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION: RECLAMATION COSTS
21-Jan-97

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

10:05 AM

	DESCRIPTION	QTY	UNIT	LABOR HR PER UNIT	UNIT COSTS MATL	LABOR	RENTAL EQUIPMENT	SUB/CONT	EXTENDED COSTS MATERIAL	LABOR	RENTAL	SUBTOTAL	TOTAL
1	**RECLAMATION OF MISCELLANEOUS AREAS**												
2													
3	**POND AREA--11 ACRES**												
4	RAFFINATE POND--12 INCHES SOIL	4,852	CY					1.25				6,065	
5	PLS POND--12 INCHES SOIL	4,852	CY					1.25				6,065	
6	WATER RUNOFF POND--12 INCHES SOI	8,229	CY					1.25				10,286	
7	SEED 3 POND AREAS	11	ACRE					174				1,914	
8	TOTAL--POND AREA RECLAMATION												$24,330
9													
10	**PLANT & CRUSHER AREA--25.5 ACRES**												
11	APPLY 12 INCHES SOIL	41,080	CY					1.25				51,350	
12	SEED ENTIRE AREA	25.5	ACRE					174				4,437	
13	TOTAL--PLANT AREA RECLAMATION												$55,787
14													
15	**HAUL ROADS--40 ACRES**												
16	SCARIFY	192,889	SY					0.20				38,578	
17	CONTOUR	64,296	CY					1.25				80,370	
18	APPLY 12 INCHES SOIL	67,511	CY					1.25				84,389	
19	SEED ENTIRE AREA	40	ACRE					174				6,960	
20	TOTAL--HAUL ROAD RECLAMATION												$210,297
21													
22	**POWER LINE CORRIDOR--64 ACRES***												
23	*NOTE--POWER CO. HAS REQUESTED	64	ACRE					N/C					
24	LINE REMAIN OPEN.												
25													
26													
27	**RESEED SOIL STOCKPILE AREAS--40 ACRES**												
28	RESEED 40 ACRES	40	AC					174				6,960	
29	TOTAL--RESEED SOIL STOCKPILE AREAS												$6,960
30													
31	**FENCES & BERMS* AROUND OPEN PITS**												
32	FENCE AROUND SENTINEL PIT 1	5,620	LF					3.02				16,972	
33	FENCE AROUND SENTINEL PIT 2	2,140	LF					3.02				6,463	
34	FENCE AROUND CENTENNIAL PIT	8,980	LF					3.02				27,120	
35	FENCE AROUND GTO PIT	7,410	LF					3.02				22,378	
36	TOTAL--PIT FENCES												$72,933
37	*NOTE--COST FOR BERMS IS NOT SHOWN, AS THESE WILL												
38	BE BUILT DURING PLANT CONSTRUCTION PHASE.												
39	FENCING MATERIAL WILL BE RECYCLED FROM THE												
40	LEACH PAD AREA.												
41													
42	**SURFACE DRAINAGE DIVERSION DITCHES***												
43	LEACH PAD AREA	7,473	CY					1.25				9,341	
44	PLANT AREA	1,595	CY					1.25				1,993	
45	CRUSHER AREA	1,810	CY					1.25				2,263	
46	DUMP AREAS	13,668	CY					1.25				17,085	
47	TOTAL--DRAINAGE DIVERSION DITCHES												$30,682
48	*WORK IS FOR REMOVING DIVERSION SEDIMENT STRUCTURES.												
49													
50	**TOTAL**												$400,989

FILENAME: SUMREC.XLS REV 5
PROJECT: SUMMO CORP., LISBON VALLEY COPPER
DESCRIPTION:SUMMARY OF RECLAMATION COSTS
D 21-Jan-97

THE WINTERS CO
TUCSON, ARIZONA
CAPITAL COST ESTIMATE

10:10 AM

Remarks
SUMMARY OF RECLAMATION COSTS FOR LISBON VALLEY

TOTAL $8,685,581

	DESCRIPTION	QTY	UNIT	LABOR HR PER UNIT	UNIT COSTS UNIT MATL	LABOR	RENTAL EQUIPMENT	SUBCONTR	EXTENDED COSTS MATERIAL	LABOR	RENTAL	SUBCONT	TOTAL
1	**DIRECT COSTS**												
2													
3	MOBILIZATION AND DEMOBILIZATION	1	LOT										35,000
4	LEACH PAD AND WASTE DUMPS	1	LOT										5,570,046
5	MISC. SURFACE AREAS	1	LOT										400,989
6	**TOTAL DIRECT COSTS**	1	LOT										$6,006,035
7													
8	**INDIRECT COSTS**												
9													
10	PLANT DISMANTLING*												
11	PLUG 4 IN. (PROCESS AREA) MONITOR	1	LOT										450,000
12	WELLS (5 X 500 FT.) AT $2.20/FT.												
13	PLUG 6 IN. (NAVAJO) MONITOR WELLS	1	LOT										5,500
14	(6 X 1,200 FT.) AT $3.30/FT.												
15		1	LOT										23,760
16	*PLANT DISMANTLING ASSUMES NO SALVAGE VALUE.												
17	DISMANTLING INVOLVES REMOVAL OF ABOVE GROUND STRUCTURES												
18	AND THE BREAKING UP AND BURIAL OF CONCRETE FOUNDATION												
19													
20	ENGINEERING	1	LOT										
21	WATER QUALITY MONITORING--11 WELLS												300,302
22	X 2 SAMPLES/YR. X 5 YRS. X $500.00/S	1	LOT										
23	REVEGETATION MONITORING--5 YEARS												55,000
24	X $5,000/YR.	1	LOT										
25	CONSTRUCTION MANAGEMENT	1	LOT										25,000
26	CONTINGENCY (10% OF TOTAL DIRECT	1	LOT										180,199
27	**TOTAL INDIRECT COSTS**	1	LOT										600,604
28													$1,640,865
29	**UNADJUSTED TOTAL COSTS**												
30													$7,646,900
31	**TOTAL COST WITH ESCALATION**												
32	2.58%/YR X 5 YRS.	1	LOT										
33													$8,685,581
34	**TOTAL**												
37													$8,685,581

38 *PRIOR TO THE END OF THE PROJECT, SUMMO WILL ASSESS THE EVALUATION, AND IF NECESSARY, DISPOSAL COST FOR REMOVAL OF
39 RESIDUAL PROCESS POND SLUDGES. THE BOND WILL BE ADJUSTED ACCORDINGLY THROUGH COORDINATION WITH THE AGENCIES.