60001244

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File - Hole No. RE-5
AUTHOR	K. Kenner; J. O'Neill; J. Ugarte; C. Nelson B. Bennett; M. Leitch; R. Grondin N. Brewer
DATE OF DOC(S)	1989 - 1990
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Lac Minerals (USA) Inc Environmental West Exploration Bondar-Clegg and Co. Ltd.
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 780'; handwritten notes; geochemistry 45 p.

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

	Initials	Date
SS:	DD	5/19/08
DB:	mah	
SCANNED:		

Revised: 1/22/08

DRILL LOGS RE-5
Rosebud

60001244 4010 ✓

423
455
2828

66001244

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DRILL LOG SUMMARY SHEET

PROJECT ROSEBUD

HOLE NUMBER RE-5 TOTAL DEPTH 780' LOGGED BY KLK

Date started 4-27-89 → 4-29-89 to 535'

Date completed 6-19-85 → 6-21-89 to 780'

Initial bearing SSE

Initial inclination -58°

Elevation 5248.8

Collar coordinates:

N 2203530

E 481360.4

Contractor: ENVIORNMENTAL WEST Explor.

Drill Type: Reverse Circulation

Hole Size: 5 1/2"

Drilling Conditions: good - no caving

Footage: Wet / Dry DRY: 0'-205'

WET: 205'-780'

Comments: in clay zones - slowed down due to fragments suspension in clay

- @ 775 lost possibly 2nd cone on tricone were about to drill to 780' max torque way up - loosing bit

DOWN HOLE SURVEY INFORMATION

FROM	TO	SURVEY POINT	INCLINATION	BEARING	X (Northing)	Y (Easting)	Z (Elevation)
0	150		-58	(175) S 5E			
150	300'	200'	-63.5°	S1.5E (178.5)			
300'	565'	400'	-67.5°	S7E (173)			
565'	780'	730'	-70.8°	S1E (179)			

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 1 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ARGILLIC W	ARGILLIC M	ARGILLIC S	SILICIFICATION W	SILICIFICATION M	SILICIFICATION S	PROPYLLITIC W	PROPYLLITIC M	PROPYLLITIC S	COLOR FINES	LIMONITE W	LIMONITE M	LIMONITE S	HEMATITE W	HEMATITE M	HEMATITE S	JAROSITE W	JAROSITE M	JAROSITE S	% SULFIDES	OTHER COMMENTS	Au	Au ✓	Ag	As	Hg	Sb	Se
0	MOD HYDRATED	Flesh color fine gr tuff banded calcedony vns fine hairline stkwk pervasive limonite flecked w/ black to brown mineral pervasively silicified trace grass green, wat pervasive clay alt → poss specular hemitite, weakly slated		Xc XX XK										tan										poss 1-2% limon replac py	poss wk goethite	.006		<.1				
5	"	Same w/ ↑ limonite mod limonitic clay weakly vuggy w/ Earthy limon ; ± goethite " slated		~ Xk+c X										orange										"	wk goethite vug fill	.004		<.1				
10	"	mottled lt brwn calcedonic fine gr tuff ; lt white gray green tuff weak white gray clay → to brn peach flesh, blow banded tr druzy qtz vns		~ Xc ~										orange ; gray green										"	local relict py casts	.005		<.1				
15	"	Hint army green bleached tuff pervasively silicified, wk druzy qtz vns few white gray clay balls, weakly lithic few limonite veinlets, tr stkwk qtz		~ Xc ++ Xk										greenish tan										tr limon replac		.003		<.1				
20	"	same buff to lt hint army green ↓ clay		~ Xc ++										buff tan										—		.003		<.1				
25	"	mottled w/ limon ; hemit Buff tuff - v. fine gr - blow banded wk stkwk, pervasive SiO2, wk limon clay wk open spaced druzy qtz w/ clay fill few flecks specular hemit intermit limon ; hem		Xk X ++ ~										orange tint										—		.007		<.1				
30	GOOD	same w/ few blue gray clasts → mottled red & orange w/ spec hem flecks		++ Xk Xc ~										"										te limon replac		.003		<.1				
35	"	same w/ ↓ hem, limon - buff tuff few burg brwn mineral trace WEAK white clay local str specular hemitite replac py		~ Xc Xk										"										tr specl lar hem replac py		.004		<.1				
40	"	weak army green ; weakly buff fine gr tuff wk white clay, wk. qtz vns		X Xc ~ Xv X										creamy green										"		.002		<.1				
45	"	same ↓ white clay		X Xcav ~										"										"		<.001		<.1				
50																																

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 2 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
50	GOOD	DOZEK Buff; pervasive hint mint green fine gr tuff wk limonitic druzy, weak clay tr red orange clay		~ X Xk tr				creamy white				tr specular hemit replac		.001		<.1				
55	"	same w/ strong limonitic clay mottled - white bleach tr green		tr Xv Xc				Red orange				"		.002		<.1				
60	"	Bleached WHITE TUFF - MILKY ~20-30% limonitic frags w/ assoc clay wk druzy limon qtz vns		~ Xc tr				orange to Buff				"	→ assoc w/ Fe-ox frags	.003		<.1				
65	"	TUFF - SAME - mottled orange, red, & weak hint green & PINK wk druzy limon qtz vns		Xk Xx Xc tr				hint orange buff				"		.002		<.1				
70	"	DOZEN TUFF Peach to burgundy red to bleached pervasive SiO2 tr clay, tr druzy limon + goet VNS		tr XX ~				WHITE w/ wk beet red				2% FeOx replac		.001		<.1				
75	"	same w/ ↑ limonite flecked w/ Specular hemitite & local bleached wk epiclastic comp		tr XX ~				"				1-2% FeOx replac py	tr goethite	.002		<.1				
80	"	Buff to jade green tuff wk limonitic clay, wk pervasive white clay pervasive SiO2		~ Xc XX				BUFF				tr limon replac py	"	.003		<.1				
85	"	same w/ wk ↑ clay & tr few flecks specular hemitite		~ Xk Xc				"				"	"	.002		<.1				
90	"	same w/ few black stringers (hem) assoc w/ limonitic clasts few spec hem flecks		~ Xc Xk				"				"	"	.003		<.1				
95	"	Medium army green lithic tuff wk clay, ~15-20% limon + goe frags wk druzy limon qtz vns		~ Xk X				BUFF GREEN				"	"	.001		<.1				
100																				

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PROJECT: ROSEBUD LOGGED BY: KLK HOLE NO. RE-5 PAGE 3 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ARGILLIC W M S	SILICIFICATION W M S	PROPYLLITIC W M S	COLOR FINES	LIMONITE W M S	HEMATITE W M S	JAROSITE W M S	% SULFIDES	OTHER COMMENTS	Au	Au ✓	Ag	As	Hg	Sb	Se
100	GOOD	medium army green fine gn lithic tuff tr white clay wk pervasive SiO2 wk limonitic clay, wk stkwk		XK Xc				BUFF					tr specular hemat	.002		<.1				
105	"	TUFF - FN MOTTLED BURGRED ORG ; PEACH tr white clay, wk epiclastic comp wk druzy qtz w/ limon clay wk stkwk few Specular hem flecks		XK X				BURG RED-DISH BUFF				poss tr FeOx replac	"	.003		.10				
110	"	same w/ ↓ limon ; hem slight grenish buff		XK X				BUFF				"	"	.001		<.1				
115	"	epiclastic w/ wk buff component few trap sulfide vich, wk stkwk		XK X				BUFF ? GRAY				2%+ diss py in concentrations		.001		<.1				
120	"	same w/ ↑ stkwk qtz & druzy qtz + FeOx, tr white clay		XK X				ORANGE				"	local specular hematite	.001		<.1				
125	"	same w/ microdiaunns ; mod tuff component tr red orange clay, tr white clay tr qtz-druzy encap py vns		XK X				ORANGE ? BUFF				1-2% @ VN	tr goethite	.003		.16				
130	"	same " " " TO PINKISH		XK X				ORANGE				2% @ VN ?wk diss	1% limon replac py	.003		.22				
135	"	GRAYISH BUFF fine GATUS w/ weak epiclastic component, py in stkwk + sulfide vich @ in SiO2 VNS @ diss and in clay clusters pervasive SiO2, stkwk SiO2 tr white clay		XK XX XV				gray				5%+ VN ! diss sulf	F arsenopy	.001		<.1				
140	"	same w/ ~20% weak hint army green trap		XK+V XX				"				"	"	.004		<.1				
145	"	same w/ pervasive - pale green ~30-40% pink buff good SiO2 + sulfide vein ↑ clay alt		X Xc XK				"				~7% VN ↓ diss sulf	poss w/ arsenopy	.001		.11				
150																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 4 OF 16

	RECOVERY	LITHOLOGIC DESCRIPTION (▯ = v-fine poss)	GRAPHIC LOG	GRAPHIC ALT	ARGILLIC W M S	SILICIFICATION W M S	PROPYLLITIC W M S	COLOR FINES	LIMONITE W M S	HEMATITE W M S	JAROSITE W M S	% SULFIDES	OTHER COMMENTS	Au	Au V	Ag	As	Hg	Sb	Se
150 *	GOOD	TUFF – weak pervasive to local strong jade green, weak pervasive clay alt, mod stv SiO2 + pyrite veins, wk white clay		Xc Xk Xv				GREEN				6-7% VN + diss sulf	py ± arsenic	.001		.21				
155 *	"	same; sulfide preclam in SiO2 VNS		Xv Xk Xc				"				"	"	.001		.12				
160 *	"	same w/ ↓ SiO2 + sulfide VNS, clr mint green to dkp calcedonic jade green		Xk Xc Xv				"				5% VN + diss sulf	"	.001		<.1				
165	"	same w/ ↓ SiO2 + sulf VNS, ↑ argillic alt		Xc Xk Xv				"				2-3% VN + diss sulf	"	.001		<.1				
170	"	same ↓ SiO2 + sulf VNS, ↑ argillic alt		Xc Xk				"				"	"	.001		<.1				
175	"	same – strongly lithic, ↓ SiO2 + sulfide VNS, ↑ clay		Xc Xv Xk				"				"	"	.002		<.1				
180	"	same w/ ↓ SiO2 + py VNS, ↑ clay alt + +/- limon clay		Xv Xk				"				"	"	.001		.14				
185 *	"	same ↑ clay, ↑ SiO2 + py VNS, ↑ diss py, ↑ qtz VNS, good drusy ± sulfide VNS	CLAY	Xc Xk				"				~5% VN; diss sulf	"	.001		<.1				
190 *	"	same – pervasive jade green, mod clay alt, w/ ↓ SiO2 + py VNS	CLAY	Xc X				"				"	"	.004		<.1				
195	"	same – however wk bleach, clr mint green w/ 30% clay, jade green tuff, ↑↑ clay, ↓ qtz + py VNS	CLAY	Xk Xc				"				3% VN; ± diss py	"	.001		<.1				
200																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 5 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION (▽ = v? fine fragmental or str lithic)	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC W M S	SILICIFICATION W M S	PROPYLLITIC W M S	COLOR FINES	MINERALIZATION: LIMONITE W M S	HEMATITE W M S	JAROSITE W M S	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
200 HH 12 TO 205	GOOD	Light leek green to deep jade green fine on tuff weak local calcitic flush wk py + SiO2 vns ? fragmental to lithic component wk druzy qtz + sulf weak pervasive argillic alt	CLAY	XC ? XK				GREEN				~4-5% cluster py + vn ? diss		.002		<.1				
205–210	BAD	CLAY H2O	CLAY	~				"						.003		<.1				
210–215	BAD	Same leek green fine on tuff wk SiO2 + py vns & wk diss py	CLAY	Xv				"				"		.003		<.1				
215–220	BAD	Same " " " w/ dark gray well silic w/ str sulf frags	CLAY	~ Xv Xc				"				7% vn + diss py	NOT REP SAMD EXACT	.001		<.1				
220–225	BAD	Same " " " w/ dgw dk gray silic frags w/ fine diss sulf	CLAY	HH Xv ~ Xc				"				"	% UNKNOWN	.006		<.1				
225–230	POOR	Same w/ ~ 20% + deep jade frags sulfides in white clays & in SiO2 vns ~ 7-10% dark gray frags - poss w/ str diss sulfides	CLAY	HH ~ Xc v				"				"	"	.02		.10				
230–235	POOR +	Same ↑ SiO2 pervasive ↑ bleaching few calced-jade frags	poss	Xv Xc ~				"				" @ 5%	"	.005		.41				
235–240	POOR +	Fine lithic & tuff, weak bleach lt. leek green STRONG HARD WHITE CLAY ~30% dk gray clasts or else is alunite	CLAY	XCK ~ Xv				"				~5% diss & vn py	"	.002		.37				
240–245	POOR +	Same leek green few frags hard white clay green hairline calcedonic stkwk → may otherwise be alunite	CLAY	~ Xv XCK				"				~3% vn, diss py		.001		.22				
245–250	"	Same w/ poss alunite frags mottled leek to jade to buff weak local bleach sulfides predom in vns also soft gray clay 4:30	?	~ Xv XK+C				"				~4% plus vn, diss py		.008		.28				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 6 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION (▯ = ? v fine fragmental vs. str lithics; poss ss throughout)	GRAPHIC LOG	GRAPHIC ALT	ALTERATION ARGILLIC W M S	SILICIFICATION W M S	PROPYLLITIC W M S	COLOR FINES	MINERALIZATION LIMONITE W M S	HEMATITE W M S	JAROSITE W M S	% SULFIDES	OTHER COMMENTS	ANALYSES Au	Au V	Ag	As	Hg	Sb	Se
250	POOR PLUS	mottled lt moss to light green, buff w/ few dark gray to blk frags which are more silicified; predom fine gr tuff, green, high pervasive argillic alt, wk rare calcedonic silicification; wk tranlu qtz stkwk ± pyrite tr xtalline (fine qtz vns) tr white clay		XK XC X HH				green gray				3-4% VN tuk diss py	predom VN in clay; SiO2 + tabular arsenio?	.009		<.1				
255	"	same w/ wk ↑ qtz vns		XK XKC X HH				"				4-5% VN wk diss py	"	.004		.13				
260	"	same w/ str pyrite veins; poss wk alunite		XKC XK X				"				"	"	.009		.19				
265	GOOD	same - coarser tuff to lapilli w/ lithic component; poss alunite, fine stkwk ↑ temp SiO2		XK XC				"				"	"	.006		.20				
270	"	same - w/ pervasive bleaching ; ↓ green ↓ SiO2 + py veins ↑ diss in wh micro dia vns		XK XC				"				~5% diss py + VN	wc tabby sulfide	.002		.11				
275	"	same - w/ lt flesh color calcedonic SiO2 ↑ w/ depth ↑ fine stkwk		XK XXC HH				"				"	"	.004		<.1				
280	"	same w/ str flesh calcedony w/ secondary fine qtz stkwk w/ local assoc py		XC XK HH				"				5-6% VN; diss py	"	.009		<.1				
285	HOLE TERM	same w/ ↓ calcedonic silicification ↑ argillic alt predom buff color		XKC HH				"				6% + diss VN py	"	.001		<.1				
290	"	same " " " " " (a) ↑ ↑ mottled jade to buff flesh		XKC XV HH				"				"	"	.005		<.1				
295	"	same " " " "		XKC XV HH				"				" (a) ~4%	"	.004		<.1				
300																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 7 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION ARGILLIC W M S	ALTERATION SILICIFICATION W M S	ALTERATION PROPYLLITIC W M S	COLOR FINES	MINERALIZATION LIMONITE W M S	MINERALIZATION HEMATITE W M S	MINERALIZATION JAROSITE W M S	% SULFIDES	OTHER COMMENTS	ANALYSES Au	Au V	Ag	As	Hg	Sb	Se
300	GOOD	Buff to weak green granular tuff ! poss an enclastic pervasive weak argillic alt calcedonic stkwk wk drusy qtz encap qtz vns poss tr alunite						GREY GREEN				4-5% conc diss ± vn py	plus bladed tabby sulf arsenic?	.003		<.1				
305	"	same w/ few green phenos (chl?)						"				"	"	.004		<.1				
310	"	same						"				"	"	.002		<.1				
315	"	same wk ↑ pervasive SiO2						"				"		.001		<.1				
320	"	same precious blush color ↑ pervasive SiO2 poss becoming more of a fragmental						"				3-4% vn ; diss py		.001		<.1				
325	"	same w/ mod str pervasive SiO2 wh soft white clay wh drusy qtz encap qtz vns						"				"	wk tabby sulf arseno ?	.003		<.1				
330	"	same ↑ argillic ↓ silic few pale brap few micro Dia veins						"				"		.003		<.1				
335	"	same w/ str pervasive silicif micro Dia veins w/ 2ndary stkwk qtz wk white clay ± sulfides drusy qtz encap sulfide vns						"				"	wk tabby sulfide	.004		<.1				
340	"	same w/ ↓ pervasive SiO2 weak bleach tr white clay						"				2-3% vn + diss sulf	sulf precipitate in veins	.002		<.1				
345	"	same pervasively bleached lt lilac to pale green few limonitic frags ↓ SiO2 stkwk ! silicif						"				~2% vn ; diss py	"	.002		<.1				
350																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 8 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ARGILLIC (W M S)	SILICIFICATION (W M S)	PROPYLLITIC (W M S)	COLOR FINES	LIMONITE (W M S)	HEMATITE (W M S)	JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	Au	Au V	Ag	As	Hg	Sb	Se
		TUFF → FRAGMENTAL																		
350	GOOD	Light gray to bleached to lt leek green fine to medium gr tuff local argillic alt to mod silicified, tr dup jade green frags, tr qtz encapping veins (druzy) stkwk qtz, wk white clay		X K X X CK				GREEN GRAY				2-3% fine diss ; VN py	py VN in SiO2 ; clay	.003		<.1				
355	"	Same w/ ↑ jade green (dup) frags		X K X CK X				"				"	" plus tabby sulfides	.004		<.1				
360	"	Same w ↑ druzy qtz vns + sulfides		X X K				"				4-5% VN + diss sulf	" .013	.013	.013	.11				
365	MODERATE	Same w/ few limonitic qtz frags		X X K				"				3-4% VN ; diss sulf	" .009	.007	.011	.18				
370	GOOD	Same w/ ↑ druzy qtz ; translucent qtz vns weak pervasive argillic alt tr limon qtz frags, sulfides also associ/ white clay		X K X X				"				4-5% VN ; diss py	" .02	.018	.022	.22 .42				
375	MODERATE	Same - pervasive lt army to dus jade green ↓ " SiO2 ↑ pervasive argillic alt few mod silicif frags few limon qtz frags		X K X CK				"				"	" .047	.051	.043	1.67 1.75				
380 ↓	GOOD	Same ; pervasively lt green few limonitic druzy qtz frags		X CK X K				"				3-4% VN ; diss py	" .101	.089	.112	.51 .57				
385 *	"	Becoming a fine fragmental - weak tuff comp. mottled flesh ? lt green, poss tr alunite wk SiO2 encap sulfide veins, pervasive argillic alt, few limon qtz frags		X CK X C				"				"	" .021	.021	.021	.29 .25				
390 * *	"	Same - becoming more tan * ↑ SiO2 + sulfide veins * few bleach druzy qtz vns w/ white clay fill good tabular sulfides		X				"				7%+ VN druzy + diss py	" .172	.235	.087	1.52 1.25				
395	MODERATE	Same few pure limonitic frags		X X K X K				light tan				5-6% VN ; diss py	" .086	.082	.09	.45 .47				
400																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 9 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au V	Ag	As	Hg	Sb	Se
400	GOOD	Buff flesh tint on tuff; fragmental - possibly local diation; weak pervasive argillic alt; weak stkwk qtz + sulfides; pen gray frags; weak white soft clay halos poss tr hard alunite pervasive diss py; wk SiO2 + py VNS		X K				LIGHT TAN				6-7% diss ± VN py	weak fabby sulfide .05	.044	.055	.45 .5				
405	"	same w/ few pale green frags; few dk gray to black sulfide + qtz VNS; touch limon frags		X K				"				"	" .1	.101	.09	1.2 1.71				
410	"	same w/ dk gray to black drusy qtz VNS; fine hairline stkwk qtz + py; local milky calced vug fill		X C X K				"				"	" .132	.133	.13	8.03 8.15				
415	"	lt gray to bleached (wk) to wk flesh COLORATION; same w ↑ pervasive SiO2; ↑ stkwk - mod. str; ↑ black drusy qtz VNS; weak epiclastic component		X KC X X K				"				7-8% ± VN stkwk; diss sulf	" .372	.339	.404	7.64 7.92				
420	MODERATE	same - buff to lt gray in color		X K X				"					" .611	.60	.622	13.22 13.11				
425	GOOD	Tuff - off gray white fine gr, locally brecciated; in micro VNS bleached; wk pervasive clay alt, flow banded		X CK X X K+V				"				~5% diss; VN py	.283	.327	.259	6.02 5.66				
430	"	same w/ calcite veins; ↓ SiO2 + py VN ↓ stkwk; py VN predom assoc w/ clays		X K X C X CA				"				~3% VN; diss py	.187	.209	.164	3.67 3.64				
435	"	same ↑ pervasive SiO2 - calcedonic; ↓ CaCO3 VNS; wk SiO2 + py VNS; calcite; Qtz VNS together		X C X K+V CA				"				"	.134	.135	.132	2.21 2.17				
440	"	same w/ mod str calcite veining; v. weak SiO2 + py veins		X K CA				"				3-4% fine diss ± VN py	.105	.107	.1	2.2 2.29				
445	"	same " " "		X K CA				"				"	.243	.225	.26	3.81 3.13				
450																				

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 10 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION (rate ~ 20'/hr)	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
450	GOOD	Bubby to grayish fine grained tuff weak bleaching w/ stkwk qtz wk drusy qtz ± pyrite (weak pervasive silicific) weak intermittent argillic alt, wk calcite veins fine py (VN ± SiO2) flow banded		XK CA				Bubby				~3% diss VN PY	w/ tabular sulf ~~.331~~	.324	.298	6.15 4.34				
455	"	same		XK CA				"				2-3% diss VN PY	" .152	.167	.137	3.03 2.55				
460	"	same local micro Dia veins w/ calcite matrix wk SiO2 + py veins		XK CA				"				"	" .188	.188		3.00				
465	"	same w/ good fine hairline stkwk qtz weak pervasively calcareous pervasively silicified, flow banded wk SiO2 encap py veins, tr white clay		XXK XK XCK CA				GRAY				~3% diss VN PY	" .149	.151	.146	3.02 1.1				
470	"	same w/ few jade green frags wk white clay veins		XK CA				GRAY				"	" .053	.055	.05	.91 1.05				
475	"	same wk SiO2 encap py veins few jade frag		XK CA				"				~4%+ diss VN PY	" .122	.120	.123	2.07 2.37				
480	"	" " " same w/ frags - massive sulfide in SiO2 w/ tr CaCO3 veinlets		XK CA				"				"	" .206	.190	.221	3.46 3.88				
485	"	same w/ qtz encap py veins good stkwk qtz & calcite fines littered w/ sulfides		XKK X CA				"				3% diss VN PY	.455	.423	.487	8.82 7.34				
490	"	same w/ qtz & calcite stkwk w/ local sulfides fines littered w/ sulfides micro Dia qtz VNS		XKK X CA				"				"	.065	.056	.073	1.28 1.36				
495	"	same w/ flesh colored fine fragmental w/ wk 1 open waxy clay (Beau) assoc w/ sulfides fragmental lithics clay alt w/ weak flesh matrix fines littered w/ sulfides		XKK X CA				"				"	.101	.109	.093	2.11 2.21				
500																				

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PROJECT: ROSEBUD | LOGGED BY: KLK | HOLE NO. RE-5 | PAGE 11 OF 16

	RECOVERY	LITHOLOGIC DESCRIPTION (Bud → Dorsey; pumping 50 gal/min)	GRAPHIC LOG	GRAPHIC ALT	ALTERATION ARGILLIC W M S	SILICIFICATION W M S	PROPYLLITIC W M S	COLOR FINES	MINERALIZATION LIMONITE W M S	HEMATITE W M S	JAROSITE W M S	% SULFIDES	OTHER COMMENTS	ANALYSES Au	Au V	Ag	As	Hg	Sb	Se
500	GOOD	Buff to flesh fine ash tuff; fragmental local silicification; otherwise wk argillic alt; moderate calcite veining		X Xk CA				GRAY				~2-3% diss ± vn py .16		.158	.161	2.44 2.32				
505	"	same mod stkwk w/ ~10% jade green frag		Xk CA				"				" .337		.339	.335	4.47 5.25				
510	"	same		Xk CA				"				" .13		.120	.14	2.05 2.74				
515	"	~60% calcite wk green arg tuff w/ dusty atz + sulfide vns wk calcite + qtz stkwk		CA				"				" .032		.037	.027	.39 .95				
520	"	virtually pure calcite wk green calcedonic frag, tr epiclastic		CA				"				1% diss py .056		.063	.049	.73 1.05				
525	MODERATE	Light mint green fine ash tuff pervasively silicified mod strong calcite veining w/ local assoc pyrite minor white soft argillic component w/ wk diss py		X P CA				GREEN				~2% diss py		.365		6.19				
530	GOOD	same w/ ↓ calcite veining		X P CA				"				"		.15		3.09				
535	GOOD	Lt sage green fine ash tuff well pervasively silicified, v. wk argillic alt wk calcite veins wk pervasive propylitic grn alt v wk fine hairline stockwork qtz somewhat contaminated from above		XXX Xk Ca P				Lt sage green				1-2% fine diss ± vn py		.407 .345	376	7.66				
540	"	same w/ dark gray seams + perv. coloration in calcite veins; weakly contaminated		XXX Xk Ca P				"				"	tr orange bronze colored sulfide	.381 .325	353	8.73				
545	"	same locally leached w/ fine anhedral brown mineral		XXX Xk Ca P				"				"	"	.261 .216	238	5.04				
550																				

TOOK 30 MINUTES

LAC MINERALS U.S.A. INC.

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 12 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION (Dozer)	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
550	GOOD	Lt sage green fine grained tuff, well silicified w/ perv. argillic bleach, pervasive weak propylitic green alt, weak calcite veins w/ hairline stkt qtz - locally w/ assoc sulfides v. weak dark green calcite vns wk		XXX Xc Xc P				Lt sage green				2% fine diss + vn py		.196 .170	183	3.56				
555	"	local white hard clay veins assoc. w/ sulfides local bands ↑ propyllitic green alt		XXX Xc Xc Ca P				med dk sage green				"		.175 .196	185	4.49				
560	"	same - w/ local med-dk gray hue, flecked w/ brown + black mineral, local FeOx (tr) assoc. w/ CaCO3 wk ↑ perv. propyllitic green alt		XXX Xc Xc Ca P				Army gray green				"		.079 .067	73	14.4 1.4				
565	"	same w/ wk contamination		XXX Xc Xc Ca P																
570	"	~ 50% ± pervasive same w/ intermittent gray zones pervasively bleached w/ black mineral wk ↑ perv. propy green alt		XXX Xc Xc Ca P				"				" @ 1-2%		.070 .104	87	1.75				
575	"	same w/ pervasive gray hue - dark green gray ↑ perv. prop green		XXX Xc Xc P Ca				deep green gray				<1% fine diss py		.149 .110	129	2.49				
580	"	same mottled lt gray to sea green looks like Dozer. Only ↑ propyllitic green bleached w/ black mineral - specular hem		XXX Xc Ca P				"				" @ trace		.077 .077	77	2.09				
585	"	" " " " " same w/ mottled deep sea green to gray wk weak contamination		XXX Xc Ca P				"				"		.018		.52				
590	"	same deep sea green + gray hydrothermitized vns, flecked w/ black mineral		XXX Xc Ca P				"				—		.016		.50				
595	"	same becoming predominantly dark gray w/ weak deep sea green hue		XXX P Ca				"				—		.061		1.49				
600	"	same predominantly med dark gray flecked w/ black mineral weak propyllitic green color to green waxy clay		XXX P Ca				"				—		.255 .190	272	3.56				

LAC MINERALS U.S.A. INC.

PROJECT ROSEBUD LOGGED BY KLC HOLE NO. RE-5 PAGE 13 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
600	GOOD	Fine grained tuff deep sea green w/ seams of lt to dk dark gray burn well silicified flecked w/ black mineral weak soft white clay, weak calcite vns tr blue green coloration, tr stockwork qtz		XXX P Ca XK				DEEP SEA GREEN + GRAY				tr diss py		.118 .157	137	3.39				
605	"	600-605 contaminated from above same		XXX P Ca XK				"				"		.101 .134	117	2.71				
610	"	same - predom gray		XXX P XK Ca				"				"		.055 .055	055	1.02				
615	"	same predom gray		XXX P XK Ca				"				"		.048		.78				
620	"	same - weakly bleached w/ pervasive lt to medium sage green w/ dark seams of chlorite? tr white argillic frags w/ assoc diss py tr gray clay		XXX P XK Ca				MED LT. SAGE green				1% diss py		.043		.84				
625	"	same @ 620-625 w/ seams of ↓ silicification flecked w/ fine green mineral		XX P Ca XK				"				"		.038		1.09				
630	"	same - mixed w/ so/so gray frags w/ black flecked mineral w/ sage green/tan frags flecked w/ green mineral, wicked burn seams tr white waxy clay		XXX P Ca XK				GRAY + SAGE green				<1% diss py		.022		.68				
635	"	same w/ ~ 5% gray frags v. weak ↓ pervasive SiO2		XX P Ca XK				"				1% fine diss py		.026		.74				
640	"	same perv. sage green flecked w/ green mineral v. wk ↓ perv. SiO2		XX P Ca XK				Sage Green				"		.033		.64				
645	"	same perv. sage green flecked w/ green mineral v. wk perv SiO2 few gray XK veins		XX P XK Ca				"				"		.025		.69				
650																				

L MINERALS U.S.A. INC.

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 14 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION: ARGILLIC (W M S)	ALTERATION: SILICIFICATION (W M S)	ALTERATION: PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION: LIMONITE (W M S)	MINERALIZATION: HEMATITE (W M S)	MINERALIZATION: JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES: Au	Au ✓	Ag	As	Hg	Sb	Se
650	GOOD	Lt sage green fine ash tuff, well silicified with argillic bleach wk stkwk 9% ±t green alt, wk calcite vns, few microbreccia vns few gray sulfide rich seams tr white clay darker green chevrons w/ SiO2 vns & tr		XX Xk P Ca				SAGE GREEN				2-3% fine diss + vn py		.019		.72				
655	"	same only tr CaCO3 vns		XXX Xk P Ca				"				" @ ~2%		.008		.50				
660	"	same tr gray sulfide rich frags		XXX Xk P Ca				"				" @ 2-3%		.026		.98				
665	"	same		XXX Xk P Ca				"				"		.046		1.16				
670	"	same		XXX Xk P Ca				"				" @ 1-2%		.059		.60				
675	"	same w/ diffuse dark green seams weak bleach w/ large frags — poss fracture zone — frag w/ slickensides		XXX Xk P Ca				"				"		.010		<.1				
680	"	same w/ wk calcite + sulfide vns wk argillic bleach		XXX Xk P Ca				"				"		.088 .102	95	.85				
685	"	same w/ wkly mod hairline stkwk 688 - small fracture	X	XXX P Ca Xk				"				"		.034		.47				
690	"	same w/ wkly argillic bleach local py in stkwk vns		XXX Xk P Ca				"				"		.018		.24				
695	"	same tr white clay - locally py phenos peripherally oxidized wk pervasive bleach wk yellow green vns		XXX Xk P Ca				"				"		.017		.11				
700																				

L MINERALS U.S.A. INC.

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PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 15 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALT	ALTERATION ARGILLIC (W M S)	ALTERATION SILICIFICATION (W M S)	ALTERATION PROPYLLITIC (W M S)	COLOR FINES	MINERALIZATION LIMONITE (W M S)	MINERALIZATION HEMATITE (W M S)	MINERALIZATION JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	ANALYSES Au	Au ✓	Ag	As	Hg	Sb	Se
700	GOOD	Fine grained lt sage green tuff well silicified, weak argillic alteration bleach, weak SiO2 interstitial fill, WEAK stockwork qtz, weak zones of dark green propylitic, w/ calcite veins, tr yellow		XXX Xk Ca P				SAGE GREEN				1-2% diss ± VN py	local peripheral oxidized py phenos	.021		.80				
705	"	green seams		XXX Xk Ca P				"				"								
	"	same w/ wk sil phenos tr brilliant azure blue mineral										"	"	.015		.37				
710	"	~711 – small fracture tr gray green slickensides		XXX Xk Ca P				"				" @ ~1%	"	.011		.20				
715	"	same		XXX Xk Ca P				"				" @ ~2%	"	.029		.46				
720	"	same		XXX Xk Ca P				"				" @ 1-2%	"	.010		.29				
725	"	same		XXX Xk Ca P				"				" @ ~1%	"	.025		.46				
730	"	same slight ↑ argillic bleach ↑ calcite (white) vns (up to 5% vns)		XXX Xk Ca Ca P				"				"	"	.018		.36				
735	"	same w/ weak calcite veining tr limonite		XXX Xk Ca P				"				" @ 1-2%	"	.009		.16				
740	"	same		XXX Xk Ca P				"				" @ ~1%	"	.017 .024	20	.22				
745		same w/ v weak – few lt gray seams tr limonite		XXX Xk Ca P				"				" @ 1-2%	"	.005 .006		.11				
750																				

LAC MINERALS U.S.A. INC.

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RE-5 PAGE 16 OF 16

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	ARGILLIC (W M S)	SILICIFICATION (W M S)	PROPYLLITIC (W M S)	COLOR FINES	LIMONITE (W M S)	HEMATITE (W M S)	JAROSITE (W M S)	% SULFIDES	OTHER COMMENTS	Au	Au V	Ag	As	Hg	Sb	Se
750	GOOD	sage green fine grained tabs well pervasively silicified, weak pencil hairline stockwork, pervasive weak propylitic alt: wh. calcite veins, weak pervasive bleach, few darker green seams		XXX Xk Ca p				sage green				1-2% v. fn diss ±VN py		.005		.19				
755	"	same w/ lack ~2' moving into grayish - bleached w/ black mineral, trilim + hematite along vns & assoc w/ calcite		XXX Xk Ca p				"				"		.004		<.1				
760	"	same becoming more dkp sea green and gray → pervasively pervasively flecked w/ black mineral		XXX Xk Ca p				deep grayish green				"		.019		.29				
765	"	same - dark gray green flecked w/ fine black mineral		XXX Xk Ca p				dark gray green				"		.021		.24				
770	"	same - pervasively gray		XXX Xk Ca p				gray				" ?		.018		.12				
775	"	same - pervasively gray flecked w/ black mineral		XXX Xk Ca p				"				" ?		.010		.56				
780		T.D - LOST THE TRICONE																		
785																				
790																				
795																				
800																				

RE-5 ASSAY COMPARISON

	GSI		BONDAR CHECKS			AMERICAN ASSAY			B-C "A-PULPS"		B-C "B-PULPS"		B-C "A1-PULPS"					
FROM - TO	FAA-1	FA-2	FA-1	FA-2	AVG	FAA-1	FAA-2	FAA-B	FA-1	FA-2	FA-1	FA-2	FA-1	FA-2	AVG	% VAR	GR AVG	
355 - 360	0.004				0.004	0.006		0.005							0.006	38	0.005	
360 - 365	0.013	0.013			0.013	0.015		0.014							0.015	12	0.014	
365 - 370	0.007	0.011			0.009	0.008		0.009							0.009	-6	0.009	
370 - 375	0.018	0.022	0.018	0.022	0.020	0.023	0.022	0.021	0.020	0.027	0.017	0.024			0.022	10	0.022	
375 - 380	0.051	0.043	0.041	0.065	0.050	0.044	0.064	0.050	0.087	0.073	0.034	0.044	0.025	0.022	0.049	-2	0.049	
380 - 385	0.089	0.112	0.098	0.113	0.103	0.098	0.223	0.449	0.252	0.145	0.234	0.335			0.248	141	0.232	* COARSE Au
385 - 390	0.021	0.021	0.026	0.016	0.021	0.079	0.092	0.068	0.033	0.042	0.046	0.062			0.060	187	0.056	* " "
390 - 395	0.235	0.087	0.085	0.087	0.124	0.132			0.139	0.181					0.151	22	0.145	* " "
395 - 400	0.082	0.090	0.081	0.091	0.086	0.084	0.096	0.067	0.115	0.086	0.066	0.065			0.083	-4	0.083	
400 - 405	0.044	0.055	0.038	0.059	0.049	0.035		0.034	0.067	0.041	0.042	0.044			0.044	-11	0.044	
405 - 410	0.101	0.090	0.132	0.128	0.113	0.110		0.122	0.122	0.139	0.115	0.118			0.121	7	0.120	
410 - 415	0.133	0.130	0.129	0.148	0.135	0.196		0.183	0.166	0.192	0.060	0.163			0.160	19	0.157	
415 - 420	0.339	0.404	0.441	0.399	0.396	0.496			0.459	0.485					0.480	21	0.463	
420 - 425	0.600	0.622	0.700	0.690	0.653	0.852			0.780	0.807					0.813	25	0.781	
425 - 430	0.327	0.239	0.257	0.256	0.270	0.446			0.418	0.413					0.426	58	0.394	
430 - 435	0.209	0.165	0.196	0.179	0.187	0.207			0.184	0.195					0.195	4	0.194	
435 - 440	0.135	0.132	0.120	0.120	0.127	0.129			0.130	0.145					0.135	6	0.133	
440 - 445	0.109	0.100	0.128	0.114	0.113	0.132			0.135	0.146					0.138	22	0.133	
445 - 450	0.225	0.260	0.262	0.216	0.241	0.277			0.193	0.223					0.231	-4	0.233	
450 - 455	0.324	0.298	0.331	0.295	0.312	0.487	0.407		0.378	0.379			0.379	0.426	0.409	31	0.397	
455 - 460	0.167	0.137	0.138	0.183	0.156	0.201			0.163	0.182					0.182	16	0.177	
460 - 465	0.188	0.101	0.182	0.171	0.161	0.203			0.176	0.173					0.184	15	0.179	
465 - 470	0.151	0.146	0.151	0.131	0.145	0.237			0.233	0.223					0.231	60	0.214	
470 - 475	0.055	0.050	0.045	0.056	0.052	0.061			0.057	0.070					0.063	22	0.060	
475 - 480	0.120	0.123	0.123	0.140	0.127	0.156			0.152	0.146					0.151	20	0.146	
480 - 485	0.190	0.221	0.210	0.203	0.206	0.169			0.185	0.170					0.175	-15	0.181	
485 - 490	0.423	0.487	0.467	0.402	0.445	0.439	0.459		0.466	0.466			0.443	0.447	0.453	2	0.452	
490 - 495	0.056	0.073	0.050	0.071	0.063	0.078		0.077	0.085	0.109	0.086	0.087			0.087	39	0.084	
495 - 500	0.109	0.093	0.119	0.135	0.114	0.151	0.141	0.141	0.170	0.158	0.132	0.112			0.144	26	0.140	
500 - 505	0.158	0.161	0.129	0.172	0.155	0.162	0.147	0.158	0.139	0.155	0.144	0.131			0.148	-5	0.149	
505 - 510	0.339	0.335	0.332	0.394	0.350	0.187	0.185	0.251	0.177	0.150	0.186	0.225			0.194	-44	0.212	
510 - 515	0.120	0.140	0.111	0.130	0.125	0.177	0.190	0.192	0.122	0.136	0.175	0.147			0.163	30	0.159	
515 - 520	0.037	0.027	0.030	0.044	0.034	0.051	0.048	0.044	0.047	0.043	0.046	0.033	0.042	0.032	0.043	24	0.042	
520 - 525	0.063	0.049	0.038	0.040	0.048	0.059	0.053	0.060	0.058	0.075	0.055	0.069			0.061	29	0.060	
525 - 530	0.365	0.365	0.331	0.326	0.347	0.447	0.423	0.307	0.377	0.426	0.389	0.438			0.401	16	0.395	
530 - 535	0.150	0.150	0.130	0.144	0.144	0.191	0.215	0.224	0.207	0.194	0.159	0.206			0.199	39	0.193	
535 - 540	0.407				0.407												0.407	
540 - 545	0.381				0.381												0.381	
545 - 550	0.261				0.261												0.261	
550 - 555	0.196				0.196												0.196	
555 - 560	0.175				0.175												0.175	
560 - 565	0.079				0.079												0.079	
565 - 570	0.070				0.070												0.070	
570 - 575	0.149				0.149												0.149	
575 - 580	0.077				0.077												0.077	
580 - 585	0.018				0.018												0.018	
585 - 590	0.016				0.016												0.016	
590 - 595	0.061				0.061												0.061	
595 - 600	0.255				0.255												0.255	
600 - 605	0.118				0.118												0.118	
605 - 610	0.101				0.101												0.101	
610 - 615	0.055				0.055												0.055	
615 - 620	0.048				0.048												0.048	
620 - 625	0.043				0.043												0.043	
625 - 630	0.038				0.038												0.038	
630 - 635	0.022				0.022												0.022	

RE-5 ASSAY COMPARISON

	GSI		BONDAR CHECKS			AMERICAN ASSAY			B-C "A-PULPS"		B-C "B-PULPS"		B-C "A1-PULPS"				
FROM - TO	FAA-1	FA-2	FA-1	FA-2	AVG	FAA-1	FAA-2	FAA-B	FA-1	FA-2	FA-1	FA-2	FA-1	FA-2	AVG	% VAR	GR AVG
635 - 640	0.026				0.026												0.026
640 - 645	0.033				0.033												0.033
645 - 650	0.025				0.025												0.025
650 - 655	0.019				0.019												0.019
655 - 660	0.008				0.008												0.008
660 - 665	0.026				0.026												0.026
665 - 670	0.046				0.046												0.046
670 - 675	0.059				0.059												0.059
675 - 680	0.010				0.010												0.010
680 - 685	0.088				0.088												0.088
685 - 690	0.034				0.034												0.034
690 - 695	0.018				0.018												0.018
695 - 700	0.017				0.017												0.017
700 - 705	0.021				0.021												0.021
705 - 710	0.015				0.015												0.015
710 - 715	0.011				0.011												0.011
715 - 720	0.029				0.029												0.029
720 - 725	0.010				0.010												0.010
725 - 730	0.025				0.025												0.025
730 - 735	0.018				0.018												0.018
735 - 740	0.009				0.009												0.009
740 - 745	0.017				0.017												0.017
745 - 750	0.005				0.005												0.005
750 - 755	0.005				0.005												0.005
755 - 760	0.004				0.004												0.004
760 - 765	0.019				0.019												0.019
765 - 770	0.021				0.021												0.021
770 - 775	0.018				0.018												0.018
775 - 780	0.010				0.010												0.010
(410) 370 - 780	0.109				0.108												0.118
370 - 745	0.118				0.117												0.128
(375 - 615)	0.169				0.168												0.185
370 535	0.174	0.168	0.172	0.174	0.172		0.206		0.197	0.200					0.201	24	0.196

PRELIMINARY REPORT

431

RENO: 1500 Glendale Ave,SPARKS 89

P.O. Box 71060, RENO 89570
Ph (702)356 0606 Fax 3561413

LAC MINERALS

REPORT : SP 003546 1 Page(s) Date : 06/08/89

Client reference : RE-5 Project : ROSEBUD

Cost code :

Copies to : LAC MINERALS

Incomplete
No Opt
Ag

Samples : Type Preparation code
Received : 06/07/89

Analysis	Code	Quality Parameter	Detection	Units
Au	FA60	Acc. ±15 %	5	ppb
Au(R)	FA60	Acc. ±15 %	5	ppb
Ag	D210	Prec.±10 %	0.5	ppm

Chief Assayer : John O'Neill

PRELIMINARY REPORT

REPORT : SP 003546

Sample	Au ppb	Au(R) ppb		Ag ppm	
RE-5: 390-395	4520	.132		--	
RE-5: 415-420	16990	.496		--	
RE-5: 420-425	29200	.852		--	
RE-5: 425-430	15300	.446		--	
RE-5: 430-435	7080	.206		--	
RE-5: 435-440	4430	.129		--	
RE-5: 440-445	4530	.132		--	
RE-5: 445-450	9510	.277		--	
RE-5: 450-455	16700	13950	.487	--	407
RE-5: 455-460	6880	~~.201~~	.201	--	
RE-5: 460-465	6960	.203		--	
RE-5: 465-470	8120	.237		--	
RE-5: 470-475	2078	.061		--	
RE-5: 475-480	5360	.156		--	
RE-5: 480-485	5790	.169		--	
RE-5: 485-490	15040	15740		.439 --	.459

Please refer to the cover sheet for further analysis details.

PRELIMINARY REPORT

RENO: 1500 Glendale Ave,SPARKS 89431
P.O. Box 71060, RENO 89570
Ph (702)356 0606 Fax 3561413

LAC MINERALS

REPORT : SP 003459 1 Page(s) Date : 06/09/89

Client reference : Project : ROSEBUD

Cost code :

Copies to : LAC MINERALS

FUCKED UP

Samples : Type Preparation code
Received : 05/30/89

Analysis	Code	Quality Parameter	Detection	Units
Au	FA60	Acc. ±15 %	5	ppb
Au(R)	FA60	Acc. ±15 %	5	ppb
Ag	D210	Prec.±10 %	0.5	ppm
Au(I)	FA60	Acc. ±15 %	5	ppb

Chief Assayer : Jorge Ugarte

PRELIMINARY REPORT

REPORT : SP 003459

Sample	Au ppb	Au(R) ppb	Ag ppm	Au(I) ppb
RE-5 355-360	2877	3296	DTF	186
RE-5 360-365	2711		DTF	465
RE-5 365-370	3364	7930 11960 3144	DTF	298
RE-5 370-375	1504	2184	DTF	732
RE-5 375-380	785	769	DTF	1705
RE-5 380-385	282		DTF	17100
RE-5 385-390	500		DTF	2321
RE-5 395-400	201		DTF	2303
RE-5 400-405	1198		18.0	1168
RE-5 405-410	3774		39.0	4180
RE-5 410-415	6720		287	6280
RE-5 490-495	2673		48.0	2650
RE-5 495-500	5180		104	4820
RE-5 500-505	5560		70.0	5430
RE-5 505-510	6420		120	8620
RE-5 510-515	6080		84.0	6580
RE-5 515-520	1748		15.1	1505
RE-5 520-525	2030		20.4	2049
RE-5 525-530	15340		239	10540
RE-5 530-535	6550		134	7690

Please refer to the cover sheet for further analysis details.

RE-5 ASSAY COMPARISON

FROM	TO	OPT Au1	OPT Au2	AVG. Au	OPT Ag1	OPT Ag 2	AVG Ag
370	375	.018	.022	.020	.22	.42	.32 *
375	380	.051	.043	.047	1.67	1.75	1.71
380	385	.089	.112	.101	.51	.57	.54
385	390	.021	.021	.021	.29	.25	.27
390	395	.235	.087	.161 *	1.52	1.25	1.39
395	400	.082	.090	.086	.45	.47	.46
400	405	.044	.055	.050	.45	.50	.48
405	410	.101	.090	.096	1.20	1.71	1.46
410	415	.133	.130	.132	8.03	8.15	8.09
415	420	.339	.404	.372	7.64	7.92	7.78
420	425	.600	.622	.611	13.22	13.11	13.17
425	430	.327	.239	.283 *	6.02	5.66	5.84
430	435	.209	.164	.187	3.67	3.64	3.66
435	440	.135	.132	.134	2.21	2.17	2.19
440	445	.109	.100	.105	2.20	2.29	2.25
445	450	.225	.260	.243	3.81	3.13	3.47
450	455	.324	.298	.311	6.15	4.34	5.25 *
455	460	.167	.137	.152	3.03	2.55	2.79
460	465	.188	.101	.145 *	3.00	2.98	2.99
465	470	.151	.146	.149	3.02	1.10	2.06 *
470	475	.055	.050	.053	0.91	1.05	.98
475	480	.120	.123	.122	2.07	2.37	2.20
480	485	.190	.221	.206	3.46	3.88	3.67
485	490	.423	.487	.455	8.82	9.34	9.08

RE-5 (CONT.)

From	To	OPT Au 1	OPT Au 2	AVG Au	Ag 1	OPT Ag 2	OPT AVG Ag
490	495	.056	.073	.065	1.28	1.36	1.32
495	500	.109	.093	.101	2.11	2.21	2.16
500	505	.158	.161	.160	2.44	2.32	3.38
505	510	.339	.335	.337	4.47	5.25	4.86
510	515	.120	.140	.130	2.05	2.74	2.40
515	520	.037	.027	.032	0.39	0.95	.67 *
520	525	.063	.049	.056	0.73	1.05	.89
525	530	.365		.365	6.19		6.19
530	535	.150	—	.150	3.09	—	3.09
370	525 (155')						
370	535 (165')	.173		.171	3.22		3.24

FT OZ Au 28.2

Ag : Au 19

0606

356-~~50~~

RE-5 ASSAY COMPARISON

FROM - TO	GSI FAA-1 1AT	GSI FA-2 1AT	GSI AVG	AASSAY FAA-1 50g	AASSAY FAA-2	AASSAY FAA-3 AVG	% VAR
355 - 360	0.004		0.004	0.084		0.084	1998
360 - 365	0.013	0.013	0.013	0.079		0.079	508
365 - 370	0.007	0.011	0.009	0.098	0.092	0.095	955
370 - 375	0.018	0.022	0.020	0.044	0.064	0.054	169
375 - 380	0.051	0.043	0.047	0.023	0.022	0.023	-52
380 - 385	0.089	0.112	0.100	0.008		0.008	-92
385 - 390	0.021	0.021	0.021	0.015		0.015	-31
390 - 395	0.235	0.087	0.161	0.132		0.132	-18
395 - 400	0.082	0.090	0.086	0.006		0.006	-93
400 - 405	0.044	0.055	0.049	0.035		0.035	-29
405 - 410	0.101	0.090	0.095	0.110		0.110	15
410 - 415	0.133	0.130	0.131	0.196		0.196	49
415 - 420	0.339	0.404	0.371	0.496		0.496	33
420 - 425	0.600	0.622	0.611	0.852		0.852	39
425 - 430	0.327	0.239	0.283	0.446		0.446	58
430 - 435	0.209	0.165	0.187	0.207		0.207	10
435 - 440	0.135	0.132	0.133	0.129		0.129	-3
440 - 445	0.109	0.100	0.104	0.132		0.132	26
445 - 450	0.225	0.260	0.242	0.277		0.277	14
450 - 455	0.324	0.298	0.311	0.487	0.407	0.447	44
455 - 460	0.167	0.137	0.152	0.201		0.201	32
460 - 465	0.188	0.101	0.144	0.203		0.203	41
465 - 470	0.151	0.146	0.148	0.237		0.237	60
470 - 475	0.055	0.050	0.052	0.061		0.061	15
475 - 480	0.120	0.123	0.121	0.156		0.156	29
480 - 485	0.190	0.221	0.205	0.169		0.169	-18
485 - 490	0.423	0.487	0.455	0.439	0.459	0.449	-1
490 - 495	0.056	0.073	0.064	0.078		0.078	21
495 - 500	0.109	0.093	0.101	0.151	0.141	0.146	45
500 - 505	0.158	0.161	0.159	0.162	0.147	0.155	-3
505 - 510	0.339	0.335	0.337	0.187	0.185	0.186	-45
510 - 515	0.120	0.140	0.130	0.177	0.190	0.183	41
515 - 520	0.037	0.027	0.032	0.051	0.048	0.049	54
520 - 525	0.063	0.049	0.056	0.059	0.053	0.056	1
525 - 530	0.365		0.365	0.447	0.423	0.435	19
530 - 535	0.150		0.150	0.191	0.215	0.203	35
	0.160		0.157	0.190		0.189	20
				AVG OF %DIFF			114

6154 - 4025

→ 4108

→ 2ND SOB

1 SP 003459

2 SP 003546

~~Don't have (AS)~~

– Don't have (Am Assay)

RE-5 ASSAY COMPARISON

FROM - TO	GSI FAA-1	GSI FA-2	GSI AVG	AMERICAN ASSAY FAA-1	FAA-2	FAA-3	AVG	% VAR	PPB-1	PPB-2	PPB-3
355 - 360	0.004		0.004	0.006		0.005	0.006	43	201		186
360 - 365	0.013	0.013	0.013	0.015		0.014	0.014	10	500		465
365 - 370	0.007	0.011	0.009	0.008		0.009	0.008	-7	282	3144	298
370 - 375	0.018	0.022	0.020	0.023	0.022	0.021	0.022	11	785	2184	732
375 - 380	0.051	0.043	0.047	0.044	0.064	0.050	0.053	12	1504	769	1705
380 - 385	0.089	0.112	0.100	0.098	0.223	0.499	0.273	172	3364		17100
385 - 390	0.021	0.021	0.021	0.079	0.092	0.068	0.080	279	2711		2321
390 - 395	0.235	0.087	0.161	0.132			0.132	-18	4520		
395 - 400	0.082	0.090	0.086	0.084	0.096	0.067	0.082	-4	2877		2303
400 - 405	0.044	0.055	0.049	0.035		0.034	0.035	-30	1198		1168
405 - 410	0.101	0.090	0.096	0.110		0.122	0.116	21	3774		4180
410 - 415	0.133	0.130	0.132	0.196		0.183	0.190	44	6720		6280
415 - 420	0.339	0.404	0.372	0.496			0.496	33	16990		
420 - 425	0.600	0.622	0.611	0.852			0.852	39	29200		
425 - 430	0.327	0.239	0.283	0.446			0.446	58	15300		
430 - 435	0.209	0.165	0.187	0.207			0.207	10	7080		
435 - 440	0.135	0.132	0.134	0.129			0.129	-3	4430		
440 - 445	0.109	0.100	0.105	0.132			0.132	26	4530		
445 - 450	0.225	0.260	0.243	0.277			0.277	14	9510		
450 - 455	0.324	0.298	0.311	0.487	0.407		0.447	44	16700	13950	
455 - 460	0.167	0.137	0.152	0.201			0.201	32	6880		
460 - 465	0.188	0.101	0.145	0.203			0.203	41	6960		
465 - 470	0.151	0.146	0.149	0.237			0.237	60	8120		
470 - 475	0.055	0.050	0.053	0.061			0.061	15	2078		
475 - 480	0.120	0.123	0.122	0.156			0.156	29	5360		
480 - 485	0.190	0.221	0.206	0.169			0.169	-18	5790		
485 - 490	0.423	0.487	0.455	0.439	0.459		0.449	-1	15040	15740	
490 - 495	0.056	0.073	0.065	0.078		0.077	0.078	20	2673		2650
495 - 500	0.109	0.093	0.101	0.151	0.141	0.141	0.144	43	5180	4850	4820
500 - 505	0.158	0.161	0.160	0.162	0.147	0.158	0.156	-2	5560	5050	5430
505 - 510	0.339	0.335	0.337	0.187	0.185	0.251	0.208	-38	6420	6340	8620
510 - 515	0.120	0.140	0.130	0.177	0.190	0.192	0.186	43	6080	6500	6580
515 - 520	0.037	0.027	0.032	0.051	0.048	0.044	0.047	48	1748	1630	1505
520 - 525	0.063	0.049	0.056	0.059	0.053	0.060	0.057	3	2030	1830	2049
525 - 530	0.365		0.365	0.447	0.423	0.307	0.393	8	15340	14500	10540
530 - 535	0.150		0.150	0.191	0.215	0.224	0.210	40	6550	7380	7690
370 - 535	0.174	0.162	0.171	0.206	0.184	0.147	0.210	23			

AVG OF %DIFF 30

BONDAR-CLEGG

ıdar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG AND COMPANY LTD.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
TEL: (604) 985-0681
FAX: (604) 985-1071

DATE: July 5/89 TIME: _____ am / pm

TO: LAC MIN Sparks
V89-03283.4

FROM: Bondar-Clegg

RE: results

THIS FACSIMILE TRANSMISSION CONSISTS OF PAGES INCLUDING THIS COVER SHEET.
PLEASE CALL (604) 985-0681 IMMEDIATELY IF ALL PAGES ARE NOT RECEIVED.
THANK YOU.

4 Pages

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

REPORT: V89-03283.4 (COMPLETE)

REFERENCE INFO: SHIPMENT #1

CLIENT: LAC MINERALS (U.S.A.) INC.
PROJECT: ROSEBUD

SUBMITTED BY: C.J. NELSON
DATE PRINTED: 5-JUL-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	87	0.002 OPT		Fire Assay
2	Au Dup	Gold Duplicate	87	0.001 OPT		Fire Assay
3	Ag	Silver	87	0.02 OPT		Fire Assay

SAMPLE TYPES		NUMBER	SIZE FRACTIONS		NUMBER	SAMPLE PREPARATIONS	NUMBER
P	PREPARED PULP	87	4	AS REC'D	87	AS RECEIVED, NO SP	87

REPORT COPIES TO: MR. CRAIG J. NELSON

INVOICE TO: MR. CRAIG J. NELSON

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

DATE PRINTED: 5-JUL-89

REPORT: V89-03283.4

PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au Dup OPT	Ag OPT
P4 370-375A		0.020	0.027	0.30
P4 375-380A		0.087	0.073	1.69
P4 380-385A		0.252	0.145	0.57
P4 385-390A		0.033	0.042	0.36
P4 390-395A		0.139	0.181	1.46
P4 395-400A		0.115	0.086	0.54
P4 400-405A		0.067	0.041	0.66
P4 405-410A		0.122	0.139	1.40
P4 410-415A		0.166	0.192	10.04
P4 415-420A		0.459	0.485	10.01
P4 420-425A		0.780	0.807	15.74
P4 425-430A		0.418	0.413	8.55
P4 430-435A		0.184	0.195	4.02
P4 435-440A		0.130	0.145	2.18
P4 440-445A		0.135	0.146	2.51
P4 445-450A		0.193	0.223	3.79
P4 450-455A		0.378	0.379	7.27
P4 455-460A		0.163	0.182	2.90
P4 460-465A		0.176	0.173	3.20
P4 465-470A		0.233	0.223	3.63
P4 470-475A		0.057	0.070	1.10
P4 475-480A		0.152	0.146	2.29
P4 480-485A		0.185	0.170	2.94
P4 485-490A		0.466	0.466	9.08
P4 490-495A		0.085	0.109	1.57
P4 495-500A		0.170	0.158	2.60
P4 500-505A		0.139	0.155	2.30
P4 505-510A		0.177	0.150	3.03
P4 510-515A		0.122	0.136	2.09
P4 515-520A		0.047	0.043	0.50
P4 520-525A		0.058	0.075	0.80
P4 525-530A		0.377	0.426	6.79
P4 530-535A		0.207	0.194	3.78
P4 375-380A-1		0.025	0.022	0.20
P4 450-455A-1		0.379	0.426	7.93
P4 485-490A-1		0.443	0.447	9.18
P4 515-520A-1		0.042	0.032	0.52
P4 370-375B		0.017	0.024	0.28
P4 375-380B		0.034	0.044	1.51
P4 380-385B		0.234	0.335	0.66
P4 385-390B		0.046	0.062	0.42
P4 395-400B		0.066	0.065	0.45
P4 400-405B		0.042	0.044	0.53
P4 405-410B		0.115	0.118	1.32
P4 410-415B		0.160	0.163	10.01
P4 490-495B		0.086	0.087	1.66
P4 495-500B		0.132	0.112	1.96
P4 500-505B		0.144	0.131	2.41
P4 505-510B		0.186	0.225	3.60
P4 510-515B		0.175	0.147	2.54
P4 515-520B		0.046	0.033	0.53
P4 520-525B		0.055	0.069	0.81
P4 525-530B		0.389	0.438	7.28
P4 530-535B		0.159	0.206	3.37
P4 370-375		0.018	0.022	0.27
P4 375-380		0.041	0.065	1.66
P4 380-385		0.098	0.113	0.41
P4 385-390		0.026	0.016	0.26
P4 390-395		0.085	0.087	1.27
P4 395-400		0.081	0.091	0.48
P4 400-405		0.038	0.059	0.50
P4 405-410		0.132	0.128	1.34
P4 410-415		0.129	0.148	7.88
P4 415-420		0.441	0.399	7.94
P4 420-425		0.700	0.690	13.56
P4 425-430		0.257	0.256	5.74
P4 430-435		0.196	0.179	3.74
P4 435-440		0.120	0.120	2.18
P4 440-445		0.128	0.114	2.25
P4 445-450		0.262	0.216	3.80
P4 450-455		0.331	0.295	6.16
P4 455-460		0.138	0.183	3.20
P4 460-465		0.182	0.171	3.06
P4 465-470		0.151	0.131	3.21
P4 470-475		0.045	0.056	0.99
P4 475-480		0.123	0.140	2.30
P4 480-485		0.210	0.203	3.77
P4 485-490		0.467	0.402	8.93
P4 490-495		0.050	0.071	1.30
P4 495-500		0.119	0.135	2.26

Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

DATE PRINTED: 5-JUL-89

REPORT: V89-03283.4

PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au Dup OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au Dup OPT	Ag OPT
P4 500-505		0.129	0.172	2.51					
P4 505-510		0.332	0.394	4.55					
P4 510-515		0.111	0.130	2.41					
P4 515-520		0.030	0.044	0.41					
P4 520-525		0.038	0.040	0.64					
P4 525-530		0.331	0.326	6.06					
P4 530-535		0.130	0.144	3.15					

Registered Assayer, Province of British Columbia

PRELIMINARY REPORT

REPORT : SP 003459 Page 1 of 1

Sample	Au ppb			GSI
RE-5 355-360	2877	.084		.004
RE-5 360-365	2711	.079		.013
RE-5 365-370	3364	.098	3144	.007
RE-5 370-375	1504	.044	2134	.018
RE-5 375-380	DTF	785	769	.051
RE-5 380-385	282	.008 ✓		.089
RE-5 385-390	500	.015		.021
390-395				.235 missing
RE-5 395-400	201	.006		.082
RE-5 400-405	1198	.035		.044
RE-5 405-410	3774	.110		.101
RE-5 410-415	6720	.196		.133
GAP				75 gap in results
RE-5 490-495	3673	.078		~~.139~~ .056
RE-5 495-500	5180	.151	4850	.109
RE-5 500-505	5560	.162	5050	.158
RE-5 505-510	6420	.187 ✓	6340	.339
RE-5 510-515	6080	.177	6500	.120
RE-5 515-520	1748	.051	1630	.037
RE-5 520-525	2030	.059	1830	.063
RE-5 525-530	15340	.447	14500	.365
RE-5 530-535	6550	.191	7380	.150

Please refer to the cover sheet for further analysis details.

ANALYSIS REPORT

American Assay Laboratories
RENO: 1500 Glendale Ave, SPARKS 89431
P.O. Box 71060, RENO 89570
Ph (702)356 0606 Fax 3561413

LAC MINERALS

REPORT : SP 003459 1 Page(s) Date : 06/20/89

Client reference : Project : ROSEBUD

Cost code :

Copies to : LAC MINERALS

Samples : Type Preparation code
Received : 05/30/89

Analysis	Code	Quality Parameter	Detection	Units
Au	FA60	Acc. ±15 %	0.001	OZ/TON
Au(R)	FA60	Acc. ±15 %	0.001	OZ/TON
Au	GRAV	Prec.±10 %	0.001	GRAV
Ag	D210	Prec.±10 %	0.5	ppm

Chief Assayer : Jorge Ugarte

ANALYSIS REPORT

American Assay Laboratories

REPORT : SP 003459

Sample	Au OZ/TON	Au(R) OZ/TON	Au GRAV	Ag ppm	
RE-5 355-360	0.006		0.006	4.0	
RE-5 360-365	0.015		0.014	4.0	
RE-5 365-370	0.008		0.008	3.0	
RE-5 370-375	0.023	0.022	0.020	17.0	
RE-5 375-380	0.044	0.064	0.050	45.0	
RE-5 380-385	0.098	0.092	0.248	16.0	COARSE GOLD PROBLEM.
RE-5 385-390	0.079		0.079	15.0	
> missing					
RE-5 395-400	0.084		0.079	16.0	
RE-5 400-405	0.035		0.043	18.0	
RE-5 405-410	0.110		0.114	39.0	
RE-5 410-415	0.198		0.169	287.0	
>					
RE-5 490-495	0.078		0.088	47.0	
RE-5 495-500	0.151	0.141	0.146	104.0	
RE-5 500-505	0.162	0.147	0.156	70.0	
RE-5 505-510	0.187	0.185	0.178	120.0	
RE-5 510-515	0.177	0.190	0.154	84.0	
RE-5 515-520	0.051	0.047	0.052	15.0	
RE-5 520-525	0.059	0.053	0.059	20.0	
RE-5 525-530	0.447	0.423	0.413	239.0	
RE-5 530-535	0.191	0.224	0.201	134.0	

Please refer to the cover sheet for further analysis details.

GSI
GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

MAY 26 1989

TO: Mr. Bob Bennett
Lac Minerals (USA) Inc.
1475 Greg Street
Sparks, NV 89431 tel:702/356-8058

==========

Job Number: LOA-9S4203
PROJECT: 615409
Digest: 5 gram
Total number of samples: 12

==========

This report has been reviewed and approved by:

Date: 5/25/89

Mary Leitch, Quality Assurance Manager

3805 Atherton Road • Rocklin, California 95677 • Tel.: 916/624-9701 FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • Tel.: 702/359-6600 FAX: 702/359-6605

GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

JOB #: LOA-9S4203

SAMPLE ID	#	Ag ppm	As ppm	Au ppm	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Tl ppm	Zn ppm	Bi ppm	Cd ppm	Ga ppm	Pd ppm	Se ppm	Te ppm
RE5 190-195	1	1.58	20.1	.078	3.78	<.097	1.50	10.2	11.3	<.485	63.0	<.243	2.79	<.485	<.485	9.00	<.485
RE5 265-270	2	2.23	53.2	.134	5.41	.379	4.86	16.2	16.8	.641	82.7	<.239	.315	<.477	<.477	11.4	<.477
RE5 280-285	3	.922	45.2	.127	3.34	.290	2.38	15.0	9.32	.544	39.0	<.229	.128	<.458	<.458	6.92	<.458
RE5 305-310	4	1.37	44.7	.104	3.17	.210	2.13	14.6	12.9	<.473	75.8	<.236	.269	<.473	<.473	6.05	<.473
RE5 335-340	5	1.88	49.7	.113	3.52	.118	1.54	13.4	10.5	<.479	35.5	<.239	.169	<.479	<.479	12.9	<.479
RE5 380-385	6	9.54	86.2	.608	4.22	.108	16.2	15.4	16.7	<.481	106.	<.24	.311	<.481	<.481	16.6	<.481
RE5 410-415	7	284.	50.2	4.46	16.4	.523	35.3	13.5	46.0	<.492	61.3	.481	.258	<.492	<.492	34.5	<.492
RE5 415-420	8	261.	80.6	10.6	28.3	.709	40.4	21.8	57.3	<.495	87.1	<.248	.454	<.495	<.495	42.2	<.495
RE5 420-425	9	422.	67.5	16.5	60.6	1.23	31.1	27.0	84.3	<.468	105.	<.234	.516	.574	<.468	53.7	<.468
RE5 485-490	10	284.	58.5	11.4	32.9	.742	14.0	15.5	45.7	<.466	92.0	<.233	.348	1.40	<.466	33.4	<.466
RE5 505-510	11	145.	76.9	7.84	21.8	.475	6.16	15.1	20.1	<.473	133.	<.236	.470	2.67	<.473	17.2	<.473
RE5 530-535	12	93.1	28.7	3.81	13.3	.288	8.29	20.1	17.7	<.464	92.3	<.232	.260	1.83	<.464	12.3	<.464

3805 Atherton Road • Rocklin, California 95677 • Tel.: 916/624-9701 FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • Tel.: 702/359-6600 FAX: 702/359-6605

GSI - 4025

Lac Minerals

	Sample I.D.				Au o/t	Ag o/t
78	SAMPLE:	RL-4	385	390	<.001	<.10
79	SAMPLE:	RL-4	390	395	<.001	<.10
80	SAMPLE:	RL-4	395	400	<.001	<.10
81	SAMPLE:	RL-4	400	405	<.001	<.10
82	SAMPLE:	RL-4	405	410	0.001	<.10
83	SAMPLE:	RL-4	410	415	0.001	<.10
84	SAMPLE:	RL-4	415	420	0.001	<.10
85	SAMPLE:	RL-4	420	425	0.001	<.10
86	SAMPLE:	RL-4	425	430	0.001	<.10
87	SAMPLE:	RL-4	430	435	<.001	<.10
88	SAMPLE:	RL-4	435	440	<.001	<.10
89	SAMPLE:	RL-4	440	445	<.001	<.10
90	SAMPLE:	RL-4	445	450	0.001	<.10
91	SAMPLE:	RL-4	450	455	0.001	0.12
92	SAMPLE:	RL-4	455	460	0.001	0.10
93	SAMPLE:	RL-4	460	465	0.002	0.10
94	SAMPLE:	RL-4	465	470	0.003	<.10
95	SAMPLE:	RL-4	470	475	0.008	<.10
96	SAMPLE:	RL-4	475	480	0.002	<.10
97	SAMPLE:	RL-4	480	485	0.001	<.10
98	SAMPLE:	RL-4	485	490	0.001	<.10
99	SAMPLE:	RL-4	490	495	0.003	0.12
100	SAMPLE:	RL-4	495	500	0.009	0.11
101	SAMPLE:	RL-4	500	505	0.001	<.10
102	SAMPLE:	RL-4	505	510	<.001	<.10
103	SAMPLE:	RL-4	510	515	<.001	<.10
104	SAMPLE:	RL-4	515	520	0.001	<.10
105	SAMPLE:	RL-4	520	525	<.001	<.10
106	SAMPLE:	RL-4	525	530	<.001	<.10
107	SAMPLE:	RL-4	530	535	<.001	<.10
108	SAMPLE:	RL-4	535	540	<.001	<.10
109	SAMPLE:	RL-4	540	545	<.001	<.10
110	SAMPLE:	RL-4	545	550	<.001	0.10
111	SAMPLE:	RL-4	550	555	0.002	0.11
112	SAMPLE:	RL-4	555	560	0.001	<.10
113	SAMPLE:	RL-4	560	565	0.001	<.10
114	SAMPLE:	RL-4	565	570	<.001	<.10
115	SAMPLE:	RL-4	570	575	<.001	<.10
116	SAMPLE:	RL-4	575	580	0.001	<.10
117	SAMPLE:	RL-4	580	585	0.001	<.10
118	SAMPLE:	RE-5	0	5	0.006	<.10
119	SAMPLE:	RE-5	5	10	0.004	<.10
120	SAMPLE:	RE-5	10	15	0.005	<.10
121	SAMPLE:	RE-5	15	20	0.003	<.10
122	SAMPLE:	RE-5	20	25	0.003	<.10
123	SAMPLE:	RE-5	25	30	0.007	<.10

RE-5
FAA

	Sample I.D.				Au o/t	Ag o/t
124	SAMPLE:	RE-5	30	35	0.003	<.10
125	SAMPLE:	RE-5	35	40	0.004	<.10
126	SAMPLE:	RE-5	40	45	0.002	<.10
127	SAMPLE:	RE-5	45	50	<.001	<.10
128	SAMPLE:	RE-5	50	55	0.001	<.10
129	SAMPLE:	RE-5	55	60	0.002	<.10
130	SAMPLE:	RE-5	60	65	0.003	<.10
131	SAMPLE:	RE-5	65	70	0.002	<.10
132	SAMPLE:	RE-5	70	75	0.001	<.10
133	SAMPLE:	RE-5	75	80	0.002	<.10
134	SAMPLE:	RE-5	80	85	0.003	<.10
135	SAMPLE:	RE-5	85	90	0.002	<.10
136	SAMPLE:	RE-5	90	95	0.003	<.10
137	SAMPLE:	RE-5	95	100	0.001	<.10
138	SAMPLE:	RE-5	100	105	0.002	<.10
139	SAMPLE:	RE-5	105	110	0.003	0.10
140	SAMPLE:	RE-5	110	115	0.001	<.10
141	SAMPLE:	RE-5	115	120	0.001	<.10
142	SAMPLE:	RE-5	120	125	0.001	<.10
143	SAMPLE:	RE-5	125	130	0.003	0.16
144	SAMPLE:	RE-5	130	135	0.003	0.22
145	SAMPLE:	RE-5	135	140	0.001	<.10
146	SAMPLE:	RE-5	140	145	0.004	<.10
147	SAMPLE:	RE-5	145	150	0.001	0.11
148	SAMPLE:	RE-5	150	155	0.001	0.21
149	SAMPLE:	RE-5	155	160	0.001	0.12
150	SAMPLE:	RE-5	160	165	0.001	<.10
151	SAMPLE:	RE-5	165	170	0.001	<.10
152	SAMPLE:	RE-5	170	175	0.001	<.10
153	SAMPLE:	RE-5	175	180	0.002	<.10
154	SAMPLE:	RE-5	180	185	0.001	0.14
155	SAMPLE:	RE-5	185	190	0.001	<.10
156	SAMPLE:	RE-5	190	195	0.004	<.10
157	SAMPLE:	RE-5	195	200	0.001	<.10
158	SAMPLE:	RE-5	200	205	0.002	<.10
159	SAMPLE:	RE-5	205	210	0.003	<.10
160	SAMPLE:	RE-5	210	215	0.003	<.10
161	SAMPLE:	RE-5	215	220	0.001	<.10
162	SAMPLE:	RE-5	220	225	0.006	<.10
163	SAMPLE:	RE-5	225	230	0.020	0.10
164	SAMPLE:	RE-5	230	235	0.005	0.41
165	SAMPLE:	RE-5	235	240	0.002	0.37
166	SAMPLE:	RE-5	240	245	0.001	0.22
167	SAMPLE:	RE-5	245	250	0.008	0.28
168	SAMPLE:	RE-5	250	255	0.009	<.10
169	SAMPLE:	RE-5	255	260	0.004	0.13

Sample I.D.				Au o/t	Ag o/t
170 SAMPLE:	RE-5	260	265	0.009	0.19
171 SAMPLE:	RE-5	265	270	0.006	0.20
172 SAMPLE:	RE-5	270	275	0.002	0.11
173 SAMPLE:	RE-5	275	280	0.004	<.10
174 SAMPLE:	RE-5	280	285	0.009	<.10
175 SAMPLE:	RE-5	285	290	0.001	<.10
176 SAMPLE:	RE-5	290	295	0.005	<.10
177 SAMPLE:	RE-5	295	300	0.004	<.10
178 SAMPLE:	RE-5	300	305	0.003	<.10
179 SAMPLE:	RE-5	305	310	0.004	<.10
180 SAMPLE:	RE-5	310	315	0.002	<.10
181 SAMPLE:	RE-5	315	320	0.001	<.10
182 SAMPLE:	RE-5	320	325	0.001	<.10
183 SAMPLE:	RE-5	325	330	0.003	<.10
184 SAMPLE:	RE-5	330	335	0.003	<.10
185 SAMPLE:	RE-5	335	340	0.004	<.10
186 SAMPLE:	RE-5	340	345	0.002	<.10
187 SAMPLE:	RE-5	345	350	0.002	<.10
188 SAMPLE:	RE-5	350	355	0.003	<.10
189 SAMPLE:	RE-5	355	360	0.004	<.10
190 SAMPLE:	RE-5	360	365	0.013	0.11
191 SAMPLE:	RE-5	365	370	0.007	0.18
192 SAMPLE:	RE-5	370	375	0.018	0.22
193 SAMPLE:	RE-5	375	380	0.051	1.67
194 SAMPLE:	RE-5	380	385	0.089	0.51
195 SAMPLE:	RE-5	385	390	0.021	0.29
196 SAMPLE:	RE-5	390	395	0.235	1.52
197 SAMPLE:	RE-5	395	400	0.082	0.45
198 SAMPLE:	RE-5	400	405	0.044	0.45
199 SAMPLE:	RE-5	405	410	0.101	1.20
200 SAMPLE:	RE-5	410	415	0.133	8.03
201 SAMPLE:	RE-5	415	420	0.339	7.64
202 SAMPLE:	RE-5	420	425	0.600	13.22
203 SAMPLE:	RE-5	425	430	0.327	6.02
204 SAMPLE:	RE-5	430	435	0.209	3.67
205 SAMPLE:	RE-5	435	440	0.135	2.21
206 SAMPLE:	RE-5	440	445	0.109	2.20
207 SAMPLE:	RE-5	445	450	0.225	3.81
208 SAMPLE:	RE-5	450	455	0.324	6.15
209 SAMPLE:	RE-5	455	460	0.167	3.03
210 SAMPLE:	RE-5	460	465	0.188	3.00
211 SAMPLE:	RE-5	465	470	0.151	3.02
212 SAMPLE:	RE-5	470	475	0.055	0.91
213 SAMPLE:	RE-5	475	480	0.120	2.07
214 SAMPLE:	RE-5	480	485	0.190	3.46
215 SAMPLE:	RE-5	485	490	0.423	8.82

Sample I.D.	Au o/t	Ag o/t
216 SAMPLE: RE-5 490 495	0.056	1.28
217 SAMPLE: RE-5 495 500	0.109	2.11
218 SAMPLE: RE-5 500 505	0.158	2.44
219 SAMPLE: RE-5 505 510	0.339	4.47
220 SAMPLE: RE-5 510 515	0.120	2.05
221 SAMPLE: RE-5 515 520	0.037	0.39
222 SAMPLE: RE-5 520 525	0.063	0.73

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager

	Sample I.D.		Au o/t	Ag o/t
78	RBP-21	570 575	0.011	<.10
79	RBP-21	575 580	0.006	<.10
80	RBP-21	580 585	<.001	<.10
81	RBP-21	585 590	0.002	<.10
82	RBP-21	590 595	0.007	<.10
83	RBP-21	595 600	0.004	<.10
84	RBP-21	600 605	0.003	<.10
85	RBP-21	605 610	0.001	<.10
86	RBP-21	610 615	0.001	<.10
87	RBP-21	615 620	0.006	<.10
88	RBP-21	620 625	<.001	<.10
89	RBP-21	625 630	<.001	<.10
90	RBP-21	630 635	<.001	<.10
91	RBP-21	635 640	<.001	<.10
92	RBP-21	640 645	<.001	<.10
93	RE-5	535 540	0.407	7.66
94	RE-5	540 545	0.381	8.73
95	RE-5	545 550	0.261	5.04
96	RE-5	550 555	0.196	3.56
97	RE-5	555 560	0.175	4.49
98	RE-5	560 565	0.079	14.40
99	RE-5	565 570	0.070	1.75
100	RE-5	570 575	0.149	2.49
101	RE-5	575 580	0.077	2.09
102	RE-5	580 585	0.018	0.52
103	RE-5	585 590	0.016	0.50
104	RE-5	590 595	0.061	1.49
105	RE-5	595 600	0.255	3.56
106	RE-5	600 605	0.118	3.39
107	RE-5	605 610	0.101	2.71
108	RE-5	610 615	0.055	1.02
109	RE-5	615 620	0.048	0.78
110	RE-5	620 625	0.043	0.84
111	RE-5	625 630	0.038	1.09
112	RE-5	630 635	0.022	0.68
113	RE-5	635 640	0.026	0.74
114	RE-5	640 645	0.033	0.64
115	RE-5	645 650	0.025	0.69
116	RE-5	650 655	0.019	0.72
117	RE-5	655 660	0.008	0.50
118	RE-5	660 665	0.026	0.98
119	RE-5	665 670	0.046	1.16
120	RE-5	670 675	0.059	0.60
121	RE-5	675 680	0.010	<.10
122	RE-5	680 685	0.088	0.85
123	RE-5	685 690	0.034	0.47

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Sample I.D.			Au o/t	Ag o/t
124	RE-5	690 695	0.018	0.24
125	RE-5	695 700	0.017	0.11
126	RE-5	700 705	0.021	0.80
127	RE-5	705 710	0.015	0.37
128	RE-5	710 715	0.011	0.20
129	RE-5	715 720	0.029	0.46
130	RE-5	720 725	0.010	0.29
131	RE-5	725 730	0.025	0.46
132	RE-5	730 735	0.018	0.36
133	RE-5	735 740	0.009	0.16
134	RE-5	740 745	0.017	0.22
135	RE-5	745 750	0.005	0.11
136	RE-5	750 755	0.005	0.19
137	RE-5	755 760	0.004	<.10
138	RE-5	760 765	0.019	0.29
139	RE-5	765 770	0.021	0.24
140	RE-5	770 775	0.018	0.12
141	RE-5	775 780	0.010	0.56

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager

NEVADA GSI GEOCHEMICAL SERVICES, INC.

MAY 19 1989

GEOCHEMICAL ANALYSIS REPORT

May 19, 1989

Mr. Bob Bennett
Lac Minerals USA, Inc.
1475 Greg St.
Sparks, NV 89431

Number of Samples: 33
Project: 615411
GSI Number: 4025A
Analysis: Gold and Silver, 1 assay ton gravimetric. (Checks)

	Sample I.D.	Au o/t	Ag o/t
1	SAMPLE: RE-5 360 365	0.013	<.10
2	SAMPLE: RE-5 365 370	0.011	<.10
3	SAMPLE: RE-5 370 375	0.022	0.42
4	SAMPLE: RE-5 375 380	0.043	1.75
5	SAMPLE: RE-5 380 385	0.112	0.57
6	SAMPLE: RE-5 385 390	0.021	0.25
7	SAMPLE: RE-5 390 395	0.087	1.25
8	SAMPLE: RE-5 395 400	0.090	0.47
9	SAMPLE: RE-5 400 405	0.055	0.50
10	SAMPLE: RE-5 405 410	0.090	1.71
11	SAMPLE: RE-5 410 415	0.130	8.15
12	SAMPLE: RE-5 415 420	0.404	7.92
13	SAMPLE: RE-5 420 425	0.622	13.11
14	SAMPLE: RE-5 425 430	0.239	5.66
15	SAMPLE: RE-5 430 435	0.164	3.64
16	SAMPLE: RE-5 435 440	0.132	2.17
17	SAMPLE: RE-5 440 445	0.100	2.29
18	SAMPLE: RE-5 445 450	0.260	3.13
19	SAMPLE: RE-5 450 455	0.298	4.34
20	SAMPLE: RE-5 455 460	0.137	2.55
21	SAMPLE: RE-5 460 465	0.101	2.98
22	SAMPLE: RE-5 465 470	0.146	1.10
23	SAMPLE: RE-5 470 475	0.050	1.05
24	SAMPLE: RE-5 475 480	0.123	2.37
25	SAMPLE: RE-5 480 485	0.221	3.88
26	SAMPLE: RE-5 485 490	0.487	9.34

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Sample I.D.		Au o/t	Ag o/t
27 SAMPLE:	RE-5 490 495	0.073	1.36
28 SAMPLE:	RE-5 495 500	0.093	2.21
29 SAMPLE:	RE-5 500 505	0.161	2.32
30 SAMPLE:	RE-5 505 510	0.335	5.25
31 SAMPLE:	RE-5 510 515	0.140	2.74
32 SAMPLE:	RE-5 515 520	0.027	0.95
33 SAMPLE:	RE-5 520 525	0.049	1.05

This report reviewed and approved by:

Brett Connelly

Brett Connelly, Chief Fire Assayer

NEVADA GSI
GEOCHEMICAL SERVICES, INC.

JUL 26 1989

Copy

GEOCHEMICAL ANALYSIS REPORT

July 19, 1989

Nate Brewer
LAC Minerals USA, Inc.
1475 Greg St.
Sparks, NV 89431

Number of Samples: 49
Project: 615411
GSI Number: 4832
Analysis: Fire Assay for Gold and Silver, with an A.A. finish.

	Sample I.D.			Au o/t	Ag o/t
1	RE-5	535	540	0.420	8.93
2	RE-5	540	545	0.217	4.07
3	RE-5	545	550	0.189	3.85
4	RE-5	550	555	0.087	1.34
5	RE-5	555	560	0.243	4.54
6	RE-5	560	565	0.074	1.54
7	RE-5	565	570	0.121	2.38
8	RE-5	570	575	0.093	1.51
9	RE-5	575	580	0.115	1.91
10	RE-5	580	585	0.019	0.56
11	RE-5	585	590	0.017	0.14
12	RE-5	590	595	0.067	1.23
13	RE-5	595	600	0.164	2.91
14	RE-5	600	605	0.227	3.67
15	RE-5	605	610	0.094	1.90
16	RE-5	610	615	0.025	0.56
17	RE-5	615	620	0.037	0.66
18	RE-5	620	625	0.043	0.67
19	RE-5	625	630	0.043	0.25
20	RE-5	630	635	0.011	0.37
21	RE-5	635	640	0.018	0.54
22	RE-5	640	645	0.037	1.15
23	RE-5	645	650	0.015	0.24
24	RE-5	650	655	0.020	0.50
25	RE-5	655	660	0.018	<.10
26	RE-5	660	665	0.052	0.64
27	RE-5	665	670	0.033	0.98
28	RE-5	670	675	0.028	0.50
29	RE-5	675	680	0.006	<.10
30	RE-5	680	685	0.044	0.75

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Sample I.D.			Au o/t	Ag o/t
31	RE-5	685 690	0.021	0.15
32	RE-5	690 695	0.014	0.20
33	RE-5	695 700	0.010	<.10
34	RE-5	700 705	0.012	<.10
35	RE-5	705 710	0.012	0.22
36	RE-5	710 715	0.009	0.20
37	RE-5	715 720	0.010	<.10
38	RE-5	720 725	0.006	<.10
39	RE-5	725 730	0.014	0.27
40	RE-5	730 735	0.021	0.31
41	RE-5	735 740	0.011	0.51
42	RE-5	740 745	0.023	0.12
43	RE-5	745 750	0.007	<.10
44	RE-5	750 755	0.005	<.10
45	RE-5	755 760	0.004	<.10
46	RE-5	760 765	0.024	<.10
47	RE-5	765 770	0.024	<.10
48	RE-5	770 775	0.014	<.10
49	RE-5	775 780	0.008	<.10

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager

RE-5 QUICK LOG Feb. 5, 1990

0 - 135 Oxidized pyroclastic w/ chalcedonic silicif.
↑ bleaching w/ depth w/ local tuff interbeds
65-80 hematitic tuffaceous bed
135 Ox/RE Boundary
105-135 oxidized w/ ↑ perv. silicification
135-147 ↑ bleaching ↑ silicif. ± tuff

135 - 147 bleached, silicified tuff + frog

147 - 270 green smectite + nontronite alt
BUD Bud Breccia pyroclastic, perv. clay alt
245-270 peach, green pyro
Bud
LBT

270 - 400 LBT? mottled peach and green pyroclastic
w/ mod str peach calcite veins to silicification
w/ poss tuff 'inserts'

ORE RK 400 - 518 LBT Peach tuff breccia - bleached

518 - 525 Fault prism calcite

525 - 780 SGT