60000828

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. D-25-94
AUTHOR	C. Winetear; C. Muerhoff; S. Fairclath
DATE OF DOC(S)	1994
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 South Zone
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; total depth 210'; receipt; handwritten notes 10 p.

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

SS: DD 5/1/08
Initials Date

DB:
Initials Date

SCANNED:
Initials Date

Revised: 1/22/08

D-25-94

60000828
4010

6000 0828

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	D-25-94	LOCATION	South Zone	REMARKS	ORIENTATIONS STATED
PAGE 1 OF		NORTHING	2203563.5		AS ∡ TO CORE AXIS; CORE PHOTO'D;
DATE	9-12-94	EASTING	481481.6		WHOLE CORE ASSAY SAMPLES; COLLAR
LOGGED BY	CBWINETEER	ELEVATION	4710.1		LOC. DRILL STA. 8; SECTION A50N;
SCALE	1" = 10'	AZIMUTH	125		NDBGM CORE
TOTAL DEPTH	210'	INCLINATION	+25°		

FROM / %REC	TO / RQD	LITHOLOGY & STRUCTURE	FT	GRAPHIC LOG	STRUCTURE Silic	Arg	Py-T	Chl	ALTERATION AND MINERALIZATION ∡	Density	Mineralogy
0	39'	Fine-grained tephra/tuff. Moderately hard. Pale green, pink, cream, and grey. Well-sorted. Massive-bedded + 32'. Planar & wavy laminated @ 40° 32-39'. 0-13' Minor slicks & microbx on 25° stx's. 20-26' Post-sulf slicks w/ R & G stx's; microbx Chl. + $CaCO_3$ + tarnish py on 25° & 5° stx's 26-32' pale green clay-slicks @ 25-40° 32-39' post-sulf/$CaCO_3$ slicks @ 15-30° w/pale green clay & py gouge	10 20 30		3	2	2	3	35-40° 15-20° 50-70° & 15-20°	1/ft 2-3/ft >10/ft.	Ill + py $CaCO_3$ + py Chl ± $CaCO_3$ ± tarnish py
					5.0' $CaCO_3$ + chl + c. xln fragmented tarnish py						
					14.5-15' Vuggy w/f.g. open space SiO_2 + ill.						
39	50	Crackle breccia w/ fine-grained tephra/tuff as above. Fracture/slick stkwk 52-60' 5-15' post-sulf slicks	40 50		4	2	2	3	15-30° 35/35°	>10/ft. 2-3/ft	Chl + py ± $CaCO_3$ $CaCO_3$ + py ± ill

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
0	5	5.0	.002	.06		
5	10		.002	.10		
10	15		.009	.14		
15	20		.007	.10		
20	25		.004	.07		
25	30		.003	.12		
30	35		.003	.23		
35	40		.029	.21	.031	
40	45		.018	.22		
45	50		.038	.75		

HOLE NUMBER D-25-94 PAGE 2 OF

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE (Silic. Arg. Py-T Chl.)	ALTERATION AND MINERALIZATION (% density, mineralogy)	FROM	TO	W	Au	Ag	Au2	Ag2
50'	141.3'	Lithic tuff breccia. Coarse-grained lithic fragments in a fine-grained tuffaceous-siliceous matrix; poorly-sorted, angular to rounded heterolithic fragments dominated by planar-laminated fine-grained tephra/tuff and up to 0.8' blocks of flow-laminated lithic tuff. Chaotic-bedded, matrix-supported lithic tuff breccia.	60 70 80 90 100 110 120		4 3 3 2 Silic. g/m w/ 1st order plotchy pink coloration of g/m.; loc. mod. intense arg. + py-T. of clasts	10°; 50; 70° 5-10/ft. $CaCO_3$+py ±Tr ill RR's in mod. arg. clasts.	50	55	5.0'	.038	.39		
							55	60	5.0'	.053	.37	.058(g)	
							60	64	4.0'	.058	.42	.054(g)	
							64	68	4.0'	.020	.18		
					4 3 4 2	10°; 45° 5-15/ft. $CaCO_3$+py ± ill 40° 0.5-1.0/ft ill+py/marc. 46' -Q+marc. 1-2/ft.	68	73	5.0'	.010	.14		
							73	78	5.0'	.022	.12		
					4 4 4 2 pale to med. pink groundmass w/ pale green, cream, and pink clasts.	35° 1-3/ft. ill+py/marc ±$CaCO_3$±Os Q± Tr cpy 50'/20' 2-7/ft. $CaCO_3$+marc. 0.05-0.25" ill dominated frac-fillings. & roughly equal 0.01-0.1" $CaCO_3$+tarnish oxid. marc. 0.3" barren wtd. c. xln $CaCO_3$ vn/fts @ 30° 1st & 2nd order RR's w/ occ. silic. clasts; pref. py-T of clasts locally.	78	83		.021	.21		
							83	88		.003	.10		
							88	93		.001	.06		
							93	98		<.001	.04		
							98	103		.005	.19		
		112-127' Slicks w/ micro bx @ 35' incr. strength ↓					103	108	5.0'	.003	.16		
							108	113	5.0'	.001	.04		
					3 5 5 1 pink matrix bx w/ diss. py pref. repl. of clasts; 2nd → 5th order RR's.	10° & 35° 1-3/ft. ill+py 0.05-0.15" 45° & 10° 2-7/ft. $CaCO_3$+py 0.05-0.10" 30° <1/ft. Cxln. $CaCO_3$ 0.5-1.0"	113	118	5.0'	.002	.11		
							118	122	4.0'	.003	.09		

HOLE NUMBER D-25-94 PAGE 3 OF

FROM ~~%REC~~	TO RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE Silic Arg Py-T Chl.	ALTERATION AND MINERALIZATION % density Tt Mineralogy
		127-136.5 Carbonate-flooded tectonic breccia w/in lithic tuff breccia contact 136-136.5' @ 15° 139-141.3' S.A.A. @ 15-20°	130		4 4 3 2 healed Carbonate-flooded fault breccia	45° 1/ft. 0.5-1.0" c.xln $CaCO_3$ open-space Variable discontinuous $CaCO_3$-py/marc. 35° 4/ft. 0.05-0.10" ill-py 1st to 2nd order RR's
141.3	144'	Fault breccia w/in lithic tuff breccia; appears to post-date carbonate-flooded breccia's; clast-supported, angular to rounded tuff breccia frags in chloritic-illitic clayey matrix; slicks at variable ∡'s; upper slick contact @ 10° & slicks below 144' @ 10°			2 4 3 3	discont. & fragment $CaCO_3$-sulf & ill-sulf. vnlts
144	174.5	Lithic tuff breccia; pink matrix breccia above fault w/ predominately green chloritized vitroclastic tephra/tuff lithic fragments; matrix-supported, poorly-sorted; chaotic bedded; pale green clay gouge on slicks @ 40°	150		2-3 4-5 3-5 3-4 pinkish g/m weakly silic & mod. arg.; diss. cubic py 2 to loc. 5%; arg. + chl + py alt. pale green clasts; 0-1st order RR's	discont. frac's w/ $CaCO_3$ + py/marc. @ 35° ill + py ± marc. @ 35° c.xln open-space $CaCO_3$ @ 144-144' spheroidal vitrophyric chl + arg-ization of tephra clasts.
		174-175.2' Fault contact, post-sulfide slick @ 15°	160			
174.5	210'	Fine-to medium grained tephra/tuff. Crackle breccia healed by $CaCO_3$ ± marc/py ± ill ± chl.	170		2 4 3 4	$CaCO_3$-flooded crackle bx. ↓ 179' 20°; 20°; 80° 10-30/ft 0.05-0.10" ill + py ± marc. 5°; 30°; 60° 10/-30/ft. 0.01-0.05" chl + $CaCO_3$ + py
			180			
			190			

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
122	126	4.0'	.004	.13		
126	131	5.0'	.007	.18		
131	136	5.0'	.009	1.21		
136	141.3	5.3'	.021	.11	.019	
141.3	144	2.7'	.004	.08		
144	150	6.0'	.002	.06		
150	155	5.0'	.003	.09		
155	160	5.0'	.002	.07		
160	165	5.0'	.002	.06		
165	170	5.0'	.003	.06		
170	175	5.0'	.006	.09		
175	180	5.0'	.032	1.19		
180	185	5.0'	.012	.59		
185	190	5.0'	.164	20.56	.142(g)	

HOLE NUMBER D-25-94 PAGE 4 OF

%REC	RQD	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
			200			
			210			
		END OF HOLE @ 210'				

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2	Ag2
190	195	5.0	.053	6.04	.048(2)	
195	200	5.0	.035	2.07		
200	205	5.0	.150	6.07	.140(2)	
205	210	5.0	.090	2.34	.088(2)	

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-25-94 DATE: 9-12-94 LOGGED BY: CRW PAGE 1 OF

DRILL RUN FROM	DRILL RUN TO	SOLD 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)
0	10	65	83	.63	5	R2	1.0	25°	S	Ca-chl-py	5	337.5	140	2.41
10	20	55	81	.44	15	R2	2.2	70°	S	Ca-py	15	487.5	200	2.44
20	30	51	100	.40	25	R2	3.6	15°	R	bx+gouge	25	361.5	150	2.41
30	40	62	92	.55	35	R3	2.7	50°	R	Chl-py	35	466	190	2.45
40	50	58	90	.48	45	R3	1.9	15°	K	chl-py gouge	45	197.5	80	2.47
50	60	62	94	.46	54	R3	2.6	15°	R	Ca-py	54	399	170	2.35
60	70	78	97	.70	64	R3	1.2	30°	K	py	64	332.5	150	2.22
70	80	50	93	.38	75	R2	3.6	30°	R	ill-py	75	282.5	110	2.57
80	90	49	97	.44	85	R3	2.5	30°	R	ill-py	85	485.5	200	2.43
90	100	73	95	.63	95	R2	1.8	35°	R	ill-py	95	359.5	150	2.40
100	110	51	90	.47	105	R2	2.4	35°	R	Ca-ill-py	105	329.5	140	2.35

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-25-94 DATE: 9-12-94 LOGGED BY: CBW PAGE 2 OF 2

DRILL RUN FROM	DRILL RUN TO	SOLD 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)
110	120	55	92	.36	115	R2	1.9	30°	S	ill-py clay gouge & bx	115	320	140	2.29
120	127	60	72	.33	124	R2	5.1	30°	S	ill-py	124	528.5	230	2.30
127	137	54	80	.51	131	R2	1.9	15°	R	Ca-ill-py	131	493.5	210	2.35
137	144	30	78	.28	139	R1	>10	ALL	K	fault bx & clay gouge	139	552.5	220	2.51
144	154	30	105	.21	149	R1	>10	25°	K & R	fault bx clay gouge	149	341.5	140	2.44
154	164	51	80	.46	159	R1	1.4	25°/70°	R	ill clay	159	334	140	2.39
164	174	34	84	.26	169	R1	4.3	40°	R	ill clay	169	346	150	2.31
174	183	37	79	.37	178	R1	3.3	20°/80°	R	ill-py-chl.	178	327	140	2.34
183	193	8	82	.08	187	S5	>10	20°/75°	R	ill-chl-py	187	218	90	2.42
193	203	0	69	.00	198	S5	>10	35°/65°	R	chl-ill-py	198	596	250	2.38
203	210	0	65	.00	208	S5	>10	35°/65°	R	chl-ill-py	208	288	120	2.40

2.40

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: HECLA MINING COMPANY

Address:

Telephone Number: ( ) Fax Number: ( )

Project Name: ROSEBUD Purchase Order Number:

Transport Company: Waybill Number:

Date Shipped: Number of Packages: 43 / 2 [ ] Prepaid [ ] Collect

9-13-94

ANALYSIS REQUIRED

SAMPLE			TYPE	ELEMENTS REQUIRED
D-25-94 0-5	73-78	144-150	CORE	2 AT FIRE ASSAY Au & Ag
5-10	78-83	150-155		w/ HECLA ROSEBUD CUSTOM PREP
10-15	83-88	155-160		
15-20	88-93	ect		
20-25	93-98			* GRAV. FINISH ON ALL
25-30	98-103			Au ≥ 0.05 opt.
30-35	103-108	205-210		
35-40	108-113			
40-45	113-118			
45-50	118-122			
50-55	122-126			
55-60	126-131			
60-64	131-136			
64-68	136-141.3			
68-73	141.3-144			

COARSE REJECTS (Normally Discarded)

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

PULPS (Normally Stored Free For One Month)

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

RESULTS AND INVOICES TO BE SENT TO:

Please mark invoice person and address [I]

(1) Charlie Mueckhoff

(2)

(3)

Comments:

CLIENT FILE COPY

ANALYSIS REPORT

American Assay Laboratories

P.O. BOX 71060
RENO, NV,.U.S.A.,
Ph.1-702-356-0606, Fax.1-702-356-1413
Telex:

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF
:
:
:

CLIENT REFERENCE No: D-25-94
LABORATORY JOB No. : SP030952
SAMPLE TYPE :

RECEIVED : 20 SEP 1994
REPORTED : 4 OCT 1994
No. SAMPLES : 43

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA60	15%	OPT	0.001
Au(RZ)	FA60	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Sue Faircloth M.S.

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-25-94
JOB NUMBER : SP030952
REPORTED : 4 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-25-94 00-05	0.002			0.06
D-25-94 05-10	0.002			0.10
D-25-94 10-15	0.009			0.14
D-25-94 15-20	0.007			0.10
D-25-94 20-25	0.004			0.07
D-25-94 25-30	0.003			0.12
D-25-94 30-35	0.003			0.23
D-25-94 35-40	0.029	0.031		0.21
D-25-94 40-45	0.018			0.22
D-25-94 45-50	0.038			0.75
D-25-94 50-55	0.038			0.39
D-25-94 55-60	0.053		0.058	0.37
D-25-94 60-64	0.058		0.054	0.42
D-25-94 64-68	0.020			0.18
D-25-94 68-73	0.010			0.14
D-25-94 73-78	0.022			0.12
D-25-94 78-83	0.021			0.21
D-25-94 83-88	0.003			0.10
D-25-94 88-93	0.001			0.06
D-25-94 93-98	<0.001			0.04
D-25-94 98-103	0.005			0.19
D-25-94 103-108	0.003			0.16
D-25-94 108-113	0.001			0.04
D-25-94 113-118	0.002			0.11
D-25-94 118-122	0.003			0.09

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : D-25-94
JOB NUMBER : SP030952
REPORTED : 4 OCT 1994

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-25-94 122-126	0.004			0.13
D-25-94 126-131	0.007			0.18
D-25-94 131-136	0.009			1.21
D-25-94 136-141.3	0.021	0.019		0.11
D-25-94 141.3-144	0.004			0.08
D-25-94 144-150	0.002			0.06
D-25-94 150-155	0.003			0.09
D-25-94 155-160	0.002			0.07
D-25-94 160-165	0.002			0.06
D-25-94 165-170	0.003			0.06
D-25-94 170-175	0.006			0.09
D-25-94 175-180	0.032			1.19
D-25-94 180-185	0.012			0.59
D-25-94 185-190	0.164		0.142	20.56
D-25-94 190-195	0.053		0.048	6.04
D-25-94 195-200	0.035			2.07
D-25-94 200-205	0.150		0.140	6.07
D-25-94 205-210	0.090		0.088	2.34