60001396

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-169
AUTHOR	P. Grafft; T. Kuhl
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; Stevens Drilling; Lac Minerals (USA), Inc; Bohdar-Clegg Inc.; Chemex Labs, Inc
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 780'; handwritten notes; directional survey 19p.

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	5/10/08
DB:	mah	
SCANNED:		

Revised: 1/22/08

DRILL LOGS RL-169
Rosebud

~~Nye Co. Nevada~~

60001396 4010

6000 1396

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

DRILL LOG SUMMARY SHEET

PROJECT Rosebud

HOLE NUMBER RL-169 TOTAL DEPTH 780' LOGGED BY RKS

Date started 4/18/91

Date completed 4/21/91

Initial bearing —

Initial inclination -90°

Elevation 5308.2

Collar coordinates:

N 2203872.0

E 482692.9

Contractor: Stevens

Drill Type: RC

Hole Size: 4½

Drilling Conditions:

Footage: Wet / Dry 0-333 Dry

333 - 780' Wet

Comments: Gilson Splitter - Dry

Double Jones - Wet

DOWN HOLE SURVEY INFORMATION

FROM	TO	SURVEY POINT	INCLI-NATION	BEARING	X (Northing)	Y (Easting)	Z (Elevation)

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

DRILL HOLE RL-169

Page 1 of 8

Start 4/18/91 Finish 4/24/91

Section 1400 N.

TD = 780'

LOGGED BY RKS

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
														OB - Qal	<	<		
05															</<	<./<		
10															<	<		
15																		
20																		
25														(Big Qtz Boulder w/ Breccia frags w/in it)				
30																		
35														Bedrock @ ~ 34 ft	.002	.03		
40									Yllw-org					vf grn tuff (?) Protolith very	<	<		
45														difficult to determine due to strg clay alt.	<	.03		
50															<	.06		
55															.003	.09		
60															<./<	.08/.09		
65															.003	.13		
70															.004	.10		
75															.004	.13		
80															<	.07		
85									Org Red					(trace Qtz veining strg FeOx)	<	.07		
90													.1	(1st sulfide show)	.003	.12		
95									Org Grey				3	(Redox Bound.) Fake Strong Sulfides	.003	.10		
00													1	(Strong Ox)	.009	.17		

may be in Lg Fault zone

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

DRILL HOLE RL-169

Page 2 of ____

LOGGED BY _____

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

May be Fault Lg zone

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									Org Grey				1	SAA – f grn tuff Choc ? (Oxidized)	.005	.13		
105									Grey wht				5	[Reduced]	.003	.11		
110													5		.003 / .003	.11 / .12		
115													5		<	.05		
120									Grey Pale Green				5		<	.06		
125													5		.003	.12		
130													5		<	.04		
135									lt Green wht				.5	(lt Green) f. grn tuff w/ pheno relics → alt. Biot (?)	<	<		
140													.5		<	.03		
145									Peach wht lt Green				.5		<	.08		
150									lt Grey-Olive Peach				.5		.003	.10		
155													1		<	.08		
160									Peach lt Grey				2	Quit at 5:22 PM	< / <	.09 / .10		
165													2	4/19 start 7:00 am 4/19	<	.06		
170													1		<	<		
175													1		<	<		
180													.5	(Stroger Peach color)	.003	.09		
185													1		.003	.11		
190													1	(w/ minor Barite x-tals)	.004	.12		
195													2		.004	.11		
200																		

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

DRILL HOLE RL-169

Page 3 of ____

LOGGED BY _____

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									Peach lt Grey				2	SAA - f grn tuff: Ct	<	.05		
205													2		<	<		
210													2		<</<	<</<		
215													2		<	.03		
220													3		<	.06		
225													2		.003	.08		
230													1		<	<		
235									i Grey				1	(wk slfd)	<	.03		
240													1	(very damp)	.003	.04		
245													1		.003	.07		
250									lt Grey Grey				2		.003	.05		
255									lt Grey lt Grn				1		<	.04		
260									i Peach				.5		<</<	.03 .03		
265													.5		<	<		
270													.5			<		
275													.5	(may be Ct in Ct)	<</<	<</<		
280													.5			<		
285													.5	(minor Qtz veining)		.05		
290														Sarg clay		.03		
295									i Peach							<		
300																		

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

DRILL HOLE RL-169

Page 4 of ____

LOGGED BY _____

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									lt Green Olive-grey				.5	SAA	<	<		
305															<	<		
310															<	<		
315															.002/.002	.05/.05		
320															.003	.05		
325									lt Grey-Olive Brn-red						.003	.06		
330									lt Grey-Olive lt Green						.003	.22		
335		x x							Grey Grey-Olive					H_2O @ 333'	.005	.17		
340		x x x												(w/ Barite Blck sulfides & Py)	.007	.19		
345		x x x											1	micro-Bx may be 2 class Ct	.007	.07		
may be Sn structure 350		x x x											1		.004	.08		
355		x x x											.5	(10:15 am → stop to repair air leak)	.005	.09		
360		x							lt Green Olive				.5	(drilling again 10:35)	.007	.06		
365		x											.5		.003/.003	.07/.07		
370									& Brn-red						<	.05		
375															<	.05		
380															.003	.06		
385		x x							& Grey				1	(Repair 10:55 am) (drilling 11:30 am) (w/ Blck sulfides) ~5% wht Qtz	.003	.05		
390		x											.5		.005	.05		
395		x x											1	~5% wht Qtz	.025	.07		
400																		

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

DRILL HOLE RL-169

Page 5 of ____

LOGGED BY _____

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
SILICIFICATION
OXIDIZED
DRUZY QUARTZ
CHALCEDONIC QUARTZ
STOCKWORK QUARTZ
PROPYLITIZATION
CALCITE

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
405									lt Green Peach wht				.5	SAA - w/ ~ 10% Qtz vn	.004	.05		
410													2	(Blk sulf ± Py)	.003	.06		
415													.5		<	.04		
420													.5	(micro - Bx)	.003/.004	.06/.06		
425													1		.004	.07		
430									lt Green lt Grey				.5		.002	.08		
435									? Peach				1	(micro Bx)	.005	.11		
440													.5		.005	.08		
445													1		.008	.07		
450									Grey Peach wht				1	Dark Chloritic Green color	.005	.10		
455													1	may be in LBT or still in 2 clast Ct (?)	.013	.10		
460													1		.005	.07		
465									Green wht				1		.004	.08		
470													1	(Still in Ct → most likely 2 clast Ct)	.007/.006	.08/.09		
475									Green Peach lt Grey				1		.019	.05		
480													1		.024	.05		
485													1		.003/.003	.05/.05		
490													1		.009	.05		
495													.5		.003	.13		
500									Pale Green				.5	f grn tuff w/ very little Ct frags	.002	.07		

minor frax

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

DRILL HOLE RL-169

Page 6 of ____

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

LOGGED BY _____

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									Pale Grn wht				.5	SAA	.003	.01		
505									& Peach				.5		.003	.05		
510									Flesh Green wht				.5	Strg Δ color	.003	.06		
515									Flesh wht				.5		.006	.23		
520													.5	(slight incr in sulf)	.003/.003	.13/.14		
525													.5	(micro-Bx)	.004	.12		
530															.003	.07		
535															.003	.06		
540									Pale flesh						.003	.07		
545									Pale Flesh lt Green						.003	.06		
550															<	.05		
555									Pale Flesh wht						<	.08		
560															<	.07		
565									Flesh Pale Green						.004/.004	.10/.10		
570									Flesh lt Grey						.008	.20		
575															.008	.21		
580														(w/ Blck sooty sulfides (?))	.004/.005	.09/.09		
585									& Pale Green						.021	.72		
590									Green Flesh					(Δ color)	.016	.25		
595									Flesh lt Green						.055	.73		
600																		

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

DRILL HOLE RL-169

Page 7 of 8

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

LOGGED BY _____

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									Green flesh				.5	SAA - [Kick in Booster]	.113	.206		
605									lt Green lt Grey wht				1	silfd Bx → Bud Bx?	.299	12.30		
frax 610													1		.188	6.46		
615													1		.019	.79		
620													1	4/19 4/20	.023/.021	1.37/1.36		
625									Green wht				.5	F. grn tuff w/ clasts of	.014	1.23		
630													.5	other tuffs → lithic lapilli tuff no bedding evident	.010	.42		
635									Grey Grn-Grey wht Peach				1	2 Hydrothermal Bx zones in this interval	.060	2.71		
frax S.R. fault 640									Drk Grey lt grey wht peach				1	Drk Grey Hydrothermal Bx	.090	.68		
645									Peach to flesh wht				1	[minor (~15% Grey Bx in 645→650')] Vf grn Featureless Tuff	.165	.50		
650													1	May be in Dozer tuff	.092	.21		
655													1		.047	.22		
660													1		.038	.13		
665													1	(minor Contam(?) from SRF zone ~5%)	.085	.40		
670													1	(~3% contam)	.050/.051	.65/.61		
675													1	Micro Brecciated Dozer	.068	.30		
680									lt Grey				1		.013	.12		
685													1		.039	.36		
690									Peach lt Green lt Grey				1		.037	.10		
695													1		.023	.12		
700																		

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

DRILL HOLE RL-169

Page 8 of 8

FINE-GRAINED TUFF Dozer
LITHIC LAPILLI TUFF
8:42

ARGILLIC
XX SILICIFICATION
OX OXIDIZED
DRUZY QUARTZ
XC CHALCEDONIC QUARTZ
XK STOCKWORK QUARTZ
P P P PROPYLITIZATION
Ca CALCITE

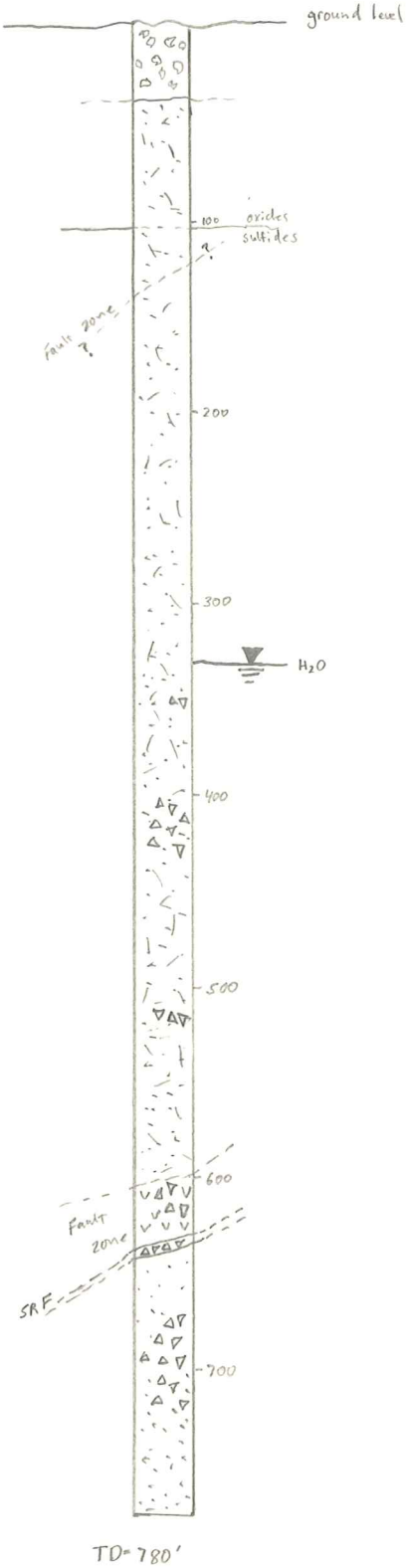
→ Rel Wt in lbs
→ rods
lbs

LOGGED BY _____

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
									lt. Grey Wht				.5	SAA - micro Bx in Dozer	.027	.22		
105													.5	Strg Bleaching w/ Grey Qtz (~2%)	.045	.27		
110									Grey				1	w/ ~10% Grey Qtz	.008	.14		
115													1	w/ ~15% " "	.010	.17		
120									lt Grey Grey Pale Olive				1	w/ ~5% " "	.010	.15		
125													1		.026/.026	.29/.33		
130													.5	vf grn tuff → Dozer	.045	.35		
135									lt. Grey Sage Green				1	4/20 4/21 Change to Rock Bit 3:00 pm at 334'	.048	.24		
140													1	w/ ~3% Grey Qtz vn	.288	.52		
145													.5	micro-vn	.015	.08		
150														Drilling Rate 1 hr and 40 seconds / 20' rod	.007	.07		
155															.004	.08		
160															.022	.32		
165															.004	.10		
170															.007/.012	.07/.07		
175															.030	.12		
180														EOH				
85																		
90														TD = 780' @ 10:45 am 4/21				
95																		
00																		

RL - 169

Section 1400 NE ; 740 SE



0-35' O.B. (Qal)

35'-605 Chocolate tuff

605'-640' Bud tuff

640-645' Hydrothermal Breccia in Bud tuff at the South Ridge Fault.

645-780' Dozer tuff and or Dozer tuff Breccia

Bondar-Clegg, Inc.
625 Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: R91-10661.4 (COMPLETE)

DATE PRINTED: 1-MAY-91
PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
Z2 RL-169 0-5		<0.002	<0.02
Z2 RL-169 5-10		<0.002	<0.02
Z2 RL-169 10-15		<0.002	<0.02
Z2 RL-169 15-20		<0.002	<0.02
Z2 RL-169 20-25		<0.002	<0.02
Z2 RL-169 25-30		<0.002	<0.02
Z2 RL-169 30-35		0.002	0.03
Z2 RL-169 35-40		<0.002	<0.02
Z2 RL-169 40-45		<0.002	0.03
Z2 RL-169 45-50		<0.002	0.06
Z2 RL-169 50-55		0.003	0.09
Z2 RL-169 55-60		<0.002	0.08
Z2 RL-169 60-65		0.003	0.13
Z2 RL-169 65-70		0.004	0.10
Z2 RL-169 70-75		0.004	0.13
R2 RL-169 75-80		<0.002	0.07
Z2 RL-169 80-85		<0.002	0.07
Z2 RL-169 85-90		0.003	0.12
Z2 RL-169 90-95		0.003	0.10
Z2 RL-169 95-100		0.009	0.17
.019 P4 BA 8		0.018	0.08
Z2 RL-169 100-105		0.005	0.13
Z2 RL-169 105-110		0.003	0.11
Z2 RL-169 110-115		0.003	0.11
Z2 RL-169 115-120		<0.002	0.05
Z2 RL-169 120-125		<0.002	0.06
Z2 RL-169 125-130		0.003	0.12
Z2 RL-169 130-135		<0.002	0.04
Z2 RL-169 135-140		<0.002	<0.02
Z2 RL-169 140-145		<0.002	0.03
Z2 RL-169 145-150		<0.002	0.08
Z2 RL-169 150-155		0.003	0.10
Z2 RL-169 155-160		<0.002	0.08
Z2 RL-169 160-165		<0.002	0.09
Z2 RL-169 165-170		<0.002	0.06
Z2 RL-169 170-175		<0.002	<0.02
Z2 RL-169 175-180		<0.002	<0.02
Z2 RL-169 180-185		0.003	0.09
Z2 RL-169 185-190		0.003	0.11
Z2 RL-169 190-195		0.004	0.12
Z2 RL-169 195-200		0.004	0.11
.039 P4 BA 9		0.046	0.04
Z2 RL-169 200-205		<0.002	0.05
Z2 RL-169 205-210		<0.002	<0.02
Z2 RL-169 210-215		<0.002	<0.02
Z2 RL-169 215-220		<0.002	0.03
Z2 RL-169 220-225		<0.002	0.06
Z2 RL-169 225-230		0.003	0.08
Z2 RL-169 230-235		<0.002	<0.02
Z2 RL-169 235-240		<0.002	0.03
Z2 RL-169 240-245		0.003	0.04
Z2 RL-169 245-250		0.003	0.07
Z2 RL-169 250-255		0.003	0.05
Z2 RL-169 255-260		<0.002	0.04
Z2 RL-169 260-265		<0.002	0.03
Z2 RL-169 265-270		<0.002	<0.02
Z2 RL-169 270-275		<0.002	<0.02
Z2 RL-169 275-280		<0.002	<0.02
Z2 RL-169 280-285		<0.002	<0.02
Z2 RL-169 285-290		<0.002	0.05
Z2 RL-169 290-295		<0.002	0.03
Z2 RL-169 295-300		<0.002	<0.02
.034 P4 BA 10		0.030	0.18
Z2 RL-169 300-305		<0.002	<0.02
Z2 RL-169 305-310		<0.002	<0.02
Z2 RL-169 310-315		<0.002	<0.02
Z2 RL-169 315-320		0.002	0.05
Z2 RL-169 320-325		0.003	0.05
Z2 RL-169 325-330		0.003	0.06
Z2 RL-169 330-335		0.003	0.22
Z2 RL-169 335-340		0.005	0.17
Z2 RL-169 340-345		0.007	0.19
Z2 RL-169 345-350		0.007	0.07
Z2 RL-169 350-355		0.004	0.08
Z2 RL-169 355-360		0.005	0.09
Z2 RL-169 360-365		0.007	0.06
Z2 RL-169 365-370		0.003	0.07
Z2 RL-169 370-375		<0.002	0.05
Z2 RL-169 375-380		<0.002	0.05
Z2 RL-169 380-385		0.003	0.06

Bondar-Clegg, Inc.
625 Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: R91-10661.4 (COMPLETE)

DATE PRINTED: 1-MAY-91
PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
Z2 RL-169 385-390		0.003	0.05
Z2 RL-169 390-395		0.005	0.05
Z2 RL-169 395-400		0.025	0.07
.032 P4 BA 11		0.032	0.12
Z2 RL-169 400-405		0.004	0.05
Z2 RL-169 405-410		0.003	0.06
Z2 RL-169 410-415		<0.002	0.04
Z2 RL-169 415-420		0.003	0.06
Z2 RL-169 420-425		0.004	0.07
Z2 RL-169 425-430		0.002	0.08
Z2 RL-169 430-435		0.005	0.11
Z2 RL-169 435-440		0.005	0.08
Z2 RL-169 440-445		0.008	0.07
Z2 RL-169 445-450		0.005	0.10
Z2 RL-169 450-455		0.013	0.10
Z2 RL-169 455-460		0.005	0.07
Z2 RL-169 460-465		0.004	0.08
Z2 RL-169 465-470		0.007	0.08
Z2 RL-169 470-475		0.019	0.05
Z2 RL-169 475-480		0.024	0.05
Z2 RL-169 480-485		0.003	0.05
Z2 RL-169 485-490		0.009	0.05
Z2 RL-169 490-495		0.003	0.13
Z2 RL-169 495-500		0.002	0.07
.072 P4 BA 12		0.078	0.06
Z2 RL-169 500-505		0.003	0.07
Z2 RL-169 505-510		0.003	0.05
Z2 RL-169 510-515		0.003	0.06
Z2 RL-169 515-520		0.006	0.23
Z2 RL-169 520-525		0.003	0.13
Z2 RL-169 525-530		0.004	0.12
Z2 RL-169 530-535		0.003	0.07
Z2 RL-169 535-540		0.003	0.06
Z2 RL-169 540-545		0.003	0.07
Z2 RL-169 545-550		0.003	0.06
Z2 RL-169 550-555		<0.002	0.05
Z2 RL-169 555-560		<0.002	0.08
Z2 RL-169 560-565		<0.002	0.07
Z2 RL-169 565-570		0.004	0.10
Z2 RL-169 570-575		0.008	0.20
Z2 RL-169 575-580		0.008	0.21
Z2 RL-169 580-585		0.004	0.09
Z2 RL-169 585-590		0.021	0.72
Z2 RL-169 590-595		0.016	0.25
Z2 RL-169 595-600		0.055	0.73
.034 P4 BA 13		0.032	0.20
Z2 RL-169 600-605		0.113	2.06
Z2 RL-169 605-610		0.299	12.30
Z2 RL-169 610-615		0.188	6.46
Z2 RL-169 615-620		0.014	0.79
Z2 RL-169 620-625		0.023	1.37
Z2 RL-169 625-630		0.014	1.23
Z2 RL-169 630-635		0.010	0.42
Z2 RL-169 635-640		0.060	2.71
Z2 RL-169 640-645		0.090	0.68
Z2 RL-169 645-650		0.165	0.50
Z2 RL-169 650-655		0.092	0.21
Z2 RL-169 655-660		0.047	0.22
Z2 RL-169 660-665		0.038	0.13
Z2 RL-169 665-670		0.085	0.40
Z2 RL-169 670-675		0.050	0.65
Z2 RL-169 675-680		0.068	0.30
Z2 RL-169 680-685		0.013	0.12
Z2 RL-169 685-690		0.039	0.36
Z2 RL-169 690-695		0.037	0.10
Z2 RL-169 695-700		0.023	0.12
P4 BA 14		0.002	<0.02
Z2 RL-169 700-705		0.027	0.22
Z2 RL-169 705-710		0.045	0.27
Z2 RL-169 710-715		0.008	0.14
Z2 RL-169 715-720		0.010	0.17
Z2 RL-169 720-725		0.010	0.15
Z2 RL-169 725-730		0.026	0.29
Z2 RL-169 730-735		0.045	0.35
Z2 RL-169 735-740		0.048	0.24
Z2 RL-169 740-745		0.288	0.52
Z2 RL-169 745-750		0.015	0.08
Z2 RL-169 750-755		0.007	0.07
Z2 RL-169 755-760		0.004	0.08
Z2 RL-169 760-765		0.022	0.32

.12 Cu

.100

Bondar-Clegg, Inc.
625 Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: R91-10661.4 (COMPLETE)

DATE PRINTED: 1-MAY-91
PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
Z2 RL-169 765-770		0.004	0.10				
Z2 RL-169 770-775		0.007	0.07				
Z2 RL-169 775-780		0.030	0.12				

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Geochemical Lab Report

REPORT: R91-10661.4 (COMPLETE)

DATE PRINTED: 1-MAY-91
PROJECT: ROSEBUD

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
RL-169 5-10		<0.002	<0.02
Duplicate		<0.002	<0.02
RL-169 55-60		<0.002	0.08
Duplicate		<0.002	0.08
Prep Duplicate		<0.002	0.09
RL-169 110-115		0.003	0.11
Duplicate		0.003	0.12
RL-169 160-165		<0.002	0.09
Duplicate		<0.002	0.10
RL-169 210-215		<0.002	<0.02
Duplicate		<0.002	<0.02
RL-169 260-265		<0.002	0.03
Duplicate		<0.002	0.03
RL-169 275-280		<0.002	<0.02
Prep Duplicate		<0.002	<0.02
RL-169 315-320		0.002	0.05
Duplicate		0.002	0.05
RL-169 365-370		0.003	0.07
Duplicate		0.003	0.07
RL-169 415-420		0.003	0.06
Duplicate		0.004	0.06
RL-169 465-470		0.007	0.08
Duplicate		0.006	0.09
RL-169 480-485		0.003	0.05
Prep Duplicate		0.003	0.05
RL-169 520-525		0.003	0.13
Duplicate		0.003	0.14
RL-169 565-570		0.004	0.10
Duplicate		0.004	0.10
RL-169 580-585		0.004	0.09
Prep Duplicate		0.005	0.09

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
RL-169 620-625		0.023	1.37
Duplicate		0.021	1.36
RL-169 670-675		0.050	0.65
Duplicate		0.051	0.61
RL-169 725-730		0.026	0.29
Duplicate		0.026	0.33
RL-169 770-775		0.007	0.07
Prep Duplicate		0.012	0.07
Duplicate		0.012	0.07

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DATE PRINTED: 1-MAY-91
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STANDARD NAME	ELEMENT UNITS	Au OPT	Ag OPT
ANALYTICAL BLANK		<0.002	<0.02
ANALYTICAL BLANK		<0.002	<0.02
ANALYTICAL BLANK		<0.002	<0.02
ANALYTICAL BLANK		<0.002	<0.02
Number of Analyses		4	4
Mean Value		0.0010	0.010
Standard Deviation		0.00000	0.0000
Accepted Value		0.002	0.02
Number of Analyses		-	-
Mean Value		-	-
Standard Deviation		-	-
Accepted Value		-	-
PD SYN STD AU/AG		0.040	0.38
PD SYN STD AU/AG		0.040	0.39
PD SYN STD AU/AG		0.039	0.41
PD SYN STD AU/AG		0.041	0.44
Number of Analyses		4	4
Mean Value		0.0400	0.405
Standard Deviation		0.00082	0.0265
Accepted Value		0.040	0.40
Number of Analyses		-	-
Mean Value		-	-
Standard Deviation		-	-
Accepted Value		-	-
Number of Analyses		-	-
Mean Value		-	-
Standard Deviation		-	-
Accepted Value		-	-

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625 Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

Controlled DOK

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: R91-10661.4 (COMPLETE)

REFERENCE INFO: RL169 0-780

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

SUBMITTED BY: WALCK
DATE PRINTED: 1-MAY-91

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	163	0.002 OPT		Fire Assay
2	Ag	Silver	163	0.02 OPT		Fire Assay

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
Z OTHER DRILL TYPES	155	2 -150	156	CRUSH,PULVERIZE -150	156
R ROCK OR BED ROCK	1	4 AS REC'D	7	AS RECEIVED, NO SP	7
P PREPARED PULP	7			EXCESS WEINESS/SAMP	70
				OVERWEIGHT/LBS	209

REPORT COPIES TO: MS. CYNDIE WALCK
MR. TIM KUHL
MR. RANDY STOEBERL

INVOICE TO: MR. TIM KUHL

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

Certificate Date: 22-JUL-91
Invoice No. : I9118188
P.O. Number :

CERTIFICATE OF ANALYSIS A9118188

SAMPLE DESCRIPTION	PREP CODE		Au FA oz/T
DL169 585-590	214	227	0.019
DL169 590-595	214	227	0.016
DL169 595-600	214	227	0.052
DL169 595-600A	214	227	0.069
DL169 600-605	214	227	0.107
DL169 605-610	214	227	0.318
DL169 610-615	214	227	0.197
DL169 615-620	214	227	0.014
DL169 620-625	214	227	0.020
DL169 625-630	214	227	0.014
DL169 630-635	214	227	0.010
DL169 635-640	214	227	0.054
DL169 640-645	214	227	0.058
DL169 645-650	214	227	0.163
DL169 645-650A	214	227	0.076
DL169 650-655	214	227	0.046
DL169 655-660	214	227	0.086
DL169 660-665	214	227	0.080
DL169 665-670	214	227	0.065
DL169 670-675	214	227	0.057
DL169 675-680	214	227	0.049
DL169 680-685	214	227	0.014
DL169 685-690	214	227	0.046
DL169 690-695	214	227	0.018
DL169 695-700	214	227	0.033
DL169 695-700A	214	227	0.048
DL169 700-705	214	227	0.022
DL169 705-710	214	227	0.025
DL169 710-715	214	227	0.009
DL169 715-720	214	227	0.010
DL169 720-725	214	227	0.010
DL169 725-730	214	227	0.020
DL169 730-735	214	227	0.034
DL169 735-740	214	227	0.029
DL169 740-745	214	227	0.273
DL169 745-750	214	227	0.014
RL170 580-585	214	227	0.016
RL170 585-590	214	227	0.025
RL170 590-595	214	227	0.010
RL170 595-600	214	227	0.065

40 FD

CERTIFICATION: [signature]

BOYLES-WELNAV
ELKO, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* **LAC MINERALS** *
****

JOB NUMBER: 029-0313-12CCGY

HOLE NUMBER: RL #169

LOCATION: ROSEBUD

SURVEY DATE: 4-25-91

SURVEY ENGINEER: PHIL GRAFFT

GYRO REFERENCE BEARING: 196-00

********** DEPTH MEASURED IN FEET **********

COMMENTS:

THIS DIRECTIONAL SURVEY REPORT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA!

Phil Graffft

COMPANY REPRESENTATIVE

BOYLES-WELNAV
ELKO, NEVADA

JOB NUMBER: 029-0313-12CCGY HOLE NUMBER: RL #169

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	INCL	DIRECTION AZIMUTH	COORDINATES NORTH/SOUTH	COORDINATES EAST/WEST	D-LEG /100	D-LEG /CL	STATION DISP.		DISPLACEMENT DIRECTION
50.0	50.00	0.19	-89.54	208.52	0.18 S	0.10 W	0.92	0.46	0.20	AT	208.52
100.0	100.00	0.54	-89.65	225.95	0.46 S	0.30 W	0.33	0.16	0.55	AT	213.30
150.0	150.00	0.84	-89.66	228.93	0.66 S	0.52 W	0.04	0.02	0.84	AT	218.29
200.0	200.00	1.15	-89.57	252.20	0.82 S	0.81 W	0.36	0.18	1.15	AT	224.86
250.0	250.00	1.22	-89.65	356.42	0.72 S	1.00 W	1.24	0.62	1.23	AT	234.21
350.0	349.99	1.29	-89.59	184.25	0.77 S	1.05 W	0.76	0.76	1.30	AT	233.52
400.0	399.99	1.58	-89.63	240.10	1.03 S	1.20 W	0.73	0.37	1.58	AT	229.29
450.0	449.99	1.84	-89.66	268.70	1.12 S	1.49 W	0.36	0.18	1.86	AT	233.12
500.0	499.99	1.97	-89.68	307.17	1.04 S	1.75 W	0.44	0.22	2.03	AT	239.35
550.0	549.99	1.82	-89.63	049.83	0.85 S	1.74 W	1.08	0.54	1.93	AT	243.98
600.0	599.99	1.55	-89.59	095.93	0.76 S	1.43 W	0.62	0.31	1.62	AT	242.03
650.0	649.99	1.51	-89.63	162.40	0.93 S	1.21 W	0.86	0.43	1.53	AT	232.29
690.0	689.99	1.65	-89.67	173.25	1.17 S	1.16 W	0.19	0.08	1.65	AT	224.60

```
*************************************************************
*                          ********                         *
*      THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF          *
*                          ********                         *
*   690.0 FEET EQUALS      1.65   FEET AT  224.60            *
*                          ********                         *
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