60001231

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. RD-46
AUTHOR	K. Kemer; R. Grondin; N. Gonzalez; M. Leitch
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; Gustin Corp.; Lac Minerals (USA) Inc
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 430'; handwritten notes; geochemistry 18p.

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

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

Revised: 1/22/08

DRILL LOGS RD-46

Rosebud

6000 1281 4010 ✓

60001281

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

DRILL LOG SUMMARY SHEET

PROJECT ROSEBUD

HOLE NUMBER RD-46 TOTAL DEPTH 430' LOGGED BY KLK

Date started Nov. 5, 1989 11 Am

Date completed Nov. 6, 1989 10:15 AM

Initial bearing N 31.5° E

Initial inclination -60.5°

Elevation ~~5228.2~~ 5216.9

Collar coordinates: 295

N 2204327

E 477187

193.1

Contractor: GUSTIN CORP

Drill Type: RVC T660H Schramm

Hole Size: Hammer 5½"

Drilling Conditions: good

Footage: Wet / Dry DRY: 0 - 240'

WET: 240' - 430'

Comments: H2O'd out @ 430' 350psi
remained in fairly fresh
TGT w/ fresh hornblendes
; very weathy any alt
175 - hit little H2O - dried out
(poss. fault zone)

DOWN HOLE SURVEY INFORMATION

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

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 1 OF 9

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
0-5	MODERATE	fine grained to granular tuff, locally brecciated, pervasively tan to pink & local oxidized beds, wk to mod limonitic clays ± white clays, weakly pervasively bleached w/ fine chl alt phenos, mod silicified	Δ Δ	XK				hi NT orange buff				–		<.001		<.10				
5-10	GOOD	wk local fine hairline qtz stockwork weak limonite veins, local calcedonic qtz	Δ Δ	XK				"				–		<		.13				
10-15	"		Δ Δ	XK				"				–		<		<.10				
15-20	"		Δ Δ	XK				"				–		<		.39				
20-25	"			XK				"				–		<		<.10				
25-30	"	25-50 wk ↑ limonite clays ± PINKISH TAN CLAY		XK				"				–		.003		<				
30-35	"			XK				"				tr diss py		.001		<				
35-40	"		Δ	XK XC				"				–		<.001		<				
40-45	"	wk blue green clay		XK				"				–		.003		<				
45-50	"	↑ pervasive silicification ↑ qtz stockwork wk ↑ FeOx clays pos/tr sericite	Δ Δ	XK				"				–		.001		<				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 2 OF 9

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
50-	GOOD	Fine grained to granular fine gr tuff locally brecciated ; w/ fine qtz stockwork & ↑ to wkly mod earthy limonite ±mgo veins, pervasive calcedony vns, perv. silicified		XK XL				ORG Buff				-		.002		<.10				
55-	"	50-60 mod limonitic clays w/mod argillic alt		XK XL				"				-		<.001		<				
60-	"	60-70 ↑ silicification ↓ limonite, wk white clay vns ↑ calcedony vns		XK XL				"				1% FeOx replac diss Py		.001		<				
65-	"			XK XL				Hint ORG Buff				″@ <1%		.004		<				
70-	"	70-100 buff to red jasper color to gray - well silicified strong calcedony vns mod earthy limonite ±mgo vns ↑ brecciation	Δ Δ	XK XL XX				"				tr fresh diss Py		.015		<				
75-	"		Δ Δ	XK XL XX				"				≥1% diss Py		.007		<				
80-	"		Δ Δ	XK XL XX				"				"		.019		<				
85-	"		Δ Δ	XK XL XX				"				"		.010		<				
90-	"	95-100 ↑ white clay vns	Δ Δ	XK XL XX				"				" @ ~1%		.002		<				
95-	"		Δ Δ	XK XL XX				"				"		<.001		<				
100-																				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 3 OF 9

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	100-125 gray tan to purple fine grained to blocky banded tuff wkly mod argillic clay alt, weakly bleached wk to mod white clay wk to mod silicified, drusy qtz encapsulated pyrite (fine) qtz stockwork locally brecciated wk to mod calcedony vns only hint limonite	Δ	Xc Xk				Lt gray				2-3% + vn + diss py		<.001		<.10				
105	"		Δ	Xc Xk				"				"		.001		<				
110	"		Δ	Xc Xk				"				"		<.001		<				
115	"	mod strong white clay	Δ	Xc Xk				"				"		<		<				
120	"	strong white clay	Δ	Xc Xk				"				"		<		<				
125	"	125-140 lt hint green tan ± wk purple verigation - fine grained to blocky banded tuff weakly silicified wk to wkly mod white clays locally brecciated wk stockwk qtz to (+ox?limon) vns wk local calcedony vns	Δ	Xc Xk				"				3% diss + vn py		<		<				
130	"			Xc Xk				"				"		.001		<				
135	"		Δ	Xc Xk				"				"		<.001		<				
140	"	same @ above w/ ↓ overall alteration pev. verigated purple & tan wk white clay, intermittently bleached wkly silicif		Xc Xk				purple gray				1% + diss ± vn py		<		<				
145	"	mod strong argillically alt chocolate - flow banded tuff, str w/ clay verigated white & tan preferentially silicified w/ calcedony wk stkwk qtz		Xc Xk				gray				~2% diss py +		<		.11				
150																				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 4 OF 9

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	GOOD	150-180 variegated tan, white (clay alt) blow banded tuff weakly preferentially silicified mod to mod strong preferential white clay alt light limon on fractures	Δ	XK XC				LT GRAY				±3% diss +vn py		.003		<.10				
155	"	whisp qtz stockwork, locally brecciated w/ calcedony vns	Δ	XK XC				"				"		.002		<				
160	"	160-180 wk↑ white clay	Δ	XK XC				"				"		<.001		<				
165	"		Δ	XK XC				"				"		<		<				
170	MODERATE		Δ Δ	XK XC				"				"		<		<				
175	"	HIT WEAK H2O - DRIED OUT	Δ	XK XC				"				"		<		<				
180	GOOD	180-200 Purple hemitite variegated blow banded tuff wk to mod qtz to white clay local intermittent ✓ weak bleaching gray portions flecked w/ specular hemitite		XC				purple gray				±1% diss +vn py		<		<				
185	"	185-195 mod strong gray and white clays tan bleached Bdo wkly silicif		XK XC				"				2% diss +vn py		<		<				
190	"			XK XC				"				"		<		<				
195	"	mod purple gray clay		XC				"				≥1% diss py		<		<				
200																				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 5 OF 9

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
200	GOOD	Verigated purple and gray flowbanded chocolate tuff w/ wkly hemitite calcedonic intermittent silicification, hornblende-fresh weak calcite veining		Xc ca				reddish purple				tr fresh cuss py		<.001		<.10				
205	"			Xc ca				"				"		<		<				
210	"	wk stkwk qtz 215-235 ↑ hemititic calcedonic silicification @ seams		Xk Ca Xc				"				"		<		<				
215	"			Ca Xc				"				"		<		<				
220	"			Xc				"				"		<		<				
225	"			Xc				"				"		<		<				
230	"			Xc				"				"		<		<				
235	"	H2O - CHANGED TO H2O - LOOSING AIR IN FAULT ABOVE		Xc				"				"		<		<				
240	"	tr to wk wkly FeOx qtz vns		Xv Xc				"				"		<		<				
245	"	tr white clay vns		Xc				"				"		<		<				
250																				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 6 OF 9

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 G O O D	Variegated purple gray to hemititic brow banded tuff w/ hemititic calcedonic silicification in seams hornblende fairly fresh, weak local calcite veining to wlahey calcareous		Ca Xc				reddish purple				tr fresh py glassoc brightred mineral		<.001		<.10				
"			Ca Xc				"				"		<		<				
"			Ca Xc				"				"		<		<				
"	265-275 - strong hemititic calcedonic silicific. wk white clays		Ca Xc				"				"		<		<				
"			Xc Xk Ca				"				"		<		<				
"	275-300 v. wk bleaching mod to strong calcedonic silicification		Ca Xc				"				"		<		<				
"	275-285 wk ↑ bl		Ca Xc				"				"		<		<				
"			Ca Xc				"				"		<		<				
"			Xc Ca				"				"		<		<				
"	wk to mod white clays VNS		Xc Ca				"				"		<		<				

250 - 255 - 260 - 265 - 270 - 275 - 280 - 285 - 290 - 295 - 300

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 7 OF 9

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-	GOOD	weakly bleached fine grained to granular chocolate gray to tan to hemititic brown locally flowbanded mod calcedonic veins with ↑ temp qtz VNS veinlets, weak white clays assoc w/ bleaching w/ assoc pyrite, hornblend phenos - chl to hmt alt		Xc				lt gray				>1% VN + diss py		<.001		<.10				
305-	"	305-340 w/ ↑ argillic alt wk bleaching + wk clay + wk chl/alt of hbl phenos		Xc				"				N		<		<				
310-	"	wk ↑ silicification - w/ tannish pink frags		Xc				"				~1% finely diss py	>1% FeOx replac py	<		<				
315-	"			Xc				gray white				"	"	<		<				
320-	"			Xc				"				"	"	<		<				
325-	"			Xc				Lt gray				"	"	<		<				
330-	"			Xc				gray white				"	≥1% relict FeOx replac py	<		<				
335-	"			Xc				"				>1% diss py	"	<		<				
340-	"	340-350 w/ poss black warty carbonaceous frags ↑ red brn calcedonic silicification		Xc				lt gray				" @ tr	" @ tr	<		<				
345-	"	wk to tr ↑ temp qtz VNS ↑ hemititic calcedonic silicification		Xc				"						<		<				
350-																				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 8 OF 9

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
350	G O O D	very weakly alt gray to burg brown lith grained to granular chocolate tuff w/ fresh hornblende locally chlor, hematite, alt weak local white, locally wavy clay alt		Xk Xc				reddish gray				~1% diss py	>1% FeOx replac py	<.001		<.10				
"		weak to mod burg brn calcedony veins; local SiO2 flush weak local bleach, soft wavy carbonaceous frags weak local bleaching		Xc				"				" @ TR	"	<		<				
"				Xc				"				"	"	<		<				
"				Xk Xc				"				—	"	<		<				
"		wk ↑ bleaching wk FeOx calcedony vns		Xc				gray white				>1% diss py	"	<		<				
"		wk ↑ white clay 375-385 wk ↑ black wavy carbonaceous frags		Xk Xc				"				"	"	<		<				
"				Xc				Lt gray				"	"	<		<				
"				Xc				"				"	"	<		<				
"		390-400 wk ↑ bleaching w/ wk ↑ white clay		Xk Xc				"				"	"	<		<				
"				Xc				"				"	"	<		<				

LAC MINERALS U.S.A. INC.

LAC

PROJECT ROSEBUD LOGGED BY KLK HOLE NO. RD-46 PAGE 9 OF 9

Depth	RECOVERY	LITHOLOGIC DESCRIPTION	GRAPHIC LOG	GRAPHIC ALTERATION	ARGILLIC W	ARGILLIC M	ARGILLIC S	SILICIFICATION W	SILICIFICATION M	SILICIFICATION S	PROPYLLITIC W	PROPYLLITIC M	PROPYLLITIC S	COLOR FINES	LIMONITE W	LIMONITE M	LIMONITE S	HEMATITE W	HEMATITE M	HEMATITE S	JAROSITE W	JAROSITE M	JAROSITE S	% SULFIDES	OTHER COMMENTS	Au	Au ✓	Ag	As	Hg	Sb	Se
400	GOOD	Fine grained to granular chocolate tuff + mod bleached, wh calcedony veins w/ an calcedony veinlets lt gray grn to white mod perv argillic alt		Xc										gray white										>1% diss py		<.001		<.10				
405	"	405 - 430 weakly bleached choc tuff grading to unalt chocolate w/ fresh to hemitite alt hornblende weak to mod grading into trace burg brown calcedony veins, to white clay		Xc										"										≥1% relict diss FeOx replac py		<		<				
410	"			Xc										gray										"		<		<				
415	"			Xc										"										"		<		<				
420	"	420 - 430 Relatively unalt chocolate w/ hemitite alt of hornblende phenos		Xc										"										"		<		<				
425	"			Xc										"										"		<		<				
430		T.D. H_2O OUT 8 sec/gal 350 psi																														
5																																
0																																
5																																
0																																

NEVADA GSI
GEOCHEMICAL SERVICES, INC.

NOV 27 1989

GEOCHEMICAL ANALYSIS REPORT

November 21, 1989

Kristen Kenner
Lac Minerals Exploration
1395 Greg St.
Sparks, NV 89431

Number of Samples: 86
Project: URBD-79014
GSI #: 5964
Analysis: Fire Assay for Gold and Silver, with an A.A. finish.

	Sample I.D.			Au o/t	Ag o/t
1	RD-46	0	5	<.001	<.10
2	RD-46	5	10	<.001	0.13
3	RD-46	10	15	<.001	<.10
4	RD-46	15	20	<.001	0.39
5	RD-46	20	25	<.001	<.10
6	RD-46	25	30	0.003	<.10
7	RD-46	30	35	0.001	<.10
8	RD-46	35	40	<.001	<.10
9	RD-46	40	45	0.003	<.10
10	RD-46	45	50	0.001	<.10
11	RD-46	50	55	0.002	<.10
12	RD-46	55	60	<.001	<.10
13	RD-46	60	65	0.001	<.10
14	RD-46	65	70	0.004	<.10
15	RD-46	70	75	0.015	<.10
16	RD-46	75	80	0.007	<.10
17	RD-46	80	85	0.019	<.10
18	RD-46	85	90	0.010	<.10
19	RD-46	90	95	0.002	<.10
20	RD-46	95	100	<.001	<.10
21	RD-46	100	105	<.001	<.10
22	RD-46	105	110	0.001	<.10
23	RD-46	110	115	<.001	<.10
24	RD-46	115	120	<.001	<.10
25	RD-46	120	125	<.001	<.10
26	RD-46	125	130	<.001	<.10
27	RD-46	130	135	0.001	<.10
28	RD-46	135	140	<.001	<.10
29	RD-46	140	145	<.001	<.10
30	RD-46	145	150	<.001	0.11

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

	Sample I.D.			Au o/t	Ag o/t
31	RD-46	150	155	0.003	<.10
32	RD-46	155	160	0.002	<.10
33	RD-46	160	165	<.001	<.10
34	RD-46	165	170	<.001	<.10
35	RD-46	170	175	0.001	<.10
36	RD-46	175	180	<.001	<.10
37	RD-46	180	185	<.001	<.10
38	RD-46	185	190	<.001	<.10
39	RD-46	190	195	<.001	<.10
40	RD-46	195	200	<.001	<.10
41	RD-46	200	205	<.001	<.10
42	RD-46	205	210	<.001	<.10
43	RD-46	210	215	<.001	<.10
44	RD-46	215	220	<.001	<.10
45	RD-46	220	225	<.001	<.10
46	RD-46	225	230	<.001	<.10
47	RD-46	230	235	<.001	<.10
48	RD-46	235	240	<.001	<.10
49	RD-46	240	245	<.001	<.10
50	RD-46	245	250	<.001	<.10
51	RD-46	250	255	<.001	<.10
52	RD-46	255	260	<.001	<.10
53	RD-46	260	265	<.001	<.10
54	RD-46	265	270	<.001	<.10
55	RD-46	270	275	<.001	<.10
56	RD-46	275	280	<.001	<.10
57	RD-46	280	285	<.001	<.10
58	RD-46	285	290	<.001	<.10
59	RD-46	290	295	<.001	<.10
60	RD-46	295	300	<.001	<.10
61	RD-46	300	305	<.001	<.10
62	RD-46	305	310	<.001	<.10
63	RD-46	310	315	<.001	<.10
64	RD-46	315	320	<.001	<.10
65	RD-46	320	325	<.001	<.10
66	RD-46	325	330	<.001	<.10
67	RD-46	330	335	<.001	<.10
68	RD-46	335	340	<.001	<.10
69	RD-46	340	345	<.001	<.10
70	RD-46	345	350	<.001	<.10
71	RD-46	350	355	<.001	<.10
72	RD-46	355	360	<.001	<.10
73	RD-46	360	365	<.001	<.10
74	RD-46	365	370	<.001	<.10
75	RD-46	370	375	<.001	<.10
76	RD-46	375	380	<.001	<.10

	Sample I.D.			Au o/t	Ag o/t
77	RD-46	380	385	<.001	<.10
78	RD-46	385	390	<.001	<.10
79	RD-46	390	395	<.001	<.10
80	RD-46	395	400	<.001	<.10
81	RD-46	400	405	<.001	<.10
82	RD-46	405	410	<.001	<.10
83	RD-46	410	415	<.001	<.10
84	RD-46	415	420	<.001	<.10
85	RD-46	420	425	<.001	<.10
86	RD-46	425	430	<.001	<.10

This report reviewed and approved by:

Richard A. Grondin

Richard Grondin, Operations Manager

GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

NOV 27 1989

TO: Ms. Kristen Kenner
LAC Minerals
1395 Greg St. #107
Sparks, NV 89431 tel:702/356-8058

==========

Job Number: LOA-9S5964
PROJECT: URBD-79014
Digest: 15 gram
Total number of samples: 86

==========

This report has been reviewed and approved by:

Nancy G. Gonzalez for Date: 11/22/89
Mary Leitch, Quality Assurance Manager

3805 Atherton Road • Rocklin, California 95677 • 916/624-6000 1/800/827-4GSI FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • 702/359-6600 FAX: 702/359-6605

GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

JOB #: LOA-9S5964

SAMPLE ID	#	Ag o/t	As ppm	Au o/t	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Tl ppm	Zn ppm	Bi ppm	Cd ppm	Ga ppm	Se ppm	Te ppm
RD-46 0 5	1	.018	25.5	<.001	5.28	.261	1.79	21.6	3.65	<.496	9.64	<.248	<.099	1.94	<.993	<.496
RD-46 5 10	2	.015	13.5	<.001	8.23	.900	1.32	16.4	6.91	<.491	10.0	<.246	<.098	1.04	<.982	<.491
RD-46 10 15	3	.014	8.00	<.001	7.48	.929	1.25	21.8	3.08	<.489	9.96	<.245	<.098	.721	<.978	<.489
RD-46 15 20	4	.004	12.5	<.001	6.16	.301	1.64	14.8	4.90	.757	8.06	.266	<.1	1.68	<.995	<.498
RD-46 20 25	5	.005	12.3	<.001	6.20	.259	1.17	14.9	4.64	<.486	5.30	<.243	<.097	1.38	<.972	<.486
RD-46 25 30	6	.012	65.6	.003	6.14	.309	1.04	17.4	6.01	<.492	4.89	<.246	<.098	1.51	1.20	<.492
RD-46 30 35	7	.016	59.7	.001	9.02	.282	1.97	26.7	13.8	<.496	8.67	<.248	<.099	2.08	<.991	<.496
RD-46 35 40	8	.01	46.9	<.001	6.68	.293	1.71	19.9	9.75	<.494	6.53	<.247	<.099	1.78	<.989	<.494
RD-46 40 45	9	.008	90.0	.003	6.85	.359	1.27	20.6	11.3	<.484	7.15	<.242	<.097	2.22	<.968	<.484
RD-46 45 50	10	.013	102.	.002	8.16	.464	2.55	19.4	15.3	<.498	12.3	<.249	.100	2.61	1.42	<.498
RD-46 50 55	11	.016	107.	.002	9.81	.491	2.67	21.9	15.0	.879	19.7	.310	.117	2.96	1.44	<.494
RD-46 55 60	12	.006	36.7	<.001	6.35	.293	1.76	17.8	11.6	<.486	10.7	.270	.105	1.87	<.972	<.486
RD-46 60 65	13	.018	54.8	.001	9.75	.515	2.17	25.3	10.5	<.487	23.2	.251	.149	2.50	<.975	<.487
RD-46 65 70	14	.017	39.1	.006	11.7	.411	2.52	7.75	10.2	<.494	15.2	<.247	.100	2.00	<.989	<.494
RD-46 70 75	15	.021	45.0	.013	9.81	.583	2.80	9.79	11.1	<.487	14.2	<.244	<.097	1.57	1.26	<.487
RD-46 75 80	16	.033	49.1	.009	12.4	1.72	3.85	7.57	8.56	<.494	17.0	<.247	<.099	1.50	<.987	<.494
RD-46 80 85	17	.04	68.7	.027	15.9	1.16	4.42	11.4	20.4	<.49	23.5	<.245	.105	1.24	3.32	<.49
RD-46 85 90	18	.032	51.1	.012	12.0	1.00	3.10	5.29	11.2	<.495	22.8	<.247	<.099	1.01	1.17	<.495
RD-46 90 95	19	.022	61.3	.003	8.77	.727	3.84	17.2	8.90	<.493	17.4	<.247	.106	1.22	2.75	<.493
RD-46 95 100	20	.01	10.3	<.001	7.37	1.60	1.48	10.1	5.44	<.491	22.7	<.246	.240	1.02	1.65	<.491
RD-46 100 105	21	.004	3.10	<.001	6.02	.411	.928	6.92	3.08	<.497	52.7	<.249	.553	.843	<.994	<.497
RD-46 105 110	22	.009	4.67	<.001	7.76	.460	.992	15.9	5.47	<.487	87.8	<.244	.764	.889	<.975	<.487
RD-46 110 115	23	.003	1.60	<.001	6.41	.220	.736	20.3	3.28	.783	144.	.263	.141	.956	<.982	<.491
RD-46 115 120	24	.003	1.76	<.001	9.20	.343	1.56	22.0	2.88	.753	117.	<.244	.131	.965	<.976	<.488
RD-46 120 125	25	.003	2.51	<.001	10.1	.476	1.11	14.8	3.06	<.496	84.1	<.248	.145	.858	<.991	<.496
RD-46 125 130	26	.003	1.54	<0.	7.47	.293	.725	17.1	2.76	<.491	92.4	<.246	.298	.899	<.983	<.491
RD-46 130 135	27	.008	4.79	.001	8.36	.512	.735	17.0	5.99	<.493	92.6	<.246	1.10	1.01	2.12	<.493
RD-46 135 140	28	.004	1.88	<.001	7.90	.305	.624	11.3	2.38	.766	72.7	.310	.513	1.26	<.985	<.492
RD-46 140 145	29	.003	1.40	<.001	5.81	.264	.583	12.1	2.16	.873	57.5	.338	.135	1.42	<.998	<.499
RD-46 145 150	30	.003	4.27	<.001	6.55	.411	1.30	14.6	4.13	<.491	114.	<.245	.167	.947	<.982	<.491

3805 Atherton Road • Rocklin, California 95677 • 916/624-6000 1/800/827-4GSI FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • 702/359-6600 FAX: 702/359-6605

GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

JOB #: LOA-9S5964

SAMPLE ID	#	Ag o/t	As ppm	Au o/t	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Tl ppm	Zn ppm	Bi ppm	Cd ppm	Ga ppm	Se ppm	Te ppm
RD-46 150 155	31	.006	7.73	.001	7.55	.758	1.40	29.1	6.90	.676	104.	<.246	.190	.925	<.986	<.493
RD-46 155 160	32	.004	6.80	<.001	7.57	.627	1.03	24.1	5.97	.576	123.	<.245	.116	.895	<.98	<.49
RD-46 160 165	33	.003	3.26	<.001	6.29	.312	1.13	17.1	2.38	<.493	89.0	<.247	.241	.927	<.986	<.493
RD-46 165 170	34	.003	4.65	<.001	6.67	.467	.866	12.2	3.90	.617	91.0	<.248	.183	.918	<.991	<.496
RD-46 170 175	35	.004	6.30	<.001	5.38	.693	.950	16.7	5.25	<.488	56.3	<.244	.122	.784	<.976	<.488
RD-46 175 180	36	.003	3.99	<.001	6.57	.284	.774	14.7	2.34	<.497	104.	<.249	.126	.952	<.994	<.497
RD-46 180 185	37	.003	3.83	<.001	7.41	.243	.970	18.1	1.80	<.496	77.9	<.248	.311	1.23	<.991	<.496
RD-46 185 190	38	.003	2.59	<.001	8.32	.195	.839	13.7	1.60	<.492	55.8	<.246	.130	1.13	<.985	<.492
RD-46 190 195	39	.002	2.91	<.001	6.48	.221	.941	16.9	1.89	<.494	57.9	<.247	.130	1.05	<.987	<.494
RD-46 195 200	40	.003	2.14	<.001	8.37	.240	.902	18.7	1.54	<.491	60.6	<.245	.152	1.39	<.981	<.491
RD-46 200 205	41	.003	2.26	<.001	7.42	.171	1.10	18.4	1.21	<.489	49.4	<.244	.166	1.17	<.977	<.489
RD-46 205 210	42	.003	2.44	<.001	9.88	.216	.984	21.3	1.69	<.486	55.1	<.243	.305	1.19	<.972	<.486
RD-46 210 215	43	.003	2.92	<.001	10.3	.234	1.07	24.8	2.06	<.494	56.3	<.247	.348	1.32	<.987	<.494
RD-46 215 220	44	.003	2.67	<.001	4.94	.199	1.11	19.0	2.54	<.489	40.3	<.245	.173	.884	<.978	<.489
RD-46 220 225	45	.004	3.14	<.001	3.92	.196	1.42	19.8	3.68	<.491	42.8	<.245	.304	1.19	<.982	<.491
RD-46 225 230	46	.003	2.46	<.001	2.26	.198	.928	14.9	3.07	<.499	49.8	<.249	.262	1.10	<.997	<.499
RD-46 230 235	47	.003	2.46	<.001	2.44	.215	.860	15.7	3.74	.546	40.0	.262	.178	1.17	<.971	<.485
RD-46 235 240	48	.003	2.42	<.001	3.19	.203	.915	15.7	3.47	<.498	39.8	<.249	.112	1.10	<.997	<.498
RD-46 240 245	49	.004	4.78	<.001	3.64	.267	1.58	14.8	4.87	<.495	41.2	<.248	.356	1.24	<.991	<.495
RD-46 245 250	50	.004	4.46	<.001	1.66	.323	1.27	14.2	4.18	.704	34.8	.257	.125	1.24	<.987	<.493
RD-46 250 255	51	.003	2.47	<.001	2.80	.197	.825	18.4	2.33	<.494	37.0	<.247	.483	1.11	<.988	<.494
RD-46 255 260	52	.003	2.34	<.001	3.05	.232	.932	18.0	3.03	<.49	32.9	<.245	.443	1.11	<.98	<.49
RD-46 260 265	53	.005	4.33	<.001	2.61	.284	1.25	14.0	3.72	.554	36.1	<.244	.360	1.11	<.976	<.488
RD-46 265 270	54	.005	3.18	<.001	1.77	.247	1.25	12.4	3.00	<.49	37.0	.257	.510	.945	<.98	<.49
RD-46 270 275	55	.004	2.78	<.001	2.25	.257	1.25	12.3	3.68	<.494	34.2	<.247	.730	.917	<.989	<.494
RD-46 275 280	56	.004	3.28	<.001	3.58	.261	1.09	13.0	5.35	.642	38.0	.271	.297	1.20	<.971	<.485
RD-46 280 285	57	.003	2.87	<.001	1.74	.241	1.31	11.3	6.96	.566	24.3	<.244	.184	1.06	<.975	<.487
RD-46 285 290	58	.003	2.67	<.001	1.88	.147	1.17	16.7	8.25	<.492	20.8	<.246	.142	.973	<.984	<.492
RD-46 290 295	59	.003	2.07	<.001	3.10	<.098	1.09	24.6	10.5	<.492	22.9	<.246	.405	.991	<.985	<.492
RD-46 295 300	60	.004	2.55	<.001	1.74	.159	1.16	14.5	4.75	<.493	26.7	<.247	.285	.882	<.987	<.493

3805 Atherton Road • Rocklin, California 95677 • 916/624-6000 1/800/827-4GSI FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • 702/359-6600 FAX: 702/359-6605

GEOCHEMICAL SERVICES INC.

GEOCHEMICAL ANALYSIS REPORT

JOB #: LOA-9S5964

SAMPLE ID	#	Ag o/t	As ppm	Au o/t	Cu ppm	Hg ppm	Mo ppm	Pb ppm	Sb ppm	Tl ppm	Zn ppm	Bi ppm	Cd ppm	Ga ppm	Se ppm	Te ppm
RD-46 300 305	61	.002	2.60	<.001	1.77	<.098	1.18	15.9	4.13	<.492	24.6	<.246	.116	.921	<.984	<.492
RD-46 305 310	62	.004	2.76	<.001	1.95	<.098	.738	17.6	2.59	<.489	17.1	<.244	.106	.671	<.978	<.489
RD-46 310 315	63	.004	3.57	<.001	1.80	.104	.900	13.4	3.96	<.488	17.2	<.244	.131	.715	<.976	<.488
RD-46 315 320	64	.008	12.0	<.001	2.47	.370	1.67	32.8	3.41	<.49	14.2	<.245	.131	.662	<.98	<.49
RD-46 320 325	65	.004	5.73	<.001	1.47	.162	.706	19.3	2.64	<.493	20.9	<.247	.152	.709	<.986	<.493
RD-46 325 330	66	.003	2.32	<.001	1.40	<.099	.883	10.6	3.05	<.493	26.4	<.247	<.099	.884	<.987	<.493
RD-46 330 335	67	.004	4.34	<.001	1.37	.169	1.83	14.7	3.08	<.493	25.1	<.247	<.099	.824	<.987	<.493
RD-46 335 340	68	.004	4.82	<.001	1.42	.185	.904	43.6	2.23	<.495	22.8	<.248	<.099	.888	<.99	<.495
RD-46 340 345	69	.003	3.14	<.001	1.02	.174	.986	13.5	3.21	<.487	30.2	<.243	<.097	1.12	<.973	<.487
RD-46 345 350	70	.004	2.77	<.001	1.64	.145	1.12	9.52	4.22	<.493	27.3	<.247	.107	1.02	<.987	<.493
RD-46 350 355	71	.005	6.71	.001	1.72	.552	2.21	18.9	5.87	<.489	33.5	<.245	.139	1.07	<.978	<.489
RD-46 355 360	72	.004	4.51	<.001	1.99	.385	1.34	20.2	4.15	<.492	38.7	<.246	.166	1.07	<.985	<.492
RD-46 360 365	73	.002	2.54	<.001	1.52	.120	1.20	20.3	3.70	<.497	34.3	<.248	.141	1.02	<.993	<.497
RD-46 365 370	74	.002	3.60	<.001	1.32	.254	1.24	18.7	6.71	<.496	30.8	<.248	<.099	1.09	<.991	<.496
RD-46 370 375	75	.004	5.31	<.001	1.77	.381	1.75	19.3	5.05	<.493	32.6	<.247	.104	.930	<.986	<.493
RD-46 375 380	76	.003	4.23	<.001	1.18	.344	1.82	20.8	4.57	<.49	40.6	<.245	.164	1.18	<.979	<.49
RD-46 380 385	77	.003	3.67	<.001	1.34	.236	2.01	17.8	5.54	<.495	34.9	<.248	.110	1.11	<.99	<.495
RD-46 385 390	78	.002	4.04	<.001	1.53	.334	1.45	22.0	4.51	<.489	36.0	<.244	<.098	1.23	<.977	<.489
RD-46 390 395	79	.004	5.32	<.001	2.87	.233	1.23	21.7	5.00	<.488	30.2	<.244	.206	.906	<.976	<.488
RD-46 395 400	80	.004	3.82	<.001	2.72	<.098	1.58	24.4	3.83	<.491	29.1	<.245	.223	.946	<.982	<.491
RD-46 400 405	81	.006	7.29	<.001	1.83	.169	1.34	24.1	4.48	<.494	34.4	<.247	.154	.576	<.988	<.494
RD-46 405 410	82	.002	2.54	<.001	1.47	.199	2.08	14.0	3.33	<.492	37.6	<.246	.106	1.15	<.985	<.492
RD-46 410 415	83	.004	2.85	<.001	2.83	.209	.828	21.2	6.02	<.494	30.5	<.247	.247	.965	<.988	<.494
RD-46 415 420	84	.002	1.94	<.001	2.20	.206	.739	21.1	7.75	<.491	30.8	<.246	.207	.873	<.983	<.491
RD-46 420 425	85	.002	1.79	<.001	1.15	.552	1.20	14.2	4.80	<.491	33.8	<.245	.154	1.16	<.981	<.491
RD-46 425 430	86	.005	1.23	<.001	1.21	.389	.820	24.1	3.08	<.493	50.6	<.246	.424	.962	<.986	<.493

3805 Atherton Road • Rocklin, California 95677 • 916/624-6000 1/800/827-4GSI FAX: 916/624-8986
1498 Kleppe Lane • Sparks, Nevada 89431 • 702/359-6600 FAX: 702/359-6605

Degenstrom

RL-46 N 31.5 E, -60.5°

Mod-St Alt'd

0-60 Bleached to lt grey fgt
locally bx'd w/ wk qtz stkwk

60-100 lt Grey & pink fgt, ↑ silicification,
chalcedony vnlts, locally bx'd
w/ white clay vnlts 90-100

100-125 lt grey fgt ± flow banding, mod
white clay, ± wk silic, ± drzy qtz
+ Py

125-145 ~~Mt~~ mod Silic greenish grey oxidized
to yellow, local bx'n, stkwk silica

145-180 Wk silic, mod arg (white clay)
med grey color, (165-175 ox to yellow)

180-430 Purple-grey Ø fgt (Chocolate)
w/ 2-5% 1-2 mm plag & 1/2 mm black
mafic phenos. Wk arg/bleach
local flow banding, local chalc vnlts
(bleached at 305-335)

70'-90' 20' @ .013 Au