6000 0700

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. SL-D404-00
AUTHOR	D. Mackerrow; B. Morris; K. Allen; L. Mackedon
DATE OF DOC(S)	2000
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Hecla Mining Co; Rosebud Project Rosebud Mining Co, LLC
COMMODITY If not obvious	gold; silver
NOTES	drill logs; geology; assay; total depth 512'; receipts; down hole camera images handwritten notes 30 p. 3 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)

SS: DD 4/29/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

SL- D 404-00

6000 0700
401C

6000 0700

Hecla MINING COMPANY

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

Intensity: ...

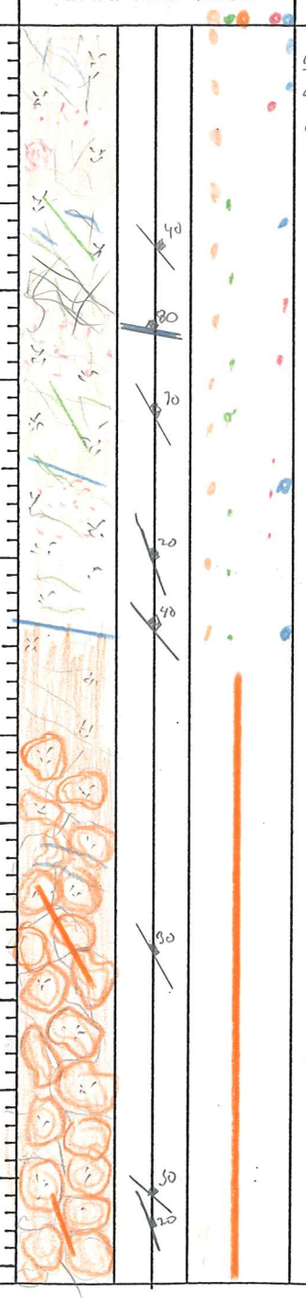
ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	SL-D 404-00	LOCATION	St. Louis 4346
PAGE 1 OF 9		NORTHING	
DATE	5/23/00	EASTING	
LOGGED BY	DG. Mackerow	ELEVATION	
SCALE	1" = 10'	AZIMUTH	
TOTAL DEPTH	512	INCLINATION	

REMARKS

ITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ac
Td		0 - 48.0' s DOZER Fine grade rhyolite flow with autobreccia and flow banded textures. Hematite on fractures and generally through out the core. Very fine gray specular hematite grains 47-92 Argillization bleach hematite stain around fracture zone core is pale gray white with traces of propylitic alteration	10 20 30 40 50	50 70 80 40 80 50 70	Collar in autobreccia to ≈ 15' 46.5 - Autobreccia 52 - 72.5 Fracture zone	47-92 Argillized/bleach zone around fracture, bleaches core							

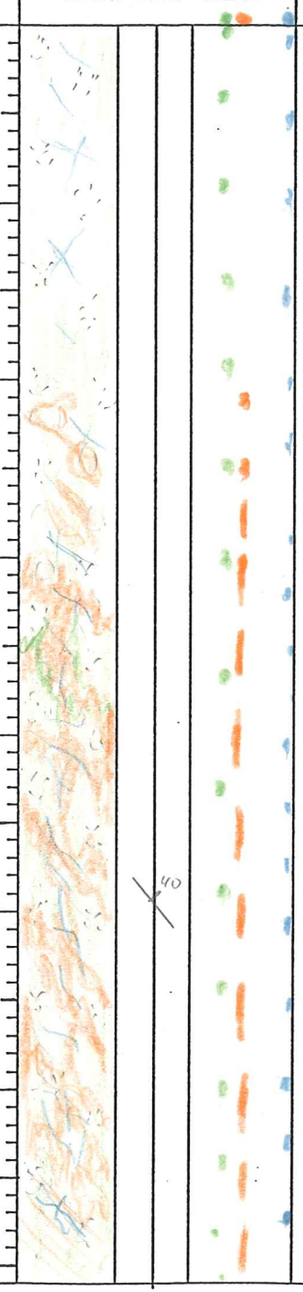
HOLE NUMBER SL-0404-00 PAGE 2 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0 - 480.5 DOZER Rhyolite Flow continues 87 - 154 Heavy Hematite saturation washed core look from leiser gang banding	50 60 70 80 90 100 110 120		47 - 51 Crackle Bxa/ auto bx zone Calcite on fx surfaces.	48 - Trace of pyrite with chloritic fx coating 58 Pyrite forms a 0.5' agglomeration of ≈5% 65 - 69 pyrite after fine marcasite at ≈3% 54-57 Pyrite forms small 1/8" clusters still less than 1%.							

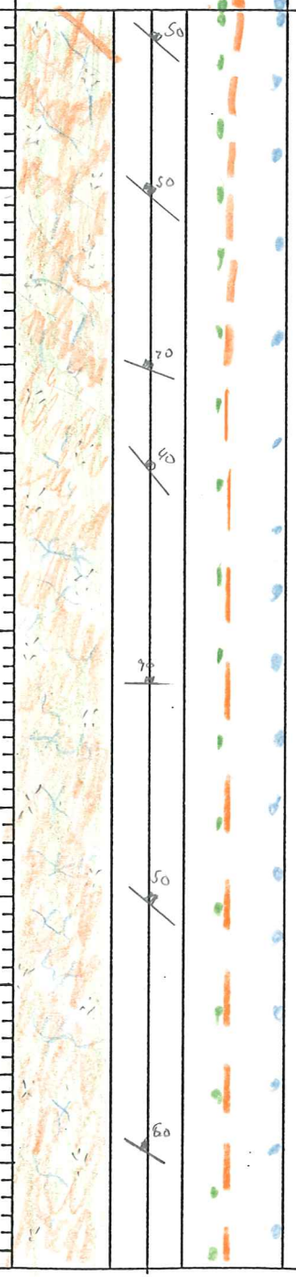
HOLE NUMBER SL - D404-00 PAGE 3 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0 - 480.5 DOZER Rhyolite flow continues Highly hematitic Dozer has that "washed" with Iron look. Local propylitic alteration and argillization can spot core to 154 - 211 - Propylitic alteration stains core greenish gray with fracture zone v dark green	120 130 140 150 160 170 180 190	50 60 50 40 70 60		154 Black sulfide mass 1/4" wide 2" long amorphous texture							

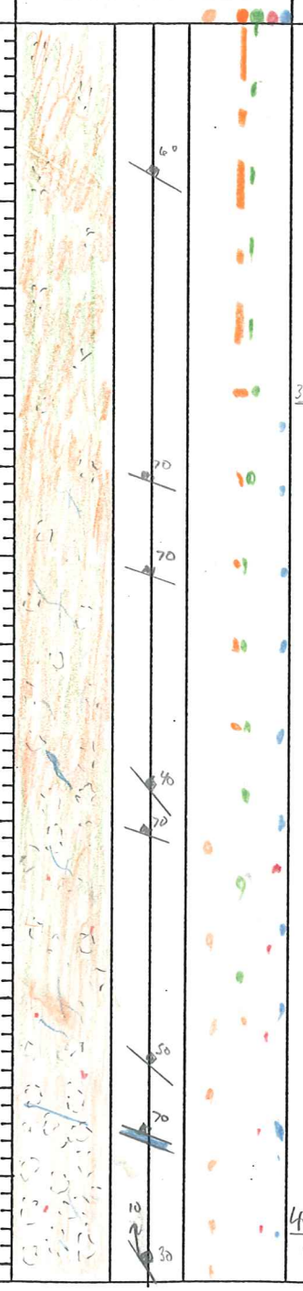
HOLE NUMBER SL-D 404-00 PAGE 4 OF 9

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0-480,S DOZER Rhyolite flow continues Propylitic/chloritic alteration from 152-211 continues 211 Hematite increases to 60% hematitic and 40% propylitic alteration Flow banding alternates hematitic/propylitic with higher propylitic alteration on fx.	190 200 210 220 230 240 250 260			Hematite and propyllitic alteration continue							

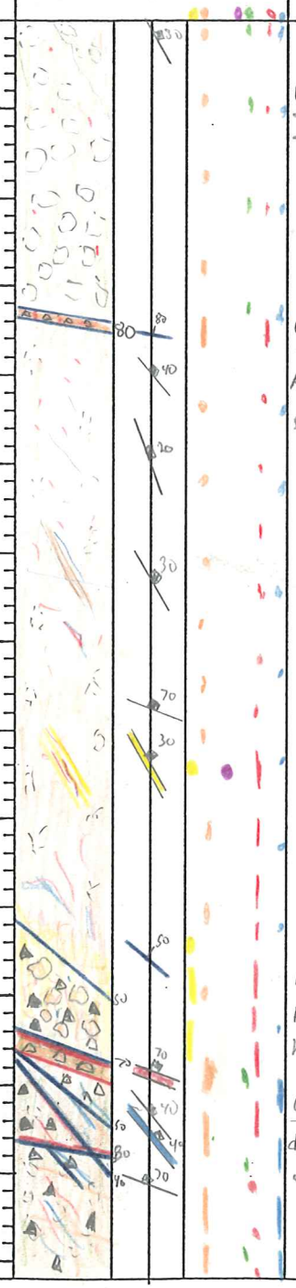
HOLE NUMBER SL-D404-00 PAGE 5 OF 8

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0 - 480.5 DOZER Rhyolite flow contacts Hematite stained flowbanding with propylitic alteration core is either redbrown or pale green gray	260 270 280 290 300 310 320 330			Propyllitic and Hematitic alteration continues weak calcite veining and fracture coating							

HOLE NUMBER SL-D404-00 PAGE 6 OF 8

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	Ag2
Td		0 – 480.5 DOZER 352 Fine grained rhyolite flow with faint argillization and spotty hematite staining. 370 Argillization and trace Propyllitic alteration, Hematite at trace levels to 377 377 Core is faint greenish gray in color	330 340 350 360 370 380 390 400		352 minimal fractures 401 Auto breccia begins along 30 ten FX	From 352 calcite on fractures and forming veins, Veins are up ≤ ¼". 377 Trace levels of fine disseminated pyrite in core.							

HOLE NUMBER SL-D404-00 PAGE 7 OF 8

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-480.5 DOZER Fine grained rhyolite flow continues. 416.3-417 Pyrite flooded fault plane with oblique slips 10° tca. 417-442 Calcite and white clay veins contain moderate size marcasite veins 442-442.6 QTZ VEIN SWARM with drusy QTZ on open fractures, Barite and calcite in fracture 453.1-456 Silica and clay healed milled breccia clast are pinkish brown and have internal breccia. Pyrite and marcasite in hydrothermally altered clay 453.1-457.7 Doesnot look like surrounding Pale gray Dozer 456-457.7 Decreasing silica and increasing argillization 457.7-459.8 Pale green gray dozer with fine pyrite on 70° tca shear planes. Heavy calcite in this zone as 1" thick veins and fracture coatings 459.8-462 Fractured Dozer Moderate argillization 462-464.7 Breccia with pyrite on shear planes. 464.7-467 Fracture Argillize Dozer Pyrite veins	400 410 420 430 440 450 460 470		401 Auto brecciated texture begins on 30° tca fx 416.3-417 Low angle fault with clay supported breccia. 80° tca 453.1 Hanging wall fault contact 50° tca Fault goes to 457.7 Footwall 70° tca with heavy pyrite flooding 459.8-467 Two dominate fracture one at 40° tca and 70° tca.	L 416.3 All propylitic/chloritic (green clay) alteration is over printed by argillization 416.3-417 Hydrothermally altered clay matrix breccia with pyrite marcasite and white clay, Calcite with marcasite 417-422 Hydrothermally altered clay vein stockwork. Marcasite pyrite and white clay are present on fracture 422-447 Pyrite and marcasite with calcite 447-453.1 Marcasite and Pryrite increases 452 Traces of silicification 453.1-456 Silica and clay heal breccia Clay is hydrothermally altered

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
416.3	417					
417	422					
422	427					
427	432					
432	437					
437	442					
442	447					
447	453.1					
453.1	456					
456	457.7					
457.7	459.8					
459.8	462					
462	464.7					
464.7	467					
467	472					

HOLE NUMBER SL-0404-00 PAGE 8 OF 8

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-480.5 DOZER Fine grained rhyolite in fault zone cutting 478.3 - 479.8 ALS Faulted 479.8 - 480.5 DOZER Fault Block	470		472 breccia decreases below 30° tca fracture 476.3 40° tca shear plane 478.3 40° tca contact with ALS	
Als		480.5 - 512 A.L.S. Black phillitic shale moderate level of calcite stock work Disrupted/Brecciated bedding to 485 below contact. Graphite on bedding surface TD 512	480 490 500 510		500-505 Bedding breccia	

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
472	476.3					
476.3	478.3					
478.3	480.5					
480.5	485					

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-14-00 LOGGED BY: D.G. MacKellow PAGE 1 OF 10

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	7	43	67	44										
7	12	100	102	100										
12	17	100	100	100										
17	22	100	100	84										
22	27	100	100	100										
27	32	100	98	78										
32	37	100	100	80										
37	42	99	100	76										
42	47	100	100	44										
47	52	100	102	96										
52	57	84	98	96										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-14-00 LOGGED BY: D.G. Mackerrow PAGE 2 OF 10

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)
57	62	100	100	78										
62	67	40	100	20										
67	72	44	92	30										
72	77	100	104	62										
77	82	100	100	82										
82	87	100	100	94										
87	92	100	100	82										
92	97	99	96	68										
97	102	100	100	100										
102	107	100	102	86										
107	112	100	98	82										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-14-00 LOGGED BY: D.G. Mackenzie PAGE 3 OF 10

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)
112	117	100	100	90										
117	122	100	100	90										
122	127	100	100	100										
127	132	100	102	84										
132	137	100	100	88										
137	142	100	98	100										
142	147	100	96	96										
147	152	100	100	100										
152	157	100	104	88										
157	162	100	100	100										
162	167	100	100	94										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-14-00 LOGGED BY: D.G. Mackellar PAGE 4 OF 10

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
167	172	100	100	94										
172	177	100	98	100										
177	182	100	100	100										
182	187	100	98	100										
187	192	100	100	100										
192	197	100	100	100										
197	202	100	100	100										
202	207	100	98	100										
207	212	100	100	100										
212	217	100	100	90										
217	222	100	98	96										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-14-00 LOGGED BY: D.G. Muchemore PAGE 5 OF 10

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
222	227	100	102	100										
227	232	100	100	86										
232	237	100	102	100										
237	242	100	100	100										
242	247	100	100	96										
247	252	100	100	100										
252	257	100	96	86										
257	262	100	100	72										
262	267	100	100	52										
267	272	100	100	78										
272	277	100	100	80										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-12404-00 DATE: 5-14-00 LOGGED BY: D.G. MacKevra PAGE 6 OF 10

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
277	282	100	100	81										
282	287	100	100	86										
287	292	100	100	90										
292	297	100	96	76										
297	302	100	102	88										
302	307	100	102	92										
307	312	100	100	96										
312	317	100	102	98										
317	322	100	94	100										
322	327	100	104	92										
327	332	100	104	90										
332	337	100	102	90										
337	342	100	100	30										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-1-00 LOGGED BY: D.G. Mackerrow PAGE 7 OF 10

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)
342	347	100	100	62										
347	352	100	102	96										
352	357	100	100	100										
357	362	100	100	80										
362	367	100	100	80										
367	372	100	100	96										
372	377	100	100	60										
377	382	100	100	82										
382	387	100	98	80										
387	392	100	100	80										
392	397	100	100	100										
397	402	100	100	84										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D404-00 DATE: 5-1-00 LOGGED BY: D. G. Muckerman PAGE 8 OF 10

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)
402	407	100	100	100										
407	412	100	98	100										
412	417	100	100	94										
417	422	100	98	64										
422	427	100	102	58										
427	432	100	100	60										
432	437	100	100	80										
437	442	100	98	90										
442	447	100	100	76										
447	452	100	100	90										
452	457	100	102	92										

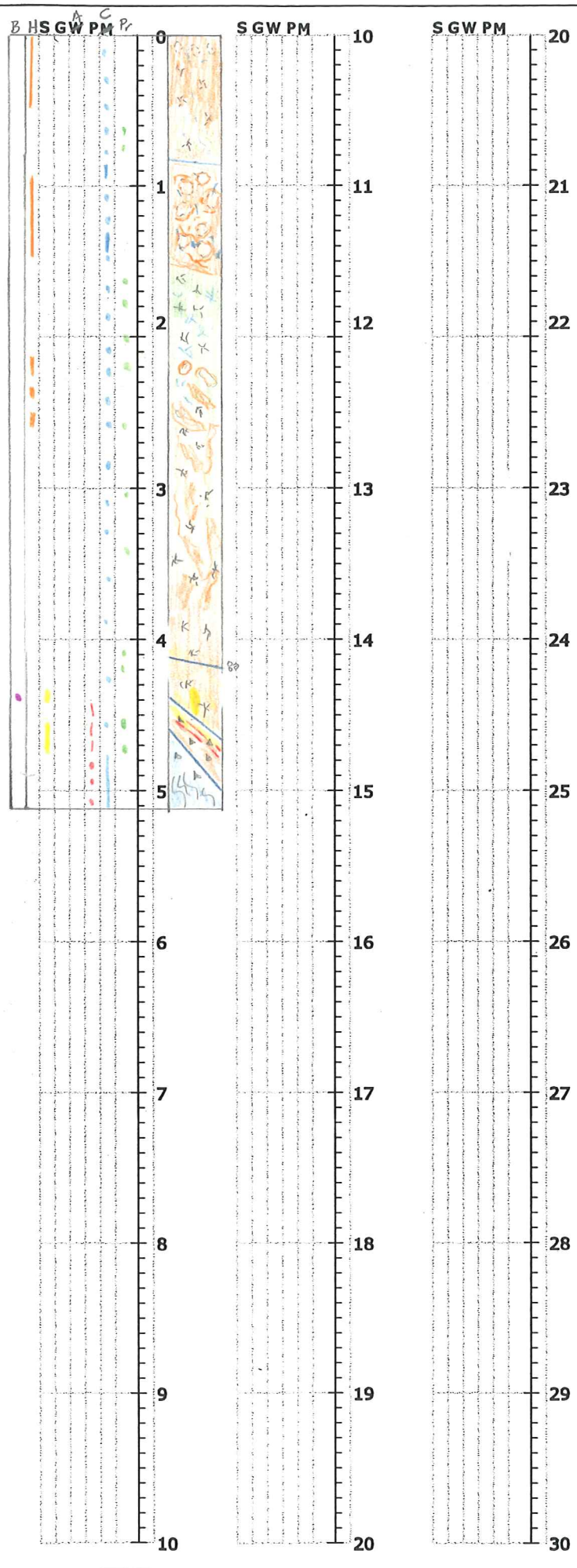
HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # SL-D 404-00 DATE: 5-1-00 LOGGED BY: D.G. Mackerrow PAGE 9 OF 10

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)
457	462	78	100	34										
462	467	88	100	10										
467	472	100	100	50										
472	477	100	100	50										
477	482	100	102	30										
482	487	90	100	14										
487	492	100	100	10										
492	497	100	100	10										
497	502	100	100	14										
502	507	96	100	0										
507	512	100	100	0										

ROSEBUD MINING COMPANY, LLC.

HOLE #	SL-D 404-00
FINISH HOLE	
START HOLE	
COLLAR COORDINATES	
NORTH	
EAST	
ELEV	
DRILLER	
DRILLING CO.	Action Drilling
LOGGED BY	Don Mackerrow
HOLE TYPE	Core
BEARING	140
ANGLE	-42
T.D	512
SURVEYED TO	452
PAGE 1 OF	



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

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

B	Barite
H	Hematite
S	Silicification
G	Green Clay
A	Argillized
P	Py. / Marc
C	Calcite
Pr	Propylitized
	Td
	ALS

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057432

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D404-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 20 REPORTED : 25 MAY 2000

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057432

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D404-00

REPORTED : 25 MAY 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D404-00 416.3-417.0	0.177	0.216	0.16
SL-D404-00 417-422	0.003		0.05
SL-D404-00 422-427	0.006		0.02
SL-D404-00 427-432	0.059		0.12
SL-D404-00 432-437	0.014		0.04
SL-D404-00 437-442	0.008		0.04
SL-D404-00 442-447	0.012		0.08
SL-D404-00 447.0-453.1	0.002	0.002	0.06
SL-D404-00 453.1-456.0	0.001		0.03
SL-D404-00 456.0-457.7	0.001		0.02
SL-D404-00 457.7-459.8	0.002		0.06
SL-D404-00 459.8-462.0	0.001		0.03
SL-D404-00 462.0-464.7	0.001		0.05
SL-D404-00 464.7-467.0	0.001		0.04
SL-D404-00 467-472	0.001		0.02
SL-D404-00 472.0-476.3	0.001		0.03
SL-D404-00 476.3-478.3	0.001		0.10
SL-D404-00 478.3-480.5	0.001		0.07
SL-D404-00 480.5-485.0	0.001		0.09
34772	0.171		1.87

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431-5902

(775) 356-0606

INVOICE NO: SP 0057432-IN
INVOICE DATE: 05/26/00

INVOICE TO:
THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

CUSTOMER P.O.	PROJECT	TERMS
SL-D404-00	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
20	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
19	DRY/JAW CRUSH ENTIRE SAMPLE	2.60	49.40
19	COARSE MILLING CHARGE	6.00	114.00
19	"JONES" RIFFLE SPLIT	2.40	45.60
19	RING/PUCK MILL	2.00	38.00
20	Au (1 A.T. FIRE ASSAY)	8.00	160.00
20	HYDROCHLORIC/NITRIC DIGESTION	2.00	40.00
20	Ag ANALYSES	1.00	20.00

86-3010-477
KAA

NET INVOICE:	467.00
LESS DISCOUNT:	140.10
FREIGHT:	.00
INVOICE TOTAL:	326.90

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057432

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D404-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 20 REPORTED : 25 MAY 2000

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057432

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D404-00

REPORTED : 25 MAY 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D404-00 416.3-417.0	0.177	0.216	0.16
SL-D404-00 417-422	0.003		0.05
SL-D404-00 422-427	0.006		0.02
SL-D404-00 427-432	0.059		0.12
SL-D404-00 432-437	0.014		0.04
SL-D404-00 437-442	0.008		0.04
SL-D404-00 442-447	0.012		0.08
SL-D404-00 447.0-453.1	0.002	0.002	0.06
SL-D404-00 453.1-456.0	0.001		0.03
SL-D404-00 456.0-457.7	0.001		0.02
SL-D404-00 457.7-459.8	0.002		0.06
SL-D404-00 459.8-462.0	0.001		0.03
SL-D404-00 462.0-464.7	0.001		0.05
SL-D404-00 464.7-467.0	0.001		0.04
SL-D404-00 467-472	0.001		0.02
SL-D404-00 472.0-476.3	0.001		0.03
SL-D404-00 476.3-478.3	0.001		0.10
SL-D404-00 478.3-480.5	0.001		0.07
SL-D404-00 480.5-485.0	0.001		0.09
34772	0.171		1.87

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057432

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HECLA MINING COMPANY

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ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

86-3010-477

KAA

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057432

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D404-00

REPORTED : 25 MAY 2000

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag(OZ) D210 OPT
SL-D404-00 416.3-417.0	0.177	0.216	0.16
SL-D404-00 417-422	0.003		0.05
SL-D404-00 422-427	0.006		0.02
SL-D404-00 427-432	0.059		0.12
SL-D404-00 432-437	0.014		0.04
SL-D404-00 437-442	0.008		0.04
SL-D404-00 442-447	0.012		0.08
SL-D404-00 447.0-453.1	0.002	0.002	0.06
SL-D404-00 453.1-456.0	0.001		0.03
SL-D404-00 456.0-457.7	0.001		0.02
SL-D404-00 457.7-459.8	0.002		0.06
SL-D404-00 459.8-462.0	0.001		0.03
SL-D404-00 462.0-464.7	0.001		0.05
SL-D404-00 464.7-467.0	0.001		0.04
SL-D404-00 467-472	0.001		0.02
SL-D404-00 472.0-476.3	0.001		0.03
SL-D404-00 476.3-478.3	0.001		0.10
SL-D404-00 478.3-480.5	0.001		0.07
SL-D404-00 480.5-485.0	0.001		0.09
34772	0.171		1.87 6 - 3016-477

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057432

PO BOX 11530
RENO NV,USA
Ph.(775) 356-0606, Fax.(775) 356-1413

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: SL-D404-00 RECEIVED : 15 MAY 2000

No. SAMPLES : 20 REPORTED : 23 MAY 2000

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

05/23/2000 13:58 7753561413 AMERICAN ASSAY LABS PAGE 01
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AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057432

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : SL-D404-00

REPORTED : 23 MAY 2000

SAMPLES	Au(OZ)	Au(RZ)	Ag(OZ)
SL-D404-00 416.3-417.0	0.177	0.216	
SL-D404-00 417-422	0.003		
SL-D404-00 422-427	0.006		
SL-D404-00 427-432	DTF		
SL-D404-00 432-437	0.014		
SL-D404-00 437-442	0.008		
SL-D404-00 442-447	0.012		
SL-D404-00 447.0-453.1	0.002	0.002	
SL-D404-00 453.1-456.0	0.001		
SL-D404-00 456.0-457.7	0.001		
SL-D404-00 457.7-459.8	0.002		
SL-D404-00 459.8-462.0	0.001		
SL-D404-00 462.0-464.7	0.001		
SL-D404-00 464.7-467.0	0.001		
SL-D404-00 467-472	0.001		
SL-D404-00 472.0-476.3	0.001		
SL-D404-00 476.3-478.3	0.001		
SL-D404-00 478.3-480.5	0.001		
SL-D404-00 480.5-485.0	0.001		
34772	0.171		

Drill hole # SL-D404-00

Down hole depth	Quadrant:	Measured Bearing	Corrected Azimuth	Measured Inclination	Corrected Dip
52	SE	55.5	140.12	48	-42
252	SE	55.5	140.12	47	-43
452	SE	54.5	141.12	48.2	-41.8

TD Depth 512

2000 Declination 15.62

Drill hole # SL-D404-00

Down hole depth	Quadrant:	Measured Bearing	Corrected Azimuth	Measured Inclination	Corrected Dip
52	SE	55.5	140.12	48	-42
252	SE	55.5	140.12	47	-43
452	SE	54.5	141.12	48.2	-41.8

TD Depth 512

2000 Declination 15.62

SAMPLE SUBMITTAL FORM

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) 738-9100
Fax
(702) 738-2594

Company: Rosebud Mining LLC.

Address: P.O. Box 2610 Winnemucca, NV 89446

Telephone Number: (775) 623-6912 Fax Number: (775) 623-6967

Project Name: _____ Purchase Order Number: _____

Transport Company: _____ Waybill Number: _____

Date Shipped: 05-14-00 Number of Packages: 19 [ ] Prepaid [ ] Collect

ANALYSIS REQUIRED

SAMPLE	TYPE	ELEMENTS REQUIRED
SL-D404-CO	core	Au Ag: Use Rosebud Mine development protocol
See attached sheet for sample intervals		
1- Rosebud Production standard at end of run	Pulp	

COARSE REJECTS (Normally Discarded)

[ ] Return COD after analysis complete
[X] By prior arrangements

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month
[X] By prior arrangements

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Kurt Allen
(See above)

(2) _____

(3) _____

Comments:

CLIENT FILE COPY

SL-D404-00

Depth From	To	Interval	Au	Ag	Sample Number
416.3	417	0.7	x	x	1
417	422	5	x	x	2
422	427	5	x	x	3
427	432	5	x	x	4
432	437	5	x	x	5
437	442	5	x	x	6
442	447	5	x	x	7
447	453.1	6.1	x	x	8
453.1	456	2.9	x	x	9
456	457.7	1.7	x	x	10
457.7	459.8	2.1	x	x	11
459.8	462	2.2	x	x	12
462	464.7	2.7	x	x	13
464.7	467	2.3	x	x	14
467	472	5	x	x	15
472	476.3	4.3	x	x	16
476.3	478.3	2	x	x	17
478.3	480.5	2.2	x	x	18
480.5	485	4.5	x	x	19

60
SE
60
SE
50
SE
50
SE
40
SE
40
SE