60000937

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File – Hole No. RS-D377-99
AUTHOR	D. Mackerrow; K. Allen
DATE OF DOC(S)	1999 – 2000
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.; Dark Zone
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; [redacted]; total depth 115' receipt; handwritten notes; downhole camera images photographs; down hole survey 21p. 1 down hole camera images

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

	Initials	Date
SS:	DP	5/12/08
DB:	mah	
SCANNED:		

Revised: 1/22/08

RS-D377-99
"Dark Zone"

6000 0937 4010

6600 0937

Hecla MINING COMPANY

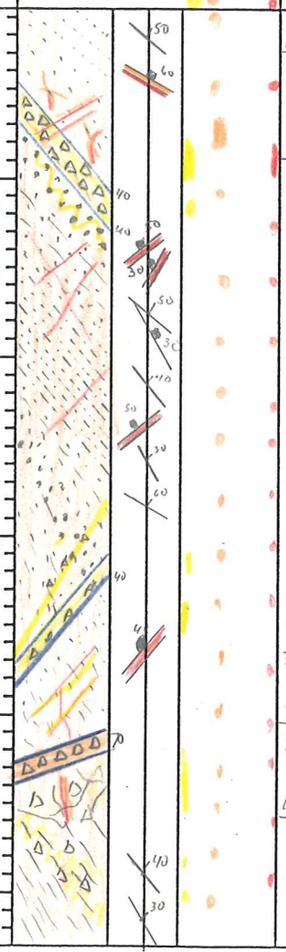
- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

ROSEBUD PROJECT
DIAMOND DRILL LOG

- Barite ✱ stibnite

HOLE NUMBER	RS-D377-99	LOCATION	Dark Zone Section +25
PAGE	1 OF 2	NORTHING	
DATE	12-13-99	EASTING	
LOGGED BY	D.G. Macherrow	ELEVATION	
SCALE	1" = 10'	AZIMUTH	S 30 E
TOTAL DEPTH	115	INCLINATION	+50

REMARKS

LITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
TCS	R	0 TCS SILTY SANDSTONE CLAYSTONE ANDERICLASTIC SEDIMENT Silty fine grained sandstone Dark silty lumina form bedding Fine white clay Partings, Core is soft and easily scratched 41-60 Tuffaceous claystone dark gray to light gray in color 44.6-46.5 Very vuggy core with quartz vein running at 50to "shinny" pyrite parallel to qtz.	10 20 30 40 50		5-8 White clay on fracture at 60° to with marcasite 8-10 white clay on fr with crackle breccia healed by silica 32-35.6 Fractures breccia zone Vugs opening on 40° to fracture orientation main breccia from 34.5-35.6, 42.2-43.1 Rubble breccia with volcanic clay matrix 46.5-48.4 weak silica healed crackle breccia	5-12.6 veins consist of pyrite and pyrite often marcasite Any free blades are shinny. 12.6-32 Pyrite veins with minimal to no silica. Pyrite often marcasite in some veins Pyrite veins fall away from fracture 41 Tabular dolomite crystal growing with platty marcasite 45-46.5 High angle quartz pyrite vein

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ac
0	5					
5	8					
8	10					
10	12.6					
12.6	15					
15	20					
20	25					
25	30					
30	32					
32	35.6					
35.6	40					
40	42.2					
42.2	46.5					
46.5	48.4					
48.4	51.5					

HOLE NUMBER RS-0372-99 PAGE 2 OF 2

ITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
TCS	R	0-73 T.C.S. SANDSTONE AND CLAYSTONE AND TUFFS T.C.S. continues sandstone grade into tuffaceous claystone tuffaceous content increase, Pale green gray epiclastic begins at 59.6. Grain sizes vary rapidly over short distances	50, 60, 70		73 Sharp contact with dozer.	64.6-66.5 silicified epiclastic with small voids with marcasite 67-67.3 Druzy qtz (3) veins with shinny marcasite on fracture 72 void with barite
Td	R	73-115 DOZER Fine grained pale gray white rhyolite. Faint chloritic green tint. 75.2-85 Heavy quartz veining with marcasite through out the quartz From 76.2-90' Dozer has faint LST like texture Matrix of Auto breccia from 99 matrix is faint brown in color Pine white clay 98	80, 90, 100, 110, 120	Sb, Sb	75.2-76.2 quartz vein marcasite stockwork 90-95 Auto breccia texture 99-105 Autobreccia texture	78-78.5 quartz vein with brecciated margins. 88.4-89.3 High angle quartz veining with druzy qtz and marcasite 107.8 stibnite moss on a fracture surface 110-110.5 2" quartz vein with marcasite 112.5 30° tcq fracture with Barite and stibnite
		TD 115				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
51.5	55				
55	60				
60	65				
65	70				
70	73				
73	75.2				
75.2	76.2				
76.2	80				
80	85				
85	87.9				
87.9	89.3				
89.3	93				
93	97.5				
97.5	100				
100	105				
105	110				
110	115				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D377-99 DATE: 12-13-99 LOGGED BY: D.G. MacKarrow PAGE 1 OF 2

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
0	5	40	76	26										
5	10	38	104	0										
10	15	100	100	70										
15	20	100	100	68										
20	25	96	100	68										
25	30	100	100	76										
30	35	90	102	66										
35	40	100	98	36										
40	45	100	104	14										
45	50	100	102	64										
50	55	96	102	48										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-10377-91 DATE: 12-13-99 LOGGED BY: D.C. Mackerron PAGE 2 OF 3

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
55	60	96	94	28										
60	65	100	106	72										
65	70	100	92	74										
70	75	100	100	90										
75	80	100	98	79										
80	85	100	92	79										
85	90	100	100	84										
90	95	100	96	80										
95	100	94	100	40										
100	105	100	104	82										
105	110	100	100	64										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D377-99 DATE: 12-13-99 LOGGED BY: D.G. Mackerrow PAGE 3 OF 3

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
110	115	98	102	62										

ROSEBUD MINING COMPANY, LLC.

START HOLE 12/8/99	FINISH HOLE 12/8/99	HOLE # RS-D377-99	
HOLE TYPE Core	LOGGED BY D.G. Mackeron		
BEARING 177.5	ANGLE 51	T.D 115	
PAGE 1 OF 1	SURVEYED TO		

COLLAR COORDINATES

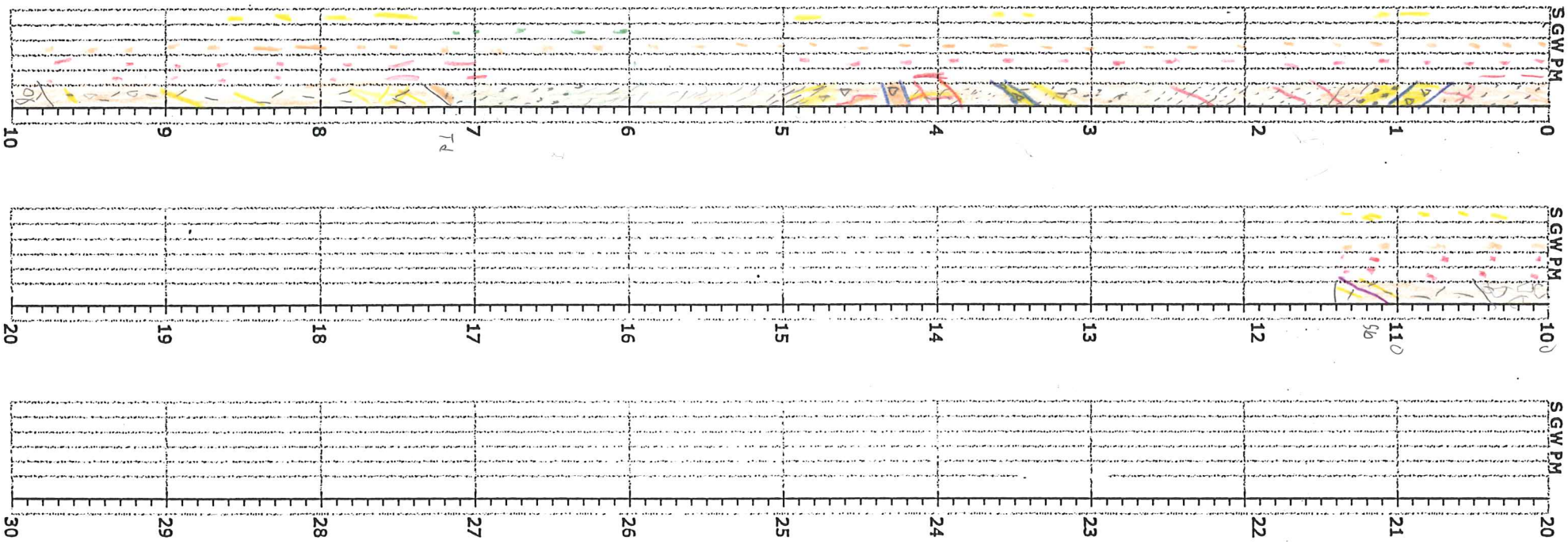
NORTH

EAST

ELEV

DRILLING CO. Action

DRILLER Goddy



ALTERATION INTENSITY

1 WEAK — 2 MODERATE — 3 STRONG

VERITHIN COLOR

737	SILICIFICATION
751	GREEN CLAY
747½	WHITE CLAY
755	PYRITE
757	MARCASITE

GRAPHIC LOG

VERITHIN COLOR

741	BRECCIA
	FAULT 741
	CONTACT
737	QUARTZ VEIN
741½	CALCITE VEIN
747½	CLAY VEIN
755	PYRITE VEIN

Alteration

	Silicification
	Argillization
	Chloritic
	Barite

CLIENT: Hecla (Rosebud Mine)

ROCKY MOUNTAIN GEO 7753592944 01/17 '00 11:36 NO.189 03/03

99-50-49	Sample Designation	Gold FA/AA ppb	Gold FA/AA oz/ton	Gold FA/GRAV oz/ton	Gold FA/GRAV oz/ton	Silver FA/AA ppm	Silver FA/AA oz/ton	Silver FA/GRAV oz/ton
1	RS-D377-99 0'-5'	102	0.003			2.7	0.080	
2	RS-D377-99 5'-8'	8220	0.240	0.116		15.8	0.460	0.31
3	RS-D377-99 8'-10'	20110	0.587	0.174	0.203	40.8	1.190	0.81
4	RS-D377-99 10'-12.6'	1409	0.041	0.079		21.9	0.640	0.45
5	RS-D377-99 12.6'-15'	306	0.009			5.7	0.165	
6	RS-D377-99 15'-20'	262	0.008			5.9	0.172	
7	RS-D377-99 20'-25'	821	0.024			7.5	0.220	
8	RS-D377-99 25'-30'	603	0.018			7.1	0.206	
9	RS-D377-99 30'-32'	1417	0.041	0.039		6.4	0.187	0.31
10	RS-D377-99 32'-35.6'	1604	0.047	0.023		8.0	0.235	0.23
11	RS-D377-99 35.6'-40'	1414	0.041	0.015		6.0	0.176	0.19
12	RS-D377-99 40'-42.2'	307	0.009	0.024		5.9	0.172	0.23
13	RS-D377-99 42.2'-46.5	783	0.023	0.078		7.9	0.232	0.19
14	RS-D377-99 46.5'-48.4	182	0.005			4.7	0.137	
15	RS-D377-99 48.4'-51.5	220	0.006			3.9	0.114	
16	RS-D377-99 51.5'-55'	1085	0.032			5.4	0.157	
17	RS-D377-99 55'-60'	202	0.006			5.2	0.151	
18	RS-D377-99 60'-65'	1738	0.051			5.8	0.169	
19	RS-D377-99 65'-70'	3790	0.111			6.9	0.201	
20	RS-D377-99 70'-73'	335	0.010			4.0	0.118	
21	RS-D377-99 73'-75.2'	226	0.007			1.3	0.038	
22	RS-D377-99 75.2'-76.2	944	0.028			4.6	0.135	
23	RS-D377-99 76.2'-80'	2681	0.078	0.083		13.4	0.390	0.37
24	RS-D377-99 80'-85'	3217	0.094	0.047		6.4	0.188	0.21
25	RS-D377-99 85'-87.9'	161	0.005			1.2	0.035	
26	RS-D377-99 87.9'-89.3	520	0.015			2.3	0.068	
27	RS-D377-99 89.3'-93'	180	0.005			1.6	0.046	
28	RS-D377-99 93'-97.5'	313	0.009			1.1	0.033	
29	RS-D377-99 97.5'-100'	630	0.018			3.0	0.087	
30	RS-D377-99 100'-105'	954	0.028			3.7	0.107	
31	RS-D377-99 105'-110'	553	0.016			1.6	0.048	
32	RS-D377-99 110'-115'	2375	0.069	0.047		7.7	0.226	0.31
33	STD 68830	4388	0.128	0.130		91.8	2.680	2.41

in database

Thursday, January 13, 2000

By

INSPECTORATE

ROCKY MOUNTAIN GEOCHEMICAL

A MEMBER OF THE INSPECTORATE GROUP OF COMPANIES

840 GREG STREET • SPARKS, NEVADA 89431 • PHONE (775) 359-6311 • FAX (775) 359-2944

Certificate of Analysis

DATE: Thursday, January 13, 2000

JOB NO: 99-50-49

CLIENT: Hecla (Rosebud Mine)
P.O. Box 2610
Winnecmucca, NV 89446 US

INVOICE NO: 33100376

CLIENT ORDER NO:

REPORT ON: 33 Core

SUBMITTED BY: Kurt Allen

DATE RECIEVED: Sunday, December 19, 1999

ANALYSES: Rosebud Mine Development Protocol, Gold

ANALYTICAL METHODS: FA/AA, FA/GRAV

REMARKS:

CC: RMG File

E-MAILED TO:

ROCKY MOUNTAIN GEO 7753592944 01/17 '00 11:36 NO.189 02/03

Reported

99-50-49

5-10 .5'@

0.379 Au
0.75 Ag

					Au	Au	Au	Au	Ag	Ag
					FA/AA	FA/AA	FA/Grav	A/Grav	FA/AA	FA/Grav
	Type	Hole #	From	To	ppb	opt	opt	opt	opt	opt
1	RS-	D377	0	5	102	0.003			0.080	
2	RS-	D377	5	3 8	8220	0.240	0.116		0.460	0.31
3	RS-	D377	8	2 10	20110	0.587	0.174	0.203	1.190	0.81
4	RS-	D377	10	12.6	1409	0.041	0.079		0.640	0.45
5	RS-	D377	12.6	15	306	0.009			0.165	
6	RS-	D377	15	20	262	0.008			0.172	
7	RS-	D377	20	25	821	0.024			0.220	
8	RS-	D377	25	30	603	0.018			0.206	
9	RS-	D377	30	32	1417	0.041	0.039		0.187	0.31
10	RS-	D377	32	35.6	1604	0.047	0.023		0.235	0.23
11	RS-	D377	35.6	40	1414	0.041	0.015		0.176	0.19
12	RS-	D377	40	42.2	307	0.009	0.024		0.172	0.23
13	RS-	D377	42.2	46.5	783	0.023	0.078		0.232	0.19
14	RS-	D377	46.5	48.4	182	0.005			0.137	
15	RS-	D377	48.4	51.5	220	0.006			0.114	
16	RS-	D377	51.5	55	1085	0.032			0.157	
17	RS-	D377	55	60	202	0.006			0.151	
18	RS-	D377	60	65	1738	0.051			0.169	
19	RS-	D377	65	70	3790	0.111			0.201	
20	RS-	D377	70	73	335	0.010			0.118	
21	RS-	D377	73	75.2	226	0.007			0.038	
22	RS-	D377	75.2	76.2	944	0.028			0.135	
23	RS-	D377	76.2	80	2681	0.078	0.083		0.390	0.37
24	RS-	D377	80	85	3217	0.094	0.047		0.188	0.21
25	RS-	D377	85	87.9	161	0.005			0.035	
26	RS-	D377	87.9	89.3	520	0.015			0.068	
27	RS-	D377	89.3	93	180	0.005			0.046	
28	RS-	D377	93	97.5	313	0.009			0.033	
29	RS-	D377	97.5	100	630	0.018			0.087	
30	RS-	D377	100	105	954	0.028			0.107	
31	RS-	D377	105	110	553	0.016			0.048	
32	RS-	D377		STD-	2375	0.069	0.047		0.226	0.31
					4388	0.128	0.130		2.680	2.41

99-50-49

					Au	Au	Au		Ag	Ag
					FA/AA	FA/AA	FA/Grav		FA/AA	FA/Grav
	Type	Hole #	From	To	ppb	opt	opt		opt	opt
1	RS-	D377	0	5	102	0.003			0.080	
2	RS-	D377	5	8	8220	0.240	0.116		0.460	0.31
3	RS-	D377	8	10	[redacted]	[redacted]	[redacted]		[redacted]	[redacted]
4	RS-	D377	10	12.6	1409	0.041	0.079		0.640	0.45
5	RS-	D377	12.6	15	306	0.009			0.165	
6	RS-	D377	15	20	262	0.008			0.172	
7	RS-	D377	20	25	821	0.024			0.220	
8	RS-	D377	25	30	603	0.018			0.206	
9	RS-	D377	30	32	1417	0.041	0.039		0.187	0.31
10	RS-	D377	32	35.6	1604	0.047	0.023		0.235	0.23
11	RS-	D377	35.6	40	1414	0.041	0.015		0.176	0.19
12	RS-	D377	40	42.2	307	0.009	0.024		0.172	0.23
13	RS-	D377	42.2	46.5	783	0.023	0.078		0.232	0.19
14	RS-	D377	46.5	48.4	182	0.005			0.137	
15	RS-	D377	48.4	51.5	220	0.006			0.114	
16	RS-	D377	51.5	55	1085	0.032			0.157	
17	RS-	D377	55	60	202	0.006			0.151	
18	RS-	D377	60	65	1738	0.051			0.169	
19	RS-	D377	65	70	3790	0.111			0.201	
20	RS-	D377	70	73	335	0.010			0.118	
21	RS-	D377	73	75.2	226	0.007			0.038	
22	RS-	D377	75.2	76.2	944	0.028			0.135	
23	RS-	D377	76.2	80	2681	0.078	0.083		0.390	0.37
24	RS-	D377	80	85	3217	0.094	0.047		0.188	0.21
25	RS-	D377	85	87.9	161	0.005			0.035	
26	RS-	D377	87.9	89.3	520	0.015			0.068	
27	RS-	D377	89.3	93	180	0.005			0.046	
28	RS-	D377	93	97.5	313	0.009			0.033	
29	RS-	D377	97.5	100	630	0.018			0.087	
30	RS-	D377	100	105	954	0.028			0.107	
31	RS-	D377	105	110	553	0.016			0.048	
32	RS-	D377	110	115	2375	0.069	0.047		0.226	0.31
			STD-	68830	4388	0.128	0.130		2.680	2.41

5 m

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Work Order # _____
Date Received _____
Purchase Order # _____
Project # _____
Date Shipped 12/19/99
Shipped Via _____
# of Cartons _____
# of Samples 32

Geochemical Laboratory Instruction Sheet

Copy of Results:	Results And Invoice To:
Kurt Allen	Kurt Allen
Rosebud Mining L.L.C.	Rosebud Mining L.L.C.
P.O. Box 2610	P.O. Box 2610
Winnemucca NV 89446	Winnemucca NV 89446
(775) 623-6912 Fax (775) 623 6967	AUTHORITY:

No. of Samples	Sample Type	List of Sample Numbers	Elements Requested
32	core	RS-D377 -99	Au Ag: USE Rosebud
			Mine development
		See attached sheet for	Protocol
		sample intervals	
1	Pulp	Rosebud Production standard	
		at end of run	

COARSE REJECT (Free storage for 30 days)
- [x] Return/collect after analysis
- [ ] Return/collect after 30 days
- [ ] Discard after 30 days

IF NOT MARKED, REJECT DISCARDED AFTER 30 DAYS

PULP (Free storage for 6 months)
- [x] Return/collect after analysis
- [ ] Return/collect at 6 months
- [ ] Discard at 6 months

IF NOT MARKED, PULP IS DISCARDED AFTER 6 MONTHS

COARSE REJECTS/PULPS WILL BE DISCARDED UNLESS OTHERWISE REQUESTED

Au - GOLD METHOD
- [x] Fire Assay/A.A.
- [ ] Fire Assay/Gravimetric
- [ ] NaCN/A.A.

RESULTS REPORTED IN:
- [ ] ppb
- [ ] PPM
- [x] oz/T
- [ ] grams/T

TRACE ELEMENT METHOD
- [ ] Wet Chem./A.A.
- [ ] Wet Chem./ICP

RESULTS REPORTED IN:
- [ ] ppm
- [ ] Percent %
- [x] oz/T
- [ ] grams/T

ADDITIONAL INSTRUCTIONS: _____

RS-D377-99

Depth From	To	Interval	Au	Ag	Sample Number
0	5	5	x	x	1
5	8	3	x	x	2
8	10	2	x	x	3
10	12.6	2.6	x	x	4
12.6	15	2.4	x	x	5
15	20	5	x	x	6
20	25	5	x	x	7
25	30	5	x	x	8
30	32	2	x	x	9
32	35.6	3.6	x	x	10
35.6	40	4.4	x	x	11
40	42.2	2.2	x	x	12
42.2	46.5	4.3	x	x	13
46.5	48.4	1.9	x	x	14
48.4	51.5	3.1	x	x	15
51.5	55	3.5	x	x	16
55	60	5	x	x	17
60	65	5	x	x	18
65	70	5	x	x	19
70	73	3	x	x	20
73	75.2	2.2	x	x	21
75.2	76.2	1	x	x	22
76.2	80	3.8	x	x	23
80	85	5	x	x	24
85	87.9	2.9	x	x	25
87.9	89.3	1.4	x	x	26
89.3	93	3.7	x	x	27
93	97.5	4.5	x	x	28
97.5	100	2.5	x	x	29
100	105	5	x	x	30
105	110	5	x	x	31
110	115	5	x	x	32

DARK ZONE DEVELOPMENT DRILLING
DOWN-HOLE SURVEYS

DRILL HOLE #	DIP.	AZIMUTH	CORRECTED AZIMUTH
RS-D370-99	5.5	313	328.66
RS-D371-99	22	313	328.66
RS-D372-99	36	313	328.66
RS-D373-99		Not	Surveyed
RS-D374-99		Not	Surveyed
RS-D375-99	14.5	142	157.66
RS-D376-99	31	135	150.66
RS-D377-99	51	177.5	161.84
RS-D378-99	-4	317	332.66
RS-D379-99	22	314	329.66
RS-D380-99	39		331
RS-D381-99	26	314.5	330.16
RS-D382-99	39.5	311.5	327.16
RS-D383-99	58	305	320.66
RS-D384-99	31	314.5	330.16
RS-D385-99	50.5	309	324.66
RS-D386-99	69	305	320.66
RS-D387-99	86	304.68	320.34
RS-D388-99	10.5	137.5	153.16
RS-D389-99	30.5	140	155.66

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ROCKY MOUNTAIN GEOCHEMICAL

A MEMBER OF THE INSPECTORATE GROUP OF COMPANIES

840 GREG STREET • SPARKS, NEVADA 89431 • PHONE (775) 359-6311 • FAX (775) 359-2944

Certificate of Analysis

DATE: Thursday, January 13, 2000

JOB NO: 99-50-49

CLIENT: Hecla (Rosebud Mine)
P.O. Box 2610
Winnecmucca, NV 89446 US

INVOICE NO: 33100376

CLIENT ORDER NO: RS-D377-99

REPORT ON: 33 Core

SUBMITTED BY: Kurt Allen

DATE RECIEVED: Sunday, December 19, 1999

ANALYSES: Rosebud Mine Development Protocol, Gold

ANALYTICAL METHODS: FA/AA, FA/GRAV

REMARKS:

CC: RMG File

E-MAILED TO:

CLIENT: Hecla (Rosebud Mine)

99-50-49	Sample Designation	Gold FA/AA ppb	Gold FA/AA oz/ton	Gold FA/GRAV oz/ton	Gold FA/GRAV oz/ton	Silver FA/AA ppm	Silver FA/AA oz/ton	Silver FA/GRAV oz/ton
1	RS-D377-99 0'-5'	102	0.003			2.7	0.080	
2	RS-D377-99 5'-8'	8220	0.240	0.116		15.8	0.460	0.31
3	RS-D377-99 8'-10'	20110	0.587	0.174	0.203	40.8	1.190	0.81
4	RS-D377-99 10'-12.6'	1409	0.041	0.079		21.9	0.640	0.45
5	RS-D377-99 12.6'-15'	306	0.009			5.7	0.165	
6	RS-D377-99 15'-20'	262	0.008			5.9	0.172	
7	RS-D377-99 20'-25'	821	0.024			7.5	0.220	
8	RS-D377-99 25'-30'	603	0.018			7.1	0.206	
9	RS-D377-99 30'-32'	1417	0.041	0.039		6.4	0.187	0.31
10	RS-D377-99 32'-35.6'	1604	0.047	0.023		8.0	0.235	0.23
11	RS-D377-99 35.6'-40'	1414	0.041	0.015		6.0	0.176	0.19
12	RS-D377-99 40'-42.2'	307	0.009	0.024		5.9	0.172	0.23
13	RS-D377-99 42.2'-46.5	783	0.023	0.078		7.9	0.232	0.19
14	RS-D377-99 46.5'-48.4	182	0.005			4.7	0.137	
15	RS-D377-99 48.4'-51.5	220	0.006			3.9	0.114	
16	RS-D377-99 51.5'-55'	1085	0.032			5.4	0.157	
17	RS-D377-99 55'-60'	202	0.006			5.2	0.151	
18	RS-D377-99 60'-65'	1738	0.051			5.8	0.169	
19	RS-D377-99 65'-70'	3790	0.111			6.9	0.201	
20	RS-D377-99 70'-73'	335	0.010			4.0	0.118	
21	RS-D377-99 73'-75.2'	226	0.007			1.3	0.038	
22	RS-D377-99 75.2'-76.2	944	0.028			4.6	0.135	
23	RS-D377-99 76.2'-80'	2681	0.078	0.083		13.4	0.390	0.37
24	RS-D377-99 80'-85'	3217	0.094	0.047		6.4	0.188	0.21
25	RS-D377-99 85'-87.9'	161	0.005			1.2	0.035	
26	RS-D377-99 87.9'-89.3	520	0.015			2.3	0.068	
27	RS-D377-99 89.3'-93'	180	0.005			1.6	0.046	
28	RS-D377-99 93'-97.5'	313	0.009			1.1	0.033	
29	RS-D377-99 97.5'-100'	630	0.018			3.0	0.087	
30	RS-D377-99 100'-105'	954	0.028			3.7	0.107	
31	RS-D377-99 105'-110'	553	0.016			1.6	0.048	
32	RS-D377-99 110'-115'	2375	0.069	0.047		7.7	0.226	0.31
33	STD 68830	4388	0.128	0.130		91.8	2.680	2.41

Thursday, January 13, 2000

By

INSPECTORATE

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Kurt Allen
Hecla (Rosebud Mine)
P.O. Box 2610
Winnemucca, NV 89446 US

Invoice No: 33100376
Invoice Date: 1/27/00
JobNo: 99-50-49
Account No: 00007292

Client PO:

INVOICE

Terms: Net 30 days

Item Description	Qty	Unit Price	Amount
Core 16-20 Lbs	32	$4.50	$144.00
Au, Ag FA/AA/AAS	33	$6.50	$214.50
Au, Ag FA	12	$7.00	$84.00

Sub Total:	**$442.50**
Discount: (0.00%)	**$0.00**
Discounted Total:	**$442.50**
Add'l Discount: (0.00%)	**$0.00**
Final Total:	**$442.50**

PLEASE REMIT TO:

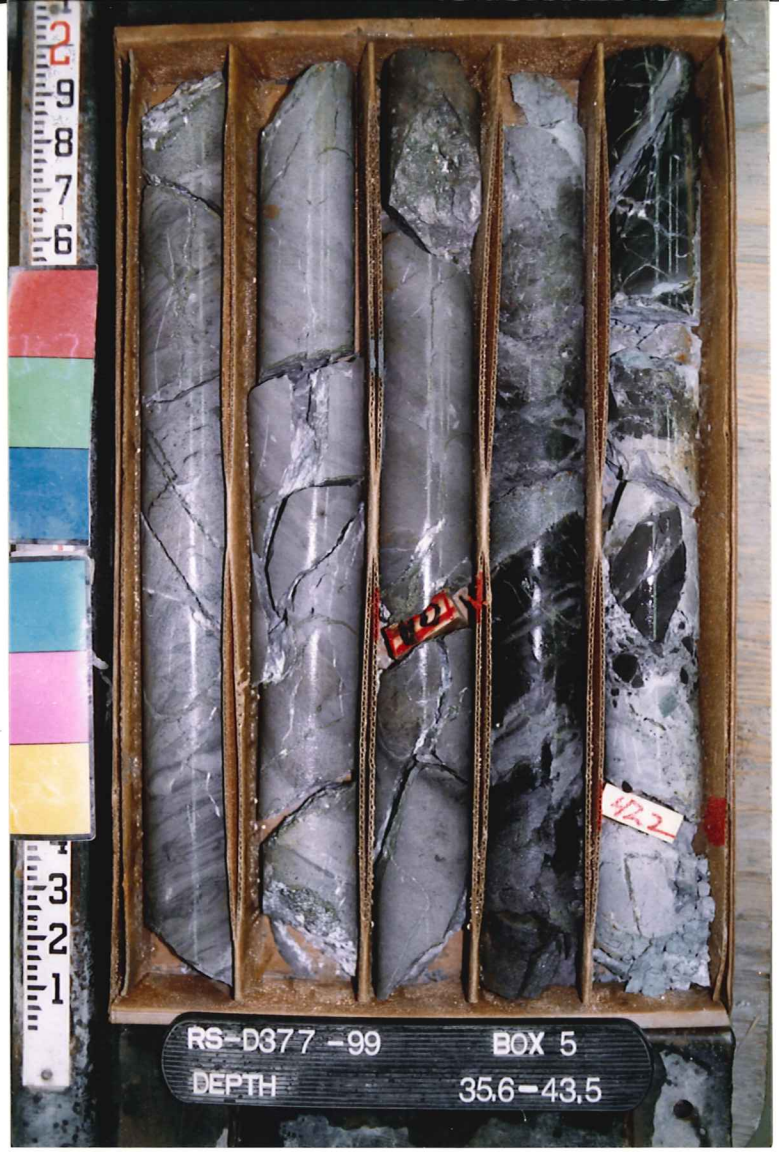
Inspectorate America Corp.
P.O. Box 201901
Houston, TX 77216-1901

PAID

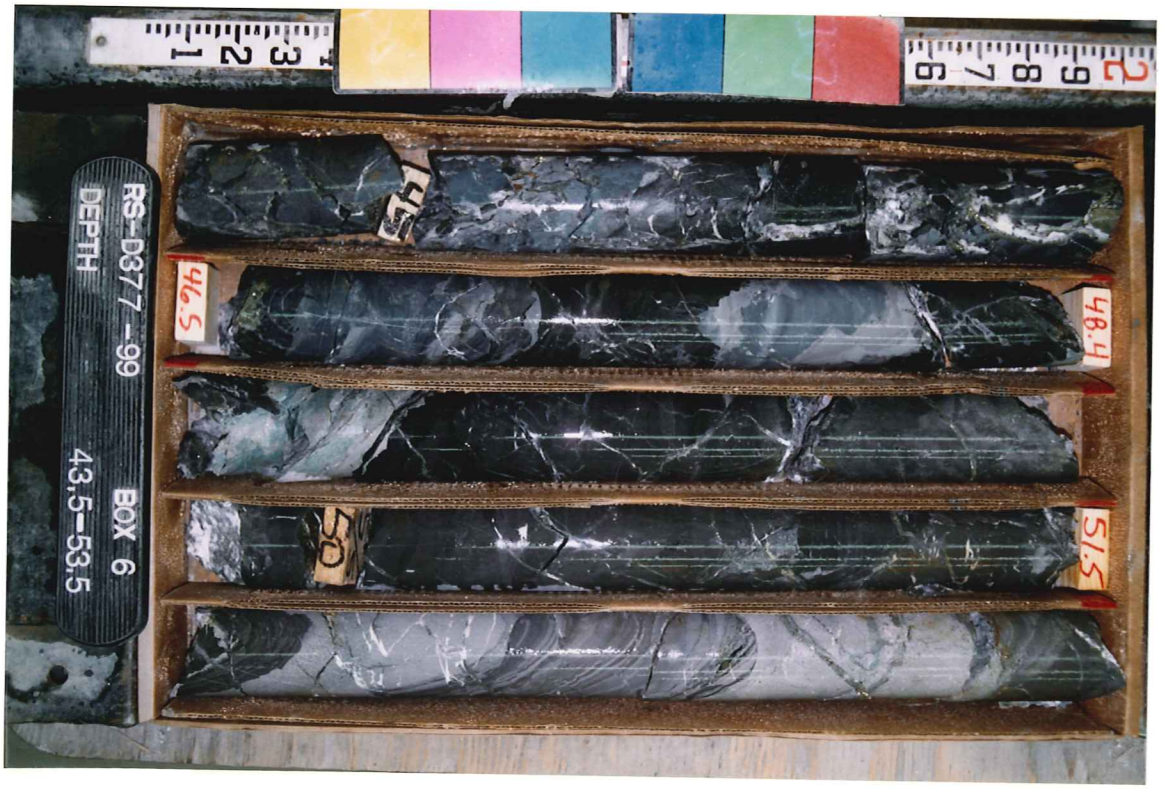
RS-D377 -99
BOX 2
DEPTH
9 - 18

RS-D377 -99
BOX 1
DEPTH
0 - 9

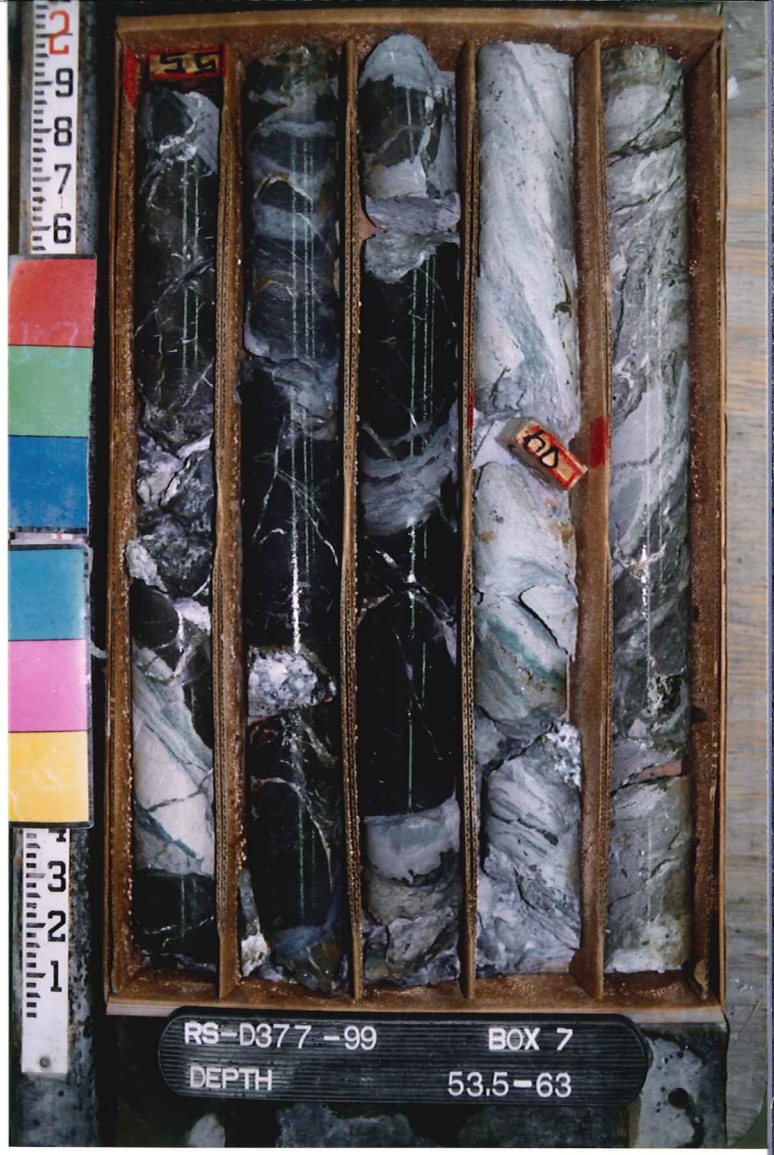
RS-D377 -99
BOX 3
DEPTH
18 - 27


RS-D377 -99
BOX 5
DEPTH
35.6-43.5

35.6
32
31
35
RS-D377 -99
BOX 4
DEPTH
27 - 35.6


46.5
46.4
51.5
RS-D377 -99
BOX 6
DEPTH
43.5-53.5

RS-D377 -99
BOX 8
DEPTH
63 - 72


RS-D377 -99
BOX 7
DEPTH
53.5-63

RS-D377 -99
BOX 9
DEPTH
72 - 81
76.2

91.5
93
RS-D377 -99
BOX 11
DEPTH
90.2-99.5

90
87.9
87.3
85
RS-D377 -99
BOX 10
DEPTH
81 - 90.2

100
105
RS-D377 -99
BOX 12
DEPTH
99.5-108.5

110
TD
115
RS-D377 -99
BOX 13
DEPTH
108.5-115

WELL KS - D377

DEPTH 100'

PICTURE NO.

INCLINATION + 50°

OBS. DIR.

COR. DIR.

TOOL FACE

RUN BY G. GADDIE

DATE 12-8-99

CHECKED BY

sperry-sun

DRILLING SERVICES