

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. RL-196C
AUTHOR	K. Kenner; J. Kuhl; C. Walck; N. Whitten
DATE OF DOC(S)	1991
MULTI_DIST Y / (N?) Additional Dist Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Coates Drilling; Lac Minerals (USA), Inc; Bondar - Clegg, Inc; Chemex Leach, Inc
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 543' handwritten notes 35 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)

SS: DD 5/10/08
Initials Date

DB: mah
Initials Date

SCANNED:
Initials Date

Drill Log
Rosebud

RL-196

60061418 4010 ✓



LAC MINERALS (U.S.A.) INC.

DRILL LOG SUMMARY SHEET

HOLE NUMBER RL-196C TOTAL DEPTH 543' LOGGED BY KLK

RC to 295

Drill Type : UDR

Hole Size : HQ

Drilling Conditions: _____

Footage: Wet / Dry _____

Comments: _____

[illegible]

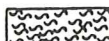
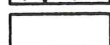
LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT



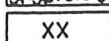
FINE-GRAINED TUFF



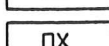
LITHIC LAPILLI TUFF



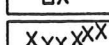
ARGILLIC



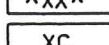
SILICIFICATION



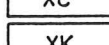
OXIDIZED



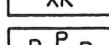
DRUZY QUARTZ



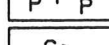
CHALCEDONIC QUARTZ



STOCKWORK QUARTZ



PROPYLITIZATION



CALCITE

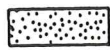
DRILL HOLE RL-196

Page 1 of 3

LOGGED BY KLK

	LITH.	ALT.	% ARG. ALT.			% SIL'N			COLOR	% FeOx			% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV
			W	M	S	W	M	S		W	M	S						
														0-5' COLLUVIUM	<	.03		
05		~ X XK HX							lt mint green					5-215 CHOCOLATE FINE GRAINED TUFF	.006	.05		
10														5-33 lt sage green pervasive argillu	.003	.04		
15														clay alt - M to M-S w-m weak druzy qtz encapsulated pyrite vns	.003	.04		
20														+ wk fine qtz STCKWK m. perv. bl	<	<		
25																		
30									lt mint green + buff							<	.04	
35	Δ	XXX												33-60 choco w m perv	.003	.03		
40	Δ	XXX							buff + TAN					bleaching to buff/tan pervasive silicified perv. brecciation	<	.03		
45	Δ	XX												M to S. strong druzy qtz vns w local	<	.09		
50	(Δ)	XX												encapsulated sulfides strong fine qtz STCKWK intermittently oxidized in limonitic clays	<	.06		
55		XX												40-70 w to S red	<	.05		
60	Δ	XXX												orange earthy clays; earthy limonite	<	.08		
65														red-orange clay are strong + between 55-60	.004	.10		
70																.004	.11	
75														60-200 CHOCO FGT buff-tan - w-m perv bleaching w argillic alt weak intermittent limonite hematite oxidation poss wk perv. silicification	.003	.05		
80														w-m perv. hairline qtz STCKWK w druzy qtz locally encapsulating	<	.05		
85																<	.04	
90		XX												py		<	.04	
95		XX														.004	.17	
100																<	.03	

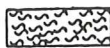
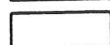
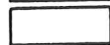
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ROSEBUD PROJECT



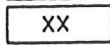
FINE-GRAINED TUFF



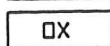
LITHIC LAPILLI TUFF



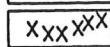
ARGILLIC



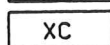
SILICIFICATION



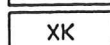
OXIDIZED



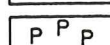
DRUZY QUARTZ



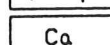
CHALCEDONIC QUARTZ



STOCKWORK QUARTZ



PROPYLITIZATION



CALCITE

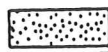
DRILL HOLE RL-196C

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LOGGED BY KLK

	LITH.	ALT.	% ARG. ALT.			% SIL'N			COLOR	% FeOx			% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
			W	M	S	W	M	S		W	M	S						
105	CT	X ~ OX +K							buff tan limonite				1-2% diss +VN py	S-215 CHOCO. FGT 60-200 buff choco	L	L		
110														same description @ above w/ weak peru. silicification	.003	.03		
115														limonitic clay ±2% clay alt plagio	.003	.04		
120														clase-phinos. 115-125 ↑ peru.	.004	.03		
125														limonite OX wk capoc ↑ peru. silicific.	.004 .003	.03 .04		
130													2-3% above		L	.03		
135													1-2% diss +VN py		L	.04		
140															.003	.04		
145														wk ↑ peru. silicification	.004 .003	.03		
150															.003	.05		
155															.003	L		
160														155-170 weak earthy red orange clay	L	L		
165															L	.16 .21 .22		
170															.003	.04		
175															.003 .002	.03 .03		
180															.002	.05		
185															L	.04		
190															S	.04		
195															L	.03		
200	▽	▽												195-200 ↑ peru. blt ↑ peru. silicif. local brecciation local sulfide rich qtz vns	.002	.03		

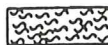
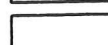
LAC MINERALS (U.S.A.) INC.
ROSEBUD PROJECT



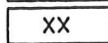
FINE-GRAINED TUFF



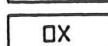
LITHIC LAPILLI TUFF



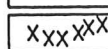
ARGILLIC



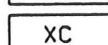
SILICIFICATION



OXIDIZED



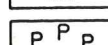
DRUZY QUARTZ



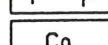
CHALCEDONIC QUARTZ



STOCKWORK QUARTZ



PROPYLITIZATION



CALCITE

DRILL HOLE RL-196

Page 3 of 3

LOGGED BY KLK

	LITH.	ALT.	% ARG. ALT.			% SIL'N			COLOR	% FeOx			% SULF.	COMMENTS	Au	Ag	CHECK	% VASH RECOV
			W	M	S	W	M	S		W	M	S						
205		XX H4H XK							buff white ± green				± 1% diss + v. py	5-215 CHOCO TUFF 200-215 somewhat gradational contact into BL BEDDED BUD m-s peruv bl, w-m silic. local Δ	<	.12 .17		
210														m-s drusy qtz encap. earthy limon ± py m fine qtz stock w-m lt white green BLT.	<	.09		
215		XK H4H							medium to dk seg green				1-2% diss + v. py	215-383.4 BEDDED BUD - LITHIC LAPILLI TUFF	<	.05		
220													+ v. py marcasite	dup sea green, hetero- lithic clasts can be white clay alt	4 .002	.03 .03		
225														matrix is pur. m-s celadonite alt pur argillous clay alt	<	.04		
230														v. drusy local drusy qtz vns - locally	4 .003	4 .12		
235														encapsulating py ± marcasite	<	.04		
240														235-245 ↑ argillic tan clay alt	4 .12	.01		
245														↓				
250														(Note: the OXIDES present w/ depth maybe due to some contamination)	<	.03		
255															<	.06		
260															<	.06		
265															.005	.09		
270														265-275 ↑ pur. arg green argillous clay alt	.007 .004	.11 .06		
275														↓	.004 .004	.06 .08		
280															.005	.10		
285															.005	.12		
290															.003	.08		
295															.003	.07		
00														T.D.				

DEPTH (ft)	RECOVERY	Structure		MINERAL- IZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS						
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag	
							CORE BEGAN @ 295'	NO						
							295-383.4 BEDDED BUD - LITHIC LAPILLI TUFF	S						
							CLASSIC GREEN CELADONITE RICH matrix, bedding predom ± 60° to CIA predom lithics 2-25 mm w local volc bxa sized episodes. Heterolithic w few wispy units of collapsed pumice frags few local broken rubble zones w ↑ argillic clay assoc. Predomantly weak veining ~ averaging ~ 2-5 vns/ft composed of 2 episodes 1) pyrite ± qtz 2) drusy wuggy qtz lined vns w kaolinite + pyrite ± marcasite fill	A						
							315-326 wispy unit	M						
							329.5-337 wispy	P						
							338.5-340 m-s white kaolinite ± py ± marcasite @ ~ 35°-70° to C.A.	L						
							342-351.5 intermittent + broken rubble + clay gouge	E						

DEPTH (ft)	RECOVERY	STRUCTURE		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS					
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	✓ Au	oz/t Au	oz/t Ag
370	97			±2% VN + cliss py		M bl M ≈ M-S celad	295-383.4 BEDDED BUD - LLT 383.4-506 LOWER BUD TUFF	N.S.					
372-377				±3% cliss + VN PY I VN matrix site		M-S bl S ≈ W celad	372-383.4 bedded bud w/ ↑ bleaching strong pervasive argillic clay alt. nerv. fine dissem. pyrite & weak pyrite + clay vns ± qtz w/ ± local barite @ most 1-3 vns/ft	372-377				<	.08
377-382								377-382				<	.07
382-387				±3% cliss + VN PY + VN matrix site + WK AQ min.		M bl M ≈ M celad	383.4 - 506 LOWER BUD TUFF m-s perv. bleaching, verigated white to green to peach moderate drusy qtz pyrite - marcasite + clay veins locally strong local tectonic brecciation w/ volc. bxa sized clasts which are buff to lt green w/ peach / flesh colored matrix. with depth - hole becomes intermittently clay gouged w/ broken rubble intervals @ approach SRF. VARIATIONS FOLLOW.	382-387				.002 <	.08 .07
387-393								387-393				.003	.13
393-397								393-397				.005	.10
397-402								397-402				<	.10
402-407								402-407				<	.11
407-412								407-412				<	.07
412-417								412-417				.010	.10
417-422								417-422			.003	.002	.07
422-424								422-424				.003	.06
424-429								424-429				<	.09

DEPTH (ft)	RECOVERY	Structure		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS					
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	✓ Au	oz/t Au	oz/t Ag
383.4	57			±4% cliss +vn py +vn marcasite +poss stibit	M-S bl M-S celad		LOWER BUD TUFF	429-434				1/2	.06
477.8	93						SOUTH RIDGE FAULT	434-439				.006	.15
440	102						431-453 VOLC BXA - LBT w/ lt peach/flesh matrix; bl white buff to lt green clasts intermittent broken rubble throughout w/ few clay gouge zones intermittent silicified vein breccias 2 predom stages of veining 1) fine mm qtz-py ± clay veinlets 2) kaolinite, marcasite ± local qtz + poss pyragyril local riddling of fine hairline qtz stock total ~ 3-8 vns/ft inclusive 448-450 strong stockwork qtz w/ mar + clay fill	439-444				.003	.09
450	102							444-448				.005	.10
460	96			M-S Cu OXIDE 4-5% marcasite + Ag min + cliss py	S bl M-S local X		453-464 zone of strong Cu oxides @ dk gray to black earthy mineral which turn azure blue w/ HCL. Strong perubl w/ mod argill. clay alt local silicified vns w/ str side flood intermittent strong fine qtz stockwork local A+shock prominent kaolinite dk gray iridescent Ag? mineral w/ assoc. Cu oxide ± marcasite ± vns may be ~ 3-5 vns/ft w/ local str riddling of uncountable amount. Intermitt. broken rubble	448-453				<	.10
470	97			3-4% cliss +vn py earthy bronze gray iridescent cent. notholite	S bl M-S		453-464 zone of strong Cu oxides @ dk gray to black earthy mineral which turn azure blue w/ HCL. Strong perubl w/ mod argill. clay alt local silicified vns w/ str side flood intermittent strong fine qtz stockwork local A+shock prominent kaolinite dk gray iridescent Ag? mineral w/ assoc. Cu oxide ± marcasite ± vns may be ~ 3-5 vns/ft w/ local str riddling of uncountable amount. Intermitt. broken rubble	453-458				.009	.61
480	75						464-469.5 same @ above w/ no Cu oxides	458-463.7				.252 .253 .240	9.22 8.84
490	88			2-3% cliss +vn py +marcasite	S bl M-S		469.5-487.5 strongly bl + clay alt intermittent LLT; FGT calcite veining is introduced wk py + qtz vns ± clay ~ 5-8 vns/ft ~ 2-4 CaCO ₃ vns/ft locally very fine hairline qtz stockwork riddling - strong locally - uncountable	463.7-469				.037 .042	.068
500	100						477.8-482 strong clay cemented broken rubble	469-474				.089	2.97
							483.3-486.5 broken rubble w/ m-s clay alt	474-478				.036	.62
							487.5-491 FGT, lt sage green w/ strong pervasive clay alt prominent CaCO ₃ vns - xtaline up to 18 mm wide 1-3/ft, per. tensional shearing fracts riddled w/ fine stockwork CaCO ₃ or qtz	478-482				.028	.36
							491-494.6 broken rubble + clay gouge s ≈	482-487.5				.118 .186	.36
							494.6-496.9 Δ peach flesh FGT str ≈ clay cemented ± calcite vns	487.5-491.5				.050	.19
							496.9-497.25 clay cemented broken rubble	491.5-496.5				.004 .004 .002	.04
								496.5-500.5				.022	.05

DEPTH (ft)	RECOVERY	Structure		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS						
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	✓ Au	oz/t Au	oz/t Ag	
				20% discst w/ py	U-Tuff	M bl S w celad	477.8 - 506 SOUTH RIDGE FAULT							
	100		40°	± 2% discst ± vn py	U-Tuff	M bl S w celad	506 - 543 DOZER TUFF	5005-506					<	.04
510							495.85 - 506 semimassive calcite w/ lt green clay gouge filling interstices between veins.	506-511					<	1/2
	100						504-506 becomes predominantly lt green gouge + rubble ↓ calcite veining	511-516				.001	<	<
520			35°	21% discst ± vn py	U-Tuff	W bl w celad	506 - 543 DOZER TUFF	516-521					<	<
	97		60°				506 - 520.5 FGT lt sage green, w-m bl intermittently brecciated finely veined w/ hairline stckwk calcite predom appears sub parallel to C.A. Fine white clay filling interstices of A maybe w SiO2 mix	NO SAMPLE						
530			50°				veining is few to many @ 520.5 baby Δ shear @ 35° to CA w/ 60° rake slicks							
	102		300 pseudo fho				520.5 - 543 PSEUDO FLOW Banded FGT @ 50-80° to CA w bl to purple fresh color w/ depth (534-543) densely welded relatively fresh weak veining 10-40° to C.A. w celadonite + clay-SiO2 fill							
543														



RL196c

PROJECT ROSEBUD

HOLE NUMBER RL-196C TOTAL DEPTH 543' LOGGED BY KLK

Date started 6-5-91

Contractor: COATES

RC to 295

Date completed 6-6-91

Drill Type: UDR

Initial bearing _____

Hole Size : HQ

Initial inclination vertical

Drilling Conditions: _____

Elevation _____

Footage: Wet / Dry _____

Collar coordinates:

N

Comments: _____

E

DOWN HOLE SURVEY INFORMATION

[illegible]

DEPTH (ft)	RECOVERY	Structure		MINERAL- IZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS							
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag		
							CORE BEGAN @ 295'								
							295-383.4 BEDDED BUO - LITHIC LAPILLI TUFF								
							CLASSIC GREEN CELADONITE RICH matrix, bedding predom ± 60° to CIA predom lithics 2-25 mm w/ local volc. bxa sized episodes. Heterolithic w/ few wispy units of collapsed pumice frags, few local broken rubble zones w/ argillic clay assoc. Predom matrix weak veining ~ averaging ~ 2-5 vns/ft composed of 2 episodes of pyrite ± qtz 2) drusy wuggy qtz lined vns w/ kaolinite + pyrite ± marcasite fill								
							315-326 wispy unit								
							329.5-337 wispy								
							338.5-340 m-s white kaolinite ± py ± marcasite @ ~ 35°-70° to C.A.								
							342-351.5 intermittent + broken rubble + clay gouge								

DEPTH (ft)	RECOVERY	STRUCTURE		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS					
		Bd.	Faults					Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
				±2% VN + cliss py	✓	M bl M ≈ M-S celad	295-383.4 BEDDED BUD - LLT 383.4-506 LOWER BUD TUFF	N.S.					
370	97			±3% cliss + VN py ± VN marcasite	✓	M-S bl S ≈ W celad	372-383.4 bedded bud w/ ↑ bleaching { strong pervasive argillic clay alt. nerv. fine dissem. pyrite & weak pyrite + clay vns ± qtz ~ ± local barite @ most 1-3 vns/ft.	372- 377					
380	101			±3% cliss + VN py ± VN marcasite	✓	M bl M ≈ M celad		377- 382					
390	98			±3% cliss + VN py ± VN marcasite + wk Ag min.	✓	M bl M ≈ M celad	383.4 - 506 LOWER BUD TUFF m-s perv. bleaching, verigated white to green to peach moderate drusy qtz pyrite - marcasite + clay veins, locally strong local tectonic brecciation w/ volc. bxa sized clasts which are buff to lt green w/ peach / flesh colored matrix. With depth - hole becomes intermittently clay gouged w/ broken rubble intervals @ approach SRF. VARIATIONS FOLLOW.	382- 387					
400	96				✓	S bl S ≈ W celad	383.4-398 Volc bxa equivalent of LBT moderately veined w/ 2 prominent stgs of veining 1) fine ± 1mm veins of py ± qtz ± kaolinite ± celadonite 2) up to 7mm veins of kaolinite, py, marcasite { local drusy qtz lining #1 vns ~ 3-4 vns/ft #2 vns ~ 2-6 vns/ft	387- 393					
410	62				✓	M bl M ≈ M celad		393- 397					
420	100			3-4% cliss + VN py ± VN marcasite	✓	M-S bl M ≈ M-SX W Hclad	398-421 FGT ↑ perv. argillic alt, intermittently brecciated & viddled w/ fine qtz stkwk prominent veining; white kaolin + marcasite weaker fine celadonite hairline stkwk & local fine py ± qtz stkwk 2-5 clay-marca vns/ft 412.5-417 strong drusy qtz marca + kaolin vns w/ intermittent SiO2 flooding	397- 402					
430					✓	M-S bl M ≈ M-SX W Hclad	421-431 ↓ perv. argillic alt w/ local intermittent SiO2 flooding strong drusy vuggy qtz lined vns filled w/ kaolinite + marcasite viddled throughout w/ preferred orientation { w/ in rock a maze of webbing A VOLC. BXA	402- 407					
					✓	M-S bl M ≈ M-SX W Hclad		407- 412					
					✓	M-S bl M ≈ M-SX W Hclad		412- 417					
					✓	M-S bl M ≈ M-SX W Hclad		417- 422					
					✓	M-S bl M ≈ M-SX W Hclad		422- 424					
					✓	M-S bl M ≈ M-SX W Hclad		424- 429					

DEPTH (ft)	RECOVERY	Structure		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS					
		Bd.	Faults					Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
383.4	57			448 diss + VN	M-S bl		LOWER BUD TUFF	421-434					
477.8	93			py + VN	M-S celad		SOUTH RIDGE FAULT	434-439					
440	102			marcasite + poss stib			431-453 VOLC BXA - LBT w/ lt peach/flesh matrix; bl white buff to lt green clasts intermittent broken rubble throughout w/ few clay gouge zones intermittent silicified vein breccias 2 predom stages of veining 1) fine 1 mm qtz-py ± clay veinlets 2) kaolinite, marcasite ± local qtz + poss pyragyrilite local riddling of fine hairline qtz stock total ~ 3-8 vns/ft inclusive 448-450 strong stockwork qtz w/ mar + clay fill	439-444					
450	102							444-448					
460	96			M-S Cu OXIDE 4-5% + Ag min + diss py	Sbl M-S local X		453-464 zone of strong Cu oxides @ dk gray to black earthy mineral which turn a zone blue w/ HCL. strong perubl w/ mod argillic clay alt local silicified vns w/ str silicified flood intermittent strong fine qtz stockwork local + shear prominent kaolinite dk gray iridescent Ag? mineral w/ assoc. Cu oxide + marcasite ± vns may be ~ 3-5 vns/ft w/ local str riddling of uncountable amount. Intermitt. broken rubble	448-453					
470	97			3-4% diss + VN py + earthy brown gray interbed cent. metallic	Sbl M-S		464-469.5 same @ above w/ no Cu oxides	453-458					
480	75				Sbl		469.5-487.5 strongly bl + clay alt intermittent LLT; FGT calcite veining is introduced wk py + qtz vns ± clay ~ 5-8 vns/ft ~ 2-4 CaCO ₃ vns/ft locally very fine hairline qtz stockwork riddling - strong locally - uncountable	458-463.7					
490	88			2-3% diss + VN py + mar calcite	M-S bl		477.8-482 strong clay cemented broken rubble	469-474					
500	100						483.3-486.5 broken rubble w/ m-s clay alt	474-478					
							487.5-491 FGT, lt sage green w/ strong pervasive clay alt. prominent CaCO ₃ vns - xtaline up to 18 mm wide 1-3/ft, peru. tensional shearing fracts riddled w/ fine stockwork CaCO ₃ or qtz	478-482					
							491-494.6 broken rubble + clay gouge s ≈	482-487.5					
							494.6-496.9 Δ peach flesh FGT str ≈ clay cemented ± calcite vns	487.5-491.5					
							496.9-497.25 clay cemented broken rubble	491.5-496.5					
								496.5-500.5					

DEPTH (ft)	RECOVERY	Structure		MINERALIZATION	GRAPHIC LOG	ALTER.	DESCRIPTION	ASSAYS					
		Bd. Fol.	Faults					Sample No.	% Cu	% Pb	% Zn	oz/l Au	oz/l Ag
477.8 - 506							SOUTH RIDGE FAULT						
506 - 543							DOZER TUFF						
495.85 - 506							Semimassive calcite w/ lt green clay gouge filling interstices between & within veins.						
504 - 506							becomes predominantly lt green gouge + rubble + calcite veining						
506 - 543							DOZER TUFF						
506 - 520.5							FGT lt sage green, w-m bl intermittently brecciated finely veined w/ hairline sticklc calcite predom appears sub parallel to C.A. Fine white clay filling interstices of A matrix w/ SiO2 mix veining is few to many @ 320.5 baby A shear @ 35° to CA w/ 60° rake slicks						
520.5 - 543							PSEUDO FLOW Banded FGT @ 50-80° to CA w bl to purple fresh color w/ depth (534-543) densely welded relatively fresh weak veining 10-40° to C.A. w/ celadonite + clay-SiO2 fill						

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*RL196C
0-295*

**Geochemical
Lab Report**

JUL 8 1991

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11143.4 (COMPLETE)

REFERENCE INFO: RL196 0-295

CLIENT: LAC MINERALS (USA) INC.
PROJECT: ROSEBUD

SUBMITTED BY: STOEHRER
DATE PRINTED: 2-JUL-91

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold	61	0.0002 OPT		Fire Assay
2	Au DUP Gold Duplicate	9	0.0002 OPT		Fire Assay
3	AU Dup Gold Duplicate	0	0.0002 OPT		Fire Assay
4	Ag Silver	61	0.02 OPT		Fire Assay
5	AG DUP AG DUPLICATE	12	0.02 OPT		Fire Assay
6	AG DUP AG DUPLICATE	3	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
Z OTHER DRILL TYPES	59	2 -150	59	CRUSH, PULVERIZE -150	59
P PREPARED PULP	2	4 AS REC'D	2	OVERWEIGHT/LBS	140
				EXCESS WHFINES/SAMP	2

REMARKS: INTERVAL 130-135 IS MARKED RL195 ON THE BAG
BUT WE LISTED IT AS RL196.

REPORT COPIES TO: MS. CYNDIE WALCK

INVOICE TO: MR. TIM KUH

MR. TIM KUH
MR. TIM KUH



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11143.4 (COMPLETE)

DATE PRINTED: 2-JUL-91

PROJECT: ROSEBUD

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT	AG DUP OPT
------------------	------------------	-----------	---------------	---------------	-----------	---------------	---------------

Z2 RL196 0 5		<0.002			0.03		
Z2 RL196 5 10		0.006			0.05		
Z2 RL196 10 15		0.003			0.04		
Z2 RL196 15 20		0.003	0.003		0.04	0.03	
Z2 RL196 20 25		<0.002			<0.02	<0.02	<0.02

Z2 RL196 25 30		<0.002			0.04		
Z2 RL196 30 35		0.003			0.03		
Z2 RL196 35 40		<0.002			0.03		
Z2 RL196 40 45		<0.002			0.08		
Z2 RL196 45 50		<0.002			0.06		

Z2 RL196 50 55		<0.002			0.05		
Z2 RL196 55 60		<0.002			0.08		
Z2 RL196 60 65		0.004			0.10		
Z2 RL196 65 70		0.004	0.004		0.11	0.12	
Z2 RL196 70 75		0.003			0.05		

Z2 RL196 75 80		<0.002			0.05		
Z2 RL196 80 85		<0.002			0.04		
Z2 RL196 85 90		<0.002			0.04		
Z2 RL196 90 95		0.004			0.17	0.17	0.22
Z2 RL196 95 100		<0.002			0.03		

P4 BA 19		0.002			0.14		
Z2 RL196 100 105		<0.002			<0.02		
Z2 RL196 105 110		0.003			0.03		
Z2 RL196 110 115		0.003			0.04		
Z2 RL196 115 120		0.004			0.03		

Z2 RL196 120 125		0.004	0.003		0.03	0.04	
Z2 RL196 125 130		<0.002			0.03		
Z2 RL196 130 135		<0.002			0.04		
Z2 RL196 135 140		0.003			0.04		
Z2 RL196 140 145		0.003	0.004		<0.02	0.03	

Z2 RL196 145 150		0.003			0.05		
Z2 RL196 150 155		0.003			<0.02		
Z2 RL196 155 160		<0.002			<0.02		
Z2 RL196 160 165		<0.002			0.16	0.21	0.22
Z2 RL196 165 170		0.003			0.04		

Z2 RL196 170 175		0.003	<0.002		0.03	0.03	
Z2 RL196 175 180		0.003			0.05		
Z2 RL196 180 185		<0.002			0.04		
Z2 RL196 185 190		<0.002			0.04		
Z2 RL196 190 195		<0.002			0.03		



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11143.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	Au Dup OPT	Ag OPT	Ag DUP OPT	Ag DUP OPT
------------------	------------------	-----------	---------------	---------------	-----------	---------------	---------------

Z2 RL196 195 200		0.0002			0.03		
P4 BA 20		0.033			0.06		
Z2 RL196 200 205		<0.0002			0.12	0.17	
Z2 RL196 205 210		<0.0002			0.05		
Z2 RL196 210 215		<0.0002			<0.02		

Z2 RL196 215 220		<0.0002			0.05		
Z2 RL196 220 225		<0.0002	0.0002		0.03	0.03	
Z2 RL196 225 230		<0.0002			0.04		
Z2 RL196 230 235		<0.0002	0.0003		<0.02	<0.02	
Z2 RL196 235 240		<0.0002			0.04		

Z2 RL196 240 245		<0.0002	<0.0002		0.07		
Z2 RL196 245 250		<0.0002			0.05		
Z2 RL196 250 255		<0.0002			0.06		
Z2 RL196 255 260		<0.0002			0.06		
Z2 RL196 260 265		0.0005			0.09		

Z2 RL196 265 270		0.0007			0.11		
Z2 RL196 270 275		0.0004	0.0004		0.06	0.08	
Z2 RL196 275 280		0.0005			0.10		
Z2 RL196 280 285		0.0005			0.12		
Z2 RL196 285 290		0.0003			0.08		

Z2 RL196 290 295		0.0003			0.07		
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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11143.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 3

STANDARD NAME	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT	AG DUP OPT
------------------	------------------	-----------	---------------	---------------	-----------	---------------	---------------

ANALYTICAL BLANK		<0.0002	-	-	<0.02	-	-
ANALYTICAL BLANK		<0.0002	-	-	<0.02	-	-
Number of Analyses		2	-	-	2	-	-
Mean Value		0.0000	-	-	0.010	-	-
Standard Deviation		0.000000	-	-	0.00000	-	-

Accepted Value		0.002	-	-	0.02	-	-
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Number of Analyses		-	-	-	-	-	-
Mean Value		-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-
Accepted Value		0.040	-	-	0.40	-	-

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RL196C
372-521 **Geochemical
Lab Report**

JUL 5 1991

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11152.4 (COMPLETE)

REFERENCE INFO: RL196C 372-521

CLIENT: IAC MINERALS (USA) INC.
PROJECT: ROSEBUD

SUBMITTED BY: KENNER
DATE PRINTED: 2-JUL-91

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold	32	0.0002 OPT		Fire Assay
2	Au DUP Gold Duplicate	6	0.0002 OPT		Fire Assay
3	AU Dup Gold Duplicate	2	0.0002 OPT		Fire Assay
4	Ag Silver	32	0.02 OPT	MULT ACID TOT DIG	Atomic Absorption
5	AG DUP AG DUPLICATE	4	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	31	2 -150	31	CRUSH,PULVERIZE -150	31
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1

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MR. TIM KUHL
MS. KRISTIN KENNER

Nicole Dutton



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11152.4 (COMPLETE)

DATE PRINTED: 2-JUL-91

PROJECT: ROSEBUD

PAGE 2

STANDARD NAME	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
------------------	------------------	-----------	---------------	---------------	-----------	---------------

GEO TRACE SID1(1989)		-	-	-	1.10	-
Number of Analyses		-	-	-	1	-
Mean Value		-	-	-	1.096	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	1.05	-

AU ASSAY STD		0.012	-	-	-	-
Number of Analyses		1	-	-	-	-
Mean Value		0.0120	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		0.015	-	-	-	-

ANALYTICAL BLANK		<0.0002	-	-	-	-
Number of Analyses		1	-	-	-	-
Mean Value		0.00010	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		0.0002	-	-	-	-

Number of Analyses		-	-	-	-	-
Mean Value		-	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	-

AG ASSAY		-	-	-	2.82	-
Number of Analyses		-	-	-	1	-
Mean Value		-	-	-	2.819	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	3.03	-

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*RL196C
372-521*

Geochemical Lab Report

JUN 28 1991

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11152.4 (PARTIAL)

REFERENCE INFO: RL196C 372-521

CLIENT: IAC MINERALS (USA) INC.
PROJECT: ROSEBUD

SUBMITTED BY: KENNER
DATE PRINTED: 26-JUN-91

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold	32	0.002 OPT		Fire Assay
2	Au DUP Gold Duplicate	6	0.002 OPT		Fire Assay
3	AU Dup Gold Duplicate	2	0.002 OPT		Fire Assay

RESULTS TO FOLLOW FOR: AG DUP AG DUP Ag

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	31	2 -150	31	CRUSH,PULVERIZE -150	31
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1

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MR. TIM KUHL
MS. KRISTIN KENNER

Nicole Witten



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 26-JUN-91

REPORT: R91-11152.4 (PARTIAL)

PROJECT: ROSHBUD

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT
------------------	------------------	-----------	---------------	---------------

D2 RL196C 372 377		<0.002		
D2 RL196C 377 382		<0.002		
D2 RL196C 382 387		0.002	<0.002	
D2 RL196C 387 393		0.003		
D2 RL196C 393 397		0.005		

D2 RL196C 397 402		<0.002		
D2 RL196C 402 407		<0.002		
D2 RL196C 407 412		<0.002		
D2 RL196C 412 417		0.010		
D2 RL196C 417 422		0.002		

D2 RL196C 422 424		0.003		
D2 RL196C 424 429		<0.002		
D2 RL196C 429 434		<0.002	<0.002	
D2 RL196C 434 439		0.006		
D2 RL196C 439 444		0.003		

D2 RL196C 444 448		0.005		
D2 RL196C 448 453		<0.002		
D2 RL196C 453 458		0.009		
D2 RL196C 458 463.7		0.252	0.253	0.260
D2 RL196C 463.7 469		0.037	0.042	

P4 BA 26		0.048		
D2 RL196C 469 474		0.089		
D2 RL196C 474 478		0.036		
D2 RL196C 478 482		0.028		
D2 RL196C 482 487.5		0.118	0.186	

D2 RL196C 487.5 491.5		0.050		
D2 RL196C 491.5 495.5		0.004	0.004	0.002
D2 RL196C 495.5 500.5		0.022		
D2 RL196C 500.5 506		<0.002		
D2 RL196C 506 511		<0.002		

D2 RL196C 511 516		<0.002		
D2 RL196C 516 521		<0.002		

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 26-JUN-91

REPORT: R91-11152.4 (PARTIAL)

PROJECT: ROSEBUD

PAGE 2

STANDARD NAME	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT
------------------	------------------	-----------	---------------	---------------

Number of Analyses		-	-	-
Mean Value		-	-	-
Standard Deviation		-	-	-
Accepted Value		-	-	-

AU ASSAY STD	0.012	-	-	-
Number of Analyses	1	-	-	-
Mean Value	0.0120	-	-	-
Standard Deviation	-	-	-	-
Accepted Value	0.015	-	-	-

ANALYTICAL BLANK	<0.002	-	-	-
Number of Analyses	1	-	-	-
Mean Value	0.0010	-	-	-
Standard Deviation	-	-	-	-
Accepted Value	0.002	-	-	-

Number of Analyses		-	-	-
Mean Value		-	-	-
Standard Deviation		-	-	-
Accepted Value		-	-	-

Number of Analyses		-	-	-
Mean Value		-	-	-
Standard Deviation		-	-	-
Accepted Value		-	-	-

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Geochemical Lab Report

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT
------------------	------------------	-----------	---------------	---------------

RL196C 506 511		<0.002		
Prep Duplicate		<0.002		

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

JUL 8 1991

REPORT: R91-11143.4 (COMPLETE)

REFERENCE INFO: RL196 0-295

CLIENT: IAC MINERALS (USA) INC.
PROJECT: ROSEBUD

SUBMITTED BY: STOFFER
DATE PRINTED: 2-JUL-91

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold	61	0.0002 OPT		Fire Assay
2	Au DUP Gold Duplicate	9	0.0002 OPT		Fire Assay
3	AU Dup Gold Duplicate	0	0.0002 OPT		Fire Assay
4	Ag Silver	61	0.02 OPT		Fire Assay
5	AG DUP AG DUPLICATE	12	0.02 OPT		Fire Assay
6	AG DUP AG DUPLICATE	3	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
Z OTHER DRILL TYPES	59	2 -150	59	CRUSH, PULVERIZE -150	59
P PREPARED PULP	2	4 AS REC'D	2	OVERWEIGHT/LBS	140
				EXCESS WEINNESS/SAMP	2

REMARKS: INTERVAL 130-135 IS MARKED RL195 ON THE BAG
BUT WE LISTED IT AS RL196.

REPORT COPIES TO: MS. CYNDIE WALCK

INVOICE TO: MR. TIM KUHL

MR. TIM KUHL
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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11143.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 3

STANDARD NAME	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT	AG DUP OPT
------------------	------------------	-----------	---------------	---------------	-----------	---------------	---------------

ANALYTICAL BLANK		<0.0002	-	-	<0.02	-	-
ANALYTICAL BLANK		<0.0002	-	-	<0.02	-	-
Number of Analyses		2	-	-	2	-	-
Mean Value		0.00010	-	-	0.010	-	-
Standard Deviation		0.000000	-	-	0.000000	-	-

Accepted Value		0.002	-	-	0.02	-	-
----------------	--	-------	---	---	------	---	---

Number of Analyses		-	-	-	-	-	-
Mean Value		-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-
Accepted Value		0.040	-	-	0.40	-	-



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: ROSEBUD

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT	AG DUP OPT
Z2 RL196 0 5		<0.0002			0.03		
Z2 RL196 5 10		0.0006			0.05		
Z2 RL196 10 15		0.0003			0.04		
Z2 RL196 15 20		0.0003	0.0003		0.04	0.03	
Z2 RL196 20 25		<0.0002			<0.002	<0.002	<0.002
Z2 RL196 25 30		<0.0002			0.04		
Z2 RL196 30 35		0.0003			0.03		
Z2 RL196 35 40		<0.0002			0.03		
Z2 RL196 40 45		<0.0002			0.08		
Z2 RL196 45 50		<0.0002			0.06		
Z2 RL196 50 55		<0.0002			0.05		
Z2 RL196 55 60		<0.0002			0.08		
Z2 RL196 60 65		0.0004			0.10		
Z2 RL196 65 70		0.0004	0.0004		0.11	0.12	
Z2 RL196 70 75		0.0003			0.05		
Z2 RL196 75 80		<0.0002			0.05		
Z2 RL196 80 85		<0.0002			0.04		
Z2 RL196 85 90		<0.0002			0.04		
Z2 RL196 90 95		0.0004			0.17	0.17	0.22
Z2 RL196 95 100		<0.0002			0.03		
P4-BA 19		0.0002			0.14		
Z2 RL196 100 105		<0.0002			<0.002		
Z2 RL196 105 110		0.0003			0.03		
Z2 RL196 110 115		0.0003			0.04		
Z2 RL196 115 120		0.0004			0.03		
Z2 RL196 120 125		0.0004	0.0003		0.03	0.04	
Z2 RL196 125 130		<0.0002			0.03		
Z2 RL196 130 135		<0.0002			0.04		
Z2 RL196 135 140		0.0003			0.04		
Z2 RL196 140 145		0.0003	0.0004		<0.002	0.03	
Z2 RL196 145 150		0.0003			0.05		
Z2 RL196 150 155		0.0003			<0.002		
Z2 RL196 155 160		<0.0002			<0.002		
Z2 RL196 160 165		<0.0002			0.16	0.21	0.22
Z2 RL196 165 170		0.0003			0.04		
Z2 RL196 170 175		0.0003	<0.0002		0.03	0.03	
Z2 RL196 175 180		0.0003			0.05		
Z2 RL196 180 185		<0.0002			0.04		
Z2 RL196 185 190		<0.0002			0.04		
Z2 RL196 190 195		<0.0002			0.03		



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11143.4 (COMPLETE)

DATE PRINTED: 2-JUL-91

PROJECT: ROSEBUD

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT	AG DUP OPT
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Z2 RL196 195 200		0.0012			0.03		
P4 BA 20		0.0033			0.06		
Z2 RL196 200 205		<0.0012			0.12	0.17	
Z2 RL196 205 210		<0.0012			0.05		
Z2 RL196 210 215		<0.0012			<0.02		

Z2 RL196 215 220		<0.0012			0.05		
Z2 RL196 220 225		<0.0012	0.0012		0.03	0.03	
Z2 RL196 225 230		<0.0012			0.04		
Z2 RL196 230 235		<0.0012	0.0013		<0.02	<0.02	
Z2 RL196 235 240		<0.0012			0.04		

Z2 RL196 240 245		<0.0012	<0.0012		0.07		
Z2 RL196 245 250		<0.0012			0.05		
Z2 RL196 250 255		<0.0012			0.06		
Z2 RL196 255 260		<0.0012			0.06		
Z2 RL196 260 265		0.0015			0.09		

Z2 RL196 265 270		0.0017			0.11		
Z2 RL196 270 275		0.0014	0.0014		0.06	0.08	
Z2 RL196 275 280		0.0015			0.10		
Z2 RL196 280 285		0.0015			0.12		
Z2 RL196 285 290		0.0013			0.08		

Z2 RL196 290 295		0.0013			0.07		
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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11152.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
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D2 RL196C 372 377		<0.0002			0.08	
D2 RL196C 377 382		<0.0002			0.07	
D2 RL196C 382 387		0.0002	<0.0002		0.08	0.07
D2 RL196C 387 393		0.0003			0.13	
D2 RL196C 393 397		0.0005			0.10	

D2 RL196C 397 402		<0.0002			0.10	
D2 RL196C 402 407		<0.0002			0.11	
D2 RL196C 407 412		<0.0002			0.07	
D2 RL196C 412 417		0.0010			0.10	
D2 RL196C 417 422		0.0002			0.07	

D2 RL196C 422 424		0.0003			0.06	
D2 RL196C 424 429		<0.0002			0.09	
D2 RL196C 429 434		<0.0002	<0.0002		0.06	
D2 RL196C 434 439		0.0006			0.15	
D2 RL196C 439 444		0.0003			0.09	

D2 RL196C 444 448		0.0005			0.10	
D2 RL196C 448 453		<0.0002			0.10	
D2 RL196C 453 458		0.0009			0.61	
D2 RL196C 458 463.7		0.252	0.253	0.260	9.22	8.84
D2 RL196C 463.7 469		0.037	0.042		0.68	

P4 BA 26		0.0048			0.08	0.06
D2 RL196C 469 474		0.0089			2.97	
D2 RL196C 474 478		0.0036			0.62	
D2 RL196C 478 482		0.0028			0.36	
D2 RL196C 482 487.5		0.118	0.186		0.36	

D2 RL196C 487.5 491.5		0.0050			0.19	
D2 RL196C 491.5 495.5		0.0004	0.0004	0.0002	0.04	
D2 RL196C 495.5 500.5		0.0022			0.05	
D2 RL196C 500.5 506		<0.0002			0.04	
D2 RL196C 506 511		<0.0002			<0.02	<0.02

D2 RL196C 511 516		<0.0002			<0.02	
D2 RL196C 516 521		<0.0002			<0.02	

Bondar-Clegg, Inc.
625 Spice Island Dr.
Building I, Unit A
Sparks, Nevada 89431
702 (359-9330)



Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11152.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
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RL196C 382 387 Duplicate		0.0002	<0.0002		0.08 0.07	0.07
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BA 26 Duplicate		0.048			0.08 0.06	0.06
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RL196C 506 511 Prep Duplicate		<0.0002 <0.0002			<0.02 <0.02	<0.02
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Bondar-Clegg, Inc.
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Building 1, Unit A
Sparks, Nevada 89431
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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 2-JUL-91

REPORT: R91-11152.4 (COMPLETE)

PROJECT: ROSEBUD

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
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RL196C 382 387 Duplicate		0.0002	<0.0002		0.08 0.07	0.07
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BA 26 Duplicate		0.048			0.08 0.06	0.06
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RL196C 506 511 Prep Duplicate		<0.0002 <0.0002			<0.02 <0.02	<0.02
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625 Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)



Geochemical
Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

JUL 5 1991

REPORT: R91-11152.4 (COMPLETE)

REFERENCE INFO: RL196C 372-521

CLIENT: LAC MINERALS (USA) INC.
PROJECT: ROSEBUD

SUBMITTED BY: KENNER
DATE PRINTED: 2-JUL-91

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold	32	0.0002 OPT		Fire Assay
2	Au DUP Gold Duplicate	6	0.0002 OPT		Fire Assay
3	AU Dup Gold Duplicate	2	0.0002 OPT		Fire Assay
4	Ag Silver	32	0.02 OPT	MULT ACID TOT DIG	Atomic Absorption
5	AG DUP AG DUPLICATE	4	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	31	2 -150	31	CRUSH,PULVERIZE -150	31
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1

REPORT COPIES TO: MR. TIM KUHLE

INVOICE TO: MR. TIM KUHLE

MR. TIM KUHLE
MS. KRISTIN KENNER

Nicole Witten



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11152.4 (COMPLETE)

DATE PRINTED: 2 JUL 91

PROJECT: ROSEBUD

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
D2 RL196C 372 377		<0.002			0.08	
D2 RL196C 377 382		<0.002			0.07	
D2 RL196C 382 387		0.002	<0.002		0.08	0.07
D2 RL196C 387 393		0.003			0.13	
D2 RL196C 393 397		0.005			0.10	

D2 RL196C 397 402		<0.002			0.10	
D2 RL196C 402 407		<0.002			0.11	
D2 RL196C 407 412		<0.002			0.07	
D2 RL196C 412 417		0.010			0.10	
D2 RL196C 417 422		0.002			0.07	

D2 RL196C 422 424		0.003			0.06	
D2 RL196C 424 429		<0.002			0.09	
D2 RL196C 429 434		<0.002	<0.002		0.06	
D2 RL196C 434 439		0.006			0.15	
D2 RL196C 439 444		0.003			0.09	

D2 RL196C 444 448		0.005			0.10	
D2 RL196C 448 453		<0.002			0.10	
D2 RL196C 453 458		0.009			0.61	
D2 RL196C 458 463.7		0.252	0.253	0.260	9.22	8.84
D2 RL196C 463.7 469		0.037	0.042		0.68	

P4 BA 26		0.048			0.08	0.06
D2 RL196C 469 474		0.039			2.97	
D2 RL196C 474 478		0.036			0.62	
D2 RL196C 478 482		0.028			0.36	
D2 RL196C 482 487.5		0.118	0.136		0.36	

D2 RL196C 487.5 491.5		0.050			0.19	
D2 RL196C 491.5 495.5		0.004	0.004	0.002	0.04	
D2 RL196C 495.5 500.5		0.022			0.05	
D2 RL196C 500.5 506		<0.002			0.04	
D2 RL196C 506 511		<0.002			<0.02	<0.02

D2 RL196C 511 516		<0.002			<0.02	
D2 RL196C 516 521		<0.002			<0.02	



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: ROSEBUD

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STANDARD NAME	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
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GEO TRACE STD(1989)		-	-	-	1.10	-
Number of Analyses		-	-	-	1	-
Mean Value		-	-	-	1.096	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	1.05	-

AU ASSAY STD	0.012	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-
Mean Value	0.0120	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-
Accepted Value	0.015	-	-	-	-	-

ANALYTICAL BLANK	<0.002	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-
Mean Value	0.0010	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-
Accepted Value	0.002	-	-	-	-	-

Number of Analyses	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-

AG ASSAY	-	-	-	2.82	-	-
Number of Analyses	-	-	-	1	-	-
Mean Value	-	-	-	2.819	-	-
Standard Deviation	-	-	-	-	-	-
Accepted Value	-	-	-	3.03	-	-

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Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: R91-11152.4 (COMPLETE)

DATE PRINTED: 2-JUL-91

PROJECT: ROSEBUD

PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Au DUP OPT	AU Dup OPT	Ag OPT	AG DUP OPT
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RL196C 382 387 Duplicate		0.0002	<0.0002		0.08 0.07	0.07
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BA 26 Duplicate		0.0048			0.08 0.06	0.06
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RL196C 506 511 Prep Duplicate		<0.0002 <0.0002			<0.02 <0.02	<0.02
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Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: LAC MINERALS U.S.A. INC

1395 GREG ST., STE 107
SPARKS, NEVADA
89431

Project : ROSEBUD
Comments: ATTN: TIM KUHL

Page : 1
Total Pages : 1
Certificate Date: 28-JUN-91
Invoice No. : 19116753
P.O. Number :

CERTIFICATE OF ANALYSIS

A9116753

SAMPLE DESCRIPTION	PREP CODE	Au oz/T									
RL-181 765-770	208 294	0.005									
RL-181 815-820	208 294	0.015									
RL-181 865-870	208 294	0.010									
RL-181 915-920	208 294	0.010									
RL-182 045-050	208 294	0.002									
RL-182 095-100	208 294	0.002									
RL-182 145-150	208 294	0.001									
RL-182 195-200	208 294	0.003									
RL-182 245-250	208 294	0.005									
RL-182 295-300	208 294	0.003									
RL-182 350-355	208 294	0.005									
RL-182 400-405	208 294	0.005									
RL-182 450-455	208 294	0.006									
RL-182 500-505	208 294	0.006									
RL-182 550-555	208 294	0.016									
RL-182 600-605	208 294	0.005									
RL-182 650-655	208 294	0.216									
RL-182 700-705	208 294	0.009									
RL-182 750-755	208 294	0.002									
RL-195 748-753	208 294	0.012									
RL-195 798-803	208 294	0.115									
RL-195 848-853	208 294	0.493									
RL-195 892-897	208 294	0.001									
RL-196 045-050	208 294	0.002									
RL-196 095-100	208 294	0.002									
RL-196 145-150	208 294	0.002									
RL-196 195-200	208 294	0.001									
RL-196 245-250	208 294	0.001									

CERTIFICATION:

Karla M. Adams



Chemex Labs Inc.

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PHONE: 702-356-5395

LAC MINERALS U.S.A. INC

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SPARKS, NEVADA
89431

Project : ROSEBUD
Comments: ATTN: TIM KUHL

Page No. : 1
Total Pages : 1
Certificate Date: 26-JUN-91
Invoice No. : I9116804
P.O. Number :

CERTIFICATE OF ANALYSIS

A9116804

SAMPLE DESCRIPTION	PREP CODE		Au oz/T									
RL-170 710-715	208	294	0.011	E								
RL-170 760-765	208	294	0.024									
RL-170 810-815	208	294	< 0.001									
RL-196 417-422	208	294	0.003									
RL-196 463.7-469	208	294	0.048									
RL-196 511-516	208	294	0.001	LAC								
RL-197 045-050	208	272	0.002									
RL-197 145-150	208	272	0.001									
RL-197 245-250	208	272	0.001									
RL-197 345-350	208	272	< 0.001									
RL-197 445-450	208	272	< 0.001									
RL-197 545-550	208	272	0.003									
RL-197C 095-100	208	272	< 0.001									
RL-197C 195-200	208	272	< 0.001									
RL-197C 295-300	208	272	0.001									
RL-197C 395-400	208	272	< 0.001									
RL-197C 495-500	208	272	0.002									

CERTIFICATION

Handwritten signature: Sandra M. Adam



Chemex Labs Inc.

Analytical Chemists • Geochemists • Registered Assayers

994 West Glendale Ave., Suite 7, Sparks,

Nevada, U.S.A. 89431

PHONE: 702-356-5395

To: LAC MINERALS U.S.A. INC

1395 GREG ST., STE 107

SPARKS, NEVADA

89431

Project : 75350

Comments: ATTN: TIM KUHL

Page Number :4

Total Pages :4

Certificate Date: 22-JUL-91

Invoice No. :19118188

P.O. Number :

CERTIFICATE OF ANALYSIS

A9118188

SAMPLE DESCRIPTION	PREP CODE	Au FA oz/T									
RL195 658-663	214	227	0.048								
RL195C 758-763	214	227	0.007								
RL195C 763-768	214	227	0.018								
RL195C 768-773	214	227	0.052								
RL195C 773-778	214	227	0.019								
RL195C 778-783	214	227	0.038								
RL195C 783-788	214	227	0.043								
RL195C 788-793	214	227	0.028								
RL195C 793-798	214	227	0.056								
RL195C 798-803	214	227	0.170								
RL195C 803-808	214	227	0.014								
RL195C 808-813	214	227	0.021								
RL195C 813-818	214	227	0.048								
RL195C 818-823	214	227	0.041								
RL195C 823-828	214	227	0.077								
RL195C 828-833	214	227	0.022								
RL195C 833-838	214	227	0.170								
RL195C 838-843	214	227	0.076								
RL195C 843-848	214	227	0.015								
RL195C 848-853	214	227	0.493								
RL195C 853-854.1	214	227	0.466								
RL196C 458-463.7	214	227	0.270								
RL196C 463.7-469	214	227	0.040								
RL196C 469-474	214	227	0.082								
RL196C 474-478	214	227	0.039								
RL196C 478-482	214	227	0.033								
RL196C 482-487.5	214	227	0.182								
RL196C 487.5491.5	214	227	0.053								
D2 PREP REP 0009	214	227	0.010								
D2 PREP REP 0026	214	227	0.002								
Z2 PREP REP 0125	214	227	0.005								

CERTIFICATION:

[Signature]