6000 1894

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Multi-element geochem, Rosebud Project, drill hole samples
AUTHOR	Wineteer C; Hansen J; Brewer N; King S; Whipple C; Process T; Wang J
DATE OF DOC(S)	1989 - 1995
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7½'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Hecla Mining Co. Geochemistry Laboratory, Inc; Dozer Hill; Lac Mineral Exploration, Inc
COMMODITY If not obvious	gold; silver
NOTES	Assays; correspondence; geochemistry; geology handwritten notes; stratigraphic columns NOTE: Some pages are written on both sides 168p.

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 9/9/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

MULTI-ELEMENT AEROCHEM
ROSEBUD PROJECT, DRILL HOLE SAMPLES

6000 1894

4010

BOX 30.2

6000 1894 4010

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **ALLUVIUM/COLLUVIUM (Qal)**

Sample Population = 41

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.004	0.001
Ag	opt	0.01	0.005	0.12	0.014
Au	ppm	4	2	2	2.0
Ag	ppm	0.5	0.25	4.9	0.90
Al	%	0.01	4.40	8.73	6.74
As	ppm	0.1	2.4	90.8	33.4
Ba	ppm	1	107	2337	1021.9
Be	ppm	1	2	4	2.7
Bi	ppm	0.1	0.05	0.4	0.17
Ca	%	0.01	0.17	2.52	0.95
Cd	ppm	0.4	0.2	1.5	0.43
Co	ppm	2	1	7	4.2
Cr	ppm	2	6	140	37.2
Cu	ppm	2	8	64	20.7
Fe	%	0.01	1.68	3.55	2.67
Ge	ppm	0.1	0.05	0.3	0.09
Hg	ppb	5	15	765	119.5
K	%	0.01	0.57	3.68	2.67
La	ppm	2	13	35	22.6
Mg	%	0.01	0.05	0.71	0.43
Mn	ppm	5	48	1042	441.4
Mo	ppm	2	1	9	2.9
Na	%	0.01	0.05	2.40	1.13
Nb	ppm	2	9	21	13.6
Ni	ppm	1	2	15	9.1
P	%	0.002	0.011	0.073	0.046
Pb	ppm	5	11	106	30.7
Sb	ppm	0.1	1.4	20.6	5.05
Sc	ppm	1	4	9	6.4
Se	ppm	0.1	0.05	10.3	2.90
Sn	ppm	2	1	7	2.7
Sr	ppm	2	47	264	179.6
Te	ppm	0.1	0.2	0.5	0.26
Th	ppm	2	5	21	9.6
Ti	%	0.01	0.08	0.26	0.19
U	ppm	10	5	45	10.8
V	ppm	2	11	47	31.0
W	ppm	4	2	14	6.5
Y	ppm	2	8	19	13.1
Zn	ppm	2	11	266	80.4
Zr	ppm	1	50	170	101.8

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **CHOCOLATE TUFF (Tct)**

Sample Population = 364

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.597	0.005
Ag	opt	0.01	0.005	7.23	0.071
Au	ppm	4	2	20	2.1
Ag	ppm	0.5	0.25	296.8	3.7
Al	%	0.01	3.70	10.53	6.73
As	ppm	0.1	1.0	738.1	60.2
Ba	ppm	1	104	6863	774.1
Be	ppm	1	0.5	8	3.3
Bi	ppm	0.1	0.05	5.20	0.18
Ca	%	0.01	0.005	3.47	0.70
Cd	ppm	0.4	0.2	9.4	0.68
Co	ppm	2	1	57	2.0
Cr	ppm	2	1	106	25.9
Cu	ppm	2	1	494	15.6
Fe	%	0.01	1.05	6.01	2.63
Ge	ppm	0.1	0.05	0.50	0.09
Hg	ppb	5	2.5	1720	112.8
K	%	0.01	0.82	5.35	3.10
La	ppm	2	5	59	20.5
Mg	%	0.01	0.03	0.62	0.21
Mn	ppm	5	2.5	1573	412.8
Mo	ppm	2	1	109	3.6
Na	%	0.01	0.02	2.71	0.67
Nb	ppm	2	8	26	16.3
Ni	ppm	1	2	32	3.3
P	%	0.002	0.01	0.098	0.035
Pb	ppm	5	12	178	36.1
Sb	ppm	0.1	0.5	308.8	10.1
Sc	ppm	1	2	8	5.3
Se	ppm	0.1	0.05	43.90	7.69
Sn	ppm	2	1	30	2.8
Sr	ppm	2	13	453	122.3
Te	ppm	0.1	0.2	1.0	0.24
Th	ppm	2	1	28	9.5
Ti	%	0.01	0.04	0.26	0.14
U	ppm	10	5	90	9.3
V	ppm	2	1	26	9.7
W	ppm	4	2	1049	8.9
Y	ppm	2	1	33	13.0
Zn	ppm	2	7	536	104.8
Zr	ppm	1	7	210	78.0

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **BUD TUFF (Tbt)**

Sample Population = 241

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.092	0.004
Ag	opt	0.01	0.005	2.14	0.061
Au	ppm	4	2	5	2.0
Ag	ppm	0.5	0.25	27.0	1.65
Al	%	0.01	3.37	8.97	6.58
As	ppm	0.1	0.9	230.8	49.6
Ba	ppm	1	150	3522	755.1
Be	ppm	1	0.5	5	2.8
Bi	ppm	0.1	0.05	44.3	0.53
Ca	%	0.01	0.02	3.1	0.65
Cd	ppm	0.4	0.2	3.4	0.57
Co	ppm	2	1	16	2.4
Cr	ppm	2	4	157	31.7
Cu	ppm	2	1	81	11.5
Fe	%	0.01	1.21	4.43	2.34
Ge	ppm	0.1	0.05	0.5	0.09
Hg	ppb	5	2.5	2105	130.7
K	%	0.01	1.36	5.19	2.91
La	ppm	2	7	39	20.9
Mg	%	0.01	0.04	0.73	0.29
Mn	ppm	5	22	1942	369.6
Mo	ppm	2	1	23	2.2
Na	%	0.01	0.02	2.6	0.39
Nb	ppm	2	5	23	14.0
Ni	ppm	1	2	23	3.8
P	%	0.002	0.008	0.103	0.029
Pb	ppm	5	8	103	24.9
Sb	ppm	0.1	0.3	241	10.6
Sc	ppm	1	0.5	8	3.7
Se	ppm	0.1	0.05	112.3	11.0
Sn	ppm	2	1	9	2.5
Sr	ppm	2	23	548	106.6
Te	ppm	0.1	0.2	1	0.25
Th	ppm	2	1	21	8.1
Ti	%	0.01	0.03	0.31	0.12
U	ppm	10	5	55	8.3
V	ppm	2	1	47	9.8
W	ppm	4	2	194	4.6
Y	ppm	2	4	47	12.6
Zn	ppm	2	17	285	92.1
Zr	ppm	1	21	219	101.6

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **LBT (Tlbt)**

Sample Population = 481

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	3.748	0.062
Ag	opt	0.01	0.005	14.41	0.473
Au	ppm	4	2	126	3.0
Ag	ppm	0.5	0.25	410.1	13.44
Al	%	0.01	3.42	9.52	7.27
As	ppm	0.1	1.3	612.7	76.7
Ba	ppm	1	95	2779	755.0
Be	ppm	1	0.5	8.0	2.5
Bi	ppm	0.1	0.05	127	1.29
Ca	%	0.01	0.02	9.94	1.14
Cd	ppm	0.4	0.2	2.5	0.38
Co	ppm	2	1	9	3.1
Cr	ppm	2	5	104	28.0
Cu	ppm	2	1	324	10.8
Fe	%	0.01	1.34	5.07	2.82
Ge	ppm	0.1	0.05	0.6	0.09
Hg	ppb	5	2.5	1060	117.9
K	%	0.01	1.3	5.31	3.00
La	ppm	2	5	51	20.1
Mg	%	0.01	0.07	0.88	0.29
Mn	ppm	5	18	4300	356.0
Mo	ppm	2	1	400	5.5
Na	%	0.01	0.02	3.33	1.12
Nb	ppm	2	8	21	14.0
Ni	ppm	1	2	25	3.0
P	%	0.002	0.007	0.114	0.056
Pb	ppm	5	2.5	468	20.3
Sb	ppm	0.1	0.4	1125.6	13.38
Sc	ppm	1	0.5	8	3.4
Se	ppm	0.1	0.05	119.1	11.99
Sn	ppm	2	1	18	2.3
Sr	ppm	2	24	705	144.3
Te	ppm	0.1	0.2	2.6	0.29
Th	ppm	2	1	15	6.0
Ti	%	0.01	0.04	0.38	0.20
U	ppm	10	5	125	7.5
V	ppm	2	1	44	15.8
W	ppm	4	2	554	7.9
Y	ppm	2	4	32	12.7
Zn	ppm	2	16	327	79.9
Zr	ppm	1	35	259	119.4

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **OSCAR SEDIMENTS (Tos)**

Sample Population = 14

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.080	0.012
Ag	opt	0.01	0.005	0.52	0.077
Au	ppm	4	2	2	2.0
Ag	ppm	0.5	0.25	15.5	2.09
Al	%	0.01	6.09	8.53	7.66
As	ppm	0.1	12.4	116.3	47.80
Ba	ppm	1	136	1391	756.6
Be	ppm	1	2	6	3.9
Bi	ppm	0.1	0.05	0.3	0.19
Ca	%	0.01	0.16	6.68	2.54
Cd	ppm	0.4	0.2	0.8	0.36
Co	ppm	2	1	15	3.6
Cr	ppm	2	5	102	33.0
Cu	ppm	2	1	36	12.2
Fe	%	0.01	2.04	3.94	2.80
Ge	ppm	0.1	0.05	0.2	0.07
Hg	ppb	5	20	4595	405.0
K	%	0.01	2.15	3.92	3.14
La	ppm	2	9	37	26.1
Mg	%	0.01	0.30	0.60	0.44
Mn	ppm	5	77	1486	693.8
Mo	ppm	2	1	8	2.6
Na	%	0.01	0.06	1.46	0.61
Nb	ppm	2	6	19	14.1
Ni	ppm	1	3	83	13.4
P	%	0.002	0.024	0.073	0.047
Pb	ppm	5	8	24	17.8
Sb	ppm	0.1	0.9	68.1	8.69
Sc	ppm	1	3	13	4.4
Se	ppm	0.1	0.9	20.3	6.92
Sn	ppm	2	1	5	2.0
Sr	ppm	2	81	340	237.1
Te	ppm	0.1	0.2	0.6	0.24
Th	ppm	2	1	14	7.7
Ti	%	0.01	0.08	0.45	0.19
U	ppm	10	5	45	11.6
V	ppm	2	7	134	25.9
W	ppm	4	2	17	5.3
Y	ppm	2	12	16	14.2
Zn	ppm	2	65	238	98.0
Zr	ppm	1	47	178	124.4

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **DOZER TUFF (Tdt)**

Sample Population = 168

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.514	0.021
Ag	opt	0.01	0.005	5.14	0.183
Au	ppm	4	2	9	2.2
Ag	ppm	0.5	0.25	237.9	6.63
Al	%	0.01	3.87	9.68	6.67
As	ppm	0.1	1.3	475.9	67.11
Ba	ppm	1	124	1585	741.3
Be	ppm	1	0.5	5	2.8
Bi	ppm	0.1	0.05	2.1	0.13
Ca	%	0.01	0.03	6.63	0.57
Cd	ppm	0.4	0.2	2.5	0.46
Co	ppm	2	1	16	1.4
Cr	ppm	2	1	150	41.8
Cu	ppm	2	1	95	16.1
Fe	%	0.01	1.03	4.59	2.04
Ge	ppm	0.1	0.05	0.4	0.07
Hg	ppb	5	2.5	1220	111.8
K	%	0.01	1.41	5.44	3.43
La	ppm	2	9	77	48.3
Mg	%	0.01	0.05	0.4	0.15
Mn	ppm	5	18	1837	355.7
Mo	ppm	2	1	84	6.6
Na	%	0.01	0.02	4.07	0.85
Nb	ppm	2	7	24	17.0
Ni	ppm	1	2	13	3.3
P	%	0.002	0.005	0.094	0.014
Pb	ppm	5	6	109	29.9
Sb	ppm	0.1	0.4	205.0	12.76
Sc	ppm	1	2	8	4.1
Se	ppm	0.1	0.05	35.0	9.73
Sn	ppm	2	1	8	1.7
Sr	ppm	2	13	387	88.1
Te	ppm	0.1	0.2	1.1	0.24
Th	ppm	2	1	26	13.3
Ti	%	0.01	0.03	0.22	0.07
U	ppm	10	5	85	19.9
V	ppm	2	1	26	2.3
W	ppm	4	2	242	7.2
Y	ppm	2	5	29	12.0
Zn	ppm	2	48	166	90.8
Zr	ppm	1	17	219	112.1

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **CARBONACEOUS SEDIMENTS (Tcs)**

Sample Population = 14

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.130	0.022
Ag	opt	0.01	0.005	2.60	0.659
Au	ppm	4	2	5	2.4
Ag	ppm	0.5	0.8	100.1	21.11
Al	%	0.01	4.08	8.30	6.60
As	ppm	0.1	19.0	270.9	108.01
Ba	ppm	1	86	3158	683.4
Be	ppm	1	2	5	3.0
Bi	ppm	0.1	0.05	0.5	0.20
Ca	%	0.01	0.12	1.35	0.56
Cd	ppm	0.4	0.2	9.8	1.38
Co	ppm	2	1	21	11.8
Cr	ppm	2	29	141	84.7
Cu	ppm	2	14	60	37.7
Fe	%	0.01	1.13	4.67	2.90
Ge	ppm	0.1	0.05	0.2	0.07
Hg	ppb	5	2.5	2395	257.1
K	%	0.01	1.23	2.71	2.08
La	ppm	2	5	35	13.4
Mg	%	0.01	0.24	0.87	0.45
Mn	ppm	5	39	1023	300.5
Mo	ppm	2	1	35	7.4
Na	%	0.01	0.02	0.09	0.06
Nb	ppm	2	4	11	7.6
Ni	ppm	1	7	109	53.5
P	%	0.002	0.01	0.137	0.072
Pb	ppm	5	2.5	25	14.9
Sb	ppm	0.1	10.8	528.7	75.40
Sc	ppm	1	2	13	9.2
Se	ppm	0.1	5.0	28.2	15.63
Sn	ppm	2	1	1	1.0
Sr	ppm	2	57	358	111.9
Te	ppm	0.1	0.2	0.3	0.21
Th	ppm	2	4	15	6.9
Ti	%	0.01	0.04	0.46	0.31
U	ppm	10	5	80	15.4
V	ppm	2	5	224	105.0
W	ppm	4	2	19	11.6
Y	ppm	2	4	16	8.7
Zn	ppm	2	37	1814	232.1
Zr	ppm	1	21	82	39.8

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

HECLA MINING COMPANY
ROSEBUD PROJECT

May 24, 1995

GEOCHEMISTRY SUMMARY: **AULD LANG SYNE GROUP (JTra)**

Sample Population = 26

Element	Units	Detection Limit	Minimum Value	Maximum Value	Mean
Au	opt	0.001	0.0005	0.060	0.008
Ag	opt	0.01	0.005	5.60	0.593
Au	ppm	4	2	2	2.0
Ag	ppm	0.5	1.6	172.1	19.64
Al	%	0.01	2.54	7.19	5.27
As	ppm	0.1	62.3	245.8	117.54
Ba	ppm	1	85	593	228.3
Be	ppm	1	0.5	5	2.1
Bi	ppm	0.1	0.05	0.4	0.11
Ca	%	0.01	0.05	2.73	0.47
Cd	ppm	0.4	0.2	16.1	9.15
Co	ppm	2	3	56	10.6
Cr	ppm	2	75	234	122.0
Cu	ppm	2	20	199	56.0
Fe	%	0.01	1.43	7.14	2.71
Ge	ppm	0.1	0.05	0.3	0.09
Hg	ppb	5	25	700	156.3
K	%	0.01	0.8	2.98	1.90
La	ppm	2	5	15	9.6
Mg	%	0.01	0.24	1.45	0.46
Mn	ppm	5	25	1149	153.5
Mo	ppm	2	17	63	31.7
Na	%	0.01	0.005	0.07	0.03
Nb	ppm	2	1	6	2.7
Ni	ppm	1	36	110	63.0
P	%	0.002	0.046	0.127	0.068
Pb	ppm	5	2.5	23	12.2
Sb	ppm	0.1	12.2	111.9	38.79
Sc	ppm	1	4	15	8.0
Se	ppm	0.1	4.9	26.1	18.04
Sn	ppm	2	1	6	1.3
Sr	ppm	2	24	541	118.2
Te	ppm	0.1	0.2	0.3	0.22
Th	ppm	2	1	11	3.9
Ti	%	0.01	0.08	0.2	0.14
U	ppm	10	5	50	9.5
V	ppm	2	60	415	230.0
W	ppm	4	2	1139	60.0
Y	ppm	2	4	17	7.5
Zn	ppm	2	137	1145	752.6
Zr	ppm	1	12	41	20.7

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

SHASTA
GEOCHEMISTRY LABORATORY, INC.
1240 Redwood Blvd., Redding, California 96003

May 10, 1995

Mr. Craig B. Wineteer
Senior Exploration Geologist
Hecla Mining Company
7000 Pitt Road
P.O. Box 1861
Lovelock, NV 89419

Dear Craig,

I enjoyed our discussion at the GSN Convention in Reno. I probably saw you in the hallway in the Mobil building in Denver during one of my calls on the geophysical group - who knows?

Craig, Chuck Whipple has been in conversation with Charlie Muerhoff, but I wanted to pass on some information to you. In short I am confident you would be impressed with our accuracy, plus finding our turnaround times and price an added advantage. We can pick up at your drill sites in Nevada with our truck scheduled to be in Nevada almost every other day. During the heat of the season in 1994 we provided Santa Fe Pacific with 2 - 4 day turnaround for gold from the time we picked up the samples. Whether you would consider us for a portion of your drill samples or as a check lab we would appreciate the opportunity to be of service to you.

I have enclosed some recommendation statements, a brief description of our Quality Control Procedure, a Fee Schedule, and some Sample Submittal Forms. An attached sheet gives some typical prices. If you want an exact quote for a specific project please let us know. Also please feel free to call us if you have any questions or would like more information.

Sincerely,

John

John S. Hansen
Sales Representative

(916) 244-4441 FAX (916) 244-4443

A complete Fee Schedule is enclosed but here are some typical prices.

Analysis	Price Per Sample, $
Drying	0.04/lb.
Sample Preparation	
Up to 10 lbs.	2.50
10 to 15 lbs.	2.90
Over 15 lbs.	0.20/lb.
Gold Analysis	
FA 1AT; AA/Gravimetric Finish 5ppb	5.95
Geochem	
Ag,As,Sb,Hg	5.00
Ag,As,Sb,Hg,Cu,Pb,Zn	6.25

Note

Gold concentration results greater than 1 ppm have a gravimetric finish, less than 1 ppm an AA finish.

Corrected Version

I threw out the single Hg outlier (51,000 ppb)

OMPANY

CT

May 24, 1995

GEOCHEMISTRY FOR ORE (Au ≥ 0.130 opt)

= 68

		Detection Limit	Minimum Value	Maximum Value	Mean
		0.001	0.130	3.748	0.435
		0.01	0.005	14.41	2.57
		4	2	392	15.4
		0.5	1.8	883.5	85.0
Al	%	0.01	2.16	9.05	6.90
As	ppm	0.1	16.0	557.6	140.9
Ba	ppm	1	140	2709	650.1
Be	ppm	1	0.5	4	2.3
Bi	ppm	0.1	0.05	2.3	0.21
Ca	%	0.01	0.05	5.89	0.73
Cd	ppm	0.4	0.2	1.3	0.32
Co	ppm	2	1	20	2.5
Cr	ppm	2	6	111	38.4
Cu	ppm	2	5	597	42.2
Fe	%	0.01	0.88	6.01	2.80
Ge	ppm	0.1	0.05	0.4	0.09
Hg	ppb	5	2.5	380	37.1
K	%	0.01	0.78	4.65	2.94
La	ppm	2	6	59	22.9
Mg	%	0.01	0.07	0.44	0.22
Mn	ppm	5	30	1554	235.5
Mo	ppm	2	1	116	11.3
Na	%	0.01	0.02	2.32	0.67
Nb	ppm	2	5	22	14.2
Ni	ppm	1	2	162	5.3
P	%	0.002	0.007	0.114	0.045
Pb	ppm	5	6	55	21.7
Sb	ppm	0.1	2.3	1548.4	65.9
Sc	ppm	1	2	8	3.0
Se	ppm	0.1	0.3	28.7	12.6
Sn	ppm	2	1	10	2.4
Sr	ppm	2	22	705	133.3
Te	ppm	0.1	0.2	0.9	0.30
Th	ppm	2	1	16	7.1
Ti	%	0.01	0.03	0.31	0.16
U	ppm	10	5	50	9.2
V	ppm	2	1	37	10.3
W	ppm	4	2	700	16.7
Y	ppm	2	4	24	12.7
Zn	ppm	2	43	475	83.2
Zr	ppm	1	29	218	114.6

Values reported below detection limit adjusted to mid-point between detection limit value and zero.

Shea Clark Smith
Minerals Exploration Geochemistry
P.O. Box 18325, Reno, Nevada 89511-0325 (702) 849-2235

TO: NATE BREWER
LAC MINERAL EXPLORATION INC.

SUBJECT: SURVEY RESULTS AND BIOGEOCHEMICAL INTERPRETATION FOR A SAGEBRUSH SURVEY, ROSEBUD PROJECT, PERSHING COUNTY, NEVADA, NOVEMBER, 1989.

DATE: DECEMBER 30, 1989

CONCLUSIONS

The biogeochemical response to deep mineralization in the Dozer Hill area is strongly controlled by a water-laden system of east-west en echelon structures. The response is weakest on Line 10E and intensifies as the system steps at regular 150 foot intervals to the southwest. The highest gold concentration in sagebrush (69 ppb) is found on Line 0W, Station 3130. However, the majority of the anomalous concentrations at Rosebud are between 1 and 2 ppb. Consequently, gold concentrations in sagebrush, and indications of deep ore, are marginal if gold is used solely as its own pathfinder. The ability of biogeochemistry to locate ore at Rosebud is greatly enhanced when arsenic, antimony, gallium, and silver are used.

The course of significant gold mineralization is west-southwest, and between Lines 10E and 2W, intensifies in that direction. At Line 2W, where there seems to be a fairly complex structural intersection, the direction shifts abruptly to a south-southwest direction. This intersection is also the terminus for a weak northwest mineral trend which appears as leakage from the footwall side of a mapped structure, to the south of which is dead ground. Between the northwest structure and the more significant west-southwest gold trend is an area of intense arsenic, antimony and gallium enrichment. The geometry of Au to As-Sb-Ga as the two zones converge at Line 2W suggests that significant gold mineralization lies deep and under the zone of As-Sb-Ga enrichment.

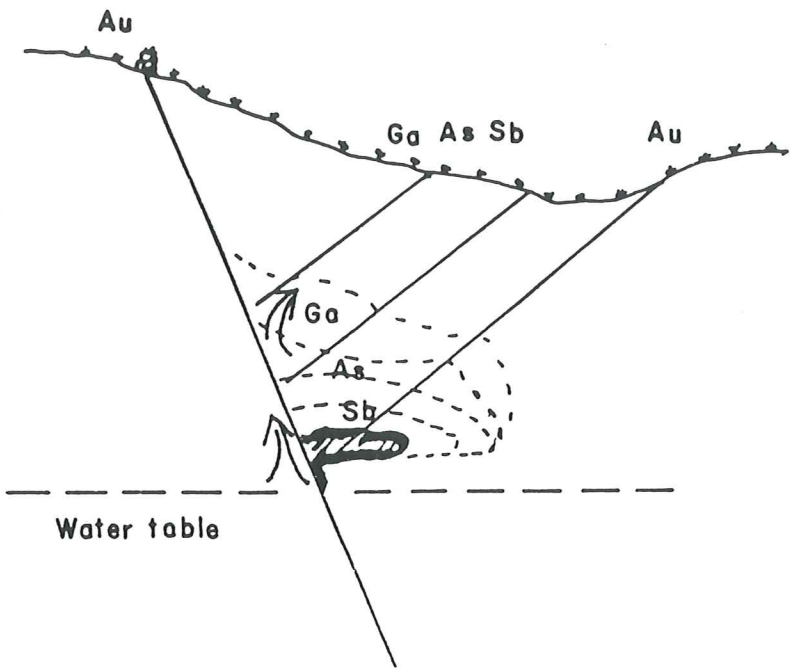
DISCUSSION

This report includes biogeochemical profiles of trace metal concentrations for Ag, As, Au, Ga, Mo, Sb and Zn in dwarf sagebrush (Artemisia arbruscula) and big sagebrush (A. tridentata) and an interpretation of the results at a scale of 1:1200 (1 inch = 100 feet). The interpretive map includes survey line location, major structures as implied by the biogeochemical data, gold anomalies as interpretated from the profiles, and areas of deep and deeper yet gold mineralization as determined by structural relationships and the strength of the anomalous trace metal pattern.

The structural interpretation is based only on biogeochemical relationships and has not been cross-referenced with other geological or geophysical data. The evidence for a structure is usually very convincing, however certain up-down relationships are sometimes confusing. The structural interpretation is important since favorable and unfavorable ore environments can be identified in the context of the precious metal anomaly.

Data quality is normally assessed by blind replicates, standards, and non-blind controls. In addition, this survey included an assessment based on a randomized sample submittal. A systematic error (see Appendix) involving the first 12 samples was discovered because of sample randomization and GSI was asked to rerun the original digestates as well as a second randomized sample. This data is summarized at the end of the raw data tabulation (Appendix). The results are not unequivocal, but they do point out that gold concentrations (and As, Pb, Ga) require a rather wide error bar to capture replicate data. It is also apparent that Bi, Cd, Hg, Se, Te, and Tl data is far too variable to be used for biogeochemical interpretation. However, precision and accuracy are excellent for Ag, Sb, Cu, Mo and Zn. Because of the unsuually low precision of this data, the effects of drilling dust as they may have affected the sagebrush should be investigated and reconciled with respect to future surveys at Rosebud, especially in undisturbed areas.

The biogeochemical pattern at Rosebud can be reduced to a simple geometry problem where the divergence of Au anomalies from its toxic pathfinders establishes a relative location and depth to ore. The separation of two gold trends along an apparent axis of symmetry with an enrichment of As-Sb-Ga at the axis occurs when water-laden structure sets converge in gold mineralization at depth, and at shallower horizons converge in halos of As-Sb-Ga enrichment (see the schematic below).



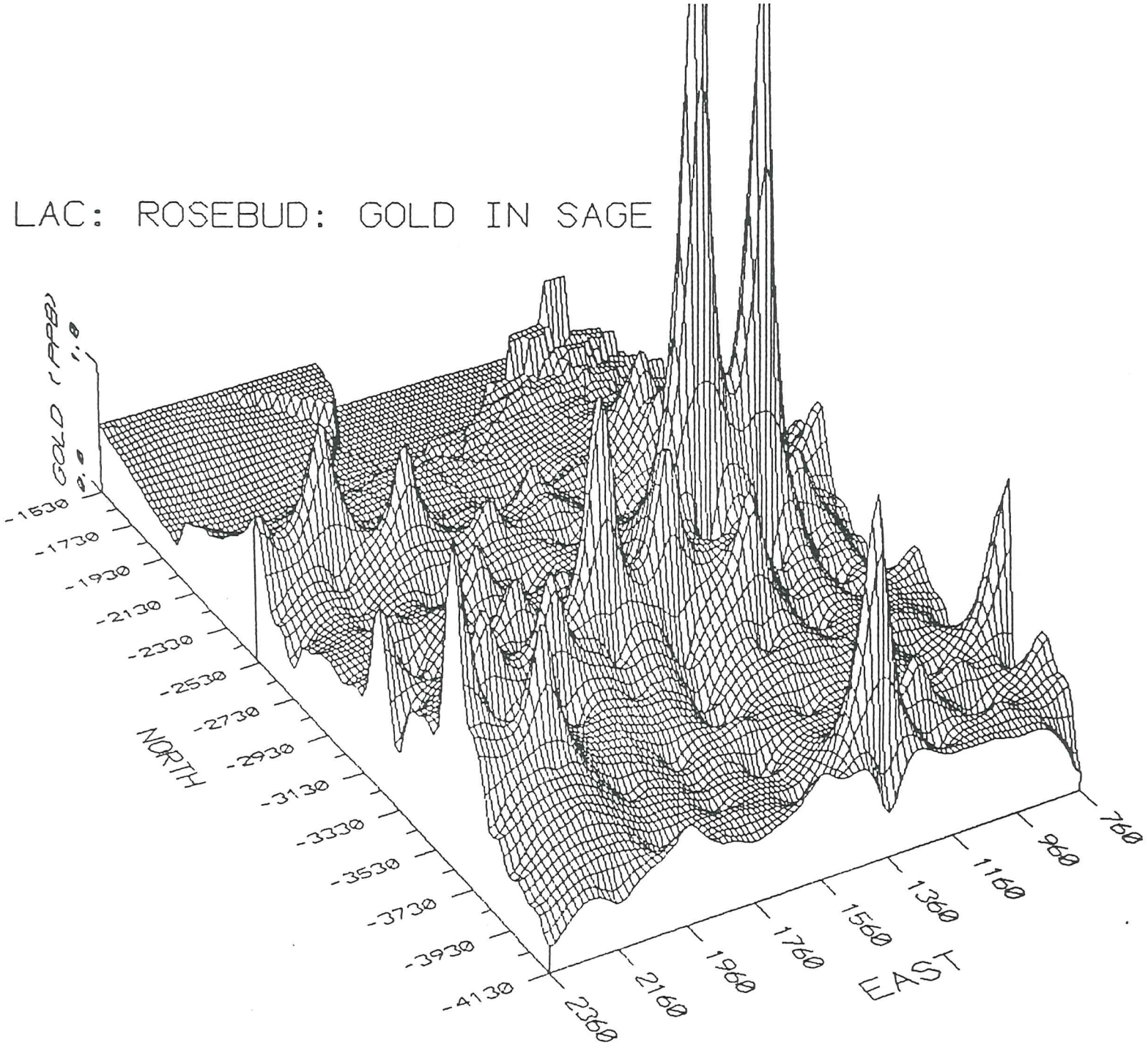
If the sets are orthogonal, as an example, the depth to ore at the axis is the distance between the divergent Au anomalies divided by 2. On Line 10E, the distance between the Au anomalies is about 1200 feet and the depth to ore at the axis is likely to be about 600 feet.

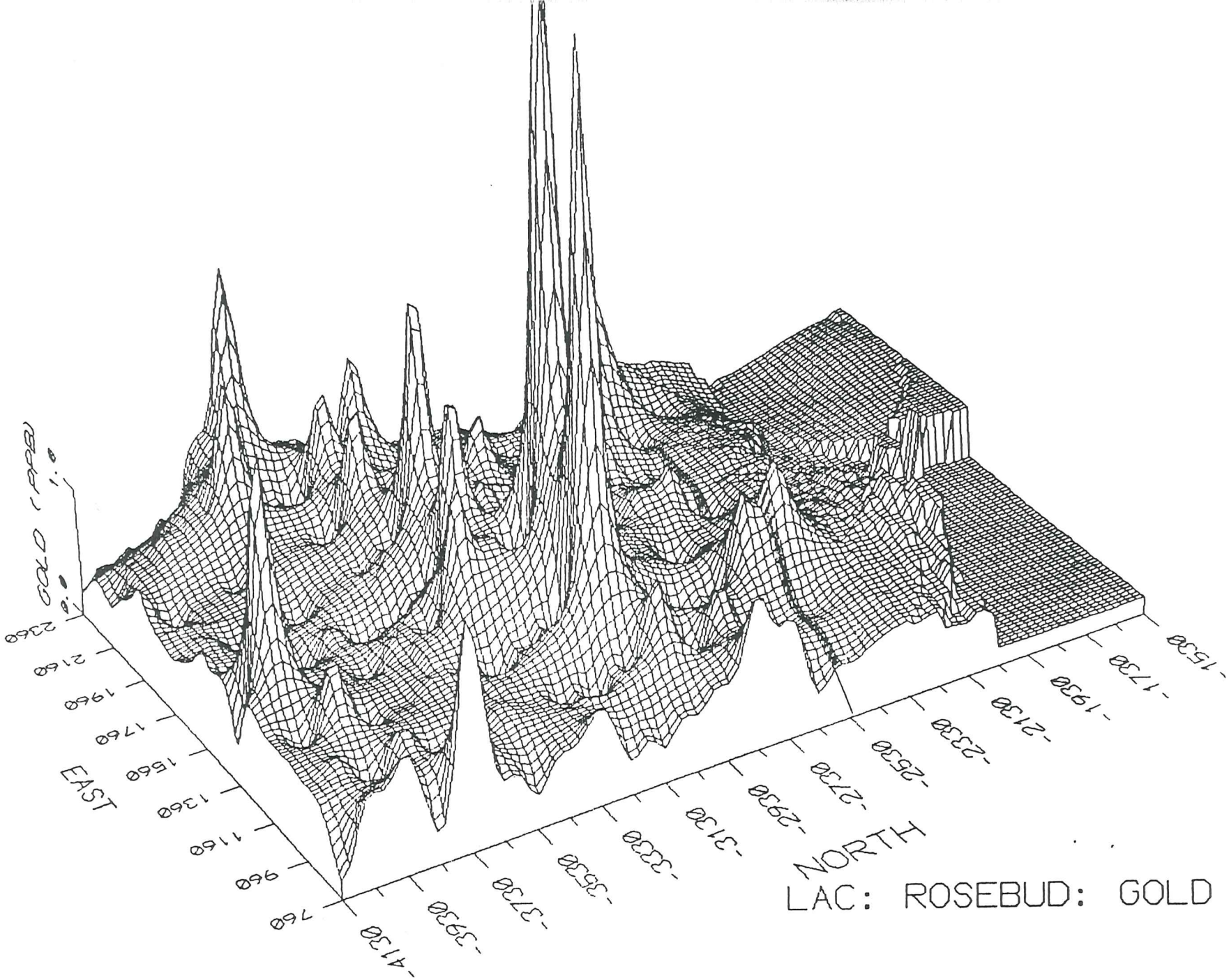
The solution to this geometrical problem is not linear as the distance between Au anomalies converges, since there is no biogeochemical evidence that gold occurs at the surface. However, relatively speaking, gold appears to be closer to the surface at 0W than it is at 10E.

RECOMMENDATIONS

This sagebrush orientation survey shows that deep ore can be detected biogeochemically and that the technique will probably be useful in future work at Rosebud. Relationships between biogeochemistry and certain contingencies such as the structural overprint, depth to ground water, and hydrologic pathways need to be established, preferably with current and future drilling data. Because anomalous gold concentrations in sagebrush are commonly only 1 to 2 ppb, a coherent relationship between gold and As, Sb, Ga, and Ag needs to be established to help determine location and depth to ore. Finally, the results of this survey may have been corrupted, in part, by mineralized dust incorporated into the sagebrush tissue and not effectively removed by washing. The effects of dusting should be studied and reconciled with respect to concentrations of gold and pathfinder elements from less disturbed areas.

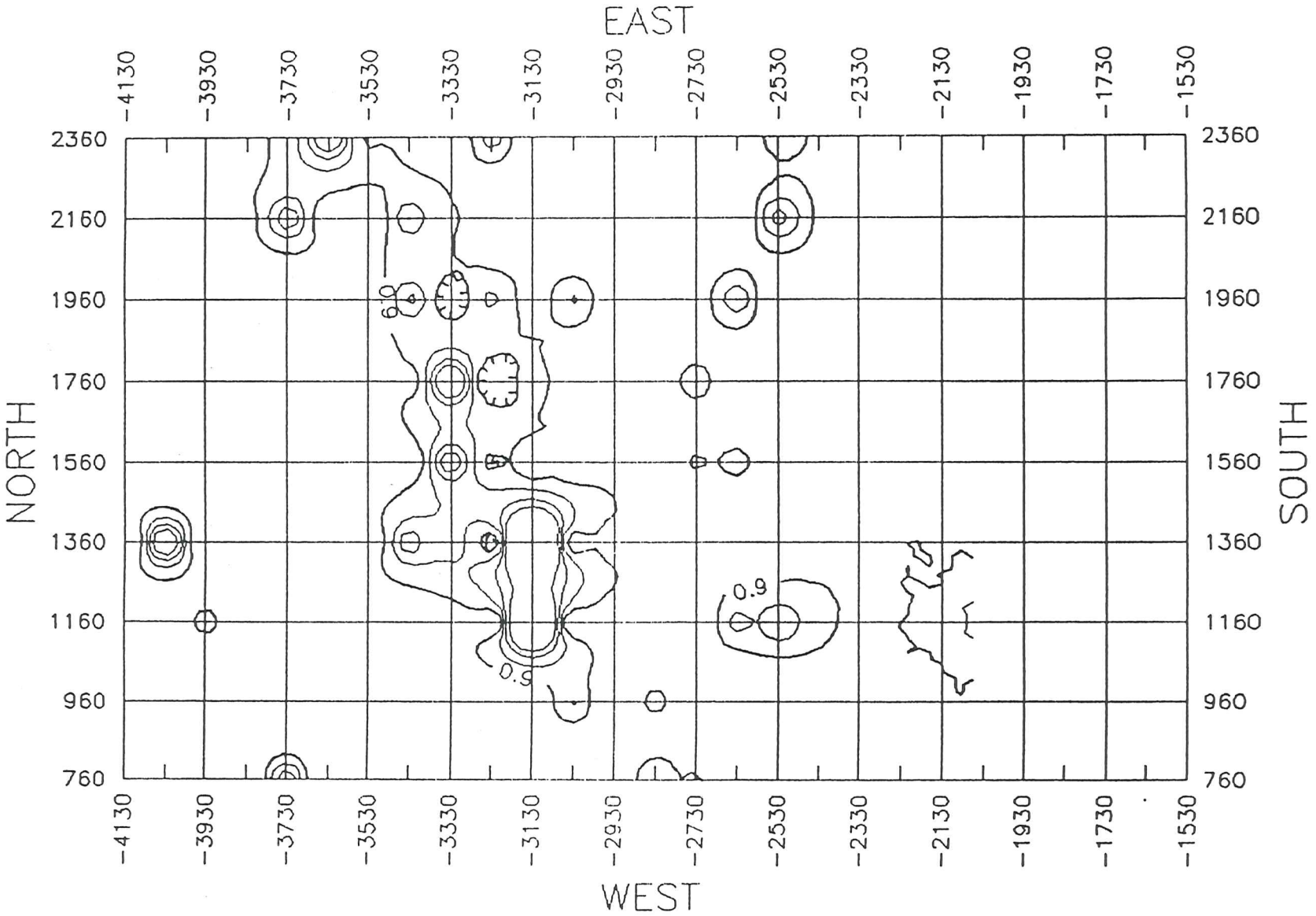
LAC: ROSEBUD: GOLD IN SAGE



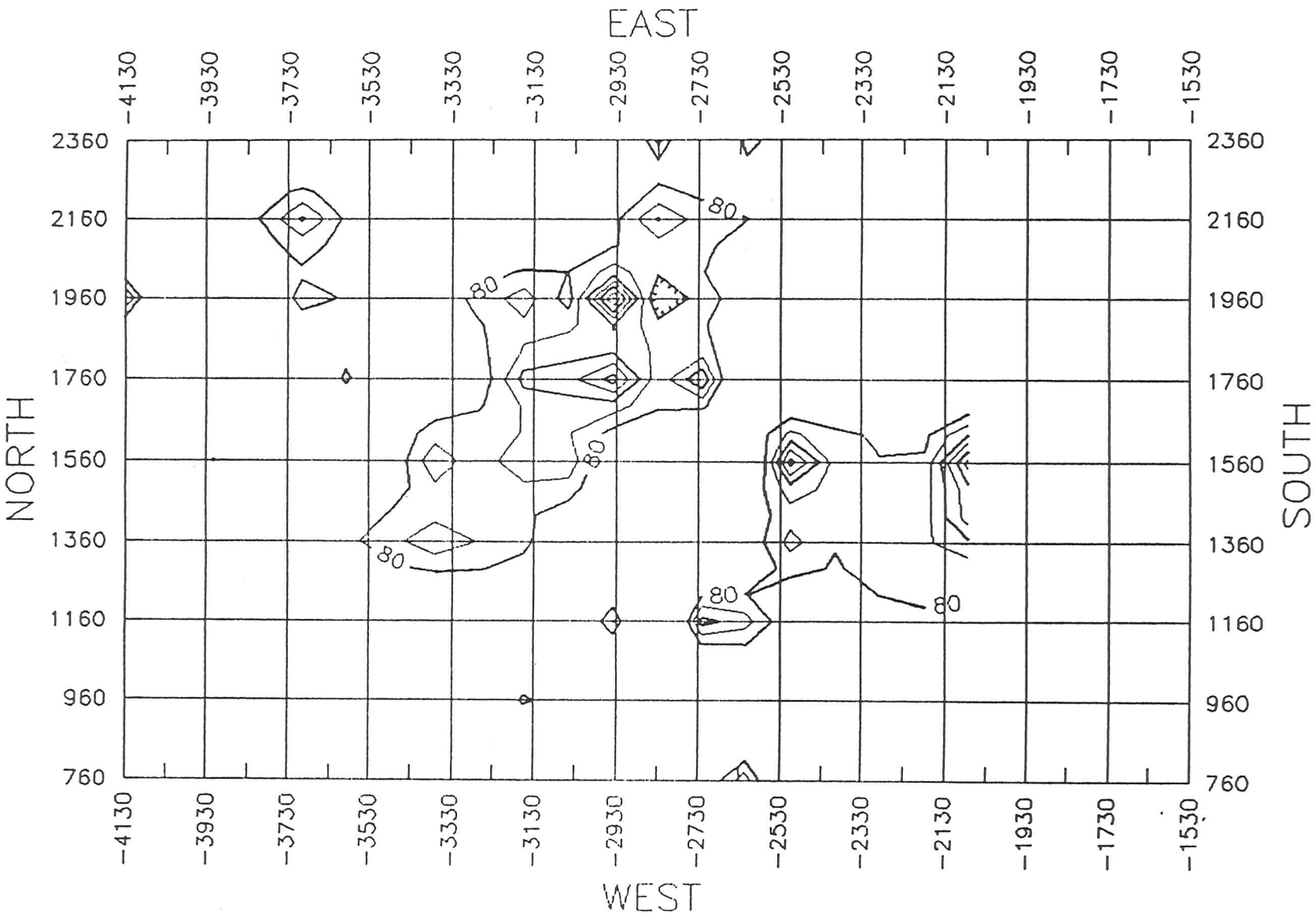


LAC: ROSEBUD: GOLD IN

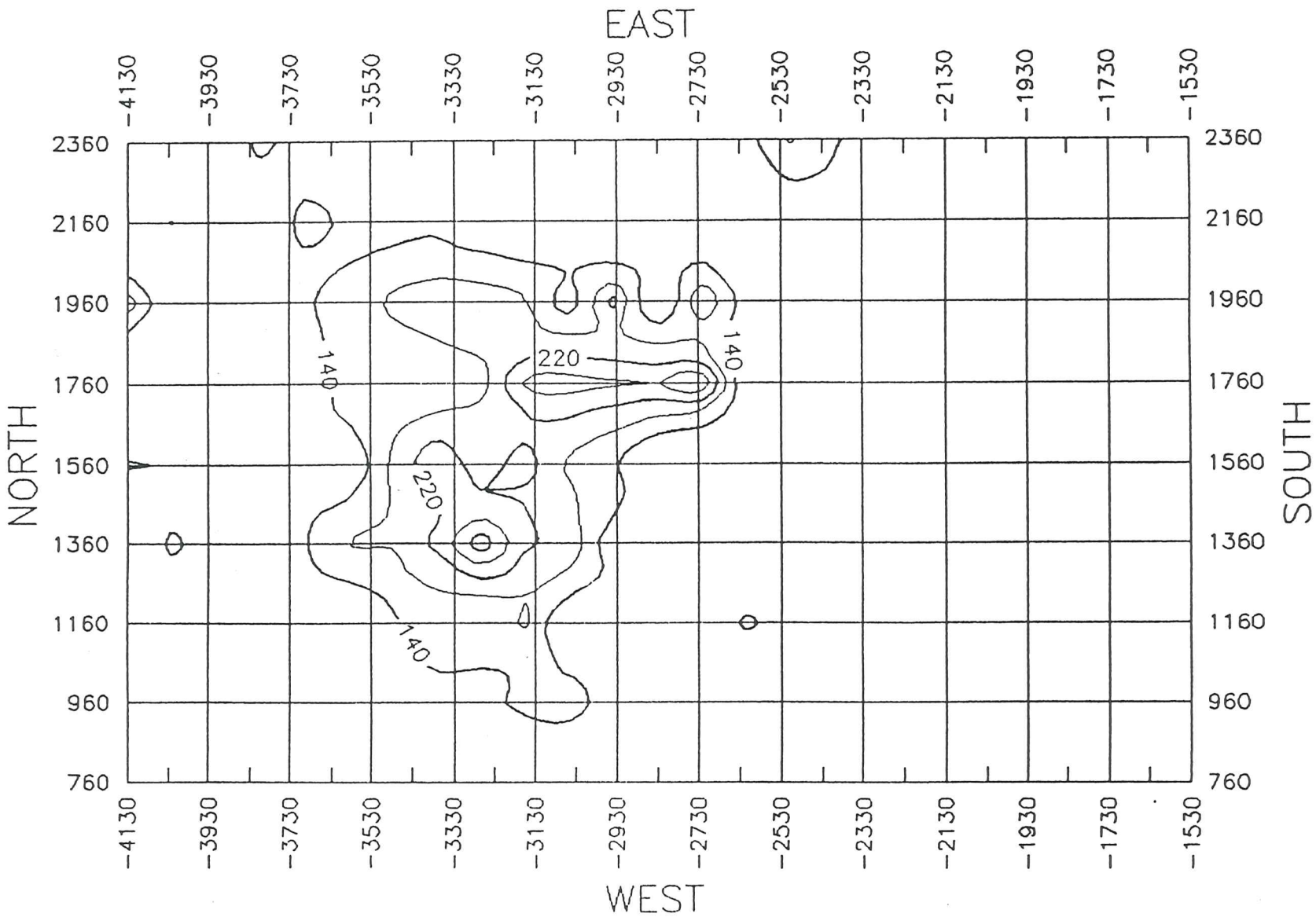
LAC: ROSEBUD: GOLD IN SAGE

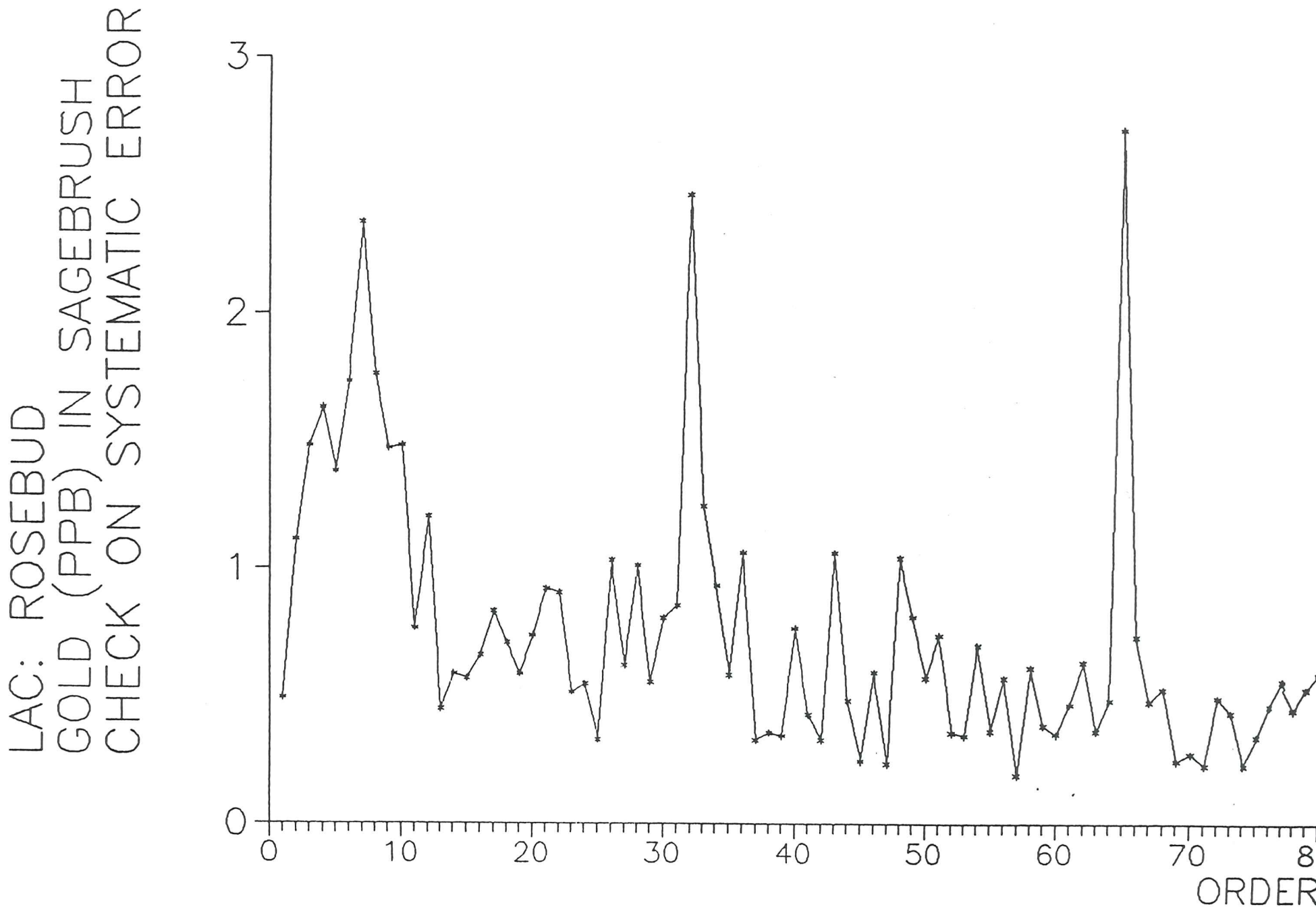


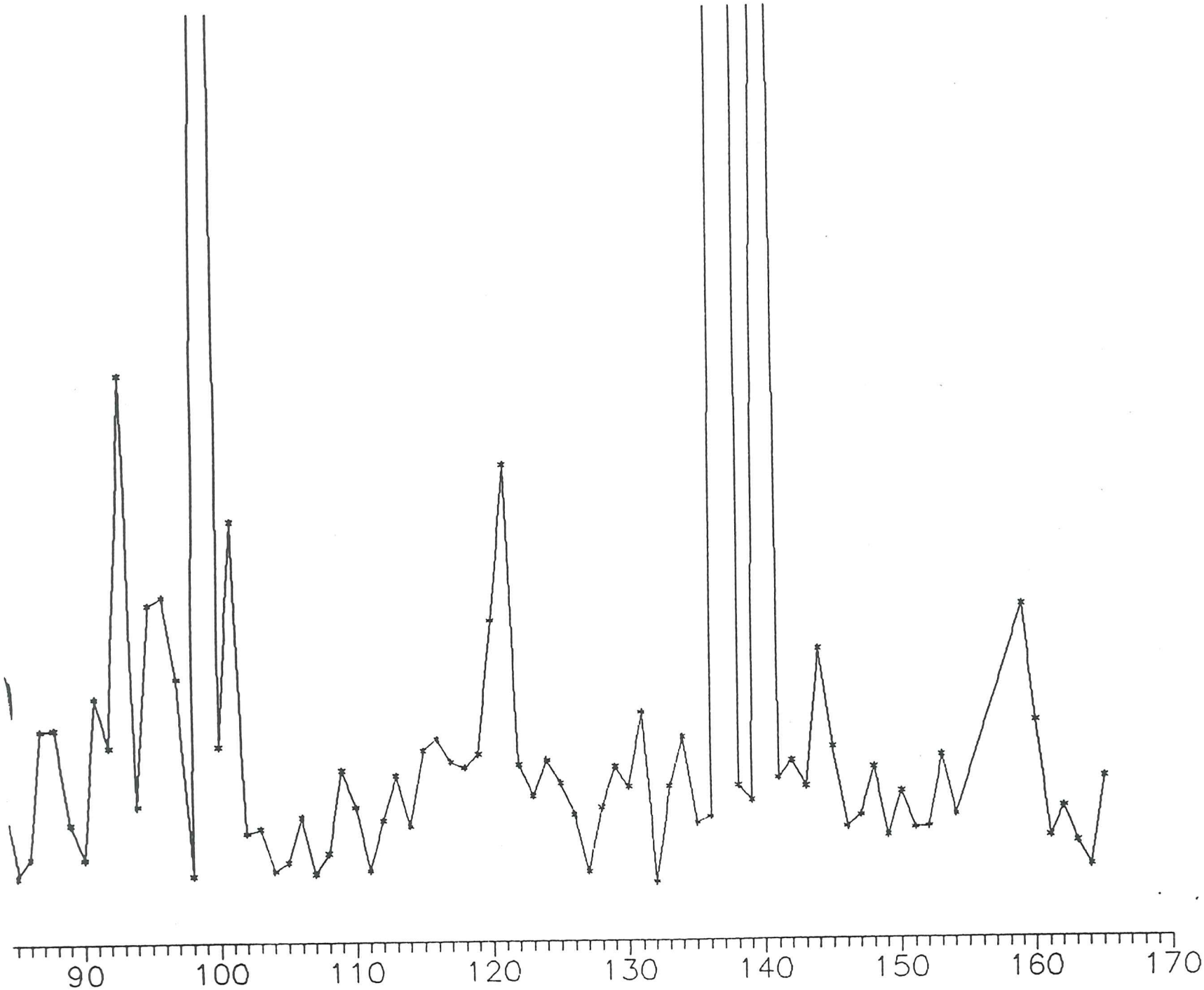
LAC: ROSEBUD: ANTIMONY IN SAGE



LAC: ROSEBUD: ARSENIC IN SAGE

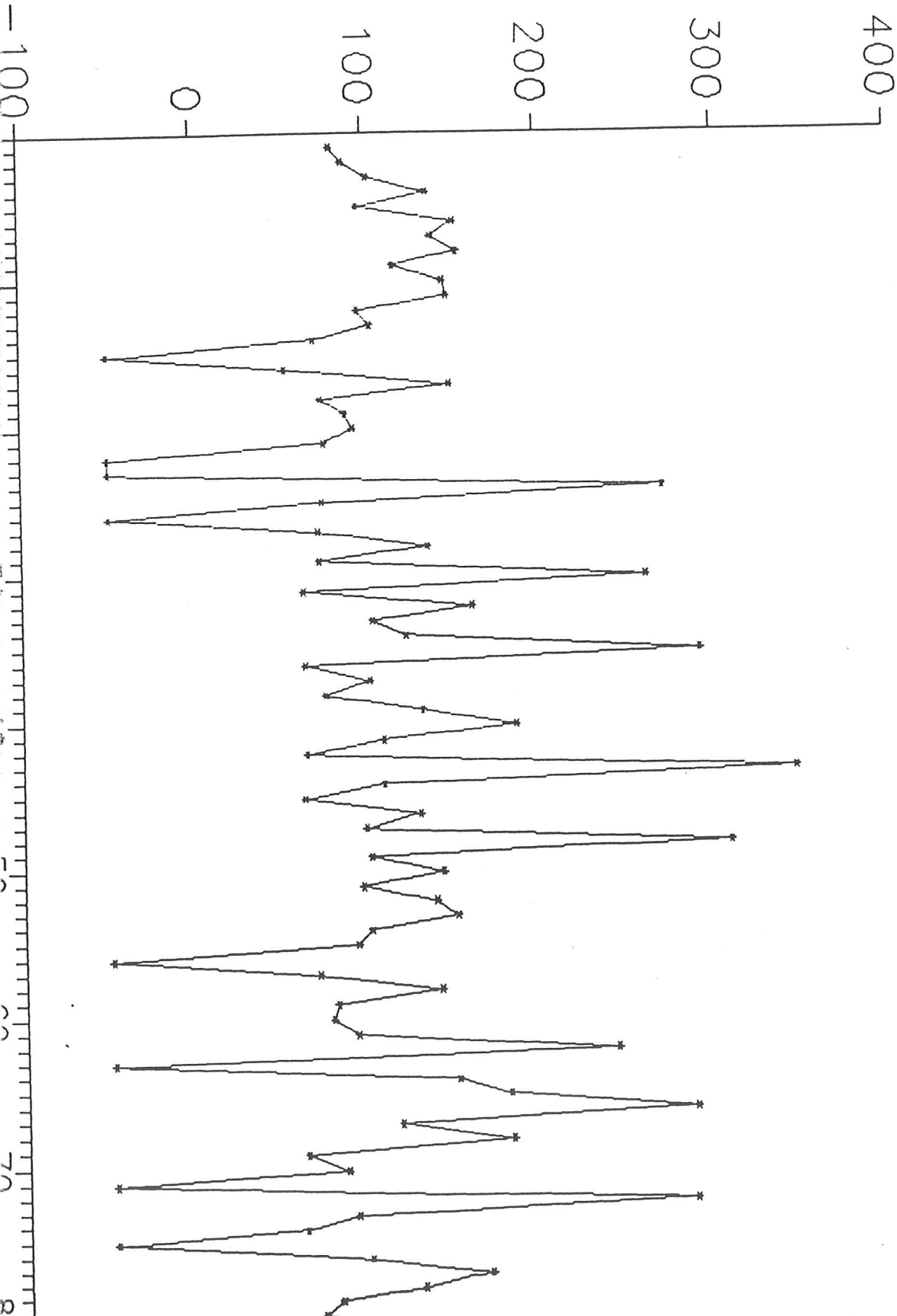


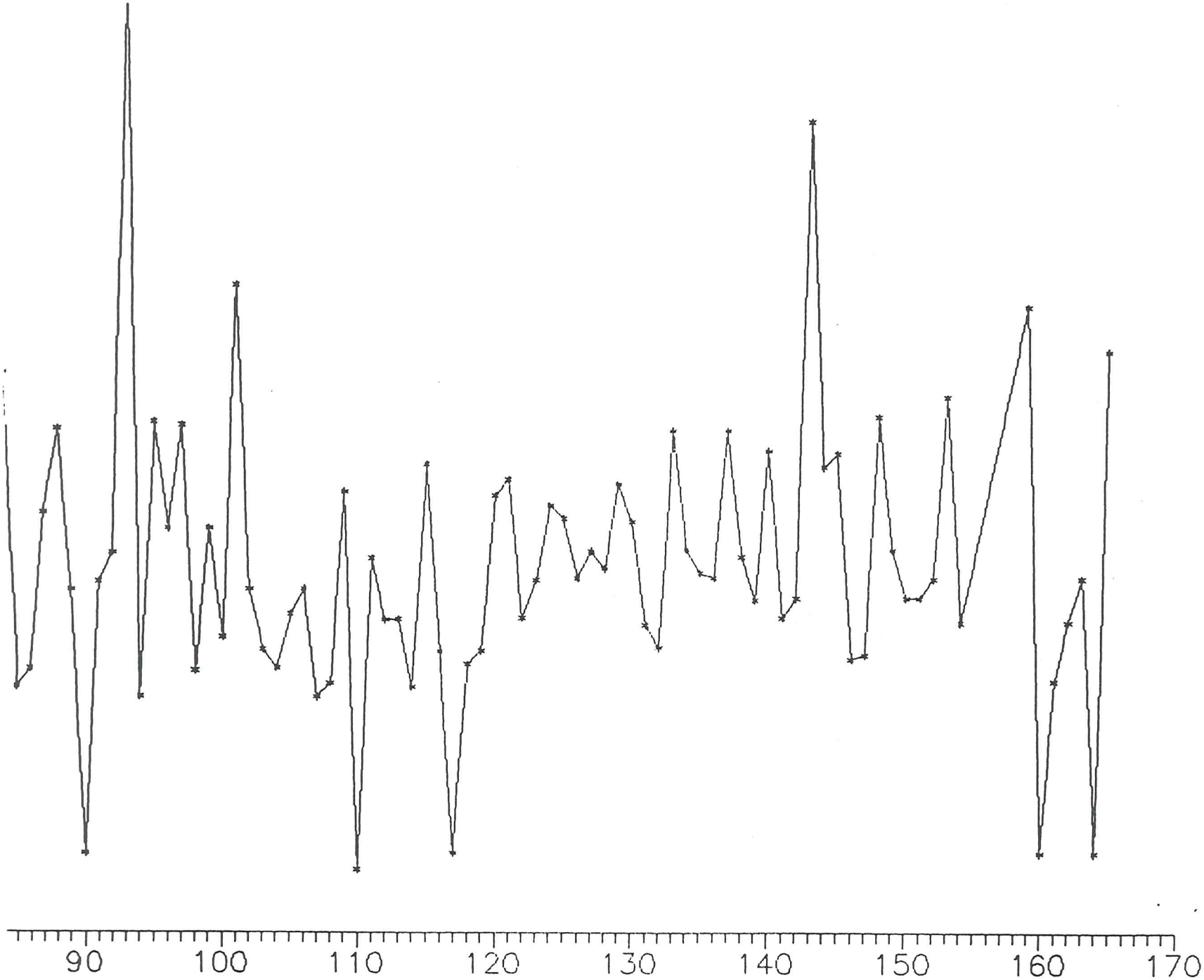

LAC: ROSEBUD
GOLD (PPB) IN SAGEBRUSH
CHECK ON SYSTEMATIC ERROR
3
2
1
0
0
10
20
30
40
50
60
70
8
ORDER



E ANALYSIS

LAC: ROSEBUD
ARSENIC (PPB) IN SAGEBRUSH
CHECK ON SYSTEMATIC ERROR





)F ANALYSIS

PANY: LAC MINERAL EXPLORATION
JECT: ROSEBUD, PERSHING COUNTY, NEVADA
LOGIST: NATE BREWER
VEY: ARTEMISIA TRIDENTATA & A. ARBRUSCULA: NOVEMBER, 1989
ORATORY: MEG (L189004) GSI (LOA-9C1094): ZERO LIMIT DATA
UENCE: ORDER OF ANALYSIS

ple	SEQ	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
1030889				10.40	6.700	636.0	22.60	48.6	0.148	142.0	15.20	4.44	7128	790	596	9668	91.0	4.70
1				5.27	0.494	81.8	7.96	24.6	1.080	130.0	12.60	6.63	8088	732	384	15400	57.4	7.90
2	95	3730	2360	7.80	1.110	88.6	11.90	32.5	1.230	49.7	6.47	6.50	9792	957	317	21800	37.5	0.00
3	117	2530	1160	7.56	1.480	103.0	11.50	24.6	3.080	68.8	8.02	9.81	9079	861	372	19700	56.0	0.00
4	79	2530	2160	6.15	1.630	138.0	9.89	17.6	3.370	79.4	13.80	6.27	6096	844	415	10400	76.4	0.00
5	90	3230	2360	8.00	1.380	97.2	12.00	17.1	0.151	52.6	19.70	8.18	8700	977	392	17900	40.5	1.41
6	2	3430	1360	9.38	1.730	153.0	7.45	39.8	0.982	63.2	18.30	4.07	7707	567	372	14900	67.1	0.00
7	94	3630	2360	9.43	2.350	140.0	17.60	41.6	1.540	74.5	7.53	9.34	9053	1129	416	21100	72.7	0.00
8	144	3730	760	7.05	1.760	155.0	9.12	17.1	2.990	57.7	0.00	3.77	6434	659	271	8228	37.5	0.00
9	47	2630	1960	5.79	1.470	118.0	7.85	15.5	0.000	71.3	7.22	1.51	6098	843	435	12300	66.0	0.00
10	70	3430	2160	8.61	1.480	147.0	4.56	22.6	0.808	52.5	17.30	5.64	7925	632	393	18600	51.0	0.00
11	16	2930	1560	9.94	0.767	149.0	11.40	23.2	1.730	52.7	16.90	10.00	7558	711	323	19200	52.1	7.14
12	153	2830	760	7.73	1.200	96.6	12.50	25.1	1.130	75.1	9.77	9.14	9463	823	325	21800	61.9	8.81
13	145	3630	760	4.62	0.450	104.0	7.49	20.9	0.000	21.6	2.67	5.33	5505	714	226	5877	22.7	0.00
14	45	2530	1760	4.74	0.589	70.8	9.50	44.6	1.630	62.5	11.00	5.93	5662	677	317	13600	40.8	6.24
15	86	2930	2360	3.13	0.572	38.0	1.15	42.8	0.000	36.0	11.30	4.81	4724	592	507	10700	19.8	0.00
16	15	2830	1560	3.33	0.661	53.8	4.95	27.1	0.000	36.1	6.10	9.45	3732	555	261	12900	16.6	0.00
17	93	3530	2360	9.57	0.833	150.0	7.85	27.2	3.080	64.3	5.85	8.00	7112	634	381	17400	61.5	0.00
18	141	4030	760	5.21	0.711	74.5	12.00	23.7	0.000	37.4	0.00	3.91	7609	875	278	20200	26.9	4.54
19	44	2630	1760	5.82	0.589	88.7	3.20	17.9	0.000	39.5	5.89	1.40	8648	603	318	15400	39.5	0.00
20	102	3930	2160	6.11	0.739	93.2	6.30	13.6	0.556	31.0	5.96	3.90	6013	506	331	11600	34.3	0.00
21	14	2730	1560	5.03	0.922	75.9	13.60	18.8	2.420	54.4	10.20	8.29	6474	671	329	19400	37.7	25.20
22	142	3930	760	5.35	0.906	15.6	10.40	27.1	0.000	28.6	12.90	6.66	8879	654	264	16900	24.3	9.50
23	147	3430	760	5.82	0.517	43.4	16.10	17.4	2.300	36.2	1.58	8.59	6283	594	277	15300	42.4	20.10
24	41	2930	1760	16.40	0.550	269.0	5.62	29.4	0.000	126.0	4.70	2.19	8452	518	462	19000	51.8	0.00
25	100	4130	2160	4.86	0.328	74.3	6.54	17.6	0.428	31.3	5.70	2.73	5853	458	323	13000	28.7	1.92
26	13	2630	1560	3.60	1.030	42.7	9.38	29.8	0.000	43.0	0.00	5.62	6345	493	463	13000	30.7	10.70
27	24	3730	1560	7.57	0.622	71.8	3.40	17.5	0.000	41.9	10.60	10.00	7929	466	289	14900	33.0	1.31
28	121	2830	960	5.50	1.010	136.0	7.83	20.7	0.000	58.8	9.85	10.60	8356	697	295	18000	41.0	5.23
21030889				11.30	6.050	676.0	27.70	138.0	5.870	150.0	20.50	6.54	7210	794	673	9889	84.8	7.32
29	139	3730	1160	10.70	0.556	72.3	15.30	229.0	2.330	57.9	9.66	10.30	7482	531	309	18000	27.1	16.10
30	42	2830	1760	12.50	0.806	259.0	23.00	132.0	3.440	83.3	53.80	16.10	9987	1053	534	23300	61.8	14.40
31	92	3430	2360	7.57	0.856	63.0	18.00	189.0	4.770	52.4	17.90	9.26	8104	1208	425	17500	13.4	0.00
32	30	4030	1360	8.35	2.450	161.0	13.30	152.0	1.460	62.0	38.40	4.59	7636	855	388	12600	32.8	0.00
33	51	3030	1960	10.80	1.240	103.0	14.40	94.4	2.030	72.2	38.30	8.85	10000	529	344	17000	26.3	10.50
34	71	3330	2160	9.06	0.933	123.0	21.30	155.0	5.600	64.2	12.60	13.80	8620	887	495	16300	29.3	21.00
35	40	3030	1760	10.40	0.583	289.0	18.60	97.1	5.240	109.0	22.90	15.20	10600	648	386	18700	49.0	15.80
36	137	3930	1160	6.41	1.060	63.3	15.90	121.0	2.250	76.3	21.20	18.40	9510	554	367	24300	18.2	17.10
37	122	2930	960	7.24	0.328	101.0	20.40	113.0	4.090	66.6	25.50	15.30	8375	1398	338	18000	28.0	13.50
38	74	3030	2160	5.69	0.356	74.8	15.60	178.0	3.450	53.4	17.10	8.51	8517	865	328	15300	22.0	14.30
39				12.10	0.344	132.0	15.10	262.0	3.440	84.5	52.80	15.60	7811	541	327	27500	31.8	22.20
40	52	3130	1960	11.90	0.767	185.0	13.10	101.0	2.880	101.0	21.40	8.86	8965	731	453	21400	51.1	18.10
41	136	4030	1160	7.04	0.428	109.0	15.80	176.0	4.280	50.2	17.60	11.30	9939	967	292	21200	17.8	21.00
42	98	4030	2360	4.97	0.328	63.8	10.70	159.0	1.530	38.4	0.00	14.50	6704	716	296	23600	0.0	8.19
43	43	2730	1760	12.40	1.060	344.0	18.60	96.3	3.490	111.0	82.50	13.70	7404	804	501	16500	63.9	15.30

Sample	SEQ	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
BR 44	85	2830	2360	5.95	0.483	109.0	25.30	534.0	2.110	95.4	7.28	12.70	7976	1017	413	16900	55.0	33.20
BR 45	12	2530	1560	5.08	0.244	62.4	15.40	145.0	2.930	134.0	13.70	12.00	7912	703	397	16200	28.4	15.90
BR 46	68	3630	1760	12.20	0.594	130.0	12.50	432.0	4.120	91.0	15.80	16.50	9255	654	419	20500	65.2	11.10
BR 47	132	3930	960	3.40	0.233	98.2	8.68	182.0	47.900	34.8	16.00	11.70	6206	164	443	17900	88.1	0.00
BR 48	39	3130	1760	16.00	1.040	306.0	15.70	141.0	4.100	114.0	32.70	12.40	9454	702	434	21200	59.9	18.50
BR 49	11	2530	1360	8.43	0.811	101.0	15.90	171.0	3.380	97.3	6.59	16.60	7439	688	470	14300	57.4	6.48
BR 50	101	4030	2160	10.10	0.572	143.0	17.80	214.0	3.510	63.0	62.80	11.70	6079	494	416	15900	45.6	14.20
BR 51	131	3830	960	12.60	0.739	96.0	12.80	155.0	4.780	86.4	15.30	18.30	9450	819	376	42100	29.6	14.30
BR 52	38	3230	1760	8.75	0.356	139.0	13.50	226.0	1.910	61.0	32.30	16.60	9642	543	335	21000	24.3	19.70
BR 53	103	3430	1160	8.31	0.344	151.0	18.60	167.0	3.490	65.7	8.21	12.00	9477	794	408	21800	56.0	23.80
BR 54	10	2630	1360	5.37	0.700	101.0	16.90	124.0	3.460	69.8	26.20	9.37	7307	598	398	15500	40.5	21.10
BR 55	67	3730	1760	8.04	0.361	92.6	16.30	122.0	3.350	55.9	67.30	11.50	7964	620	308	17100	27.6	10.90
BR 56	134	4130	960	6.10	0.572	42.0	22.50	299.0	3.000	50.3	33.00	8.64	6487	985	469	19400	23.2	17.70
BR 57	99	4130	2360	6.00	0.169	69.8	19.50	202.0	5.220	49.0	8.21	10.20	6398	678	410	16400	19.9	18.20
BR 58	105	3630	2160	12.10	0.611	141.0	24.50	195.0	7.760	91.2	15.30	21.10	13000	1266	566	30300	45.0	24.40
BR 59	130	3730	960	8.81	0.383	80.3	10.00	115.0	3.220	60.3	19.10	14.00	8088	767	301	17700	14.8	19.40
BR 60	9	2730	1360	4.23	0.350	77.5	13.40	265.0	5.640	58.8	17.50	19.70	7832	453	325	29400	25.4	14.00
V21030889				10.50	3.900	650.0	23.30	83.4	2.630	140.0	48.50	7.04	7141	808	656	9936	32.7	15.70
BR 61	59	3830	1960	6.70	0.467	91.5	12.70	48.5	2.940	64.2	72.50	8.08	7756	697	341	16400	45.0	10.70
BR 62	35	3530	1760	13.80	0.633	240.0	10.90	37.6	1.480	88.1	84.70	12.70	8994	520	516	20200	69.8	1.27
BR 63	97	3930	2360	7.44	0.361	38.8	12.20	26.7	6.010	36.5	40.80	10.40	9932	866	327	22100	25.3	4.98
BR 64	129	3630	960	9.04	0.483	150.0	19.70	48.1	2.840	78.9	66.90	14.40	8346	1105	411	18100	70.6	9.21
BR 65	37	3330	1760	9.59	2.700	179.0	14.60	36.0	4.010	75.6	72.60	11.00	8065	597	411	17400	53.3	17.20
BR 66				18.70	0.733	294.0	16.70	55.2	2.070	85.7	98.70	8.20	8375	1019	436	20700	67.7	7.94
BR 67	77	2730	2160	4.78	0.478	117.0	13.50	43.7	1.860	84.4	66.50	8.48	5610	634	455	15200	63.4	13.40
BR 68	96	3830	2360	9.34	0.528	180.0	13.00	33.0	2.330	82.0	64.50	11.20	8408	759	435	17700	74.4	7.35
BR 69	25	3830	1560	6.22	0.244	61.2	5.42	26.4	2.900	47.0	56.60	15.30	9483	460	253	17200	10.3	3.04
BR 70	61	4030	1960	8.33	0.272	84.4	7.51	29.8	3.150	45.7	62.60	12.70	7428	657	376	17600	31.2	0.47
BR 71	84	2730	2360	3.64	0.228	43.7	9.44	95.1	2.010	36.5	54.70	11.60	5427	592	271	16100	16.0	10.60
BR 72	21	3430	1560	14.40	0.494	283.0	11.50	36.1	0.642	82.2	117.00	10.60	8266	665	472	17100	66.3	2.47
BR 73	120	2730	960	5.19	0.433	89.9	12.60	26.4	0.000	59.6	63.50	10.60	9361	1110	357	21500	26.9	1.03
BR 74	143	3830	760	5.89	0.228	60.1	10.90	62.8	0.430	39.3	45.10	13.80	7457	763	289	20000	22.7	0.00
BR 75	46	2530	1960	3.73	0.339	39.1	14.70	38.7	3.150	54.1	45.90	6.91	7101	891	347	14800	29.1	0.00
BR 76	69	3530	2160	6.90	0.461	97.7	23.50	79.1	2.700	59.4	53.50	15.30	7152	1585	451	19900	48.2	9.26
BR 77	17	3030	1560	7.85	0.561	167.0	10.50	67.8	0.426	103.0	65.10	7.66	8983	545	435	17200	69.8	0.00
BR 78	63	4130	1760	10.60	0.444	129.0	9.22	91.2	0.616	61.1	67.90	9.96	7564	516	412	27100	33.6	4.07
BR 79	119	2630	960	5.72	0.528	80.1	12.50	45.2	1.120	71.4	43.20	10.70	9455	822	389	17800	40.8	13.50
BR 80	152	2930	760	6.57	0.589	69.8	8.39	71.5	2.440	59.3	66.60	6.57	7363	830	313	16800	32.8	0.00
BR 81	58	3730	1960	9.03	0.672	134.0	9.31	41.5	3.840	90.2	61.60	4.18	8308	685	346	15500	62.9	0.00
BR 82	65	3930	1760	7.01	0.344	116.0	10.80	29.6	1.460	70.1	74.30	5.55	6459	558	323	12900	47.9	0.00
BR 83	88	3130	2360	5.89	0.572	116.0	11.50	75.6	4.020	75.8	70.40	3.94	6629	1048	424	17300	31.6	0.00
BR 84	18	3130	1560	10.90	0.561	254.0	12.60	57.5	0.978	107.0	68.00	8.92	9824	777	492	22800	74.0	4.02
BR 85	146	3530	760	5.73	0.256	56.9	12.60	34.1	2.710	62.9	42.90	14.60	7266	616	311	15300	45.8	8.58
BR 86	49	2830	1960	4.94	0.328	68.7	7.38	47.7	0.438	66.0	44.00	10.40	6721	394	493	19100	33.2	2.84
BR 87	19	3230	1560	8.07	0.817	167.0	13.50	35.1	1.850	71.9	75.00	8.34	7661	606	352	20700	56.0	18.00
BR 88	48	2730	1960	8.83	0.822	219.0	8.42	22.7	0.000	86.5	71.50	9.88	6785	468	380	16400	56.4	3.40
BR 89	56	3530	1960	10.70	0.456	119.0	15.70	62.8	2.860	72.0	77.30	12.90	7027	653	335	17800	74.9	16.90
BR 90	29	4130	1360	4.96	0.322	30.2	14.00	28.3	5.880	57.6	45.10	10.60	6040	596	195	11200	31.7	16.80
V21030889				11.20	5.400	633.0	16.10	59.8	1.390	139.0	23.40	0.00	6964	773	552	10100	109.0	12.40
BR 91	154	2730	760	7.82	0.939	124.0	5.45	20.6	0.319	67.7	27.80	0.00	9113	1167	355	24700	70.3	5.40
BR 92	148	3330	760	10.10	0.750	142.0	9.38	37.9	5.040	87.3	43.30	0.00	7959	691	445	18000	86.9	20.10
BR 93	20	3330	1560	22.80	2.150	493.0	7.67	33.6	3.880	124.0	77.10	0.00	9069	750	610	21200	143.0	11.50

SEQ	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ba	Tl
87	3030	2360	5.25	0.522	50.4	3.51	29.2	6.200	46.3	20.50	0.00	6131	1041	322	19300	47.6	5.75
53	3230	1960	14.90	1.290	223.0	4.21	25.2	3.140	91.0	62.70	0.00	9221	730	420	23200	94.8	9.04
116	2630	1160	10.00	1.320	157.0	7.57	17.0	2.850	97.4	17.30	0.00	7137	734	454	19700	98.4	9.04
			8.92	1.010	221.0	4.87	30.1	2.010	41.5	8.00	0.00	9478	890	351	24500	25.9	0.00
149	3230	760	9.76	0.256	67.2	4.74	32.8	1.110	41.5	24.60	0.00	8644	828	335	19900	50.5	7.96
			8.42	10.300	157.0	7.95	11.1	3.570	41.5	21.30	0.00	10000	882	307	20400	51.8	19.80
75	2930	2160	7.34	0.750	88.5	5.52	10.3	4.280	77.2	10.10	0.00	8689	1112	423	16500	71.0	15.00
55	3430	1960	19.90	1.600	308.0	7.38	16.3	7.330	93.5	35.00	0.00	8622	1100	434	21200	93.9	11.50
91	3330	2360	8.35	0.417	119.0	7.31	16.2	5.850	51.2	23.60	0.00	9371	972	375	23100	58.8	10.10
156	2530	760	4.73	0.433	80.6	4.99	11.4	1.990	42.7	21.80	0.00	7556	684	320	15100	46.8	12.40
150	3130	760	7.23	0.272	68.7	7.02	11.2	5.520	39.3	16.80	0.00	7368	1021	332	16800	49.3	22.70
22	3530	1560	9.02	0.306	103.0	9.26	15.1	4.550	48.8	22.30	0.00	7872	519	445	19000	71.9	12.00
60	3930	1960	9.50	0.478	119.0	11.50	33.6	2.730	50.5	34.90	0.00	6901	609	278	16200	63.2	22.50
23	3630	1560	7.11	0.261	50.2	8.33	9.5	2.220	31.1	16.50	0.00	7411	560	265	20100	45.8	7.37
73	3130	2160	5.28	0.339	59.1	7.49	7.1	1.960	43.9	16.70	0.00	7978	975	695	17200	40.5	13.70
54	3330	1960	12.20	0.656	179.0	10.10	12.3	5.130	61.7	31.50	0.00	9979	753	355	25000	[illegible]	[illegible]
			8.42	0.513	42.3	5.03	46.6	3.950	19.7	3.06	0.00	6613	6083	508	15800	69.5	14.20
27	4030	1560	6.50	0.272	138.0	7.99	8.9	3.050	27.5	19.00	0.00	7840	612	225	14700	36.0	14.60
72	3230	2160	8.30	0.461	99.1	7.95	8.7	3.410	50.0	9.53	0.00	8092	858	320	19500	60.1	20.20
107	3530	1160	10.60	0.633	99.3	9.09	18.3	4.410	53.8	10.20	0.00	7086	738	263	18900	76.5	31.40
151	3030	760	4.52	0.439	56.1	6.07	22.2	0.018	32.5	7.38	0.00	7640	635	281	15200	43.1	20.70
34	3630	1360	8.53	0.728	196.0	6.18	27.2	2.670	61.1	23.00	0.00	7971	956	316	14900	69.3	8.96
8	2830	1360	5.04	0.772	78.9	8.17	19.7	6.360	60.4	16.70	0.00	5958	660	1046	19900	51.2	23.30
106	3630	1160	8.23	0.683	35.5	7.43	36.3	6.110	26.8	18.30	0.00	6787	848	428	13800	34.8	21.00
128	3530	960	11.00	0.661	70.8	6.30	24.0	5.670	48.0	6.40	0.00	11600	854	1010	24700	66.0	11.70
36	3430	1760	8.44	0.711	79.2	10.70	45.8	3.610	36.3	10.50	0.00	10600	653	671	27400	44.5	22.60
123	3030	960	9.09	1.220	176.0	8.11	9.8	4.770	70.7	31.60	0.00	8953	1061	392	23900	79.0	18.80
104	3730	2160	11.40	1.800	186.0	9.83	9.3	4.800	121.0	21.80	1.69	7914	749	537	14500	136.0	19.10
			11.50	5.300	597.0	21.40	71.6	5.480	183.0	28.10	6.50	7013	788	565	8454	97.4	9.22
7	2930	1360	4.28	0.672	100.0	0.07	54.3	2.060	56.9	39.70	0.00	8083	1274	317	17900	32.8	20.40
118	2530	960	6.18	0.550	124.0	3.30	63.9	1.650	48.0	25.50	0.00	8832	1416	323	19100	47.8	1.76
57	3630	1960	9.43	0.689	170.0	1.81	64.4	2.070	87.1	45.50	0.00	8852	582	387	20700	80.7	0.00
127	3430	960	7.66	0.600	162.0	0.00	35.8	3.050	65.9	31.30	0.00	9432	803	263	18500	60.2	0.00
33	3730	1360	8.31	0.478	125.0	0.00	35.7	1.320	73.1	42.50	0.00	9017	736	325	15900	56.2	6.34
80	2330	2160	6.53	0.261	142.0	0.00	61.6	3.830	42.5	49.30	0.00	7402	1170	314	16700	34.4	0.00
78	2630	2160	4.94	0.506	131.0	3.51	64.1	3.780	80.6	28.60	0.00	6163	694	464	13000	78.8	9.67
109	3330	1160	11.80	0.661	183.0	0.00	32.3	0.000	52.9	45.80	0.00	10200	681	585	27200	59.4	0.00
124	3130	960	8.40	0.583	160.0	0.00	98.0	1.790	92.2	47.70	0.00	8206	816	444	17100	99.0	0.00
			6.04	0.867	95.4	1.97	70.3	0.267	30.6	41.60	0.00	9871	760	275	19700	27.4	23.50
81	2030	2160	2.97	0.222	80.8	0.00	37.3	2.330	27.1	41.20	0.00	5906	1049	867	15800	24.6	0.12
6	3030	1360	7.13	0.583	216.0	2.53	25.4	0.000	61.4	35.80	0.00	7722	783	316	17500	62.8	0.00
28	4130	1560	8.85	0.772	143.0	3.20	48.8	1.490	56.1	46.00	0.00	7380	694	289	18700	57.6	17.30
110	3230	1160	10.50	0.444	128.0	0.51	32.5	2.160	50.9	43.60	0.00	10500	709	341	26300	57.5	10.10
126	3330	960	8.03	0.467	125.0	0.00	24.6	3.690	53.8	45.00	0.00	8029	784	335	16900	66.7	2.41
5	3130	1360	15.10	68.900	216.0	0.85	55.4	0.000	85.7	58.60	0.00	11600	610	578	32200	82.8	11.40
32	3830	1360	8.88	0.583	138.0	1.32	29.0	0.000	76.0	41.90	0.00	7798	427	297	18500	56.7	5.59
82	1530	2160	5.42	0.528	111.0	0.14	24.4	1.670	62.9	35.10	0.00	7220	787	486	19500	78.4	10.80
111	3130	1160	7.35	9.190	203.0	0.45	19.3	3.130	48.3	50.10	0.00	9822	891	312	18700	47.9	17.80
135	4130	1160	5.27	0.611	99.3	2.08	60.4	3.490	43.9	40.30	1.93	6896	527	432	19100	41.2	15.80
133	4030	960	7.47	0.678	112.0	0.00	38.5	1.770	56.1	44.70	0.97	8127	2187	369	18400	53.9	19.00
4	3230	1360	11.30	0.578	407.0	0.00	25.5	2.440	87.8	41.80	0.00	6775	570	507	14900	117.0	21.20
83	2530	2360	4.51	1.100	193.0	0.00	28.3	0.903	66.0	33.80	0.00	7103	1268	391	15500	65.4	16.90

ED	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
62	4130	1960	20.60	0.728	201.0	1.68	56.6	0.000	100.0	72.50	0.00	9088	517	1434	19400	100.0	11.90
12	3030	1160	4.14	0.422	73.5	0.00	33.6	2.450	45.2	37.00	0.00	8816	1162	847	21800	33.3	1.66
31	3930	1360	4.14	0.467	76.1	0.00	26.0	0.524	40.3	25.90	0.00	7508	593	348	22800	34.8	1.33
1	3530	1360	12.70	0.650	224.0	0.83	39.9	0.558	128.0	38.60	0.00	9306	846	481	20500	106.0	23.40
38	3830	1160	8.26	0.389	142.0	4.28	30.1	1.140	77.5	32.00	0.00	7015	626	388	12000	66.5	12.60
13	2930	1160	5.57	0.556	112.0	17.00	34.2	5.180	93.3	34.50	13.20	4539	685	355	10900	64.2	12.10
26	3930	1560	10.00	0.417	112.0	16.70	40.9	4.840	85.2	42.20	10.60	7540	1182	352	19500	64.0	0.95
84	2630	2360	5.01	0.422	124.0	20.00	50.9	5.720	88.0	31.20	7.60	6179	1060	466	11600	44.0	15.30
50	2930	1960	14.60	0.694	236.0	10.50	43.1	3.790	143.0	10.50	6.76	11900	583	344	22900	64.9	8.27
76	2830	2160	6.02	0.467	96.3	23.70	95.4	6.120	101.0	19.00	10.50	7640	1219	478	16700	60.0	13.40
			13.20	4.300	617.0	18.20	124.0	4.850	145.0	47.00	16.00	7180	800	696	10300	103.0	0.00
			11.40	1.600	321.0	12.80	81.1	6.600	119.0	122.00	17.40	6968	555	569	17800	114.0	0.00
64	4030	1760	6.27	0.517	54.9	5.92	78.2	4.670	49.9	76.20	22.80	6466	506	286	19200	43.9	0.01
14	2830	1160	3.45	0.246	39.7	9.95	97.1	5.180	25.8	52.50	33.00	5440	829	287	13700	41.8	1.95
40	4130	760	3.20	0.139	67.0	5.59	71.0	5.270	24.6	26.50	21.80	6958	562	231	16800	25.7	6.13
3	3330	1360	21.00	1.260	292.0	16.40	66.4	4.890	131.0	77.10	4.84	8930	926	646	19900	81.3	9.14
03	3830	2160	6.20	0.822	47.2	6.63	34.2	0.000	79.7	61.10	13.30	7103	487	7526	16300	30.3	9.03
66	3830	1760	9.44	0.383	59.2	12.20	53.4	0.000	47.5	56.60	10.10	8824	777	284	21500	32.1	5.01
15	2730	1160	6.37	0.494	96.7	21.60	33.1	0.000	105.0	62.50	2.89	6573	901	599	15500	68.0	26.20
25	3230	960	8.91	0.361	124.0	20.50	47.2	3.310	53.4	82.40	13.10	14500	995	2213	29200	76.8	26.10
55	2630	760	4.24	0.272	25.0	15.40	55.3	0.000	101.0	16.30	9.50	8331	1234	329	18000	29.6	3.95
			7.95	0.606	264.0	18.40	56.5	0.828	59.8	49.70	17.20	10200	1001	3801	23700	21.7	12.60

		Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
		10.40	6.700	636.0	22.60	48.6	0.148	142.0	15.20	4.44	7128	790	596	9668	91.0	4.70
		11.30	6.050	676.0	27.70	138.0	5.870	150.0	20.50	6.54	7210	794	673	9989	84.8	7.32
		10.50	5.900	650.0	23.30	33.4	2.630	140.0	48.50	7.04	7141	800	656	[illegible]	92.7	15.70
		11.20	5.400	633.0	16.10	59.8	1.390	139.0	23.40	0.00	6964	775	552	[illegible]	109.0	12.40
		11.50	5.300	597.0	21.40	71.6	5.480	183.0	28.10	6.50	7013	788	565	8454	97.4	9.22
		13.20	4.300	617.0	18.20	124.0	4.850	145.0	47.00	16.00	7180	800	696	10300	103.0	0.00
ATES:																
		5.27	0.494	81.8	7.96	24.6	1.080	130.0	12.60	6.63	8088	732	384	15400	57.4	7.90
2530	1560	5.08	0.244	62.4	15.40	145.0	2.930	134.0	13.70	12.00	7912	703	397	16200	28.4	15.90
		12.10	0.344	132.0	15.10	262.0	3.440	84.5	52.80	15.60	7811	541	327	27500	31.8	22.20
4130	1760	10.60	0.444	129.0	9.22	91.2	0.616	61.1	67.90	9.96	7564	516	412	27100	33.6	4.07
		18.70	0.733	284.0	16.70	55.2	2.070	85.7	98.70	8.20	8375	1019	436	20700	67.7	7.94
3430	1960	19.90	1.600	308.0	7.38	16.3	7.330	93.5	35.00	0.00	8622	1100	434	21200	93.9	11.50
		8.42	10.300	157.0	7.95	11.1	3.570	41.5	21.30	0.00	10000	882	307	20400	51.8	19.80
3130	1160	7.35	9.190	203.0	0.45	19.3	3.130	48.3	50.10	0.00	9822	891	312	18700	47.9	17.40
		6.04	0.867	95.4	1.97	20.3	0.267	30.6	41.60	0.00	9871	760	275	19700	27.4	23.50
3930	760	5.35	0.906	15.6	10.40	27.1	0.000	28.6	12.90	6.66	8879	654	264	16900	24.3	9.50
		11.40	1.600	321.0	12.80	81.1	6.600	119.0	122.00	17.40	6968	555	569	17800	114.0	0.00
2730	1960	8.83	0.822	219.0	8.42	22.7	0.000	86.5	71.50	9.98	6785	468	380	16400	56.4	3.40
OS:		Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
		8.92	1.010	221.0	4.87	30.1	2.010	41.5	8.00	0.00	9478	890	351	24500	25.9	0.00
		7.95	0.606	264.0	18.40	56.5	0.828	59.8	49.70	17.20	10200	1001	3801	23700	21.7	12.60
			1.100	275.0				40.0				580		25500		
		8.42	0.513	42.3	5.03	46.6	3.950	19.7	3.06	0.00	6613	6083	508	15800	69.5	14.20
		5.00	0.300	71.0		31.0		18.0			5000	1300	240	13000	30.0	-25.00

(12-19-89):		Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
		10.30	5.030	650.0	6.48	97.5	1.290	147.0	13.40	0.00	7075	781	585	9890	87.4	0.00
		5.60	0.889	107.0	0.00	50.2	3.030	42.2	1.87	0.00	6083	588	187	7932	22.3	5.06
3730	760	7.05	1.760	155.0	9.12	17.1	2.990	57.7	0.00	3.77	6434	659	271	8228	37.5	0.00
		7.02	1.500	128.0	0.95	31.9	4.470	48.3	3.47	0.03	6245	618	201	8249	30.6	2.64
		4.09	1.020	90.9	0.00	87.5	0.577	58.7	16.10	0.00	5658	703	329	9688	48.6	3.17
2530	2160	6.15	1.630	138.0	9.89	17.6	3.370	79.4	13.80	6.27	6096	844	415	10400	76.4	0.00
		5.28	0.489	104.0	0.73	56.2	1.230	34.8	10.10	0.14	5764	751	219	8243	25.2	16.00
3630	760	4.62	0.450	104.0	7.49	20.9	0.000	21.6	2.67	5.33	5505	714	226	5877	22.7	0.00
		7.91	0.950	55.5	0.00	63.2	4.460	49.8	11.20	0.00	10900	972	304	23300	36.5	9.26
3730	2360	7.90	1.110	88.6	11.90	32.5	1.220	49.7	6.47	6.50	9792	957	317	21600	37.5	0.00
		10.90	1.070	149.0	0.36	45.6	3.880	75.8	23.30	0.00	7404	701	387	18600	42.0	10.10
2930	1560	9.94	0.767	149.0	11.40	23.2	1.730	52.7	16.90	10.00	7558	711	323	19200	52.1	7.14
		8.24	0.989	89.9	1.34	59.0	2.630	42.1	13.00	0.00	7307	471	292	14900	37.7	1.59
3430	1360	9.38	1.730	153.0	7.45	39.8	0.992	63.2	18.30	4.07	7707	567	372	14900	67.1	0.00
		7.29	0.583	85.5	0.00	72.1	2.000	52.1	19.00	0.00	9678	805	268	24500	33.5	2.14
2830	760	7.73	1.200	96.6	12.50	25.1	1.130	75.1	9.77	9.14	9463	823	325	21800	61.9	8.81
		7.05	0.472	43.8	0.00	103.0	3.450	37.9	20.90	0.00	4190	643	241	14900	17.2	7.89
2830	1560	3.33	0.661	53.8	4.95	27.1	0.000	36.1	6.10	9.45	3732	555	261	12900	16.6	0.00
		8.11	0.889	67.9	0.00	109.0	3.080	38.5	18.00	0.00	8982	987	309	20200	29.6	8.09
3230	2360	8.00	1.380	97.2	12.00	17.1	0.151	52.6	19.70	8.18	8700	977	392	17900	40.5	1.41
		7.02	0.506	104.0	0.00	80.8	3.760	50.4	18.80	0.00	7208	624	271	18400	44.2	0.00
3530	2360	9.57	0.833	150.0	7.85	27.2	3.080	64.3	5.85	8.00	7112	634	381	17400	61.5	0.00
		7.43	1.570	93.6	0.59	134.0	1.540	52.5	25.80	0.00	8802	1102	328	20900	52.3	12.40
3630	2360	9.43	2.350	140.0	17.60	41.6	1.540	74.5	7.53	9.34	9053	1129	416	21100	72.7	0.00
		6.37	0.839	81.1	3.03	100.0	2.920	78.4	15.00	0.00	6186	733	321	15100	47.3	0.00
2530	1760	4.74	0.589	70.8	9.50	44.6	1.630	62.5	11.00	5.93	5662	677	317	13600	40.8	6.24
		6.47	1.370	108.0	1.42	100.0	1.810	72.9	18.50	0.00	8448	780	339	18800	60.8	0.00
2530	1160	7.56	1.480	103.0	11.50	24.6	3.080	68.8	8.02	9.81	9079	861	372	19700	56.0	0.00
		7.59	1.070	88.1	0.00	86.4	3.680	39.8	12.60	0.00	7753	587	289	19700	30.2	0.00
3430	2160	8.61	1.480	147.0	4.56	22.6	0.808	52.5	17.30	5.64	7925	632	393	18600	51.0	0.00
		3.53	1.670	37.0	0.00	243.0	3.940	32.1	17.40	0.00	5060	631	215	11800	22.2	16.30
2930	2360	3.13	0.572	38.0	1.15	42.8	0.000	36.0	11.30	4.81	4724	592	507	10700	19.8	0.00
		5.24	1.120	83.7	0.69	92.1	3.720	61.4	8.93	0.00	5887	787	350	12500	56.3	3.94
2630	1960	5.79	1.470	118.0	7.85	15.5	0.000	71.3	7.22	1.51	6098	843	435	12300	66.0	0.00

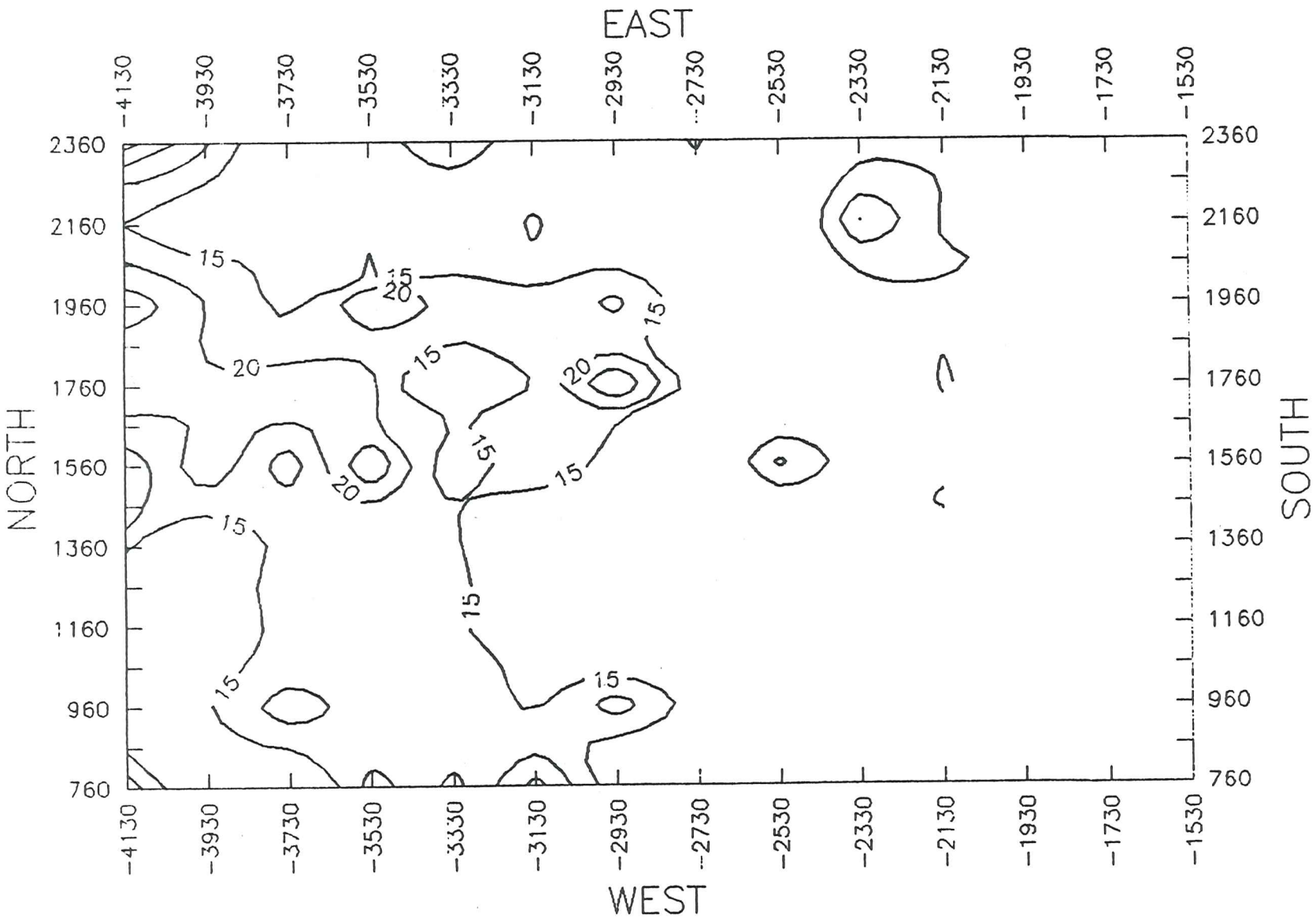
ANY: LAC MINERAL EXPLORATION
ECT: ROSEBUD, PERSHING COUNTY, NEVADA
LOGIST: NATE BREWER
VEY: ARTEMISIA TRIDENTATA & A. ARBRUSCULA: NOVEMBER, 1989
ORATORY: MEG (L189004) GSI (LOA-9C1094): ZERO LIMIT DATA
UENCE: ORDER OF EASTING & NORTHING

ple	SEQ	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
030889		0	0	13.20	4.300	617.0	18.20	124.0	4.850	145.0	47.00	16.00	7180	800	696	10300	103.0	0.00
030889		0	0	10.40	6.700	636.0	22.60	48.6	0.148	142.0	15.20	4.44	7128	790	596	9668	91.0	4.70
030889		0	0	11.50	5.300	597.0	21.40	71.6	5.480	183.0	28.10	6.50	7013	788	565	8454	97.4	9.22
030889		0	0	11.20	5.400	633.0	16.10	59.8	1.390	139.0	23.40	0.00	6964	773	552	10100	109.0	12.40
030889		0	0	11.30	6.050	676.0	27.70	138.0	5.870	150.0	20.50	6.54	7210	794	673	9889	84.8	7.32
030889		0	0	10.50	3.900	650.0	23.30	83.4	2.630	140.0	48.50	7.04	7141	808	656	9936	92.7	15.70
1		1	1	5.27	0.494	81.8	7.96	24.6	1.090	130.0	12.60	6.63	8088	732	384	15400	57.4	7.90
39		2	2	12.10	0.344	132.0	15.10	262.0	3.440	84.5	52.80	15.60	7811	541	327	27500	31.8	22.20
66		3	3	18.70	0.733	284.0	16.70	55.2	2.070	85.7	98.70	8.20	8375	1019	436	20700	67.7	7.94
97		4	4	8.92	1.010	221.0	4.87	30.1	2.010	41.5	8.00	0.00	9478	890	351	24500	25.9	0.00
99		5	5	8.42	10.300	157.0	7.95	11.1	3.570	41.5	21.30	0.00	10000	882	307	20400	51.8	19.80
110		6	6	8.42	0.513	42.3	5.03	46.6	3.950	19.7	3.06	0.00	6613	6083	508	15800	69.5	14.20
131		7	7	6.04	0.867	95.4	1.97	70.3	0.267	30.6	41.60	0.00	9871	760	275	19700	27.4	23.50
155		8	8	11.40	1.600	321.0	12.80	81.1	6.600	119.0	122.90	17.40	6968	555	569	17800	114.0	0.00
165		9	9	7.95	0.606	264.0	18.40	56.5	0.828	59.8	49.70	17.20	10200	1001	3301	23700	21.7	12.60
103	156	2530	760	4.73	0.433	80.6	4.99	11.4	1.990	42.7	21.80	0.00	7556	684	320	15100	46.8	12.40
164	155	2630	760	4.24	0.272	25.0	15.40	55.3	0.000	101.0	16.30	9.50	8331	1234	329	18000	29.6	3.95
91	154	2730	760	7.82	0.939	124.0	5.45	20.6	0.319	67.7	27.80	0.00	9113	1167	355	24700	70.3	5.40
12	153	2830	760	7.73	1.200	96.6	12.50	25.1	1.130	75.1	9.77	9.14	9463	823	325	21800	61.9	8.81
80	152	2930	760	6.57	0.589	69.8	8.39	71.5	2.440	59.3	66.60	6.57	7363	830	313	16800	32.8	0.00
114	151	3030	760	4.52	0.439	56.1	6.07	22.2	0.018	32.5	7.36	0.00	7640	635	281	15200	43.1	20.70
104	150	3130	760	7.23	0.272	68.7	7.02	11.2	5.520	39.3	16.80	0.00	7368	1021	332	16800	49.3	22.70
98	149	3230	760	9.76	0.256	67.2	4.74	32.8	1.110	41.5	24.60	0.00	8644	828	335	19900	50.5	7.96
92	148	3330	760	10.10	0.750	142.0	9.38	37.9	5.040	87.3	43.30	0.00	7959	691	445	18000	86.9	20.10
23	147	3430	760	5.82	0.517	43.4	16.10	17.4	2.300	36.2	1.58	8.59	6283	594	277	15300	42.4	20.10
85	146	3530	760	5.73	0.256	56.9	12.60	34.1	2.710	62.9	42.90	14.60	7266	616	311	15300	45.8	8.58
13	145	3630	760	4.62	0.450	104.0	7.49	20.9	0.000	21.6	2.67	5.33	5505	714	226	5877	22.7	0.00
8	144	3730	760	7.05	1.760	155.0	9.12	17.1	2.990	57.7	0.00	3.77	6434	659	271	8228	37.5	0.00
74	143	3830	760	5.89	0.228	60.1	10.90	62.8	0.430	39.3	45.10	13.80	7457	763	289	20000	22.7	0.00
22	142	3930	760	5.35	0.906	15.6	10.40	27.1	0.000	28.6	12.90	6.66	8879	654	264	16900	24.3	9.50
18	141	4030	760	5.21	0.711	74.5	12.00	23.7	0.000	37.4	0.00	3.91	7609	875	278	20200	26.9	4.54
158	140	4130	760	3.20	0.139	67.0	5.59	71.0	5.270	24.6	26.50	21.80	6958	562	231	16800	25.7	6.13

ple	SEQ	NORTH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
123	118	2530	960	6.18	0.550	124.0	3.30	63.9	1.650	48.0	25.50	0.00	8832	1416	323	19100	47.8	1.76
79	119	2630	960	5.72	0.528	80.1	12.50	45.2	1.120	71.4	43.20	10.70	9455	822	389	17800	40.8	13.50
73	120	2730	960	5.19	0.433	89.9	12.60	26.4	0.000	59.6	63.50	10.60	9361	1110	357	21500	26.9	1.03
28	121	2830	960	5.50	1.010	136.0	7.83	20.7	0.000	58.8	9.85	10.60	8356	697	295	18000	41.0	5.23
37	122	2930	960	7.24	0.328	101.0	20.40	113.0	4.090	66.6	25.50	15.30	8375	1398	338	18000	28.0	13.50
120	123	3030	960	9.09	1.220	176.0	8.11	9.8	4.770	70.7	31.60	0.00	8953	1061	392	23900	79.0	18.80
130	124	3130	960	8.40	0.583	160.0	0.00	98.0	1.790	92.2	47.70	0.00	8206	816	444	17100	99.0	0.00
163	125	3230	960	8.91	0.361	124.0	20.50	47.2	3.310	53.4	82.40	13.10	14500	995	2213	29200	76.8	26.10
136	126	3330	960	8.03	0.467	125.0	0.00	24.6	3.690	53.8	45.00	0.00	8029	784	335	16900	66.7	2.41
125	127	3430	960	7.66	0.600	162.0	0.00	35.8	3.050	65.9	31.30	0.00	9432	803	263	18500	60.2	0.00
118	128	3530	960	11.00	0.661	70.8	6.30	24.0	5.670	48.0	6.40	0.00	11600	854	1010	24700	66.0	11.70
64	129	3630	960	9.04	0.483	150.0	19.70	48.1	2.840	78.9	66.90	14.40	8346	1105	411	18100	70.6	9.21
59	130	3730	960	8.81	0.383	80.3	10.00	115.0	3.220	60.3	19.10	14.00	8088	767	301	17700	14.8	19.40
51	131	3830	960	12.60	0.739	96.0	12.80	155.0	4.780	86.4	15.30	18.30	9450	819	376	42100	29.6	14.30
47	132	3930	960	3.40	0.233	98.2	8.68	182.0	47.900	34.8	16.00	11.70	6206	164	443	17900	88.1	0.00
142	133	4030	960	7.47	0.678	112.0	0.00	38.5	1.770	56.1	44.70	0.97	8127	2187	369	18400	53.9	19.00
56	134	4130	960	6.10	0.572	42.0	22.50	299.0	3.000	50.3	33.00	8.64	6487	985	469	19400	23.2	17.70
3	117	2530	1160	7.56	1.480	103.0	11.50	24.6	3.080	68.8	8.02	9.81	9079	861	372	19700	56.0	0.00
96	116	2630	1160	10.00	1.320	157.0	7.57	17.0	2.850	97.4	17.30	0.00	7137	734	454	19700	98.4	9.04
162	115	2730	1160	6.37	0.494	96.7	21.60	33.1	0.000	105.0	62.50	2.89	6573	901	599	15500	68.0	26.20
157	114	2830	1160	3.45	0.246	39.7	9.95	97.1	5.180	25.8	52.50	33.00	5440	829	287	13700	41.8	1.95
150	113	2930	1160	5.57	0.556	112.0	17.00	34.2	5.180	93.3	34.50	13.20	4539	685	355	10900	64.2	12.10
146	112	3030	1160	4.14	0.422	73.5	0.00	33.6	2.450	45.2	37.00	0.00	8816	1162	847	21800	33.3	1.66
140	111	3130	1160	7.35	9.190	203.0	0.45	19.3	3.130	48.3	50.10	0.00	9822	891	312	18700	47.9	17.80
135	110	3230	1160	10.50	0.444	128.0	0.51	32.5	2.160	50.9	43.60	0.00	10500	709	341	26300	57.5	10.10
129	109	3330	1160	11.80	0.661	183.0	0.00	32.3	0.000	52.9	45.80	0.00	10200	681	585	27200	59.4	0.00
53	108	3430	1160	8.31	0.344	151.0	18.60	167.0	3.490	65.7	8.21	12.00	9477	794	408	21800	56.0	23.80
113	107	3530	1160	10.60	0.633	99.3	9.09	18.3	4.410	53.8	10.20	0.00	7086	738	263	18900	76.5	31.40
117	106	3630	1160	8.23	0.683	35.5	7.43	36.3	6.110	26.8	18.30	0.00	6787	848	428	13800	34.8	21.00
29	139	3730	1160	10.70	0.556	72.3	15.30	229.0	2.330	57.9	9.66	10.30	7482	531	309	18000	27.1	16.10
149	138	3830	1160	8.26	0.389	142.0	4.28	30.1	1.140	77.5	32.00	0.00	7015	626	388	12000	66.5	12.60
36	137	3930	1160	6.41	1.060	63.3	15.90	121.0	2.250	76.3	21.20	18.40	9510	554	367	24300	18.2	17.10
41	136	4030	1160	7.04	0.428	109.0	15.80	176.0	4.280	50.2	17.60	11.30	9939	967	292	21200	17.8	21.00
141	135	4130	1160	5.27	0.611	99.3	2.08	60.4	3.490	43.9	40.30	1.93	6896	527	432	19100	41.2	15.80

TH	EAST	Ag	Au	As	Bi	Cd	Hg	Sb	Se	Te	Cu	Mo	Pb	Zn	Ga	Tl
30	1360	8.43	0.811	101.0	15.90	171.0	3.380	97.3	6.59	16.60	7439	688	470	14300	57.4	6.48
30	1360	5.37	0.700	101.0	16.90	124.0	3.460	69.8	26.20	9.37	7307	598	398	15500	40.5	21.10
30	1360	4.23	0.350	77.5	13.40	265.0	5.640	58.8	17.50	19.70	7832	453	325	29400	25.4	14.00
30	1360	5.04	0.772	78.9	8.17	19.7	6.360	60.4	16.70	0.00	5958	660	1046	19900	51.2	23.30
30	1360	4.28	0.672	100.0	0.07	54.3	2.060	56.9	39.70	0.00	8083	1274	317	17900	32.8	20.40
30	1360	7.13	0.583	216.0	2.53	25.4	0.000	61.4	35.80	0.00	7722	783	316	17500	62.8	0.00
30	1360	15.10	68.900	216.0	0.85	55.4	0.000	85.7	58.60	0.00	11600	610	578	32200	82.8	11.40
30	1360	11.30	0.578	407.0	0.00	25.5	2.440	87.8	41.80	0.00	6775	570	507	14900	117.0	21.20
230	1360	21.00	1.260	292.0	16.40	66.4	4.890	131.0	77.10	4.84	8930	926	646	19900	81.3	9.14
330	1360	9.38	1.730	153.0	7.45	39.8	0.982	63.2	18.30	4.07	7707	567	372	14900	67.1	0.00
430	1360	12.70	0.650	224.0	0.83	39.9	0.558	128.0	38.60	0.00	9306	846	481	20500	106.0	23.40
530	1360	8.53	0.728	196.0	6.18	27.2	2.670	61.1	23.00	0.00	7971	958	316	14900	69.3	8.96
630	1360	8.31	0.478	125.0	0.00	35.7	1.320	73.1	42.50	0.00	9017	736	325	15900	56.2	6.34
730	1360	8.88	0.583	138.0	1.32	29.0	0.000	76.0	41.90	0.00	7798	427	297	18500	56.7	5.59
830	1360	4.14	0.467	76.1	0.00	26.0	0.524	40.3	25.90	0.00	7508	593	348	22800	34.8	1.33
930	1360	8.35	2.450	161.0	13.30	152.0	1.460	62.0	38.40	4.59	7636	855	388	12600	32.8	0.00
030	1360	4.96	0.322	30.2	14.00	28.3	5.880	57.6	45.10	10.60	6040	596	195	11200	31.7	16.80
130	1360															
2530	1560	5.08	0.244	62.4	15.40	145.0	2.930	134.0	13.70	12.00	7912	703	397	16200	28.4	15.90
2630	1560	3.60	1.030	42.7	9.38	29.8	0.000	43.0	0.00	5.62	6345	493	463	13000	30.7	10.70
2730	1560	5.03	0.922	75.9	13.60	18.8	2.420	54.4	10.20	8.29	6474	671	329	19400	37.7	25.20
2830	1560	3.33	0.661	53.8	4.95	27.1	0.000	36.1	6.10	9.45	3732	555	261	12900	16.6	0.00
2930	1560	9.94	0.767	149.0	11.40	23.2	1.730	52.7	16.90	10.00	7558	711	323	19200	52.1	7.14
3030	1560	7.85	0.561	167.0	10.50	67.8	0.426	103.0	65.10	7.66	8983	545	435	17200	69.8	0.00
3130	1560	10.90	0.561	254.0	12.60	57.5	0.978	107.0	68.00	8.92	9824	777	492	22800	74.0	4.02
3230	1560	8.07	0.817	167.0	13.50	35.1	1.850	71.9	75.00	8.34	7661	606	352	20700	56.0	18.00
3330	1560	22.80	2.150	493.0	7.67	33.6	3.880	124.0	77.10	0.00	9069	750	610	21200	143.0	11.50
3430	1560	14.40	0.494	283.0	11.50	36.1	0.642	82.2	117.00	10.60	8266	665	472	17100	66.3	2.47
3530	1560	9.02	0.306	103.0	9.26	15.1	4.550	48.8	22.30	0.00	7872	519	445	19000	71.9	12.00
3630	1560	7.11	0.261	50.2	8.33	9.5	2.220	31.1	16.50	0.00	7411	560	265	20100	45.8	7.37
3730	1560	7.57	0.622	71.8	3.40	17.5	0.000	41.9	10.60	10.00	7929	466	289	14900	33.0	1.31
3830	1560	6.22	0.244	61.2	5.42	26.4	2.900	47.0	56.60	15.30	9483	460	253	17200	10.3	3.04
3930	1560	10.00	0.417	112.0	16.70	40.9	4.840	85.2	42.20	10.60	7540	1182	352	19500	64.0	0.95
4030	1560	6.50	0.272	138.0	7.99	8.9	3.050	27.5	19.00	0.00	7840	612	225	14700	36.0	14.60
4130	1560	8.85	0.772	143.0	3.20	48.8	1.490	56.1	46.00	0.00	7380	694	289	18700	57.6	17.30

LAC: ROSEBUD: AG/AU IN SAGEBRUSH



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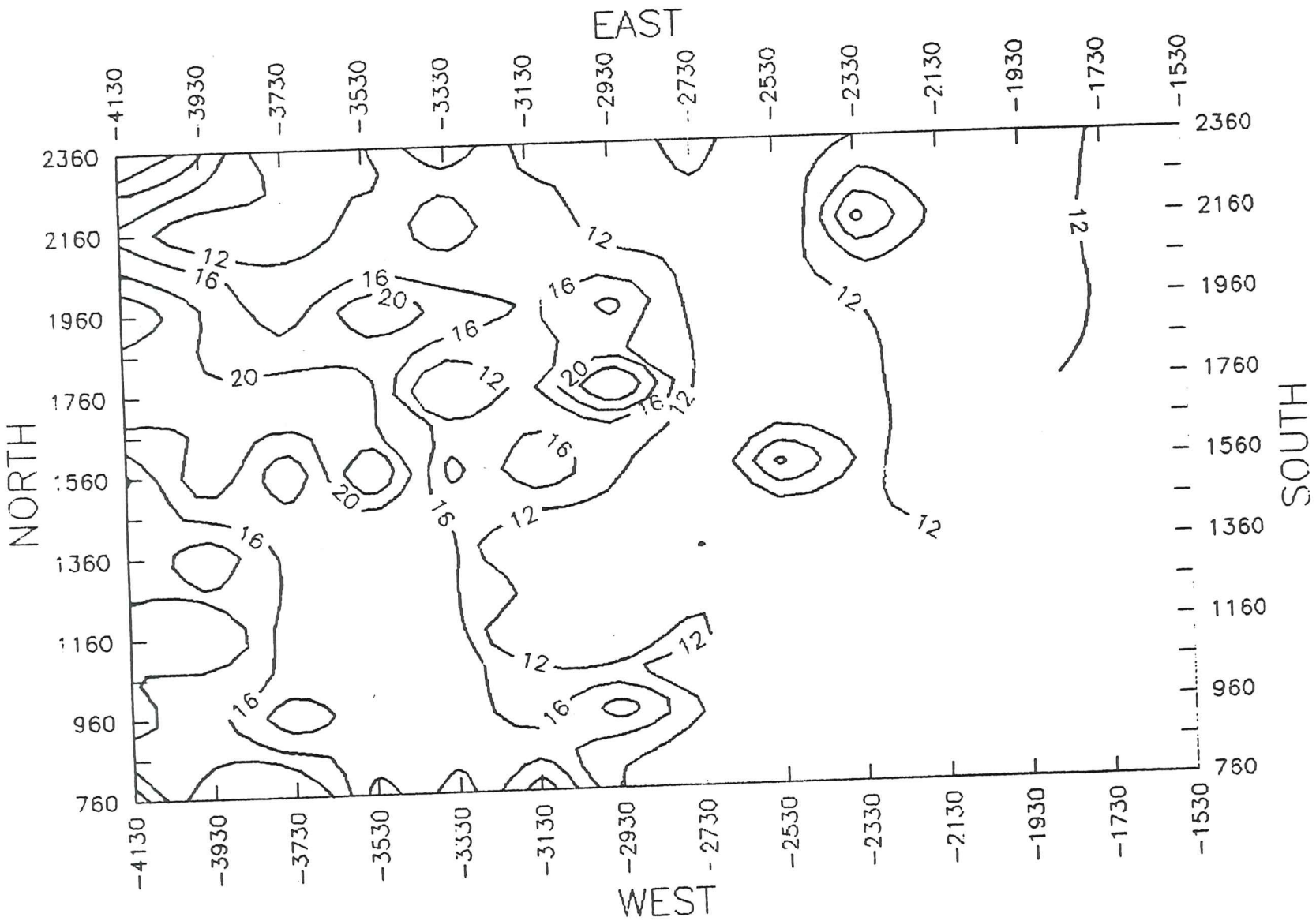

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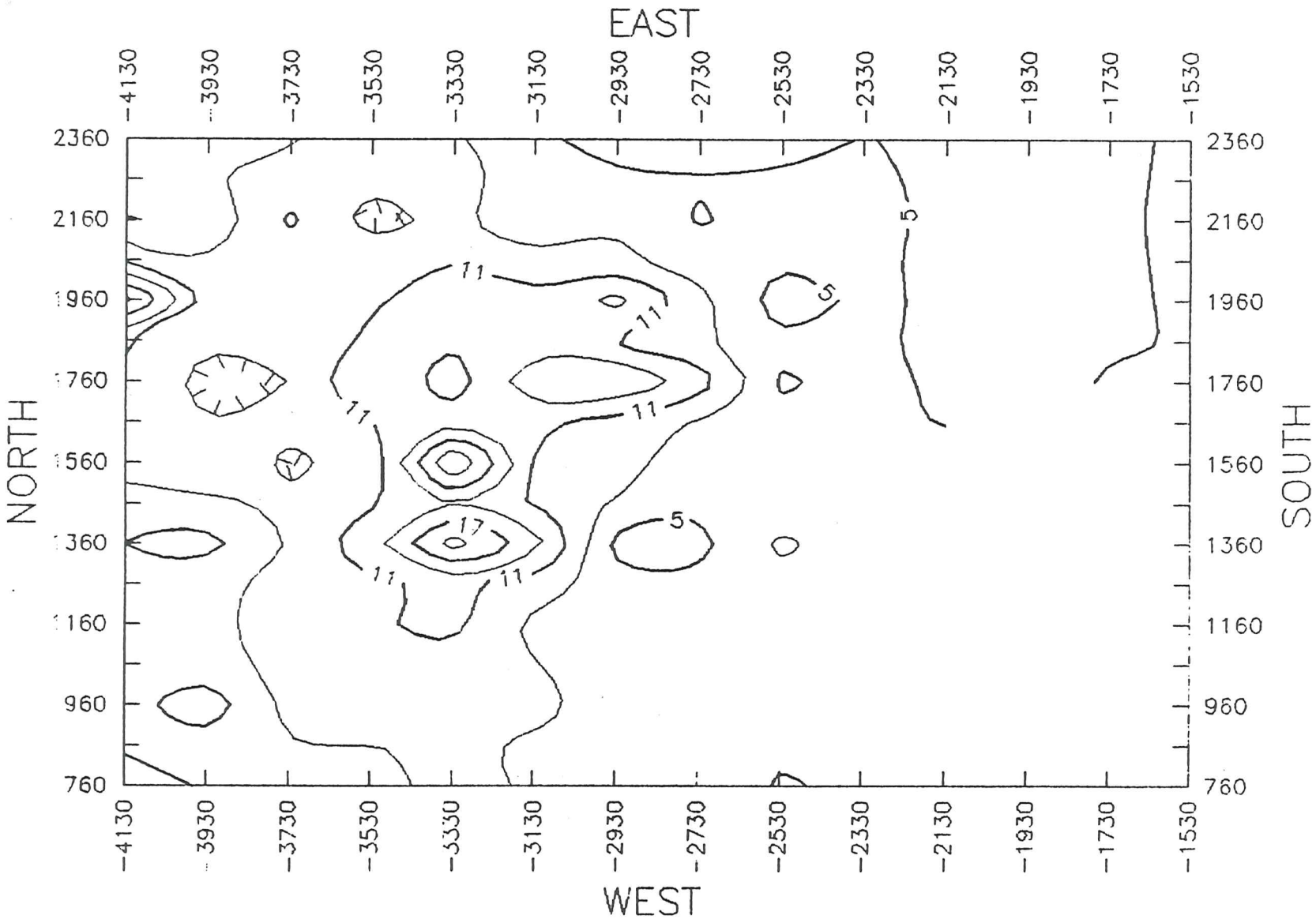

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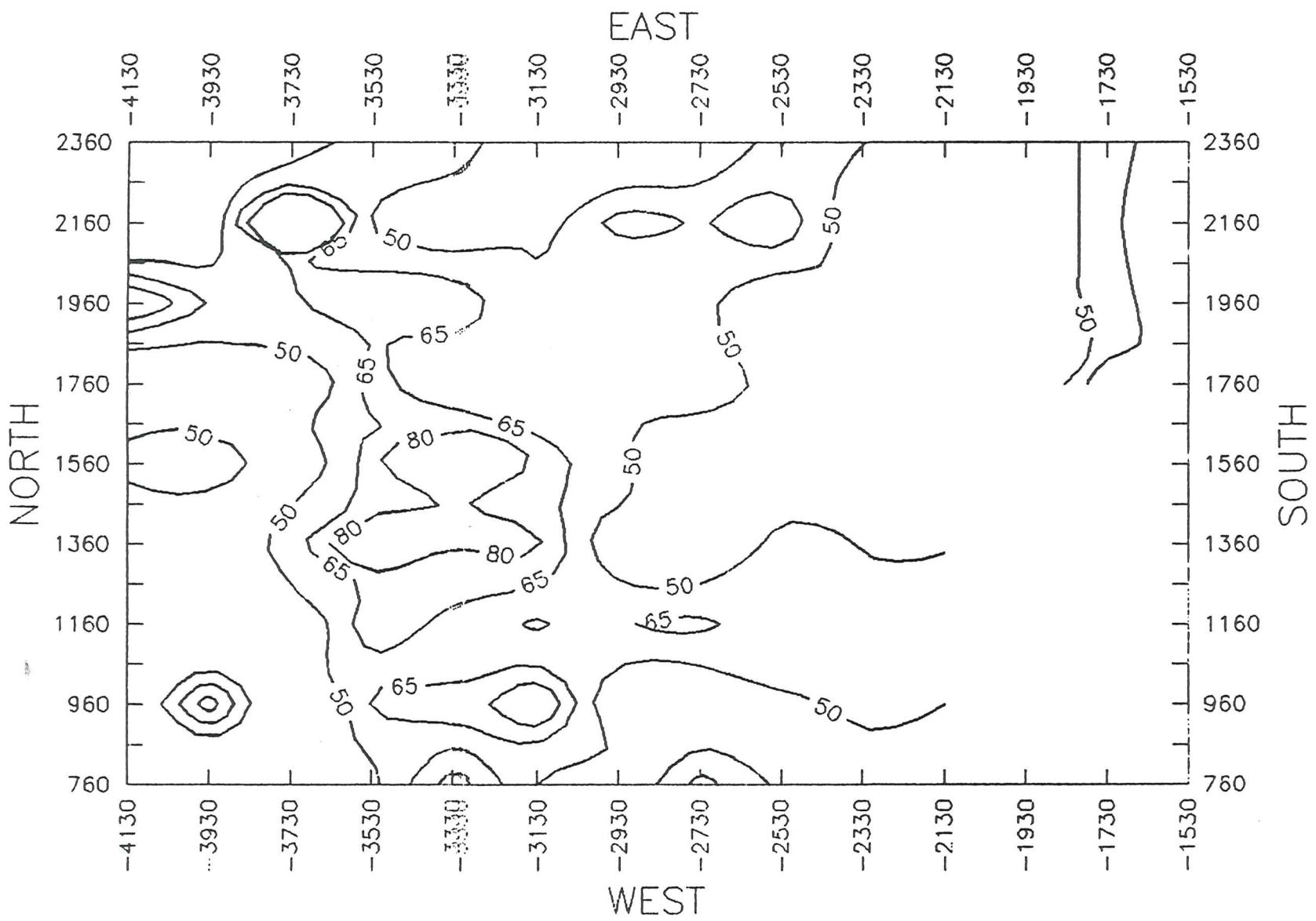

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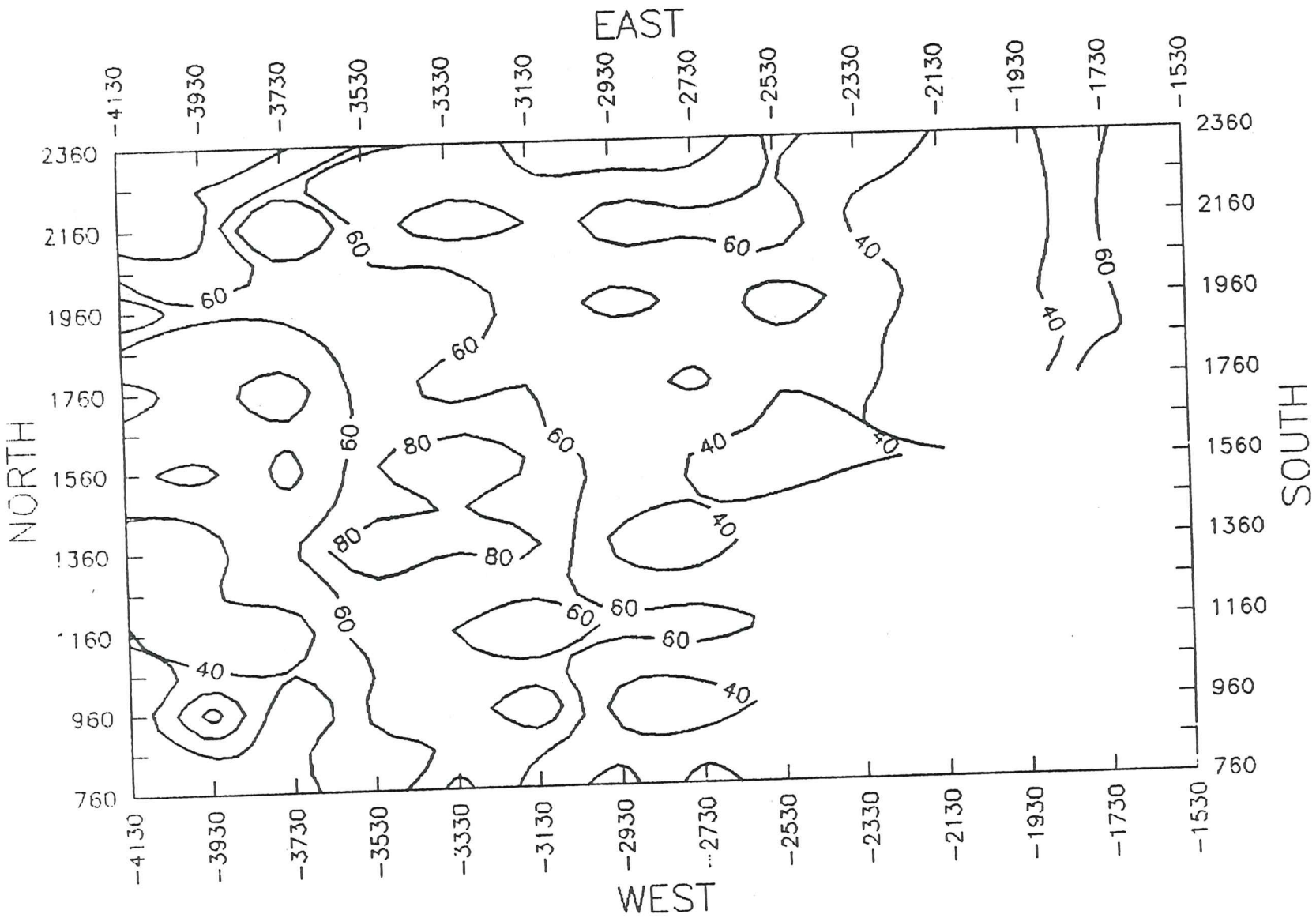

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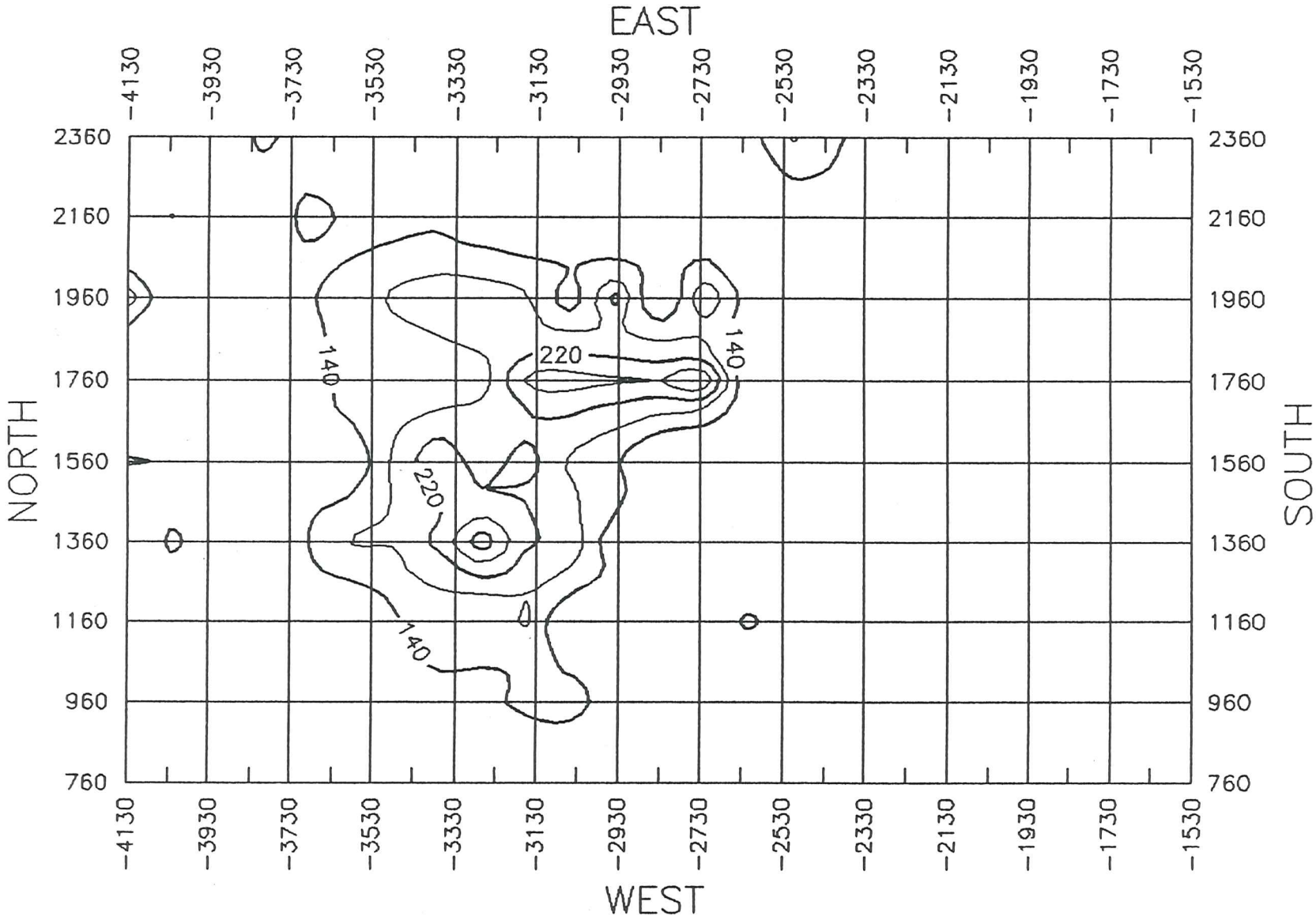

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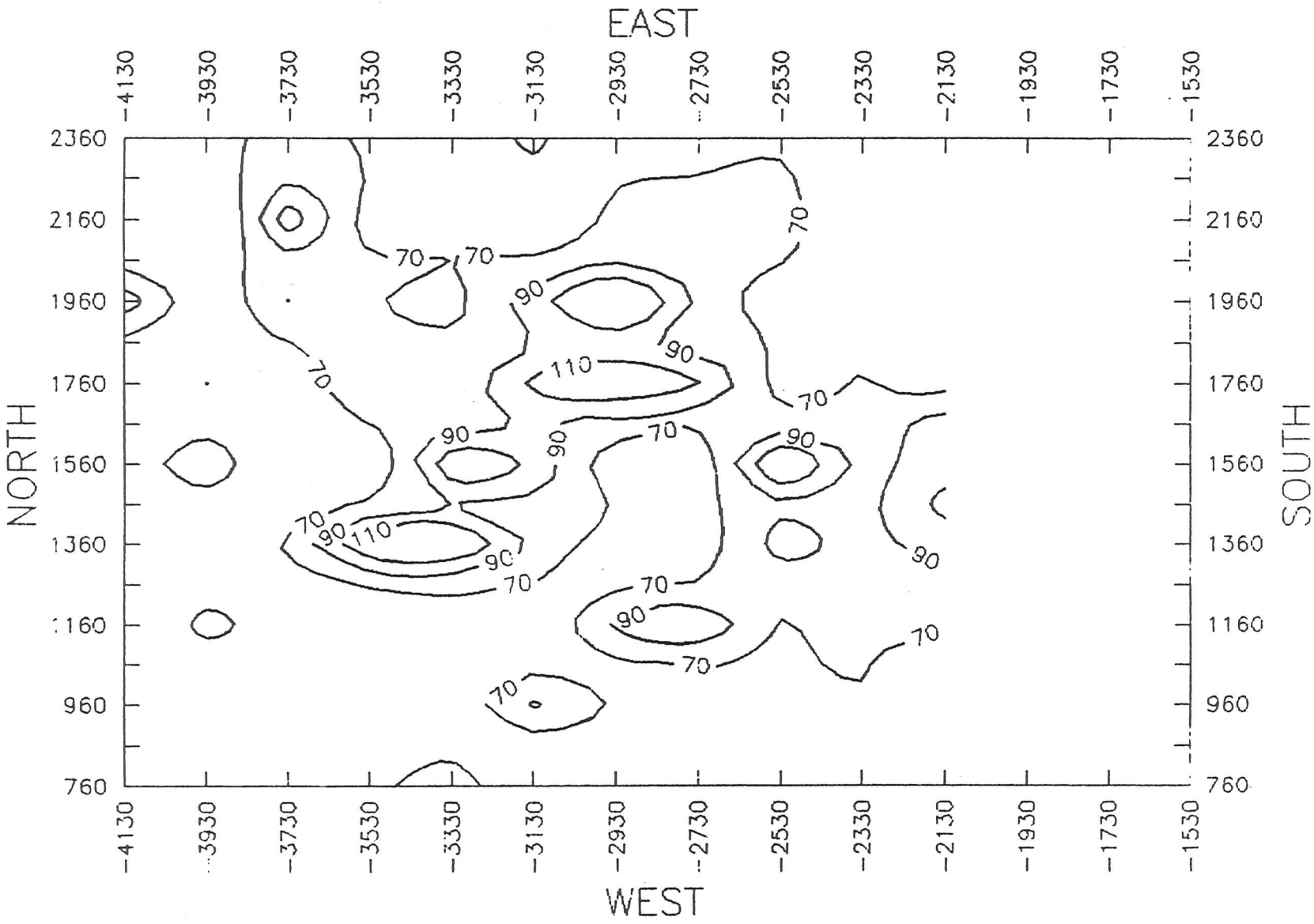

SHASTA
ANALYTICAL GEOCHEMISTRY LABORATORY
1240 Redwood Blvd., Redding, California 96003
Chuck Whipple - Owner/Mgr.

6/94

CLIENT ENDORSEMENT STATEMENTS

"I have successfully used Shasta for various drilling projects since 1991. I have found that the rapid preliminary Au reporting to be of paramount importance in the ever-changing day to day drillhole planning. Sample pickup and lack of problems has been much appreciated." --Warren Thompson, Project Geologist Site Manager, LTX Exploration and Development, Santa Fe Pacific Gold

"In the drilling programs, I have used other labs, blanks and duplicate samples to check the quality of the results from Shasta and have been well pleased with the results. The turnaround time on samples is second to none in the industry..."--Kevin Downing, Senior Geologist, Santa Fe Pacific Gold

"We did a comparison of eight labs using coarse gold standards to determine who was best suited for our coarse gold drilling project. Of the labs tested, Shasta rated the highest, with the smallest deviation on repeat tests while average results came the closest to actual grade values." --Randy Moore, Senior Geologist, Cambior USA, Inc

"Shasta has been our primary core assay lab for the past seven years. Shasta has consistently given us timely returns and their quality control is excellent. Of the few problems we have had, they were quick to find the cause and come up with a solution." --Charlie Tapper, Senior Geologist, Santa Fe Pacific Gold

"I don't know that we've had a better comparison on a check assay program than what we experienced in 1993 with Shasta. On 1300 check assays, the correlation of results was excellent, and the mean difference was less than 0.4%.--Robin Hendrickson, Exploration Manager, Santa Fe Pacific Gold

(916) 244-4441 FAX (916) 244-4443

SHASTA
ANALYTICAL GEOCHEMISTRY LABORATORY
1240 Redwood Blvd., Redding, California 96003
Chuck Whipple - Owner/Mgr.

Shasta Analytical Geochemistry Lab Quality Assurance Summary

Using one word to best describe the quality control procedures at Shasta, one would use the word "interactive". An interactive quality assurance program ensures that if a test goes unsatisfactorily, the technicians know it (monitor & evaluate), correct it (revise procedures), and rerun it.

Therefore, an interactive quality assurance program continuously strengthens itself - reducing the incidence of error rate, while improving accuracy and precision. Described below are the procedures to: monitor and evaluate results; and analyze samples with the greatest accuracy and precision.

Monitor and Evaluate

There are several checkpoints used to monitor analytical procedures. Some crucial ones include:

1. Two gold-barren samples are run through each crusher before any low detection sample run and are analyzed for Au. Therefore, contamination of the entire lab -- from sample drying, crushing, fire assaying, digesting, to analysis, is evaluated before job commencement.

2. During fusion, every sample is individually evaluated for the appropriateness of the flux formula utilized. Evaluation takes place by checking for "shotty" pours of the crucibles after fusion, documenting slag color, documenting button weights and malleableness. If unsatisfactory, the sample is reassayed with a custom flux suitable for that particular sample. An improper flux can allow high levels of interfering metals to remain in the lead button and therefore be present during cupellation. If this occurs, these unwanted metals will oxidize during cupellation, elevating the temperature of such and volatilize unacceptable amounts of gold.

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3. A fire assay blank and standard are run every 18 samples and a duplicate every tenth sample. There are two types of standards for evaluating the accuracy of two different processes: fusion (gold recovery) and AA finish (precision).

   A. There is currently a library of over 100 standards, where exhausted standards are continuously replaced by new additions. Their concentrations are generally over .1 oz/ton so that the completeness of recovery can be accurately assessed. Six standards are run every eight hours and convey recovery performance in nearly a real-time mode.

   B. AA finish digestion precision is evaluated with seven different concentrations of standards. These range from 21 to 1146 ppb. Each rack of 21 assays has one standard on it. These are charted daily to monitor digestion and atomic absorption performance.

4. Sample sequence is confirmed by verifying cupel color after cupellation. Adding copper to a fire assay will turn the cupel green during cupellation. Therefore, a copper inquart is added to each odd numbered sample before pulp weighing. This copper check is documented at different stages of production to pinpoint areas of failure. After both pulp weighing and cupellation, the copper sequence is confirmed against the sample number to ensure proper sequence.

5. Each sample pulp is evaluated for mesh size by no fewer than two departments. This ensures proper mesh size which most often is <u>the</u> factor that determines whether an assay is accurate or useless in a coarse gold ore deposit.

6. A <u>minimum</u> of 2 certified or verified rock samples of different concentrations are digested with each geochemical job and analyzed for each element run.

Analytical Procedures

1. High speed, low temp (60 C) sample drying to facilitate quick turnaround and accurate results on volatile elements.

2. Both mechanical and air cleaning of every sample crusher/pulverizer between each sample. The jaw and roll crushers are brushed and blown clean after each sample, and the pulverizers are opened up, blown clean, closed, run with barren material, opened again, and blown clean after each sample.

3. Pulps are rolled 40 repetitions before subsampling. This is the last in a series of sample prep procedures that enables each sample to follow a statistical model where each subsample represents the whole. The model requires that at each subsampling phase enough random occurrences take place in the sample that the subsample taken is large enough to represent the sample. Similarly, rolling the pulp alleviates the effect of classifying the sample by specific gravity which impedes random occurrences and the ability to take an accurate subsample.

4. Only high litharge, in-house developed fluxes are used to allow the highest gold recovery and reproducibility.

5. Empirical testing has shown that at over .035 oz/ton the analytical precision of an isolated gravimetric process versus the AA process is +/- 2% vs 10%. For this reason, whenever Shasta processes samples requiring an AA finish on gold results, any samples whose concentration is greater than .035 oz/ton will have a gravimetric finish.

10:54AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

ATTENTION CRAIG WINETEER

SP032729 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	124/15 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
1con	RL-221 00-40	8	26	RL-221 850-875	RL-221 SECT. 1500NW
2	RL-221 40-90	10	27	RL-221 875-900	
3	RL-221 90-120	6	28con	RL-221 900-935	
4	RL-221 120-160	8	29	RL-242 15-65	
5	RL-221 160-200	185-190 6	30	RL-242 65-125	
6	RL-221 200-250		31	RL-242 125-170	
7	RL-221 250-300		32	RL-242 220-245	
8	RL-221 300-350		33	RL-242 413-473	
9	RL-221 350-375		34	RL-242 498-523	
10	RL-221 375-400	5	35	RL-242 523-541	
11	RL-221 400-430	6	36	RL-242 541-570	
12	RL-221 430-465	7	37	RL-242 570-595	
13con	RL-221 465-490	5	38con	RL-242 595-625	
14	RL-221 490-525	7	39	RL-242 625-640	
15	RL-221 525-555	550 5	40	RL-242 640-659.2	
16	RL-221 555-585	N/S	41	RL-242 659.2-698	
17	RL-221 585-625		42con	RL-273 00-20	
18	RL-221 625-655		43	RL-273 20-65	
19	RL-221 655-690				
20con	RL-221 690-720				
21	RL-221 720-750				
22	RL-221 750-775				
23	RL-221 775-800				
24	RL-221 800-825				
25	RL-221 825-850				

10:54AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

SP032729 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	124/15 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
44	RL-273 65-75		69	RL-288C 90-130	8
45	RL-273 75-100		70	RL-288C 130-150	4
46	RL-273 100-115	N/S	71	RL-288C 150-175	5
47	RL-273 115-165		72	RL-288C 175-215	8
48	RL-273 165-190		73	RL-266 00-30	
49	RL-273 190-235		74	RL-266 30-85	
50	RL-273 235-280		75	RL-266 85-115	N/S
51	RL-273 280-295		76	RL-266 115-150	
52	RL-273 295-320		77con	RL-266 150-170	
53	RL-273 320-370		78	RL-266 170-190	
54	RL-273 370-420	10	79	RL-266 190-225	
55	RL-273 420-470	10	80	RL-266 495-535	8
56con	RL-273 470-485	3	81	RL-266 535-570	7
57	RL-273 485-505	4	82	RL-266 570-595	5
58con	RL-273 505-535	6	83	RL-266 595-625	6
59	RL-273 535-580	9	84	RL-266 625-665	8
60	RL-273 580-615	7	85con	RL-266 665-700	7
61	RL-273 615-625	2	86	RL-270 00-25	5
62	RL-273 625-650	5			
63	RL-273 650-665	3			
64	RL-273 665-690	5			
65	RL-273 690-700	2			
66	RL-288C 00-30	6			
67	RL-288C 30-60	6			
68con	RL-288C 60-90				

10:54AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

SP032729 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	124/15 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
87	RL-270 25-80	11	112	RL-220 300-350	
88	RL-270 80-125	9	113	RL-220 350-385	
89	RL-270 125-165	8	114	RL-220 385-410	
90	RL-270 165-196	7	115	RL-220 410-450	410-415 415-420 425-430 5 430-435
91	RL-270 196-258	5	116	RL-220 450-500	10
92	RL-270 258-278	4	117con	RL-220 500-550	10
93	RL-253 00-20	4	118	RL-220 550-600	10
94	RL-253 20-75	11	119	RL-220 600-650	10
95con	RL-253 75-165	18	120	RL-220 650-700	10
96	RL-253 165-205	8	121	RL-220 700-750	10
97	RL-253 205-225	4	122con	RL-220 750-800	6 780-785 790-795 775-780 785-790 795-800
98	RL-253 225-260	7	123	RL-220 800-830	missing
99con	RL-253 260-300	8	124	RL-220 830-865	
100	RL-253 300-350	10			
101	RL-253 350-400	10			
102	RL-253 400-425	5			
103	RL-253 425-475	10			
104	RL-253 475-525	10			
105	RL-253 525-560	7			
106con	RL-220 00-25	5			
107	RL-220 25-100	12 85-90-95-100 80-85 90-95			
108	RL-220 100-175	2 100-105 105-110	missing 110-115 115-120 120-125 125-130 130-135 135-140 140-145 145-150 150-155 155-160 160-165		
109	RL-220 175-250	15			
110	RL-220 250-275	3 65-70 70-75			
111	RL-220 275-300				

10:05AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

SP032728 HECLA

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	145/18 |ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
1	RL-267 100-150	10	26	RL-256 300-350	10
2	RL-267 150-200	10	27	RL-256 350-400	10
3	RL-267 200-250	10	28	RL-256 400-450	10
4	RL-267 250-300	10	29	RL-256 450-500	10
5	RL-269 00-20	4	30con	RL-256 500-550	10
6con	RL-269 20-50	6	31	RL-256 550-600	10
7	RL-269 50-100	10	32	RL-272 300-350	10
8	RL-269 100-150	10	33con	RL-272 350-370	4
9	RL-269 150-200	10	34	RL-272 370-390	4
10	RL-269 200-250	10	35	RL-272 390-430	8
11	RL-269 250-300	10	36	RL-272 430-475	8
12	RL-269 300-350	10	37	RL-282 100-150	10
13	RL-269 350-400	10	38	RL-282 150-200	10
✓14	RL-269 400-425	5	39	RL-282 200-250	10
15con	RL-269 425-455	6	40	RL-282 250-285	7
16	RL-269 455-500	8	41	RL-282 285-325	8
17con	RL-269 500-550	10	42	RL-222 15-40	20-25 2 25-30 30-35 missing
18	RL-256 00-10	2	43con	RL-222 55-100	65-70 85-90 70-75 90-95 80-85 3
19	RL-256 10-50	8			
20	RL-256 50-100	10			
21	RL-256 100-150	10			
22	RL-256 150-200	10			
23	RL-256 200-250	10			
24	RL-256 250-275	5			
25	RL-256 275-300	10			

10:06AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

SP032728 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	145/18 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
44	RL-222 115-120	1	69	RL-222 925-950	N/S
45	RL-222 135-140	1	70	RL-222 950-975	N/S
46	RL-222 155-200	3 60-65 80-85 65-70 85-90 70-75 90-95 missing	71con	RL-222 975-1000	N/S
47	RL-222 215-240	2 30-35 35-40 40-45	72	RL-258 00-25	5
48	RL-222 255-300	3 60-65 80-85 65-70 85-90 70-75 90-95	73	RL-258 25-50	5
49	RL-222 315-340	2 30-35 35-40 40-45	74con	RL-258 50-100	10
50	RL-222 355-400	3 360-365 80-85 365-370 85-90 370-375 90-95	75	RL-258 100-150	10
51	RL-222 405-450	5 410-415 440-445 420-425 430-435	76	RL-258 150-175	5
52	RL-222 455-500	5 460-465 480-485 465-470 485-490 470-475 490-495	77	RL-258 175-200	5
53con	RL-222 500-525	5	78	RL-258 200-225	5
54	RL-222 525-550	535-540 3	79	RL-258 225-250	5
55	RL-222 550-575	N/S	80	RL-258 250-275	5
56	RL-222 575-600	N/S	81	RL-258 275-300	5
57con	RL-222 600-625	N/S	82con	RL-258 300-325	5
58	RL-222 625-650	N/S	83	RL-258 325-350	5
59	RL-222 650-675	N/S	84	RL-258 350-375	5
60	RL-222 675-700	N/S	85	RL-258 375-400	5
61	RL-222 700-725	N/S	86	RL-258 400-425	5
62	RL-222 725-750	5			
63	RL-222 750-775	5			
64	RL-222 775-800	5			
65	RL-222 800-825	5			
66	RL-222 825-850	5			
67	RL-222 850-900	10			
68	RL-222 900-925				

10:06AM AMERICAN ASSAY LABORATORIES 22 FEB 1995

SP032728 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	145/18 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
87	RL-258 425-450	5	112	RL-217 350-400	
88	RL-258 450-475	5	113	RL-217 400-450 405	9
89	RL-258 475-500	5	114	RL-217 450-500	10
90	RL-258 500-525	5	115	RL-217 500-550	10
91	RL-258 525-550	5	116con	RL-217 550-600	10
92	RL-258 550-575	5	117	RL-217 600-625	5
93	RL-258 575-600	5	118	RL-217 625-650	
94	RL-258 600-625	5	119	RL-217 650-675	
95	RL-258 625-650	5	120	RL-217 675-700	
96con	RL-258 650-675	5	121	RL-217 700-725	
97con	RL-258 675-700	5	122	RL-217 725-750	NS
98	RL-258 700-725	5	123	RL-217 750-775	
99	RL-258 725-750	5	124con	RL-217 775-800	
100	RL-258 750-775	5	125	RL-217 800-825	
101	RL-258 775-800	5	126	RL-245 00-25	
102	RL-258 800-825	5	127	RL-245 25-100	
103	RL-258 825-850	5	128	RL-245 100-150	
104	RL-258 850-875	5	129con	RL-245 150-200	
105	RL-217 00-25				
106	RL-217 25-100				
107	RL-217 100-150				
108	RL-217 150-200	NS			
109	RL-217 200-250				
110	RL-217 250-300				
111con	RL-217 300-350				

SP032728 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	145/18 |ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
130	RL-245 200-250				
131	RL-245 250-300				
132	RL-245 300-350				
133	RL-245 350-400				
134	RL-245 400-450	N/S			
135	RL-245 450-500				
136	RL-245 500-550				
137	RL-245 550-575				
138con	RL-245 575-600				
139	RL-245 600-650				
140	RL-245 650-675				
141	RL-245 675-700				
142	RL-245 700-725				
143	RL-245 725-800				
144	RL-245 800-850				
145	RL-245 850-900				

± 270 composite samples

Post-it™ Fax Note 7671	Date 2-21-95	# of pages ▶ 3
To SUE KING	From CRAIG WINETEER	
Co./Dept.	Co.	
Phone #	Phone # 1(702) 427-7751	
Fax # 1(702) 356-1413	Fax #	

PAGE 1 – LAC 2

Composite Pulp sa

nox Drill Holes w/ rage units

↳ Delivered 2-16-95 to AAL

RL-267	100-150
	150-200
	200-250
	250-300
RL-269	0-20
	20-50
	50-100
	100-150
	150-200
	200-250
	250-300
	300-350
	350-400
	400-425
	425-455
	455-500
	500-550

17

RL-256	0-10
	10-50
	50-100
	100-150
	150-200
	200-250
	250-275
	275-300
	300-350
	350-400
	400-450
	450-500
	500-550
	550-600

14

RL-272	300-350
	350-370
	370-390
	390-430
	430-475
RL-282	100-150
	150-200
	200-250
	250-285
	285-325

10

RL-221

0-40
40-90
90-120
120-160
160-200
200-250
250-300
300-350
350-375
375-400
400-430
430-465
465-490
490-525
525-555
555-585
585-625
625-655
655-690
690-720
720-750
750-775
775-800
800-825
825-850
850-875
875-900
900-935

20
37
20

RL-242

15-65
65-125
125-170
220-245
413-473
498-523
523-541
541-570
570-595
595-625
625-640
640-659.2
659.2-698

RL-273

0-20
20-65
65-75
75-100
100-115
115-165
165-190
190-235
235-280
280-295
295-320
320-370
370-420
420-470
470-485
485-505
505-535
535-580

RL-288C

0-30
30-60
60-90
90-130
130-150
150-175
175-215

RL-266

0-30
30-85
85-115
115-150
150-170
170-190
190-225
495-535
535-570
570-595
595-625
625-665
665-700

CONTINUED
580-615
615-625
625-650
650-665
665-690
690-700

RL-270

0-25
25-80
80-125
125-165
165-196
196-258
258-278

7

RL-253

0-20
20-75
75-165
165-205
205-225
225-260
260-300
300-350
350-400
400-425
425-475
475-525
525-560

13

RL-220

0-25
25-100
100-175
175-250
250-275
275-300
300-350
350-385
385-410
410-450
450-500
500-550
550-600
600-650
650-700
700-750
750-800
800-830
830-865

19

RL-222

15-40
55-100
115-120
135-140
155-200
215-240
255-300
315-340
355-400
405-450
455-500
500-525
525-550
550-575
575-600
600-625
625-650
650-675
675-700
700-725
725-750
750-775
775-800
800-825
825-850
850-900
900-925
925-950
950-975
975-1000

30
39
41

RL-258

0-25
25-50
50-100
100-150
150-175
175-200
200-225
225-250
250-275
275-300
300-325
325-350
350-375
375-400
400-425
425-450
450-475
475-500
500-525
525-550
550-575
575-600
600-625
625-650
650-675
675-700
700-725
725-750
750-775
775-800
800-825
825-850
850-875
875-900

RL-217

0-25
25-100
100-150
150-200
200-250
250-300
300-350
350-400
400-450
450-500
500-550
550-600
600-625
625-650
650-675
675-700
700-725
725-750
750-775
775-800
800-825

RL-245

0-25
25-100
100-150
150-200
200-250
250-300
300-350
350-400
400-450
450-500
500-550
550-575
575-600
600-650
650-675
675-700
700-725
725-800
800-850
850-900

AMERICAN ASSAY LABORATORIES

1500 GLENDALE AVE.

SPARKS, NV. 89431

FACSIMILE TRANSMITTAL SHEET

DATE: 2/15/95 **TIME:** :

NUMBER OF PAGES INCLUDING THIS SHEET: ( )

TO: Craig Wineteer

COMPANY:

FROM: Sue King

SUBJECT: Composites.

MESSAGE:

Craig - Here is the list of composites we have done.

The guys have listed how many samples are in each composite and samples that are missing or if the pulps bags are different than your list.

Please call with questions as some of it looks messy.

NOTE: IF ANY OF THE FAX COPIES ARE ILLEGIBLE, OR YOU DO NOT RECEIVE ALL PAGES , PLEASE CONTACT US IMMEDIATELY AT:

PHONE: (702) 356-0606 or **FAX:** (702) 356-1413

American Assay Laboratories Inc.

2:18PM AMERICAN ASSAY LABORATORIES 6 FEB 1995

SP032481 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	291/36 ACME		

ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
1	RL-50 00-15	3	26	RE-72C 125-175	10
2	RE-50 15-70 BD.5 70-75	13	27	RE-72C 175-225	10
3	RD-50 75-135	13	28	RE-72C 225-275	10
4	RL-50 135-185	10	29con	RE-72C 275-295	4
5con	RE-50 185-235	10	30	RE-72C 295-345	10
6	RL-50 235-270	2	31	RE-72C 345-385	9
7	RL-50 270-325	11	32	RE-72C 385-430	10
8	RL-50 325-375	10	33	RE-72C 430-481	11
9	RL-50 375-425	10	34	RE-72C 481-532	12
10	RL-50 425-485	12	35	RE-72C 532-550	4
11con	RL-50 485-510	5	36	RE-72C 550-590	8
12	RL-1 00-30	6	37	RE-72C 590-645	11
13	RL-1 30-100	14	38	RL-129C 200-245	9
14	RL-1 100-150	10	39	RL-129C 245-285	9
15	RL-1 150-200	10	40con	RL-129C 285-321	5
16	RL-1 200-250	9-235.240.	41	RL-129C 321-346	3
17	RL-1 250-300	10	42	RL-129C 346-362	4
18	RL-1 300-345	9	43	RL-129C 362-382	4
19	RL-1 345-385	8			
20	RL-1 385-425	8			
21	RL-1 425-475	10			
22con	RL-1 475-530	11			
23		7			
24	RE-72C 530-575	14			
25	RE-72C 575-625	10			

6 FEB 1995

SP032481 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	291/36 ACME		

No.	SAMPLE	COMMENTS
44	RL-129C 382-422	
45	RL-129C 422-442	8 4
46con	RL-196C 00-60	12
47	RL-196C 60-125	13
48	RL-196C 125-175	10
49	RL-196C 175-215	8
50	RL-196C 215-275	12
51	RL-196C 275-[illegible]	4
52	RL-196C 372-382	3
53	RL-196C 382-422	8
54	RL-196C 422-458	8
55con	RL-196C 458-478	4
56	RL-196C 478-500.5	5
57	RL-196C 500.5-521	4
58	RE-71C 30-70	8
59	RE-71C 70-112	10
60	RE-71C 112-157	9
61	RE-71C 157-206	10
62con	RE-71C 206-247	7
63	RE-71C 247-272	5
64	RE-71C 272-296	5
65	RE-71C 296-323	6
66	RE-71C 323-344	4
67con	RE-71C 344-382	8

No.	SAMPLE	COMMENTS
69	RE-71C 424.3-470	10
70	RE-71C 470-510	8
71	RE-71C 510-545	7
72	RL-128C 65-100	
73	RL-128C 115-150	
74	RL-128C 165-210	
75	RL-128C 225-270	
76con	RL-128C 295-300	
77	RL-128C 346-374	
78	RL-128C 482-517	
79	RL-128C 532-580	
80	RL-128C 595-649	
81	RL-209C 10-55	3
82	RL-209C 55-100	3
83con	RL-209C 100-150	4
84	RL-209C 150-205	3
85	RL-209C 205-255	3

Couldn't find

10-15
25-30
40-45

Samples that where there

55-60
70-75
85-90
100-105
115-120
130-135
145-150
160-165
175-180
190-195
205-210
220-225
235-240

SP032481 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	291/36 ACME		

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
86	RL-209C 255-280	2 255-260 275-280	111	RL-127C 467-487	4
87	RL-209C 280-345	CAN NOT FIND	112	RL-127C 487-502	3
88	RL-209C 345-358.4	3	113	RL-127C 502-517	3
89	RL-209C 358.4-373	3	114con	RL-127C 517-533	3
90	RL-209C 373-409	7	115	RL-127C 533-542	2
91	RL-209C 409-448	8	116	RL-127C 542-559.5	4
92con	RL-209C 448-468	4	117	RL-127C 559.5-579.5	4
93	RL-209C 468-491	5	118	RL-127C 579.5-610.5	5
94	RL-209C 491-511	4	119	RL-162 00-50	10 30-35
95	RL-209C 511-531	4	120	RL-162 50-100	10 NOT SUB?
96	RL-209C 531-550	4	121	RL-162 100-150	10 No Sample
97	RL-209C 550-572.5	5	122	RL-162 150-200	10 in envelope
98con	RL-209C 572.5-593	4	-123	RL-162 200-250	10
99	RL-127C 00-50	10	124	RL-162 250-300	10
100	RL-127C 50-100	10	125	RL-162 300-315	3
101	RL-127C 100-150	10	126con	RL-162 315-365	10
102	RL-127C 150-200	10	127	RL-162 365-400	7
103	RL-127C 200-250	10	128	RL-162 400-445	9
104	RL-127C 250-300	10			
105	RL-127C 300-340	8			
106	RL-127C 340-385	9			
107con	RL-127C 385-407	4			
108	RL-127C 407-427	4			
109	RL-127C 427-447	4			

5P0JZ481 RECLA

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	291/36 |ACME		

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
129	RL-60 00-25	5	154	RL-126C 70-100	6
130	RL-60 25-75	10	155	RL-126C 100-130	6
131	RL-60 75-125	10	156	RL-126C 130-160	6
132con	RL-60 125-150	5	157	RL-126C 160-190	5 180-185
133	RL-60 150-175	5	158	RL-126C 190-235	9
134	RL-60 175-200	5	159con	RL-126C 235-260	5
135	RL-60 200-225	5	160	RL-126C 260-300	8
136	RL-60 225-250	5	161	RL-126C 300-340	8
137	RL-60 250-275	5	162	RL-126C 340-~~363.5~~ 355	3
138con	RL-60 275-300	5	163	RL-126C 463.5-500	7
139	RL-60 300-325	5	164	RL-126C 500-525	5
140	RL-60 325-350	5	165	RL-126C 525-550	5
141	RL-60 350-400	10	166con	RL-126C 550-576	5
142	RL-60 400-415	3	167	RL-126C 576-601	5
143	RL-60 415-430	3	168	RL-126C 601-627	5
144	RL-60 430-450	4	169	RL-126C 627-651	5
145	RL-60 450-475	5	170	RL-126C 651-686	7
146	RL-60 475-500	5	171con	RL-126C 686-701	3
147	RL-60 500-525	5			
148	RL-60 525-550	5			
149	RL-60 550-575	5			
150con	RL-60 575-600	5			
151	RL-60 600-617	4			
152	RL-126C 00-35	7			

SP032482 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	335/41 ACME		

ACME

No.	SAMPLE	COMMENTS
44con	RL-123C 542-557	3
45	RL-123C 557-572	3
46	RL-123C 572-597	5
47	RL-123C 597-627	6
48	RL-123C 627-654	6 651.653
49	RL-123C 654-682	4
50	RL-123C 682-698	4
51	RL-105C 00-40	8
52	RL-105C 40-100	12
53	RL-105C 100-150	10
54	RL-105C 150-200	10
55con	RL-105C 200-250	10
56	RL-105C 250-[redacted] 295	9
57	RL-105C 300-350	9 305-310
58con	RL-105C 350-400	5 365-370 395-399
59	RL-105C 400-465	13
60	RL-105C 465-542	536-542 1
61	RL-105C 542-609	594-604 3
62	RL-105C 609-672.5	NS
63	RL-105C 672.5-750	NS
64	RL-105C 750-800.5	NS
65	RL-105C 800.5-842	NS
66	RL-105C 842-882	NS
67con	RL-105C 882-912	NS
68	RL-105C 912-930	NS
69	RL-105C 930-952	NS
70	RL-105C 952-1002	NS
71	RL-105C 1002-1062	NS
72	RL-102C 00-20	4
73	RL-102C 20-45	5
74	RL-102C 45-100	11
75	RL-102C 100-150	10
76	RL-102C 150-200	10
77	RL-102C 200-250	10
78	RL-102C 250-300	10
79con	RL-102C 300-350	10
80	RL-102C 350-400	10
81	RL-102C 400-440	8
82	RL-102C 440-492	10 Sample start with 441
83	RL-102C 492-542	10
84	RL-102C 542-587	9
85	RL-102C 655-697	8
86	RL-102C 697-745	10

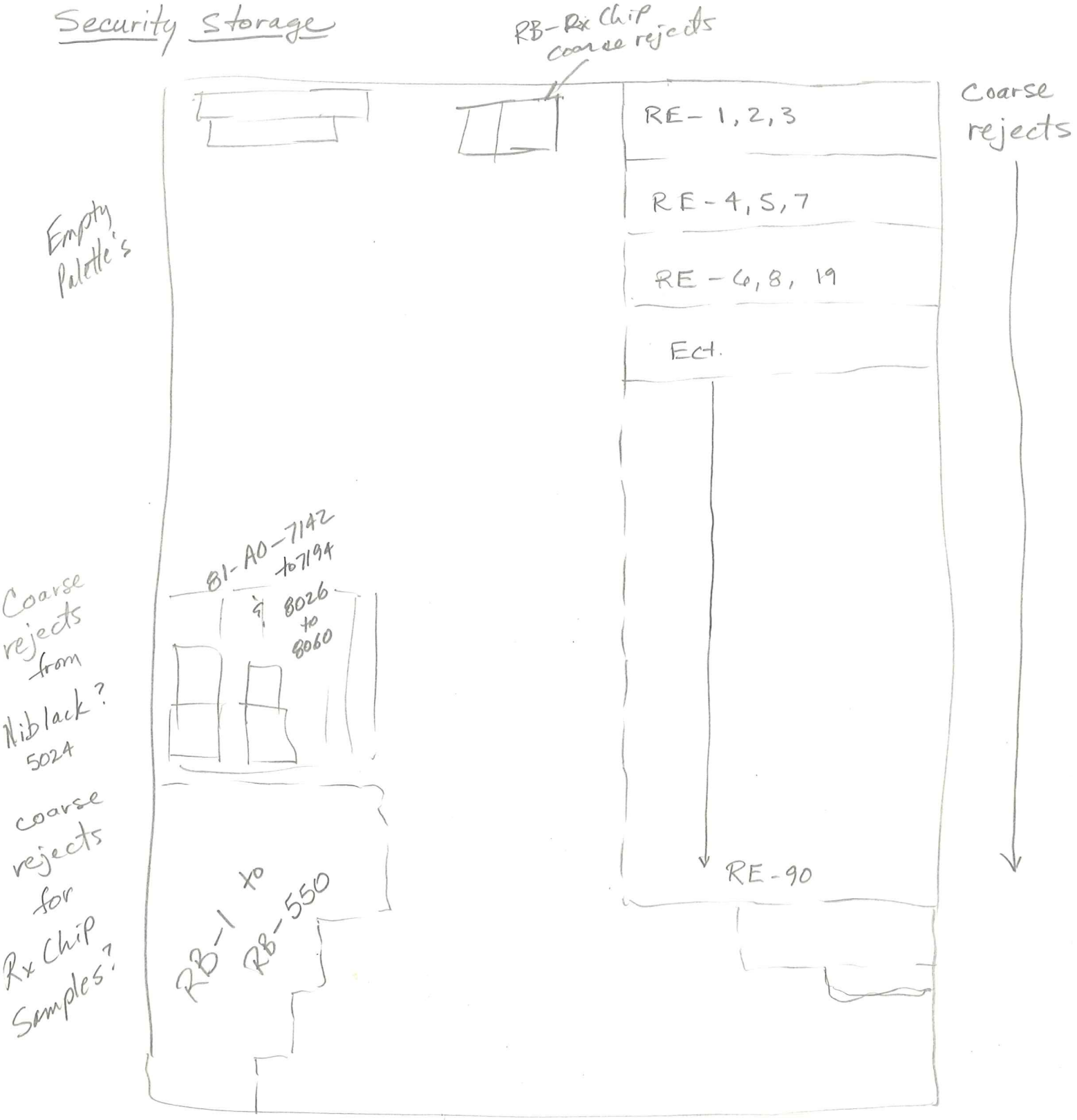
SP032482 **HECLA**

DRY		PULVERIZE	
CRUSH		SIEVE	
HMR/MILL		SAMPLE TYPE	
SPLIT		AVG WEIGHT	
SAMP/CNTLS	335/41 ACME		

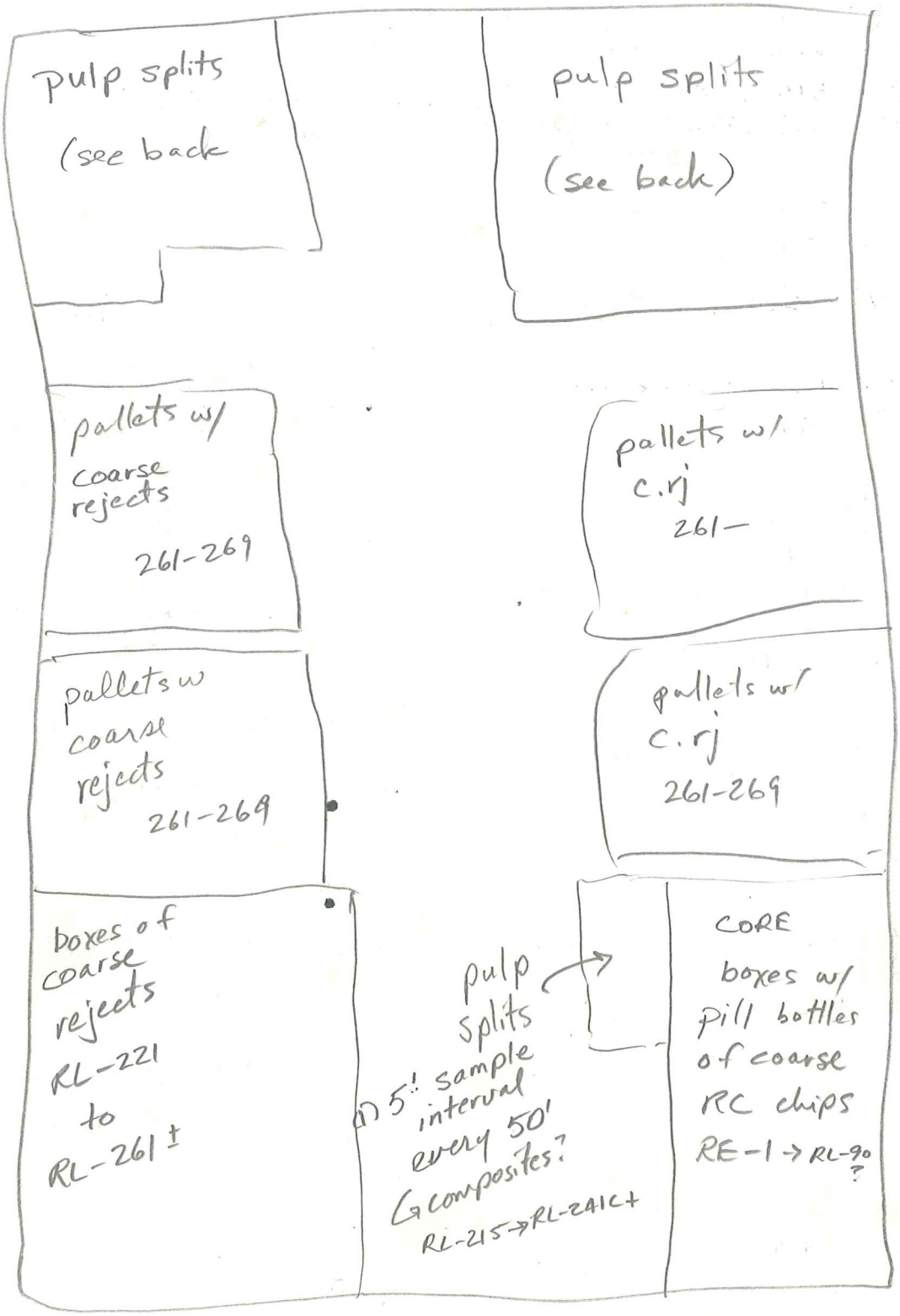
ACME

No.	SAMPLE	COMMENTS	No.	SAMPLE	COMMENTS
1con	RL-88C 00-20	4	26	RL-88C 840-880	9
2	RL-88C 20-75	11	27	RL-88C 880-920	8
3	RL-88C 75-125	10	28	RL-88C 920-962	8 -935.940
4	RL-88C 125-175	10	29	RL-123C 0-5	1
5	RL-88C 175-225	10	30	RL-123C 5-50	9
6	RL-88C 225-275	10	31	RL-123C 50-100	10
7	RL-88C 275-325	10	32con	RL-123C 100-150	10
8	RL-88C 325-350	5	33	RL-123C 150-200	10
9	RL-88C 350-375	5	34	RL-123C 200-250	10
10con	RL-88C 375-400	5	35con	RL-123C 250-300	10
11	RL-88C 400-425	5	36	RL-123C 309.5-330	4
12	RL-88C 425-450	5	37	RL-123C 380.5-401	4
13	RL-88C 450-475	5	38	RL-123C 401-426.5	5
14	RL-88C 475-500	5	39	RL-123C 426.5-452	5
15	RL-88C 500-550	10	40	RL-123C 452-477	4
16	RL-88C 550-600	10	41	RL-123C 477-502	5
17	RL-88C 600-650	10	42	RL-123C 502-532	6
18	RL-88C 650-675	4	43	RL-123C 532-542	2
19	RL-88C 675-700	5			
20	RL-88C 700-720	4			
21con	RL-88C 720-750	6			
22	RL-88C 750-775	5			
23	RL-88C 775-795	4			
24	RL-88C 795-825.7	6			
25	RL-88C 825.7-840	3			

Security Storage



STORE & STUFF


pulp splits
(see back
pulp splits
(see back)
pallets w/
coarse
rejects
261-269
pallets w/
c.rj
261-
pallets w
coarse
rejects
261-269
pallets w/
c.rj
261-269
boxes of
coarse
rejects
RL-221
to
RL-261 ±
pulp
splits
5' sample
interval
every 50'
composites?
RL-215→RL-241C+
CORE
boxes w/
pill bottles
of coarse
RC chips
RE-1 → RL-90
?

Freeport Storage

coarse rejects
RL-93 to RL-181

Coarse rejects
RL-182 to RL-220

Pulps

R91-10654 → R91-11668
Boudar - Clegg Job# pulps

RL-281 55-210

RL-282 0-405

Pulp Splits - Removed to AAL

RL-293 405-610
RL-262 90-295 ; 325-375
RL-283 0-425
1200-425
(ALSO OVER)

RL-285 0-600'
RL-284 0-585
RL-285 600-725
RL-275 690-695
RL-277 0-500
RL-289 446-482; 521-597; 792-917
917-1037
RL-278 0-605

Store 'n' Stuff
4200 Rewana Way #504 A
Reno
825-3755

Security Storage
355 E. Greg St.
Sparks
359-3641

Freeport Storage
1060 Freeport Blvd.
Sparks
358-6054

Go into LOTUS from DOS:
123\LACDATA

FILE
IMPORT
NUMBERS
Select a file listed. *
DELETE COLUMNS E-K.
" " F-G.
Save file.
Go to column F.
FILE
IMPORT
TEXT
Select same file as above *
Go to column A and copy hole ID#'s, then
~~Date~~ erase column F.

There will be 5 columns of data.

1 = HOLE ID#
2 = FROM
3 = LENGTH
4 = Au(Avg)
5 = Ag(Avg)

You will need to add the columns for "To" and "Specific Gravity."

On Disks

East Zone (EZCHEM)

94-320 ✓
94-321 ✓
94-333 ✓
94-331 ✓
94-332 ✓

North Zone (NZCHEM)

94-305 ✓
94-319 ✓
94-334 ✓
94-335 ✓

South Zone (SZCHEM1)

94-299 ✓
94-300 ✓
D-3 ✓
D-20 ✓
D-21 ✓
D-22 ✓
D-30 ✓
D-32 ✓
D-63 ✓
D-72 ✓
? D-76 — Lith?
D-78 ✓
D-91 — page is missing (was a separate page)
D-93 ✓

South Zone (SZCHEM2)

D-58 ✓
D-61 ✓
D-74 ✓
D-92 page is missing

\123\LACDATA (on Computer)

LACASS1	LAC2	LAC3	LAC4
RL-1	RL-125	RL-178	RL-201
RL-100	RL-126	RL-181	RL-202
RL-102	RL-127	RL-188	RL-209
RL-105	RL-128	RL-193	RL-214
RL-106	RL-129	RL-194	RL-215
RL-107	RL-130	RL-195	RL-216
RL-109	RL-158	RL-196	RL-217
RL-123	RL-159	RL-197	RL-220
RL-124	RL-162	RL-198	RL-221
	RL-163	RL-199	RL-222

LAC5	LAC6	LAC7	LAC8
RL-242	RL-288	RL-7	RL-88
RL-245	RL-36	RL-55	RL-93
RL-253	RL-37	RL-60	RL-94
RL-256	RL-50	RL-71	RL-97
RL-258	RL-51	RL-72	RL-98
RL-266	RL-54	RL-282	
RL-267		RL-89C	
RL-269		KM-3C	
RL-272			
RL-273			

ATTENTION: TODD PROCESS
AMERICAN ASSAY LABS

TWO LISTS ARE ATTACHED. THE FIRST LIST PERTAINS TO PULP SAMPLES STORED AT AMERICAN ASSAY LAB IN RENO, GENERATED BY RC & CORE DRILLING AT HECLA'S ROSEBUD PROJECT IN 1994. THE SECOND LIST PERTAINS TO PULP SAMPLES GENERATED BY RC & CORE DRILLING BY LAC MINERALS ON THE ROSEBUD PROJECT DURING THE PERIOD 1989 TO 1992. THESE PULP SAMPLES ARE BEING DELIVERED TO AMERICAN ASSAY BY HECLA PERSONNEL.

PLEASE INITATE SAMPLE PREPARATION AS SOON AS POSSIBLE. SAMPLE PREP PROCEDURE, SHIPPING TO ACME ANALYTICAL LAB IN VANCOUVER, AND CHARGES HAVE BEEN ARRANGED BY TODD PROCESS.

IF ANY QUESTIONS ARISE, PLEASE DO NOT HESITATE TO CONTACT ME:

CRAIG B. WINETEER
(702) 427-7751
HECLA MINING COMPANY
ROSEBUD PROJECT

Composite Intervals for Hecla Mining Company Drill Holes
Pulp Samples stored at American Assay Lab in Reno

Job No.
SP030245
SP030465

D-3-94
0 - 15
15 - 50
50 - 80
80 - 108.5
108.5 - 131
131 - 147.5
147.5 - 163.5
163.5 - 178
178 - 205
205 - 238

SP029715

94-299C
15 - 55
55 - 79.5
79.5 - 96
96 - 130.5
130.5 - 170
170 - 210
210 - 232
232 - 251
251 - 287
287 - 300
300 - 330
330 - 353

SP029123
SP029243

94-300C
7 - 47.1
47.1 - 86.5
86.5 - 128
128 - 166
166 - 200
200 - 240
240 - 289
289 - 305
305 - 345
345 - 385
385 - 405
405 - 445
445 - 455
455 - 463

SP031477

D-93-94
0 - 18
18 - 45
45 - 78
78 - 103.5
103.5 - 124
124 - 144
144 - 164
164 - 184
184 - 209
209 - 229
229 - 246

SP030575

D-22-94
0 - 15
15 - 35
35 - 55
55 - 65
65 - 85
85 - 100
100 - 115
115 - 130
130 - 150
150 - 159.5
159.5 - 165
165 - 184
184 - 199.8
199.8 - 200

SP030658

D-21-94
0 - 20
20 - 40
40 - 50
50 - 70
70 - 80
80 - 95
95 - 114
114 - 122
122 - 131
131 - 145
145 - 160
160 - 177.5
177.5 - 178

D-20-94

SP030573
SP030657

0 - 20
20 - 40
40 - 60
60 - 80
80 - 100
100 - 120
120 - 142
142 - 158
158 - 174
174 - 191
191 - 207
207 - 220

D-58-94

SP031323

0 - 22.5
22.5 - 52
52 - 83.5
83.5 - 104
104 - 120

D-61-94

SP031394

0 - 20.4
20.4 - 50.3
50.3 - 100
100 - 150
150 - 200

D-63-94

SP031469

0 - 8.2
8.2 - 23
23 - 52
52 - 84.6
84.6 - 105.6
105.6 - 132
132 - 150.5

D-32-94

SP031049

0 - 25
25 - 55
55 - 65
65 - 90
90 - 110
110 - 130
130 - 150
150 - 165
165 - 180

D-72-94

SP031533

0 - 29
29 - 59
59 - 93
93 - 117
117 - 151
151 - 191
191 - 201
201 - 228

D-74-94

SP031326

0 - 27
27 - 47
47 - 63
63 - 80
80 - 95
95 - 119
119 - 144
144 - 170
170 - 190
190 - 207
207 - 231
231 - 235.5
235.5 - 259
259 - 268

D-30-94

SP030841

0 - 35
35 - 70
70 - 80
80 - 95
95 - 110
110 - 130
130 - 145
145 - 160
160 - 175
175 - 185
185 - 195
195 - 205
205 - 215
215 - 225
225 - 240
240 - 255

D-76-94

SP031229
SP031828

0 - 28
28 - 63
63 - 100
100 - 115
115 - 136.5
136.5 - 171
171 - 199

D-78-94

SP031536

0 - 11.5
11.5 - 35
35 - 55
55 - 80
80 - 105
105 - 130

	94-319C	94-320C	94-321C	94-334C
	0-55	0-20	0-35	0-15
	55-105	20-60	35-95	15-85
	105-155	60-100	95-155	85-175
	155-205	100-140	155-205	175-255
SP031543	205-245	140-180	205-255	255-315
SP031544	245-305	180-220	255-305	315-355
SP031240	305-355	220-250	305-345	355-415
	355-405	250-300	345-385	415-455
	405-445	300-350	385-435	455-475
	445-495	350-390	435-448	475-519
	495-548	390-440	448-459	519-537
	548-598	440-490	459-494	537-587
	598-648	490-540	494-549	587-617
	648-698	540-590	549-589	617-643
	698-748.5	590-641	589-600	643-697
	748.5-798	641-683	600-625	697-734
	798-831	683-713	625-640.5	734-777
	831-868	713-738	640.5-651.5	777-817.5
	868-900	738-758	651.5-677	817.5-862
		758-783	677-702	862-891
		783-800	702-722	891-907
			722-752	907-946
		SP030865	SP030659	946-981
		SP030846	SP030461	981-1010.5
			SP030390	1010.5-1028.5
			SP030353	1028.5-1042
				1042-1072
				1072-1087
				SP031233
				SP031830
				SP031827

94-335C

0-75
75-145
145-215
215-285
285-395
395-435
435-484
484-534
534-584
584-624
624-664
664-689
689-749
749-786.5
786.5-801
801-819
819-853
853-878.5
878.5-914
914-952.8
952.8-1004
1004-1050

SP030959
SP031325
SP031408
SP031397

94-333C

0-25
25-105
105-175
175-225
225-255
255-285
285-305
305-335
335-375
375-415
415-495
495-547.5
547.5-600
600-645
645-670
670-705
705-723.5
723.5-750
750-798

SP030955
SP031226

94-331C

0-25
25-75
75-135
135-205
205-285
285-365
365-415
415-495
495-565
565-622
622-661
661-688
688-713
713-743
743-773
773-800

SP030356
SP030765
SP030766
SP030767

94-332C

0-45
45-125
125-195
195-265
265-325
325-385
385-445
445-485
485-545
545-580
580-608
608-627
627-657
657-698

SP030247
SP030662
SP030845

94-305C

0-55
55-105
105-155
155-205
205-255
255-305
305-355
355-405
405-445
445-495
494-544
544-594
594-664
664-679
679-704
704-724
724-754
754-774
774-804
804-824
824-854
854-874
874-899
899-914
914-924
924-949
949-984
984-994
994-1004
1004-1014
1014-1050

RC
CORE

SP031606
SP031609

Composite Intervals for LAC Minerals & Equinox Drill Holes
Pulp samples stored at Rosebud Project Site - delivered to American Assay Lab via Hecla

RL-50	0 - 15
	15 - 75
	75 - 135
	135 - 185
	185 - 235
	235 - 270
	270 - 325
	325 - 375
	375 - 425
	425 - 485
	485 - 510

RL-72C	5 - 75
	75 - 125
	125 - 175
	175 - 225
	225 - 275
	275 - 295
	295 - 345
	345 - 385
	385 - 430
	430 - 481
	481 - 532
	532 - 550
	550 - 590
	590 - 645

RL-196C	0 - 60
	60 - 125
	125 - 175
	175 - 215
	215 - 275
	275 - 300
	372 - 382
	382 - 422
	422 - 458
	458 - 478
	478 - 500.5
	500.5 - 521

RL-1	0 - 30
	30 - 100
	100 - 150
	150 - 200
	200 - 250
	250 - 300
	300 - 345
	345 - 385
	385 - 425
	425 - 475
	475 - 530
	530 - 565

RL-129C	200 - 245
	245 - 285
	285 - 321
	321 - 346
	346 - 362
	362 - 382
	382 - 422
	422 - 442

RL-71C	30 - 70
	70 - 112
	112 - 157
	157 - 206
	206 - 247
	247 - 272
	272 - 296
	296 - 323
	323 - 344
	344 - 382
	382 - 424.3
	424.3 - 470
	470 - 510
	510 - 545

RL-128C	65-100
	115-150
	165-210
	225-270
	285-300
	346-374
	482-517
	532-580
	595-649
RL-209C	10-55
	55-100
	100-150
	150-205
	205-255
	255-280
	280-345
	345-358.4
	358.4-373
	373-409
	409-448
	448-468
	468-491
	491-511
	511-531
	531-550
	550-572.5
	572.5-593

RL-127C	0-50
	50-100
	100-150
	150-200
	200-250
	250-300
	300-340 ?
	340-385 ?
	385-407
	407-427
	427-447
	447-467
	467-487
	487-502
	502-517
	517-533
	533-542
	542-559.5
	559.5-579.5
	579.5-610.5
RL-162	0-50
	50-100
	100-150
	150-200
	200-250
	250-300
	300-315
	315-365
	365-400
	400-445

RL-60	0-25
	25-75
	75-125
	125-150
	150-175
	175-200
	200-225
	225-250
	250-275
	275-300
	300-325
	325-350
	350-400
	400-415
	415-430
	430-450
	450-475
	475-500
	500-525
	525-550
	550-575
	575-600
	600-617

RL-126 C	0 – 35
	35 – 70
	70 – 100
	100 – 130
	130 – 160
	160 – 190
	190 – 235
	235 – 260
	260 – 300
	300 – 340
	340 – 363.5 ?
	463.5 – 500
	500 – 525
	525 – 550
	550 – 576
	576 – 601
	601 – 627
	627 – 651
	651 – 686
	686 – 701
	701 – 726.7
	726.7 – 750
	750 – 781

RL-55C	10 – 33
	33 – 75
	75 – 125
	125 – 175
	175 – 225
	225 – 270
	270 – 290
	290 – 310
	310 – 335
	335 – 363
	363 – 396
	396 – 412
	412 – 432
	432 – 465
	465 – 490
	490 – 514
	514 – 524
	524 – 544
	544 – 574
	574 – 604
	604 – 624
	624 – 635.5
	635.5 – 665
	665 – 692

RL-51	150 – 200
	200 – 250
	250 – 300
	300 – 335
	335 – 345
	345 – 375
	375 – 405
	405 – 420
	420 – 435
	435 – 470
	470 – 510
RL-37	5 – 50
	50 – 100
	100 – 150
	150 – 200
	200 – 250
	250 – 300
	300 – 350
	350 – 400
	400 – 450
	450 – 495

RL-125C	0 - 25
	25 - 50
	50 - 100
	100 - 150
	150 - 200
	200 - 250
	250 - 300
	353 - 402
	402 - 452
	452 - 482
	482 - 502
	502 - 527
	527 - 542
	542 - 572
	572 - 603
	603 - 632
	632 - 662

RL-7	0 - 10
	10 - 55
	55 - 100
	100 - 150
	150 - 200
	200 - 250
	250 - 300
	300 - 350
	350 - 400
	400 - 450
	450 - 500
	500 - 535
	535 - 550
	550 - 600
	600 - 620

RL-158C	0 - 50
	50 - 100
	100 - 150
	150 - 200
	200 - 250
	250 - 300
	300 - 349
	349 - 405
	492 - 527
	527 - 552
	552 - 592
	592 - 614
	614 - 650

RL-124C	0 - 30
	30 - 80
	80 - 105
	105 - 135
	135 - 175
	175 - 225
	225 - 275
	275 - 315
	315 - 370
	370 - 420
	420 - 477.6
	777.6 - 807
	807 - 842
	842 - 853.6
	853.6 - 902
	902 - 952
	952 - 972

RL-130C	430.1 - 447
	447 - 467
	467 - 502
	502 - 551.1
	551.1 - 602
	602 - 627
	627 - 640.5
	640.5 - 660.6
	660.6 - 680
	680 - 712

RL-88C

0-20
20-75
75-125
125-175
175-225
225-275
275-325
325-350
350-375
375-400
400-425
425-450
450-475
475-500
500-550
550-600
600-650
650-675
675-700
700-720
720-750
750-775
775-795
795-825.7
825.7-840
840-880
880-920
920-962

RL-123C

0-5
5-50
50-100
100-150
150-200
200-250
250-300
309.5-330
380.5-401
401-426.5
426.5-452
452-477
477-502
502-532
532-542
542-557
557-572
572-597
597-627
627-654
654-682
682-698

RL-105C

0-40
40-100
100-150
150-200
200-250
250-300
300-350
350-400
400-465
465-542
542-609
609-672.5
672.5-750
750-800.5
800.5-842
842-882
882-912
912-930
930-952
952-1002
1002-1062

RL-102C	RL-159C	RL-195C	RL-193C
0-20	0-50	0-50	0-15
20-45	50-90	50-85	15-55
45-100	90-125	85-115	55-95
100-150	125-150	115-150	95-150
150-200	150-170	150-200	150-200
200-250	170-200	200-250	200-215
250-300	200-225	250-270	215-265
300-350	225-270	270-310	265-305
350-400	270-300	310-355	305-355
400-440	342-367	440-480	445-478
440-492	367-397	480-520	478-508
492-542	397-427	520-558	508-538
542-587	427-452	558-593	538-558
655-697	452-477	593-608	558-583
697-745	477-502	608-628	583-608
745-796.5	502-527	628-648	608-628
796.5-846.5	527-552	648-658	628-658
846.5-867	552-577	658-698	658-683
867-902	577-602	698-738	683-703
902-926	602-627	738-773	703-716
926-972	627-652	773-803	716-726
972-1026	652-677	803-833	726-748
1026-1072	677-692	833-854.1	748-778
1072-1092	692-727	854.1-867	778-803
	727-754.5	867-887	803-840
	754.5-777	887-913	
	777-802		
	802-827		
	827-852		

RL-194C	RL-202C	RL-54	RL-216
0-25	0-50	0-25	0-20
25-50	50-100	25-50	20-60
50-75	100-155	50-100	60-100
75-110	155-200	100-150	100-150
110-150	200-250	150-200	150-200
115-200	250-300	200-250	200-250
200-250	300-350	250-300	250-300
250-300	350-375	300-350	300-350
300-325	527.3-558	350-400	350-400
325-363	558-578	400-440	400-450
563-593	578-602	440-475	450-500
593-628	602-627	475-525	500-525
628-658	627-642.2	525-570	525-550
658-688.3	642.2-655	570-610	550-560
688.3-727.5	655-703	610-625	560-580
727.5-753	703-753		580-600
753-773	753-803		
773-798			
798-820			
820-855			
855-895			

RL-93C	RL-97	RL-199C	~~RL-221~~
0-10	0-50	0-50	0-40
10-50	50-100	50-100	40-90
50-100	100-150	100-150	90-120
100-150	150-200	150-200	120-160
150-200	200-250	200-250	160-200
200-250	250-300	250-300	200-250
250-300	300-350	300-350	250-300
300-350	350-400	350-400	300-350
355-400	400-465	400-435	350-375
400-425	465-493.5	435-470	375-400
425-462	493.5-535	470-500	400-430
462-500	535-575	500-540	430-465
500-560	575-600	559-602	465-490
560-575	600-650	602-639.2	490-525
575-600	650-700	715-750	525-555
600-650	700-728.2	750-800	555-585
650-700	728.2-750	800-850	585-625
700-750	750-800	850-903	625-655
750-800	800-833	903-953	655-690
800-850	833-850	953-1003	690-720
850-900	850-880	1003-1053	720-750
900-945	880-913	1053-1090.6	750-775
945-962	913-940	1090.6-1145	775-800
962-980	940-970	1145-1190	800-825
980-1010	970-995	1190-1205	825-850
1010-1030	995-1032	1205-1222	850-875
1030-1053.1	1032-1060	1222-1240	875-900
1053.1-1082	1060-1090	1240-1250	900-935
	1090-1120	1250-1277	
	1120-1152		
	1152-1181.5		
	1181.5-1208.8		
	1208.8-1237		
	1237-1252		

RL-201C	RL-198C	RL-188	RL-215
0-15	0-25	0-30	0-25
15-50	25-50	30-75	25-75
50-100	50-100	75-125	75-125
100-150	100-150	125-165	125-175
150-200	150-200	165-200	175-225
200-250	200-250	200-230	225-260
250-300	250-300	230-275	260-300
300-350	300-350	275-330	300-325
350-400	350-395	330-390	325-350
400-450	395-450	390-420	350-375
450-500	450-500	420-465	375-400
500-549	500-535	465-495	400-430
549-580	535-570	495-515	430-450
580-610	570-600	515-535	450-475
610-660	600-650	535-555	475-500
660-679.3	650-685	555-585	500-550
679.3-713	685-710	585-615	550-600
713-762	710-745.5	615-650	600-650
762-788		650-685	650-700
788-826.5			700-750
826.5-854			750-790
854-881			790-825

RL-100C

572 - 602
602 - 652
652 - 702
702 - 752
752 - 799.5
799.5 - 850
850 - 892
892 - 930.5
930.5 - 965
965 - 991
991 - 1027
1027 - 1062
1062 - 1087
1087 - 1120.8
1120.8 - 1168.5

RL-106C

10 - 52
52 - 101.8
101.8 - 152
152 - 202
202 - 257
257 - 287
287 - 332
332 - 377
377 - 417
587 - 637
637 - 687
687 - 737
737 - 796.5
796.5 - 827
930 - 978.8
978.8 - 987
987 - 1032
1032 - 1067
1067 - 1092
1092 - 1117
1117 - 1162
1162 - 1212
1212 - 1237

RL-94C

400 - 435
435 - 465
465 - 505
505 - 555
555 - 605
605 - 655
655 - 695
695 - 745
745 - 785
785 - 825
825 - 855
855 - 890
890 - 910
910 - 945
945 - 955
955 - 975
975 - 995
995 - 1010
1010 - 1045
1045 - 1075
1075 - 1100
1100 - 1140
1140 - 1150
1150 - 1170
1170 - 1195
1195 - 1199

RL-197C

0 - 50
50 - 95
95 - 130
130 - 190
190 - 250
250 - 275
275 - 300
300 - 365
365 - 405
405 - 455
455 - 495
495 - 525
525 - 565
565 - 598.2
598.2 - 617
626 - 650.6
695 - 735
735 - 785
785 - 835
835 - 875
875 - 920
920 - 960

RL-89C

837 - 867
867 - 892
892 - 946
946 - 981
981 - 1004
1004 - 1024
1024 - 1054
1054 - 1087
1087 - 1127.6
1127.6 - 1152

RL-109C

845 - 889
889 - 936
936 - 975
975 - 1015.5
1015.5 - 1068
1068 - 1107
1107 - 1152
1152 - 1201.5
1201.5 - 1247

CONTINUED

960 - 990
990 - 1035
1035 - 1055
1055 - 1070
1070 - 1090
1090 - 1109

RL-214

5 - 25
25 - 75
75 - 125
125 - 190
190 - 240
240 - 300
300 - 350
350 - 400
400 - 450
450 - 475
475 - 500
500 - 550
550 - 600
600 - 650
650 - 700
700 - 750
750 - 800
800 - 835
835 - 850
850 - 900
900 - 950
950 - 1000

RL-107C

0 - 10
10 - 50
50 - 100
100 - 125
125 - 175
175 - 225
225 - 265
265 - 300
300 - 325
325 - 375
375 - 400
400 - 430
430 - 465
552 - 601
601 - 652
652 - 702
702 - 749
749 - 802
802 - 840
840 - 860
860 - 900.5
900.5 - 946
946 - 984.5
984.5 - 1030

RL-178

0-15
15-50
50-100
100-150
150-200
200-250
250-305
305-350
350-400
400-445
445-490
490-525
525-575
575-625
625-665
665-700
700-720
720-760
760-800
800-825
? 825-850

KM-3

668-708
708-738
738-768
768-798
798-818
818-843
843-868
868-893
893-909.2
909.2-933
933-953
953-974.5

RL-163

0-30
30-75
75-100
100-150
150-200
200-250
250-300
300-350
350-400
400-450
450-500
500-545
545-570
570-600

RL-98C

0-50
50-100
100-150
150-200
200-225
225-250
250-275
275-300
300-325
325-350
350-375
375-400
400-430
430-465
465-500
500-550
550-600
600-650
650-680
680-725
725-755
755-785
785-805
805-840
840-875
875-905
905-930
930-945
945-970
970-1010.5
1010.5-1022
1022-1035
1035-1050

RL-181

0-50
50-100
100-150
150-200
200-250
250-300
300-350
350-400
400-450
450-500
500-550
550-600
600-625
625-650
650-675
675-700
700-725
725-750
750-775
775-800
800-825
825-850
850-900
900-935

HECLA MINING COMPANY

COEUR D'ALENE, IDAHO 83814

BY	DATE	JOB TITLE	JOB NO.
CHK.	DATE	PULPS FROM PROJECT SITE	DIVISION
DWG. NO.			SHEET OF

RL-100C 572 - 1168.5'

RL-106C 10 - 417'
587 - 1237'

RL-94C 400 - 1199'

RL-197C 0 - 617'
626.5 - 650.6'
695 - 1109'

RL-89C 837 - 1152'

RL-109C 845 - 1247'

* RL-242 15 - 698'

* RL-273 0 - 700'

* RL-288C 0 - 215'

* RL-266 0 - 225'

RL-214 0 - 1000'

* RL-270C 0 - 278'

* RL-253 0 - 560'

* RL-220 0 - 865'

RL-107C 0 - 465'
552 - 1030'

RL-178 0 - 850'
↳ 820-850 No Sample

KM-3C 600 - 974.5' 600-868 No Sample

RL-163 0 - 600'

RL-98C 0 - 1061.5'

* RL-222 15 - 1000'

RL-181 0 - 935'

* RL-258 0 - 900'

X RL-217 0 - 825'

* RL-245 0 - 900'

~~3~~ 282 Boxes

68 holes

51 ~~52~~ HOLES ON SITE

HECLA MINING COMPANY

COEUR D'ALENE, IDAHO 83814

BY	DATE	JOB TITLE	JOB NO.
CHK.	DATE	PULPS FROM PROJECT SITE	DIVISION
DWG. NO.			SHEET OF

RL-71C 30 - 545'

RL-129C 200 - 442'

RL-50 0 - 510'

RL-72C 5 - 645'

RL-196C 0 - 521'

RL-1 0 - 565'

RL-127C 0 - 300'
385 - 610.5'

RL-60 0 - 615'

195-205 (2) samples missing
RL-209C 10 - 300'
345 - 593'

RL-36 0 - 500'

RL-162 0 - 445'

RL-126C 0 - 355'
463.5 - 781'

RL-55C 10 - 692'

RL-51 150 - 510'

RL-125C 0 - 300'
353 - 662'

RL-7 0 - 620'

RL-37 0 - 495'

* RL-267 100 - 300'

RL-124C 0 - 465'
777.6 - 972'

RL-88C 0 - 962'

RL-123C 0 - 300'
309.5 - 330'
380.5 - 698'

RL-158C 0 - 405'
492 - 650'

* RL-256 0 - 600'

* RL-282 100 - 325'

* RL-272 300 - 475'

RL-130C 430.1 - 702'

RL-105C 0 - 465'

RL-102C 0 - 587'
655 - 1092'

RL-159C 0 - 300'
342 - 852'

RL-195C 0 - 355'
440 - 913'

RL-193C 0 - 355'
445 - 840'

RL-194C 0 - 355'
563 - 893'

0-155 No Sample
RL-202C 0 - 375'
527.3 - 803'

RL-54 0 - 625'

RL-216 0 - 600'

* RL-269 0 - 550'

RL-93C 0 - 1082'

RL-97 0 - 1252'

RL-199C 0 - 540'
559 - 639.2'
715 - 1277'

* RL-221 0 - 935'

718-881 No Sample
RL-201C 0 - 881'

RL-198C 0 - 745.5'

RL-188 0 - 685'

RL-215 0 - 825'

American Assay Laboratories Inc.

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 71060
Reno, NV 89570
Telephone
(702) 356-0606
Fax
(702) 356-1413

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV 89801
Telephone
(702) 738-0100
Fax
(702) 738-2594

January 5, 1994

Hecla Mining
Rosebud Project
Attn: Craig Wineteer

Hello Craig,

Thank you for calling regarding your requirements for multi-element ICP packages for Hecla-Rosebud samples. 1994 exploration samples are currently in our warehouse and can be efficiently composited and shipped.

American Assay Laboratories provides daily shipping services to ACME Analytical as a courtesy service for our clients.

AAL will closely honor ACME's special price to you based upon the prices listed below. This will provide a **convenient** way for you to receive professional services from both laboratories. Final hard copies will be downloaded, printed and mailed to Rosebud from **AAL**. A modem access account will be set up for you to access ACME directly.

AAL Preparation

Pull pulps/homogenize 5 pulps for composite analysis plus shipping costs.	Prep/Ship	$ 2.40

ACME Packages

Group 1E Total Digest 35 Element	$ 5.27
Group 1B Hydride Generation Package As,Sb,Bi,Se,Te,Ge (0.1ppm)	$ 4.76
Group 1C Hg by Cold Vapor AA (10ppb)	$ 2.25
Total Hecla Sample Cost	$14.68

I spoke with Clarence Leong yesterday at ACME so they are aware **AAL** has composites to ship.

Please call me with any questions or comments regarding **AAL's** professional services. Thanks again. Happy New Year to the Rosebud Exploration Team.

Sincerely,

Todd Process
Manager Analytical Services

934
100
1036

864
720
144

25,000
-23,510
1490-
1250-
240

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C., Canada V6A 1R6
Telephone: (604) 253-3158 Fax: (604) 253-1716

Hecla Mining

Attn: Mr.Craig Wineteer

Tel: 1-702-427-7751
Fax: 1-702-427-7781

JAN 4 1995
Quotation for following analyses:

1	As Bi Sb Se Te Aqua Regia digestion, Hydride analysis	5.60	4.76
2	Hg cold vapour AA	1.25	2.25
3	Group 1E total digestion - 35 element package Note partial Ba is included in the package. As Bi Sb will not be reported, because some loss due to volatilization. As Bi Sb will be reported from item 1, hydride analysis.	6.20	5.27
4	Composite up to 5 pulps into one	0.52	2.40
5	Mixing & Pulverizing composite from item 4	1.45	
	Total	US$15.02	

+1.00

15% discount for 1500 composited pulps
Discounted price for each pulp US$12.77

Thank you for your continue interest of our quality services. Merry X'mas & Happy New Year.

Certified Assayer

Jacky Wang

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C., Canada V6A 1R6
Telephone: (604) 253-3158 Fax: (604) 253-1716

Ag ($6.20)
Al - partial
As not reported here
Au
Ba - partial
Be
Bi — Te 1:1 correlation
Ca not reported here
Cd
Co
Cr - partial
Cu
Fe
K
La
Mg - partial
Mn - partial
Mo
Na
Nb
Ni
P
Pb
Sb - not reported here
Sc
Sn
Sr
Th
Ti
U
V
W
Y
Zn
Zr - partial

Aqua Regia digestion hydride anal. ($5.60)
As
Bi
Sb
Se
Te

cold vapour AA
Hg ($1.25)

Hecla Mining
Attn: Mr.Craig Wineteer

Tel: 1-702-427-7751
Fax: 1-702-427-77~~52~~ 81

Dec 21, 1994
Quotation for following analyses:

1	As Bi Sb Se Te Aqua Regia digestion, Hydride analysis	5.60	5.60
2	Hg cold vapour AA	1.25	2.65
3	Group 1E total digestion - 35 element package	6.20	6.20
	Note partial Ba is included in the package. As Bi Sb will not be reported, because some loss due to volatilization. As Bi Sb will be reported from item 1, hydride analysis.		
4	Composite up to 5 pulps into one +0.45 for up to 10	0.52	0.52 each sample pulp into comp.
5	Mixing & Pulverizing composite from item 4	1.45	
		Total US$15.02	

15% discount for ~~2000~~ 1500 composited pulps
Discounted price for each pulp US$12.77

Thank you for your continue interest of our quality services. Merry X'mas & Happy New Year.

Certified Assayer

Jacky Wang

2000 x 12.77
= $25,540 -

? 's charge for compositing > 5 pulps into 1 composite

15% DISCOUNT for 1500 OR MORE

8

68 holes

52 HOLES ON SITE

HECLA MINING COMPANY

COEUR D'ALENE, IDAHO 83814

BY	DATE	JOB TITLE	JOB NO.
CHK.	DATE	PULPS FROM PROJECT SITE	DIVISION
DWG. NO.			SHEET OF

RL-71C 30-545'

RL-129C 200-442'

RL-50 0-510'

RL-72C 5-645'

RL-196C 0-521'

RL-1 0-565'

RL-127C 0-300'
385-610.5'

RL-60 0-615'

RL-209C 10-300'
345-593'

RL-36 0-500'

RL-162 0-445'

RL-126C 0-355'
463.5-781'

RL-55C 10-692'

RL-51 150-510'

RL-125C 0-300'
353-662'

RL-7 0-620'

RL-37 0-495'

* RL-267 100-300'

RL-124C 0-465'
777.6-972'

RL-88C 0-962'

RL-123C 0-300'
309.5-330'
380.5-698'

RL-158C 0-405'
492-650'

* RL-256 0-600'

* RL-282 100-325'

* RL-272 300-475'

RL-130C 430.1-702'

RL-105C 0-465'

RL-102C 0-587'
655-1092'

RL-159C 0-300'
342-852'

RL-195C 0-355'
440-913'

RL-193C 0-355'
445-840'

RL-194C 0-355'
563-893'

RL-202C 0-375'
527.3-803'

RL-54 0-625'

RL-216 0-600'

*RL-269 0-550'

RL-93C 0-1082'

RL-97 0-1252'

RL-199C 0-540'
559-639.2'
715-1277'

*RL-221 0-935'

RL-201C 0-881'

RL-198C 0-745.5'

RL-188 0-685'

RL-215 0-825'

HECLA MINING COMPANY

COEUR D'ALENE, IDAHO 83814

BY	DATE	JOB TITLE	JOB NO.
CHK.	DATE	PULPS FROM PROJECT SITE	DIVISION
DWG. NO.			SHEET OF

RL-100C	572 - 1168.5'
RL-106C	10 - 417'
	587 - 1237'
RL-94C	400 - 1199'
RL-197C	0 - 617'
	626.5 - 650.6'
	695 - 1109'
RL-89C	837 - 1152'
RL-109C	845 - 1247'
* RL-242	15 - 698'
* RL-273	0 - 700'
* RL-288C	0 - 215'
* RL-266	0 - 225'
RL-214	0 - 1000'
* RL-270C	0 - 278'
* RL-253	0 - 560'
* RL-220	0 - 865'
RL-107C	0 - 465'
	552 - 1030'
RL-178	0 - 850'
KM-3C	600 - 974.5'
RL-163	0 - 600'
RL-98C	0 - 1061.5'
* RL-222	15 - 1000'
RL-181	0 - 935'
* RL-258	0 - 900'
RL-217	0 - 825'
* RL-245	0 - 900'

X

D-92-94

(2)	0 - 11	LBT FGT
(3)	11 - 28	"
(4)	28 - 48	"
(5)	48 - 75	LST
(5)	75 - 98	FGT - MGT
5	98 - 121	"
4	121 - ~~140~~ 142.5	" w/silic Stx
5	142.5 - 168	FGT
5	168 - 195	"
2	195 - 205	"
(3)	205 - 221	pl FGT
(2)	221 - 234	"
(2)	234 - 246.5	mb FGT
5	246.5 - 271	
5	271 - 289	
5	289 - 314	LBUD
4	314 - 334	
	334 - ~~472~~ 385 ?	
	385 - 434	
	434 - 482	
5	482 - 505	BMB
5	505 - 530	"
5	530 - 553	"
5	553 - 578	"
6	578 - 608	"
6	608 - 634.5	"
5	634.5 - 660	UBUD
5	660 - 685	"

3	685-700	UBuD
6	700-730	"
5	730-755	TOS ?
5	755-780	
5	780-803	
7	803-838	
5	838-860	SRF
6	860-890	"
4	890-910	
5	910-934	DT ?
5	934-959	
5	959-984	
5	984-1006	
3	1006-1018	
6	1018-1045	

15 LBT

3 LBuD

6 BMB

8 uBuD

3 SRF

6 DT

41

X D-91-94

(6)	0 - 27.5	mb FGT-LBT
(3)	27.5 - 39	↓
(4)	39 - 60	
(3)	60 - 73	pl FGT
(5)	73 - 92	
(4)	92 - 110	pl FGT → MGT
(5)	110 - 132	FGT
(4)	132 - 151	FGT
(5)	151 - 176	Auto bx'd FGT
(3)	176 - 192	"
(4)	192 - 210	+ Stx
(3)	210 - 226	FGT
(5)	226 - 251	"
(2)	251 - 262.5	"
(4)	262.5 - 279.5	M to CGT + Stx
(5)	279.5 - 304	MGT fl
(4)	304 - 319	LST
(3)	319 - 335	LST
(5)	335 - 360	F to MGT pl
(5)	360 - 385	"
(5)	385 - 409	"
(5)	409 - 430	"
(5)	430 - 452	"
(5)	452 - 475	"
(5)	475 - 497	"
(5)	497 - 518	"
(5)	518 - 545	MGT

D-91-94

1	(5)	545-568	MGT
	(5)	568-593	CGT
	(5)	593-619	"
	(5)	619-643	stx / FGT
	(5)	643-665	
	(5)	665-688	
	(3)	688-703.5	
	(6)	703.5-730	silic. Fault bx
	(5)	730-754	w/ DOZER
	(5)	754-781.5	
	(5)	781.5-802	Tcs
	(4)	802-823	
	(4)	823-839	
	(2)	839-848	
	(5)	848-870	JTRa
	(5)	870-892	
	(5)	892-918	
	(3)	918-929	
	(2)	929-935	
	(5)	935-955	
	(5)	955-980	
	(3)	980-989	

'34 LBT

3 SRF
4 Tcs
8 JTRa
49

5000 .52

ACME 1 (604) 253-3158

ANALYTICAL COSTS :

Charge for ea. pulp in ea. composite

COMPOSITING PULP $0.52 / comp. sample (composited)

1040 (2000 x .52 = $1040) ⇒ (15,000 x .52) = $7800

MIXING & PULVERIZING $1.45 / comp. sample

COMPOSITE

2900 (2000 x 1.45 = $2900)

GROUP 1E — Ba of no value if in form of Barite Se, Te, Hg Not Included

35 ELEMENT $6.20 / comp. sample

12400 (2000 x $6.20 = $12,400)

Mercury by Cold Vapour AA $2.65 / comp. sample

5300 (2000 x 2.65 = $5,300)

~ 4000 Telurium ?

$25,640 — shipping

— Rodney

— checks, repeats, spurious results

MULTI-ELEMENT GEOCHEM — DRILL HOLE SAMPLES

LAC

SECTION 00N

RL-71C	100-112	(3)	LBT
	202-222	(3)	↓
	257-272	(3)	↓
	283-296	(3)	↓
	319.5-333		↓
	392-407		↓
	470-485		SRF

RL-24	100-115	Section	100 N	BUD? supergene SiO_2-FeO_x
	200-215	"	50 N	BUD
	250-265	"	50 N	"
	300-315 ✓			LBT?
	350-365 ✓			DT — SRF
	395-410 ✓			DT
	465-480	— section 50S		DT

RL-4	90-105	section	100 N	LBT?
	150-165	"	50N	↓
	205-220	Section	50N	↓
	270-285	"	"	↓
	310-325	"	"	↓
	375-390	"	"	↓
	470-485	"	"	LBT
	550-565	"	"	DT — SRF

SECTION 400N

RL-41C	20-35	— section 350N	RL-31	50-65	section 350, 300, & 250N
	102-117			100-115	
	238-253			155-170	
	302-314			205-220	
	374-389			265-280	
	420.7-436			325-340	
	450-465			395-410	
	474-488			465-480	
	523-538			500-515	
	563-576.5				

RL-128C

50-65
100-115
150-165
210-225
270-285
330-346
400-415
469-482
517-532
580-595
649-667

SECTION 00

W	RL-71C	20'	composite samples	30-545' (540')	27 samples
	94-299C	20'	composite samples	0-353'	18 sample
	94-300C	20'	comp. $	0-463' (460')	23 samples
E	RL-129C	20'	comp $	200-442' (440')	12 samples

		Au	Ag	
RL-71C	0-30'	No Rec.		LBT
	30-50'	.001	.05	
	50-70'	.003	.20	
	70-92'			
	92-104.5'			
	104.5-112			
	112-132			
	132-157			
	157-187			
	187-206			
	206-227			
	227-247			
	247-262			
	262-288			
	288-296			
	296-314.5			
	314.5-323			
	323-344			
	344-362			
	362-382			SRF
	382-402			SRF
	402-424.3			SRF
	424.3-444			DT
	444-470			
	470-495			
	495-520			
	520-545'			

SECTION SON — 94-302C plotted 100' too high
~~Surface trace does not match LAC x-sect.~~
~~off by 15 to 30' variable~~

49000 E = 2000 NE

RL-4, 94-301C, 94-302C, 94-303C, RL-66, RL29, RL2

RL4
0-40 Qal
40-310' Buff f.g. ⅓ bx'd tuff.
310-315' Calcite
315-565' Lt. green to grey fragmental volc. tuff ⅓ bx
565-585' f.g. tuff lt. green

RE-2
0-120 CT ?
120-305 BUD
305-400 LBT
400-455' TOS ?
400-455 Fault bx
455-820 DT

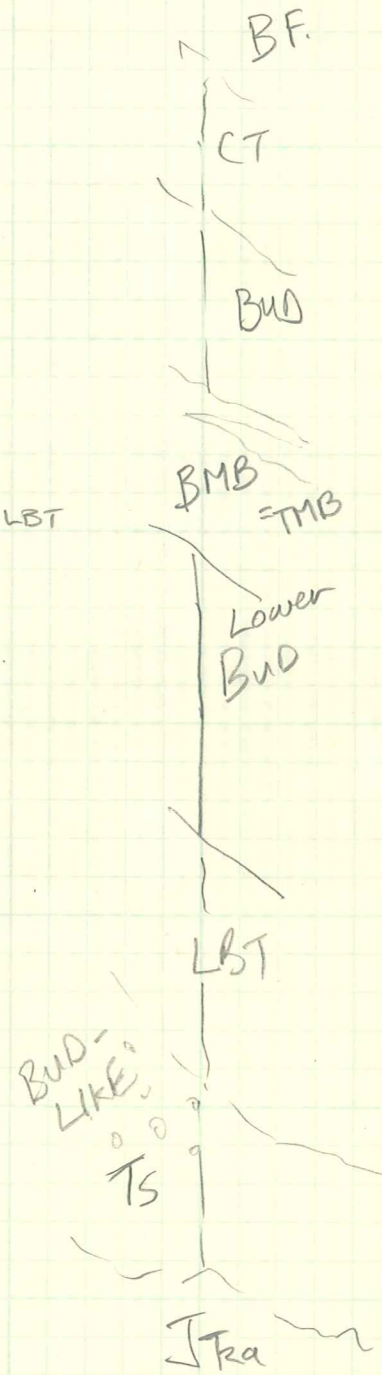
94-301C
0-7 Qal
7-243' BUD contact @ 60'
243-335 LBT LTBx ms mb
335-TD LBT FGT pl

94-302C
0-178.7' BUD volc.
178.7-260.6' Fault zone w/in BUD ? Δ↓ to LBT
260.6-333 Auto bx'iated LBT FGT
333-449.2' F.G.T. pl - LBT
449.2-525.8 LBT - LTBx
525.8-542 s.a.a. w/ faulting.

94-303C
0-161.3' BUD
161.3-221.2 LBT FGT
221.2-234.7 LBT Bedded lithic tuff
234.7-425.5 LBT LTBx
425.5-485' Fault bx SRF @ 40°
485-503 DT

RL66
0-105 f.g. choc. tuff ?
105-170' BUD pyroclastic
170-467 LBT
467 SRF
467-525 DT

RL29
0-60 CT ?
60-70 Fault
70- ? BUD
? - 420 LBT
420-435' Fault
435-450 Epi ?
450-505 DT



SECTION 50 SW

94-297C 0-17 Qal
17-114.5' Oxid.
17-116' BUD VOLC.
116-199' LBT - LTBx-MMS
199-242.8' LBT - FGT - M & L
242.8-243.6' Fault @ 80°
243.6-300.2' LBT - LTBx MM to CS
300.2-400' "BUD LIKE" TS upper contact @ 70°

94-299C 0-15' Qal
0-94' Oxid.
15-130.5' BUD Volc.
130.5-175' LBT FGT-MAT - massive airfall tephra
175-262' LBT LTBx-MMS - massive matrix-supported, poorly-sorted, heterd.
262-287' LBT FGT-PL - planar laminated
287-294' fault bx w/in above
294-303' LBT FGT-PL
303-353' "BUD-LIKE" TS w/ Fault bx 303-314'

SECTION 50SW

94-297C
0-17' Qal 0-114.5' Oxid.
17-116' BuD
116-199' LBT - LTBx MS - MB
199-242.8' LBT - FGT
242.8-243.6' Fault bx @ 80°
243.6-300.2' LBT - LTBx MS to CS MB
300.2-400' "BUD LIKE" Ts upper contact @ 70°

94-298C
0-7' Qal 0-162' Oxid.
7-37' BuD
37-86' BMB — BUD MARKER BED - porphyritic rhyolite flow
— 30° upper ? 60° lower contact
86-104.5' BuD
104.5-119' LBT FGT-MAT massive airfall tephra/tuff
119-188' LBT LTBx - MB MS
188-199 LBT FGT - MAT
199-218.5' LBT FGT - PL
218.5-238.5' LBT LTBx-CS MB largely PL FGT frags
238.5-280.3' LBT LTBx - MB MS
280.3-361.5' LBT → "BUD LIKE" Ts → fault bx
361.5' SRF @ 54°
361.5-463' DOZER TUFF

RL-3
452.5' SRF
0-452.5 LBT ?
452.5-510' DT ?

RL-71C
200-362' LBT LTBx
362-424.3' SRF & unkn.
424.3 ↓ DT

RE-26
0-4' Qal
4-77' FGT - choc. ?
77-230' BuD volc
230-235' fault bx
235-300' LBT
300-325 325-355' Ts ? Bud like
325
355-405 DT ?

RE-63
0-325' DOZER TUFF ??
260' SRF ?

SECTION 0 N

RL-265C, RL-160, RL-241C, RL-71C, 94-299C, RL-129C, 94-300C, RL-63 →
RL-26, RL-24

RL-265C 190 – 330' — 0 – 130' RC
130 – 913' CORE

0 – 42 Qal
42 – 125 F. G. Tuff. LBT ?
125 – 198' Fault zone 50-70° to C. A.
198 – 223 LBT – Ltbx
223 – 226.5 Fault @ 10'
226.5 – 369' Epiclastic & volc. bx's.
369 – 387.5' Fault zone @ 20° – 30°
387.5 – 653' LBT – generally f.g. w/ loc. crackle bx
653 – 654.5 Fault @ @ 25-30°
654.5 – 723.5' Dacer
723.5 – 725.1' Fault @ 25-40°
725.1 – 810' Tos
810 – 913' Prob. LBT ?

273-275.6 clay gouge
275.6' contact of Bud into LBT
volc bxa

sampled to 770'

RL 160 0-50' Qal
50 – 240' LBT – FGT
240 – 300' Lithic lapilli tuff "Bud bx" green

RL 241C 0 – 31' Qal
31 – 327.9 LBT FGT
327.9 – 482.5 EPI "Bud Like" lithic lapilli tuff
464.5 – 482.5 SRF 30-40°
482.5 – 541 DT

RL 71C 0 – 30 Qal
30 – 55' FGT
55 – 167' matrix-supported volc. bx & laharic bx
167 – 362' "BUD TUFF Bx" – LBT ? Ltbx
362 – 424.3' SRF unlen ↓
424.3 ↓ TD DT

94-299C 0 – 15' Qal 0-94 Qx
15 – 130.5 BuD volc.
130.5 – 303' LBT
– 175 FGT mb
– 262 LTBx ms mb
– 287 FGT pl
– 294 fault bx
– 303 FGT pl
303 – 353' "Bud like" Ts w/ fault bx 303-314'

SECTION 0 N

RL-265C, RL-160, RL-241C, RL-71C, 94-299C, RL-129C, 94-300C, RL-63 →
RL-26, RL-24

RL-265C 190 – 330' — 0 – 130' RC
130 – 913' CORE

0-42 Qal
42-125 F.G. Tuff. LBT?
125 – 198' Fault zone 50-70° to c.a.
198 – 223 LBT – Ltbx
223 – 226.5 Fault @ 10'
226.5 – 369' Epiclastic & volc. bx's.
369 – 387.5' Fault zone @ 20° – 30°
387.5 – 658' LBT – generally f.g. w/ loc. crackle by
653 – 654.5 Fault @ @ 25-30°
654.5 – 723.5' Dacer
723.5 – 725.1' Fault @ 25-40°
725.1 – 810' Tos
810 – 913' Prob. LBT?

273-275.6 clay gouge
275.6' contact of Bud into LBT
volc bxa

sampled to 770'

RL160 0-50' Qal
50-240' LBT – FGT
240-300' Lithic lapilli tuff "Bud bx" green

RL 241C 0-31' Qal
31-327.9 LBT FGT
327.9-482.5 EPI "Bud Like" lithic lapilli tuff
464.5 – 482.5 SRF 30-40°
482.5 – 541 DT

RL 71C 0-30 Qal
30 – 55' FGT
55 – 167' matrix-supported volc. bx & laharic bx
167 – 362' "BUD TUFF BX" – LBT? Ltbx
362-424.3' SRF unlen &
424.3 + TD DT

94-299C 0-15' Qal 0-94 Qx
15 – 130.5 BUD VOLC.
130.5 – 303' LBT
– 175 FGT mb
– 262 LTBx ms mb
– 287 FGT pl
– 294 fault bx
– 303 FGT pl
303 – 353' "Bud like" Ts w/ fault bx 303-314'

SECTION ON (cont).

94-300C

0-27' Qal
27-199' BUD ?
199-386' LBT
-272 LTbx
-326 FGT pl
-386 LTbx ms fb
386-392' fault bx @ 42°
392-463' Tos - Bud like

RL-129C

0-20' Qal ?
20-220' BUD Bx-volcanic
220-245 FGT flesh pink
245-365.5' LBT - FGT mb

365.5-385' SRF 25°
385-442 DT

RC

RL 26

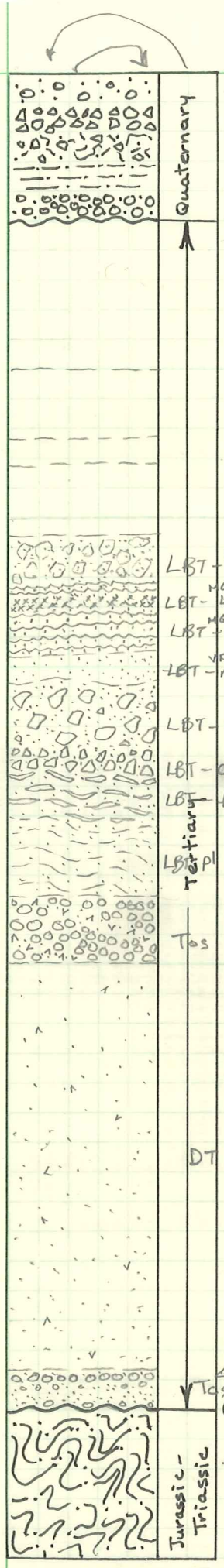
0-4 Qal
4-77.5' choc. tuff ?
77.5-232.5 BUD
232.5-300 LBT
300-325 Tos ?
325-405 DT

RL24

0-310' ? BUD ?
310-400 LBT
400-420' SRF
420-480' DT

ROSEBUD PROJECT STRATIGRAPHY

12-07-94



Qal - alluvial deposits
Qc - colluvial deposits
Qls - land slide deposits
Qlb - lake bed deposits

Chocolate Tuff (CT) 0-600'

Upper Bud (UBUD) 0-100'

Bud Marker Bed (BMB) 0-100'

Lower Bud (LBUD) 0-100'

LBT - FGT mb, ml, autobx
LBT - MGT - LST
LBT - MGT wl, ~~tonga tuff~~
LBT - VFGT mb, ~~vfg~~ vitrophere
LBT - ms, mb, htl, LTbx
LBT - cs, mb, htl, LTbx
LBT - fb LT
LBT pl

Lower Bud Tuff (LBT) 0-600'

Oscar Sediments (~~Tos~~) 0-200'

Dozer Tuff (~~DT~~) 0-600'

Basal Sediments (~~Tos~~) 0-100'

Auld Lang Syne Group (JTRa) +1000'

JTRa - Auld Lang Syne Group
- black, dark grey & white
- graphitic slate, phyllite, calcareous slate, and "Bull Quartz" or "sweat veins", with folded and brecciated bedding.

host rx Far East Zone

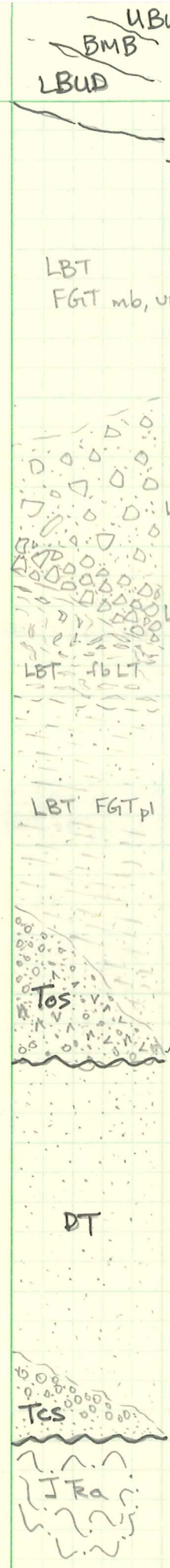
frac'd, silic'd ang-? w/ Anomalous Au, Ag mineralized

frac'd, silic, ang-? - alun. chl - py-T, bx'd Au-Ag Min? South & North Zones

frac'd, silic ang-? w/ Au-Ag Min? East & North Zones

frac'd, silic, Au-Ag min? Far North Zones

Bx'd, frac'd, silic, py-T, spotty Au-Ag min. North, East & Far North Zones



- Flow-banded lithic tuff w/interbedded f.g. flow-banded tuff, w/ a fine-grained tuffaceous matrix & flow alonged, & contorted lithic fragments comprised of planar-laminated fine-grained tuff. Variable color as result of alteration
- Fine-grained, planar-laminated waterlain (?) tuff. Well-sorted, thin, graded bedding. Medium to dark green.

Tertiary Oscar Epiclastic Sediments — Coarse grained sandstone, pebble conglomerate, & interbedded latitic + lithic-lapilli ash flow tuff. Medium sage to grass green, generally rounded to sub angular clast-supported reworked pyroclastic fragments.

Tertiary Dozer Tuff — Siliceous, fine-grained, crudely flow banded. Pale sage green to grey.

Tertiary Carbonaceous Sediments — Dirty tan-brown carbonaceous fine-grained sandstone/siltstone & pebble conglomerates. Coarsening upward fluvial seq.

Jurassic-Triassic Auld Lang Syne — Black, dark grey, and white, folded & faulted graphitic slate, phyllite and "Bull" or "sweat" quartz veins

MINE SEQUENCE

CT Chocolate Tuff

300-800' BUD Bud ash flow tuff, tuff breccia & interbedded epiclastic sediments

100-300' BMB Bud marker bed - porphyritic rhyolitic flow?

LBT Lower Bud Tuff - fine-grained ash flow tuff, airfall & waterlain tuff & lithic tuff, & lithic tuff breccia (incl. pink matrix bx).
300-450'

FGT - pl fine-grained tuff, planar-laminated

FGT - mb fine-grained tuff, massive-bedded

FGT - wl fine to coarse (sand size) tuff, wavy-laminated

LTBx - mb, ms lithic tuff breccia, massive bedded, matrix-supported, gen. poorly-sorted, heterolithic.

LTBx - fb lithic tuff breccia, flow-laminated

LTBx - cs lithic tuff breccia, clast-supported - usually autobx's.

0-200' Tos Oscar Sediments - "Bud Like" green, mod.-sorted, clast to matrix-supported epiclastic (reworked) tuff & lithic tuff breccia

Tcs Carbonaceous Sediments dirty brown, silty, fine to coarse-grained & pebble conglomerate

741 SRF 15-60' South Ridge Fault - typically sharp-planar footwall slick & variable hanging wall bx'iation

+1000' DT Dozer Tuff - siliceous, fine-grained, crudely-laminated dense, hard, non porphyritic
0-100
Tcs

JTRa Jurassic-Triassic Auld Lang Syne graphitic slate, phyllite, & hornfels, - black w/ white sweat veins, contorted & fragmented planar & planar-cross-laminated.

"PANSY LEE GROUP" - Tcs carbonaceous siltstone, sandstone, and pebble conglomerate; upward coarsening alluvial fan-fluvial sequence; overlying basal Tertiary erosional unconformity developed on Jurassic-Triassic metasediment paleotopographic surface (possible karst topo)

- expl. geophysics to determine depth to JTRa basement.

DRILL HOLE PENETRATIONS

1700 NW	D-91-94	30.8'	@	0.501 Au	
	RL-106C	20'	@	0.086 Au	.22 Ag
	RL-105	5'	@	0.098 Au	7.18 Ag

RL-102 – See summary log

RL-103 0 – 20 Qal
20 – 95 BMB ?
95 – 130' BUD ?
130 – 190 BMB ?
190 – 295 BUD
295 – 495 No Log

D-82 0 – 13.8' tuff bx – silic – tectonic
13.8 – 51.4' FGT pl
51.4 – 58 LST
58 – 68 Bx'd LST
68 – 81.1 LST
81.1 – 88 CS LTBx
88 – 109' FB LT
109 – 117' CS LTBx
117 – 130' FB LTBx CS ?
130 – 232' FGT nb
232 – 255' FGT pl @ 20'
255 – 275 Fault zone – BUD ~~[illegible]~~ CBW TOS

X-SECTIONS
GEOCHEM —

SECTION 200N

RL 201C, RL40C, RL96C

20 SCALE X-SECT

D-9
D-3, 4 1st 50'

D-9A End.

RL201C 400 - 435' LTbx auto bx'd f.g. green tuff

435 -

SECTION 250N D-5, 6, 7 End of D-10, 11

RL-128C 0 - 300 RC Bud & /or CT
300 - 369.5' LBT
300 - 385 lithic tuff & bx
385 - 402' fb fg. t. FGT pl
402 - 475 fb lithic tuff
475 - 502 FGT pl.
502 - 521 interbdd FGT pl & fb LT
521 - 568' s.a.a. w/ LTbx
568 - 590' FGT loc. pl & mostly mb
590 - 611' fb LT
611 - 633.5 FGT mb vitrophyric?
633.5 - 650' fault bx SRF
650 - 667 DT

SECTION 100 N | 94-341C PLOTTED | 100' TOO HIGH IN ELEV.

RB-4, RL-4, 94-304C, RL25, RL66, RL24, 94-341C, RL29, RL28

94-304C
0-8 Qal
8-27.5' BUD
27.5-130.5' LBT 27.5-64.5 FGT
64.5-130.5 LTBx
8-277' BUD 130.5-292.7 LTBx
277-351 LBT 292.7-310 Tectonic bx on So'stx's
- 292.7 FGT 310-351' LTBx - ms, ps, mb, hl, Pink matrix Oscar Sediments
- 310 fault bx
- 351 LTBx - ms, mb

CT
BUD
BMB = TMB
LBT
FGT - pl, wl, mb
LTBx - ms, mb
fb
Tos
SRF
DT
Tcs
Jka

RL-25
0-4 Qal
4-63 CT
63-205 BUD
205-470 LBT
470-597 Tos & SRF
597-640 DT

RES2C
0-3' Qal
3-61.5 FGT
61.5-144.5 BUD /44'
144.5-161.2 LBT Flow-banded f.g.t. FGT
161.2-178.4 faulted FGT
178.4-523' LBT LTBx
523-549.2' SRF
549.2-570 DT

RL66 RE66
0-105 FGT
105-170 BUD
170-467 LBT
467 SRF
467-525 DT

94-341C
0-255' RC Log
255-283.3' FGT - LBT
283.3-292' Auto bx in FGT
292-307.2' FGT
307.2-345.8' LTBx ms, mb, ht lithic
345.8-426.3' LTBx pink matrix homolithic, mb, ms
426.3-452.8' transition into FGT pl
452.8-527.5 FGT pl & bx'iated
527.5-544.6 bx'iated
544.6-600.1 DT

SECTION 150N cont.

RE 23
0 – 60 BuD
60 – 70 Fault
70 – 155 BuD
155 – 565 LBT
565 – 655 DT

RE 28
0 – 202' LT ?
202 – 350? BuD
350 – 435 LBT
435 – 485 DT?

D-3
0 – 94 FGT mb → pl → frac'd bid (32 – 76')
94 – 110 LT lithic tuff flow lam fl – LT
110 – 127 fault bx & unknown
127 – 142.5' LTbx – fb
142.5 – 143.5 FGT pl
143.5 – 147.5 – fault @ 40 to 55°
147.5 – 160 LTBx pink matrix mb, ms, carbonaceous
160 – 199.5 LTBx " " " – one zone
199.5 – 232 FGT crackle bx'iated
232 – 238' FGT pl

D-4
0 – 27.5 FGT pl
27.5 – 78.5' Fault bx @ 40' top ? 30' base

D-94
0 – 121.5' FGT pl? /35'
121.5 – 215 LTbx mb cs ?
211 – 215 faulted
215 – 265 LT fb. ?

SECTION 150N

RL-23, RL28 D-94, 1, 2, 3, 4 RL 40C, RL52C

RL52C done 178.4-523' LBT LTBx
523-549.2' SRF
549.2-570 DT

RL40C 0-6 Qal
6-24.5 Bud.
24.5-41.6' FGT BMB?
41.6-258.6' Bud pyrocl.
258.6-264 FGT pl
264-282' FGT mb
282-343.5 FGT fb (flow-banded)
343.5-409' LTBx fb? lithic tuff
409-518.3' LTBx ms, mb, htl. pink
518.3-610' DT
SRF 490-518.3

D-1-94 0-24 FGT pl to wl @ 80°
24-41 F to MGT mb
41-55 F to MGT pl & contorted lam's @ 30' Δ + to D'
55-67 VFGT mb 65-67 pl. @ 50°
67-68.5 fault bx on 21° stx
68.5-105' Vitropheric VFGT mb
105-107 FGT pl
107-112.5 Fault bx
112.5-131.5' LTBx ms - mb htl.
131.5-137' tectonically bx'iated s.a.a.
137-218' silic. LTBx
218-220 FGT mb @ 30'
TD = 220'

D-2-94 0-52' FGT pl w/ many tectonic bx's on 30-50° stx's
↳ dom. 23-65' w/ 45-65' fault bx

52-62.5 fault bx
62.5-78.5' FGT pl
78.5-111.5' LTBx - fb faligned. — Lithic tuff flow-lam'd.
111.5-135 LTBx ms mb htl
135-166 SRF? $CaCO_3$ flooded fault bx @ 20°
166-177' FGT pl & contorted
177-189 fault bx
189-210.5' LTBx cs Δing + ms, mb, htl.
210.5-222.5' fault bx @ 30°
222.5-260' LTBx mb, ms & cs. htl.

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BY	DATE	JOB TITLE	JOB NO.
CHK.	DATE		DIVISION
DWG. NO.			SHEET OF

INDICATOR ELEMENTS – ~~Tone~~ one of the elements sought
PATHFINDER ELEMENTS – associated/accompanying element – loc. spatially separate
ZONING PATTERNS: – MINERAL & METAL ZONING

NOTED MINERAL-ALTERATION ASSEMBLAGES IN CORE LOGGING
ie Barite – Q – vuggy ; pyrr – $CaCO_3$ – chl
Q – alunite – adularia
ill – py.
mineralogical assemblages noted in logging – limited in ~~to~~ extent to decline area
mineralogical & geochemical zonation – related to paragenesis of minerals that formed in traversing hydrothermal fluids as pressure & temperature (H_2O fugacity, EH, ph etc) decreased away from a parent intrusion body.

inherent to Rosebud & comparable w/ other known dep. & resulting models for unseen expl. targets orebodies. in hydrothermal concepts deposits

Ag
↓
Pb
↓
Zn
↓
Cu

} downward/inward zonation. – (Emmons, 1940)

Zonal patterns are not expected to be perfectly symmetrical or w/out reversals. because of these variables:
wall rock
complex preore geologic conditions
multiple sources & stages of min.
postore adjustments – stx, supergene & weathering

root like chimney orebody w/ strata-controlled mantos orebodies extend up dip

Hg
Pb
Zn
Cu
Sn
Ni
Fe
Co

} downward/inward sulfide zonation

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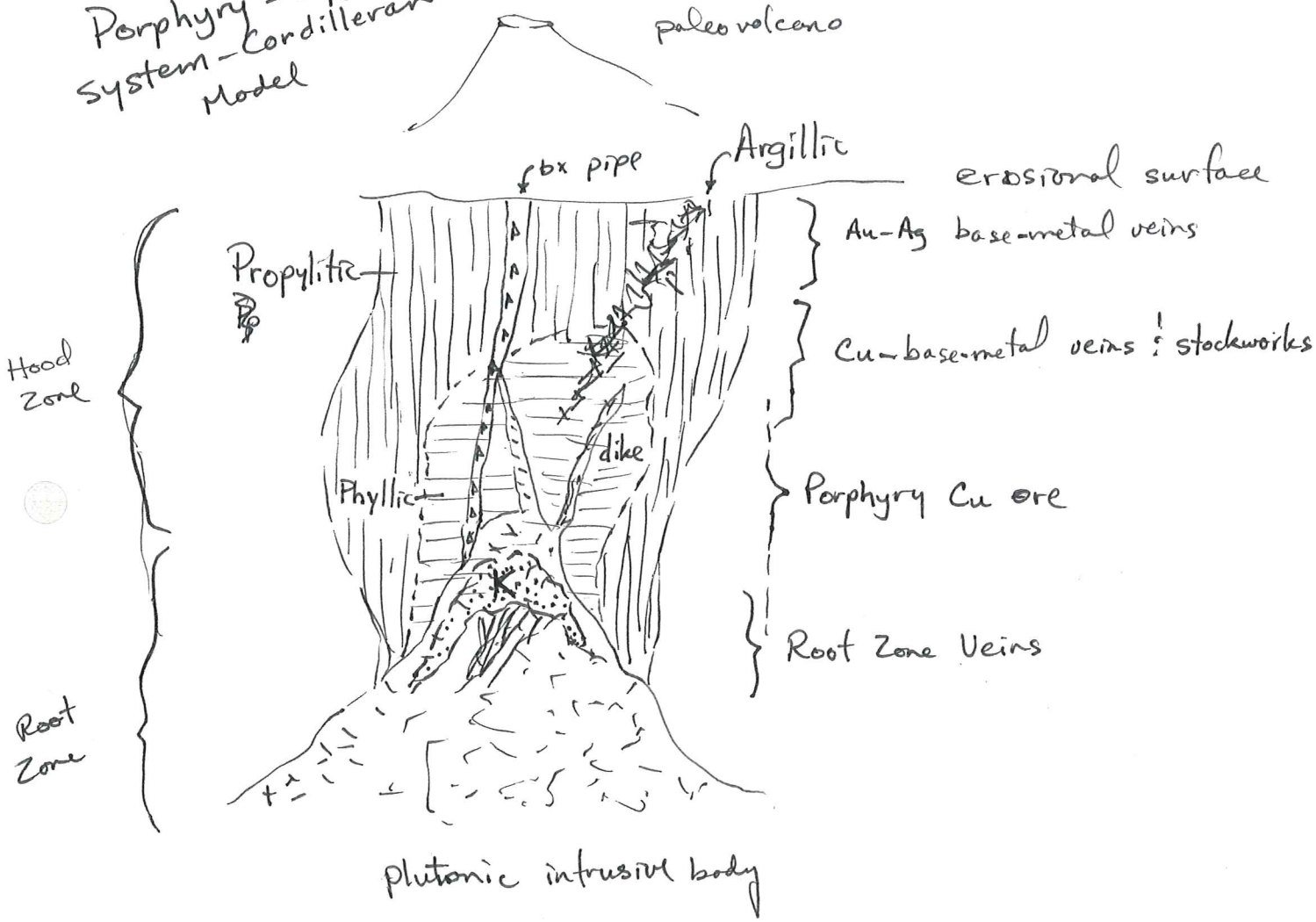
Wall Rock Alteration

Minerals & Zoning in the Depth Dimension

Porphyry-Copper System-Cordilleran Model



K = potassic

compressional environment dioritic to felsic intrusions w/ emergent andesitic to dacitic stratovolcano systems

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extensional model - Kuroko geologic model

hydrothermal vein mineral associations

Hg → Pb → Zn → Cu → Sn → Ni → Fe → Co

Top/outer — bottom/inner

arise from: relative stability of complex ions
density
electrode potential
mineral free energies
solubilities /mobilities
Eh-ph
temperature.
pressure

root like chimney orebodies (feeding stx's) that control strata-bound manto orebodies that extend updip.

zonal pattern that exists today is final result of successive, simultaneous & alternating stages in mineral deposition.

GEOCHEMICAL ZONING

pattern of major & minor (trace) elements around ore-body.
used as geothermometer
trace elements (oligoelements)
laboratory analysis used to find subtle changes that would be missed during mapping or ~~col~~ logging. drill core.
use as a geochemical prospecting tool.
suited for quantitative characterization in graphs & isoline maps showing element content & ratios between elements
~~show~~ zones of enrichment & depletion.

help to identify mineralogical zonation - color of barite, ~~calcite~~ siderite, carbonates, clays

positive & negative correlation coeffients

geochem – not intended as a "cure all" but must be incorporated w/ to stand alone observations of lithology, stx, mineralogy collected during/while logging drill core & from SEM, petrographic & XRD examination.

CALLAHAN MINING CORPORATION

WALL ROCK ALTERATION

wall rx alt. wider assoc. w/ ore dep. than hydrot alt.

TYPES & PATTERNS
Boyle 1982

created by disequilibrium btwn wall-rx min. & ore min. (fluids), & a gradational geochem. halo at ore horizon (strata-bound dep).

FUNDAMENTAL ASPECTS
ROSE & BURT, 1979

zonal geochem patterns ie Δ's in % value or ratios to one another dependent on distance from a stx - fluid conduit.

geochem. of wall rx alt. can be pervassive or lithologically selective & its paragenetic hydrot. sequence may overprint repl. assemblages over earlier ones as the system heats up, cools down, or Δ's in character.

wall rx alt is final result of a complex series of events.

root of dominant mineral name + ization – process
" " " + ic – diagnostic or dominant species.

established assemblage names:

Argillic (argillization): Kaolin – montmorillonite w/ kaolin proximal to distal mont.
advanced arg-T = dickite - kaolinite - pyrophyllite assemb.

Phyllic (sericization): Sericite – Q – py most common & easily recognized
alt. assemb. – & (cbw) poss. over used misidentified

Potassic (k-silicate): k-spar (orthoclase – microcline) w/ biot. & commonly hem or mt., ser. & anhydrite

Propylitic (propylitization): epidote, albite, chlorite & carbonate commonly w/ ser. ± py subtypes include chloritization, albitization, & carbonatization

Bleaching - what ever.

Supergene alteration & weathering processes – bleach bio → ser. or Δ it to chl.; make mont. ± kaol. from feldspar & carry hem ± SiO_2 to new sites & GENERALLY WREAK HAVOC ON PATTERNS INHERITED FROM THE SUBSURFACE ENVIRONMENT.
SUPERGENE WALL RX ALT CAN BE A GUIDE TO ORE; PROVIDING THAT ITS NEAR-SURFACE CONTEXT IS APPREC.-UNDERSTOOD & IS RELATED TO THE EFFECTS OF WEATHERING ON ORE & GANGUE MINERALS.

DEUTERIC ALT. – ign. or volc. rx that "stews in its own juice"

Selection of methods
elements to be sought
Sen

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1. Selection of methods
   Elements to be sought
   Sensitivity & precision to be required
   Sample pattern - density

} based on costs, known or suspected geol. conditions laboratory work on similar material

— ORIENTATION SURVEY OR EQUIVALENT IN SIMILAR TERRANE w/ SIM. ORE BODIES

A preliminary geochem. study was conducted in 1991 by LAC. involving 169 ~~that analys~~s. ~~composite~~ assay samples from 511 pulps

Previous work 1991 Lac ~~&~~ submitted 169 ~~162~~ ~~169~~ 15 feet composite assay samples for multi-element analysis. Samples selected from w/in South Zone along the NE-axis of the deposit. Sampling was not continuous; 15 ~~ft~~ composite samples every 50 ft down hole. 15 feet in composite length.

ORE ASSOC.	TARGET	PATHFINDER ELEMENT
Precious metal veins	Au-Ag	As, Sb, Te, Mn, Hg, I, F, Bi, Co, Se, Tl

strength of anomaly referred to in terms of geochemical relief

topographic site : elevation : stratigraphic site } CBW

D-91-94 MISSING HOLES
D-92-94
~~RL-1~~
RL 128C
RL 242C
RL 245
RL 36

Au(avg)	Ag(avg)	Sp. Grav.
0.198	0.45	-1.00
0.047	0.11	-1.00
0.019	0.16	-1.00
0.040	0.27	-1.00
0.028	0.12	-1.00
0.137	1.93	-1.00
0.003	0.04	-1.00
0.007	-1.00	-1.00
0.008	-1.00	-1.00
0.042	-1.00	-1.00
0.015	-1.00	-1.00
0.057	-1.00	-1.00
0.031	-1.00	-1.00
0.597	-1.00	-1.00
0.028	-1.00	-1.00
0.027	-1.00	1.14
0.183	-1.00	0.80
0.008	-1.00	1.29
0.277	-1.00	1.58
0.012	-1.00	1.03
0.004	-1.00	1.09
0.003	-1.00	1.43
0.002	-1.00	-1.00

HECLA MINING COMPANY - ROSEBUD PROJECT

GEOCHEMICAL DATABASE

Hole ID	From	To	Length	Formation	Lith
D-63-94	0.0	8.2	8.2	LBT	LBT-FGT pl
D-63-94	8.2	23.0	14.8	LBT	LTBx-fb,ms
D-63-94	23.0	52.0	29.0	LBT	LTBx-mb,ms
D-63-94	52.0	84.6	32.6	LBT	LTBx-mb,ms
D-63-94	84.6	105.6	21.0	LBT	FGT pl
D-63-94	105.6	132.0	26.4	LBT	LST
D-63-94	132.0	150.5	18.5	LBT	wl,FGT
D-72-94	0.0	29.0	29.0	LBT	LBT

D-72-94	29.0	59.0	30.0	LBT	LBT
D-72-94	59.0	93.0	34.0	LBT	LBT
D-72-94	93.0	117.0	24.0	LBT	LBT
D-72-94	117.0	151.0	34.0	LBT	LBT
D-72-94	151.0	191.0	40.0	LBT	LBT
D-72-94	191.0	201.0	10.0	LBT	LBT
D-72-94	201.0	228.0	27.0	LBT	LBT
D-76-94	0.0	28.0	28.0	LBT	LTBx
D-76-94	28.0	63.0	35.0	LBT	LTBx, LT fb
D-76-94	63.0	100.0	37.0	LBT	LTBx w/FGT w/si bx
D-76-94	100.0	115.0	15.0	LBT	
D-76-94	115.0	136.5	21.5	LBT	
D-76-94	136.5	171.0	34.5	LBT	
D-76-94	171.0	199.0	28.0	LBT	
D-78-94	0.0	11.5	11.5	LBT	LTBx
D-78-94	11.5	35.0	23.5	LBT	LTBx
D-78-94	35.0	55.0	20.0	LBT	LTBx
D-78-94	55.0	80.0	25.0	LBT	LTBx
D-78-94	80.0	105.0	25.0	LBT	LTBx
D-78-94	105.0	130.0	25.0	LBT	LTBx
D-91-94	0.0	27.5	27.5	LBT	
D-91-94	27.5	39.0	11.5	LBT	
D-91-94	39.0	60.0	21.0	LBT	
D-91-94	60.0	73.0	13.0	LBT	
D-91-94	73.0	92.0	19.0	LBT	
D-91-94	92.0	110.0	18.0	LBT	
D-91-94	110.0	132.0	22.0	LBT	
D-91-94	132.0	151.0	19.0	LBT	
D-91-94	151.0	176.0	25.0	LBT	
D-91-94	176.0	192.0	16.0	LBT	
D-91-94	192.0	210.0	18.0	LBT	
D-91-94	210.0	226.0	16.0	LBT	
D-91-94	226.0	251.0	25.0	LBT	
D-91-94	251.0	262.5	11.5	LBT	
D-91-94	262.5	279.5	17.0	LBT	
D-91-94	279.5	304.0	24.5	LBT	
D-91-94	304.0	319.0	15.0	LBT	
D-91-94	319.0	335.0	16.0	LBT	
D-91-94	335.0	360.0	25.0	LBT	
D-91-94	360.0	385.0	25.0	LBT	
D-91-94	385.0	409.0	24.0	LBT	
D-91-94	409.0	430.0	21.0	LBT	
D-91-94	430.0	452.0	22.0	LBT	
D-91-94	452.0	475.0	23.0	LBT	
D-91-94	475.0	497.0	22.0	LBT	
D-91-94	497.0	518.0	21.0	LBT	
D-91-94	518.0	545.0	27.0	LBT	

D-91-94	545.0	568.0	23.0	LBT	
D-91-94	568.0	593.0	25.0	LBT	
D-91-94	593.0	619.0	26.0	LBT	
D-91-94	619.0	643.0	24.0	LBT	
D-91-94	643.0	665.0	22.0	LBT	
D-91-94	665.0	688.0	23.0	LBT	
D-91-94	688.0	703.5	15.5	LBT	
D-91-94	703.5	730.0	26.5	DT/SRF	
D-91-94	730.0	754.0	24.0	DT/SRF	
D-91-94	754.0	781.5	27.5	DT/SRF	
D-91-94	781.5	802.0	20.5	Tcs	
D-91-94	802.0	823.0	21.0	Tcs	
D-91-94	823.0	839.0	16.0	Tcs	
D-91-94	839.0	848.0	9.0	Tcs	
D-91-94	848.0	870.0	22.0	JTra	
D-91-94	870.0	892.0	22.0	JTra	
D-91-94	892.0	918.0	26.0	JTra	
D-91-94	918.0	929.0	11.0	JTra	
D-91-94	929.0	935.0	6.0	JTra	
D-91-94	935.0	955.0	20.0	JTra	
D-91-94	955.0	980.0	25.0	JTra	
D-91-94	980.0	989.0	9.0	JTra	
94-299C	~~0.0~~	15.0	15.0	Bud	BUD
94-299C	~~15.0~~ 15	~~36.0~~ 55	21.0	Bud	BUD
94-299C	36.0	55.0	19.0	Bud	BUD
94-299C	55.0 55	~~76.0~~ 79.5	21.0	Bud	BUD
94-299C	~~76.0~~ 79.5	96.0	20.0	Bud	Faulted
94-299C	96.0	117.5	21.5	Bud	BUD
94-299C	117.5	130.5	13.0	Bud	BUD
94-299C	130.5	~~148.0~~ 170	17.5	LBT	LBT
94-299C	~~148.0~~	~~170.0~~	22.0	LBT	LBT
94-299C	170.0	~~190.0~~ 210	20.0	LBT	LBT
94-299C	~~190.0~~	~~210.0~~	20.0	LBT	LBT
94-299C	210.0	232.0	22.0	LBT	LBT
94-299C	232.0	~~242.0~~ 251	10.0	LBT	LBT
94-299C	~~242.0~~	~~251.0~~	9.0	LBT	LBT
94-299C	251.0	~~270.0~~ 287	19.0	LBT	LBT
94-299C	~~270.0~~ 287	~~294.0~~ 300	24.0	LBT/SRF	LBT,SRF
94-299C	~~294.0~~ 300	~~319.0~~ 330	25.0	Tos	SRF
94-299C	~~319.0~~ 330	~~341.0~~ 353	22.0	Tos	TOS
94-299C	~~341.0~~	~~353.0~~	12.0	Tos	TOS
94-300C	~~0.0~~	7.0	7.0	Qal	QAL
94-300C	7.0	~~27.1~~ 47.1	20.1	Bud	BUD
94-300C	~~27.1~~	47.1	20.0	Bud	BUD
94-300C	47.1	~~67.0~~ 86.5	19.9	Bud	BUD
94-300C	~~67.0~~	~~86.5~~	19.5	Bud	BUD
94-300C	86.5	~~108.0~~ 128	21.5	Bud	BUD
94-300C	~~108.0~~	~~128.0~~	20.0	Bud	BUD

94-300C	128.0	~~146.0~~ 166	18.0	Bud	BUD
94-300C	~~146.0~~	~~166.0~~	20.0	Bud	BUD
94-300C	166.0	~~185.0~~ 200	19.0	Bud	BUD
94-300C	~~185.0~~	~~200.0~~	15.0	Bud	BUD
94-300C	200.0	~~220.0~~ 240	20.0	LBT	LBT
94-300C	~~220.0~~	~~240.0~~	20.0	LBT	LBT
94-300C	240.0	~~260.0~~ 289	20.0	LBT	LBT
94-300C	~~260.0~~	~~289.0~~	29.0	LBT	LBT
94-300C	289.0	~~297.5~~ 305	8.5	LBT	LBT
94-300C	~~297.5~~	~~305.0~~	7.5	LBT	LBT
94-300C	305.0	~~325.0~~ 345	20.0	LBT	LBT
94-300C	~~325.0~~	~~345.0~~	20.0	SRF	SRF-slay
94-300C	345.0	~~366.0~~ 385	21.0	SRF	SRF-slay
94-300C	~~366.0~~	~~385.0~~	19.0	SRF	SRF-slay
94-300C	385.0	405.0	20.0	Tos/SRF	Fault, TOS
94-300C	405.0	~~425.0~~ 445	20.0	Tos/SRF	Fault, TOS
94-300C	~~425.0~~	~~445.0~~	20.0	Tos/SRF	Fault, TOS
94-300C	445.0	455.0	10.0	SRF	SRF
94-300C	455.0	463.0	8.0	DT	DT

18 x A + 20 x C = 38' @ weighted average

A4 A B C A3 B D

D-3-94	0.0	15.0	15.0	LBT	LBT,FGT
D-3-94	15.0	~~35.0~~ 50	20.0	LBT	pl FGT
D-3-94	~~35.0~~	~~50.0~~	15.0	LBT	pl FGT
D-3-94	50.0	~~64.5~~ 80	14.5	LBT	pl FGT
D-3-94	~~64.5~~ 80	~~81.0~~ 108.5	16.5	LBT	pl FGT
D-3-94	~~81.0~~ 108.5	~~95.0~~ 131	14.0	LBT	pl FGT
D-3-94	~~95.0~~	~~108.5~~	13.5	LBT	fb LT
D-3-94	~~108.5~~	~~120.0~~	11.5	LBT	fault bx
D-3-94	~~120.0~~	~~131.0~~	11.0	LBT	fb LT
D-3-94	131.0	147.5	16.5	LBT	fb + pl FGT
D-3-94	147.5	163.5	16.0	LBT	carbon coated crackle bx
D-3-94	163.5	178.0	14.5	LBT	LTBx ms,mb, htl.
D-3-94	178.0	~~200.0~~ 205	22.0	LBT	LTBx ms,mb, htl.
D-3-94	~~200.0~~	~~220.0~~	20.0	LBT	FGT pl crackle bx
D-3-94	~~220.0~~ 205	238.0	18.0	LBT	FGT w/SiO2
D-20-94	0.0	20.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	20.0	40.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	40.0	60.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	60.0	80.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	80.0	100.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	100.0	120.0	20.0	LBT	LBT - LTBx loc. fb
D-20-94	120.0	142.0	22.0	LBT	LBT - LTBx loc. fb
D-20-94	142.0	158.0	16.0	LBT	LBT - LTBx loc. fb
D-20-94	158.0	174.0	16.0	LBT	LBT - LTBx loc. fb
D-20-94	174.0	191.0	17.0	LBT	LBT - LTBx loc. fb
D-20-94	191.0	207.0	16.0	LBT	LBT - LTBx loc. fb
D-20-94	207.0	220.0	13.0	LBT	LBT - LTBx loc. fb
D-21-94	0.0	20.0	20.0	LBT	LBT ms,mb,htl LTBx

D-21-94	20.0	40.0	20.0	LBT	fb LT
D-21-94	40.0	50.0	10.0	LBT	fb LT frac'd
D-21-94	50.0	70.0	20.0	LBT	fb LT
D-21-94	70.0	80.0	10.0	LBT	fb LT frac'd
D-21-94	80.0	95.0	15.0	LBT	fb LT
D-21-94	95.0	114.0	19.0	LBT	fb LT
D-21-94	114.0	122.0	8.0	LBT	fb LT
D-21-94	122.0	131.0	9.0	LBT	fb LT
D-21-94	131.0	145.0	14.0	LBT	fb LT
D-21-94	145.0	160.0	15.0	LBT	fb LT
D-21-94	160.0	177.5	17.5	LBT	fb LT
D-21-94	177.5	178.0	0.5	LBT	fb LT
D-22-94	0.0	15.0	15.0	LBT	LBT- LT to cs LTBx
D-22-94	15.0	35.0	20.0	LBT	LTBx
D-22-94	35.0	55.0	20.0	LBT	LTBx
D-22-94	55.0	65.0	10.0	LBT	LTBx
D-22-94	65.0	85.0	20.0	LBT	LTBx
D-22-94	85.0	100.0	15.0	LBT	LTBx
D-22-94	100.0	115.0	15.0	LBT	LTBx
D-22-94	115.0	130.0	15.0	LBT	LTBx
D-22-94	130.0	150.0	20.0	LBT	LTBx
D-22-94	150.0	159.5	9.5	LBT	LTBx
D-22-94	159.5	165.0	5.5	LBT	LTBx
D-22-94	165.0	184.0	19.0	LBT	faulted
D-22-94	184.0	199.8	15.8	LBT	faulted
D-22-94	199.8	200.0	0.2	LBT	FGT
D-93-94	0.0	18.0	18.0	LBT	FGT-LBT
D-93-94	18.0	45.0	27.0	LBT	cs,mb,LTBx
D-93-94	45.0	78.0	33.0	LBT	fb,ms LT, pl FGt
D-93-94	78.0	103.5	25.5	LBT	fb,ms LT, pl FGt
D-93-94	103.5	124.0	20.5	LBT	cs, htl, mb LTBx
D-93-94	124.0	144.0	20.0	LBT	cs, htl, mb LTBx
D-93-94	144.0	164.0	20.0	LBT	ms,htl,mb LTBx FeOx-ser-T
D-93-94	164.0	184.0	20.0	LBT	ms,htl,mb LTBx FeOx-ser-T
D-93-94	184.0	209.0	25.0	LBT	ms,htl,mb LTBx FeOx-ser-T
D-93-94	209.0	229.0	20.0	LBT	ms,htl,mb LTBx FeOx-ser-T
D-93-94	229.0	246.0	17.0	LBT	ms,htl,mb LTBx FeOx-ser-T
D-30-94	0.0	35.0	35.0	LBT	LBT prim. fbLT
D-30-94	35.0	70.0	35.0	LBT	LT fb
D-30-94	70.0	80.0	10.0	LBT	ml,mb,ms LTBx
D-30-94	80.0	95.0	15.0	LBT	htl,mb,ms LTBx
D-30-94	95.0	110.0	15.0	LBT	FLT htl,mb,ms LTBx
D-30-94	110.0	130.0	20.0	LBT	cg,htl,mb,ms LTBx
D-30-94	130.0	145.0	15.0	LBT	cg,htl,mb,ms LTBx
D-30-94	145.0	160.0	15.0	LBT	cg,htl,mb,ms LTBx
D-30-94	160.0	175.0	15.0	LBT	cg,htl,mb,ms LTBx
D-30-94	175.0	185.0	10.0	LBT	cg,htl,mb,ms LTBx

D-30-94	185.0	195.0	10.0	LBT	FGT pl
D-30-94	195.0	205.0	10.0	LBT	FGT pl
D-30-94	205.0	215.0	10.0	LBT	crackle bx-auto bx
D-30-94	215.0	225.0	10.0	LBT	crackle bx-auto bx
D-30-94	225.0	240.0	15.0	LBT	FGT- vitrophere mb
D-30-94	240.0	255.0	15.0	LBT	FGT- vitrophere mb
D-32-94	0.0	25.0	25.0	LBT	LBT-FGT
D-32-94	25.0	55.0	30.0	LBT	LBT-FGT
D-32-94	55.0	65.0	10.0	LBT	LBT-FGT
D-32-94	65.0	90.0	25.0	LBT	LBT LTBx ms,mb,ml
D-32-94	90.0	110.0	20.0	LBT	LT fb,ms,htl
D-32-94	110.0	130.0	20.0	LBT	LT fb,ms,htl
D-32-94	130.0	150.0	20.0	LBT	LBT LTBx ms,mb,htl
D-32-94	150.0	165.0	15.0	LBT	LBT LTBx ms,mb,htl
D-32-94	165.0	180.0	15.0	LBT	LBT LTBx ms,mb,htl
D-58-94	0.0	22.5	22.5	LBT	LBT- LTBx ms,mb
D-58-94	22.5	52.0	29.5	LBT	LBT fb LT
D-58-94	52.0	83.5	31.5	LBT	FGT
D-58-94	83.5	104.0	20.5	LBT	FGT
D-58-94	104.0	120.0	16.0	LBT	FGT
D-61-94	0.0	20.4	20.4	LBT	FGT pl
D-61-94	20.4	50.3	29.9	LBT	LT fb
D-61-94	50.3	100.0	49.7	LBT	LTBx, hydro-T bx
D-61-94	100.0	150.0	50.0	LBT	LTBx, hydro-T bx
D-61-94	150.0	200.0	50.0	LBT	LTBx, hydro-T bx
D-74-94	0.0	27.0	27.0	LBT	LBT
D-74-94	27.0	47.0	20.0	LBT	LBT
D-74-94	47.0	63.0	16.0	LBT	LBT
D-74-94	63.0	80.0	17.0	LBT	LBT
D-74-94	80.0	95.0	15.0	LBT	LBT
D-74-94	95.0	119.0	24.0	LBT	LBT
D-74-94	119.0	144.0	25.0	LBT	LBT
D-74-94	144.0	170.0	26.0	LBT	LBT
D-74-94	170.0	190.0	20.0	LBT	LBT
D-74-94	190.0	207.0	17.0	LBT	LBT
D-74-94	207.0	231.0	24.0	LBT	LBT
D-74-94	231.0	235.5	4.5	SRF	silic SRF
D-74-94	235.5	259.0	23.5	SRF	SRF
D-74-94	259.0	268.0	9.0	DT	DT
D-92-94	0.0	11.0	11.0	LBT	
D-92-94	11.0	28.0	17.0	LBT	
D-92-94	28.0	48.0	20.0	LBT	
D-92-94	48.0	75.0	27.0	LBT	
D-92-94	75.0	98.0	23.0	LBT	
D-92-94	98.0	121.0	23.0	LBT	

D-92-94	121.0	142.5	21.5	LBT
D-92-94	142.5	168.0	25.5	LBT
D-92-94	168.0	195.0	27.0	LBT
D-92-94	195.0	205.0	10.0	LBT
D-92-94	205.0	221.0	16.0	LBT
D-92-94	221.0	234.0	13.0	LBT
D-92-94	234.0	246.5	12.5	LBT
D-92-94	246.5	271.0	24.5	LBT
D-92-94	271.0	289.0	18.0	LBT
D-92-94	289.0	314.0	25.0	Bud
D-92-94	314.0	334.0	20.0	Bud
D-92-94	334.0	385.0	51.0	Bud
D-92-94	385.0	434.0	49.0	Bud
D-92-94	434.0	482.0	48.0	Bud
D-92-94	482.0	505.0	23.0	Bud
D-92-94	505.0	530.0	25.0	Bud
D-92-94	530.0	553.0	23.0	Bud
D-92-94	553.0	578.0	25.0	Bud
D-92-94	578.0	608.0	30.0	Bud
D-92-94	608.0	634.5	26.5	Bud
D-92-94	634.5	660.0	25.5	Bud
D-92-94	660.0	685.0	25.0	Bud
D-92-94	685.0	700.0	15.0	Bud
D-92-94	700.0	730.0	30.0	Bud
D-92-94	730.0	755.0	25.0	Bud
D-92-94	755.0	780.0	25.0	Bud
D-92-94	780.0	803.0	23.0	Bud
D-92-94	803.0	838.0	35.0	Bud
D-92-94	838.0	860.0	22.0	Tcs
D-92-94	860.0	890.0	30.0	SRF
D-92-94	890.0	910.0	20.0	DT
D-92-94	910.0	934.0	24.0	DT
D-92-94	934.0	959.0	25.0	DT
D-92-94	959.0	984.0	25.0	DT
D-92-94	984.0	1006.0	22.0	DT
D-92-94	1006.0	1018.0	12.0	DT
D-92-94	1018.0	1045.0	27.0	DT

94-333C	0.0	25.0	25.0	Qal	Qal
94-333C	25.0	105.0	80.0	CT	CT
94-333C	105.0	175.0	70.0	CT	CT
94-333C	175.0	225.0	50.0	CT	CT
94-333C	225.0	255.0	30.0	CT	CT
94-333C	255.0	285.0	30.0	CT	CT
94-333C	285.0	305.0	20.0	CT	CT
94-333C	305.0	335.0	30.0	CT	CT
94-333C	335.0	375.0	40.0	CT	CT
94-333C	375.0	415.0	40.0	CT	CT
94-333C	415.0	495.0	80.0	CT	CT
94-333C	495.0	~~547.5~~ 600	52.5	CT	CT

94-333C	547.5	600.0	52.5	CT	CT
94-333C	600.0	645.0	45.0	CT	CT
94-333C	645.0	670.0	25.0	CT	CT
94-333C	670.0	705.0	35.0	Bud	UBUD
94-333C	705.0	723.5	18.5	SRF	SRF
94-333C	723.5	750.0	26.5	DT	DT
94-333C	750.0	798.0	48.0	DT	DT
94-320C	0.0	20.0	20.0	Qal	Qal
94-320C	20.0	60.0	40.0	CT	CT
94-320C	60.0	100.0	40.0	CT	CT
94-320C	100.0	140.0	40.0	CT	CT
94-320C	140.0	180.0	40.0	CT	CT
94-320C	180.0	220.0	40.0	CT	CT
94-320C	220.0	250.0	30.0	CT	CT
94-320C	250.0	300.0	50.0	CT	CT
94-320C	300.0	350.0	50.0	Bud	UBUD
94-320C	350.0	390.0	40.0	Bud	UBUD
94-320C	390.0	440.0	50.0	Bud	BMB
94-320C	440.0	490.0	50.0	Bud	BMB
94-320C	490.0	540.0	50.0	Bud	LBUD
94-320C	540.0	590.0	50.0	Bud	LBUD
94-320C	590.0	641.0	51.0	Bud	LBUD
94-320C	641.0	688.0	47.0	Bud	LBUD
94-320C	688.0	713.0	25.0	SRF	SRF
94-320C	713.0	738.0	25.0	DT	DT
94-320C	738.0	758.0	20.0	DT	DT
94-320C	758.0	783.0	25.0	DT	DT
94-320C	783.0	800.0	17.0	DT w/fault	DT w/fault
94-321C	0.0	35.0	35.0	Qal	Qal
94-321C	35.0	95.0	60.0	CT	CT-LTBx
94-321C	95.0	155.0	60.0	CT	CT-LTBx
94-321C	155.0	205.0	50.0	CT	CT-LTBx
94-321C	205.0	255.0	50.0	CT	CT-LTBx
94-321C	255.0	305.0	50.0	CT	CT-LTBx
94-321C	305.0	345.0	40.0	CT	CT-LTBx
94-321C	345.0	385.0	40.0	CT	CT-LTBx
94-321C	385.0	435.0	50.0	CT	CT-LTBx
94-321C	435.0	448.0	13.0	CT	CT-FGT
94-321C	448.0	459.0	11.0	CT	CT-FGT
94-321C	459.0	494.0	35.0	CT	CT-FGT
94-321C	494.0	549.0	55.0	CT	CT-FGT
94-321C	549.0	589.0	40.0	CT	CT-FGT
94-321C	589.0	600.0	11.0	CT	bx'd, silic
94-321C	600.0	625.0	25.0	SRF	SRF
94-321C	625.0	640.5	15.5	SRF	SRF
94-321C	640.5	651.5	11.0	SRF	SRF
94-321C	651.5	677.0	25.5	DT	DT
94-321C	677.0	702.0	25.0	DT	DT

94-321C	702.0	722.0	20.0	DT	DT
94-321C	722.0	752.0	30.0	DT	DT
94-331C	0.0	25.0	25.0	Qal	Qal
94-331C	25.0	75.0	50.0	CT	CT
94-331C	75.0	135.0	60.0	CT	CT
94-331C	135.0	205.0	70.0	CT	CT
94-331C	205.0	285.0	80.0	CT	CT
94-331C	285.0	365.0	80.0	CT	CT
94-331C	365.0	415.0	50.0	CT	CT
94-331C	415.0	495.0	80.0	CT	CT
94-331C	495.0	565.0	70.0	CT	CT
94-331C	565.0	622.0	57.0	CT	CT
94-331C	622.0	661.0	39.0	SRF	SRF -E2
94-331C	661.0	688.0	27.0	DT	DT
94-331C	688.0	713.0	25.0	DT	DT
94-331C	713.0	743.0	30.0	DT	DT
94-331C	743.0	773.0	30.0	DT	DT
94-331C	773.0	800.0	27.0	DT	DT
94-332C	0.0	45.0	45.0	Qal	Qal
94-332C	45.0	125.0	80.0	CT	CT
94-332C	125.0	195.0	70.0	CT	CT
94-332C	195.0	265.0	70.0	CT	CT
94-332C	265.0	325.0	60.0	CT	CT
94-332C	325.0	385.0	60.0	CT	CT
94-332C	385.0	445.0	60.0	CT	CT
94-332C	445.0	485.0	40.0	CT	CT
94-332C	485.0	545.0	60.0	CT	CT
94-332C	545.0	580.0	35.0	CT	CT
94-332C	580.0	608.0	28.0	SRF	SRF E2
94-332C	608.0	627.0	19.0	DT	DT
94-332C	627.0	657.0	30.0	DT	DT
94-332C	657.0	698.0	41.0	DT	DT
94-305C	0.0	55.0	55.0	CT	CT FGT
94-305C	55.0	105.0	50.0	Bud	BUD CT LTBx
94-305C	105.0	155.0	50.0	Bud	BUD CT LTBx
94-305C	155.0	205.0	50.0	Bud	BUD CT LTBx
94-305C	205.0	255.0	50.0	Bud	BMB CT FGT
94-305C	255.0	305.0	50.0	Bud	BMB CT FGT
94-305C	305.0	355.0	50.0	Bud	LBUD
94-305C	355.0	405.0	50.0	Bud	LBUD
94-305C	405.0	445.0	40.0	Bud	LBUD
94-305C	445.0	495.0	50.0	LBT	LBT
94-305C	495.0	544.0	49.0	LBT	LBT
94-305C	544.0	594.0	50.0	LBT	LBT
94-305C	594.0	664.0	70.0	LBT	LBT
94-305C	~~664.0~~	~~679.0~~	15.0	LBT	LBT
94-305C	~~679.0~~	~~704.0~~	25.0	LBT	LBT

94-305C	~~704.0~~	~~724.0~~	20.0	LBT	LBT
94-305C	724.0	754.0	30.0	LBT	LBT
94-305C	754.0	774.0	20.0	LBT	LBT
94-305C	~~774.0~~	~~804.0~~	30.0	LBT	LBT
94-305C	~~804.0~~	~~824.0~~	20.0	LBT	LBT
94-305C	824.0	854.0	30.0	LBT	LBT
94-305C	~~854.0~~	~~874.0~~	20.0	LBT	LBT
94-305C	~~874.0~~	~~899.0~~	25.0	LBT	LBT
94-305C	~~899.0~~	~~914.0~~	15.0	LBT	LBT
94-305C	~~914.0~~	~~924.0~~	10.0	LBT	LBT
94-305C	~~924.0~~	~~949.0~~	25.0	LBT	LBT
94-305C	~~949.0~~	~~984.0~~	35.0	LBT	LBT
94-305C	~~984.0~~	~~994.0~~	10.0	SRF	SRF
94-305C	~~994.0~~	~~1004.0~~	10.0	DT	DT
94-305C	~~1004.0~~	~~1014.0~~	10.0	Tos	TOS
94-305C	1014.0	1050.0	36.0	Tos	TOS
94-319C	0.0	55.0	55.0	CT	CT-FGT
94-319C	55.0	105.0	50.0	CT	CT-FGT
94-319C	105.0	155.0	50.0	CT	CT-FGT
94-319C	155.0	205.0	50.0	CT	CT-FGT
94-319C	205.0	245.0	40.0	CT	CT-FGT
94-319C	245.0	305.0	60.0	CT	CT LTBx
94-319C	305.0	355.0	50.0	CT	CT LTBx
94-319C	355.0	405.0	50.0	CT	CT LTBx
94-319C	405.0	445.0	40.0	CT	CT LTBx
94-319C	445.0	495.0	50.0	CT	CT LTBx
94-319C	495.0	548.0	53.0	CT	CT/BUD @ 531'
94-319C	548.0	~~598.0~~ 593	50.0	Bud	UBUD
94-319C	~~598.0~~ 593	648.0	50.0	Bud	UBUD
94-319C	648.0	698.0	50.0	Bud	UBUD
94-319C	698.0	748.5	50.5	Bud	BMB
94-319C	748.5	798.0	49.5	Bud	LBUD
94-319C	798.0	831.0	33.0	SRF	SRF
94-319C	831.0	868.0	37.0	DT	DT
94-319C	868.0	900.0	32.0	DT	DT
94-334C	0.0	15.0	15.0	Qal	Qal
94-334C	15.0	85.0	70.0	CT	CT
94-334C	85.0	175.0	90.0	CT	CT
94-334C	175.0	255.0	80.0	CT	CT
94-334C	255.0	315.0	60.0	CT	CT
94-334C	315.0	355.0	40.0	CT	CT
94-334C	355.0	415.0	60.0	CT	CT
94-334C	415.0	455.0	40.0	CT	CT
94-334C	455.0	475.0	20.0	CT	CT
94-334C	475.0	519.0	44.0	Bud	UBUD
94-334C	519.0	537.0	18.0	Bud	UBUD
94-334C	537.0	587.0	50.0	Bud	UBUD
94-334C	587.0	617.0	30.0	Bud	UBUD
94-334C	617.0	643.0	26.0	Bud	UBUD
94-334C	643.0	697.0	54.0	Bud	BMB
94-334C	697.0	734.0	37.0	Bud	BMB
94-334C	734.0	777.0	43.0	Bud	LBUD
94-334C	777.0	817.5	40.5	Bud	LBUD

94-334C	817.5	862.0	44.5	LBT	LBT
94-334C	862.0	891.0	29.0	LBT	LBT
94-334C	891.0	907.0	16.0	LBT	LBT
94-334C	907.0	~~922.0~~ 946	15.0	SRF	SRF
94-334C	~~922.0~~	~~930.5~~	8.5	SRF	SRF
94-334C	930.5	946.0	15.5	SRF	SRF
94-334C	946.0	981.0	35.0	Tcs	TCS
94-334C	981.0	1010.5	29.5	Tcs	TCS
94-334C	1010.5	1028.5	18.0	Tcs	TCS
94-334C	1028.5	1042.0	13.5	JTra	JTra
94-334C	1042.0	1072.0	30.0	JTra	JTra
94-334C	1072.0	1087.0	15.0	JTra	JTra
94-335C	0.0	75.0	75.0	CT	CT
94-335C	75.0	145.0	70.0	CT	CT
94-335C	145.0	215.0	70.0	CT	CT
94-335C	215.0	285.0	70.0	CT	CT
94-335C	285.0	395.0	110.0	CT	CT
94-335C	395.0	435.0	40.0	CT	CT
94-335C	435.0	484.0	49.0	CT	CT
94-335C	484.0	534.0	50.0	CT	CT
94-335C	534.0	584.0	50.0	CT	CT
94-335C	584.0	624.0	40.0	CT	CT
94-335C	624.0	664.0	40.0	Bud	UBUD
94-335C	664.0	689.0	25.0	Bud	UBUD
94-335C	689.0	749.0	60.0	Bud	BMB
94-335C	749.0	786.5	37.5	Bud	BMB
94-335C	786.5	801.0	14.5	Bud	BMB
94-335C	801.0	819.0	18.0	SRF	SRF
94-335C	819.0	853.0	34.0	DT	DT
94-335C	853.0	878.5	25.5	DT	DT
94-335C	878.5	914.0	35.5	Tos	TOS
94-335C	914.0	952.8	38.8	Tos	TOS
94-335C	952.8	1004.0	51.2	JTra	JTra
94-335C	1004.0	1050.0	46.0	JTra	JTra
RE RL-1	0.0	~~25.0~~ 30	25.0	CT	CT or in part BUD
RL-1	~~25.0~~	~~50.0~~	25.0	CT	CT or in part BUD
RL-1	~~50.0~~	~~75.0~~	25.0	CT	CT or in part BUD
RL-1	~~75.0~~ 30	100.0	25.0	CT	CT or in part BUD
RL-1	100.0	~~125.0~~ 150	25.0	CT	CT or in part BUD
RL-1	~~125.0~~	~~150.0~~	25.0	CT	CT or in part BUD
RL-1	150.0	~~175.0~~ 200	25.0	CT	CT or in part BUD
RL-1	~~175.0~~	~~200.0~~	25.0	CT	CT or in part BUD
RL-1	200.0	~~225.0~~ 250	25.0	CT	CT or in part BUD
RL-1	~~225.0~~	~~250.0~~	25.0	CT	CT or in part BUD
RL-1	250.0	~~275.0~~ 300	25.0	CT	CT or in part BUD
RL-1	~~275.0~~	~~300.0~~	25.0	CT	CT or in part BUD
RL-1	300.0	~~325.0~~ 345	25.0	CT	CT or in part BUD
RL-1	~~325.0~~	~~345.0~~	20.0	CT	CT or in part BUD
RL-1	345.0	~~365.0~~ 385	20.0	SRF	SRF
RL-1	~~365.0~~	~~385.0~~	20.0	SRF	SRF
RL-1	385.0	~~405.0~~ 425	20.0	DT	DT
RL-1	~~405.0~~	~~425.0~~	20.0	DT	DT
RL-1	425.0	~~450.0~~ 475	25.0	DT	DT

RL-1	~~450.0~~	~~475.0~~	25.0	DT	DT
RL-1	475.0	~~500.0~~ 530	25.0	DT	DT
RL-1	~~500.0~~	~~530.0~~	30.0	DT	DT
RL-1	530.0	565.0	35.0	DT	DT
RL-100C	572.0	602.0	30.0	LBT	LBT
RL-100C	602.0	652.0	50.0	LBT	LBT
RL-100C	652.0	702.0	50.0	LBT	LBT
RL-100C	702.0	752.0	50.0	LBT	LBT
RL-100C	752.0	799.5	47.5	LBT	LBT
RL-100C	799.5	850.0	50.5	LBT	LBT
RL-100C	850.0	892.0	42.0	LBT	LBT
RL-100C	892.0	930.5	38.5	LBT	LBT
RL-100C	930.5	965.0	34.5	LBT	LBT
RL-100C	965.0	991.0	26.0	LBT	LBT
RL-100C	991.0	1027.0	36.0	SRF	SRF BX'd LBT, DT
RL-100C	1027.0	1062.0	35.0	DT	DT
RL-100C	1062.0	1087.0	25.0	DT	DT
RL-100C	1087.0	1120.8	33.8	DT	DT
RL-100C	1120.8	1168.5	47.7	JTra	J Tea w/sliver of DT
RL-102C	0.0	20.0	20.0	Qal	Qal
RL-102C	20.0	45.0	25.0	Bud	BMB
RL-102C	45.0	100.0	55.0	Bud	BUD
RL-102C	100.0	150.0	50.0	Bud	BUD
RL-102C	150.0	200.0	50.0	Bud	BUD
RL-102C	200.0	250.0	50.0	Bud	BUD
RL-102C	250.0	300.0	50.0	Bud	BUD
RL-102C	300.0	350.0	50.0	LBT	LBT
RL-102C	350.0	400.0	50.0	LBT	LBT
RL-102C	400.0	440.0	40.0	LBT	LBT
RL-102C	440.0	492.0	52.0	LBT	LBT
RL-102C	492.0	542.0	50.0	LBT	LBT
RL-102C	542.0	587.0	45.0	LBT	LBT
RL-102C	655.0	697.0	42.0	LBT	LBT
RL-102C	697.0	745.0	48.0	LBT	LBT
RL-102C	745.0	796.5	51.5	LBT	LBT
RL-102C	796.5	846.5	50.0	LBT	LBT
RL-102C	846.5	867.0	20.5	LBT	LBT
RL-102C	867.0	902.0	35.0	LBT	LBT
RL-102C	902.0	926.0	24.0	SRF	SRF
RL-102C	926.0	972.0	46.0	DT	DT
RL-102C	972.0	1026.0	54.0	DT	DT
RL-102C	1026.0	1072.0	46.0	DT	DT
RL-102C	1072.0	1092.0	20.0	DT	DT
RL-105C	0.0	40.0	40.0	Qal	Qal
RL-105C	40.0	100.0	60.0	CT	CT
RL-105C	100.0	150.0	50.0	CT	CT
RL-105C	150.0	200.0	50.0	BUD	BUD

RL-105C	200.0	250.0	50.0	BUD	BUD
RL-105C	250.0	~~300.0~~ 295	50.0	BUD	BUD
RL-105C	300.0	350.0	50.0	BUD	BUD
RL-105C	350.0	400.0	50.0	BUD	BUD
RL-105C	400.0	465.0	65.0	LBT	LBT
RL-105C	536.0	542.0	6.0	LBT	LBT
RL-105C	~~589.0~~ 594	609.0	20.0	LBT	LBT

NO RECORD

RL-105C	650.5	672.5	22.0	LBT	LBT
RL-105C	710.5	750.0	39.5	LBT	LBT
RL-105C	750.0	800.5	50.5	LBT	LBT
RL-105C	800.5	842.0	41.5	Tos	TOS
RL-105C	842.0	882.0	40.0	Tos	TOS
? RL-105C	882.0	912.0	30.0	Tos	TOS
RL-105C	912.0	930.0	18.0	SRF	SRF
RL-105C	930.0	952.0	22.0	DT	DT
RL-105C	952.0	1002.0	50.0	DT	DT
RL-105C	1002.0	1062.0	60.0	DT	DT
RL-106C	10.0	52.0	42.0	CT	CT-LTbx
RL-106C	52.0	101.8	49.8	CT	CT-LTbx
RL-106C	101.8	152.0	50.2	CT	CT-LTbx
RL-106C	152.0	202.0	50.0	CT	CT-LTbx
RL-106C	202.0	257.0	55.0	CT	CT-LTbx
RL-106C	257.0	287.0	30.0	CT	CT-LTbx
RL-106C	287.0	332.0	45.0	CT	CT-LTbx
RL-106C	332.0	377.0	45.0	CT	CT-LTbx
RL-106C	377.0	417.0	40.0	CT	CT-LTbx
RL-106C	587.0	637.0	50.0	Bud	BMB
RL-106C	637.0	687.0	50.0	Bud	BMB
RL-106C	687.0	737.0	50.0	Bud	BMB
RL-106C	737.0	796.5	59.5	Bud	BMB
RL-106C	796.5	827.0	30.5	Bud	LBUD
RL-106C	930.0	978.8	48.8	LBT	LBT
RL-106C	978.8	987.0	8.2	SRF	SRF
RL-106C	987.0	1032.0	45.0	Tcs	TCS
RL-106C	1032.0	1067.0	35.0	Tcs	TCS
RL-106C	1067.0	1092.0	25.0	Tcs	TCS
RL-106C	1092.0	1117.0	25.0	Tcs	TCS
RL-106C	1117.0	1162.0	45.0	JTra	J Tea
RL-106C	1162.0	1212.0	50.0	JTra	J Tea
RL-106C	1212.0	1237.0	25.0	JTra	J Tea
RL-107C	0.0	10.0	10.0	Qal	Qal
RL-107C	10.0	50.0	40.0	Bud	BUD
RL-107C	50.0	100.0	50.0	Bud	BUD
RL-107C	100.0	125.0	25.0	Bud	BUD
RL-107C	125.0	175.0	50.0	LBT	LBT
RL-107C	175.0	225.0	50.0	LBT	LBT
RL-107C	225.0	265.0	40.0	LBT	LBT
RL-107C	265.0	300.0	35.0	LBT	LBT

RL-107C	300.0	325.0	25.0	LBT	LBT
RL-107C	325.0	375.0	50.0	LBT	LBT
RL-107C	375.0	400.0	25.0	LBT	LBT
RL-107C	400.0	430.0	30.0	LBT	LBT
RL-107C	430.0	465.0	35.0	LBT	LBT
RL-107C	552.0	601.0	49.0	LBT	LBT
RL-107C	601.0	652.0	51.0	LBT	LBT
RL-107C	652.0	702.0	50.0	LBT	LBT
RL-107C	702.0	749.0	47.0	LBT	LBT
RL-107C	749.0	802.0	53.0	LBT	LBT bx'd
RL-107C	802.0	840.0	38.0	LBT	LBT
RL-107C	840.0	860.0	20.0	LBT	LBT
RL-107C	860.0	900.5	40.5	LBT	LBT
RL-107C	900.5	946.0	45.5	SRF	SRF
RL-107C	946.0	984.5	38.5	SRF	SRF
RL-107C	984.5	1030.0	45.5	DT	DT
RL-109C	845.0	889.0	44.0	LBT	LBT
RL-109C	889.0	936.0	47.0	LBT	LBT
RL-109C	936.0	975.0	39.0	LBT	LBT
RL-109C	975.0	1015.5	40.5	SRF	SRF
RL-109C	1015.5	1068.0	52.5	SRF	SRF
RL-109C	1068.0	1107.0	39.0	Tcs	TCS
RL-109C	1107.0	1152.0	45.0	JTra	J Tea
RL-109C	1152.0	1201.5	49.5	JTra	J Tea
RL-109C	1201.5	1247.0	45.5	JTra	J Tea
RL-123C	0.0	5.0	5.0	Qal	Qal
RL-123C	5.0	50.0	45.0	Bud	BUD
RL-123C	50.0	100.0	50.0	Bud	BUD
RL-123C	100.0	150.0	50.0	Bud	BUD
RL-123C	150.0	200.0	50.0	Bud	BUD
RL-123C	200.0	250.0	50.0	Bud	BUD
RL-123C	250.0	300.0	50.0	Bud	BUD
RL-123C	~~300.0~~	~~309.5~~	9.5	Bud	BUD
RL-123C	309.5	330.0	20.5	Bud	BUD
RL-123C	380.5	401.0	20.5	LBT	LBT
RL-123C	401.0	426.5	25.5	LBT	LBT
RL-123C	426.5	452.0	25.5	LBT	LBT
RL-123C	452.0	477.0	25.0	LBT	LBT
RL-123C	477.0	502.0	25.0	LBT	LBT
RL-123C	502.0	532.0	30.0	LBT	LBT
RL-123C	532.0	542.0	10.0	LBT	LBT
RL-123C	542.0	557.0	15.0	LBT	LBT
RL-123C	557.0	572.0	15.0	LBT	LBT
RL-123C	572.0	597.0	25.0	LBT	LBT
RL-123C	597.0	627.0	30.0	LBT	LBT
RL-123C	627.0	654.0	27.0	LBT	LBT
RL-123C	654.0	682.0	28.0	SRF	SRF
RL-123C	682.0	698.0	16.0	DT	DT

RL-124C	0.0	30.0	30.0	Qal	Qal
RL-124C	30.0	80.0	50.0	LBT	LBT
RL-124C	80.0	105.0	25.0	LBT	LBT
RL-124C	105.0	135.0	30.0	LBT	LBT
RL-124C	135.0	175.0	40.0	LBT	LBT
RL-124C	175.0	225.0	50.0	LBT	LBT
RL-124C	225.0	275.0	50.0	LBT	LBT
RL-124C	275.0	315.0	40.0	LBT	LBT
RL-124C	315.0	370.0	55.0	LBT	LBT
RL-124C	370.0	420.0	50.0	LBT	LBT
RL-124C	420.0	465.0	45.0	LBT	LBT
RL-124C	~~465.0~~	~~477.6~~	12.6	LBT	LBT
RL-124C	777.6	807.0	29.4	Tos	TOS
RL-124C	807.0	842.0	35.0	Tos	TOS
RL-124C	842.0	853.6	11.6	SRF	SRF
RL-124C	853.6	902.0	48.4	DT	DT
RL-124C	902.0	952.0	50.0	DT	DT
RL-124C	952.0	972.0	20.0	DT	DT

RL-125C	0.0	25.0	25.0	Qal	Qal
RL-125C	25.0	50.0	25.0	Bud	Oxid BUD
RL-125C	50.0	100.0	50.0	Bud	BUD
RL-125C	100.0	150.0	50.0	Bud	BUD
RL-125C	150.0	200.0	50.0	Bud	BUD
RL-125C	200.0	250.0	50.0	Bud	BUD
RL-125C	250.0	300.0	50.0	Bud	BUD
RL-125C	353.0	402.0	49.0	LBT	LBT
RL-125C	402.0	452.0	50.0	LBT	LBT
RL-125C	452.0	482.0	30.0	LBT	LBT
RL-125C	482.0	502.0	20.0	LBT	LBT
RL-125C	502.0	527.0	25.0	LBT	LBT
RL-125C	527.0	542.0	15.0	LBT	LBT
RL-125C	542.0	572.0	30.0	LBT	LBT
RL-125C	572.0	603.0	31.0	SRF	SRF
RL-125C	603.0	632.0	29.0	DT	DT
RL-125C	632.0	662.0	30.0	DT	DT
RL-126C	0.0	35.0	35.0	Qal	Qal
RL-126C	35.0	70.0	35.0	Bud	UBUD
RL-126C	70.0	100.0	30.0	Bud	BMB
RL-126C	100.0	130.0	30.0	Bud	BMB
RL-126C	130.0	160.0	30.0	Bud	BMB
RL-126C	160.0	190.0	30.0	Bud	BMB
RL-126C	190.0	235.0	45.0	Bud	LBUD
RL-126C	235.0	260.0	25.0	Bud	LBUD
RL-126C	260.0	300.0	40.0	Bud	LBUD
RL-126C	300.0	340.0	40.0	Bud	LBUD
RL-126C	340.0	355.0	15.0	LBT	LBT
RL-126C	~~355.0~~	~~363.5~~	8.5	LBT	LBT

RL-126C	463.5	500.0	36.5	LBT	LBT
RL-126C	500.0	525.0	25.0	LBT	LBT
RL-126C	525.0	550.0	25.0	LBT	LBT
RL-126C	550.0	576.0	26.0	LBT	LBT
RL-126C	576.0	601.0	25.0	LBT	LBT
RL-126C	601.0	627.0	26.0	LBT	LBT
RL-126C	627.0	651.0	24.0	LBT	LBT
RL-126C	651.0	686.0	35.0	LBT	LBT
RL-126C	686.0	701.0	15.0	Tos	TOS
RL-126C	701.0	726.7	25.7	Tos/SRF	TOS, SRF
RL-126C	726.7	750.0	23.3	DT	DT
RL-126C	750.0	781.0	31.0	DT	DT
RL-127C	0.0	50.0	50.0	Qal	Qal
RL-127C	50.0	100.0	50.0	Bud	BUD FeOx'd
RL-127C	100.0	150.0	50.0	Bud	BUD FeOx'd
RL-127C	150.0	200.0	50.0	Bud	BUD- sulf
RL-127C	200.0	250.0	50.0	Bud	BUD- sulf
RL-127C	250.0	300.0 - 340	50.0	Bud	BUD- sulf
RL-127C	~~300.0~~ - 340	385.0	85.0	Bud	BUD- sulf
RL-127C	385.0	407.0	22.0	LBT	LBT
RL-127C	407.0	427.0	20.0	LBT	LBT
RL-127C	427.0	447.0	20.0	LBT	LBT
RL-127C	447.0	467.0	20.0	LBT	LBT
RL-127C	467.0	487.0	20.0	LBT	LBT
RL-127C	487.0	502.0	15.0	LBT	LBT
RL-127C	502.0	517.0	15.0	LBT	LBT
RL-127C	517.0	533.0	16.0	LBT	LBT
RL-127C	533.0	542.0	9.0	LBT	LBT
RL-127C	542.0	559.5	17.5	SRF	SRF
RL-127C	559.5	579.5	20.0	DT	DT
RL-127C	579.5	610.5	31.0	DT	DT
RL-128C	50.0	65.0	15.0	Bud	BUD
RL-128C	65.0	100.0	35.0	Bud	BUD
RL-128C	100.0	115.0	15.0	Bud	BUD
RL-128C	115.0	150.0	35.0	Bud	BUD
RL-128C	150.0	165.0	15.0	Bud	BUD
RL-128C	165.0	210.0	45.0	Bud	BUD
RL-128C	210.0	225.0	15.0	Bud	BUD
RL-128C	225.0	270.0	45.0	Bud	BUD
RL-128C	270.0	285.0	15.0	Bud	BUD
RL-128C	285.0	300.0	15.0	Bud	BUD
RL-128C	330.0	346.0	16.0	Bud	BUD
RL-128C	346.0	374.0	28.0	Bud	BUD
RL-128C	469.0	482.0	13.0	LBT	LBT
RL-128C	482.0	517.0	35.0	DT	DT
RL-128C	517.0	532.0	15.0	DT	DT
RL-128C	532.0	580.0	48.0	DT	DT
RL-128C	580.0	595.0	15.0	DT	DT

RL-128C	595.0	649.0	54.0	DT	DT
RL-128C	649.0	667.0	18.0	DT	DT
RL-129C	200.0	~~220.0~~ 245	20.0	Bud	LBUD
RL-129C	~~220.0~~	~~245.0~~	25.0	LBT	LBT
RL-129C	245.0	~~267.0~~ 285	22.0	LBT	LBT
RL-129C	~~267.0~~	~~285.0~~	18.0	LBT	LBT
RL-129C	285.0	~~301.5~~ 321.5	16.5	LBT	LBT
RL-129C	~~301.5~~	~~331.0~~	29.5	LBT	LBT
RL-129C	~~331.0~~ 321.5	346.0	15.0	LBT	LBT
RL-129C	346.0	362.0	16.0	LBT	LBT
RL-129C	362.0	382.0	20.0	SRF	SRF
RL-129C	382.0	~~402.0~~ 422	20.0	DT	DT
RL-129C	~~402.0~~	~~422.0~~	20.0	DT	DT
RL-129C	~~422.0~~	~~442.0~~	20.0	DT	DT
RL-130C	430.1	447.0	16.9	Bud	LBUD
RL-130C	447.0	467.0	20.0	LBT	LBT
RL-130C	467.0	502.0	35.0	LBT	LBT
RL-130C	502.0	551.1	49.1	LBT	LBT
RL-130C	551.1	602.0	50.9	LBT	LBT
RL-130C	602.0	627.0	25.0	LBT	LBT
RL-130C	627.0	640.5	13.5	SRF	SRF
RL-130C	640.5	660.6	20.1	Tos	TOS
RL-130C	660.6	680.0	19.4	DT	DT
RL-130C	680.0	~~702.0~~ 712	22.0	DT	DT
RL-130C	~~702.0~~	~~712.0~~	10.0	DT	DT
RL-158C	0.0	50.0	50.0	Bud	BUD
RL-158C	50.0	100.0	50.0	Bud	BUD
RL-158C	100.0	150.0	50.0	Bud	BUD
RL-158C	150.0	200.0	50.0	Bud	BUD
RL-158C	200.0	250.0	50.0	Bud	BUD
RL-158C	250.0	300.0	50.0	Bud	BUD
RL-158C	300.0	349.0	49.0	Bud	BUD
RL-158C	349.0	405.0	56.0	Bud	BUD
RL-158C	492.0	527.0	35.0	LBT	LBT
RL-158C	527.0	552.0	25.0	LBT	LBT
RL-158C	552.0	592.0	40.0	LBT	LBT
RL-158C	592.0	614.0	22.0	SRF	SRF
RL-158C	614.0	650.0	36.0	DT	DT
RL-159C	0.0	50.0	50.0	Bud	BMB
RL-159C	50.0	90.0	40.0	Bud	BMB
RL-159C	90.0	125.0	35.0	Bud	BUD
RL-159C	125.0	150.0	25.0	Bud	BUD
RL-159C	150.0	170.0	20.0	Bud	BUD
RL-159C	170.0	200.0	30.0	Bud	BUD
RL-159C	200.0	225.0	25.0	Bud	BUD
RL-159C	225.0	270.0	45.0	Bud	BUD

RL-159C	270.0	300.0	30.0	Bud	BUD
RL-159C	342.0	367.0	25.0	LBT	LBT
RL-159C	367.0	397.0	30.0	LBT	LBT
RL-159C	397.0	427.0	30.0	LBT	LBT
RL-159C	427.0	452.0	25.0	LBT	LBT
RL-159C	452.0	477.0	25.0	LBT	LBT
RL-159C	477.0	502.0	25.0	LBT	LBT
RL-159C	502.0	527.0	25.0	LBT	LBT
RL-159C	527.0	552.0	25.0	LBT	LBT
RL-159C	552.0	577.0	25.0	LBT	LBT
RL-159C	577.0	602.0	25.0	LBT	LBT
RL-159C	602.0	627.0	25.0	LBT	LBT
RL-159C	627.0	652.0	25.0	LBT	LBT
RL-159C	652.0	677.0	25.0	LBT	LBT
RL-159C	677.0	692.0	15.0	LBT	LBT
RL-159C	692.0	727.0	35.0	LBT	LBT
RL-159C	727.0	754.5	27.5	LBT	LBT
RL-159C	754.5	777.0	22.5	SRF	Fault bx
RL-159C	777.0	802.0	25.0	SRF	bx'd DT
RL-159C	802.0	827.0	25.0	DT	DT
RL-159C	827.0	852.0	25.0	DT	DT
RL-162	0.0	50.0	50.0	Bud	BMB/BUD
RL-162	50.0	100.0	50.0	Bud	BMB/BUD
RL-162	100.0	150.0	50.0	Bud	BMB/BUD
RL-162	150.0	200.0	50.0	Bud	BMB/BUD
RL-162	200.0	250.0	50.0	Bud	BMB/BUD
RL-162	250.0	300.0	50.0	Bud	BMB/BUD
RL-162	300.0	315.0	15.0	Bud	BMB/BUD
RL-162	315.0	365.0	50.0	SRF	SRF
RL-162	365.0	400.0	35.0	DT	DT
RL-162	400.0	445.0	45.0	DT	DT
RL-163	0.0	30.0	30.0	Qal	Qal
RL-163	30.0	75.0	45.0	CT	CT
RL-163	75.0	100.0	25.0	CT	CT
RL-163	100.0	150.0	50.0	CT	CT
RL-163	150.0	200.0	50.0	CT	CT
RL-163	200.0	250.0	50.0	CT	CT
RL-163	250.0	300.0	50.0	CT	CT
RL-163	300.0	350.0	50.0	CT	CT
RL-163	350.0	400.0	50.0	CT	CT
RL-163	400.0	450.0	50.0	CT	CT
RL-163	450.0	500.0	50.0	CT	CT
RL-163	500.0	545.0	45.0	CT	CT
RL-163	545.0	570.0	25.0	SRF	SRF E2
RL-163	570.0	600.0	30.0	DT	DT
RL-178	0.0	15.0	15.0	Qal	Qal
RL-178	15.0	50.0	35.0	CT	CT

RL-178	50.0	100.0	50.0	CT	CT
RL-178	100.0	150.0	50.0	CT	CT
RL-178	150.0	200.0	50.0	CT	CT
RL-178	200.0	250.0	50.0	CT	CT
RL-178	250.0	305.0	55.0	Bud	UBUD
RL-178	305.0	350.0	45.0	Bud	UBUD
RL-178	350.0	400.0	50.0	Bud	UBUD
RL-178	400.0	445.0	45.0	Bud	UBUD
RL-178	445.0	490.0	45.0	Bud	BMB
RL-178	490.0	525.0	35.0	Bud	BMB
RL-178	525.0	575.0	50.0	Bud	LBUD
RL-178	575.0	625.0	50.0	Bud	LBUD
RL-178	625.0	665.0	40.0	LBT	LBT
RL-178	665.0	700.0	35.0	LBT	LBT
RL-178	700.0	720.0	20.0	SRF	SRF
RL-178	720.0	760.0	40.0	DT	DT
RL-178	760.0	800.0	40.0	DT	DT
RL-178	800.0	~~820.0~~ 825	20.0	DT	DT
RL-181	0.0	50.0	50.0	CT	CT
RL-181	50.0	100.0	50.0	CT	CT
RL-181	100.0	150.0	50.0	CT	CT
RL-181	150.0	200.0	50.0	CT	CT
RL-181	200.0	250.0	50.0	CT	CT
RL-181	250.0	300.0	50.0	CT	CT
RL-181	300.0	350.0	50.0	CT	CT
RL-181	350.0	400.0	50.0	CT	CT
RL-181	400.0	450.0	50.0	CT	CT
RL-181	450.0	500.0	50.0	CT	CT
RL-181	500.0	550.0	50.0	CT	CT
RL-181	550.0	600.0	50.0	CT	CT
RL-181	600.0	625.0	25.0	CT	CT
RL-181	625.0	650.0	25.0	CT	CT
RL-181	650.0	675.0	25.0	SRF	SRF
RL-181	675.0	700.0	25.0	SRF	SRF
RL-181	700.0	725.0	25.0	DT	DT
RL-181	725.0	750.0	25.0	DT	DT
RL-181	750.0	775.0	25.0	DT	DT
RL-181	775.0	800.0	25.0	DT	DT
RL-181	800.0	825.0	25.0	DT	DT
RL-181	825.0	850.0	25.0	DT	DT
RL-181	850.0	900.0	50.0	DT	DT
RL-181	900.0	935.0	35.0	DT	DT

RL-188	0.0	30.0	30.0	Qal	Qal
RL-188	30.0	75.0	45.0	CT	CT
RL-188	75.0	125.0	50.0	CT	CT
RL-188	125.0	165.0	40.0	CT	CT
RL-188	165.0	200.0	35.0	CT	CT
RL-188	200.0	230.0	30.0	CT	CT

RL-188	230.0	275.0	45.0	CT	CT
RL-188	275.0	330.0	55.0	CT	CT
RL-188	330.0	390.0	60.0	CT	CT
RL-188	390.0	420.0	30.0	CT	CT
RL-188	420.0	465.0	45.0	CT	CT
RL-188	465.0	495.0	30.0	CT	CT
RL-188	495.0	515.0	20.0	CT	CT
RL-188	515.0	535.0	20.0	CT	CT bx'd
RL-188	535.0	555.0	20.0	SRF	SRF
RL-188	555.0	585.0	30.0	DT	DT
RL-188	585.0	615.0	30.0	DT	DT
RL-188	615.0	650.0	35.0	DT	DT
RL-188	650.0	685.0	35.0	DT	DT
RL-193C	0.0	15.0	15.0	Qal	Qal
RL-193C	15.0	55.0	40.0	Bud	UBUD
RL-193C	55.0	95.0	40.0	Bud	UBUD
RL-193C	95.0	150.0	55.0	Bud	BMB
RL-193C	150.0	200.0	50.0	Bud	BMB
RL-193C	200.0	215.0	15.0	Bud	BMB
RL-193C	215.0	265.0	50.0	Bud	LBUD
RL-193C	265.0	305.0	40.0	Bud	LBUD
RL-193C	305.0	355.0	50.0	Bud	LBUD
RL-193C	445.0	478.0	33.0	LBT	LBT
RL-193C	478.0	508.0	30.0	LBT	LBT
RL-193C	508.0	538.0	30.0	LBT	LBT
RL-193C	538.0	558.0	20.0	LBT	LBT
RL-193C	558.0	583.0	25.0	LBT	LBT
RL-193C	583.0	608.0	25.0	LBT	LBT
RL-193C	608.0	628.0	20.0	LBT	LBT
RL-193C	628.0	658.0	30.0	LBT	LBT
RL-193C	658.0	683.0	25.0	LBT	LBT
RL-193C	683.0	703.0	20.0	LBT	LBT
RL-193C	703.0	716.0	13.0	LBT	LBT
RL-193C	716.0	726.0	10.0	SRF	SRF
RL-193C	726.0	748.0	22.0	SRF	SRF
RL-193C	748.0	778.0	30.0	DT	DT
RL-193C	778.0	803.0	25.0	DT	DT
RL-193C	803.0	840.0	37.0	DT	DT
RL-194C	0.0	25.0	25.0	Qal- CT	Qal- CT
RL-194C	25.0	50.0	25.0	CT	CT
RL-194C	50.0	75.0	25.0	CT	CT
RL-194C	75.0	110.0	35.0	CT	CT
RL-194C	110.0	150.0	40.0	UBUD	UBUD
RL-194C	150.0	200.0	50.0	UBUD	UBUD
RL-194C	200.0	250.0	50.0	BMB	BMB
RL-194C	250.0	300.0	50.0	BMB	BMB
RL-194C	300.0	325.0	25.0	BMB	BMB
RL-194C	325.0	355.0	30.0	LBUD	LBUD

RL-194C	~~355.0~~	~~363.0~~	8.0	LBUD	LBUD
RL-194C	563.0	593.0	30.0	LBT	LBT
RL-194C	593.0	628.0	35.0	LBT	LBT
RL-194C	628.0	658.0	30.0	LBT	LBT
RL-194C	658.0	688.3	30.3	LBT	LBT
RL-194C	688.3	727.5	39.2	LBT	LBT
RL-194C	727.5	753.0	25.5	LBT	LBT
RL-194C	753.0	773.0	20.0	LBT	LBT
RL-194C	773.0	798.0	25.0	LBT	LBT
RL-194C	798.0	820.0	22.0	SRF	SRF
RL-194C	820.0	855.0	35.0	DT	DT
RL-194C	855.0	895.0	40.0	DT	DT
RL-195C	0.0	50.0	50.0	CT	CT
RL-195C	50.0	85.0	35.0	UBUD	UBUD
RL-195C	85.0	115.0	30.0	UBUD	UBUD
RL-195C	115.0	150.0	35.0	BMB	BMB
RL-195C	150.0	200.0	50.0	BMB	BMB
RL-195C	200.0	250.0	50.0	BMB	BMB
RL-195C	250.0	270.0	20.0	BMB	BMB
RL-195C	270.0	310.0	40.0	LBUD	LBUD
RL-195C	310.0	355.0	45.0	LBUD	LBUD
RL-195C	440.0	480.0	40.0	LBT	LBT
RL-195C	480.0	520.0	40.0	LBT	LBT
RL-195C	520.0	558.0	38.0	LBT	LBT
RL-195C	558.0	593.0	35.0	LBT	LBT
RL-195C	593.0	608.0	15.0	LBT	LBT
RL-195C	608.0	628.0	20.0	LBT-LST-or	LBT-LST-ore
RL-195C	628.0	~~648.0~~ 643	20.0	LBT-LST-or	LBT-LST-ore
RL-195C	648.0	658.0	10.0	LBT-LST-or	LBT-LST-ore
RL-195C	658.0	698.0	40.0	LBT-LST-or	LBT-LST-ore
RL-195C	698.0	738.0	40.0	LBT-LST-or	LBT-LST-ore
RL-195C	738.0	773.0	35.0	LBT-LST-or	LBT-LST-ore
RL-195C	773.0	803.0	30.0	LBT-LST-or	LBT-LST-ore
RL-195C	803.0	833.0	30.0	LBT-LST-or	LBT-LST-ore
RL-195C	833.0	854.1	21.1	fault bx'd	fault bx'd ore
RL-195C	854.1	867.0	12.9	SRF	SRF
RL-195C	867.0	887.0	20.0	DT	DT
RL-195C	887.0	913.0	26.0	DT	DT
196? RL-196C	0.0	~~5.0~~ 60	5.0	Qal	Qal
RL-196C	~~5.0~~	35.0	30.0	CT FGT	CT FGT
RL-196C	~~35.0~~	60.0	25.0	CT silic'd	CT silic'd-bx'd
RL-196C	60.0	~~100.0~~ 125	40.0	CT silic'd	CT silic'd-bx'd
RL-196C	~~100.0~~	~~125.0~~	25.0	CT silic'd	CT silic'd-bx'd
RL-196C	125.0	~~150.0~~ 175	25.0	CT silic'd	CT silic'd-bx'd
RL-196C	~~150.0~~	175.0	25.0	CT silic'd	CT silic'd-bx'd
RL-196C	175.0	~~200.0~~ 215	25.0	CT silic'd	CT silic'd-bx'd
RL-196C	~~200.0~~	215.0	15.0	CT silic'd	CT silic'd-bx'd
RL-196C	215.0	~~250.0~~ 275	35.0	BUD	BUD
RL-196C	~~250.0~~	~~275.0~~	25.0	BUD	BUD
RL-196C	275.0	295.0	20.0	BUD	BUD
RL-196C	372.0	382.0	10.0	LBUD	LBUD
RL-196C	382.0	~~402.0~~ 422	20.0	LBT	LBT
RL-196C	~~402.0~~	~~422.0~~	20.0	LBT	LBT

RL-196C	422.0	~~444.0~~ 458	22.0	LBT	LBT
RL-196C	~~444.0~~	~~458.0~~	14.0	LBT	LBT
RL-196C	458.0	478.0	20.0	LBT	LBT
RL-196C	478.0	~~491.5~~ 500.5	13.5	LBT-SRF	LBT-SRF
RL-196C	~~491.5~~	~~506.0~~	14.5	SRF	SRF
RL-196C	~~506.0~~ 500.5	521.0	15.0	DT	DT
RL-197C	0.0	50.0	50.0	CT	CT
RL-197C	50.0	95.0	45.0	CT	CT
RL-197C	95.0	130.0	35.0	CT	CT
RL-197C	130.0	190.0	60.0	CT	CT
RL-197C	190.0	250.0	60.0	CT	CT
RL-197C	250.0	275.0	25.0	CT	CT
RL-197C	275.0	300.0	25.0	CT	CT
RL-197C	300.0	365.0	65.0	CT	CT
RL-197C	365.0	405.0	40.0	UBUD	UBUD
RL-197C	405.0	455.0	50.0	UBUD	UBUD
RL-197C	455.0	495.0	40.0	UBUD	UBUD
RL-197C	495.0	525.0	30.0	BMB	BMB
RL-197C	525.0	565.0	40.0	BMB	BMB
RL-197C	565.0	598.2	33.2	BMB	BMB
RL-197C	598.2	617.0	18.8	LBUD	LBUD
RL-197C	617.0	~~626.5~~ 650.6	9.5	LBUD	LBUD
RL-197C	~~626.5~~	~~650.6~~	24.1	LBT	LBT
RL-197C	695.0	735.0	40.0	LBT	LBT
RL-197C	735.0	785.0	50.0	LBT	LBT
RL-197C	785.0	835.0	50.0	LBT	LBT
RL-197C	835.0	875.0	40.0	LBT	LBT
RL-197C	875.0	920.0	45.0	LBT	LBT
RL-197C	920.0	960.0	40.0	LBT	LBT
RL-197C	960.0	990.0	30.0	LBT	LBT
RL-197C	990.0	1035.0	45.0	LBT	LBT
RL-197C	1035.0	1055.0	20.0	LBT	LBT
RL-197C	1055.0	1070.0	15.0	SRF	SRF
RL-197C	1070.0	1090.0	20.0	J Tea	J Tea
RL-197C	1090.0	1109.0	19.0	J Tea	J Tea
RL-198C	0.0	25.0	25.0	Qal	Qal
RL-198C	25.0	50.0	25.0	CT	CT
RL-198C	50.0	100.0	50.0	CT	CT
RL-198C	100.0	150.0	50.0	CT	CT
RL-198C	150.0	200.0	50.0	CT	CT
RL-198C	200.0	250.0	50.0	CT	CT
RL-198C	250.0	300.0	50.0	CT	CT
RL-198C	300.0	350.0	50.0	CT	CT
RL-198C	350.0	395.0	45.0	CT	CT
RL-198C	395.0	450.0	55.0	CT	CT
RL-198C	450.0	500.0	50.0	CT	CT
RL-198C	500.0	535.0	35.0	CT	CT
RL-198C	535.0	570.0	35.0	SRF	SRF
RL-198C	570.0	600.0	30.0	SRF	SRF
RL-198C	600.0	650.0	50.0	DT	DT
RL-198C	650.0	685.0	35.0	DT	DT
RL-198C	685.0	710.0	25.0	DT	DT
RL-198C	710.0	745.5	35.5	DT	DT

RL-199C	0.0	50.0	50.0	CT	CT
RL-199C	50.0	100.0	50.0	CT	CT
RL-199C	100.0	150.0	50.0	CT	CT
RL-199C	150.0	200.0	50.0	CT	CT
RL-199C	200.0	250.0	50.0	CT	CT
RL-199C	250.0	300.0	50.0	CT	CT
RL-199C	300.0	350.0	50.0	CT	CT
RL-199C	350.0	400.0	50.0	CT	CT
RL-199C	400.0	435.0	35.0	CT	CT
RL-199C	435.0	470.0	35.0	UBUD	UBUD
RL-199C	470.0	500.0	30.0	UBUD	UBUD
RL-199C	500.0	540.0	40.0	UBUD	UBUD
RL-199C	~~540.0~~	~~559.0~~	19.0	UBUD	UBUD
RL-199C	559.0	602.0	43.0	BMB	BMB
RL-199C	602.0	639.2	37.2	BMB	BMB
RL-199C	715.0	750.0	35.0	LBT	LBT
RL-199C	750.0	800.0	50.0	LBT	LBT
RL-199C	800.0	850.0	50.0	LBT	LBT
RL-199C	850.0	903.0	53.0	LBT	LBT
RL-199C	903.0	953.0	50.0	LBT	LBT
RL-199C	953.0	1003.0	50.0	LBT	LBT
RL-199C	1003.0	1053.0	50.0	LBT	LBT
RL-199C	1053.0	1090.6	37.6	LBT	LBT
RL-199C	1090.6	~~1141.0~~ 1146	50.4	TOS	TOS
RL-199C	~~1141.0~~ 1146	1190.0	49.0	TOS	TOS
RL-199C	1190.0	1205.0	15.0	SRF-TOS	SRF-TOS
RL-199C	1205.0	1222.0	17.0	SRF-DT	SRF-DT
RL-199C	1222.0	1240.0	18.0	J Tea	J Tea
RL-199C	1240.0	1250.0	10.0	fault wedg	fault wedge of DT
RL-199C	1250.0	1277.0	27.0	J Tea	J Tea
RL-201C	0.0	15.0	15.0	Qal	Qal
RL-201C	15.0	50.0	35.0	CT	CT
RL-201C	50.0	100.0	50.0	CT	CT
RL-201C	100.0	150.0	50.0	CT	CT
RL-201C	150.0	200.0	50.0	CT	CT
RL-201C	200.0	250.0	50.0	CT	CT
RL-201C	250.0	300.0	50.0	CT	CT
RL-201C	300.0	350.0	50.0	CT	CT
RL-201C	350.0	400.0	50.0	CT	CT
RL-201C	400.0	450.0	50.0	CT	CT
RL-201C	450.0	500.0	50.0	CT	CT
RL-201C	500.0	549.0	49.0	CT	CT
RL-201C	549.0	580.0	31.0	CT	CT
RL-201C	580.0	610.0	30.0	UBUD	UBUD
RL-201C	610.0	660.0	50.0	UBUD	UBUD
RL-201C	660.0	679.3	19.3	SRF E2-S2	SRF E2-S2
RL-201C	679.3	713.0	33.7	DT	DT
RL-201C	~~713.0~~	~~762.0~~	49.0	DT	DT

RL-201C	~~762.0~~	788.0	26.0	DT	DT
RL-201C	~~788.0~~	826.5	38.5	DT	DT
RL-201C	~~826.5~~	854.0	27.5	DT	DT
RL-201C	~~854.0~~	881.0	27.0	DT	DT
RL-202C	~~0.0~~	~~50.0~~	50.0	UBUD	UBUD
RL-202C	~~50.0~~	~~100.0~~	50.0	UBUD	UBUD
RL-202C	~~100.0~~	~~155.0~~	55.0	UBUD	UBUD
RL-202C	155.0	200.0	45.0	BMB	BMB
RL-202C	200.0	250.0	50.0	BMB	BMB
RL-202C	250.0	300.0	50.0	BMB	BMB
RL-202C	300.0	350.0	50.0	BMB	BMB
RL-202C	350.0	375.0	25.0	LBUD	LBUD
RL-202C	527.3	558.0	30.7	LBT	LBT
RL-202C	558.0	578.0	20.0	LBT	LBT
RL-202C	578.0	602.0	24.0	LBT	LBT
RL-202C	602.0	627.0	25.0	LBT	LBT
RL-202C	627.0	642.2	15.2	SRF bx'd	SRF bx'd
RL-202C	642.2	655.0	12.8	SRF TOS Bx	SRF TOS Bx'd
RL-202C	655.0	703.0	48.0	DT	DT
RL-202C	703.0	753.0	50.0	DT	DT
RL-202C	753.0	803.0	50.0	DT	DT
RL-209C	10.0	55.0	45.0	BUD	BUD
RL-209C	55.0	100.0	45.0	BUD	BUD
RL-209C	100.0	150.0	50.0	BUD	BUD
RL-209C	150.0	205.0	55.0	BUD	BUD
RL-209C	205.0	255.0	50.0	BUD	BUD
RL-209C	255.0	280.0	25.0	BUD	BUD
RL-209C	345.0	358.4	13.4	BUD	BUD
RL-209C	358.4	373.0	14.6	LBT	LBT
RL-209C	373.0	409.0	36.0	LBT	LBT
RL-209C	409.0	448.0	39.0	LBT	LBT
RL-209C	448.0	468.0	20.0	LBT	LBT
RL-209C	468.0	491.0	23.0	LBT	LBT
RL-209C	491.0	511.0	20.0	LBT	LBT
RL-209C	511.0	531.0	20.0	LBT	LBT
RL-209C	531.0	550.0	19.0	LBT	LBT
RL-209C	550.0	572.5	22.5	SRF	SRF
RL-209C	572.5	593.0	20.5	DT	DT
RL-214	5.0	25.0	20.0	Qal	Qal
RL-214	25.0	75.0	50.0	CT	CT
RL-214	75.0	125.0	50.0	CT	CT
RL-214	125.0	190.0	65.0	CT	CT
RL-214	190.0	240.0	50.0	CT	CT
RL-214	240.0	300.0	60.0	CT	CT
RL-214	300.0	350.0	50.0	CT	CT
RL-214	350.0	400.0	50.0	CT	CT
RL-214	400.0	450.0	50.0	CT	CT

RL-214	450.0	475.0	25.0	SRF	SRF
RL-214	475.0	500.0	25.0	DT	DT
RL-214	500.0	550.0	50.0	DT	DT
RL-214	550.0	600.0	50.0	DT	DT
RL-214	600.0	650.0	50.0	DT	DT
RL-214	650.0	700.0	50.0	DT	DT
RL-214	700.0	750.0	50.0	DT	DT
RL-214	750.0	800.0	50.0	DT	DT
RL-214	800.0	835.0	35.0	DT	DT
RL-214	835.0	850.0	15.0	DT	DT
RL-214	850.0	900.0	50.0	DT	DT
RL-214	900.0	950.0	50.0	DT	DT
RL-214	950.0	1000.0	50.0	DT	DT
RL-215	0.0	25.0	25.0	Qal	Qal
RL-215	25.0	75.0	50.0	CT	CT
RL-215	75.0	125.0	50.0	CT	CT
RL-215	125.0	175.0	50.0	CT	CT
RL-215	175.0	225.0	50.0	CT	CT
RL-215	225.0	260.0	35.0	CT	CT
RL-215	260.0	300.0	40.0	CT	CT
RL-215	300.0	325.0	25.0	CT	CT
RL-215	325.0	350.0	25.0	CT	CT
RL-215	350.0	375.0	25.0	CT	CT
RL-215	375.0	400.0	25.0	CT	CT
RL-215	400.0	430.0	30.0	SRF	SRF
RL-215	430.0	450.0	20.0	DT	DT
RL-215	450.0	475.0	25.0	DT	DT
RL-215	475.0	500.0	25.0	DT	DT
RL-215	500.0	550.0	50.0	DT	DT
RL-215	550.0	600.0	50.0	DT	DT
RL-215	600.0	650.0	50.0	DT	DT
RL-215	650.0	700.0	50.0	DT	DT
RL-215	700.0	750.0	50.0	DT	DT
RL-215	750.0	790.0	40.0	DT	DT
RL-215	790.0	825.0	35.0	DT	DT
RL-216	0.0	20.0	20.0	Qal	Qal
RL-216	20.0	60.0	40.0	CT	CT
RL-216	60.0	100.0	40.0	CT	CT
RL-216	100.0	150.0	50.0	CT	CT
RL-216	150.0	200.0	50.0	CT	CT
RL-216	200.0	250.0	50.0	CT	CT
RL-216	250.0	300.0	50.0	CT	CT
RL-216	300.0	350.0	50.0	CT	CT
RL-216	350.0	400.0	50.0	CT	CT
RL-216	400.0	450.0	50.0	East Zone	East Zone SRF
RL-216	450.0	500.0	50.0	CT	CT
RL-216	500.0	525.0	25.0	CT	CT
RL-216	525.0	550.0	25.0	SRF	SRF

RL-216	550.0	560.0	10.0	DT	DT
RL-216	560.0	580.0	20.0	DT	DT
RL-216	580.0	600.0	20.0	DT	DT
RL-217	0.0	25.0	25.0	Qal	Qal
RL-217	25.0	100.0	75.0	CT	CT
RL-217	100.0	150.0	50.0	CT	CT
RL-217	150.0	200.0	50.0	CT	CT
RL-217	200.0	250.0	50.0	CT	CT
RL-217	250.0	300.0	50.0	CT	CT
RL-217	300.0	350.0	50.0	CT	CT
RL-217	350.0	400.0	50.0	CT	CT
RL-217	400.0	450.0	50.0	CT	CT
RL-217	450.0	500.0	50.0	CT	CT
RL-217	500.0	550.0	50.0	CT	CT
RL-217	550.0	600.0	50.0	CT	CT
RL-217	600.0	625.0	25.0	CT	CT
RL-217	625.0	650.0	25.0	SRF	SRF
RL-217	650.0	675.0	25.0	DT	DT
RL-217	675.0	700.0	25.0	DT	DT
RL-217	700.0	725.0	25.0	DT	DT
RL-217	725.0	750.0	25.0	DT	DT
RL-217	750.0	775.0	25.0	DT	DT
RL-217	775.0	800.0	25.0	DT	DT
RL-217	800.0	825.0	25.0	DT	DT
RL-220	0.0	25.0	25.0	Qal	Qal
RL-220	25.0	100.0	75.0	CT	CT
RL-220	100.0	175.0	75.0	CT	CT
RL-220	175.0	250.0	75.0	CT	CT
RL-220	250.0	275.0	25.0	CT	CT
RL-220	275.0	300.0	25.0	CT	CT
RL-220	300.0	350.0	50.0	CT	CT
RL-220	350.0	385.0	35.0	CT	CT
RL-220	385.0	410.0	25.0	SRF	SRF
RL-220	410.0	450.0	40.0	DT	DT
RL-220	450.0	500.0	50.0	DT	DT
RL-220	500.0	550.0	50.0	DT	DT
RL-220	550.0	600.0	50.0	DT	DT
RL-220	600.0	650.0	50.0	DT	DT
RL-220	650.0	700.0	50.0	DT	DT
RL-220	700.0	750.0	50.0	DT	DT
RL-220	750.0	800.0	50.0	DT	DT
RL-220	800.0	830.0	30.0	DT	DT
RL-220	830.0	865.0	35.0	DT	DT
RL-221	0.0	40.0	40.0	Qal	Qal
RL-221	40.0	90.0	50.0	CT	CT
RL-221	90.0	120.0	30.0	CT	CT
RL-221	120.0	160.0	40.0	CT	CT

RL-221	160.0	200.0	40.0	CT	CT
RL-221	200.0	250.0	50.0	CT	CT
RL-221	250.0	300.0	50.0	CT	CT
RL-221	300.0	350.0	50.0	CT	CT
RL-221	350.0	375.0	25.0	CT	CT
RL-221	375.0	400.0	25.0	CT	CT
RL-221	400.0	430.0	30.0	CT	CT
RL-221	430.0	465.0	35.0	CT	CT
RL-221	465.0	490.0	25.0	BUD	BUD
RL-221	490.0	525.0	35.0	BUD	BUD
RL-221	525.0	555.0	30.0	BUD	BUD
RL-221	555.0	585.0	30.0	BUD	BUD
RL-221	585.0	625.0	40.0	BUD	BUD
RL-221	625.0	655.0	30.0	Fault	Fault
RL-221	655.0	690.0	35.0	BUD	BUD
RL-221	690.0	720.0	30.0	BUD	BUD
RL-221	720.0	750.0	30.0	SRF	SRF
RL-221	750.0	775.0	25.0	DT	DT
RL-221	775.0	800.0	25.0	DT	DT
RL-221	800.0	825.0	25.0	DT	DT
RL-221	825.0	850.0	25.0	DT	DT
RL-221	850.0	875.0	25.0	DT	DT
RL-221	875.0	900.0	25.0	DT	DT
RL-221	900.0	935.0	35.0	DT	DT

RL-222	15.0	40.0	25.0	CT	CT
RL-222	55.0	100.0	45.0	CT	CT
RL-222	115.0	120.0	5.0	CT	CT
RL-222	135.0	140.0	5.0	CT	CT
RL-222	155.0	200.0	45.0	CT	CT
RL-222	215.0	240.0	25.0	CT	CT
RL-222	255.0	300.0	45.0	CT	CT
RL-222	315.0	340.0	25.0	CT	CT
RL-222	355.0	400.0	45.0	CT	CT
RL-222	405.0	450.0	45.0	CT	CT
RL-222	455.0	500.0	45.0	CT	CT
RL-222	500.0	525.0	25.0	CT	CT
RL-222	525.0	550.0	25.0	CT	CT
RL-222	550.0	575.0	25.0	CT	CT
RL-222	575.0	600.0	25.0	CT	CT
RL-222	600.0	625.0	25.0	CT	CT
RL-222	625.0	650.0	25.0	CT	CT
RL-222	650.0	675.0	25.0	CT	CT
RL-222	675.0	700.0	25.0	CT	CT
RL-222	700.0	725.0	25.0	CT	CT
RL-222	725.0	750.0	25.0	CT	CT
RL-222	750.0	775.0	25.0	SRF	SRF
RL-222	775.0	800.0	25.0	SRF	SRF
RL-222	800.0	825.0	25.0	DT	DT
RL-222	825.0	850.0	25.0	DT	DT

RL-222	850.0	900.0	50.0	DT	DT
RL-222	~~900.0~~	~~925.0~~	25.0	DT	DT
RL-222	~~925.0~~	~~950.0~~	25.0	DT	DT
RL-222	~~950.0~~	~~975.0~~	25.0	DT	DT
RL-222	~~975.0~~	~~1000.0~~	25.0	DT	DT
RL-242C	15.0	65.0	50.0	CT	CT
RL-242C	65.0	125.0	60.0	CT	CT
RL-242C	135.0	170.0	35.0	CT	CT
RL-242C	220.0	245.0	25.0	CT	CT
RL-242C	413.0	473.0	60.0	CT	CT
RL-242C	498.0	523.0	25.0	CT	CT
RL-242C	523.0	541.0	18.0	SRF	SRF
RL-242C	541.0	570.0	29.0	DT	DT
RL-242C	570.0	595.0	25.0	DT	DT
RL-242C	595.0	625.0	30.0	DT	DT
RL-242C	625.0	640.0	15.0	DT	DT
RL-242C	640.0	659.2	19.2	DT	DT
RL-242C	659.2	698.0	38.8	DT	DT
RL-245	0.0	25.0	25.0	Qal	Qal
RL-245	25.0	100.0	75.0	CT	CT
RL-245	100.0	150.0	50.0	CT	CT
RL-245	150.0	200.0	50.0	CT	CT
RL-245	200.0	250.0	50.0	CT	CT
RL-245	250.0	300.0	50.0	CT	CT
RL-245	300.0	350.0	50.0	CT	CT
RL-245	350.0	400.0	50.0	CT	CT
RL-245	400.0	450.0	50.0	CT	CT
RL-245	450.0	500.0	50.0	CT	CT
RL-245	500.0	550.0	50.0	CT	CT
RL-245	550.0	575.0	25.0	CT	CT
RL-245	575.0	600.0	25.0	SRF-EZ	SRF-EZ
RL-245	600.0	650.0	50.0	DT	DT
RL-245	650.0	675.0	25.0	DT	DT
RL-245	675.0	700.0	25.0	DT	DT
RL-245	700.0	725.0	25.0	DT	DT
RL-245	725.0	750.0	25.0	DT	DT
RL-245	750.0	800.0	50.0	DT	DT
RL-245	800.0	850.0	50.0	DT	DT
RL-245	850.0	900.0	50.0	DT	DT
RL-253	0.0	20.0	20.0	Qal	Qal
RL-253	20.0	75.0	55.0	CT	CT
RL-253	75.0	165.0	90.0	CT	CT
RL-253	165.0	205.0	40.0	CT	CT
RL-253	205.0	225.0	20.0	CT	CT
RL-253	225.0	260.0	35.0	CT	CT
RL-253	260.0	300.0	40.0	CT	CT
RL-253	300.0	350.0	50.0	CT	CT

RL-253	350.0	400.0	50.0	CT	CT
RL-253	400.0	425.0	25.0	SRF-EZ	SRF-EZ
RL-253	425.0	475.0	50.0	DT	DT
RL-253	475.0	525.0	50.0	DT	DT
RL-253	525.0	560.0	35.0	DT	DT
RL-256	0.0	10.0	10.0	Qal	Qal
RL-256	10.0	50.0	40.0	CT	CT
RL-256	50.0	100.0	50.0	CT	CT
RL-256	100.0	150.0	50.0	CT	CT
RL-256	150.0	200.0	50.0	CT	CT
RL-256	200.0	250.0	50.0	CT	CT
RL-256	250.0	275.0	25.0	CT	CT
RL-256	275.0	300.0	25.0	Fault	Fault
RL-256	300.0	350.0	50.0	CT/BUD	CT/BUD
RL-256	350.0	400.0	50.0	SRF	SRF
RL-256	400.0	450.0	50.0	DT	DT
RL-256	450.0	500.0	50.0	DT	DT
RL-256	500.0	550.0	50.0	DT	DT
RL-256	550.0	600.0	50.0	DT	DT
RL-258	0.0	25.0	25.0	Qal	Qal
RL-258	25.0	50.0	25.0	CT	CT
RL-258	50.0	100.0	50.0	CT	CT
RL-258	100.0	150.0	50.0	CT	CT
RL-258	150.0	175.0	25.0	CT	CT
RL-258	175.0	200.0	25.0	CT	CT
RL-258	200.0	225.0	25.0	CT	CT
RL-258	225.0	250.0	25.0	CT	CT
RL-258	250.0	275.0	25.0	CT	CT
RL-258	275.0	300.0	25.0	CT	CT
RL-258	300.0	325.0	25.0	CT	CT
RL-258	325.0	350.0	25.0	CT	CT
RL-258	350.0	375.0	25.0	CT	CT
RL-258	375.0	400.0	25.0	CT	CT
RL-258	400.0	425.0	25.0	CT	CT
RL-258	425.0	450.0	25.0	CT	CT
RL-258	450.0	475.0	25.0	CT	CT
RL-258	475.0	500.0	25.0	CT	CT
RL-258	500.0	525.0	25.0	CT	CT
RL-258	525.0	550.0	25.0	CT	CT
RL-258	550.0	575.0	25.0	CT	CT
RL-258	575.0	600.0	25.0	CT	CT
RL-258	600.0	625.0	25.0	CT	CT
RL-258	625.0	650.0	25.0	SRF	SRF
RL-258	650.0	675.0	25.0	SRF	SRF
RL-258	675.0	700.0	25.0	DT	DT
RL-258	700.0	725.0	25.0	DT	DT
RL-258	725.0	750.0	25.0	DT	DT
RL-258	750.0	775.0	25.0	DT	DT

RL-258	775.0	800.0	25.0	DT	DT
RL-258	800.0	825.0	25.0	DT	DT
RL-258	825.0	850.0	25.0	DT	DT
RL-258	850.0	875.0	25.0	DT	DT
~~RL-258~~	~~875.0~~	~~900.0~~	25.0	DT	DT
RL-266	~~0.0~~	~~30.0~~	30.0	Qal	Qal
RL-266	~~30.0~~	~~85.0~~	55.0	CT	CT
RL-266	~~85.0~~	~~115.0~~	30.0	CT	CT
RL-266	~~115.0~~	~~150.0~~	35.0	CT	CT
RL-266	~~150.0~~	~~170.0~~	20.0	CT	CT
RL-266	~~170.0~~	~~190.0~~	20.0	CT	CT
RL-266	~~190.0~~	~~225.0~~	35.0	CT	CT
RL-266	495.0	535.0	40.0	CT	CT
RL-266	535.0	570.0	35.0	CT	CT
RL-266	570.0	595.0	25.0	CT	CT
RL-266	595.0	625.0	30.0	CT	CT
RL-266	625.0	665.0	40.0	CT	CT
RL-266	665.0	700.0	35.0	CT	CT
RL-267	100.0	150.0	50.0	CT	CT
RL-267	150.0	200.0	50.0	CT	CT
RL-267	200.0	250.0	50.0	SRF	SRF
RL-267	250.0	300.0	50.0	DT	DT
RL-269	0.0	20.0	20.0	Qal	Qal
RL-269	20.0	50.0	30.0	CT	CT
RL-269	50.0	100.0	50.0	CT	CT
RL-269	100.0	150.0	50.0	CT	CT
RL-269	150.0	200.0	50.0	CT	CT
RL-269	200.0	250.0	50.0	CT	CT
RL-269	250.0	300.0	50.0	SRF	SRF
RL-269	300.0	350.0	50.0	SRF	SRF
RL-269	350.0	400.0	50.0	SRF	SRF
RL-269	400.0	425.0	25.0	SRF	SRF
RL-269	425.0	455.0	30.0	SRF	SRF
RL-269	455.0	500.0	45.0	DT	DT
RL-269	500.0	550.0	50.0	DT	DT
RL-272	300.0	350.0	50.0	CT	CT
RL-272	350.0	370.0	20.0	CT	CT
RL-272	370.0	390.0	20.0	SRF	SRF
RL-272	390.0	430.0	40.0	DT	DT
RL-272	430.0	475.0	45.0	DT	DT
RL-273	~~0.0~~	~~20.0~~	20.0	Qal	Qal
RL-273	~~20.0~~	~~65.0~~	45.0	CT	CT
RL-273	~~65.0~~	~~75.0~~	10.0	CT	CT
RL-273	~~75.0~~	~~100.0~~	25.0	CT	CT
RL-273	~~100.0~~	~~115.0~~	15.0	CT	CT

RL-273	~~115.0~~	~~165.0~~	50.0	CT	CT
RL-273	~~165.0~~	~~190.0~~	25.0	CT	CT
RL-273	~~190.0~~	~~235.0~~	45.0	CT	CT
RL-273	~~235.0~~	~~280.0~~	45.0	CT	CT
RL-273	~~280.0~~	~~295.0~~	15.0	CT	CT
RL-273	~~295.0~~	~~320.0~~	25.0	CT	CT
RL-273	~~320.0~~	~~370.0~~	50.0	CT	CT
RL-273	370.0	420.0	50.0	CT	CT
RL-273	420.0	470.0	50.0	CT	CT
RL-273	470.0	485.0	15.0	SRF	SRF
RL-273	485.0	505.0	20.0	DT	DT
RL-273	505.0	535.0	30.0	DT	DT
RL-273	535.0	580.0	45.0	DT	DT
RL-273	580.0	615.0	35.0	DT	DT
RL-273	615.0	625.0	10.0	DT	DT
RL-273	625.0	650.0	25.0	DT	DT
RL-273	650.0	665.0	15.0	DT	DT
RL-273	665.0	690.0	25.0	DT	DT
RL-273	690.0	700.0	10.0	DT	DT
RL-288C	0.0	30.0	30.0	Qal	Qal
RL-288C	30.0	60.0	30.0	CT	CT
RL-288C	60.0	90.0	30.0	CT	CT
RL-288C	90.0	130.0	40.0	CT	CT
RL-288C	130.0	150.0	20.0	CT	CT
RL-288C	150.0	175.0	25.0	CT	CT
RL-288C	175.0	215.0	40.0	CT	CT
RL-36	0.0	50.0	50.0	BMB	BMB
RL-36	50.0	100.0	50.0	BMB	BMB
RL-36	100.0	150.0	50.0	BMB	BMB
RL-36	150.0	200.0	50.0	LBUD	LBUD
RL-36	200.0	250.0	50.0	LBUD	LBUD
RL-36	250.0	300.0	50.0	LBUD	LBUD
RL-36	300.0	350.0	50.0	LBT	LBT
RL-36	350.0	400.0	50.0	LBT	LBT
RL-36	400.0	430.0	30.0	LBT	LBT
RL-36	430.0	470.0	40.0	SRF	SRF
RL-36	470.0	500.0	30.0	DT	DT
RL-37	5.0	50.0	45.0	CT	CT
RL-37	50.0	100.0	50.0	CT	CT
RL-37	100.0	150.0	50.0	CT	CT
RL-37	150.0	200.0	50.0	CT	CT
RL-37	200.0	250.0	50.0	CT	CT
RL-37	250.0	300.0	50.0	CT	CT
RL-37	300.0	350.0	50.0	CT	CT
RL-37	350.0	400.0	50.0	CT	CT
RL-37	400.0	450.0	50.0	SRF	SRF
RL-37	450.0	495.0	45.0	DT	DT

RDS0?					
RL-50	0.0	15.0	15.0	Qal or CT	Qal or CT
RL-50	15.0	75.0	60.0	UBUD	UBUD
RL-50	75.0	135.0	60.0	UBUD	UBUD
RL-50	135.0	185.0	50.0	BMB	BMB
RL-50	185.0	235.0	50.0	BMB	BMB
RL-50	235.0	270.0	35.0	LBUD	LBUD
RL-50	270.0	325.0	55.0	LBUD	LBUD
RL-50	325.0	375.0	50.0	LBUD	LBUD
RL-50	375.0	425.0	50.0	LBT	LBT
RL-50	425.0	485.0	60.0	LBT	LBT
RL-50	485.0	510.0	25.0	LBT	LBT
RES1?					
RL-51	150.0	200.0	50.0	LBT	LBT
RL-51	200.0	250.0	50.0	LBT	LBT
RL-51	250.0	300.0	50.0	LBT	LBT
RL-51	300.0	335.0	35.0	LBT	LBT
RL-51	335.0	345.0	10.0	LBT	LBT
RL-51	345.0	375.0	30.0	LBT	LBT
RL-51	375.0	405.0	30.0	LBT	LBT
RL-51	405.0	420.0	15.0	LBT	LBT
RL-51	420.0	435.0	15.0	LBT	LBT
RL-51	435.0	470.0	35.0	LBT	LBT
RL-51	470.0	510.0	40.0	LBT	LBT
RES4?					
RL-54	0.0	25.0	25.0	Qal	Qal
RL-54	25.0	50.0	25.0	CT	CT
RL-54	50.0	100.0	50.0	CT	CT
RL-54	100.0	150.0	50.0	CT	CT
RL-54	150.0	200.0	50.0	CT	CT
RL-54	200.0	250.0	50.0	CT	CT
RL-54	250.0	300.0	50.0	CT	CT
RL-54	300.0	350.0	50.0	BUD	BUD
RL-54	350.0	400.0	50.0	BUD	BUD
RL-54	400.0	440.0	40.0	BUD	BUD
RL-54	440.0	475.0	35.0	BUD	BUD
RL-54	475.0	525.0	50.0	LBT	LBT
RL-54	525.0	570.0	45.0	LBT	LBT
RL-54	570.0	610.0	40.0	SRF	SRF
RL-54	610.0	625.0	15.0	DT	DT
RESSC?					
RL-55C	~~0.0~~	~~10.0~~	10.0	Qal	Qal
RL-55C	10.0	33.0	23.0	Qal	Qal
RL-55C	33.0	75.0	42.0	BUD	BUD
RL-55C	75.0	125.0	50.0	BUD	BUD
RL-55C	125.0	175.0	50.0	BUD	BUD
RL-55C	175.0	225.0	50.0	BUD	BUD
RL-55C	225.0	270.0	45.0	BUD	BUD
RL-55C	270.0	290.0	20.0	LBT	LBT
RL-55C	290.0	310.0	20.0	LBT	LBT
RL-55C	310.0	335.0	25.0	LBT	LBT
RL-55C	335.0	363.0	28.0	LBT	LBT
RL-55C	363.0	396.0	33.0	LBT	LBT
RL-55C	396.0	412.0	16.0	LBT	LBT
RL-55C	412.0	432.0	20.0	LBT	LBT

RE RL-55C	432.0	465.0	33.0	LBT	LBT
RL-55C	465.0	490.0	25.0	LTBx	LTBx
RL-55C	490.0	514.0	24.0	LTBx	LTBx
RL-55C	514.0	524.0	10.0	LTBx	LTBx
RL-55C	524.0	544.0	20.0	FGT-LBT	FGT-LBT
RL-55C	544.0	574.0	30.0	FGT-LBT	FGT-LBT
RL-55C	574.0	604.0	30.0	FGT-LBT	FGT-LBT
RL-55C	604.0	624.0	20.0	FGT-LBT	FGT-LBT
RL-55C	624.0	635.5	11.5	SRF	SRF
RL-55C	635.5	665.0	29.5	DT	DT
RL-55C	665.0	692.0	27.0	DT	DT
RL-60	0.0	25.0	25.0	Qal	Qal
RL-60	25.0	75.0	50.0	BUD	BUD
RL-60	75.0	125.0	50.0	BUD	BUD
RL-60	125.0	150.0	25.0	BUD	BUD
RL-60	150.0	175.0	25.0	LBT	LBT
RL-60	175.0	200.0	25.0	LBT	LBT
RL-60	200.0	225.0	25.0	LBT	LBT
RL-60	225.0	250.0	25.0	LBT	LBT
RL-60	250.0	275.0	25.0	LBT	LBT
RL-60	275.0	300.0	25.0	LBT	LBT
RL-60	300.0	325.0	25.0	LBT	LBT
RL-60	325.0	350.0	25.0	LBT	LBT
RL-60	350.0	~~375.0~~ 400	25.0	LBT	LBT
RL-60	~~375.0~~	~~400.0~~	25.0	LBT	LBT
RL-60	400.0	415.0	15.0	LBT	LBT
RL-60	415.0	430.0	15.0	LBT	LBT
RL-60	430.0	450.0	20.0	LBT	LBT
RL-60	450.0	475.0	25.0	LBT	LBT
RL-60	475.0	500.0	25.0	LBT	LBT
RL-60	500.0	525.0	25.0	LBT	LBT
RL-60	525.0	550.0	25.0	LBT	LBT
RL-60	550.0	575.0	25.0	LBT	LBT
RL-60	575.0	600.0	25.0	SRF	SRF
RL-60	600.0	617.0	17.0	DT	DT
RL-7	0.0	10.0	10.0	Qal	Qal
RL-7	10.0	55.0	45.0	Qal	Qal
RL-7	55.0	100.0	45.0	BUD	BUD
RL-7	100.0	150.0	50.0	BUD	BUD
RL-7	150.0	200.0	50.0	BUD	BUD
RL-7	200.0	250.0	50.0	BUD	BUD
RL-7	250.0	300.0	50.0	BUD	BUD
RL-7	300.0	350.0	50.0	BUD	BUD
RL-7	350.0	400.0	50.0	BUD	BUD
RL-7	400.0	450.0	50.0	BUD	BUD
RL-7	450.0	500.0	50.0	BUD	BUD
RL-7	500.0	535.0	35.0	BUD	BUD
RL-7	535.0	550.0	15.0	SRF	SRF
RL-7	550.0	600.0	50.0	DT	DT
RL-7	600.0	620.0	20.0	DT	DT
RE-71C? RL-71C	30.0	70.0	40.0	LBT	LBT
RL-71C	70.0	~~112.0~~ 115	42.0	LBT	LBT

RE	RL-71C	~~112.0~~ 115	157.0	45.0	LBT	LBT
RE	RL-71C	157.0	206.0	49.0	LBT	LBT
	RL-71C	206.0	247.0	41.0	LBT	LBT
	RL-71C	247.0	272.0	25.0	LBT	LBT
	RL-71C	272.0	296.0	24.0	LBT	LBT
	RL-71C	296.0	323.0	27.0	LBT	LBT
	RL-71C	323.0	344.0	21.0	LBT	LBT
	RL-71C	344.0	382.0	38.0	LBT	LBT
	RL-71C	382.0	424.3	42.3	LBT	LBT
	RL-71C	424.3	470.0	45.7	LBT	LBT
	RL-71C	470.0	510.0	40.0	LBT	LBT
	RL-71C	510.0	545.0	35.0	LBT	LBT
RE-72C ?	RL-72C	5.0	75.0	70.0	CT	CT
	RL-72C	75.0	125.0	50.0	CT	CT
	RL-72C	125.0	175.0	50.0	BUD	BUD
	RL-72C	175.0	225.0	50.0	BUD	BUD
	RL-72C	225.0	275.0	50.0	BUD	BUD
	RL-72C	275.0	295.0	20.0	BUD	BUD
	RL-72C	295.0	345.0	50.0	BUD	BUD
	RL-72C	345.0	385.0	40.0	BUD	BUD
	RL-72C	385.0	430.0	45.0	LBT	LBT
	RL-72C	430.0	481.0	51.0	LBT	LBT
	RL-72C	481.0	532.0	51.0	LBT	LBT
	RL-72C	532.0	550.0	18.0	LBT	LBT
	RL-72C	550.0	590.0	40.0	LBT	LBT
	RL-72C	590.0	645.0	55.0	LBT	LBT
KM-3 ?	KM-3C	~~600.0~~	~~625.0~~	25.0	BMB	BMB
	KM-3C	~~625.0~~	~~664.0~~	39.0	BMB	BMB
	KM-3C	~~708.0~~	~~738.0~~	30.0	LBUD	LBUD
	KM-3C	~~738.0~~	~~768.0~~	30.0	LBT	LBT
	KM-3C	~~768.0~~	~~798.0~~	30.0	LBT	LBT
	KM-3C	~~798.0~~	~~818.0~~	20.0	LBT	LBT
	KM-3C	~~818.0~~	~~843.0~~	25.0	LBT	LBT
	KM-3C	~~843.0~~	~~868.0~~	25.0	LBT	LBT
	KM-3C	868.0	893.0	25.0	LBT	LBT
	KM-3C	893.0	909.2	16.2	SRF w/BUD	SRF w/BUD
	KM-3C	909.2	933.0	23.8	DT	DT
	KM-3C	933.0	953.0	20.0	DT	DT
	KM-3C	953.0	974.5	21.5	DT	DT
	RL-282	100.0	150.0	50.0	CT	CT
	RL-282	150.0	200.0	50.0	CT	CT
	RL-282	200.0	250.0	50.0	CT	CT
	RL-282	250.0	285.0	35.0	CT	CT
	RL-282	285.0	325.0	40.0	SRF	SRF
	RL-89C	837.0	867.0	30.0	LBUD-LBT	LBUD-LBT
	RL-89C	867.0	892.0	25.0	LBT	LBT

RL-89C	892.0	946.0	54.0	LBT	LBT
RL-89C	946.0	981.0	35.0	LBT	LBT
RL-89C	981.0	1004.0	23.0	LBT	LBT
RL-89C	1004.0	1024.0	20.0	LBT	LBT
RL-89C	1024.0	1054.0	30.0	LBT bx'd	LBT bx'd
RL-89C	1054.0	1087.0	33.0	LBT bx'd	LBT bx'd
RL-89C	1087.0	1127.6	40.6	SRF	SRF
	1127.6	1152			

OBS

RL-89C	1127.6	1152.0	24.4	J Tea	J Tea
RL-88C	0.0	20.0	20.0	Qal	Qal
RL-88C	20.0	75.0	55.0	LBT	LBT
RL-88C	75.0	125.0	50.0	LBT	LBT
RL-88C	125.0	175.0	50.0	LBT	LBT
RL-88C	175.0	225.0	50.0	LBT	LBT
RL-88C	225.0	275.0	50.0	LBT	LBT
RL-88C	275.0	325.0	50.0	LBT	LBT
RL-88C	325.0	350.0	25.0	LBT	LBT
RL-88C	350.0	375.0	25.0	LBT	LBT
RL-88C	375.0	400.0	25.0	LBT	LBT
RL-88C	400.0	425.0	25.0	LBT	LBT
RL-88C	425.0	450.0	25.0	LBT	LBT
RL-88C	450.0	475.0	25.0	LBT	LBT
RL-88C	475.0	500.0	25.0	LBT	LBT
RL-88C	500.0	550.0	50.0	LBT	LBT
RL-88C	550.0	600.0	50.0	LBT	LBT
RL-88C	600.0	650.0	50.0	LBT	LBT
RL-88C	650.0	675.0	25.0	LBT	LBT
RL-88C	675.0	700.0	25.0	LBT	LBT
RL-88C	700.0	720.0	20.0	LBT	LBT
RL-88C	720.0	750.0	30.0	LBT	LBT
RL-88C	750.0	775.0	25.0	LBT	LBT
RL-88C	775.0	795.0	20.0	LBT	LBT
RL-88C	795.0	825.7	30.7	LBT	LBT
RL-88C	825.7	840.0	14.3	SRF	SRF
RL-88C	840.0	880.0	40.0	DT	DT
RL-88C	880.0	920.0	40.0	DT	DT
RL-88C	920.0	962.0	42.0	DT	DT
RL-93C	0.0	10.0	10.0	Qal	Qal
RL-93C	10.0	50.0	40.0	LBT	LBT
RL-93C	50.0	100.0	50.0	LBT	LBT
RL-93C	100.0	150.0	50.0	LBT	LBT
RL-93C	150.0	200.0	50.0	LBT	LBT
RL-93C	200.0	250.0	50.0	LBT	LBT
RL-93C	250.0	300.0	50.0	LBT	LBT
RL-93C	300.0	350.0	50.0	LBT	LBT
RL-93C	350.0	400.0	50.0	LBT	LBT
RL-93C	400.0	425.0	25.0	LBT	LBT
RL-93C	425.0	462.0	37.0	LBT	LBT
RL-93C	462.0	500.0	38.0	LBT	LBT

RL-93C	500.0	560.0	60.0	LBT	LBT
RL-93C	560.0	~~575.0~~ 580	15.0	LBT	LBT
RL-93C	~~575.0~~ 580	600.0	25.0	LBT	LBT
RL-93C	600.0	650.0	50.0	LBT	LBT
RL-93C	650.0	700.0	50.0	LBT	LBT
RL-93C	700.0	750.0	50.0	LBT	LBT
RL-93C	750.0	800.0	50.0	LBT	LBT
RL-93C	800.0	850.0	50.0	LBT	LBT
RL-93C	850.0	900.0	50.0	LBT	LBT
RL-93C	900.0	945.0	45.0	LBT	LBT
RL-93C	945.0	962.0	17.0	LBT	LBT
RL-93C	962.0	980.0	18.0	LBT	LBT
RL-93C	980.0	1010.0	30.0	LBT	LBT
RL-93C	1010.0	1030.0	20.0	LBT	LBT
RL-93C	1030.0	1053.1	23.1	SRF	SRF
RL-93C	1053.1	1082.0	28.9	J Tea	J Tea
RL-94C	400.0	435.0	35.0	CT	CT
RL-94C	435.0	465.0	30.0	CT	CT
RL-94C	465.0	505.0	40.0	CT	CT
RL-94C	505.0	555.0	50.0	CT	CT
RL-94C	555.0	605.0	50.0	CT	CT
RL-94C	605.0	655.0	50.0	CT	CT
RL-94C	655.0	695.0	40.0	CT	CT
RL-94C	695.0	745.0	50.0	UBUD	UBUD
RL-94C	745.0	785.0	40.0	UBUD	UBUD
RL-94C	785.0	825.0	40.0	BMB	BMB
RL-94C	825.0	855.0	30.0	BMB	BMB
RL-94C	855.0	890.0	35.0	BMB	BMB
RL-94C	890.0	910.0	20.0	BMB	BMB
RL-94C	910.0	945.0	35.0	LBUD	LBUD
RL-94C	945.0	955.0	10.0	SRF	SRF
RL-94C	955.0	975.0	20.0	DT	DT
RL-94C	975.0	995.0	20.0	DT	DT
RL-94C	995.0	1010.0	15.0	DT	DT
RL-94C	1010.0	1045.0	35.0	DT	DT
RL-94C	1045.0	1075.0	30.0	DT	DT
RL-94C	1075.0	1100.0	25.0	TCS	TCS
RL-94C	1100.0	1140.0	40.0	TCS	TCS
RL-94C	1140.0	1150.0	10.0	TCS	TCS
RL-94C	1150.0	1170.0	20.0	TCS-J Tea	TCS-J Tea
RL-94C	1170.0	1195.0	25.0	J Tea	J Tea
RL-94C	1195.0	1199.0	4.0	J Tea	J Tea
RL-97C	0.0	50.0	50.0	BUD,CT	BUD,CT
RL-97C	50.0	100.0	50.0	BUD,CT	BUD,CT
RL-97C	100.0	150.0	50.0	fault	fault
RL-97C	150.0	200.0	50.0	fault	fault
RL-97C	200.0	250.0	50.0	fault	fault
RL-97C	250.0	300.0	50.0	fault	fault

RL-97C	300.0	350.0	50.0	fault	fault
RL-97C	350.0	400.0	50.0	fault	fault
RL-97C	400.0	465.0	65.0	fault	fault
RL-97C	465.0	493.5	28.5	4BUD	4BUD
RL-97C	493.5	535.0	41.5	BMB	BMB
RL-97C	535.0	575.0	40.0	BMB	BMB
RL-97C	575.0	600.0	25.0	LBUD	LBUD
RL-97C	600.0	650.0	50.0	LBUD	LBUD
RL-97C	650.0	700.0	50.0	LBUD	LBUD
RL-97C	700.0	728.2	28.2	LBUD	LBUD
RL-97C	728.2	750.0	21.8	LBT	LBT
RL-97C	750.0	800.0	50.0	LBT	LBT
RL-97C	800.0	833.0	33.0	LBT	LBT
RL-97C	833.0	850.0	17.0	LBT	LBT
RL-97C	850.0	880.0	30.0	LBT	LBT
RL-97C	880.0	913.0	33.0	LBT	LBT
RL-97C	913.0	940.0	27.0	LBT	LBT
RL-97C	940.0	970.0	30.0	LBT	LBT
RL-97C	970.0	995.0	25.0	LBT	LBT
RL-97C	995.0	1032.0	37.0	LBT	LBT
RL-97C	1032.0	1060.0	28.0	LBT	LBT
RL-97C	1060.0	1090.0	30.0	SRF	SRF
RL-97C	1090.0	1120.0	30.0	DT	DT
RL-97C	1120.0	1152.0	32.0	DT	DT
RL-97C	1152.0	1181.5	29.5	J Tea	J Tea
RL-97C	1181.5	1208.8	27.3	J Tea	J Tea
RL-97C	1208.8	1237.0	28.2	J Tea	J Tea
RL-97C	1237.0	1252.0	15.0	J Tea	J Tea
RL-98C	0.0	50.0	50.0	CT	CT
RL-98C	50.0	100.0	50.0	CT	CT
RL-98C	100.0	150.0	50.0	CT	CT
RL-98C	150.0	200.0	50.0	CT	CT
RL-98C	200.0	225.0	25.0	CT	CT
RL-98C	225.0	250.0	25.0	CT	CT
RL-98C	250.0	275.0	25.0	CT	CT
RL-98C	275.0	300.0	25.0	CT	CT
RL-98C	300.0	325.0	25.0	CT	CT
RL-98C	325.0	350.0	25.0	CT	CT
RL-98C	350.0	375.0	25.0	CT	CT
RL-98C	375.0	400.0	25.0	CT	CT
RL-98C	400.0	430.0	30.0	CT	CT
RL-98C	430.0	465.0	35.0	CT	CT
RL-98C	465.0	500.0	35.0	CT	CT
RL-98C	500.0	550.0	50.0	CT	CT
RL-98C	550.0	600.0	50.0	CT	CT
RL-98C	600.0	650.0	50.0	CT	CT
RL-98C	650.0	680.0	30.0	UBUD, CT	UBUD, CT
RL-98C	680.0	725.0	45.0	UBUD	UBUD
RL-98C	725.0	755.0	30.0	UBUD	UBUD

ROSEBUD PROJECT - PERSHING COUNTY, NEVADA

GEOCHEM MODEL - MULTI-ELEMENT COMPOSITE SAMPLES

		Qal	CT	UBUD	BMB	LBUD	BUD (u)	LBT	FAULT BX'S	Tos	SRF-EZ	SRF-SZ	DT	Tcs	JTRa	TOTAL
	SECTION 00						17	39	3	5		6	9			79
	SECTION 100															
	SECTION 200-250	2	24	2	2	3	10	45		2		4	8			102
	SECTION 400	1					10	57	1			2	5			76
	SECTION 500	1					23	54				4	5			87
	SECTION 650	4	10	1	4	4	22	41		1		6	10			103
x	SECTION 800	4	12			1	16	70	1	3		8	14			129
	SECTION 900, 950, 1000	7	27	9	14	7	15	92		3	2	14	23			213
	SECTION 1200, 1250	3	16	7	6	5	3	44		2	2	4	11			103
x	SECTION 1500	8	103	13	7	9	7	44	1	2	4	12	44		7	261
	SECTION 1650, 1700, 1750	11	134	14	16	5		35			17		60	14	17	323
	SECTION 1850, 1900	3	90	3	5	2					9		40	2	2	164
drop	D-91-94							34			3			4	8	49
drop	D-92-94			8	6	3		15			2		6	1		41
	TOTAL	44	424	57	60	39	123	570	6	18	39	60	235	21	34	1730
					279			576			99					
		44	424	49	54	36	123	521	6	18	34	60	229	~~16~~ 21	~~26~~ 34	1653
		Qal	CT		BUD			LBT		Tos	SRF		DT	Tcs	JTRa	
		44	424		262			527		18	94		229	21	34	

115 LAC
89 holes
104

12 ⟌ 2000

Add
D-91-94
RL 272

SECTION 00 NW (102) w/ 8 overlapping)

LAC RL-71C (8 composite samples)

3 RL-24 (7)

RL-4 (8)

NEW RL-71C complete

94-299C

4 94-300C

RL-129C

SECTION 100 NW

SECTION 200 - 250 NW (102)

NEW RL-50

RL-72C

5 D-3-94

94-196C

RL-1

SECTION 400 NW (106)

LAC RL-41C (10 composite samples)

3 RL-31 (11)

RL-128 (9)

NEW RL-128C

D-93-94

D-22-94

6 D-21-94

D-20-94

RL-127C

SECTION 500 NW (87)

NEW D-32-94

RL-60

D-30-94

6 RL-209C

RL-36

RL-162

SECTION 650 NW (103)

NEW RL-126C

RL-55C

RL-7

6 RL-37

RL-51

RL-267

SECTION 800 NW (162)

LAC RL-124 (13 composite samples)

3 RL-57 (14)

RL-158 (6)

+ RL 272

NEW RL-124C

RL-88C

RL-123C

RL-158C

7 RL-256

D-58-94

RL-130C

D-61-94

D-63-94

SECTION 900, 950, 1000 NW (213)

NEW RL-105C

RL-102C

RL-159C

RL-195C

RL-193C

RL-194C

RL-202C

14 RL-54

RL-216

RL-269

D-72-94

D-74-94

D-76-94

D-78-94

SECTION 1200, 1250 NW (103)

NEW RL-107C

94-305C

RL-178

RL-163

5 KM-3C if avail.

SECTION 1400 NW (41)

LAC RL-104 (13 composite samples)

3 RL-91 (15)

RL-99 (13)

SECTION 1500 NW (261)

NEW RL-93C

RL-97C

RL-199C

RL-198C

94-319C

RL-188

11 RL-221

RL-215

94-320C

RL-201C

94-321C

SECTION 1600 NW (42)

LAC RL-112 (14 composite samples)

3 RL-100 (13)

RL-94 (15)

SECTION 1650, 1700, 1750 NW (323)

NEW RL-100C

RL-106C

RL-94C

RL-197C

94-334C

RL-89C

RL-109C

94-335C

94-333C

94-331C

94-332C

RL-242

RL-273

RL-288C

19

RL-266

RL-214

RL-270C

* RL-253

RL-220

SECTION 1850 - 1900 NW (164)

NEW RL-98C

RL-222

6

RL-181

RL-258

RL-217

* RL-245 Missing all pulps

FROM DRILL STATION #19 (90)

NEW D-91-94

D-92-94

		RL-71C	94-299C	94-300C	RL-129C			
SECTION 00 NW	Qal							
	CT							
	UBUD							
	BMB							
	LUB							
	BUD (undiff)		6	10	1		17	
	LBT	17	8	7	7		39	
	Fault			3			3	
	Tos		2	3			5	80
	SRF	3	2		1		6	
	DT	5		1	3		9	
	Tcs							
	JTRa							
SECTION 100 NW	Qal							
	CT							
	UBUD							
	BMB							
	LBUD							
	BUD (undiff)							
	LBT							
	Fault							
	Tos							
	SRF							
	DT							
	Tcs							
	JTRa							
SECTION 200 & 250N	Qal	1			1		2	
	CT		2?		8	14?	24	
	UBUD	2					2	
	BMB	2					2	
	LBUD	3					3	
	BUD (UND)		6		4		10	102
	LBT	7	17	15	6		45	
	Fault							
	Tos	2					2	
	SRF		1		1	2	4	
	DT		2		1	5	8	
	Tcs							
	JTRa							
		RL-50	RL-72C	D-3-94	RL-196C	RL-1		

SECTION 400NW	Qal						1			1	
	CT										
	UBUD										
	BMB										
	LBUD										
	BUD (u)	5					5			10	76
	LBT		11	12	13	12	9			57	
	Fault			1						1	
	Tos										
	SRF	1								2	
	DT	3					2			5	
	Tcs										
	JTRa										
		RL-128C	D-93	D-22	D-21	D-20	RL-127C				
		D-32	RL-60	D-30	RL-209C	RL-36	RL-162				
SECTION 500NW	Qal		1							1	
	CT										
	UBUD										
	BMB										
	LBUD										
	BUD (u)		3		7	6	7			23	87
	LBT	9	18	16	8	3				54	
	Fault										
	Tos										
	SRF		1		1	1	1			4	
	DT		1		1	1	2			5	
	Tcs										
	JTRa										
SECTION 650NW	Qal	1	1		1	1				4	
	CT						8	2		10	
	UBUD	1								1	
	BMB	4								4	
	LBUD	4								4	
	BUD (u)		5		6	11				22	
	LBT	8	15	11	7					41	103
	Fault										
	Tos	1								1	
	SRF	1	1		1	1	1	1		6	
	DT	2	2		2	2	1	1		10	
	Tcs										
	JTRa										
		RL-26C	RL-55C	LS1	RL-125C	RL7	RL37	RL-267			

SECTION 800 NW

	RL-124C	RL-88C	RL-123C	RL-130C	RL-158C	RL-256	RL-272	RL-282	D-58	D-61	D-63		
Qal	1	1	1			1						4	
CT						6	2	4				12	
UBUD													
BMB													
LBUD				1								1	
BUD(u)			7		8	1						16	129
LBT	10	23	12	5	3				5	5	7	70	
Fault						1						1	
Tos	2			1								3	
SRF	1	1	1	1	1	1	1	1				8	
DT	1	3	1	2	1	4	2					14	
Tcs													
JTRa													

577

SECTION 900, 950, 1000 NW

	RL-105C	RL-102C	RL-159C	RL-195C	RL-193C	RL-194C	RL-202C	RL-54	RL-216	RL-269	D-72	D-74	D-76	D-78		
Qal	1	1			1	1		1	1	1					7	
CT	2			1		3		4	10	5					27	
UBUD				2	2	2	3								9	
BMB			2	4	3	3	4								16	
LBUD			5	2	3	1	1								12	
BUD(u)	5	6						4							15	238
LBT	6	12	16	14	11	8	4	2			8	14	7	6	108	
faults																
Tos	3														3	
SRF	1	1	1	1	2	1	2	1	2	5					17	
DT	3	4	1	2	3	2	3	1	3	2					24	
Tcs																
JTRa																

815

SECTION 1200 & 1250NW

Qal	1			1	1	3	
CT		1		5	10	16	
UBUD		3		4		7	
BMB		2	2	2		6	
LBUD		3		2		5	
BUD(u)	3					3	103
LBT	17	18	7	2		44	
Faults							
Tos		2				2	
SRF-EZ	1				1	2	
SRF-SZ	1	1	1	1		4	
DT	1	1	3	4	2	11	
Tcs							
JFa							
	RL-107C	94-305C	KM-3	RL-178	RL-163		

918

SECTION 1500NW

Qal	1				1	1	1	1	1	1	1	8
CT		8	9	10	11	7	12	14	11	12	9	103
UBUD		2	3	4		2	2					13
BMB		2	2	1		2						7
LBUD		4		1		4						9
BUD(u)					7							7
LBT	25	11	8									44
Faults					1							1
Tos			2									2
SRF-EZ								1	1	1	1	4
SRF-SZ	1	1	1	1	1	1	4	2	1	1	1	12
DT		2	1	2	7	4	6	4	4	4	10	44
Tcs												
JFa	1	4	2									7
	RL-93C	RL-97C	RL-199C	94-319C	RL-221	94-320C	RL-201C	94-321C	RL-198C	RL-188	RL-215	

261

1179

SECTIONS 1650, 1700, 1750 NW

SECTION 1850-1900 NW

	RL-98C	RL-222	RL-181	RL-250	RL-217	RL-245		
Qal				1	1	1	3	
CT	18	21	14	22	12	11	98	
UBUD	3						3	
BMB	5						5	
LBUD	2						2	
BUD (UND.)								
LBT								164
Faults								
Tos								
SRF-EZ	1	2	2	2	1	1	9	
SRF-SZ								
DT	1	7	8	9	7	8	40	
Tcs	2						2	
JTRa	2						2	

CORRELATION COEFFICIENTS FOR LAC'S MULTI-ELEMENT ANALYSIS

(rounded to 100th)

based 169 composite drill samples

	Au	Ag	
Au		.30	
Ag	.30		
As	.31	.32	.55 Mo, .55 Se
Sb	.21	.79	.75 Se
Hg	.07	-.02	
Se	.41	.71	.55 As .75 Sb
Te	-.045	.02	1.00 Bi
Tl	.14	.30	.48 Mo .56 Zn .51 Cd
Ga	-.21	-.29	.42 Se
Cu	.10	.51	.55 Mo .65 Zn .62 Cd
Pb	-.06	-.08	
Zn	.10	.46	.65 Cu .75 Mo .93 Cd
Mo	.22	.40	.69 Cd .75 Zn .55 As .55 Cu .39 Ag .48 Tl
Bi	-.04	.025	
Cd	.09	.42	

Add V

K

Ba

? La

? Li

35	element	$6.20
1	Ga	2.00
1	Hg cold-vapor	2.65
		$10.85