60001274

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-39
AUTHOR	N. Brewer; R. Grondin
DATE OF DOC(S)	1989
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
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 370' handwritten notes 12p.

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 5/19/08
Initials Date
DB: Mah
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

DRILL LOGS
Rosebud

RL-39

6000 1274 4010

60001274

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

DRILL LOG SUMMARY SHEET

PROJECT ROSEBUD

HOLE NUMBER RL-39 TOTAL DEPTH 370' LOGGED BY NHB

Date started 8/31 0-285'

Date completed 9/1/89 285-370'

Initial bearing VERTICAL

Initial inclination —

Elevation 5197.8

Collar coordinates:

N 2203320

E 480601.3

Contractor: Env. West Expln

Drill Type: REICH 650

Hole Size: 5½" hammer: 0-285'

Drilling Conditions: Poor-Fair → Clay ~70-155' Not much H2O

Footage: Wet / Dry 0-160 Dry; 160-370 Wet

Not much H2O but can't dry out

Comments: Lost time: ~1hr for casing (needed 10'); ~1hr. for H2O pump (clogged); ~1hr for plugged X-over & ~1½ hr. for H2O haul!. 9/1: hammer plugged - trip for tricone then plugged it too. Finally drilling by 10 AM. Ran out of H2O @ 11:30 - Drilling again by 12:45 pm.

DOWN HOLE SURVEY INFORMATION

FROM	TO	SURVEY POINT	INCLI-NATION	BEARING	X (Northing)	Y (Easting)	Z (Elevation)
0	370		-90	0			

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PROJECT: ROSEBUD LOGGED BY: NAB HOLE NO. RL-39 PAGE 1 OF 8

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 ✓	Ag	As	Hg	Sb	Se
0	fair	0-10': Overburden - had to use 10' casing						grey						<.001		<.10				
5	v poor	v. poor rec. - no chips for tray						"					v. small spl.	<.001		<				
10	good	10' - 40': Yellow-grey-tan mod silic + mod. argillized fgt (or ?pc?)		Xw > Nw				"						<.001		<				
15	"			Nm + Xm				"						.001		<				
20	"							"						<.001		<				
25	fair							"						.001		<				
30	good							"						<.001		<				
35	fair	Δ to slight reddish-pink dust = minor hem on fox						+ pink-red						<.001		<				
40	good	40-70': becomes slightly granular textured (less silicified?) tuff, off white-buff + minor lim & Hem.		Nm > Xw				"						.002		<				
45	good							"						.004		<				
50																				

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PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 2 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
50	good	As Above → ~70': mod-strg lim. std. granular to fgt tuff(?)	?	~m > xw				Yell.						.004		<.10				
55	fair	Sil'n ↑, Feox ↑, grain size ↓	↓	~w-m + xw-m				lite brn						.015		<				
60	good	60-70': mod-strgly. sil'd. f.g. white rock (?) w/ mod strg lim on frax - may be poss. sil'd structure (?)	↓	~wm + xm				"						.008		<				
65	fair	+ minor tan clay	↓	"				"						.004		<				
70		70-100': Mostly tan-brown clay ± chips of strgly silicified grey-white rock (?)	clay + fgt.?	~s-clay ± xs				"						.001		<				
75			↓	↓				"						.002		<				
80			↓	↓				"						.004		<				
85			↓	↓				"						.004		<				
90		Clay ↓	↓	↓				"						.002		.10				
95		Becomes less oxidized (less feox) with % of greenish grey silicified chips 1 >> clay	?	xs > ~w				grey brn						.001		<.10				
100		Clay ↑	↓	xs + clay				grey green						.001		.12				

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PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 3 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
100	good	100 – ~160': Clay – strong argillic ~~alt.~~ – probably in green "Bud" epiclastic? –	?	Clay				green grey						<.001		<.10				
105	"	105–125': beige to tan clay ± var. % silicified grey–tan chips: Lith??	?	clay				tan						.002		<				
110	"		?	Clay > x				"						.002		<				
115	fair	Clay + ~50% siliceous tan chips – v. lge. return!	?	x + clay				"					spl. too lge – cave?	.003		<				
120	good		?	Clay > x				green grey						.002		<				
125	"	125–135': Δ to greenish color – strongly argillized Bud ec? ⇒ chips have typical med. grd. spotted green & white appearance	~5 clay					"						.011		<				
130	"			"				"						.008		<				
135	"	135–150': Lgely greyish-green clay		clay				grey-green						.014		<				
140	"			clay				"						.002		<				
145	poor-fair	moist clay – had to hand split		clay				"					hand split	.005		<				
150																				

Possible pit

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PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 4 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
150–155	good	As above → 160: Strongly argillized grey-green Bud epiclastic? w/ mod clay but decreasing from above.		~m-s				grey-green				tr-1% fine diss py		.004		<.10				
155–160	poor	poor return	"	"				"				"		.010		.11				
160–165	fair	160–185': Sim. lithology w/ less clay alteration? Chips are medium bluish green, med. grained? volc'clastic tfo? epiclastic.		~m				"				"		.005		<.10				
165–170	good		"	"				"				"		.003		<				
170–175	"	Probable 5-10% contam w/ tan silicified ?tuff? chips.	"	"				"				"		.002		<				
175–180	"	green-grey clay ↑	"	~m-s				"				"		.003		<				
180–185	"		"	"				"				"		.002		<				
185–190	"	185–225': Less argillized coarser grd. grn. fragmental (Bud) ± tr. buff and black silicified chips and tr-1% py vnlts. ← may be contam or heterolithic fragmental?	"	~wm >xm				grey green				tr-1% diss & vnlts py		.002		<				
190–195	"		"	"				"				"		.004		<				
195–200	"	tr. black chips	"	"				"				"		<.001		<				

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PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 5 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
200	good	As above → 225: med-cse. fragmental (epiclastic) with tr-1% pyrite vnlts and incr. % black frags + tr. buff sild tuff (clasts?)		xw + ~am				grey-green				tr-1 % dis & vnlts		.001		<.10				
205	"		"	"				"				"		<.001		<				
210	"	argillic alt'n + silf ↑	"	x a-m ~w				"				"		.001		<				
215	"		"	x m ~w				"				"		<.001		<				
220	"	heterolithic epiclastic →	"	x m ~w				"				"		.001		<				
225	"	225-230: 5' interval w/ abdt (+50%) black chips (metasedS?) and black matrix fragmental.	? " ?	x m-s				grey				1-2% vnlts		<.001		<				
230	"	230-265': Definite mixed lithology zone w/ incr. % buff silicified granular fgt chips ⇒ basal Bud epiclastic (c.g.) + 1-2% py chips (vns).		x m-s				"				1-2% disem + vnlts		.001		<				
235	"		"	"				"				"		.002		<				
240	"	+ minor tan clay	"	"				"				"		.002		<				
245	"	- minor contam.?? - a little harder	"	"				"				"		.002		<				
250																				

LAC MINERALS U.S.A. INC.

PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 6 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
250	good	As above → 265': heterolithic c.g. granular tuff-rich fragmental (basal epiclastic zone) sl w/ incr. % of bl. buff-colored silicified tuff chips		X_{m-s} v $\hat{2}^3$				grey				1-2% diss + wlls py		.002		<.10				
255	"			"				"				"		.001		<				
260	"			"				"				"		.002		<				
265	Fair	265 – 275' Sharp Δ to "Dozer" Tuff: bleached f.g. tuff - strong silic ± 1-3% dissem and frax vnlts of py. - Locally fractured		X_s				grey-white				1-3% diss & in. py	Too much - cave?	.002		<				
270	"			X_s				"				"	"	.002		<				
275	good	275 – 355' Becomes less silicified w/ slight pale greenish tint in granular, locally vuggy tuff. By content ~1-3% as above		X_m ~w				Pale green-grey				"		.002		<				
280	"			"				"				"		.001		<				
285	"	9/1 minor contam - Switch to tricone contains var. % grey sild chips ⇒ fractured, hard & soft. →		"				"				"		<.001		.15				
290	"			"				"				"		<.001		.19				
295	"	Clay in wash ↑		"				"				"		<.001		<.1				
300																				

LAC MINERALS U.S.A. INC.

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PROJECT Rosebud LOGGED BY NHB HOLE NO. RL-39 PAGE 7 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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	fair	As Above → 355': Largely mod. bleached, variably wk-mod. silicified & lo. argillized f.g. granular tuff. 1-3% dissem py, veins & frac paint comment		X w-m ~ w-m				grey				1-3% diss. & frac vn. py	~10% cont.	.001		<.10				
305	good	Slightly harder drilling →												<.001		<.10				
310		incl. thin (~1') grey green clay zone →												.002		<.10				
315														<.001		.33				
320														.001		.15				
325		Clay ↓										↓	~5% cont.	.001		<.10				
330		Δ to pale sage green color		X w + ~ w								tr-1% py		.001		<.10				
335				"								"		.003		.28				
340		340-355': becomes wk-mod bleached again — pale greenish-white		X w ~ w-m								1-2% py		<.001		<.10				
345												"		.001		<.10				
350																				

LAC MINERALS U.S.A. INC.

PROJECT: ROSEBUD LOGGED BY: NHB HOLE NO. RL-39 PAGE 8 OF 8

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	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
350	good	As Above → 355: wk-mod bleached f.g. green tuff ± 1-2% diss & fdx paint py.		~ w-m X w				grey				1-2%		<.001		<.10				
355	Too much	355-370' (TD): Abrupt Δ to v. hard f.g. welded (siliceous) tuff (SGT) ± tr hairline qtz vnlts & 1-2% dissem f.g. py		tr w ?		?		grey green				"	Too much Sp!	<.001		<.10				
360	"			"		?		"				"	"	<.001		<.10				
365	"			"		?		"				"	"	<.001		<.10				
370		E.O.H. @ 370' 2:00 pm 9/1. LAST 15' took ~40 minutes																		
375																				
380																				
385																				
390																				
395																				
400																				

NEVADA GSI GEOCHEMICAL SERVICES, INC.

GEOCHEMICAL ANALYSIS REPORT

September 14, 1989

Mr. Nate Brewer
Lac Minerals
P.O. Box 21390
Reno, Nv. 89502

Number of Samples: 17
Project: URBD
GSI Number: 5395
Analysis: Fire Assay for Gold and Silver, with an A.A. finish.

	Sample I.D.			Au o/t	Ag o/t
1	SAMPLE: RL-39	285	290	0.001	0.15
2	SAMPLE: RL-39	290	295	0.001	0.19
3	SAMPLE: RL-39	295	300	<.001	<.10
4	SAMPLE: RL-39	300	305	0.001	<.10
5	SAMPLE: RL-39	305	310	<.001	<.10
6	SAMPLE: RL-39	310	315	0.002	<.10
7	SAMPLE: RL-39	315	320	<.001	0.33
8	SAMPLE: RL-39	320	325	0.001	0.15
9	SAMPLE: RL-39	325	330	0.001	<.10
10	SAMPLE: RL-39	330	335	0.001	<.10
11	SAMPLE: RL-39	335	340	0.003	0.28
12	SAMPLE: RL-39	340	345	<.001	<.10
13	SAMPLE: RL-39	345	350	0.001	<.10
14	SAMPLE: RL-39	350	355	<.001	<.10
15	SAMPLE: RL-39	355	360	<.001	<.10
16	SAMPLE: RL-39	360	365	<.001	<.10
17	SAMPLE: RL-39	365	370	<.001	<.10

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager

1498 Kleppe Lane • Sparks, Nevada 89431 • FAX: 702/359-6605 • 702/359-6600

C,51 5380

	Sample I.D.			Au o/t	Ag o/t
78	SAMPLE: RL-38	235	240	0.001	<.10
79	SAMPLE: RL-38	240	245	0.002	<.10
80	SAMPLE: RL-38	245	250	0.002	<.10
81	SAMPLE: RL-38	250	255	0.008	<.10
82	SAMPLE: RL-38	255	260	<.001	<.10
83	SAMPLE: RL-38	260	265	0.001	<.10
84	SAMPLE: RL-38	265	270	<.001	<.10
85	SAMPLE: RL-38	270	275	0.001	<.10
86	SAMPLE: RL-38	275	280	0.004	<.10
87	SAMPLE: RL-38	280	285	0.001	<.10
88	SAMPLE: RL-38	285	290	0.001	<.10
89	SAMPLE: RL-38	290	295	<.001	<.10
90	SAMPLE: RL-38	295	300	<.001	<.10
91	SAMPLE: RL-39	0	5	<.001	<.10
92	SAMPLE: RL-39	5	10	<.001	<.10
93	SAMPLE: RL-39	10	15	<.001	<.10
94	SAMPLE: RL-39	15	20	0.001	<.10
95	SAMPLE: RL-39	20	25	<.001	<.10
96	SAMPLE: RL-39	25	30	0.001	<.10
97	SAMPLE: RL-39	30	35	<.001	<.10
98	SAMPLE: RL-39	35	40	<.001	<.10
99	SAMPLE: RL-39	40	45	0.002	<.10
100	SAMPLE: RL-39	45	50	0.004	<.10
101	SAMPLE: RL-39	50	55	0.004	<.10
102	SAMPLE: RL-39	55	60	0.015	<.10
103	SAMPLE: RL-39	60	65	0.008	<.10
104	SAMPLE: RL-39	65	70	0.004	<.10
105	SAMPLE: RL-39	70	75	0.001	<.10
106	SAMPLE: RL-39	75	80	0.002	<.10
107	SAMPLE: RL-39	80	85	0.004	<.10
108	SAMPLE: RL-39	85	90	0.002	0.10
109	SAMPLE: RL-39	90	95	0.001	<.10
110	SAMPLE: RL-39	95	100	0.001	0.12
111	SAMPLE: RL-39	100	105	<.001	<.10
112	SAMPLE: RL-39	105	110	0.002	<.10
113	SAMPLE: RL-39	110	115	0.002	<.10
114	SAMPLE: RL-39	115	120	0.003	<.10
115	SAMPLE: RL-39	120	125	0.002	<.10
116	SAMPLE: RL-39	125	130	0.011	<.10
117	SAMPLE: RL-39	130	135	0.008	<.10
118	SAMPLE: RL-39	135	140	0.014	<.10
119	SAMPLE: RL-39	140	145	0.002	<.10
120	SAMPLE: RL-39	145	150	0.005	<.10
121	SAMPLE: RL-39	150	155	0.004	<.10
122	SAMPLE: RL-39	155	160	0.010	0.11
123	SAMPLE: RL-39	160	165	0.005	<.10

39

Sample I.D.				Au o/t	Ag o/t
124	SAMPLE: RL-39	165	170	0.003	<.10
125	SAMPLE: RL-39	170	175	0.002	<.10
126	SAMPLE: RL-39	175	180	0.003	<.10
127	SAMPLE: RL-39	180	185	0.002	<.10
128	SAMPLE: RL-39	185	190	0.002	<.10
129	SAMPLE: RL-39	190	195	0.004	<.10
130	SAMPLE: RL-39	195	200	<.001	<.10
131	SAMPLE: RL-39	200	205	0.001	<.10
132	SAMPLE: RL-39	205	210	0.001	<.10
133	SAMPLE: RL-39	210	215	<.001	<.10
134	SAMPLE: RL-39	215	220	0.001	<.10
135	SAMPLE: RL-39	220	225	<.001	<.10
136	SAMPLE: RL-39	225	230	0.001	<.10
137	SAMPLE: RL-39	230	235	<.001	<.10
138	SAMPLE: RL-39	235	240	0.001	<.10
139	SAMPLE: RL-39	240	245	0.002	<.10
140	SAMPLE: RL-39	245	250	0.002	<.10
141	SAMPLE: RL-39	250	255	0.002	<.10
142	SAMPLE: RL-39	255	260	0.001	<.10
143	SAMPLE: RL-39	260	265	0.002	<.10
144	SAMPLE: RL-39	265	270	0.002	<.10
145	SAMPLE: RL-39	270	275	0.002	<.10
146	SAMPLE: RL-39	275	280	0.002	<.10
147	SAMPLE: RL-39	280	285	0.001	<.10

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This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager