60001327

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-94
AUTHOR	N. Brewer; K. Tullar; J. Gauge; R. Grandin
DATE OF DOC(S)	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; Coates Drilling Lac Minerals (USA) Inc
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 1199'; handwritten notes 37p.

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:	mch	
	Initials	Date
SCANNED:		
	Initials	Date

Revised: 1/22/08

DRILL LOGS RL-94

ROSEBUD

60001327 4010

60001327

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

DRILL LOG SUMMARY SHEET

PROJECT ROSEBUD

HOLE NUMBER RL-94 TOTAL DEPTH 1199' LOGGED BY DAM/CMW

Date started 6-20-90

Date completed 6-25-90

Initial bearing S 55 E (?)

Initial inclination -60

Elevation 5376

Collar coordinates:

N 2204457

E 482 195.2

Contractor: COATES

Drill Type: UDR

Hole Size:

Drilling Conditions: 465' RC, HQ NQ

Footage: Wet / Dry

Comments:

DOWN HOLE SURVEY INFORMATION

FROM	TO	SURVEY POINT	INCLI-NATION	BEARING	X (Northing)	Y (Easting)	Z (Elevation)
0	50		-60	S 55 E			
50	200	100	-60.5	S65E			
200	400	300	-65	S69E			
400	600	500	-65	S65E			
600	800	700	-64	S63E			
800	1000	900	-64	S63E			
1000	1149	1100	-62.5	S61E			
1149	1199	1199	-62	S61E			

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

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

DRILL HOLE RL-94

Page 1 of ____

LOGGED BY CMW

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
		wk arg/							lt grey					'Chocolate Tuff': 0-	.004	<		
05		bleach												White, pale green, grey, or tan'	.002	<		
10									orangy tan					(FeOx stain) f.gr porphyritic	.002	.28		
15														tuff, w/ ~ 3% 1-2 mm	.001	.15		
20														white plag or sanidine phenos	.002	<		
25														wk arg alt'n / bleaching	.001	<		
30														FeOx stain → orangy tan	.001	<		
35														from 25'-55' on	.014	<		
40														50% of surfaces	.002	<		
45															.005	.13		
50															.003	.10		
55									lt-med grey					As above +				
60									w/ minor yellow tan					Minor FeOx (10% of surfaces)	.001	<		
65														stain or & yellow clay (?) on	.001	<		
70														10-20% of surfaces -	<	<		
75														60' → 115'	.002	.25		
80															.002	.10		
85															.002	<		
90															.001	<		
95															.002	<		
100																		

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

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

DRILL HOLE RL-94

Page 2 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.
100		wk arg/							Lt grey + yellow stain					'Chocolate tuff' wk arg/	.032	<		
105		bleach												bleached to lt grey or white	.002	<		
110														w/ 3% plag phenos as above	.010	<		
115													Tr	OX/SULF at 115'. 115'-125'	<	<		
120													Tr	bleached to lt grey w/ tiny spots (<1/4mm) dissem Py				
125		fairly fresh							purplish grey					'Chocolate tuff': purplish				
130														grey & brick-red color, f.g.				
135														tuff 125' - 155'				
140																		
145																		
150																		
155		wk arg/							white to pale green					155 - 185:	<	.14		
160		bleach											Tr	'chocolate tuff': white to	<	<		
165													Tr	pale green f.gr. tuff, w/				
170													Tr	~3% 1-2mm plag/san phenos				
175									tan & lt grey				Tr	& ~2% tiny dark mafic phenos &				
180									lt grey				Tr	tiny spots Py				
185		fairly fresh							purplish grey					185 - 215: Chocolate tuff:		.12		
190														purplish grey & brick red		<		
195																		
200																		

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

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

DRILL HOLE RL-94

Page 3 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.
		fairly fresh							Brick red						<	.11		
205															<	<		
210																		
215									Brick red &									
220									grey									
225																		
230																		
235																		
240		wk propyl							grey-green					240-265: 'chocolate tuff'				
245									& brick red					grey-green w/ brick red				
250														thin veinlets, locally bx'd				
255														w/ brick-red matrix. Prob		.11		
260														wk propylitic alt'n.		<		
265		mod prop							Lt-med green				Tr	265-290: 'chocolate tuff'				
270													Tr	med to lt green mostly f.gr. tuff				
275													Tr	w/ 1-2% tiny dissem py.				
280													Tr	mod prop.				
285		wk prop & arg							white & green					290-305: 'chocolate tuff'				
290														possible BUD?				
295														white & green, mix lit. & Sg				
300																		

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

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

DRILL HOLE RL-94

Page 4 of ____

LOGGED BY CMW

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	% WASH RECOV.
		arg + prop							white						<	<		
05		mod propt							pale green					305-365; BUD or Chocolate tuff:				
10		wk arg												Pale green fg+lt tuff w/ 2-3%				
15														white plag/sanidine phenos & clusts				
20														(1-3mm), w-mod prop +				
25														wk arg. Trace very				
30														f.gr. diss. py.				
35																		
40																		
45																		
50																.25		
55																.11		
60																<		
65														365-395; BUD or Chocolate tuff?				
70		fairly fresh							Brick red & purplish grey					brick red & purplish grey				
75														Clastic texture -				
80														lapilli tuff?				
85																		
90																		
95																		
400									pale green									

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

FINE-GRAINED TUFF
LITHIC LAPILLI TUFF

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

DRILL HOLE RL-94

Page 5 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.
		W-m propt							pale-med					395'-415: 'Chocolate tuff' (BUD or ?)	<	<		
405		W arg							green					clastic texture - lapilli tuff?				
10														pale-med green color				
15		wk prop							brick red &					415-430: 'Chocolate tuff' (BUD or ?)				
20									green					clastic text - lapilli tuff				
425														med green & brick red				
30		W-m prop							pale green				Tr	430-445: 'Chocolate tuff' (Tmb?)				
35													Tr	f.gr., pale green w/				
40													3%	Tr dissem py	.001	<		
45		wk arg							light grey				3%	445-465: 'Chocolate tuff'	.002	.11		
450									to white				3%	f.gr white tuff w/ ~3%	.004	.13		
55													2%	dissem py (replacing matic	.005	.22		
60													2%	phenos?)	.003	.17		
465																		
end R.C. 70																		
75																		
80																		
85																		
90																		
95																		
00																		

DRILL HOLE # RL-94

DEPTH (ft)	RECOVERY %	Structure: Bd. Fol.	Structure: Veins/Faults	MINERALIZATION	GRAPHIC LOG
465	114	None	Py at 30°, 60°	Minor Py veinlets	
470	100			None	
480	93				
490	96			Tiny Spots Mc? Grey sulf Mn?	
500	100			None	
510	100		Py 30°	Minor Py veinlets	
520	100				
530	102				

DESCRIPTION

0 → 465' R.C. drilling. Start coring at 465'.

465-525 (Chocolate) lithic lapilli tuff, clasts identical to matrix - (matrix supported) same composition, difficult to see bxa text except when wet. Overall light grey color, w/ tiny (<1m) (≤5%) dark phenos of biotite & 2-3 mm (<5%) phenos alt'd plag or sanidine. (Some biotite phenos may be partly replaced by py). Local areas w/ minor py veinlets, 2-3 mm wide, at 465-473', 510'-523' at 30° & lesser at other ∡s to c.a. 497'-501' contains veinlets & pods of dull grey sulfide w/ somewhat dendritic character - Mn ?, 489-496' some clasts contain abt grey spots, bronze color w/ needle-habit looking closer (marcasite?)

Overall wk bleached.

Clasts range from 2 mm - 1cm, subangular

525-526 argillized rubble zone

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
465-470				.001	<.10
470-475				.002	<.10
475-480				.001	<.10
480-485				.001	<.10
485-490				<.001	<.10
490-495				<.001	.33
495-500				<.001	<.10
500-505				<.001	<.10
505-510				<.001	<.10
510-515				.001	.12
515-520				<.001	<.10
520-525				.001	<.10
525-530				.001	<.10

HOLE # RL94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Veins Faults	MINERALIZATION	GRAPHIC LOG
	99	None	Py & Q-Mc vnlts & Dr Qt Mc veinlets	Py/Mc vnlts & Dr Qt Mc veinlets	
540	97		Mc 45°	Some Fracts w/ platy Mc & minor Dr Qt Pyr vnlts	
550	99				
560	102		Mc 60°		
570	100				
580	96				
590	>100		fault? Py 55°		
600					

DESCRIPTION

526-538 lithic lapilli tuff + a.f. tuff (Chocolate); similar to above but a little darker color (med-grey) + some 1' zones of either large clasts or a.f.t. interbeds; Also more py/mc veinlets & drusy qtz + Mc veinlets. Py/Mc veinlets 2-3 mm wide, ~1 every 6", gen. at 45°-50° to c.a. Drusy qtz + platy marcasite (Mc) along some fractures (1 in every 1') Biotite phenos partly replaced by py.

538-592 lithic lapilli tuff (Chocolate), clasts identical to matrix, matrix supported, (similar to 465-526) w/ <5% tiny biotite phenos partly replaced by pyr. Overall pale grey-white color, some clasts have pale green tint. Occassional fractures w/ platy marcasite: 1-2mm wide, 1 or 2 per foot, generally at 45°-60° to c.a. Few drusy qtz + pyr filled veinlets (Clasts range in size from < 1/2 cm to ~5cm, subangular, poor/no sorting) Overall weakly bleached.

592-594 fault zone? 2ndary bx'n of above tuff. Angular 1/2-2cm purplish clasts of Chocolate in silic. matrix (matrix supported) w/ veinlets & local matrix of Kaolinite, few qtz-pyr veinlets & few specks py.

594-605.5 Similar to 538'-592'. lithic lapilli tuff (Chocolate), clasts identical to matrix, matrix supported, Overall pale grey color, some clast pale green; w/ <5% biotite phenos, some partly replaced by py. Minor py veinlets (1-3 mm) at 55° + less at 70° to c.a. No bedding, very little fracturing

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
530-535				.001	<.10
535-540				.001	<.10
540-545				.001	<.10
545-550				<.001	<.10
550-555				.001	<.10
555-560				<.001	<.10
560-565				.001	<.10
565-570				.001	<.10
570-575				.001	<.10
575-580				.002	.28
580-585				.001	<.10
585-590				.001	1.33
590-595				.002	<.10
595-600				.001	<.10

HOLE # RL94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERALIZATION	GRAPHIC LOG
	100	Contact 25°	Minor thin py vnlts, no preferred ∡	Minor py vnlts	
610	97				
620	>100				
630	>100				
640	97				
650	>100				
660	98				
670					

DESCRIPTION

C2C

605.5 – 621 (Tcp) Lithic lapilli tuff w/ 2 types of clasts; 1st type is bleached to pale grey and one of typical 'Chocolate' comp. 2nd type is blue-green color, little softer than 'chocolate' clasts, contains tiny dark phenos & sometimes is banded – possibly pumice?. Clasts are angular to subang, avg 1/2 – 2 cm. Clast rich; barely matrix supported. Overall pink, green & grey color. Groundmass has pink-red color – oxidized. Rare irregular ☐ blebs f.gr. py.
[(Contact between 2 Tcp's at ~605.5', is at ~25° to c.a.), veining at 60° is opposite direction]

621 – 673 (Tcp) Lithic lapilli tuff? to tuff bxa w/ 2 types of clasts as above, but matrix is now med blue-green color. 2/3 Grey & pink grey clasts of typical 'chocolate' tuff & 1/3 blue green softer ± fol'n clasts (pumice?). Varies from barely matrix to barely clast supported. Clasts range from < 1/2 – >5 cm & are angular & unsorted. Matrix is blue-green color. 1/2 of clasts have micro fractures w/ green ?chlorite?; along & some clasts have thin green ring of ? chlorite? around them ?glauconite?
~1% of clasts contain ~15% dissem py
Minor py veinlets (1-3 mm wide), no preferred ∡ (see ~1 veinlet in 2')

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
600-605				.001	<.10
605-610				.014	<.10
610-615				.002	<.10
615-620				.001	<.10
620-625				<.001	<.10
625-630				<.001	<.10
630-635				.001	<.10
635-640				.013	<.10
640-645				.002	<.10
645-650				.002	<.10
650-655				.002	<.10
655-660				.002	<.10
660-665				.001	<.10
665-670				.001	<.10

HOLE # RL 94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERAL-IZATION	GRAPHIC LOG
	98	None	Minor grey qtz vnlts no ∡	None	
680	100		None		
690	100				
700	87				
710	99				
720	95				
730	102			Minor Drusy Q + Mc ± bar	
740					

DESCRIPTION

673-695 Mixed / Transition zone. Generally same 2 clast Tcp as above, but matrix varies from pink to green, [have either 2' of f-gr u.f.t. or lg clast at 677-679] local argillized zones – 683-685', 690-692'. And 690-695 contains numerous (1 in 2") thin (1-2mm) grey qtz veinlets & few drusy qtz stringers.

(Upper Bud?)

695-764 Blue-green lithic Capilli tuff – soft w/ pitted surface. Color varies from med to very pale blue-green. Can almost crumble core in hand & has clayey feel. ¿ Is this glauconitic/argillic alt'n all dueteric or is argl Zndary? Matrix supported – matrix is green clayey material. Clasts generally 2mm → 2cm. Minor fine fractures. Surface of core very pitted – some clasts 'weathered' out. Core is somewhat less soft (but still pitted) below ~ 735.

Below 735 start seeing stringers & vugs w/ drusy qtz & platy Mc ± barite, 1 or 2 per foot, & see some blebs (⊗) shotgun py.

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
670-675				.019	.12
675-680				.002	<.10
680-685				.001	<.10
685-690				.001	<.10
690-695				.001	.20
695-700				.012	<.10
700-705				.001	<.10
705-710				<.001	<.10
710-715				.001	.26
715-720				.001	<.10
720-725				.001	<.10
725-730				<.001	<.10
730-735				<.001	<.10
735-740				.009	.31

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERALIZATION	GRAPHIC LOG
	100	None	None	Drusy Q + Mc ± Barite	
750	100				
760	100			None	
770	100		Few py vnlts 30° 40°	Minor Py	
780	95				
790	84				
800	106		veinlets Q±py 15° 45°	Qtz ± py veinlts	
810	99				

DESCRIPTION

764-783 lithic lapilli tuff, med blue-green to olive green — Upper Bud?
Matrix supported. Contains ~ 30% clasts 3 mm – 1½cm, subang.)
clast color pink, grey, or blue-grey.
770-775: Rusty color & splotches, some w/ remnant py, generally on fractures ∥ to core axis.
Few ½cm kaolinite veinlets at 765' ~45° to c.a.
Few py veinlets, 779-781', 1-3mm wide, at 30° & 40° to c.a.

783-817 f.gr. porphyritic tuff; similar to Chocolate - prob. would be called Tmb.
Groundmass is pale grey to pale grey w/ a pink tint.
Contains ~ 3% tiny (<<1mm) black phenos (hb or biot?) & ~3% of white slightly larger (2-4mm) phenos - sanidine or plag. Many of these larger phenos are partly to totally replaced by py, & the dark phenos alt'd to dk green & chlorite?
At 783', near contact, the f.gr. tuff is fractured & cut by thin qtz-py veinlets, see ~ 1 veinlet/ft to 799.
799'-812': abt qtz ± py veinlets, 2-7 mm wide at various ∠s to c.a., but 15°, 45° are dominant. 45 15
Crackle bxa 809'-811'. Green kaolinite in veins at 804

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
740-745				.001	<.10
745-750				<.001	<.10
750-755				.001	.17
755-760				.003	<.10
760-765				.002	<.10
765-770				<.001	<.10
770-775				<.001	<.10
775-780				<.001	<.10
780-785				.008	<.10
785-790				<.001	<.10
790-795				<.001	<.10
795-800				.002	<.10
800-805				.003	<.10
805-810				.004	<.10

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERAL-IZATION	GRAPHIC LOG
	98	None			
820				Q+ py vnlts	
	100		30 / 60 / 80		
830	100				
	91				
840					
	103				
850	100				
	92				
860					
	97				
870					
	99				
880					

DESCRIPTION

817-820 2ndary bx'n Hydrothermal (?) bxa zone. Same protolith as above but broken up; angular clasts 1/2 to 2cm in f.g. pink-tan matrix; matrix supported. Can see 'pipe like' 1/2" feeder into zone. Bxa is healed & competant

820-899 f.gr. porphyritic tuff; similar to Chocolate; prob would be called Tmb. (same unit as 783-817) Generally a light grey color, locally w/ a pale pink or pale green tint.

Contains ~ 3% tiny (<< 1mm) dark phenos, & 2-3% larger (1-3mm) white phenos plag or sanidine. About 1/2 of these white phenos are replaced by py.

Generally 2 to 4 thin (1/2-2mm) fractures / ft w/ qtz + py, locally w/ white kaolinite; at 30°, 60° & 80° to c.a. (Some also have waxy/talcy feel green 'clay' mineral - green kaolinite?)

Few zones w/ more abt veining: (5-10/ft)

844'-849': qtz + py, & kaolinite veinlets & more o spots of py.

852-853: crackle bxa, qtz ± kaol veinlets

854-855: qtz + py & green kaolin? & green stain at 30° to c.a.

859.5-864.5: qtz + py & blue-green stain at 30°, 45° & 80°

873-874: pyr + qtz, blue-green & pink stain

884-885: py + blue-green kaolinite (?)

Sample No.	% Cu	% Pb	% Zn	Au	oz/t Ag
810-815				.003	<.10
815-820				<.001	.27
820-825				.002	<.10
825-830				.005	.14
830-835				.002	<.10
835-840				.003	<.10
840-845				.009	<.10
845-850				.044 / .020	.021 / .33
850-855				.010	<.10
855-860				.002	<.10
860-865				.004	<.10
865-870				<.001	<.10
870-875				.001	.18
875-880				.001	<.10

HOLE # RL-94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERALIZATION	GRAPHIC LOG
	99	None	Py+Q vnlts 25-30° 80°	Q+py vnlts ± green Kaol?	
890	100				
900	100		15° 80°		
910			fault	diss py	
	96	Rough bedding 30° to c.a. 30°	None	None	
920	100			Minor Q, Kaol & Calc vnlts no ∡ pref.	
930	96	Wisps 40° to c.a. 40°		Minor blebs & ◊ py	
940	98				
950		None	Fault		

DESCRIPTION

899-907 fractured to brecciated zone, protolith same as above - chocolate-like Tmb, - f.gr porphy. tuff crackle bx'd to locally matrix supported. Light grey color w/ pink-brown (FeOx) on fractures & as bxa matrix. Bxa is healed & competent.

Qtz + py ± dk green Kaol(?) veinlets, 1-5 mm wide, at 75°-80° & ~15° to c.a.

907-911 Rubble / clay zone ⇒ fault zone

Pale green argillized crumbly rubble, (prob of 'Bud' below), pale yellow-green veinlets (2-3 mm) talcy feel (waxy), scratch w/ metal but not fingernail, & abt blotches diss py.

911-948 Green 'Bud Bxa'. Matrix supported lithic lapilli tuff. Surface of core pitted.

911-914 Unsorted angular clasts, white & pink, ~25% clasts in dk green matrix

914-930 Clasts avg 3 mm - 1 cm & are very roughly bedded, ~30° to c.a., w/ stringers (1-2 mm) py 'conformable', Overall med-pale blue-green, few milky qtz, calc & kaol vnlts

930-948 Sub ang clasts (green) comprise ~15%, matrix has wispy text. Wisps are slightly darker green than med-pale green matrix, 1-2 mm wide, 1->2 cm long, at 40° to c.a. Minor drusy qtz + py reinlng (1-2 cm wide) minor blebs & ◊ py

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
880-885				<.001	<.10
885-890				<.001	<.10
890-895				.012	<.10
895-900				.015	.18
900-903				.010	.16
903-906				.002	<.10
906-910				.004	.23
910-915				.005	<.10
915-920				.026	.13
920-925				.040	<.10
925-930				.005	<.10
930-935				.014	<.10
935-940				.020	<.10
940-945				.104 / .109	.154 / .24
945-950				.037	<.10

HOLE # RL-94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Veins Faults	MINERALIZATION	GRAPHIC LOG	DESCRIPTION
	93	None	Fault 1	Vugs w/ barite 1		948-955 Silicified bxa; probably a fault, SRF? Subrounded 1/2-2cm clasts floating in white to pale green silica matrix. Couple of 1cm vugs w/ barite □ xtls. Minor blebs dissem py.
960	104		veinlts at various orient.	1-3mm Q, py, Kaol ~2/in		955-972 fine-grained tuff (lower Bud tuff LBT) OR DOZER? No phenocrysts. Pale grey w/ pink/peach tint. Fine stockwork (1/4-1/2 mm wide) grey qtz veinlets w/ stringers py. Few larger (1-3cm) drusy qtz + Mc or milky qtz + Mc/Py veinlets. (~1 per foot) Competent, hard tuff (esp. compared to soft Bud)
970	102					972-1004 fine-grained tuff (DOZER LBT) (Same as above but pale green tint) Pale grey w/ pale green or pink/peach tint No phenocrysts. Fine stockwork fractures w/ grey qtz or med green clay? & Stringers py. Varies from stkwk fract to bxa'd text - gen. clast supported, subang., w/ pink matrix.
980	99					Cut by 1-3mm veinlets qtz+py, milky qtz, kaolinite, various orientations ~2 per inch. Few drusy qtz vugs. Vugs w/ barite & steel grey sulf. ~996-999
990	97					Silic fault? zone 6" at 998
1000	100			Abt Q-py Kaol + grey sulf veins		1" wide 6" long 'pipe like' bxa (hydroth?) at ~1000' 1004-1022 Same as above (LBT) but w/ more intense veining. 1cm veins qtz-py/Mc-Kaol + steel grey sulfide at 20-25° to c.a, both directions. 1004-1005
1010	102		intense Q-py 20-30 20			1007-1013 abt qtz-py + kaol veinlets (2-3mm wide), 1-2/inch. 1013-1017 intense dark grey qtz-py veining 1-3mm wide, 5-10/inch, locally w/ white kaolinite, preferred orientation 20°-38° to c.a.
1020						

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
950-955				.060 / .107	.077 / .58
955-960				.168 / .175	.38
960-965				.158 / .133	.149 / .62
965-970				.004	<.10
970-975				.068	.41
975-980				.006	.24
980-985				.009	.23
985-990				.007	.16
990-995				.007	.13
995-1000				.042	1.81
1000-1005				.067	2.23
1005-1010				.022	.27
1010-1015				.005	.37
1015-1020				.007	.22

HOLE # RL-94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERALIZATION	GRAPHIC LOG
	>100	None	Q±py 80°	vnlts Q+py some Kaol.	
1030	>100				
1040	93		10° 80°	Abt Q-py & Kaol vnlts	
1050	102				
1060	96			Minor Q+py	
1070	105	Crude 80° None	60° fault ? None	None	
1080	100				
1090					

DESCRIPTION

1022-1046 fine-grained tuff (LBT); same as 972-1004, but less fractured pale green, locally pale pink f.g.t. w/ network of fine fractures w/ qtz ± py. Also 2-3 mm qtz veinlets (2/foot) at ~80° to c.a H, few kaolinite veinlets (2-3mm wide)

1030-1032 more veining / vein bxas: qtz+py & drusy qtz.

1046-1065 Zone of more intense veining & local bx'n in LBT. Lt. grey w/ peach/pink & green tints. or Dow?

Abt 2-3/inch 2-4mm qtz+py, & kaol veinlets at 1046, 1055-1060'; Fine (<1mm) veinlets throughout rest of interval. → at 10° & 70°

Str pink-tan color & abt dissem py 1050-1057; & at 1057'

Competent, hard rock

Drusy qtz + Mc at 1058.

1065-1072 f.g. tuff (LBT) same as 1022→1046

Pale green & pink w/ network of very fine fractures,

Couple qtz+py veinlets at ~1068', 1/2-1cm wide, at 60° to c.a.

1072-1082 Transition zone; Epiclastics, tuff & arg rubble.

1072→1076 Med-dk blue-green epiclastic? or fine lapilli tuff. Gen. angular 1-2 mm white frags, w/ few 2-4 mm black frags, crude bedding, 80° to c.a

1076-1078 Green f.gr. tuff, broken/ bx'd w/ grey qtz matrix & veining.

1078-1080 4" chunks f.g. pale green tuff & argillized rubble

1080-1082 Tuffaceous grey sandst? & rubble

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
1020-1025				.022	.28
1025-1030				.002	.24
1030-1035				.003	<.10
1035-1040				.006	<.10
1040-1045				.009	.14
1045-1050				.047	.64
1050-1055				.478 / .630	.79
1055-1060				.151 / .210	.40
1060-1065				.040	.17
1065-1070				.005	.19
1070-1075				.002	.23
1075-1080				.023	.70
1080-1085				.003	11.78
1085-1090				<.001	.20

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Faults	MINERALIZATION	GRAPHIC LOG
1100	96	50°	Minor thin fracts w/ FeOx	None	
	99	50°			
1110	98	Can't tell	None	Rare Qtz+py	
1120	92	65°	None	None	
1130	104				
1140	108		45°	Minor Q+py ± Kaol & Dr Q	
1150	98	Can't tell	0° / 25° / 45°	Minor Qtz-Py	
1160					

DESCRIPTION

1082–1111.5 Tuffaceous Sandstone? Fallout tuff deposit? Pale green color w/ tiny (<1mm) white lithics & tiny (<1/2 mm) biotite phenos. Close inspection reveals it to be bedded. – bedding at 50° to c.a. Fairly hard (can scratch w/ metal) & competant, not much fracturing – just minor fractures (1 in 2 or 3') w/ FeOx stain 1cm outward from fracture.

This is definitely part of 'basement' sequence.

1111.5–1118.5 f.gr. black dense 'shale' – no fissility. Locally cut by minor 2-3 mm qtz+py veinlets, but not abt. Dense, but scratchable w/ metal.

1118.5–1145 Tuffaceous Sandstone?, Fallout tuff deposit? or could be totally epiclastic. Coarser grained & greyer than 1082–1111 interval. Subrounded to subang. black, grey, & tan clasts (1/4 - 1mm) in med-grey matrix. Rough bedding at ~65° to c.a.

Faint green tint 1118–1126.

Broken up 1121–1136 into 1" to 3" rubble.

Minor drusy qtz & qtz+py ± white kaolinite veinlets 1138–1145

Couple of pale green & mustard yellow kaolinite? veinlets at 1141–1144' – could these be related to Ag min? ??
45-50° to c.a.

1145–1167 finer grained tuffaceous siltst/epiclastic? & darker color. Med-dk brownish grey w/ tiny black specks (< 1/4 mm)

Minor qtz-pyr veinlets, 2-5 mm wide, at 0°, 25°, ~45° to c.a.

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
1090–1095				<.001	.18
1095–1100				.007	.15
1100–1105				.002	<.10
1105–1110				<.001	.21
1110–1113.5				<.001	<.10
1113.5–1118.8				.001	.37
1118.8–1120				.002	<.10
1120–1125				<.001	<.10
1125–1127.3				.001	<.10
1127.3–1132				.001	<.10
1132–1135				<.001	<.10
1135–1138.7				.009	.25
1138.7–1140				<.001	.15
1140–1145				.111 / .055	2.22
1145–1150				.006	1.23
1150–1155				.002	<.10
1155–1160				.005	<

HOLE # RL-94

DEPTH (ft)	RECOVERY	Structure: Bd. Fol.	Structure: Veins Faults	MINERAL-IZATION	GRAPHIC LOG
	100	Can't tell	20°	Qtz+py ± kaol vnlts	
1170	96	Can't tell	None	Calc; minor thin vnlts & clots	
1180	93	Thin Q vnlts maybe along bedding?	Qtz; thin vnlts at 60° 60° & 3mm-1cm irreg vnlts at various As	Minor irreg blebs ~ & larger clots py	
1190	100				
T.D. 1199					

DESCRIPTION

1167-1179 f.gr. black, dense 'shale/slate' (no fissility) w/ minor-mod white calcite veining. Thin veinlets along cracks & couple of 1½" 'bands' - more like splotches/clots - irregular outline.

1179-1199 T.D. f.gr., black, dense 'shale/slate' (no fissility) w/ mod-abt white silica veining. Overall rock is pervasively silicified & contains dense network fine fractures w/ Si, plus larger 'veins' (irregular shape) and drusy vugs. Contains minor-mod stringers ~ & 1"-2" (replaced? clasts?) blobs f.gr. py.

Thin veinlets have preferred dir at 60° to c.a - could be along bedding. Other veinlets do not show preferred direction.

Locally see bx'n & slight offset textures, but no idea of timing.

ASSAYS

Sample No.	% Cu	% Pb	% Zn	oz/t Au	oz/t Ag
1160-1164.5				.007	.42
1164.5-1170				<.001	<.10
1170-1175				.001	<.10
1175-1180				.001	.37
1180-1185				.002	<.10
1185-1190				.003	<.10
1190-1195				.005	<.10
1195-1199				.038	.48

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

CHOCOLATE TUFF
BUD BRECCIA
BUD TUFF
BUD EPICLASTIC
BUD TUFF BRECCIA
DT DOZER WELDED TUFF

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

DRILL HOLE RL-94

Page 1 of 5

LOGGED BY DAM

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	
		~ XX							LT GREEN					0-125 SILICIFIED, BLEACHED, LOCALLY OXIDIZED FINE GRAIN TUFF	.004	<		
05															.002	<		
10															.002	.28		
15									REDDISH ORANGE					15-55 WEAK-MODERATE OXIDATION	.001	.15		
20									ORANGE						.002	<		
25															.001	<		
30															.001	<		
35															.014	<		
40															.002	<		
45															.006	.13		
50															.003	.10		
55									LT PINK						.001	<		
60									GRAYISH LT GREEN						.001	<		
65															<	<		
70															.002	.25		
75															.002	.10		
80															.002	<		
85															.002	<		
90															.001	<		
95									VARIEGATED PINK GREEN						.002	<		
100																		

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

CHOCOLATE TUFF
BUD BRECCIA
BUD TUFF
BUD EPICLASTIC
BUD TUFF BRECCIA
DT DOZER WELDED TUFF

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

DRILL HOLE RL-94

Page 2 of 5

LOGGED BY DAM

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	
		~ XX							LT GREEN				<1%		.032	<		
05									GREY						.002	<		
10															.010	<		
15									LT GREEN						<	<		
20									LT PINK									
25									GREY PURPLE					125-155 PURPLE BROWN FINE GRAIN WELDED TUFF				
30																		
35																		
40																		
45																		
50		~																
55									LT PINK					155-185 BLEACHED, (WEAK) FINE GRAIN WELDED TUFF	<	.14		
60															<	<		
65															<	<		
70															<	<		
75									RUST					MOD OXIDATION 175-180	<	<		
80									LT PINK						<	<		
85									DK PURPLE					185-265 DK RED BROWN & DK GREY FINE GRAIN WELDED TUFF	<	<		
90									GREY						<	.12		
95															<	<		
100																		

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

CHOCOLATE TUFF
BUD BRECCIA
BUD TUFF
BUD EPICLASTIC
BUD TUFF BRECCIA
DT DOZER WELDED TUFF

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

DRILL HOLE RL-94

Page 3 of 5

LOGGED BY DAM

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	
									RED BROWN				<1%	VERY FINE GRAIN WELDED TUFF 205'-215' 225'-235'	<	.11		
05															<	<		
10																		
15									PURPLE GRAY									
20																		
25									RED BROWN									
30																		
35									PURPLE GRAY									
40																		
45																		
50																		
55															<	<		
60															<	.11		
65														265 - 365 LT GREEN > PINK FINE-MED GRAIN PYROCLASTIC BECOMMING MORE BLEPHED > MORE GREEN W/ DEPTH	<	<		
70																		
75																		
80																		
85																		
90																		
95																		
00																		

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

CHOCOLATE TUFF
BUD BRECCIA
BUD TUFF
BUD EPICLASTIC
BUD TUFF BRECCIA
DT DOZER WELDED TUFF

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

DRILL HOLE RL-94

Page 4 of 5

LOGGED BY DAM

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK	
									ROSE				<1%		<	<		
05									GREEN									
10																		
15																		
20																		
25									LT GREEN					BL ↑ 330-365				
30																		
35																		
40																		
45																		
50															<	.25		
55															<	.11		
60															<	<		
65															<	<		
70									PURPLE GREY					365-445 RED MATRIX FINE GRAIN PYROCLASTIC - LOCALLY BLEACHED	<	<		
75															<	<		
80																		
85																		
90																		
95									GREEN + PURPLE									
00																		

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

CHOCOLATE TUFF
BUD BRECCIA
BUD TUFF
BUD EPICLASTIC
BUD TUFF BRECCIA
DT DOZER WELDED TUFF

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

DRILL HOLE RL-94

Page 5 of 5

LOGGED BY Dan

	LITH.	ALT.	% ARG. ALT. W	M	S	% SIL'N W	M	S	COLOR	% FeOx W	M	S	% SULF.	COMMENTS	Au	Ag	CHECK
									GREY GREEN				<1%		<	<	
05																	
10																	
15									PURPLE GREY								
20																	
25																	
30									GREEN								
35																	
40									ROSE						.001	<	
45									GREEN				1-2%	445-465 MOTTLED PINK + GREEN GRANULAR TUFF, BLEACHED WEAKLY & FINE SULFIDES AND Q-SULFIDE VEINING	.002	.11	
50									PINK						.054	.13	
55															.005	.22	
60															.003	.17	
65														T.D. = 465			
70																	
75																	
80																	
85																	
90																	
95																	
00																	

RL-94 6-23-90 1 of 4

RC Ø to 465'

Recovery Footage	% Recovery	Sample Interval	Lithology
465-472	8/7 = 114%	465-470	465-606
472-482	100%	470-475	wht, blk, FGT/epiclastic
482-492	93%	475-480	Fragmental ??
492-502	96%	480-485	wk peach
502-506	100%	485-490	505-606
506-512	100%	490-495	wk, qtz sulfide vns
512-522	100%+	495-500	local, vuggy qtz vns vns
522-532	102%	500-505	w/ drusy Si
532-542	99%	505-510	
542-552	97%	510-515	606 –
552-562	99%	515-520	ltgrn, blk to peach
562-572	102%	520-525	sfg arg. to local
572-582	100%	525-530	sulfide Qtz vns
582-592	~~12.9~~+ 96%	530-535	to blackish pyrite
592-602	100%+	535-540	local, Si veining
602-612	100%	540-545	pyroclastic to
612-622	97%	545-550	mod. epiclastic ?
622-632	100%+	550-555	
632-642	100%+	555-560	
642-652	97%	560-565	
652-662	100%+	565-570	
662-672	98%	570-575	
672-682	~~8.0~~ 98%	575-580	
682-	(8.0	580-585 ✓	
		585-590	
		590-595	
		595-600	
		600-606	
		606-610	
		610-615	
		615-620	
		620-625	
		625-630	
		630-635	
		635-640	
		640-645	

RL-94 6-23-90 2 of 4

Recovery Footage		% Recovery	Sample Interval	Lithology
682-692	~~8.0~~	100%	645-650	
692-702		100%	650-655	
702-712		87%	655-660	695-785
712-722		99%	660-665	lt gm pyro
722-732		95%	665-670	slg arg.
732-742		102%	670-675	
742-752		100%	675-680	725-735
752-762		100%	680-685	slg argillized
762-772		100%	685-690 ✓	pyro, lt gm
772-782		100%	690-695	
782-790		7.6/8 = 95%	695-700	* 785-815
790-795		4.2/5 = 84%	700-705	wht-pencln, FGT w/ sulfide veins
795-802		7.4/7 = 106%	705-710	815-906
802-812		99%	710-715	pencln, fragmental
812-		(9.6+	715-720	to wht-blc tuff, FG
			720-725	w/ mod sulfid / silica
			725-730	veining
			730-735	
			735-740	
			740-745	
			745-750	
			750-755	
			755-760	
			760-765	
			765-770	
			770-775	
			775-780	
			780-785	
			785-790	
			790-795	
			795-800	
			800-805	
			805-810	
			810-815	
			815-820	
			820-825	
			820-825	

RL-94 6-24-90 3 of 4

Recovery Footage	% Recovery	Sample Interval	Lithology
812 - 822	(9.6 + 98%	825 - 830	
822 - 829	100%		
829 - 832.5	3.5/3.5 = 100%	830 - 835	* 906 - 955
832.5 - 842	8.6/9.5 = 91%	835 - 840	Hgm, stg silicified
842 - 849.5	7.7/7.5 = 103%	840 - 845	pyroclastic, med gm
849.5 - 854.5	5/5 = 100%	845 - 850	w/stg sulfide/qtz veins
854.5 - 862	6.9/7.5 = 92%	850 - 855	
862 - 872	97%	855 - 860	950 - 955
872 - 882	99%	860 - 865	stg silicified, bx
882 - 892	99%	865 - 870	fault zone
892 - 902	100%	870 - 875	
902 - 912	100%	875 - 880	* 955 - 1113.3
912 - 922	96%	880 - 885	wht, fn gm tuff -
922 - 932	100%	885 - 890	stg local qtz - sulfide
932 - 942	96%	890 - 895	bx zones
942 - 952	98%	895 - 900	blc to pebble
952 - 962	93%	900 - 903	tends to Hgm,
962 - 972	104%	903 - 906	stg fractured, bx
972 - 982	102%	906 - 910	995 - 1000 w/ stg barite xtals
982 - 992	99%	910 - 915	+ stibnite xtals
992 - 1002	97%	915 - 920	
1002 - 1012	(~~9.6~~ + 100%	920 - 925	
		925 - 930	
		930 - 935	
		935 - 940	
		940 - 945	
		945 - 950	
		950 - 955	
		955 - 960	
		960 - 965	
		965 - 970	
		970 - 975	
		975 - 980	
		980 - 985	
		985 - 990	
		990 - 995	
		995 - 1000	
		1000 - 1005	
		1005 - 1010	

RL-94 6-25-90 4 of 4

Recovery Footage	% Recovery	Sample Interval	Lithology
1012-1022	102%	1010-1015	1113.3-1118.8
1022-1032	100%+	1015-1020	exotic block
1032-1042	100%+	1020-1025	blk, ~~rk~~ shales
1042-1052	93%	1025-1030	slg bx
1052-1062	102%	1030-1035	
1062-1072	96%	1035-1040	1118.8-1127.3
1072-1082	105%	1040-1045	lt gm-gry F to M GT
1082-1092	100%	1045-1050	+ local Si unig
1092-1102	96%	1050-1055	
1102-1112	99%	1055-1060	1127.3-1135
1112-1122	98%	1060-1065	JR
1122-1132	92%	1065-1070	blk shale gouge
1132-1142	104%	1070-1075	
1142-1152 (4.4+	108%	1075-1080	1135-1138.7
1152-1162	98%	1080-1085	fn gm int.??
1162-1170	100%	1085-1090	gry
1170-1180	96%	1090-1095	1138.7-1164.6
1180-1190	93%	1095-1100	gry, fn gm, blk,
1190-1199 TD	100%	1100-1105	int., unevenly
		1105-1110	silicified to bx
		1110-1113.3	w/x cutting
		1113.3-1118.8	sulfide ons
		1118.8-1120	
		1120-1125	1164.6-1199
		1125-1127.3	blk, shales
		1127.3-1132	slg Fmnt, bx,
		1132-1135	silicified, slg
		1135-1138.7	local pepite
		1138.7-1140	wk mineralization
		1140-1145	
		1145-1150	
		1150-1155	
		1155-1160	
		1160-1164.6	1180-1185
		1164.6-1170	1185-1190
		1170-1175	1190-1195
		1175-1180	1195-1199 TD

NEVADA GSI

JUL 17 1990

GEOCHEMICAL ANALYSIS REPORT

July 13, 1990

Supercedes

CUST. CODE: LOA
PROJECT: URBD-79014
P.O. #: XXXX
LOT ID: 7748

GEOLOGIST: NATE BREWER
COPIES TO: KEN TULLAR
COMPANY: LAC MINERALS
ANALYSIS: FIRE ASSAY FOR GOLD AND SILVER, WITH AN A.A. FINISH.
FIRE ASSAY FOR GOLD, WITH AN A.A. FINISH. (CHECKS)
FIRE ASSAY FOR GOLD, 1 ASSAY TON GRAVIMETRIC. (CHECKS)

	SAMPLE I.D.			Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
1.	RL-94C	780	785	0.008	-0.10	-	-
2.	RL-94C	785	790	-0.001	-0.10	-	-
3.	RL-94C	790	795	-0.001	-0.10	-	-
4.	RL-94C	795	800	0.002	-0.10	-	-
5.	RL-94C	800	805	0.003	-0.10	-	-
6.	RL-94C	805	810	0.004	-0.10	-	-
7.	RL-94C	810	815	0.003	-0.10	-	-
8.	RL-94C	815	820	-0.001	0.27	-	-
9.	RL-94C	820	825	0.002	-0.10	-	-
10.	RL-94C	825	830	0.005	0.14	-	-
11.	RL-94C	830	835	0.002	-0.10	-	-
12.	RL-94C	835	840	0.003	-0.10	-	-
13.	RL-94C	840	845	0.009	-0.10	-	-
14.	RL-94C	845	850	0.020	0.33	0.044	0.021
15.	RL-94C	850	855	0.010	-0.10	-	-
16.	RL-94C	855	860	0.002	-0.10	-	-
17.	RL-94C	860	865	0.004	-0.10	-	-
18.	RL-94C	865	870	-0.001	-0.10	-	-
19.	RL-94C	870	875	0.001	0.18	-	-
20.	RL-94C	875	880	0.001	-0.10	-	-
21.	RL-94C	880	885	-0.001	-0.10	-	-
22.	RL-94C	885	890	-0.001	-0.10	-	-
23.	RL-94C	890	895	0.012	-0.10	-	-
24.	RL-94C	895	900	0.015	0.18	-	-
25.	RL-94C	900	903	0.010	0.16	-	-
26.	RL-94C	903	906	0.002	-0.10	-	-
27.	RL-94C	906	910	0.004	0.23	-	-
28.	RL-94C	910	915	0.005	-0.10	-	-
29.	RL-94C	915	920	0.026	0.13	-	-
30.	RL-94C	920	925	0.040	-0.10	-	-

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

	SAMPLE I.D.			Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
31.	RL-94C	925	930	0.005	-0.10	-	-
32.	RL-94C	930	935	0.014	-0.10	-	-
33.	RL-94C	935	940	0.020	-0.10	-	-
34.	RL-94C	940	945	0.109	0.24	0.104	0.154
35.	RL-94C	945	950	0.037	-0.10	-	-
36.	RL-94C	950	955	0.107	0.58	0.060	0.077
37.	RL-94C	955	960	0.175	0.38	0.168	-
38.	RL-94C	960	965	0.133	0.62	0.158	0.149
39.	RL-94C	965	970	0.004	-0.10	-	-
40.	RL-94C	970	975	0.068	0.41	-	-
41.	RL-94C	975	980	0.006	0.24	-	-
42.	RL-94C	980	985	0.009	0.23	-	-
43.	RL-94C	985	990	0.007	0.16	-	-
44.	RL-94C	990	995	0.007	0.13	-	-
45.	RL-94C	995	1000	0.042	1.81	-	-
46.	RL-94C	1000	1005	0.067	2.23	-	-
47.	RL-94C	1005	1010	0.022	0.27	-	-
48.	RL-94C	1010	1015	0.005	0.37	-	-
49.	RL-94C	1015	1020	0.007	0.22	-	-
50.	RL-94C	1020	1025	0.022	0.28	-	-
51.	RL-94C	1025	1030	0.002	0.24	-	-
52.	RL-94C	1030	1035	0.003	-0.10	-	-
53.	RL-94C	1035	1040	0.006	-0.10	-	-
54.	RL-94C	1040	1045	0.009	0.14	-	-
55.	RL-94C	1045	1050	0.047	0.64	-	-
56.	RL-94C	1050	1055	0.630	0.79	0.478	-
57.	RL-94C	1055	1060	0.210	0.40	0.151	-
58.	RL-94C	1060	1065	0.040	0.17	-	-
59.	RL-94C	1065	1070	0.005	0.19	-	-
60.	RL-94C	1070	1075	0.002	0.23	-	-
61.	RL-94C	1075	1080	0.023	0.70	-	-
62.	RL-94C	1080	1085	0.003	16.23	-	-
63.	RL-94C	1085	1090	-0.001	0.20	-	-
64.	RL-94C	1090	1095	-0.001	0.18	-	-
65.	RL-94C	1095	1100	0.007	0.15	-	-
66.	RL-94C	1100	1105	0.002	-0.10	-	-
67.	RL-94C	1105	1110	-0.001	0.21	-	-
68.	RL-94C	1110	1113.3	-0.001	-0.10	-	-
69.	RL-94C	1113.3	1118.8	0.001	0.37	-	-
70.	RL-94C	1118.8	1120	0.002	-0.10	-	-
71.	RL-94C	1120	1125	-0.001	-0.10	-	-
72.	RL-94C	1125	1127.3	0.001	-0.10	-	-
73.	RL-94C	1127.3	1132	0.001	-0.10	-	-
74.	RL-94C	1132	1135	-0.001	-0.10	-	-
75.	RL-94C	1135	1138.7	0.009	0.25	-	-

	SAMPLE I.D.			Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
76.	RL-94C	1138.7	1140	-0.001	0.15	-	-
77.	RL-94C	1140	1140	0.055	2.22	0.111	-
78.	RL-94C	1145	1150	0.006	1.23	-	-
79.	RL-94C	1150	1155	0.002	-0.10	-	-
80.	RL-94C	1155	1160	0.005	-0.10	-	-
81.	RL-94C	1160	1164.5	0.007	0.42	-	-
82.	RL-94C	1164.5	1170	-0.001	-0.10	-	-
83.	RL-94C	1170	1175	0.001	-0.10	-	-
84.	RL-94C	1175	1180	0.001	0.37	-	-
85.	RL-94C	1180	1185	0.002	-0.10	-	-
86.	RL-94C	1185	1190	0.003	-0.10	-	-
87.	RL-94C	1190	1195	0.005	-0.10	-	-
88.	RL-94C	1195	1199	0.038	0.48	-	-

THIS REPORT REVIEWED AND APPROVED BY:

Jerry Gaige

JERRY GAIGE, CHIEF CHEMIST

NEVADA GSI

JUL 23 1990

GEOCHEMICAL ANALYSIS REPORT

July 19, 1990

CUST. CODE: LOA
PROJECT: URBD-79014
P.O. #: XXXX
LOT ID: 7739

GEOLOGIST: NATE BREWER
COPIES TO: KEN TULLAR
COMPANY: LAC MINERALS
ANALYSIS: FIRE ASSAY FOR GOLD AND SILVER, WITH AN A.A. FINISH.

	SAMPLE I.D.			Au o/t	Ag o/t
1.	RL-94	0	5	0.004	-0.10
2.	RL-94	5	10	0.002	-0.10
3.	RL-94	10	15	0.002	0.28
4.	RL-94	15	20	0.001	0.15
5.	RL-94	20	25	0.002	-0.10
6.	RL-94	25	30	0.001	-0.10
7.	RL-94	30	35	0.001	-0.10
8.	RL-94	35	40	0.014	-0.10
9.	RL-94	40	45	0.002	-0.10
10.	RL-94	45	50	0.005	0.13
11.	RL-94	50	55	0.003	0.10
12.	RL-94	55	60	0.001	-0.10
13.	RL-94	60	65	0.001	-0.10
14.	RL-94	65	70	-0.001	-0.10
15.	RL-94	70	75	0.002	0.25
16.	RL-94	75	80	0.002	0.10
17.	RL-94	80	85	0.002	-0.10
18.	RL-94	85	90	0.002	-0.10
19.	RL-94	90	95	0.001	-0.10
20.	RL-94	95	100	0.002	-0.10
21.	RL-94	100	105	0.032	-0.10
22.	RL-94	105	110	0.002	-0.10
23.	RL-94	110	115	0.010	-0.10
24.	RL-94	115	120	-0.001	-0.10
25.	RL-94	120	125	-0.001	-0.10
26.	RL-94	125	130	-0.001	-0.10
27.	RL-94	130	135	-0.001	-0.10
28.	RL-94	135	140	-0.001	-0.10
29.	RL-94	140	145	-0.001	-0.10
30.	RL-94	145	150	-0.001	-0.10

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

	SAMPLE I.D.		Au o/t	Ag o/t
31.	RL-94	150 155	-0.001	-0.10
32.	RL-94	155 160	-0.001	0.14
33.	RL-94	160 165	-0.001	-0.10
34.	RL-94	165 170	-0.001	-0.10
35.	RL-94	170 175	-0.001	-0.10
36.	RL-94	175 180	-0.001	-0.10
37.	RL-94	180 185	-0.001	-0.10
38.	RL-94	185 190	-0.001	-0.10
39.	RL-94	190 195	-0.001	0.12
40.	RL-94	195 200	-0.001	-0.10
41.	RL-94	200 205	-0.001	0.11
42.	RL-94	205 210	-0.001	-0.10
43.	RL-94	210 215	-0.001	-0.10
44.	RL-94	215 220	-0.001	-0.10
45.	RL-94	220 225	-0.001	-0.10
46.	RL-94	225 230	-0.001	-0.10
47.	RL-94	230 235	-0.001	-0.10
48.	RL-94	235 240	-0.001	-0.10
49.	RL-94	240 245	-0.001	-0.10
50.	RL-94	245 250	-0.001	-0.10
51.	RL-94	250 255	-0.001	-0.10
52.	RL-94	255 260	-0.001	0.11
53.	RL-94	260 265	-0.001	-0.10
54.	RL-94	265 270	-0.001	-0.10
55.	RL-94	270 275	-0.001	-0.10
56.	RL-94	275 280	-0.001	-0.10
57.	RL-94	280 285	-0.001	-0.10
58.	RL-94	285 290	-0.001	-0.10
59.	RL-94	290 295	-0.001	-0.10
60.	RL-94	295 300	-0.001	-0.10
61.	RL-94	300 305	-0.001	-0.10
62.	RL-94	305 310	-0.001	-0.10
63.	RL-94	310 315	-0.001	-0.10
64.	RL-94	315 320	-0.001	-0.10
65.	RL-94	320 325	-0.001	-0.10
66.	RL-94	325 330	-0.001	-0.10
67.	RL-94	330 335	-0.001	-0.10
68.	RL-94	335 340	-0.001	-0.10
69.	RL-94	340 345	-0.001	-0.10
70.	RL-94	345 350	-0.001	0.25
71.	RL-94	350 355	-0.001	0.11
72.	RL-94	355 360	-0.001	-0.10
73.	RL-94	360 365	-0.001	-0.10
74.	RL-94	365 370	-0.001	-0.10
75.	RL-94	370 375	-0.001	-0.10

	SAMPLE I.D.			Au o/t	Ag o/t
76.	RL-94	375	380	-0.001	-0.10
77.	RL-94	380	385	-0.001	-0.10
78.	RL-94	385	390	-0.001	-0.10
79.	RL-94	390	395	-0.001	-0.10
80.	RL-94	395	400	-0.001	-0.10
81.	RL-94	400	405	-0.001	-0.10
82.	RL-94	405	410	-0.001	-0.10
83.	RL-94	410	415	-0.001	-0.10
84.	RL-94	415	420	-0.001	-0.10
85.	RL-94	420	425	-0.001	-0.10
86.	RL-94	425	430	-0.001	-0.10
87.	RL-94	430	435	-0.001	-0.10
88.	RL-94	435	440	-0.001	-0.10
89.	RL-94	440	445	0.001	-0.10
90.	RL-94	445	450	0.002	0.11
91.	RL-94	450	455	0.054	0.13
92.	RL-94	455	460	0.005	0.22
93.	RL-94	460	465	0.003	0.17

THIS REPORT REVIEWED AND APPROVED BY:

Richard A. Grondin

RICHARD GRONDIN, LABORATORY MANAGER

JUL 30 1990

NEVADA GSI

GEOCHEMICAL ANALYSIS REPORT

July 26, 1990

CUST. CODE: LOA
PROJECT: URBD-79014
P.O. #: XXXX
LOT ID: 7787

GEOLOGIST: NATE BREWER
COPIES TO: KEN TULLAR
COMPANY: LAC MINERALS
ANALYSIS: FIRE ASSAY FOR GOLD AND SILVER, WITH AN A.A. FINISH.

	SAMPLE I.D.			Au o/t	Ag o/t
1.	RL-94C	465	470	0.001	-.10
2.	RL-94C	470	475	0.002	-.10
3.	RL-94C	475	480	0.001	-.10
4.	RL-94C	480	485	0.001	-.10
5.	RL-94C	485	490	-.001	-.10
6.	RL-94C	490	495	-.001	0.33
7.	RL-94C	495	500	-.001	-.10
8.	RL-94C	500	505	-.001	-.10
9.	RL-94C	505	510	-.001	-.10
10.	RL-94C	510	515	0.001	0.12
11.	RL-94C	515	520	-.001	-.10
12.	RL-94C	520	525	0.001	-.10
13.	RL-94C	525	530	0.001	-.10
14.	RL-94C	530	535	0.001	-.10
15.	RL-94C	535	540	0.001	-.10
16.	RL-94C	540	545	0.001	-.10
17.	RL-94C	545	550	-.001	-.10
18.	RL-94C	550	555	0.001	-.10
19.	RL-94C	555	560	-.001	-.10
20.	RL-94C	560	565	0.001	-.10
21.	RL-94C	565	570	0.001	-.10
22.	RL-94C	570	575	0.001	-.10
23.	RL-94C	575	580	0.002	0.28
24.	RL-94C	580	585	0.001	-.10
25.	RL-94C	585	590	0.010	1.33
26.	RL-94C	590	595	0.002	-.10
27.	RL-94C	595	600	0.001	-.10
28.	RL-94C	600	605	0.001	-.10
29.	RL-94C	605	610	0.014	-.10
30.	RL-94C	610	615	0.002	-.10
31.	RL-94C	615	620	0.001	-.10
32.	RL-94C	620	625	-.001	-.10
33.	RL-94C	625	630	-.001	-.10

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

	SAMPLE I.D.			Au o/t	Ag o/t
34.	RL-94C	630	635	0.001	-.10
35.	RL-94C	635	640	0.013	-.10
36.	RL-94C	640	645	0.002	-.10
37.	RL-94C	645	650	0.002	-.10
38.	RL-94C	650	655	0.002	-.10
39.	RL-94C	655	660	0.002	-.10
40.	RL-94C	660	665	0.001	-.10
41.	RL-94C	665	670	0.001	-.10
42.	RL-94C	670	675	0.019	0.12
43.	RL-94C	675	680	0.002	-.10
44.	RL-94C	680	685	0.001	-.10
45.	RL-94C	685	690	0.001	-.10
46.	RL-94C	690	695	0.001	0.20
47.	RL-94C	695	700	0.012	-.10
48.	RL-94C	700	705	0.001	-.10
49.	RL-94C	705	710	-.001	-.10
50.	RL-94C	710	715	0.001	0.26
51.	RL-94C	715	720	0.001	-.10
52.	RL-94C	720	725	0.001	-.10
53.	RL-94C	725	730	-.001	-.10
54.	RL-94C	730	735	-.001	-.10
55.	RL-94C	735	740	0.009	0.31
56.	RL-94C	740	745	0.001	-.10
57.	RL-94C	745	750	-.001	-.10
58.	RL-94C	750	755	0.001	0.17
59.	RL-94C	755	760	0.003	-.10
60.	RL-94C	760	765	0.002	-.10
61.	RL-94C	765	770	-.001	-.10
62.	RL-94C	770	775	-.001	-.10
63.	RL-94C	775	780	-.001	-.10

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Laboratory Director

Copy

NEVADA GSI

GEOCHEMICAL ANALYSIS REPORT

July 24, 1990
CORRECTED

CUST. CODE: LOA
PROJECT: URBD-79014
P.O. #: XXXX
LOT ID: 7748

GEOLOGIST: NATE BREWER
COPIES TO: KEN TULLAR
COMPANY: LAC MINERALS
ANALYSIS: FIRE ASSAY FOR GOLD AND SILVER, WITH AN A.A. FINISH.
FIRE ASSAY FOR GOLD, WITH AN A.A. FINISH. (CHECKS)
FIRE ASSAY FOR GOLD, 1 ASSAY TON GRAVIMETRIC. (CHECKS)

	SAMPLE I.D.			Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
1.	RL-94C	780	785	0.008	-0.10	-	-
2.	RL-94C	785	790	-0.001	-0.10	-	-
3.	RL-94C	790	795	-0.001	-0.10	-	-
4.	RL-94C	795	800	0.002	-0.10	-	-
5.	RL-94C	800	805	0.003	-0.10	-	-
6.	RL-94C	805	810	0.004	-0.10	-	-
7.	RL-94C	810	815	0.003	-0.10	-	-
8.	RL-94C	815	820	-0.001	0.27	-	-
9.	RL-94C	820	825	0.002	-0.10	-	-
10.	RL-94C	825	830	0.005	0.14	-	-
11.	RL-94C	830	835	0.002	-0.10	-	-
12.	RL-94C	835	840	0.003	-0.10	-	-
13.	RL-94C	840	845	0.009	-0.10	-	-
14.	RL-94C	845	850	0.020	0.33	0.044	0.021
15.	RL-94C	850	855	0.010	-0.10	-	-
16.	RL-94C	855	860	0.002	-0.10	-	-
17.	RL-94C	860	865	0.004	-0.10	-	-
18.	RL-94C	865	870	-0.001	-0.10	-	-
19.	RL-94C	870	875	0.001	0.18	-	-
20.	RL-94C	875	880	0.001	-0.10	-	-
21.	RL-94C	880	885	-0.001	-0.10	-	-
22.	RL-94C	885	890	-0.001	-0.10	-	-
23.	RL-94C	890	895	0.012	-0.10	-	-
24.	RL-94C	895	900	0.015	0.18	-	-
25.	RL-94C	900	903	0.010	0.16	-	-
26.	RL-94C	903	906	0.002	-0.10	-	-
27.	RL-94C	906	910	0.004	0.23	-	-
28.	RL-94C	910	915	0.005	-0.10	-	-
29.	RL-94C	915	920	0.026	0.13	-	-
30.	RL-94C	920	925	0.040	-0.10	-	-
31.	RL-94C	925	930	0.005	-0.10	-	-

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

	SAMPLE I.D.			Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
32.	RL-94C	930	935	0.014	-0.10	-	-
33.	RL-94C	935	940	0.020	-0.10	-	-
34.	RL-94C	940	945	0.109	0.24	0.104	0.154
35.	RL-94C	945	950	0.037	-0.10	-	-
36.	RL-94C	950	955	0.107	0.58	0.060	0.077
37.	RL-94C	955	960	0.175	0.38	0.168	-
38.	RL-94C	960	965	0.133	0.62	0.158	0.149
39.	RL-94C	965	970	0.004	-0.10	-	-
40.	RL-94C	970	975	0.068	0.41	-	-
41.	RL-94C	975	980	0.006	0.24	-	-
42.	RL-94C	980	985	0.009	0.23	-	-
43.	RL-94C	985	990	0.007	0.16	-	-
44.	RL-94C	990	995	0.007	0.13	-	-
45.	RL-94C	995	1000	0.042	1.81	-	-
46.	RL-94C	1000	1005	0.067	2.23	-	-
47.	RL-94C	1005	1010	0.022	0.27	-	-
48.	RL-94C	1010	1015	0.005	0.37	-	-
49.	RL-94C	1015	1020	0.007	0.22	-	-
50.	RL-94C	1020	1025	0.022	0.28	-	-
51.	RL-94C	1025	1030	0.002	0.24	-	-
52.	RL-94C	1030	1035	0.003	-0.10	-	-
53.	RL-94C	1035	1040	0.006	-0.10	-	-
54.	RL-94C	1040	1045	0.009	0.14	-	-
55.	RL-94C	1045	1050	0.047	0.64	-	-
56.	RL-94C	1050	1055	0.630	0.79	0.478	-
57.	RL-94C	1055	1060	0.210	0.40	0.151	-
58.	RL-94C	1060	1065	0.040	0.17	-	-
59.	RL-94C	1065	1070	0.005	0.19	-	-
60.	RL-94C	1070	1075	0.002	0.23	-	-
61.	RL-94C	1075	1080	0.023	0.70	-	-
62.	RL-94C	1080	1085	0.003	11.78	-	-
63.	RL-94C	1085	1090	-0.001	0.20	-	-
64.	RL-94C	1090	1095	-0.001	0.18	-	-
65.	RL-94C	1095	1100	0.007	0.15	-	-
66.	RL-94C	1100	1105	0.002	-0.10	-	-
67.	RL-94C	1105	1110	-0.001	0.21	-	-
68.	RL-94C	1110	1113.3	-0.001	-0.10	-	-
69.	RL-94C	1113.3	1118.8	0.001	0.37	-	-
70.	RL-94C	1118.8	1120	0.002	-0.10	-	-
71.	RL-94C	1120	1125	-0.001	-0.10	-	-
72.	RL-94C	1125	1127.3	0.001	-0.10	-	-
73.	RL-94C	1127.3	1132	0.001	-0.10	-	-
74.	RL-94C	1132	1135	-0.001	-0.10	-	-
75.	RL-94C	1135	1138.7	0.009	0.25	-	-
76.	RL-94C	1138.7	1140	-0.001	0.15	-	-
? 77.	RL-94C	1140	~~1140~~ 1145	0.055	2.22	0.111	-
78.	RL-94C	1145	1150	0.006	1.23	-	-

SAMPLE I.D.				Au o/t	Ag o/t	Checks Au o/t	Checks Au o/t
79.	RL-94C	1150	1155	0.002	-0.10	-	-
80.	RL-94C	1155	1160	0.005	-0.10	-	-
81.	RL-94C	1160	1164.5	0.007	0.42	-	-
82.	RL-94C	1164.5	1170	-0.001	-0.10	-	-
83.	RL-94C	1170	1175	0.001	-0.10	-	-
84.	RL-94C	1175	1180	0.001	0.37	-	-
85.	RL-94C	1180	1185	0.002	-0.10	-	-
86.	RL-94C	1185	1190	0.003	-0.10	-	-
87.	RL-94C	1190	1195	0.005	-0.10	-	-
88.	RL-94C	1195	1199	0.0381	0.48	-	-

==========

This report reviewed and approved by:

Richard Grondin, Laboratory Director

RL-94 SUMMARY LOG

ROTARY:

CHOCO TUFF according to CMW

0-125 FGT - bl ± FeOx
125-155 RBU - FGT
155-185 FGT - bl
185-265 FGT - RBU
265-365 LLT - green + pink ↑ bl w/ ↓] Choc OR BUD??
365-445 LLT - red matrix
445-465 mottled peach + green granular tuff

CORE:

C,C pass Tmb

465-592 LLT (CHOCO) C,C
592-594 FAULT 2ndary Δ + X
594-605.5 LLT (choco) C,C

Bud contact

605.5-695 LLT C2C (BUD?)
621-673 matrix bluegreen ; verges on volc bxa
673-695' transitional matrix becoming pink to grn

classic upper Bedded bud

695-783 classic - BUD LLT (upper Bud)
extremely clay alt.
764-783 into olive green matrix - supported

Tmb

783-817 FG porphyritic tuff
817-820 hydrothermal Δ zone

Tmb?

820-899 FG porphyritic tuff
899-907 Tmb - Δ

FAULT

907-911 FAULT w/in Bud LLT

911-948 classic green Bud LLT - bedded

FAULT

948-955 fault

955-1072 LBT
1072-1082 Transitional seds - epiclastics
1082-1111.5 Tuffaceous Sandstone
1111.5-1118.5 black shales/slates
1118.5-1145 Tuff - SS
1145-1167 FG Tuffaceous siltst/ epiclastic
1167-1199 black shales - slates