

DISTRICT	Rosebud
DIST_NO	4010
COUNTY	Pershing
If different from written on document	
TITLE	Rosebud Drill Hole File-Hole No RS-495
If not obvious	
AUTHOR	D. Schowrl; J.P. Rogowski; B. Morris; K. Allen; L.B. Mackendan; V. Reid
DATE OF DOC(S)	2000
MULTI_DIST <input checked="" type="checkbox"/> (N?)	
Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine, Rosebud Mining Co. LLC; Kurt's Deep Hole West; Hecla Mining Co; Rosebud Project
COMMODITY	gold; silver
If not obvious	
NOTES	drill logs; assay; geology; photographs; geochemistry; total depth 1265; invoices handwritten notes
	172p.

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page ($>11\times17$) with text reduce
the amount of pages by ~25)

SS: 104 3/21/08

3/21/08

Initials _____ Date _____

DB: _____

Initials _____ Date _____
SCANNED:

Initials _____ Date _____

RS-495

yr 2000

W. of N. Egmont & has core tail

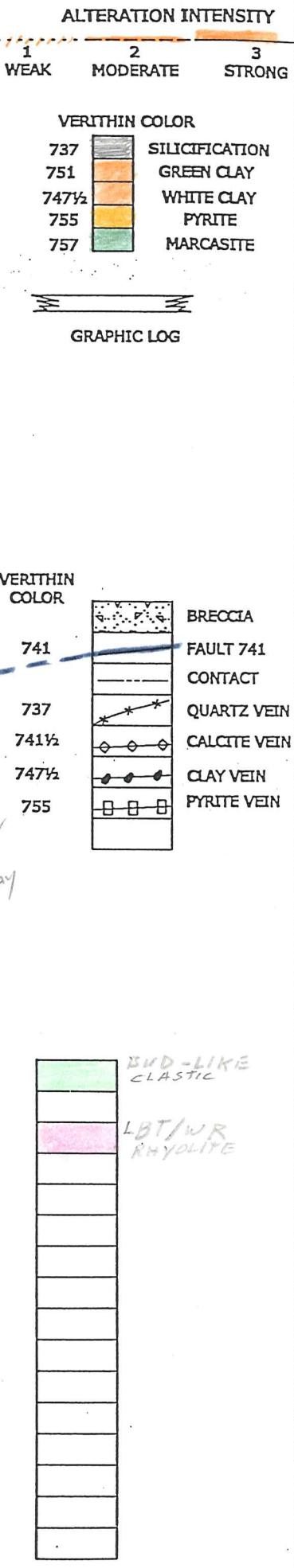
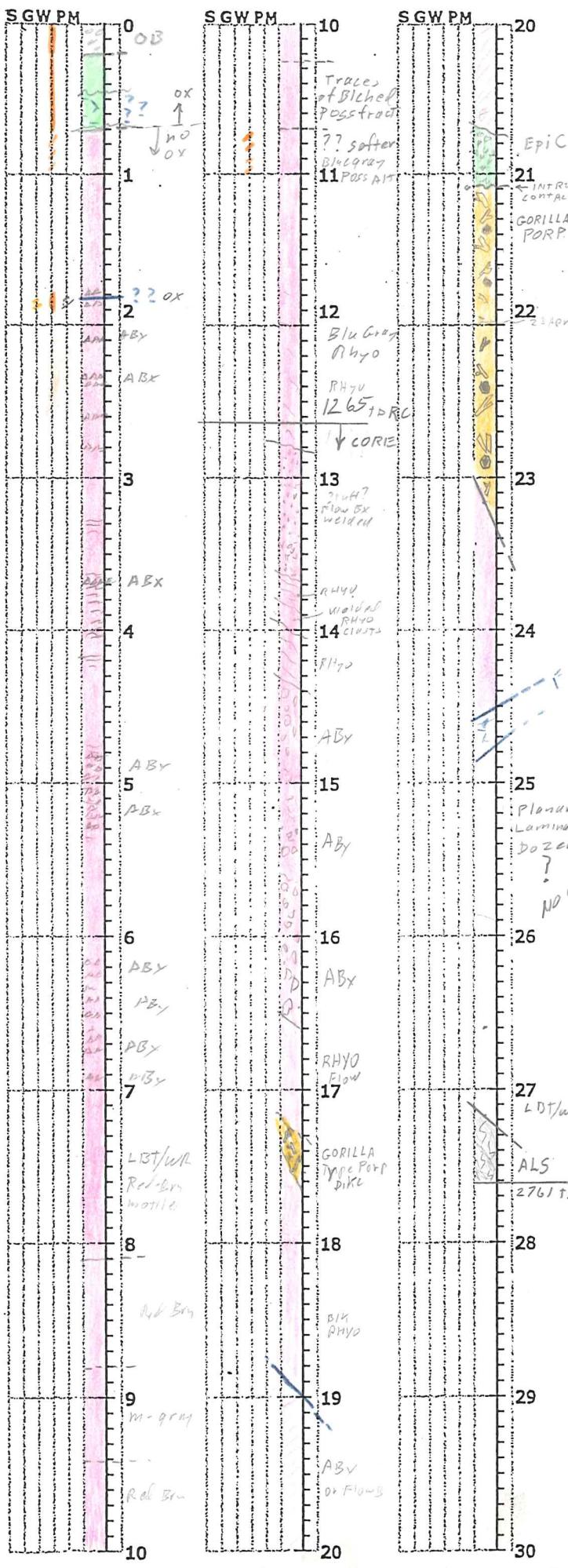
6000 0616
4010

Ward. 2005-2012
Lidia 2012-2013

- 1290 - 1310
1340 - 1360
1390 - 1410
1440 - 1460
1490 - 1510
1540 - 1560
1590 - 1610
1640 - 1660
1690 - 1710
1740 - 1754
1790 - 1810
1840 - 1866
1875 - 1895 - Au, Ag + Ice + Se
1897 - 1898 - Au, Ag + Ice + Se
1908 - 1920

ROSEBUD MINING COMPANY, LLC.

KURT'S Deep Hole West		COLLAR COORDINATES		START HOLE	FINISH HOLE	HOLE #
at NNE 1/2 corner to Target	North	2, 212, 869		24 Mar 2000	29 Mar 2000	R5-495
The ZY Fault	EAST	476, 778				LOGGED BY
An RC Pre-collar, core to follow ELEV		5870				
DRILLER Don Schoer / DRILLING CO. EH / and		PAGE 1 OF 14	CORRECTED 2761 SURVEYED TO -			





INTENSITY

1 = WEAK
2 = MODERATE

HOLE NUMBER RS-495
PAGE 2 OF 14
DATE 24 Mar 2000 TO 29 Mar 2000
LOGGED BY Rogowski
TOTAL DEPTH 1265 TD AC
SAMS 23 3710

LOCATION ROSE BUD, MT
NORTHING 21212, 869
EASTING 476 778
ELEVATION 5870
AZIMUTH —
INCLINATION - 90

AREA W. of N. Equinox
DRILLING CO. EKLUND - DON SCHOEN
RIG TYPE RC-6" 75E
HOLE SIZE 6"
DOWN HOLE SURVEY BY WEI-NAR V. G.

0-100

2/14



Hecla MINING COMPANY	INTENSITY	HOLE NUMBER	RS-495
	1 = WEAK	PAGE	3 OF 14
	2 = MODERATE	DATE	
	3 = STRONG	LOGGED BY	
	or % by Vol	TOTAL DEPTH	

LOCATION ROSE BUD, NV AREA _____
NORTHING _____ DRILLING CO. _____ 1-20
EASTING _____ RIG TYPE _____
ELEVATION _____ HOLE SIZE _____
AZIMUTH _____ DOWN HOLE SURVEY BY _____
INCINATION _____

1-200

3/14



Hecla MINING COMPANY ROSEBUD PROJECT DRILL LOG	INTENSITY 1 = WEAK 2 = MODERATE 3 = STRONG or % by Vol	HOLE NUMBER <u>RS-495</u>	PAGE <u>4</u> OF <u>14</u>	LOCATION <u>ROSEBUD, MT</u>	AREA _____	2-300
		DATE _____		NORTHING _____	DRILLING CO. _____	
		LOGGED BY _____		EASTING _____	RIG TYPE _____	
		TOTAL DEPTH _____		ELEVATION _____	HOLE SIZE _____	
				AZIMUTH _____	DOWN HOLE SURVEY BY _____	
				INCLINATION _____		



**ROSEBUD PROJECT
DRILL LOG**

INTENSITY

1 = WEAK
2 = MODERATE
3 = STRONG

HOLE NUMBER R 5-495
PAGE 5 OF 14
DATE _____
LOGGED BY _____
TOTAL DEPTH _____

LOCATION ROSEBUD, SD

LOCATION _____
NORTHING _____
EASTING _____
ELEVATION _____
AZIMUTH _____
INCLINATION _____

AREA _____
DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____

3-400

5/14



**ROSEBUD PROJECT
DRILL LOG**

INTENSITY

1 = WEAK
2 = MODERATE

2 = MODERATE

3 = STRONG

or 8 h.u.

HOLE NUMBER RS-493
PAGE 7 OF 14
DATE _____
LOGGED BY _____
TOTAL DEPTH _____

LOCATION ROSEBUD, WY

NORTHING

NORTHING FASTING

EASTING _____
ELEVATION _____

ELEVATION _____
AZIMUTH _____

AZIMUTH _____
INCLINATION

INCLINATION _____

AREA _____ 5-600
DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____

7/14



Hecla MINING COMPANY ROSEBUD PROJECT DRILL LOG	INTENSITY	HOLE NUMBER	RS-495
	1 = WEAK	PAGE	8 OF 14
	2 = MODERATE	DATE	
	3 = STRONG or % by Vol	LOGGED BY	
	TOTAL DEPTH		

LOCATION ROSE BUD, MT AREA _____ 6-700
NORTHING _____
EASTING _____
ELEVATION _____
AZIMUTH _____
INCLINATION _____ DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____



INTENSITY

1 = WEAK
2 = MODERATE
3 = STRONG

or % by Vol

HOLE NUMBER

PAGE 8 OF 14

DATE _____

LOGGED BY _____

TOTAL DEPTH -

RS-495

LOCATION ROSEBUD, MT

NORTHING

EASTING

ELEVATION

AZIMUTH —

INCLINATION

INTERVIEW

AREA

DRILLING CO.

RIG TYPE

HOLE SIZE

WELL SIZE
DOWN HOLE SURVEY BY

DOWN HOLE SURVEY BY _____

7-800

91



**ROSEBUD PROJECT
DRILL LOG**

INTENSITY

1 = WEAK
2 = MODERATE

2 = MODERATE
3 = STRONG

S = STRONG

HOLE NUMBER RS-495
PAGE 10 OF 14
DATE _____
LOGGED BY _____
TOTAL DEPTH _____

LOCATION ROSEBUD, MT

NORTHING _____
EASTING _____
ELEVATION _____
AZIMUTH _____
INCLINATION _____

AREA _____
DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____

8-900

19
14



Hecla MINING COMPANY ROSEBUD PROJECT DRILL LOG	INTENSITY	HOLE NUMBER <u>R S - 495</u>
	1 = WEAK	PAGE <u>11</u> OF <u>14</u>
	2 = MODERATE	DATE _____
	3 = STRONG	LOGGED BY _____
	or % by Vol	TOTAL DEPTH _____

LOCATION ROSE BUD, MT
NORTHING _____
EASTING _____
ELEVATION _____
AZIMUTH _____
INCLINATION _____

AREA _____
DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____

9-1000 11/14



INTENSITY

WEAK

2 = MODERATE

2 = MODERATE

S = STRONG

or % by vol

10 by 10

HOLE NUMBER

PAGE 12 OF

DATE _____

LOGGED BY _____

MEASURED BY

TITLE OF THE

RS-495

LOCATION ROSEBUD, NV

NORTHING

EASTING _____

ELEVATION

AZIMUTH _____

INCLINATION

INCUBATION _____

AREA -

DRILLING CO.

RIG TYPE

HOLE SIZE _____

DOWN HOLE SU

www.wisegeek.com

MINERALIZA

10 - 1100

12

**ROSEBUD PROJECT
DRILL LOG**



ROSEBUD PROJECT
DRILL LOG

INTENSITY

1 = WEAK
2 = MODERATE
3 = STRONG

HOLE NUMBER

RS4495

PAGE 13 OF 14

DATE _____

LOGGED BY _____

TOTAL DEPTH _____

or % by Vol

LOCATION ROSEBUD, MT

NORTHING _____

EASTING _____

ELEVATION _____

AZIMUTH _____

INCLINATION _____

AREA _____

DRILLING CO. _____

RIG TYPE _____

HOLE SIZE _____

DOWN HOLE SURVEY BY _____

K-1200 13/14

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION						MINERALIZATION						METALLURGY		ANALYTICAL DATA			
						SILICIFICATION 5% 15% +25%	ARGILLIC 5% 15% +25%	PROPYLIC % TYPE CLORE CLOLE I-SPIR KUNIE	POTASSIC % TYPE CLORE CLOLE I-SPIR KUNIE	OXIDATION 5% 15% +25%	VENING % TYPE	SULFIDES 5% 15% +25%	PY % %	COPY % %	MAR % %	X-SUL % %	STIBNITE % %	BARITE % %	OXIDE	SULF	CARBON	W	AU
1100			1070-1105	VIH		0	0											0					
1110			1105-115															0					
1120			same w/ Hem-Ral- Bry. color																				
1130			Hem-Bry. 15 prob. natural color.																				
1140																							
1150																							
1160			1155-1200 same															0					
1170			9.2. 1070 to 1155															Tr					
1180																		0					
1190																		0					
1200				NH		0	0										0						



**ROSEBUD PROJECT
DRILL LOG**

INTENSITY HOLE NUMBER RS-495
1 = WEAK PAGE 14 OF 14
2 = MODERATE DATE _____
3 = STRONG LOGGED BY _____
or % by Vol TOTAL DEPTH 1265 TDR C
Continued as core

LOCATION ROSE BUD, MT
NORTHING _____
EASTING _____
ELEVATION _____
AZIMUTH _____
INCLINATION _____

AREA W. of N. Equinox
DRILLING CO. _____
RIG TYPE _____
HOLE SIZE _____
DOWN HOLE SURVEY BY _____

12-1265TD ~~14~~
~~14~~

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

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

HOLE NUMBER RS-495 LOCATION Gator
 PAGE 1 OF NORTHING
 DATE EASTING
 LOGGED BY Rogowski ELEVATION
 SCALE 1^o=10 AZIMUTH
 TOTAL DEPTH -90 INCLINATION -90

LTH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
1260-1260	X	Gray Rhyolite Flow w/ Flow bands & in part Hem stain along Flow bands & Fract. Has rare bio phenos <1mm	1260		weak fracturing -45°							
1280 to 1296	UNDT	Auto Bx of the same rhyolite. Hem forms veins around many clasts. Numerous banded clasts. Note: Has a white to gray matrix that is the same hardness as clasts. No Hem in matrix clasts from mm to 20cm	1280		weak fracturing -45°							
1296 to 1300.3	UNDT	RHYO, gray - SAME some ABX	1296		weak fracturing -45°							
1300.3 to 1307	UNDT	RHYO AUTO Bx?	1300.3		weak fracturing -45°							
1307 to 1370	UNDT	Ignimbrite (cont.)	1307		weak fracturing -45°							

HOLE NUMBER

RS-495

PAGE 2 OF

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		<p>1307 - 1370. Ignimbrite, + 95% LBT/wr Rhyolite (similar to above) 5% access of other rhyos and rare ALS. Mostly looks clastic w/ occa wispy Fe/magnetic shades of gray & tan clasts often have Hem staining rims. Looks like it was deposited hot. Rare flame or compaction welded texture.</p> <p><u>Not an epiclastic.</u></p> <p>Several black clasts near 1370 could be obsidian or poss ALS.</p> <p>In general it shows moderate welding. Is much more compact nearer 1370</p> <p>1370 - 1373 more typical LBT/wr Rhyoflow with bio and sanddine xls. Phenos near parallel to flow bands</p> <p>1373 - 1383 - could be Ignimbrite or Rhyo Auto Bx (prob auto Bx)</p>				<p>Very weak calcite & Hem stain on fract & as rims on clasts - rarely on flow bands.</p>							

HOLE NUMBER RS-495

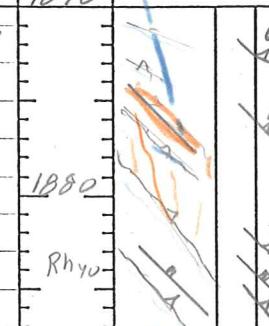
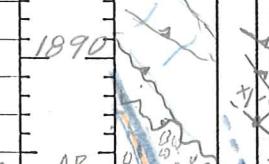
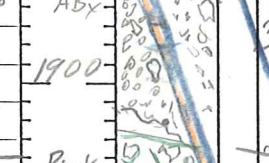
PAGE 3 OF

ITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
LBT/RHOLITE FLOW Red Hem Rims on clasts		<p>Same Rhzo - @ 1452 begins to show auto Brecciation. Noticable Hem stain on rims of clasts. Auto Brecciation becomes more intense with depth.</p> <p>WT calcite also rims clasts, but can also cut them. Calcite is white.</p> <p>Joints are coated with Hem & waxy clay which may also contain chlorite</p>	1450		<p>1452 to 1520 ABX (auto Bx) within the LBT/RH</p> <p>ABx</p> <p>Clor</p> <p>Broken @ 1494.6"</p> <p>Broken @ 1498.5 - 6"</p> <p>Broken @ 1504.6"</p>	<p>1450 to 1520 Very weak to none Reddish-brown Hem. stain rims many clasts</p>						

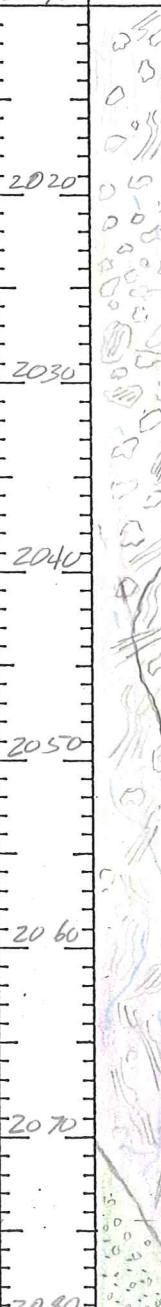
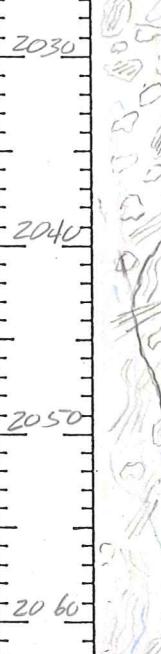
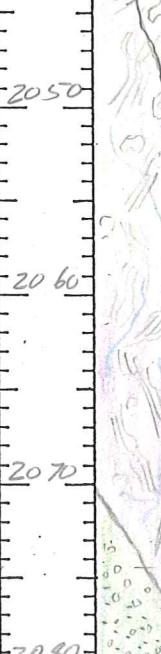
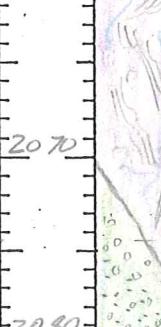
HOLE NUMBER RS-495

PAGE 5 OF

LITH.	OX RED.	LITHOLOGY	FT 1590	GRAPHIC LOG S0S0CaAP-KClH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
		1590 - 1656 LBT/WR Auto BX Very same as above. Drk gray Rhyo Clasts in a rhyo matrix with micro clasts & rhyo flow	1600		same ABx as above		1590 to					
		Clasts in Auto BX are small ± 1mm to ± 15cm. Clasts are irregular and ± 90% angular. They are often rimmed by hem. that looks like alteration.	1610		Fractures follow clasts, form most breaks		1660					
		Calcite is rare but is found on rims of clasts w/ hem & along fract & joints that cut clasts	1620				LITTLE to no alt. except for weak Hem rims					
		@ 1656 ABx stops & is a similar to clasts Rhyo with very few fractures or alteration color is drk. gray. at a few places there is a hint of micro fracturing <1cm parallel to flow bands	1630		Broken @ 1623 to 1628							
		ABx	1640									
			1650									
			1660		Contact @ 1656 is Sharp							

LITH.	OX RED.	LITHOLOGY	FT 1870	GRAPHIC LOG SOXSUCAAP-KCl/H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		1864.5 to 1893.5 Flow Banded Rhyolite, med to Lt gray, mottled Lt & drk along flow bands. Strong calcite along some flow bands & joints, Hem also.	1880			1864.5 - 1893.5 weak chlor confined to fract, joints & flow bands also in close assoc w/ calcite & some Hemstain. Overall weakly propylitized							
			1890			Trail of Py w/ calcite @ 1873							
		@ 1897 is a gray clay & Bx frags fault zone. Not clear of angle to hole but upper contact may be 20° Could be a large structure	1900		NOTE: ABX is not Fault related	@ 1897 have 1st fault young gray clay + Bx upper contacts +/- 20° to hole							
			Pink Ryo			@ 1902 is irreg contact							
			1910			1906 - 1907? Broken core - looks broken during drilling?							
		1902 to 1907 - An Auto Bxed Rhyolite, pinkish to mottled pale green, has numerous tension fract? that show a preference to chlorite Calcite is confined to joints. Not flow banded from 1902 to	1920			1907 - weak propylitic alteration, chlor on fx Sfc ± Oxide on fr Sfc. Bl Green to pinkish mottles are calcareous ± Calcite in fx's							
		1907 - 1933 Rhyolite, Mottled Purple Gray with Pinkish to Bl Green Auto bid to flow banded. Chlorite cill + tension fr. Some oxide on fx Sfc's increasing at 1928	1930										
			1940				1920						
							1933						
							IOP						

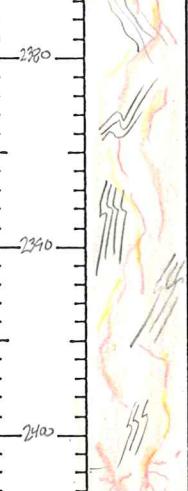
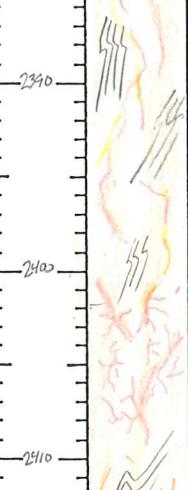
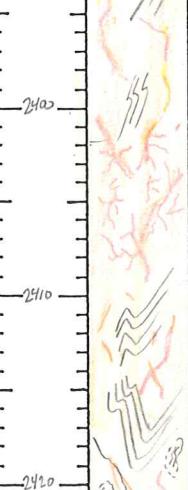
LITH.	OX/ RED.	LITHOLOGY	FT 1940	GRAPHIC LOG SOxSuCaAP+KCl/H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		1933 - 1962 Rhyl flow - Mottled Purplish-Grey with Pinkish to Pale Green, thin flow banded w/ minor auto brecciation. Chlrl filled fiss (tension fiss)	1933	1962	1933 - 1962 Minor Jointing as shown.	1933 - 1976 Weakly Prop. Lt colored areas are calcareous Calcite Oxides on Joint SFC Chlor in tension fiss.	1933	-					
		1962 - 1980. Same - becomes pinkish green (pale) mottled w/ purplish-grey. Increasing auto brecciation	1962	1980	1933.6 - 1/2" bxa between joints Not a fault - flows formed?	1962 - 1970 - Becomes More bleached. Weakly Propylitized Minor Calcite Some oxides on fractures and in flow banding.	1962	-	ICP				
		1980 - 2010 Same - auto brecciation increases to predominant texture	1980	2010	1980 - 2010 Jointing rare	1970 - 2000 - Weak to mod Propylitic alteration less oxides less chlor.	1970	-	1970 ICP				
			1990				1990	-	ICP				
			2000				2000	-					
			2010				2010	-					

LITH.	OX/ RED.	LITHOLOGY	FT 20/10	GRAPHIC LOG SOXSUCAAP,KClH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2010 - 2070 Rhylol flow Purplish-Grey w/ Pinkish to pale Green mottling.	2020		2010 - 2070 Joint Non-existent art. Some rock cleavage along flow banding.	2010 - 2070 Weakly propylitized, I calcar No oxides. No Chlor. Some Vtg. Calc. Veins at 2050-2080	2000	-					
		2010 - 2040 Auto brecciated, Some brc clasts show flow banding.	2030				2040	-					
		2040 - 2070 flow banded w/ Auto brecciation	2040			2045 - Joint 90° to CA NO coating	2040	-					
			2050				2070	-					
			2060				JCP						
		2060-2070 becomes Purplish Grey	2070			2060-2070 Almost no alteration	2070	-					
TOS		TOS Like Lt Green to Green Heterolithic Coarse Sand to Medium pebble gravel, sand structures tend to be well sorted and pebble fractions tend to be poorly sorted	2080				2070	2074.7					
							2074.7	2080					
							JCP						

LITH.	OX/ RED.	LITHOLOGY	FT 2150	GRAPHIC LOG SOXSUCAAP+KCIH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
		2110 - 2317.4 TC Formation Cont. See Pg. 13										
			2160			2153 Joints with $\text{CaCO}_3 \pm \text{W.C.}$		2150.3	2166	ICP		
			2170			2166 - 2230 Plus xtals are less common and replaced by chlorite w/ CaCO_3 . Increase in chlorite filled vesicles.						
			2180					2166	2187	ICP		
			2190			2187 - 2189 Joints. 25°CA w/ dk grey micro xthalline sulfides \pm Calcite \pm W.C. \pm Silica		2187	2189	ICP Au Ag		
		2200 - few pieces of broken core are obsidian?	2200					2189	2215	ICP		
			2210									
			2220			2218.7 Small fault w/ shales broken core w/ abund. Calcite		226	2220			

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG S OX Su Ca AP + KC I H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA					
							FROM	TO	W	Au	Ag	Au2
		- 2317.4' - Tc Formation, Gorilla Porphyry Dike/sill Abundant Glomeroporphyritic plagioclase phenocrysts and moderately common small vesicles filled w/ dk green chloritic clay + calcite. Plagioclase are commonly replaced w/ calcite.	2220				2220					
			2230									
			2240				2240					
			2250									
			2260				2260	2260				
			2270									
			2280				2267.8	2267.8				
			2290				2267.8	2270.3				
							2270.3	2280				
							2280	2285				
							2285	2290				

LITH.	OX/ RED.	LITHOLOGY	FT	GRAPHIC LOG S-OxSuCaAp-KClH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
			2300			2309.2 - 2310' - Argillation & Breaching Begins to increase minor Pyrite In white clay fractures @ 20° to Ca. Pyrite in 2 phases 1) margins of fracture Fe slightly grey pyrite, 2) center of fracture beds very coarse grained pyrite.	2290	2295					
			2310			2310' - 2311.6' - Moderate Argillation & Breaching, Minor pyrite & calcite Clay & Calc.	2300	2305					
		2317.4 - 2322.1' - Propylitized Tos, volcanic Epiclastic w/clasts of plgs phyllites. Looks like an Ash flow tuff.	2310			2311.6 - 2316.3' - MODERATELY STRONG Argillation w/ moderately strong Pyrite & Calc. filled fractures & disseminated Py. @ 10-30° to Ca	2305	2309.2					
		2322.1 - 2330.4' - INTRUSIVE BX? Auto BX? w/clasts of the Flow bands unit described below.	2320			2316.3 - 2317.4' - STRONG Argillation + 10-30° to Ca Py Veinlets.	2309.2	2310					
		2330.4' - Flow Bands, Rhythmic Flow / Intrusive contains Tight Flowbands, some contorted & contains minor Selenites. Is it? Dider?	2330			2317.4 - 2322.1' - CHEMICALLY ACT w/ minor porphyry.	2310	2311.6					
			2340			2322.1 - 2323.2' - moderate grey pyrite/grey sulfide streaks.	2316.3	2317.4					
			2350			2323.2 - 2324.9' - Propylitized + white Clay veinlets @ 20° to Ca w/ disseminated Pyrite blobs.	2317.4	2317.9					
			2360			2322.1' - Intensive Contract. @ ± 80° to Ca	2323.2	2324.9					
						2324.9 - 2330.4' - minor bleaching w/ minor white clay veinlets @ 40- 0° to Ca. minor pyrite blobs. White clay veinlets contain pyritization pyrite stals w/ trace amounts of pyrope & pyroxenite. + magnetite.	2324.9	2330.4					
						* 2330.4 - 2332.6' - Strong S102 + white clay veins. Clay veins @ 0-20° to Ca, contains trace magnetite (thin steel) & pyrope.	2330.4	2332.6					
						* 2332.6 - 2336.7' - moderately strong S102 + strong white clay veins @ 0-20° to Ca w/ trace magnetite + pyrope.	2332.6	2336.7					
						2336.7 - 2342.3' - moderate S102 + minor to moderate white clay veins + magnetite.	2336.7	2342.3					
						2342.3 - 2343.4' - Moderate S102 + w.c. veins + pyrite blobs.	2342.3	2348.4					
						2343.4 - 2351' - Weak S102 + w.c. coatings on felsic laminas. + pyrite blobs. Weak to mod argillation broken core. But trace micro-crystalline pyrite?	2348.4	2351					
							2351'	2356					
							2356	2361					

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG S O X S u C a A P r K C l H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2322.1 - Rhyolite flow conites.	2370			2351 - 2375.5 weak SiO2 ± w.c. coating on fx. SSc and rare cleavage. weak argillization + Py xtals disseminated ~5%	2361	2366					
			2380			2375.5 - 2380 SiO2 absent slight inc. in Argill. w.c., Py continue.	2366	2374					
			2390			2380 - 2408.8 V. weak SiO2, Abund. High & PyL ± w.c. filled Jants. Veins. Weakly argillized ± small druzy Qtz vugs	2374	2380					
			2400				2380	2390					
			2410			2390 - 2408.8 Slight increase in bleaching Drake Veins are smaller and more numerous - "spider web look"	2390	2402					
		2415 - 2430 - Some brecciation of laminations. Autobreccia?	2420			2408.8 - 2433.3 V. weak Silicification, some fx w/ Py ± w.c.	2406	2408.8					
			2430			2412.5 - Bleaching decreases.	2408.8	2412.5					
						2420 - 2430 Some broken core w/ w.c. on fx SSc. Irregular joints. High & 10-20° to CA	2412.5	2420					
							2420	2425					
							2425	2430					

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG S O X Su Ca A P + K C I / H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2322.1 - Rhyolite flows continues					2430	2435					
		2433 - 2449 - flow banding is more regular and out 55-70° to CA	2440				2435	2440					
		2449 - 2458 - Increasing disruption of flow banding	2450				2440	2445					
			2460				2445	2450					
		2468.4 - 2481 Yellowish w/ grey mottles, Some flow banding visible in occasional float.	2470				2450	2458.3					
			2480				2454.3	2458.6					
		2481 - 2501 - Pale Grey - Massive to v. faint Planar laminar, texture under Microscope looks like a tuft. Some areas have crackle breccia texture.	2490				2454.3	2458.6					
			2500				2458.6	2459.7					
							2459.7	2464					
							2461	2468.4					
							2468.4	2475					
							2475	2481					
							2481	2484.5					
							2481	2484.5					
							2481	2490					
							2490	2495.1					
							2495.1	2501					

HOLE NUMBER

RS - 495

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OF

LITH.	OX/ RED.	LITHOLOGY	FT	GRAPHIC LOG S OX SUA AP KC JH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2322.1 - Rhyolite flow continues				2501 - 2508							
		2501 - 2516 - Pale Gray, Massive to v. faint Planar Lamellar (TUFF)	2510		Jointed 4-8/ft Parallel to flow banding 50-70°	2508 - 2516	Same + more crackle breccia. Matrix is devitrified Qtz? Some Green Clay/Chlorite. In the core is broken Pyrite blobs up to 1".	2501	2508				
		2516 - 2556 - Pale Gray, flow banded.				2516 - 2556	Same, minor crackle breccia disseminated Pyrit xts 2% v.fine Pyrit blobs to 1.5"	2508	2516.1				
			2520					2516.1	2521				
			2530					2521	2526.5				
			2540					2526.5	2531.5				
			2550					2531.5	2536.9				
		2556 - 2568 - Pale Gray Fine-Grained MASSIVE.			Joints <1/ft 70-80°	2556 - 2568	Joints coated w/ Pyrit xts diss. Py xts 3-5%, None to v. weak Silicification, weakly Argillized.	2536.9	2541.5				
			2560					2541.5	2547.4				
			2570					2547.4	2552.4				
								2552.4	2556.0				
								2556.0	2562.6				
								2562.6	2568				

HOLE NUMBER

RS-4195

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LITH.	OX/ RED.	LITHOLOGY	FT	GRAPHIC LOG S-Ox-Su-Ca-Ap-KCl-H	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2322.1 - 2660 Rhyolitic Flow Continues											
			2660										
		2660 (Gradational) to 2677. TDS like. Fining upward sequence, poorly sorted pebble conglomerate at base w/ clasts to 1/2". Green grades upward to a medium sand to fine sand to silt sand to pebble clasts in sub-angular.	2660				2640	2650					
			2670				2650	2655					
		2677 - 2717.2 Flow banded Rhyolite. Pale grey w/ grey flow bands	2680				2655	2660					
			2690				2660	2665					
			2700				2665	2670					
			2710				2670	2677					
							2677	2680					
							2680	2690					
							2690	2693.5					
							2693.5	2703.5					
							2703.5	2708					

LITH.	OX RED.	LITHOLOGY	FT	GRAPHIC LOG SOXSUCAAP,KClH	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA						
							FROM	TO	W	Au	Ag	Au2	Ag2
		2677 - 2717.2 Rhyolitic flow continues as described previous page.					2708	2713					
		2717.2 - 2761 ALS					2713	2717.2					
ALS		Dark Grey Phyllites, closely fractured along bedding. Abundant graphitic fx SFC's	2720	SSS (blue) X (black) A (grey)	50° 40°	2717.2 - 2761 Rock is closely fractured along bedding and along a 50-60° CA direction	2717.2 - 2761 Moderately calcareous, w/ abundant calc in veins and as coating on bedding planes and fractures. + pyrite in blebs and in some calc filled joints.	2717.2	2721				
			2730	SSS (blue)			2726	2736.6					
			2740	X (black) K (grey)	60° 60°		2736.6	2743.2					
			2750	SSS (blue)			2743.2	2750					
			2760	SSS (blue)			2750	2761					

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057388

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

HECLLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: RS-495-00

RECEIVED : 11 MAY 2000

No. SAMPLES : 131

REPORTED : 19 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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E Mackeson B.S.

Page : 1

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057388

CLIENT : HECLA MINING COMPANY
 PROJECT : ROSEBUD
 REFERENCE : RS-495-00
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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495-00 1290-1310						
RS-495-00 1340-1360						
RS-495-00 1390-1410						
RS-495-00 1440-1460						
RS-495-00 1490-1510						
RS-495-00 1540-1560						
RS-495-00 1590-1610						
RS-495-00 1640-1660						
RS-495-00 1690-1710						
RS-495-00 1740-1754						
RS-495-00 1790-1810						
RS-495-00 1840-1860						
RS-495-00 1875-1895						
RS-495-00 1897-1898	26		<0.001		1.1	0.03
RS-495-00 1900-1920						
RS-495-00 1920-1933						
RS-495-00 1933-1962						
RS-495-00 1962-1970						
RS-495-00 1970-2000						
RS-495-00 2000-2040						
RS-495-00 2040-2070						
RS-495-00 2070.0-2074.7						
RS-495-00 2074.7-2080.0						
RS-495-00 2080-2105						
RS-495-00 2105-2115						

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495-00 2115-2136						
RS-495-00 2136-2137	<5		<0.001		<0.5	<0.02
RS-495-00 2137.0-2148.3						
RS-495-00 2148.3-2150.3	152		0.004		1.5	0.04
RS-495-00 2150.3-2166.0						
RS-495-00 2166-2187						
RS-495-00 2187-2189	<5		<0.001		0.8	0.02
RS-495-00 2189-2215						
RS-495-00 2215-2220						
RS-495-00 2220-2240						
RS-495-00 2240-2260						
RS-495-00 2260.0-2267.8						
RS-495-00 2267.8-2270.3	<5		<0.001		0.8	0.02
RS-495-00 2270.3-2280.0						
RS-495-00 2280-2285		SAMPLE NOT RECEIVED				
RS-495-00 2285-2290						
RS-495-00 2290-2295	11		<0.001		<0.5	<0.02
RS-495-00 2295-2300	32		<0.001		<0.5	<0.02
RS-495-00 2300-2305	<5		<0.001		<0.5	<0.02
RS-495-00 2305.0-2309.2	<5		<0.001		<0.5	<0.02
RS-495-00 2309.2-2310.0	33		<0.001		0.8	0.02
RS-495-00 2310.0-2311.6	35		0.001		<0.5	<0.02
RS-495-00 2311.6-2316.3	60	62	0.002	0.002	1.8	0.05
RS-495-00 2316.3-2317.4	62		0.002		1.6	0.05
RS-495-00 2317.4-2317.9	57		0.002		6.9	0.20

AMERICAN ASSAY LABORATORIES

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SAMPLES		Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495-00	2317.9-2322.1	65		0.002		1.8	0.05
RS-495-00	2322.1-2323.2	35		0.001		1.6	0.05
RS-495-00	2323.2-2324.9	50		0.001		1.7	0.05
RS-495-00	2324.9-2330.4	55		0.002		1.8	0.05
RS-495-00	2330.4-2332.6	161		0.005		3.5	0.10
RS-495-00	2332.6-2336.7	76		0.002		2.6	0.08
RS-495-00	2336.7-2342.3	119		0.003		3.3	0.10
RS-495-00	2342.3-2348.4	65		0.002		2.8	0.08
RS-495-00	2348.4-2351.0	79		0.002		2.1	0.06
RS-495-00	2351-2356	52		0.002		2.2	0.06
RS-495-00	2356-2361	44		0.001		2.1	0.06
RS-495-00	2361-2366	75		0.002		3.5	0.10
RS-495-00	2366-2374	67		0.002		2.9	0.08
RS-495-00	2374-2380	70		0.002		3.8	0.11
RS-495-00	2380-2390	106		0.003		2.7	0.08
RS-495-00	2390-2400	55		0.002		2.3	0.07
RS-495-00	2400.0-2408.8	95		0.003		2.2	0.06
RS-495-00	2408.8-2412.5	18		<0.001		0.7	0.02
RS-495-00	2412.5-2420.0	31		<0.001		0.7	0.02
RS-495-00	2420-2425	42		0.001		1.3	0.04
RS-495-00	2425-2430	50		0.001		1.5	0.04
RS-495-00	2430-2435	29		<0.001		0.7	0.02
RS-495-00	2435-2440	32		<0.001		0.5	<0.02
RS-495-00	2440-2445	33	30	<0.001	<0.001	<0.5	<0.02
RS-495-00	2445-2450	33		<0.001		<0.5	<0.02

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495-00 2450.0-2454.3	23		<0.001		0.6	<0.02
RS-495-00 2454.3-2458.6	305		0.009		3.3	0.10
RS-495-00 2458.6-2459.7	1031		0.030		7.1	0.21
RS-495-00 2459.7-2464.0	362		0.011		4.3	0.13
RS-495-00 2464.0-2468.4	184		0.005		2.3	0.07
RS-495-00 2468.4-2475.0	118	118	0.003	0.003	1.8	0.05
RS-495-00 2475-2481	118		0.003		1.5	0.04
RS-495-00 2481.0-2484.5	87		0.003		1.8	0.05
RS-495-00 2484.5-2490.0	20		<0.001		0.5	<0.02
RS-495-00 2490.0-2495.1	20		<0.001		0.7	0.02
RS-495-00 2495.1-2501.0	18		<0.001		<0.5	<0.02
RS-495-00 2501-2508	18		<0.001		0.6	<0.02
RS-495-00 2508.0-2516.1	51		0.001		1.2	0.04
RS-495-00 2516.1-2521.0	49		0.001		1.0	0.03
RS-495-00 2521.0-2526.5	33	24	<0.001	<0.001	<0.5	<0.02
RS-495-00 2526.5-2531.5	71		0.002		0.9	0.03
RS-495-00 2531.5-2536.9	49		0.001		1.2	0.04
RS-495-00 2536.9-2541.5	47		0.001		1.6	0.05
RS-495-00 2541.5-2547.4	20		<0.001		3.3	0.10
RS-495-00 2547.4-2552.4	53		0.002		1.1	0.03
RS-495-00 2552.4-2556.0	37		0.001		1.1	0.03
RS-495-00 2556.0-2562.6	10		<0.001		<0.5	<0.02
RS-495-00 2562.6-2568.0	<5		<0.001		<0.5	<0.02
RS-495-00 2568.0-2574.5	<5		<0.001		<0.5	<0.02
RS-495-00 2574.5-2578.5	38		0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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SAMPLES		Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495-00 2578.5-2584.0		89		0.003		<0.5	<0.02
RS-495-00 2584.0-2587.5		<5		<0.001		<0.5	<0.02
RS-495-00 2587.5-2589.0		<5		<0.001		<0.5	<0.02
RS-495-00 2589-2594		6		<0.001		<0.5	<0.02
RS-495-00 2594.0-2599.4		<5		<0.001		<0.5	<0.02
RS-495-00 2599.4-2606.2		16		<0.001		0.5	<0.02
RS-495-00 2606.2-2611.5		33		<0.001		0.8	<0.02
RS-495-00 2611.5-2614.5		21		<0.001		1.1	<0.03
RS-495-00 2614.5-2620.0		12		<0.001		<0.5	<0.02
RS-495-00 2620-2630		<5		<0.001		<0.5	<0.02
RS-495-00 2630.0-2637.6		31		<0.001		0.6	<0.02
RS-495-00 2637.6-2640.0		35		0.001		0.7	<0.02
RS-495-00 2640-2650		50		0.001		0.7	<0.02
RS-495-00 2650-2655		14		<0.001		0.5	<0.02
RS-495-00 2655-2660		51		0.001		0.8	<0.02
RS-495-00 2660-2665		<5		<0.001		<0.5	<0.02
RS-495-00 2665-2670		<5		<0.001		<0.5	<0.02
RS-495-00 2670-2677		8		<0.001		<0.5	<0.02
RS-495-00 2677-2680		68		0.002		1.8	0.05
RS-495-00 2680-2690		41		0.001		0.5	<0.02
RS-495-00 2690.0-2698.5		49		0.001		0.8	0.02
RS-495-00 2698.5-2703.5		36		0.001		<0.5	<0.02
RS-495-00 2703.5-2708.0		29	20	<0.001	<0.001	<0.5	<0.02
RS-495-00 2708-2713		19		<0.001		<0.5	<0.02
RS-495-00 2713.0-2717.2		14		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SPO57388

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00
REPORTED : 19 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)	
RS-495-00 2717.2-2721.0	52		0.002		4.8	0.14	
RS-495-00 2721-2726	30		<0.001		3.3	0.10	
RS-495-00 2726.0-2736.6	41		0.001		3.1	0.09	
RS-495-00 2736.6-2743.2	31		<0.001		5.0	0.15	
RS-495-00 2743.2-2750.0	36		0.001		5.0	0.15	
RS-495-00 2750-2761	53	56	0.002	0.002	3.8	0.11	
34754		5584		0.163		59.2	1.73

AMERICAN ASSAY LABORATORIES
PROVISIONAL REPORT SPO56949

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RENO NV, USA
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HENCLIA MINING COMPANY

COPIES TO : KURT ALLEN

:

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:

CLIENT REFERENCE No: RS-495 0-1260

RECEIVED : 10 APR 2000

No. SAMPLES : 64

REPORTED : 24 APR 2000

MAIN SAMPLE TYPE : DRILL CUTTINGS

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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackendom P.G.S.

Page : 1

AMERICAN ASSAY LABORATORIES
PROVISIONAL REPORT SP056949

CLIENT	: HECLA MINING COMPANY
PROJECT	: NORTH EQUINOX
REFERENCE	: RS-495 O-1260
REPORTED	: 24 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495 0000-0020	25		<0.001		<0.5	<0.02
RS-495 0020-0040	<5		<0.001		<0.5	<0.02
RS-495 0040-0060	<5		<0.001		<0.5	<0.02
RS-495 0060-0080	<5		<0.001		<0.5	<0.02
RS-495 0080-0100	<5		<0.001		<0.5	<0.02
RS-495 0100-0120	<5		<0.001		<0.5	<0.02
RS-495 0120-0140	<5		<0.001		<0.5	<0.02
RS-495 0140-0160	<5		<0.001		<0.5	<0.02
RS-495 0160-0180	<5		<0.001		<0.5	<0.02
RS-495 0180-0200	<5		<0.001		<0.5	<0.02
RS-495 0200-0220	<5		<0.001		<0.5	<0.02
RS-495 0220-0240	<5		<0.001		<0.5	<0.02
RS-495 0240-0260	<5		<0.001		<0.5	<0.02
RS-495 0260-0280	<5		<0.001		<0.5	<0.02
RS-495 0280-0300	<5		<0.001		<0.5	<0.02
RS-495 0300-0320	<5		<0.001		<0.5	<0.02
RS-495 0320-0340	<5		<0.001		<0.5	<0.02
RS-495 0340-0360	<5		<0.001		<0.5	<0.02
RS-495 0360-0380	<5		<0.001		<0.5	<0.02
RS-495 0380-0400	<5		<0.001		<0.5	<0.02
RS-495 0400-0420	<5		<0.001		<0.5	<0.02
RS-495 0420-0440	<5		<0.001		<0.5	<0.02
RS-495 0440-0460	<5		<0.001		<0.5	<0.02
RS-495 0460-0480	<5		<0.001		<0.5	<0.02
RS-495 0480-0500	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056949

CLIENT : HECLA MINING COMPANY
 PROJECT : NORTH EQUINOX
 REFERENCE : RS-495 0-1260

REPORTED : 24 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495 0500-0520	<5		<0.001		<0.5	<0.02
RS-495 0520-0540	<5		<0.001		<0.5	<0.02
RS-495 0540-0560	<5		<0.001		<0.5	<0.02
RS-495 0560-0580	<5		<0.001		<0.5	<0.02
RS-495 0580-0600	<5		<0.001		<0.5	<0.02
RS-495 0600-0620	<5		<0.001		<0.5	<0.02
RS-495 0620-0640	<5		<0.001		<0.5	<0.02
RS-495 0640-0660	<5		<0.001		<0.5	<0.02
RS-495 0660-0680	<5		<0.001		<0.5	<0.02
RS-495 0680-0700	<5		<0.001		<0.5	<0.02
RS-495 0700-0720	<5		<0.001		<0.5	<0.02
RS-495 0720-0740	<5		<0.001		<0.5	<0.02
RS-495 0740-0760	<5		<0.001		<0.5	<0.02
RS-495 0760-0780	<5		<0.001		<0.5	<0.02
RS-495 0780-0800	<5		<0.001		<0.5	<0.02
RS-495 0800-0820	<5		<0.001		<0.5	<0.02
RS-495 0820-0840	<5		<0.001		<0.5	<0.02
RS-495 0840-0860	<5		<0.001		<0.5	<0.02
RS-495 0860-0880	<5		<0.001		<0.5	<0.02
RS-495 0880-0900	<5		<0.001		<0.5	<0.02
RS-495 0900-0920	<5		<0.001		<0.5	<0.02
RS-495 0920-0940	<5		<0.001		<0.5	<0.02
RS-495 0940-0960	<5		<0.001		<0.5	<0.02
RS-495 0960-0980	<5		<0.001		<0.5	<0.02
RS-495 0980-1000	<5		<0.001		<0.5	<0.02

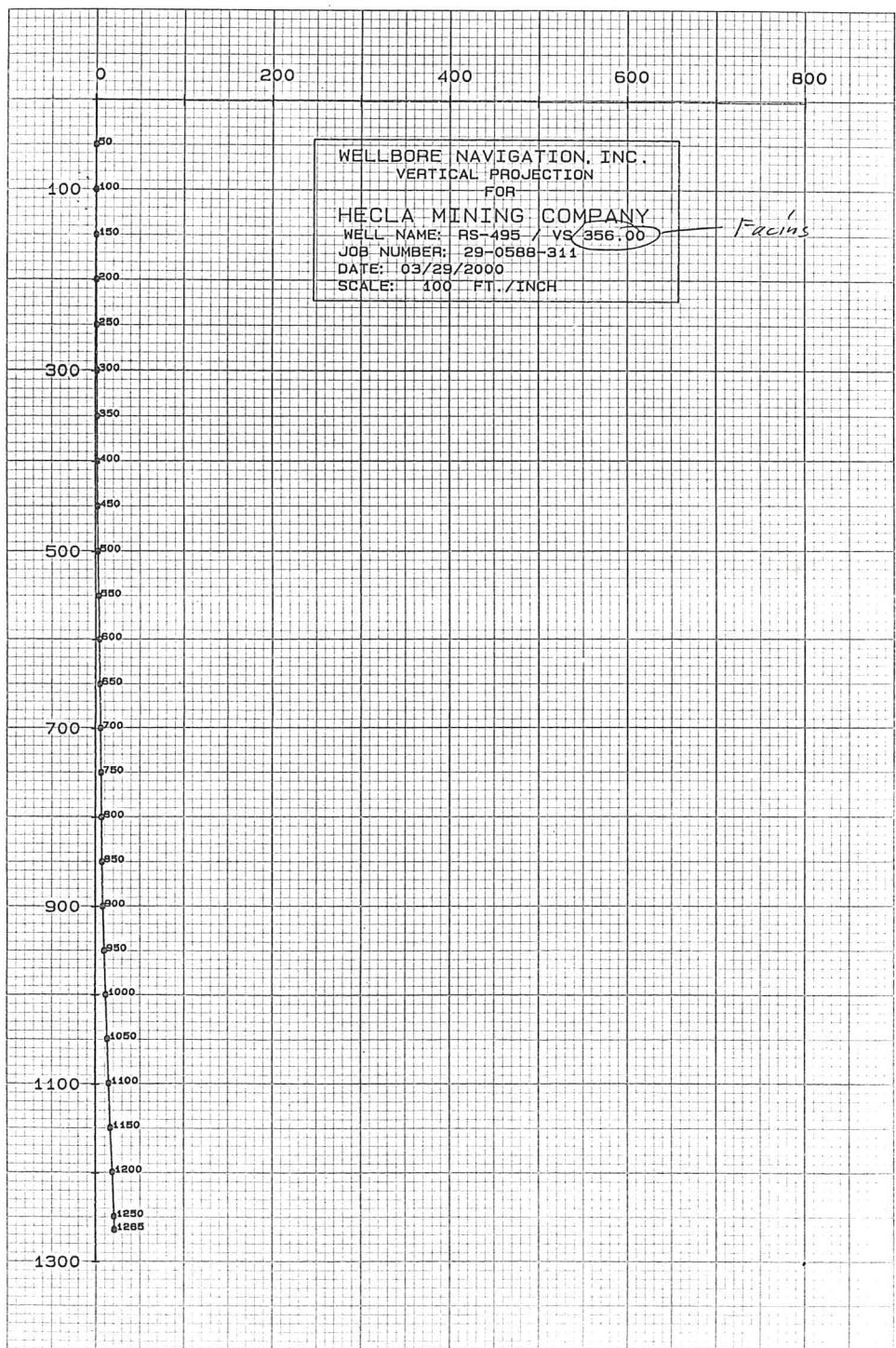
AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056949

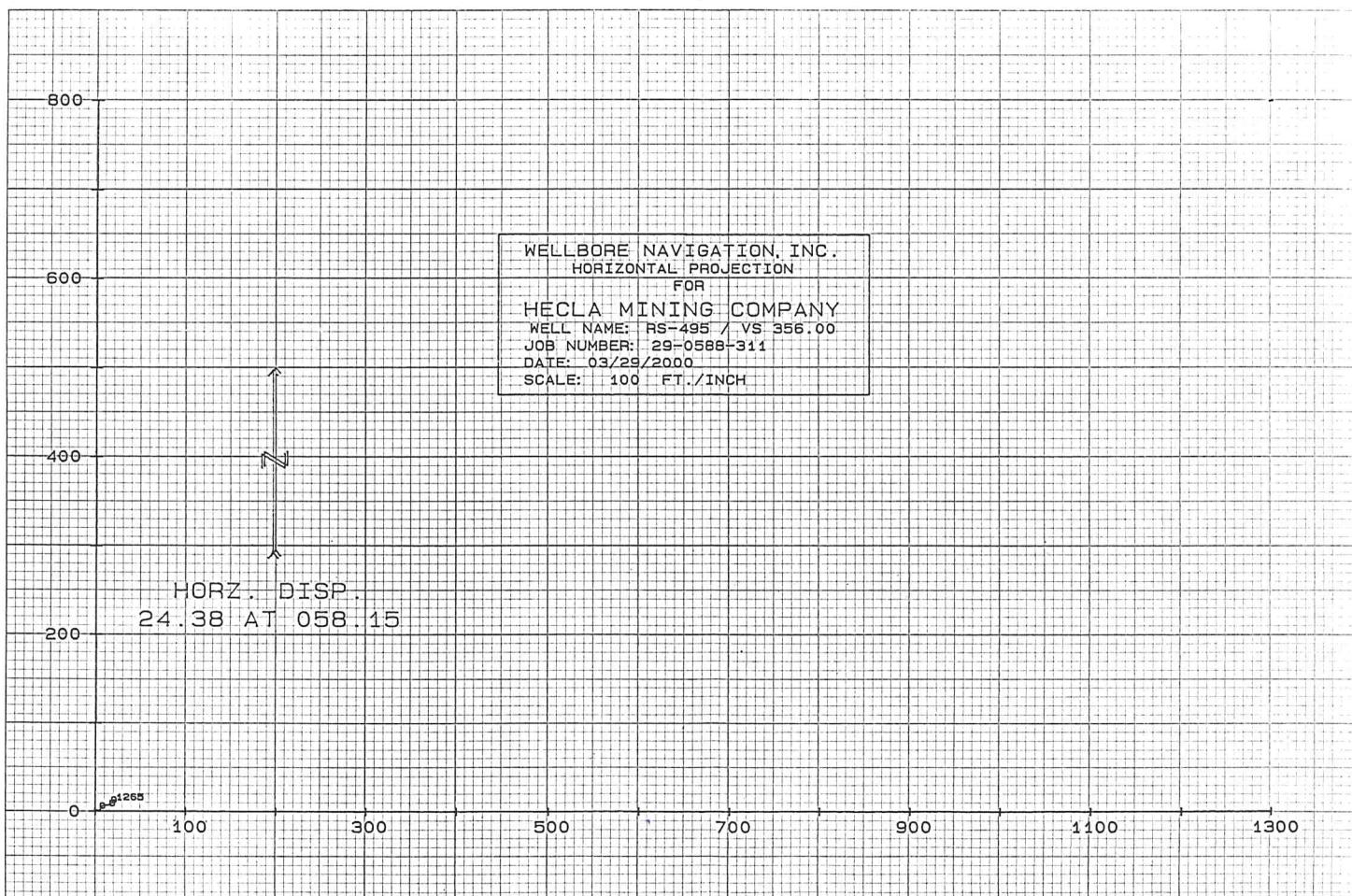
CLIENT : HECLA MINING COMPANY
PROJECT : NORTH EQUINOX
REFERENCE : RS-495 O-1260

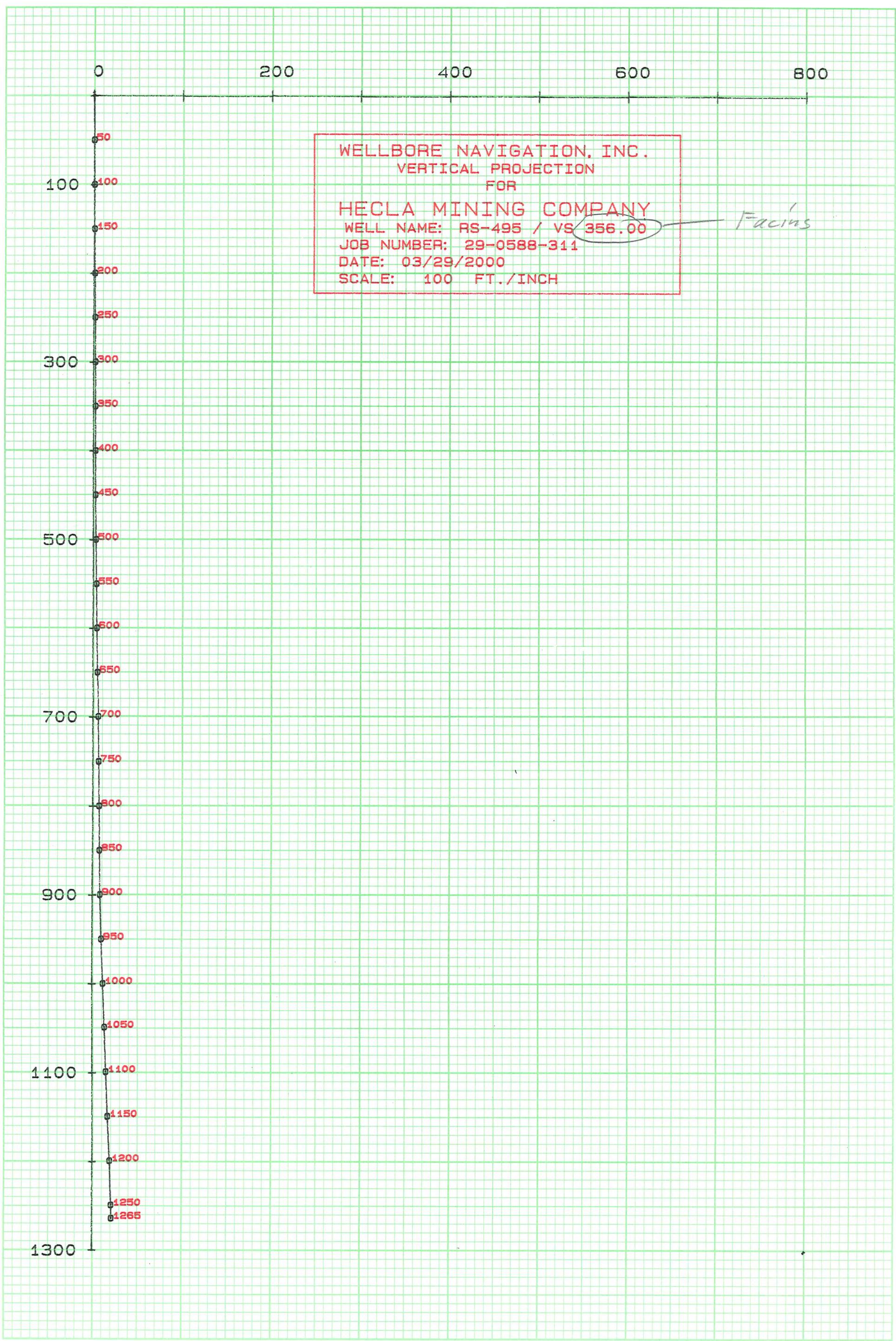
REPORTED : 24 APR 2000

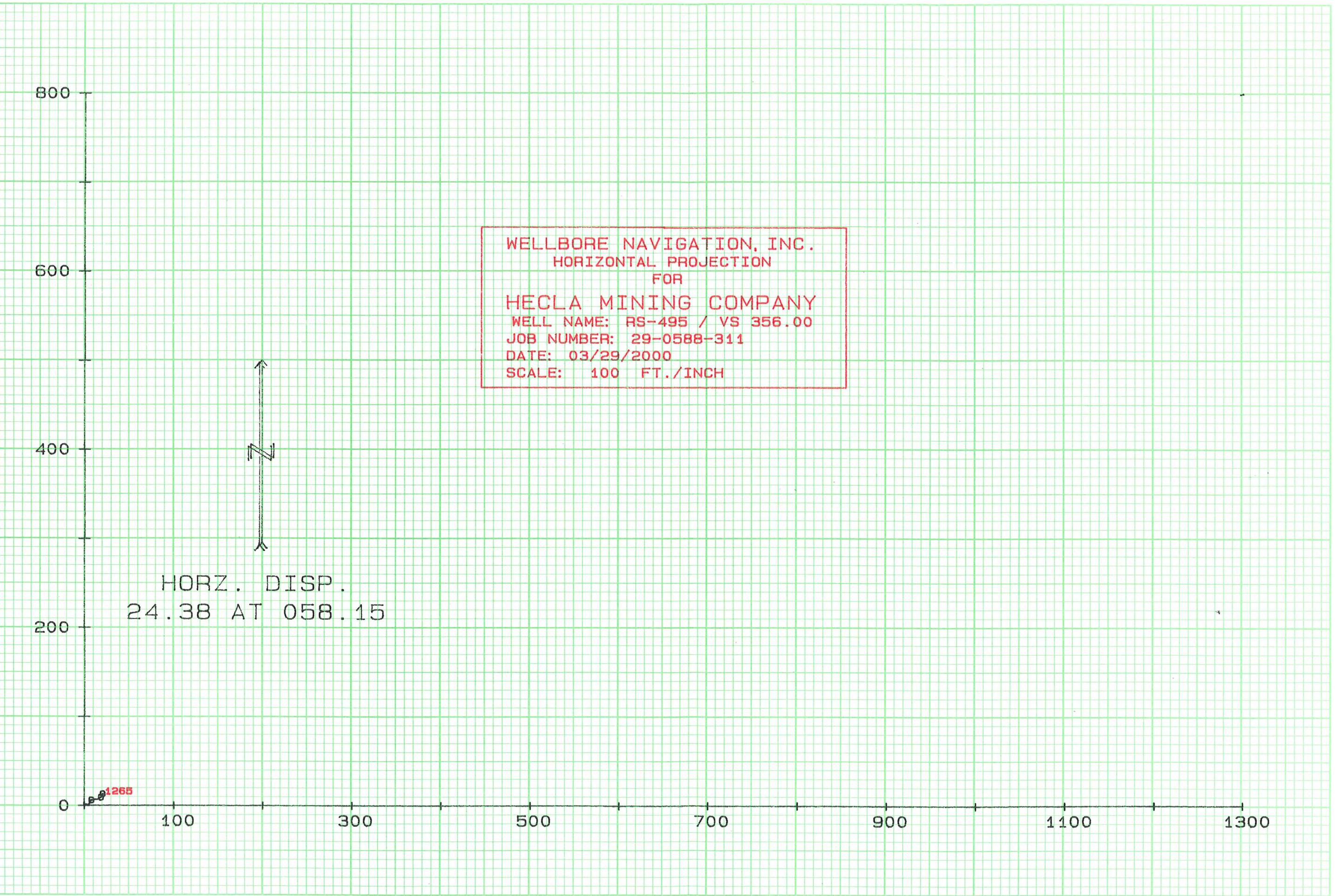
SAMPLES		Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-495	1000-1020	<5		<0.001		<0.5	<0.02
RS-495	1020-1040	<5		<0.001		<0.5	<0.02
RS-495	1040-1060	<5		<0.001		<0.5	<0.02
RS-495	1060-1080	<5		<0.001		<0.5	<0.02
RS-495	1080-1100	<5		<0.001		<0.5	<0.02
RS-495	1100-1120	<5		<0.001		<0.5	<0.02
RS-495	1120-1140	<5		<0.001		<0.5	<0.02
RS-495	1140-1160	<5		<0.001		<0.5	<0.02
RS-495	1160-1180	<5		<0.001		<0.5	<0.02
RS-495	1180-1200	<5		<0.001		<0.5	<0.02
RS-495	1200-1220	<5		<0.001		<0.5	<0.02
RS-495	1220-1240	<5		<0.001		<0.5	<0.02
RS-495	1240-1260	<5		<0.001		<0.5	<0.02
89645		5050		0.147		59.9	1.75



495 1" = 200'







WELLBORE NAVIGATION, INC.
WINNEMUCA, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

* HECLA MINING COMPANY *

JOB NUMBER: 29-0588-311

WELL NAME: RS-495 / VS 356.00

LOCATION: ROSEBUD MINE / NORTH EQUINOX

SURVEY DATE: 03/29/2000

SURVEY ENGINEER: VERN REID

GYRO REFERENCE BEARING: TRUE NORTH

TIE-ON COORDINATES AT: 0 M.D.

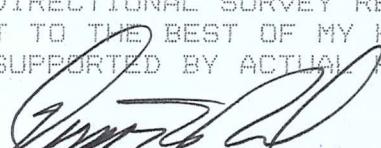
TAKEN FROM: COLLAR

VERTICAL SECTION CALCULATED IN A
PROPOSAL DIRECTION OF: 086.00
WATER CONTACT= 409'

DEPTH MEASURED IN FEET

THIS DIRECTIONAL SURVEY REPORT IS
CORRECT TO THE BEST OF MY KNOWLEDGE
AND IS SUPPORTED BY ACTUAL FIELD DATA!

COMMENTS: EKLUND
DON SCHOORL


COMPANY REPRESENTATIVE

WELLCORE NAVIGATION, INC.
WINNEMUCCA, NEVADA

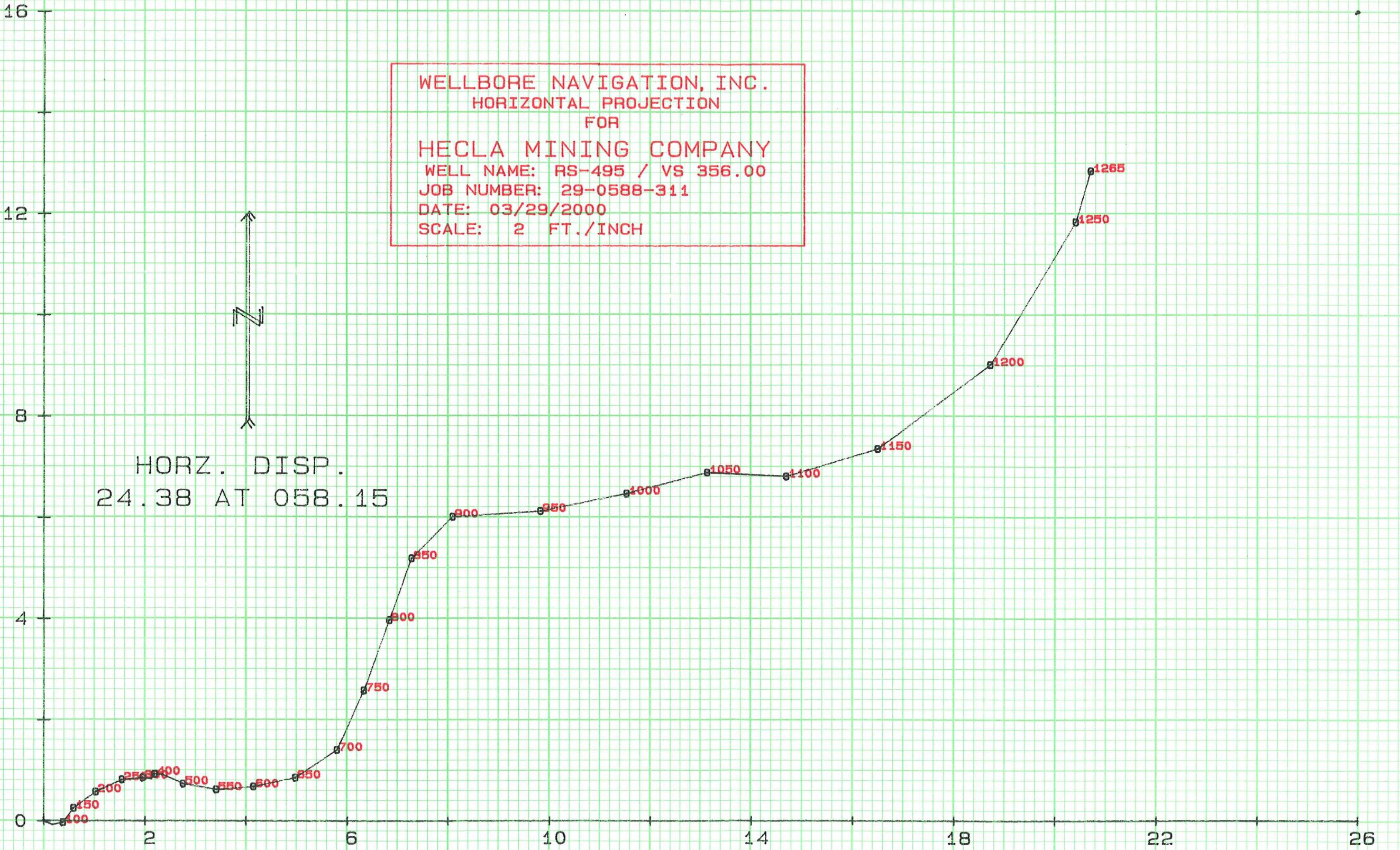
JOB NUMBER: 29-0588-311

WELL NAME: RS-495 / VS 356.00

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL HORZ	BEARING AZIMUTH	COORDINATES LATITUDE	DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISPLACEMENT	TEMP. DIRECTION DEG F
0.0	0.00	0.00	0.000	-90.00	000.00	0.00 N	0.00 E	0.00		0.00 AT 000.00	
50.0	50.00	0.17	0.092	-89.56	114.55	0.08 S	0.17 E	0.88	0.44	0.19 AT 114.55	071.91
100.0	100.00	0.38	0.059	-89.70	014.15	0.03 S	0.38 E	1.15	0.58	0.38 AT 094.89	071.71
150.0	150.00	0.61	-0.212	-89.45	048.17	0.25 N	0.59 E	0.69	0.34	0.64 AT 066.75	070.10
200.0	199.99	1.07	-0.504	-89.30	057.89	0.58 N	1.03 E	0.37	0.18	1.18 AT 060.74	068.56
250.0	249.99	1.60	-0.705	-89.38	073.67	0.82 N	1.55 E	0.40	0.20	1.75 AT 062.23	067.26
300.0	299.99	2.01	-0.713	-89.64	104.39	0.85 N	1.96 E	0.72	0.36	2.14 AT 066.50	066.26
350.0	349.99	2.19	-0.679	-89.93	056.18	0.83 N	2.14 E	0.64	0.32	2.29 AT 068.77	065.13
400.0	399.99	2.26	-0.772	-89.80	022.62	0.93 N	2.20 E	0.29	0.15	2.38 AT 067.10	064.23
450.0	449.99	2.41	-0.752	-89.66	127.54	0.92 N	2.35 E	0.87	0.44	2.52 AT 068.64	063.00
500.0	499.99	2.80	-0.541	-89.30	107.65	0.73 N	2.76 E	0.79	0.40	2.85 AT 075.07	063.97
550.0	549.98	3.45	-0.376	-89.15	094.09	0.62 N	3.42 E	0.47	0.24	3.47 AT 079.78	064.59
600.0	599.98	4.19	-0.386	-89.14	076.47	0.68 N	4.15 E	0.52	0.26	4.21 AT 080.74	065.12
650.0	649.97	5.03	-0.507	-88.92	078.87	0.86 N	4.98 E	0.45	0.22	5.05 AT 080.25	065.46
700.0	699.96	5.89	-1.000	-88.65	038.38	1.41 N	5.81 E	1.76	0.88	5.98 AT 076.37	065.77
750.0	749.94	6.50	-2.136	-88.32	013.05	2.58 N	6.34 E	1.48	0.74	6.84 AT 067.82	066.20
800.0	799.92	7.10	-3.485	-88.27	026.85	3.97 N	6.84 E	0.83	0.41	7.91 AT 059.87	066.60
850.0	849.90	7.63	-4.674	-88.72	010.29	5.19 N	7.29 E	1.24	0.62	8.95 AT 054.51	067.12
900.0	899.89	8.50	-5.439	-88.25	068.92	6.02 N	8.10 E	3.08	1.54	10.09 AT 053.38	068.05
950.0	949.86	10.23	-5.430	-87.63	099.06	6.13 N	9.83 E	2.45	1.23	11.59 AT 058.05	068.95
1000.0	999.82	11.97	-5.655	-88.03	053.70	6.48 N	11.54 E	3.43	1.71	13.24 AT 060.71	070.03
1050.0	1049.80	13.59	-5.960	-87.92	095.80	6.89 N	13.14 E	2.92	1.46	14.84 AT 062.32	071.63
1100.0	1099.77	15.15	-5.770	-88.47	089.09	6.81 N	14.71 E	1.18	0.59	16.21 AT 065.15	073.04
1150.0	1149.73	16.98	-6.191	-87.14	064.50	7.36 N	16.50 E	3.20	1.60	18.07 AT 065.96	075.18
1200.0	1199.66	19.32	-7.698	-86.38	044.32	9.03 N	18.73 E	2.72	1.36	20.79 AT 064.27	076.70
1250.0	1249.55	21.19	-10.400	-85.89	018.80	11.85 N	20.41 E	3.54	1.77	23.60 AT 059.86	077.66
1265.0	1264.51	21.56	-11.390	-86.02	014.19	12.87 N	20.71 E	2.33	0.35	24.38 AT 058.15	077.91

THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF
1265.0 FEET EQUALS 24.38 FEET AT 058.15



SP

SUBMITTAL FORM



American
Assay
Laboratories

Company: Rosebud Mining, LLC

Address: PO Box 2610

City Winnemucca State NV Zip 89446

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

Project Name: No Equinox Purchase Order Number: _____

Date Submitted: 8 Apr 2000 Number of Samples: _____

RESULTS REPORTED IN: ppm [] ppb opt

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
Fax
(702) 356-1413

Tucson Office
2775 E. Ganley
Tucson, AZ 85706
Telephone
(520) 294-8078
Fax
(520) 294-6352

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Mazatlan Office
Telephone/Fax
011-52-69-170035

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
<u>Drill Hole RS-495</u> <u>0 to 1265</u>	<u>RC</u>	<u>Aut Ag - Use Rosebud Exploration</u> <u>Protocol for Sample Prep & Assays</u>
<u>Note: Please Crush & Pulp every 20 ft (ie: 20, 40, 60, etc)</u>		
<u>and Assay for Au + Ag + ICP + Se as usual</u>		
<u>1 One Pulp - Rosebud</u> <u>Productivity Standard @ end of Run</u>		

COARSE REJECTS (Normally Discarded After 60 Days)

[] Return COD after analysis complete

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen
PO Box 2610
Winnemucca, NV 89446

Results to:

Kurt Allen
- Same -

PULPS (Normally Stored Free For One Month)

[] Discard after one month

[] Return COD after one month

Comments:

Note

0.4 ft.

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5 Apr 2000

LOGGED BY: Rogers 41

PAGE 1 OF 15

~~59~~
6.1 had printed blood vis
HE

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5 Apr 2000 / 100

LOGGED BY: Rogowski

PAGE 2 OF 15

DRILL RUN FROM	TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	ROD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
					DOWNHOLE DEPTH	PONT LOAD IN OZ EX PON	FRACTURE DENSIT FT.	Avg ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cm)	DENSITY (g/cm³)
1370	1380	100	100	95										
1380	1390	99	100	87										
1390	1400	99	100	8.9 10 89										
1400	1406.1	96	6.1 96	5.9 6.1 95										
1406.1	1416.6	101	100	10.1 10.5 84			8.8 10.5							
1416.6	1427.1	98	98	10.3 10.5 10.5 85			10.3 10.5							
1427.1	1437.5	94	92	9.8 10.4 10.7 78			9.6 10.7	8.1 10.4						
1437.5	1447.8	101	102	10.4 10.3 10.3 72			10.5 10.3	7.4 10.3						
1447.8	1458.2	99	100	10.3 10.4 10.5 70			10.4 10.5	7.3 10.4						
1458.2	1468.6	98	98	10.2 10.4 10.4 85			10.2 10.4	7.2 10.4						
1468.6	1479.3	98	98	10.1 10.3 10.1 86			10.1 10.3	6.9 10.4						

~~RRD
med 3 days
- B 10 cells~~

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495-

DATE: 16 Apr 2000

LOGGED BY: Rogowski

PAGE 3 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 16 Apr 2000

LOGGED BY: Rogowskij

PAGE 4 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 16 Apr 2000

LOGGED BY: Rogowski

PAGE 3 OF 13

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 22 Apr 2000

LOGGED BY: Rogowski

PAGE 6 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: - 22 Apr 2000

LOGGED BY: Rogowski

PAGE 7 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE 8 R3 495

DATE: _____

LOGGED BY: LASSITER

PAGE 8 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: May 5, 00

LOGGED BY: LASSITER

PAGE 9 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: May 5, 00

LOGGED BY: LASSITER

PAGE 10 OF 15

2280 2290 100 100 100

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5/4/02

LOGGED BY: KKA

PAGE 11 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5/4/00

LOGGED BY: KOB

PAGE 12 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5/4/00

LOGGED BY:

KW

PAGE 13 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE: 5/4/00

LOGGED BY

PAGE 14 OF 15

**HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG**

HOLE # RS-495

DATE 3/4/00

LOGGED BY: ASIA

PAGE 15 OF 15



INVOICE

Remit To: P.O. Box 11530
Reno, Nevada 89510
Phone No.: 702-356-0606
Fax No.: 702-356-1413

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

INVOICE NO.: SB-0056949-IN
INVOICE DATE: 05/02/00

(775) 356-0606

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

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

CUSTOMER P.O.	PROJECT	TERMS	NET 30 - DUE IN U.S. DOLLARS
QUANTITY	DESCRIPTION	PRICE	AMOUNT
253	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
252	DRY/JAW CRUSH ENTIRE SAMPLE	2.30	579.60
252	COARSE MILLING CHARGE	6.00	1,512.00
252	ROTARY SPLIT	2.40	604.80
252	COMPOSITE CHARGE	2.50	630.00
252	"JONES" RIFFLE SPLIT	1.80	453.60
63	RING/PUCK MILL	2.00	126.00
64	Au (1 A.T. FIRE ASSAY)	8.00	512.00
64	HYDROCHLORIC/NITRIC DIGESTION	2.00	128.00
64	Ag ANALYSES	1.00	64.00
64	MULTI-ELEMENT ICP PACKAGE	13.75	880.00

86-2510-477

KMF
NET INVOICE: 5,490.00
LESS DISCOUNT: 1,921.50
FREIGHT: 0.00

INVOICE TOTAL: 3,568.50

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



American
Assay
Laboratories

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

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: RS-495 0-1260

RECEIVED : 10 APR 2000

No. SAMPLES : 64 REPORTED : 27 APR 2000

MAIN SAMPLE TYPE : DRILL CUTTINGS

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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949**



**American
Assay
Laboratories**

**CLIENT : HECLA MINING COMPANY
PROJECT : NORTH EQUINOX
REFERENCE : RS-495 0-1260**

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 0000-0020	25	<0.001			<0.5	<0.02
RS-495 0020-0040	<5	<0.001			<0.5	<0.02
RS-495 0040-0060	<5	<0.001			<0.5	<0.02
RS-495 0060-0080	<5	<0.001			<0.5	<0.02
RS-495 0080-0100	<5	<0.001			<0.5	<0.02
RS-495 0100-0120	<5	<0.001			<0.5	<0.02
RS-495 0120-0140	<5	<0.001			<0.5	<0.02
RS-495 0140-0160	<5	<0.001			<0.5	<0.02
RS-495 0160-0180	<5	<0.001			<0.5	<0.02
RS-495 0180-0200	<5	<0.001			<0.5	<0.02
RS-495 0200-0220	<5	<0.001			<0.5	<0.02
RS-495 0220-0240	<5	<0.001			<0.5	<0.02
RS-495 0240-0260	<5	<0.001			<0.5	<0.02
RS-495 0260-0280	<5	<0.001			<0.5	<0.02
RS-495 0280-0300	<5	<0.001			<0.5	<0.02
RS-495 0300-0320	<5	<0.001			<0.5	<0.02
RS-495 0320-0340	<5	<0.001			<0.5	<0.02
RS-495 0340-0360	<5	<0.001			<0.5	<0.02
RS-495 0360-0380	<5	<0.001			<0.5	<0.02
RS-495 0380-0400	<5	<0.001			<0.5	<0.02
RS-495 0400-0420	<5	<0.001			<0.5	<0.02
RS-495 0420-0440	<5	<0.001			<0.5	<0.02
RS-495 0440-0460	<5	<0.001			<0.5	<0.02
RS-495 0460-0480	<5	<0.001			<0.5	<0.02
RS-495 0480-0500	<5	<0.001			<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : NORTH EQUINOX
REFERENCE : RS-495 0-1260

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 0500-0520	<5		<0.001		<0.5	<0.02
RS-495 0520-0540	<5		<0.001		<0.5	<0.02
RS-495 0540-0560	<5		<0.001		<0.5	<0.02
RS-495 0560-0580	<5		<0.001		<0.5	<0.02
RS-495 0580-0600	<5		<0.001		<0.5	<0.02
RS-495 0600-0620	<5		<0.001		<0.5	<0.02
RS-495 0620-0640	<5		<0.001		<0.5	<0.02
RS-495 0640-0660	<5		<0.001		<0.5	<0.02
RS-495 0660-0680	<5		<0.001		<0.5	<0.02
RS-495 0680-0700	<5		<0.001		<0.5	<0.02
RS-495 0700-0720	<5		<0.001		<0.5	<0.02
RS-495 0720-0740	<5		<0.001		<0.5	<0.02
RS-495 0740-0760	<5		<0.001		<0.5	<0.02
RS-495 0760-0780	<5		<0.001		<0.5	<0.02
RS-495 0780-0800	<5		<0.001		<0.5	<0.02
RS-495 0800-0820	<5		<0.001		<0.5	<0.02
RS-495 0820-0840	<5		<0.001		<0.5	<0.02
RS-495 0840-0860	<5		<0.001		<0.5	<0.02
RS-495 0860-0880	<5		<0.001		<0.5	<0.02
RS-495 0880-0900	<5		<0.001		<0.5	<0.02
RS-495 0900-0920	<5		<0.001		<0.5	<0.02
RS-495 0920-0940	<5		<0.001		<0.5	<0.02
RS-495 0940-0960	<5		<0.001		<0.5	<0.02
RS-495 0960-0980	<5		<0.001		<0.5	<0.02
RS-495 0980-1000	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
 PROJECT : NORTH EQUINOX
 REFERENCE : RS-495 0-1260

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 1000-1020	<5		<0.001		<0.5	<0.02
RS-495 1020-1040	<5		<0.001		<0.5	<0.02
RS-495 1040-1060	<5		<0.001		<0.5	<0.02
RS-495 1060-1080	<5		<0.001		<0.5	<0.02
RS-495 1080-1100	<5		<0.001		<0.5	<0.02
RS-495 1100-1120	<5		<0.001		<0.5	<0.02
RS-495 1120-1140	<5		<0.001		<0.5	<0.02
RS-495 1140-1160	<5		<0.001		<0.5	<0.02
RS-495 1160-1180	<5		<0.001		<0.5	<0.02
RS-495 1180-1200	<5		<0.001		<0.5	<0.02
RS-495 1200-1220	<5		<0.001		<0.5	<0.02
RS-495 1220-1240	<5		<0.001		<0.5	<0.02
RS-495 1240-1260	<5		<0.001		<0.5	<0.02
89645	5050		0.147		59.9	1.75

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



American
Assay
Laboratories

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

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

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CLIENT REFERENCE No: RS-495 0-1260

RECEIVED : 10 APR 2000

No. SAMPLES : 64

REPORTED : 27 APR 2000

MAIN SAMPLE TYPE : DRILL CUTTINGS

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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

AMERICAN ASSAY LABORATORIES
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PROJECT : NORTH EQUINOX
REFERENCE : RS-495 0-1260

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 0000-0020	25		<0.001		<0.5	<0.02
RS-495 0020-0040	<5		<0.001		<0.5	<0.02
RS-495 0040-0060	<5		<0.001		<0.5	<0.02
RS-495 0060-0080	<5		<0.001		<0.5	<0.02
RS-495 0080-0100	<5		<0.001		<0.5	<0.02
RS-495 0100-0120	<5		<0.001		<0.5	<0.02
RS-495 0120-0140	<5		<0.001		<0.5	<0.02
RS-495 0140-0160	<5		<0.001		<0.5	<0.02
RS-495 0160-0180	<5		<0.001		<0.5	<0.02
RS-495 0180-0200	<5		<0.001		<0.5	<0.02
RS-495 0200-0220	<5		<0.001		<0.5	<0.02
RS-495 0220-0240	<5		<0.001		<0.5	<0.02
RS-495 0240-0260	<5		<0.001		<0.5	<0.02
RS-495 0260-0280	<5		<0.001		<0.5	<0.02
RS-495 0280-0300	<5		<0.001		<0.5	<0.02
RS-495 0300-0320	<5		<0.001		<0.5	<0.02
RS-495 0320-0340	<5		<0.001		<0.5	<0.02
RS-495 0340-0360	<5		<0.001		<0.5	<0.02
RS-495 0360-0380	<5		<0.001		<0.5	<0.02
RS-495 0380-0400	<5		<0.001		<0.5	<0.02
RS-495 0400-0420	<5		<0.001		<0.5	<0.02
RS-495 0420-0440	<5		<0.001		<0.5	<0.02
RS-495 0440-0460	<5		<0.001		<0.5	<0.02
RS-495 0460-0480	<5		<0.001		<0.5	<0.02
RS-495 0480-0500	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



American
Assay
Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : NORTH EQUINOX
REFERENCE : RS-495 0-1260

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 0500-0520	<5		<0.001		<0.5	<0.02
RS-495 0520-0540	<5		<0.001		<0.5	<0.02
RS-495 0540-0560	<5		<0.001		<0.5	<0.02
RS-495 0560-0580	<5		<0.001		<0.5	<0.02
RS-495 0580-0600	<5		<0.001		<0.5	<0.02
RS-495 0600-0620	<5		<0.001		<0.5	<0.02
RS-495 0620-0640	<5		<0.001		<0.5	<0.02
RS-495 0640-0660	<5		<0.001		<0.5	<0.02
RS-495 0660-0680	<5		<0.001		<0.5	<0.02
RS-495 0680-0700	<5		<0.001		<0.5	<0.02
RS-495 0700-0720	<5		<0.001		<0.5	<0.02
RS-495 0720-0740	<5		<0.001		<0.5	<0.02
RS-495 0740-0760	<5		<0.001		<0.5	<0.02
RS-495 0760-0780	<5		<0.001		<0.5	<0.02
RS-495 0780-0800	<5		<0.001		<0.5	<0.02
RS-495 0800-0820	<5		<0.001		<0.5	<0.02
RS-495 0820-0840	<5		<0.001		<0.5	<0.02
RS-495 0840-0860	<5		<0.001		<0.5	<0.02
RS-495 0860-0880	<5		<0.001		<0.5	<0.02
RS-495 0880-0900	<5		<0.001		<0.5	<0.02
RS-495 0900-0920	<5		<0.001		<0.5	<0.02
RS-495 0920-0940	<5		<0.001		<0.5	<0.02
RS-495 0940-0960	<5		<0.001		<0.5	<0.02
RS-495 0960-0980	<5		<0.001		<0.5	<0.02
RS-495 0980-1000	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056949



American
Assay
Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : NORTH EQUINOX
REFERENCE : RS-495 0-1260

REPORTED : 27 APR 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495 1000-1020	<5		<0.001		<0.5	<0.02
RS-495 1020-1040	<5		<0.001		<0.5	<0.02
RS-495 1040-1060	<5		<0.001		<0.5	<0.02
RS-495 1060-1080	<5		<0.001		<0.5	<0.02
RS-495 1080-1100	<5		<0.001		<0.5	<0.02
RS-495 1100-1120	<5		<0.001		<0.5	<0.02
RS-495 1120-1140	<5		<0.001		<0.5	<0.02
RS-495 1140-1160	<5		<0.001		<0.5	<0.02
RS-495 1160-1180	<5		<0.001		<0.5	<0.02
RS-495 1180-1200	<5		<0.001		<0.5	<0.02
RS-495 1200-1220	<5		<0.001		<0.5	<0.02
RS-495 1220-1240	<5		<0.001		<0.5	<0.02
RS-495 1240-1260	<5		<0.001		<0.5	<0.02
89645	5050		0.147		59.9	1.75

AMERICAN ASSAY LABORATORIES
AAL 03-0 ICP PACKAGE DETECTION LIMITS

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
	30	0.01	0.5	3	1	0.1	0.01	.01	1	1	0.2	0.01	0.5	10	0.01	1	0.01	2	0.1	0.01	1	0.001	0.3	0.2	0.4	1	0.2	2	0.01	0.2	5	1	2	1

5.0 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
 DIGEST IS PARTIAL FOR AI, B, Ba, Ca, Co, Cr, Fe, K, La, Mg, Mn, Na, Ni, P, Sr, Th, Ti, U, V AND W.
 ORGANIC SOLUTION EXTRACTION AND ULTRASONIC ICP FOR Ag, As, Bi, Cd, Cu, Ga, Mo, Pb, Sb, Se, Te AND Ti.
 Hg BY COLD VAPOR AAS.

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP56949
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
RS-495 0000-0020	213	1.38	13.6	21.5	12	244.10	0.21	0.68	0.21	4.00	11.1	16.59	2.54	6.3	93	0.26	24.2	0.3	546	2.46	0.103	8.3	0.036	27.65	0.09	5.71	2.6	1.3	87 < .02	6.5	0.014	0.23	1.1	19	0.4	58.1	
RS-495 0020-0040	54	1.13	2.4	3.2	5	250.90	0.43	0.66	0.23	1.80	4.5	10.88	2.01	5.8	8	0.27	23.1	0.13	909	1.93	0.093	3.4	0.036	41.4	0.04	0.83	1	0.2	49.2 < .02	6.4	0.018	0.16	1.7	5	0.4	68.7	
RS-495 0040-0060	32	2.22	4.2	0.9	3	141.40	2.45	1.06	0.58	1.10	2.4	8.06	1.67	7.7	44	0.21	24.5	0.23	333	0.77	0.039	1.9	0.034	51.2	0.01	0.5	0.8	0.3	94.4	0.11	5.7	0.003	0.21	2.1	< 2	0.5	53.8
RS-495 0060-0080	34	0.90	2.6	0.5	3	256.30	15.92	0.94	0.64	1.10	5	8.06	2.27	3.9	20	0.22	18.6	0.1	958	1.51	0.061	2.3	0.022	32.98	0.01	0.55	0.8	0.3	48.5	0.11	7.5	0.018	0.19	1.8	2	0.5	39.1
RS-495 0080-0100	38	0.47	2.3	0.6	2	113.40	3.85	0.61	1.55	1.10	2.9	4.51	2.37	4.3	24	0.25	23.5	0.08	702	0.94	0.076	1.1	0.015	19.28	0.01	0.68	1.2	0.2	20.3	0.06	9.4	0.058	0.25	1	2	0.7	33.3
RS-495 0100-0120	31	0.52	3	0.6	1	116.20	0.9	1	0.63	1.20	2.1	3.43	2.56	4.4	44	0.17	8.9	0.08	769	0.74	0.083	0.8	0.023	23.34	0.01	0.54	1.6	0.2	36.4	0.02	7.8	0.05	0.09	1.2	< 2	0.5	51.2
RS-495 0120-0140	33	0.52	2.7	0.2	2	114.80	1.35	0.96	0.3	1.30	1.4	3.71	2.33	4.1	20	0.17	16.1	0.05	706	1.04	0.085	0.9	0.017	20.84	0.01	0.59	1.1	0.3	40	0.03	9.7	0.034	0.04	1.5	< 2	0.7	61.1
RS-495 0140-0160	40	0.48	2.5	0.5	3.0	78.20	0.61	0.74	0.17	1.20	3.6	4.98	2.26	3.5	8	0.17	23.4	0.04	543	0.99	0.078	1.3	0.026	30.48	0.01	0.6	1.1	0.5	30.7	< .02	11	0.038	0.02	1.7	< 2	0.6	71.9
RS-495 0160-0180	35	0.56	2.8	0.5	2	83.70	0.57	1.15	0.13	1.00	4.2	4.75	2.16	3.7	13	0.14	16.1	0.06	813	1.86	0.072	1.3	0.013	15.19	0.01	0.75	1.4	0.5	46.5	< .02	11.4	0.024	< .02	1.2	< 2	1.1	56.9
RS-495 0180-0200	41	0.49	11.2	0.6	1	57.20	0.59	0.31	0.17	0.90	2.8	4.62	2.2	2.9	262	0.13	20.1	0.04	386	0.96	0.062	1.3	0.018	19.15	< .01	3.29	0.9	0.7	43.3	< .02	12.9	0.025	< .02	1.8	4	0.7	51.1
RS-495 0200-0220	43	0.41	3.2	0.9	3	63.10	0.49	0.36	0.14	1.10	3.1	5.33	2.5	2.9	35	0.14	21.4	0.04	473	1.33	0.082	1.5	0.017	11.04	0.01	1.15	1.2	0.4	31.9	< .02	12.1	0.039	< .02	1.6	2	1.6	67.2
RS-495 0220-0240	44	0.45	3.3	0.4	3	61.30	0.14	0.59	0.12	1.30	4.3	5.86	2.42	3.4	8	0.14	19	0.06	568	1.25	0.08	1.6	0.015	10.96	0.01	1.12	1.4	0.4	36.4	< .02	13	0.033	< .02	1.3	2	1.3	68.3
RS-495 0240-0260	43	0.47	14.6	0.5	2	60.10	0.14	0.62	0.14	1.40	5.7	10.1	2.87	4	< 5	0.15	18.4	0.07	783	2.21	0.074	3.2	0.013	10.13	0.01	0.94	1.7	0.4	39.7	< .02	12.9	0.037	< .02	1.2	2	1.7	76
RS-495 0260-0280	41	0.37	26.0	0.2	3	48.80	0.2	0.28	0.13	1.50	8.6	14.2	3.2	3.9	< 5	0.14	15.2	0.06	612	3.12	0.073	4.3	0.011	7.66	< .01	0.78	1.8	0.4	24.2	< .02	11.5	0.038	0.02	1	2	1.6	78.1
RS-495 0280-0300	46	0.41	18.7	0.6	6	53.10	0.14	0.38	0.15	1.60	8.3	15.2	3.28	4.2	< 5	0.15	16.7	0.07	695	3.05	0.08	4.5	0.011	10.15	0.01	0.77	1.8	0.5	31.2	< .02	12.2	0.039	< .02	1	2	1.3	75.2
RS-495 0300-0320	45	0.32	12.0	1	4	51.80	0.12	0.25	0.13	1.40	5.5	12.5	3.14	3.4	8	0.12	17.1	0.05	711	2.68	0.065	3.3	0.008	19.11	0.01	0.66	1.5	0.6	24.5	< .02	11.1	0.038	< .02	0.9	2	1	70.5
RS-495 0320-0340	51	0.41	33.2	1.1	4	49.60	0.08	0.52	0.17	1.50	7.7	15.96	3.33	4.1	< 5	0.15	17.3	0.08	1076	3.26	0.081	4.6	0.015	8.54	0.02	0.87	1.9	0.4	35.6	< .02	11	0.037	< .02	0.9	3	1.5	79.1
RS-495 0340-0360	51	0.38	28.1	1.1	4	57.60	0.19	0.37	0.14	1.50	6.1	16.73	3.44	4	< 5	0.14	15.8	0.07	1102	3.12	0.079	4.4	0.011	7.84	0.01	0.97	1.8	0.5	28.8	< .02	11.6	0.038	< .02	0.9	3	1.6	74.1
RS-495 0360-0380	57	0.35	22.3	0.5	4	64.70	0.39	0.22	0.15	1.60	8.1	18.75	3.34	3.5	5	0.17	12.5	0.08	1031	3.89	0.092	5.5	0.012	6.36	0.02	0.77	2	0.2	19.9	< .02	10.7	0.036	0.03	0.9	3	1.5	73.5
RS-495 0380-0400	60	0.33	19.1	1	5	51.00	0.21	0.26	0.07	1.40	10.8	19.98	3.55	3.2	< 5	0.16	12.3	0.09	661	4.16	0.083	5.5	0.014	6.1	0.02	0.74	1.8	< .1	20.4	< .02	10.1	0.032	0.03	0.9	3	1.3	69.8
RS-495 0400-0420	55	0.39	15.3	0.7	6	50.00	0.76	0.51	0.17	1.40	6.7	12.31	3.31	3.7	< 5	0.14	14.8	0.08	728	3.11	0.079	4.2	0.009	8.94	0.02	3.07	1.7	< .1	36.5	< .02	11.7	0.035	< .02	1.1	3	1.6	65.4
RS-495 0420-0440	49	0.42	11	9.4	3	53.30	0.72	0.4	0.17	1.50	5.2	11.39	2.93	3.9	< 5	0.15	14.9	0.05	676	2.89	0.092	2.7	0.009	12.08	< .01	2.1	1.6	0.1	32.2	< .02	12.7	0.035	0.03	1	2	1.3	58.8
RS-495 0440-0460	57	0.45	28.9	4.8	3	51.80	0.24	0.37	0.13	1.40	4.8	12.93	3.33	4.7	< 5	0.16	15.7	0.06	784	2.82	0.083	2.4	0.011	70.02	0.01	0.78	1.7	< .1	31.5	< .02	10.8	0.039	0.02	1	2	1.4	80.3
RS-495 0460-0480	45	0.47	18.5	1.4	3	53.40	0.28	0.54	0.21	1.20	5	10.9	3.01	4.4	< 5	0.15	15.8	0.07	839	2.67	0.076	2.4	0.018	15.51	0.01	0.66	1.7	0.2	30.9	< .02	11.3	0.036	< .02	1	2	1.2	71.7
RS-495 0480-0500	34	0.46	7.8	0.8	3	53.40	0.48	0.55	0.13	1.20	4.3	8.67	2.91	3.5	< 5	0.14	17.7	0.05	590	2.35	0.075	2.1	0.017	9.61	0.01	0.63	1.5	0.2	28.8	< .02	11.6	0.037	< .02	1	2	1	60.9
RS-495 0500-0520	43	0.42	7.0	1.1	3	47.20	0.2	0.88	0.16	1.20	4.2	6.81	2.67	3.2	7	0.12	19.8	0.05	684	1.74	0.058	1.6	0.013	7.66	0.02	0.58	1.6	0.2	37.8	< .02	11.1	0.032	< .02	1.1	2	1.1	61.3
RS-495 0520-0540	42	0.39	25.0	0.6	2	45.50	0.36	0.48	0.17	1.30	5.6	13.36	2.99	3.8	6	0.13	17	0.05	919	2.83	0.073	2.9	0.011	6.1	0.01	0.6	1.8	0.1	25.4	< .02	11.6	0.026	< .02	0.9</			

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP56949
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
RS-495 0680-0700	50	0.39	<.1	0.4	1	69.7	0.1	0.86	0.1	1.1	3	6.94	2.14	2.4	9	0.14	20.4	0.05	624	1.82	0.06	1.6	0.02	9.77	0.01	0.52	0.6	0.2	60.7	<.02	7.7	0.019	0.02	2.4	5	0.6	47.8
RS-495 0700-0720	42	0.51	<.1	0.3	3	75.2	0.08	0.63	0.1	1.1	4.1	8.08	2.27	3	23	0.2	23	0.08	473	1.93	0.048	1.7	0.029	28.81	0.03	0.99	1	0.2	53.1	<.02	8	0.026	0.02	1.3	5	0.9	31.5
RS-495 0720-0740	37	0.42	3	0.2	2	63	1.27	0.58	0.09	1.5	4.8	7.83	2.44	3.1	36	0.17	18.4	0.1	417	2.01	0.038	1.6	0.045	12.8	0.02	1.35	1.3	0.2	41	<.02	7.8	0.047	<.02	1.2	2	1.2	38.3
RS-495 0740-0760	53	0.41	4.1	0.4	2	58.8	2.7	0.47	0.09	1.6	3.6	9.9	2.36	2.7	25	0.17	17.6	0.09	429	2.58	0.041	2.1	0.032	9.32	0.02	0.98	1.3	0.2	37	0.02	8	0.039	0.03	0.8	3	1	37.9
RS-495 0760-0780	66	0.38	4.2	0.7	3	89.8	0.3	0.44	0.08	1.8	4.6	9.88	2.36	2.5	8	0.15	16.4	0.09	554	2.63	0.041	2.2	0.023	9.39	0.01	1.01	1.2	0.2	37.7	<.02	8.1	0.028	<.02	0.7	2	1	44.9
RS-495 0780-0800	60	0.53	2.5	0.2	2	91.9	0.09	0.5	0.06	1.7	3	9.37	2.46	3.1	7	0.19	18.1	0.11	460	2.46	0.063	1.8	0.034	9.44	0.01	0.46	1.5	0.2	53.3	<.02	9	0.03	<.02	1.2	3	0.9	54.2
RS-495 0800-0820	141	0.53	5.8	0.2	4	73.9	0.2	0.46	0.07	2	3.8	7.96	2.41	3.2	<5	0.19	19.1	0.12	656	2.25	0.057	1.6	0.032	7.36	0.01	0.46	1.6	0.2	58.5	<.02	9.6	0.036	<.02	0.8	2	0.8	57
RS-495 0820-0840	56	0.48	3.9	0.3	2	60.8	0.22	0.45	0.06	2.3	2	8.08	2.3	3	<5	0.17	19.3	0.11	783	2.09	0.049	1.8	0.033	6.38	0.01	0.47	1.5	0.2	59.5	<.02	10.1	0.026	<.02	1.1	2	0.9	51.3
RS-495 0840-0860	61	0.53	1.1	0.3	3	60.5	0.14	0.44	0.1	2	2.7	11.5	2.45	3.1	13	0.19	18.1	0.13	545	2.74	0.047	1.8	0.034	30.18	<.01	0.44	1.4	0.2	51.4	<.02	9.1	0.026	0.03	2.1	2	0.7	66.8
RS-495 0860-0880	83	0.64	0.4	<.2	2	67	0.11	0.45	0.1	2.2	6.7	12.8	2.99	3.8	16	0.22	17	0.12	481	4.06	0.057	3.5	0.041	6.23	<.01	0.49	1.5	0.2	54	<.02	9	0.026	0.04	2.3	4	0.6	71.8
RS-495 0880-0900	200	0.54	1.7	0.7	3	57	0.14	0.5	0.14	2.4	7.2	15.26	2.95	4.1	17	0.17	18.6	0.13	639	4.29	0.045	4.4	0.038	7.45	<.01	0.54	1.2	0.2	36.5	<.02	8.5	0.024	<.02	3.2	4	0.9	85.9
RS-495 0900-0920	109	0.86	<.1	0.4	3	86.7	0.11	0.31	0.22	2.2	5.1	11.8	2.74	5.7	11	0.29	18.9	0.15	556	3.46	0.094	2.6	0.036	7.01	<.01	0.33	1.7	0.2	26.7	0.02	9.5	0.031	0.03	2.3	2	0.5	84.3
RS-495 0920-0940	93	0.75	<.1	0.2	5	77.4	0.09	0.28	0.23	2.3	7.6	18.65	2.67	5	<5	0.26	18.2	0.15	605	3.67	0.084	3.8	0.039	7.97	<.01	0.33	1.5	0.2	30.5	<.02	9.4	0.029	0.04	2.5	3	0.5	85.5
RS-495 0940-0960	62	0.79	0.3	0.4	4	84.2	0.28	0.33	0.11	1.8	6.2	9.08	2.55	3.9	11	0.31	17.9	0.11	446	2.16	0.088	2.9	0.037	8.14	<.01	0.65	1.4	0.1	50	<.02	9.8	0.033	0.08	3.3	2	0.7	53.1
RS-495 0960-0980	92	0.91	1.6	0.3	5	87.4	0.17	0.58	0.2	1.9	4.5	7.93	2.41	4.4	10	0.34	19.4	0.13	1064	1.98	0.079	2.4	0.035	13.47	<.01	0.46	1.6	0.2	54.1	<.02	9.2	0.033	0.1	2.7	3	0.7	67.3
RS-495 0980-1000	50	0.4	4.8	1.5	5	68.4	0.16	0.28	0.12	2	8.7	12.63	2.94	3	58	0.15	14.8	0.13	1188	2.71	0.045	4.5	0.034	11.57	<.01	0.69	1.4	0.1	33.8	0.02	9.8	0.035	0.02	1.8	3	0.9	70.4
RS-495 1000-1020	69	0.46	1.5	0.6	5	58.4	0.12	0.27	0.25	2.1	6.6	11.13	2.79	3.2	40	0.16	14.2	0.11	700	2.69	0.045	4.1	0.032	7.72	<.01	0.62	1.3	0.1	36.4	<.02	9.5	0.033	<.02	2.6	3	0.8	75.1
RS-495 1020-1040	106	0.7	0.6	<.2	4	82.3	0.14	0.3	0.24	1.8	6.6	13.16	2.66	4.4	55	0.28	15	0.14	844	2.59	0.094	2.7	0.034	9.14	<.01	0.64	1.4	0.2	30.6	<.02	9.7	0.038	0.06	2.5	3	0.5	73
RS-495 1040-1060	96	0.94	<.1	<.2	6	87.6	0.13	0.4	0.21	2	6.7	10.18	2.74	5.3	27	0.33	16.4	0.17	613	2.95	0.09	3.6	0.034	26.32	<.01	0.49	1.6	0.2	34.8	<.02	8.9	0.039	0.08	2.1	3	0.6	82.5
RS-495 1060-1080	95	0.49	0.1	1.7	5	50.9	0.05	0.27	0.17	2	10	14.22	3.08	4.5	48	0.16	14.5	0.14	556	3.71	0.039	5.5	0.032	19.39	<.01	0.56	1.1	0.2	18.9	<.02	7.7	0.034	0.02	1.7	3	0.8	75.9
RS-495 1080-1100	81	0.7	<.1	0.4	3	70.6	0.06	0.33	0.17	2.1	6.3	11.6	2.82	5.6	21	0.23	15.7	0.18	780	3.66	0.082	3.7	0.037	8.75	<.01	0.29	1.1	<.1	18.3	<.02	8.6	0.033	0.02	1.7	2	0.5	78.8
RS-495 1100-1120	47	0.38	0.1	<.2	5	48.2	0.03	0.27	0.12	2.2	8.6	14.32	2.84	3.4	23	0.13	12.2	0.12	604	3.84	0.042	5.2	0.03	8.56	<.01	0.48	1.2	0.1	17.7	<.02	7.8	0.031	<.02	1.9	3	1.1	76.3
RS-495 1120-1140	64	0.52	1.4	0.3	5	57.8	0.07	0.34	0.22	1.9	7	12.91	2.96	3.3	85	0.23	14.4	0.12	823	3.13	0.065	4.4	0.029	7.95	<.01	0.53	1.2	0.3	24.4	<.02	9.6	0.042	0.03	2	3	1	63.3
RS-495 1140-1160	64	0.46	0.1	19.4	4	50.5	0.11	0.29	0.13	1.9	10.2	18.89	2.88	3.3	5	0.19	14.9	0.12	686	3.77	0.067	5.3	0.032	9.66	<.01	0.46	0.7	0.2	18.6	<.02	9.7	0.034	0.02	1.5	4	0.6	68.3
RS-495 1160-1180	89	0.58	<.1	6.5	3	45.3	0.1	0.44	0.14	2.3	10.8	23.59	3.15	5.5	41	0.18	19.4	0.12	740	4.21	0.047	7.5	0.034	13.02	<.01	0.48	1	0.2	18.3	<.02	9.8	0.042	<.02	1.3	4	0.8	74.9
RS-495 1180-1200	82	0.59	<.1	3.2	3	48.3	0.12	0.39	0.24	1.9	9.9	19.33	3.14	5.5	10	0.2	19.1	0.11	755	4.52	0.051	5.7	0.034	12.42	0.01	0.34	1.1	0.2	14.8	<.02	9.5	0.05	<.02	1.2	4	0.5	74.5
RS-495 1200-1220	86	0.59	<.1	1.6	3	51.8	0.13	0.44	0.14	1.9	8.1</																										

AMERICAN ASSAY LABORATORIES
AAL 03-0 ICP PACKAGE DETECTION LIMITS

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
	30	0.01	0.5	3	1	0.1	0.01	.01	1	1	0.2	0.01	0.5	10	0.01	1	0.01	2	0.1	0.01	1	0.001	0.3	0.2	0.4	1	0.2	2	0.01	0.2	5	1	2	1

5.0 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
 DIGEST IS PARTIAL FOR AI, B, Ba, Ca, Co, Cr, Fe, K, La, Mg, Mn, Na, Ni, P, Sr, Th, Ti, U, V AND W.
 ORGANIC SOLUTION EXTRACTION AND ULTRASONIC ICP FOR Ag, As, Bi, Cd, Cu, Ga, Mo, Pb, Sb, Se, Te AND Ti.
 Hg BY COLD VAPOR AAS.

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP56949
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
RS-495 0000-0020	213	1.38	13.6	21.5	12	244.10	0.21	0.68	0.21	4.00	11.1	16.59	2.54	6.3	93	0.26	24.2	0.3	546	2.46	0.103	8.3	0.036	27.65	0.09	5.71	2.6	1.3	87 <.02	6.5	0.014	0.23	1.1	19	0.4	58.1	
RS-495 0020-0040	54	1.13	2.4	3.2	5	250.90	0.43	0.66	0.23	1.80	4.5	10.88	2.01	5.8	8	0.27	23.1	0.13	909	1.93	0.093	3.4	0.036	41.4	0.04	0.83	1	0.2	49.2 <.02	6.4	0.018	0.16	1.7	5	0.4	68.7	
RS-495 0040-0060	32	2.22	4.2	0.9	3	141.40	2.45	1.06	0.58	1.10	2.4	8.06	1.67	7.7	44	0.21	24.5	0.23	333	0.77	0.039	1.9	0.034	51.2	0.01	0.5	0.8	0.3	94.4	0.11	5.7	0.003	0.21	2.1	< 2	0.5	53.8
RS-495 0060-0080	34	0.90	2.6	0.5	3	256.30	15.92	0.94	0.64	1.10	5	8.06	2.27	3.9	20	0.22	18.6	0.1	958	1.51	0.061	2.3	0.022	32.98	0.01	0.55	0.8	0.3	48.5	0.11	7.5	0.018	0.19	1.8	2	0.5	39.1
RS-495 0080-0100	38	0.47	2.3	0.6	2	113.40	3.85	0.61	1.55	1.10	2.9	4.51	2.37	4.3	24	0.25	23.5	0.08	702	0.94	0.076	1.1	0.015	19.28	0.01	0.68	1.2	0.2	20.3	0.06	9.4	0.058	0.25	1	2	0.7	33.3
RS-495 0100-0120	31	0.52	3	0.6	1	116.20	0.9	1	0.63	1.20	2.1	3.43	2.56	4.4	44	0.17	8.9	0.08	769	0.74	0.083	0.8	0.023	23.34	0.01	0.54	1.6	0.2	36.4	0.02	7.8	0.05	0.09	1.2	< 2	0.5	51.2
RS-495 0120-0140	33	0.52	2.7	0.2	2	114.80	1.35	0.96	0.3	1.30	1.4	3.71	2.33	4.1	20	0.17	16.1	0.05	706	1.04	0.085	0.9	0.017	20.84	0.01	0.59	1.1	0.3	40	0.03	9.7	0.034	0.04	1.5	< 2	0.7	61.1
RS-495 0140-0160	40	0.48	2.5	0.5	3.0	78.20	0.61	0.74	0.17	1.20	3.6	4.98	2.26	3.5	8	0.17	23.4	0.04	543	0.99	0.078	1.3	0.026	30.48	0.01	0.6	1.1	0.5	30.7	< .02	11	0.038	0.02	1.7	< 2	0.6	71.9
RS-495 0160-0180	35	0.56	2.8	0.5	2	83.70	0.57	1.15	0.13	1.00	4.2	4.75	2.16	3.7	13	0.14	16.1	0.06	813	1.86	0.072	1.3	0.013	15.19	0.01	0.75	1.4	0.5	46.5	< .02	11.4	0.024	< .02	1.2	< 2	1.1	56.9
RS-495 0180-0200	41	0.49	11.2	0.6	1	57.20	0.59	0.31	0.17	0.90	2.8	4.62	2.2	2.9	262	0.13	20.1	0.04	386	0.96	0.062	1.3	0.018	19.15 < .01	3.29	0.9	0.7	43.3	< .02	12.9	0.025	< .02	1.8	4	0.7	51.1	
RS-495 0200-0220	43	0.41	3.2	0.9	3	63.10	0.49	0.36	0.14	1.10	3.1	5.33	2.5	2.9	35	0.14	21.4	0.04	473	1.33	0.082	1.5	0.017	11.04	0.01	1.15	1.2	0.4	31.9	< .02	12.1	0.039	< .02	1.6	2	1.6	67.2
RS-495 0220-0240	44	0.45	3.3	0.4	3	61.30	0.14	0.59	0.12	1.30	4.3	5.86	2.42	3.4	8	0.14	19	0.06	568	1.25	0.08	1.6	0.015	10.96	0.01	1.12	1.4	0.4	36.4	< .02	13	0.033	< .02	1.3	2	1.3	68.3
RS-495 0240-0260	43	0.47	14.6	0.5	2	60.10	0.14	0.62	0.14	1.40	5.7	10.1	2.87	4	< 5	0.15	18.4	0.07	783	2.21	0.074	3.2	0.013	10.13	0.01	0.94	1.7	0.4	39.7	< .02	12.9	0.037	< .02	1.2	2	1.7	76
RS-495 0260-0280	41	0.37	26.0	0.2	3	48.80	0.2	0.28	0.13	1.50	8.6	14.2	3.2	3.9	< 5	0.14	15.2	0.06	612	3.12	0.073	4.3	0.011	7.66	< .01	0.78	1.8	0.4	24.2	< .02	11.5	0.038	0.02	1	2	1.6	78.1
RS-495 0280-0300	46	0.41	18.7	0.6	6	53.10	0.14	0.38	0.15	1.60	8.3	15.2	3.28	4.2	< 5	0.15	16.7	0.07	695	3.05	0.08	4.5	0.011	10.15	0.01	0.77	1.8	0.5	31.2	< .02	12.2	0.039	< .02	1	2	1.3	75.2
RS-495 0300-0320	45	0.32	12.0	1	4	51.80	0.12	0.26	0.13	1.40	5.5	12.5	3.14	3.4	8	0.12	17.1	0.05	711	2.68	0.065	3.3	0.008	19.11	0.01	0.66	1.5	0.6	24.5	< .02	11.1	0.038	< .02	0.9	2	1	70.5
RS-495 0320-0340	51	0.41	33.2	1.1	4	49.60	0.08	0.52	0.17	1.50	7.7	15.96	3.33	4.1	< 5	0.15	17.3	0.08	1076	3.26	0.081	4.6	0.015	8.54	0.02	0.87	1.9	0.4	35.6	< .02	11	0.037	< .02	0.9	3	1.5	79.1
RS-495 0340-0360	51	0.38	28.1	1.1	4	57.60	0.19	0.37	0.14	1.50	6.1	15.73	3.44	4	< 5	0.14	15.8	0.07	1102	3.12	0.079	4.4	0.011	7.84	0.01	0.97	1.8	0.5	28.8	< .02	11.6	0.038	< .02	0.9	3	1.6	74.1
RS-495 0360-0380	57	0.35	22.3	0.5	4	64.70	0.39	0.22	0.15	1.60	8.1	18.75	3.34	3.5	5	0.17	12.5	0.08	1031	3.89	0.092	5.5	0.012	6.36	0.02	0.77	2	0.2	19.9	< .02	10.7	0.036	0.03	0.9	3	1.5	73.5
RS-495 0380-0400	60	0.33	19.1	1	5	51.00	0.21	0.26	0.07	1.40	10.8	19.98	3.55	3.2	< 5	0.16	12.3	0.09	661	4.16	0.083	5.5	0.014	6.1	0.02	0.74	1.8	< .1	20.4	< .02	10.1	0.032	0.03	0.9	3	1.3	69.8
RS-495 0400-0420	55	0.39	15.3	0.7	6	50.00	0.76	0.51	0.17	1.40	6.7	12.31	3.31	3.7	< 5	0.14	14.8	0.08	728	3.11	0.079	4.2	0.009	8.94	0.02	3.07	1.7	< .1	36.5	< .02	11.7	0.035	< .02	1.1	3	1.6	65.4
RS-495 0420-0440	49	0.42	11	9.4	3	53.30	0.72	0.4	0.17	1.50	5.2	11.39	2.93	3.9	< 5	0.15	14.9	0.05	676	2.89	0.092	2.7	0.009	12.08	< .01	2.1	1.6	0.1	32.2	< .02	12.7	0.035	0.03	1	2	1.3	58.8
RS-495 0440-0460	57	0.45	28.9	4.8	3	51.80	0.24	0.37	0.13	1.40	4.8	12.93	3.33	4.7	< 5	0.16	15.7	0.06	784	2.82	0.083	2.4	0.011	70.02	0.01	0.78	1.7	< .1	31.5	< .02	10.8	0.039	0.02	1	2	1.4	80.3
RS-495 0460-0480	45	0.47	18.5	1.4	3	53.40	0.28	0.54	0.21	1.20	5	10.9	3.01	4.4	< 5	0.15	15.8	0.07	839	2.67	0.076	2.4	0.018	15.51	0.01	0.66	1.7	0.2	30.9	< .02	11.3	0.036	< .02	1	2	1.2	71.7
RS-495 0480-0500	34	0.46	7.8	0.8	3	53.40	0.48	0.55	0.13	1.20	4.3	8.67	2.91	3.5	< 5	0.14	17.7	0.05	590	2.35	0.075	2.1	0.017	9.61	0.01	0.63	1.5	0.2	28.8	< .02	11.6	0.037	< .02	1	2	1	60.9
RS-495 0500-0520	43	0.42	7.0	1.1	3	47.20	0.2	0.88	0.16	1.20	4.2	6.81	2.67	3.2	7	0.12	19.8	0.05	684	1.74	0.058	1.6	0.013	7.66	0.02	0.5											

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP56949
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
RS-495 0680-0700	50	0.39	<.1	0.4	1	69.7	0.1	0.86	0.1	1.1	3	6.94	2.14	2.4	9	0.14	20.4	0.05	624	1.82	0.06	1.6	0.02	9.77	0.01	0.52	0.6	0.2	60.7	<.02	7.7	0.019	0.02	2.4	5	0.6	47.8
RS-495 0700-0720	42	0.51	<.1	0.3	3	75.2	0.08	0.63	0.1	1.1	4.1	8.08	2.27	3	23	0.2	23	0.08	473	1.93	0.048	1.7	0.029	28.81	0.03	0.99	1	0.2	53.1	<.02	8	0.026	0.02	1.3	5	0.9	31.5
RS-495 0720-0740	37	0.42	3	0.2	2	63	1.27	0.58	0.09	1.5	4.8	7.83	2.44	3.1	36	0.17	18.4	0.1	417	2.01	0.038	1.6	0.045	12.8	0.02	1.35	1.3	0.2	41	<.02	7.8	0.047	<.02	1.2	2	1.2	38.3
RS-495 0740-0760	53	0.41	4.1	0.4	2	58.8	2.7	0.47	0.09	1.6	3.6	9.9	2.36	2.7	25	0.17	17.6	0.09	429	2.58	0.041	2.1	0.032	9.32	0.02	0.98	1.3	0.2	37	0.02	8	0.039	0.03	0.8	3	1	37.9
RS-495 0760-0780	66	0.38	4.2	0.7	3	89.8	0.3	0.44	0.08	1.8	4.6	9.88	2.36	2.5	8	0.15	16.4	0.09	554	2.63	0.041	2.2	0.023	9.39	0.01	1.01	1.2	0.2	37.7	<.02	8.1	0.028	<.02	0.7	2	1	44.9
RS-495 0780-0800	60	0.53	2.5	0.2	2	91.9	0.09	0.5	0.06	1.7	3	9.37	2.46	3.1	7	0.19	18.1	0.11	460	2.46	0.063	1.8	0.034	9.44	0.01	0.46	1.5	0.2	53.3	<.02	9	0.03	<.02	1.2	3	0.9	54.2
RS-495 0800-0820	141	0.53	5.8	0.2	4	73.9	0.2	0.46	0.07	2	3.8	7.96	2.41	3.2	<5	0.19	19.1	0.12	656	2.25	0.057	1.6	0.032	7.36	0.01	0.46	1.6	0.2	58.5	<.02	9.6	0.036	<.02	0.8	2	0.8	57
RS-495 0820-0840	56	0.48	3.9	0.3	2	60.8	0.22	0.45	0.06	2.3	2	8.08	2.3	3	<5	0.17	19.3	0.11	783	2.09	0.049	1.8	0.033	6.38	0.01	0.47	1.5	0.2	59.5	<.02	10.1	0.026	<.02	1.1	2	0.9	51.3
RS-495 0840-0860	61	0.53	1.1	0.3	3	60.5	0.14	0.44	0.1	2	2.7	11.5	2.45	3.1	13	0.19	18.1	0.13	545	2.74	0.047	1.8	0.034	30.18	<.01	0.44	1.4	0.2	51.4	<.02	9.1	0.026	0.03	2.1	2	0.7	66.8
RS-495 0860-0880	83	0.64	0.4	<.2	2	67	0.11	0.45	0.1	2.2	6.7	12.8	2.99	3.8	16	0.22	17	0.12	481	4.06	0.057	3.5	0.041	6.23	<.01	0.49	1.5	0.2	54	<.02	9	0.026	0.04	2.3	4	0.6	71.8
RS-495 0880-0900	200	0.54	1.7	0.7	3	57	0.14	0.5	0.14	2.4	7.2	15.26	2.95	4.1	17	0.17	18.6	0.13	639	4.29	0.045	4.4	0.038	7.45	<.01	0.54	1.2	0.2	36.5	<.02	8.5	0.024	<.02	3.2	4	0.9	85.9
RS-495 0900-0920	109	0.86	<.1	0.4	3	86.7	0.11	0.31	0.22	2.2	5.1	11.8	2.74	5.7	11	0.29	18.9	0.15	556	3.46	0.094	2.6	0.036	7.01	<.01	0.33	1.7	0.2	26.7	0.02	9.5	0.031	0.03	2.3	2	0.5	84.3
RS-495 0920-0940	93	0.75	<.1	0.2	5	77.4	0.09	0.28	0.23	2.3	7.6	18.65	2.67	5	<5	0.26	18.2	0.15	605	3.67	0.084	3.8	0.039	7.97	<.01	0.33	1.5	0.2	30.5	<.02	9.4	0.029	0.04	2.5	3	0.5	85.5
RS-495 0940-0960	62	0.79	0.3	0.4	4	84.2	0.28	0.33	0.11	1.8	6.2	9.08	2.55	3.9	11	0.31	17.9	0.11	446	2.16	0.088	2.9	0.037	8.14	<.01	0.65	1.4	0.1	50	<.02	9.8	0.033	0.08	3.3	2	0.7	53.1
RS-495 0960-0980	92	0.91	1.6	0.3	5	87.4	0.17	0.58	0.2	1.9	4.5	7.93	2.41	4.4	10	0.34	19.4	0.13	1064	1.98	0.079	2.4	0.035	13.47	<.01	0.46	1.6	0.2	54.1	<.02	9.2	0.033	0.1	2.7	3	0.7	67.3
RS-495 0980-1000	50	0.4	4.8	1.5	5	68.4	0.16	0.28	0.12	2	8.7	12.63	2.94	3	58	0.15	14.8	0.13	1188	2.71	0.045	4.5	0.034	11.57	<.01	0.69	1.4	0.1	33.8	0.02	9.8	0.035	0.02	1.8	3	0.9	70.4
RS-495 1000-1020	69	0.46	1.5	0.6	5	58.4	0.12	0.27	0.25	2.1	6.6	11.13	2.79	3.2	40	0.16	14.2	0.11	700	2.69	0.045	4.1	0.032	7.72	<.01	0.62	1.3	0.1	36.4	<.02	9.5	0.033	<.02	2.6	3	0.8	75.1
RS-495 1020-1040	106	0.7	0.6	<.2	4	82.3	0.14	0.3	0.24	1.8	6.6	13.16	2.66	4.4	55	0.28	15	0.14	844	2.59	0.094	2.7	0.034	9.14	<.01	0.64	1.4	0.2	30.6	<.02	9.7	0.038	0.06	2.5	3	0.5	73
RS-495 1040-1060	96	0.94	<.1	<.2	6	87.6	0.13	0.4	0.21	2	6.7	10.18	2.74	5.3	27	0.33	16.4	0.17	613	2.95	0.09	3.6	0.034	26.32	<.01	0.49	1.6	0.2	34.8	<.02	8.9	0.039	0.08	2.1	3	0.6	82.5
RS-495 1060-1080	95	0.49	0.1	1.7	5	50.9	0.05	0.27	0.17	2	10	14.22	3.08	4.5	48	0.16	14.5	0.14	556	3.71	0.039	5.5	0.032	19.39	<.01	0.56	1.1	0.2	18.9	<.02	7.7	0.034	0.02	1.7	3	0.8	75.9
RS-495 1080-1100	81	0.7	<.1	0.4	3	70.6	0.06	0.33	0.17	2.1	6.3	11.6	2.82	5.6	21	0.23	15.7	0.18	780	3.66	0.082	3.7	0.037	8.75	<.01	0.29	1.1	<.1	18.3	<.02	8.6	0.033	0.02	1.7	2	0.5	78.8
RS-495 1100-1120	47	0.38	0.1	<.2	5	48.2	0.03	0.27	0.12	2.2	8.6	14.32	2.84	3.4	23	0.13	12.2	0.12	604	3.84	0.042	5.2	0.03	8.56	<.01	0.48	1.2	0.1	17.7	<.02	7.8	0.031	<.02	1.9	3	1.1	76.3
RS-495 1120-1140	64	0.52	1.4	0.3	5	57.8	0.07	0.34	0.22	1.9	7	12.91	2.96	3.3	85	0.23	14.4	0.12	823	3.13	0.065	4.4	0.029	7.95	<.01	0.53	1.2	0.3	24.4	<.02	9.6	0.042	0.03	2	3	1	63.3
RS-495 1140-1160	64	0.46	0.1	19.4	4	50.5	0.11	0.29	0.13	1.9	10.2	18.89	2.88	3.3	5	0.19	14.9	0.12	686	3.77	0.067	5.3	0.032	9.66	<.01	0.46	0.7	0.2	18.6	<.02	9.7	0.034	0.02	1.5	4	0.6	68.3
RS-495 1160-1180	89	0.58	<.1	6.5	3	45.3	0.1	0.44	0.14	2.3	10.8	23.59	3.15	5.5	41	0.18	19.4	0.12	740	4.21	0.047	7.5	0.034	13.02	<.01	0.48	1	0.2	18.3	<.02	9.8	0.042	<.02	1.3	4	0.8	74.9
RS-495 1180-1200	82	0.59	<.1	3.2	3	48.3	0.12	0.39	0.24	1.9	9.9	19.33	3.14	5.5	10	0.2	19.1	0.11	755	4.52	0.051	5.7	0.034	12.42	0.01	0.34	1.1	0.2	14.8	<.02	9.5	0.05	<.02	1.2	4	0.5	74.5
RS-495 1200-1220	86	0.59	<.1	1.6	3	51.8	0.13	0.44</td																													



INVOICE

Remit To: P.O. Box 11530
Reno, Nevada 89510
Phone No.: 702-356-0606
Fax No.: 702-356-1413

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

INVOICE NO: SP 0057368-IN
INVOICE DATE: 06/02/00

(775) 356-0606

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	NET 30 - DUE IN U.S. DOLLARS	
QUANTITY	DESCRIPTION	PRICE	AMOUNT	
131	SAMPLES RECEIVED	.00	.00	
1	NO PREPARATION REQUIRED	.00	.00	
130	DRY/JAW CRUSH ENTIRE SAMPLE	4.60	598.00	
130	"JONES" RIFFLE SPLIT	3.00	390.00	
130	RING/PUCK MILL	2.00	260.00	
96	Au (1 A.T. FIRE ASSAY)	8.00	768.00	
96	HYDROCHLORIC/NITRIC DIGESTION	2.00	192.00	
96	Ag ANALYSES	1.00	96.00	
85	COMPOSITE CHARGE	1.25	106.25	
63	MULTI-ELEMENT ICP PACKAGE	13.75	866.25	

86-2510-477
RMA

NET INVOICE: 3,276.50
LESS DISCOUNT: 1,146.78
FREIGHT: .00

INVOICE TOTAL: 2,129.72



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: RS-495-00 RECEIVED : 11 MAY 2000
No. SAMPLES : 131 REPORTED : 1 JUN 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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388

CLIENT : HECLA MINING COMPANY
 PROJECT : ROSEBUD
 REFERENCE : RS-495-00

REPORTED : 1 JUN 2000



**American
Assay
Laboratories**

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 1290-1310						
RS-495-00 1340-1360						
RS-495-00 1390-1410						
RS-495-00 1440-1460						
RS-495-00 1490-1510						
RS-495-00 1540-1560						
RS-495-00 1590-1610						
RS-495-00 1640-1660						
RS-495-00 1690-1710						
RS-495-00 1740-1754						
RS-495-00 1790-1810						
RS-495-00 1840-1860						
RS-495-00 1875-1895						
RS-495-00 1897-1898	26		<0.001		1.1	0.03
RS-495-00 1900-1920						
RS-495-00 1920-1933						
RS-495-00 1933-1962						
RS-495-00 1962-1970						
RS-495-00 1970-2000						
RS-495-00 2000-2040						
RS-495-00 2040-2070						
RS-495-00 2070.0-2074.7						
RS-495-00 2074.7-2080.0						
RS-495-00 2080-2105						
RS-495-00 2105-2115						

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388

CLIENT : HECLA MINING COMPANY
 PROJECT : ROSEBUD
 REFERENCE : RS-495-00



**American
Assay
Laboratories**

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2115-2136						
RS-495-00 2136-2137	<5		<0.001		<0.5	<0.02
RS-495-00 2137.0-2148.3						
RS-495-00 2148.3-2150.3	152		0.004		1.5	0.04
RS-495-00 2150.3-2166.0						
RS-495-00 2166-2187						
RS-495-00 2187-2189	<5		<0.001		0.8	0.02
RS-495-00 2189-2215						
RS-495-00 2215-2220						
RS-495-00 2220-2240						
RS-495-00 2240-2260						
RS-495-00 2260.0-2267.8						
RS-495-00 2267.8-2270.3	<5		<0.001		0.8	0.02
RS-495-00 2270.3-2280.0						
RS-495-00 2280-2285		SAMPLE NOT RECEIVED				
RS-495-00 2285-2290						
RS-495-00 2290-2295	11		<0.001		<0.5	<0.02
RS-495-00 2295-2300	32		<0.001		<0.5	<0.02
RS-495-00 2300-2305	<5		<0.001		<0.5	<0.02
RS-495-00 2305.0-2309.2	<5		<0.001		<0.5	<0.02
RS-495-00 2309.2-2310.0	33		<0.001		0.8	0.02
RS-495-00 2310.0-2311.6	35		0.001		<0.5	<0.02
RS-495-00 2311.6-2316.3	60	62	0.002	0.002	1.8	0.05
RS-495-00 2316.3-2317.4	62		0.002		1.6	0.05
RS-495-00 2317.4-2317.9	57		0.002		6.9	0.20

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2317.9-2322.1	65		0.002		1.8	0.05
RS-495-00 2322.1-2323.2	35		0.001		1.6	0.05
RS-495-00 2323.2-2324.9	50		0.001		1.7	0.05
RS-495-00 2324.9-2330.4	55		0.002		1.8	0.05
RS-495-00 2330.4-2332.6	161		0.005		3.5	0.10
RS-495-00 2332.6-2336.7	76		0.002		2.6	0.08
RS-495-00 2336.7-2342.3	119		0.003		3.3	0.10
RS-495-00 2342.3-2348.4	65		0.002		2.8	0.08
RS-495-00 2348.4-2351.0	79		0.002		2.1	0.06
RS-495-00 2351-2356	52		0.002		2.2	0.06
RS-495-00 2356-2361	44		0.001		2.1	0.06
RS-495-00 2361-2366	75		0.002		3.5	0.10
RS-495-00 2366-2374	67		0.002		2.9	0.08
RS-495-00 2374-2380	70		0.002		3.8	0.11
RS-495-00 2380-2390	106		0.003		2.7	0.08
RS-495-00 2390-2400	55		0.002		2.3	0.07
RS-495-00 2400.0-2408.8	95		0.003		2.2	0.06
RS-495-00 2408.8-2412.5	18		<0.001		0.7	0.02
RS-495-00 2412.5-2420.0	31		<0.001		0.7	0.02
RS-495-00 2420-2425	42		0.001		1.3	0.04
RS-495-00 2425-2430	50		0.001		1.5	0.04
RS-495-00 2430-2435	29		<0.001		0.7	0.02
RS-495-00 2435-2440	32		<0.001		0.5	<0.02
RS-495-00 2440-2445	33	30	<0.001	<0.001	<0.5	<0.02
RS-495-00 2445-2450	33		<0.001		<0.5	<0.02

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP057388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2450.0-2454.3	23		<0.001		0.6	<0.02
RS-495-00 2454.3-2458.6	305		0.009		3.3	0.10
RS-495-00 2458.6-2459.7	1031		0.030		7.1	0.21
RS-495-00 2459.7-2464.0	362		0.011		4.3	0.13
RS-495-00 2464.0-2468.4	184		0.005		2.3	0.07
RS-495-00 2468.4-2475.0	118	118	0.003	0.003	1.8	0.05
RS-495-00 2475-2481	118		0.003		1.5	0.04
RS-495-00 2481.0-2484.5	87		0.003		1.8	0.05
RS-495-00 2484.5-2490.0	20		<0.001		0.5	<0.02
RS-495-00 2490.0-2495.1	20		<0.001		0.7	0.02
RS-495-00 2495.1-2501.0	18		<0.001		<0.5	<0.02
RS-495-00 2501-2508	18		<0.001		0.6	<0.02
RS-495-00 2508.0-2516.1	51		0.001		1.2	0.04
RS-495-00 2516.1-2521.0	49		0.001		1.0	0.03
RS-495-00 2521.0-2526.5	33	24	<0.001	<0.001	<0.5	<0.02
RS-495-00 2526.5-2531.5	71		0.002		0.9	0.03
RS-495-00 2531.5-2536.9	49		0.001		1.2	0.04
RS-495-00 2536.9-2541.5	47		0.001		1.6	0.05
RS-495-00 2541.5-2547.4	20		<0.001		3.3	0.10
RS-495-00 2547.4-2552.4	53		0.002		1.1	0.03
RS-495-00 2552.4-2556.0	37		0.001		1.1	0.03
RS-495-00 2556.0-2562.6	10		<0.001		<0.5	<0.02
RS-495-00 2562.6-2568.0	<5		<0.001		<0.5	<0.02
RS-495-00 2568.0-2574.5	<5		<0.001		<0.5	<0.02
RS-495-00 2574.5-2578.5	38		0.001		<0.5	<0.02

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2578.5-2584.0	89		0.003		<0.5	<0.02
RS-495-00 2584.0-2587.5	<5		<0.001		<0.5	<0.02
RS-495-00 2587.5-2589.0	<5		<0.001		<0.5	<0.02
RS-495-00 2589-2594	6		<0.001		<0.5	<0.02
RS-495-00 2594.0-2599.4	<5		<0.001		<0.5	<0.02
RS-495-00 2599.4-2606.2	16		<0.001		0.5	<0.02
RS-495-00 2606.2-2611.5	33		<0.001		0.8	0.02
RS-495-00 2611.5-2614.5	21		<0.001		1.1	0.03
RS-495-00 2614.5-2620.0	12		<0.001		<0.5	<0.02
RS-495-00 2620-2630	<5		<0.001		<0.5	<0.02
RS-495-00 2630.0-2637.6	31		<0.001		0.6	<0.02
RS-495-00 2637.6-2640.0	35		0.001		0.7	0.02
RS-495-00 2640-2650	50		0.001		0.7	0.02
RS-495-00 2650-2655	14		<0.001		0.5	<0.02
RS-495-00 2655-2660	51		0.001		0.8	0.02
RS-495-00 2660-2665	<5		<0.001		<0.5	<0.02
RS-495-00 2665-2670	<5		<0.001		<0.5	<0.02
RS-495-00 2670-2677	8		<0.001		<0.5	<0.02
RS-495-00 2677-2680	68		0.002		1.8	0.05
RS-495-00 2680-2690	41		0.001		0.5	<0.02
RS-495-00 2690.0-2698.5	49		0.001		0.8	0.02
RS-495-00 2698.5-2703.5	36		0.001		<0.5	<0.02
RS-495-00 2703.5-2708.0	29	20	<0.001	<0.001	<0.5	<0.02
RS-495-00 2708-2713	19		<0.001		<0.5	<0.02
RS-495-00 2713.0-2717.2	14		<0.001		<0.5	<0.02

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 PPM	Ag(OZ) D210 OPT
RS-495-00 2717.2-2721.0	52		0.002		4.8	0.14
RS-495-00 2721-2726	30		<0.001		3.3	0.10
RS-495-00 2726.0-2736.6	41		0.001		3.1	0.09
RS-495-00 2736.6-2743.2	31		<0.001		5.0	0.15
RS-495-00 2743.2-2750.0	36		0.001		5.0	0.15
RS-495-00 2750-2761	53	56	0.002	0.002	3.8	0.11
34754	5584		0.163		59.2	1.73



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: RS-495-00
No. SAMPLES : 131
MAIN SAMPLE TYPE : DRILL CORE

RECEIVED : 11 MAY 2000
REPORTED : 1 JUN 2000

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	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP057388



American
Assay
Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 PPM	Ag(OZ) D210 OPT
RS-495-00 1290-1310						
RS-495-00 1340-1360						
RS-495-00 1390-1410						
RS-495-00 1440-1460						
RS-495-00 1490-1510						
RS-495-00 1540-1560						
RS-495-00 1590-1610						
RS-495-00 1640-1660						
RS-495-00 1690-1710						
RS-495-00 1740-1754						
RS-495-00 1790-1810						
RS-495-00 1840-1860						
RS-495-00 1875-1895						
RS-495-00 1897-1898	26		<0.001		1.1	0.03
RS-495-00 1900-1920						
RS-495-00 1920-1933						
RS-495-00 1933-1962						
RS-495-00 1962-1970						
RS-495-00 1970-2000						
RS-495-00 2000-2040						
RS-495-00 2040-2070						
RS-495-00 2070.0-2074.7						
RS-495-00 2074.7-2080.0						
RS-495-00 2080-2105						
RS-495-00 2105-2115						

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 PPM	Ag(OZ) D210 OPT
RS-495-00 2115-2136						
RS-495-00 2136-2137	<5		<0.001		<0.5	<0.02
RS-495-00 2137.0-2148.3						
RS-495-00 2148.3-2150.3	152		0.004		1.5	0.04
RS-495-00 2150.3-2166.0						
RS-495-00 2166-2187						
RS-495-00 2187-2189	<5		<0.001		0.8	0.02
RS-495-00 2189-2215						
RS-495-00 2215-2220						
RS-495-00 2220-2240						
RS-495-00 2240-2260						
RS-495-00 2260.0-2267.8						
RS-495-00 2267.8-2270.3	<5		<0.001		0.8	0.02
RS-495-00 2270.3-2280.0						
RS-495-00 2280-2285			SAMPLE NOT RECEIVED			
RS-495-00 2285-2290						
RS-495-00 2290-2295	11		<0.001		<0.5	<0.02
RS-495-00 2295-2300	32		<0.001		<0.5	<0.02
RS-495-00 2300-2305	<5		<0.001		<0.5	<0.02
RS-495-00 2305.0-2309.2	<5		<0.001		<0.5	<0.02
RS-495-00 2309.2-2310.0	33		<0.001		0.8	0.02
RS-495-00 2310.0-2311.6	35		0.001		<0.5	<0.02
RS-495-00 2311.6-2316.3	60	62	0.002	0.002	1.8	0.05
RS-495-00 2316.3-2317.4	62		0.002		1.6	0.05
RS-495-00 2317.4-2317.9	57		0.002		6.9	0.20

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388

CLIENT : HECLLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000



American
Assay
Laboratories

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2317.9-2322.1	65		0.002		1.8	0.05
RS-495-00 2322.1-2323.2	35		0.001		1.6	0.05
RS-495-00 2323.2-2324.9	50		0.001		1.7	0.05
RS-495-00 2324.9-2330.4	55		0.002		1.8	0.05
RS-495-00 2330.4-2332.6	161		0.005		3.5	0.10
RS-495-00 2332.6-2336.7	76		0.002		2.6	0.08
RS-495-00 2336.7-2342.3	119		0.003		3.3	0.10
RS-495-00 2342.3-2348.4	65		0.002		2.8	0.08
RS-495-00 2348.4-2351.0	79		0.002		2.1	0.06
RS-495-00 2351-2356	52		0.002		2.2	0.06
RS-495-00 2356-2361	44		0.001		2.1	0.06
RS-495-00 2361-2366	75		0.002		3.5	0.10
RS-495-00 2366-2374	67		0.002		2.9	0.08
RS-495-00 2374-2380	70		0.002		3.8	0.11
RS-495-00 2380-2390	106		0.003		2.7	0.08
RS-495-00 2390-2400	55		0.002		2.3	0.07
RS-495-00 2400.0-2408.8	95		0.003		2.2	0.06
RS-495-00 2408.8-2412.5	18		<0.001		0.7	0.02
RS-495-00 2412.5-2420.0	31		<0.001		0.7	0.02
RS-495-00 2420-2425	42		0.001		1.3	0.04
RS-495-00 2425-2430	50		0.001		1.5	0.04
RS-495-00 2430-2435	29		<0.001		0.7	0.02
RS-495-00 2435-2440	32		<0.001		0.5	<0.02
RS-495-00 2440-2445	33	30	<0.001	<0.001	<0.5	<0.02
RS-495-00 2445-2450	33		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000



American
Assay
Laboratories

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 PPM	Ag(OZ) D210 OPT
RS-495-00 2450.0-2454.3	23		<0.001		0.6	<0.02
RS-495-00 2454.3-2458.6	305		0.009		3.3	0.10
RS-495-00 2458.6-2459.7	1031		0.030		7.1	0.21
RS-495-00 2459.7-2464.0	362		0.011		4.3	0.13
RS-495-00 2464.0-2468.4	184		0.005		2.3	0.07
RS-495-00 2468.4-2475.0	118	118	0.003	0.003	1.8	0.05
RS-495-00 2475-2481	118		0.003		1.5	0.04
RS-495-00 2481.0-2484.5	87		0.003		1.8	0.05
RS-495-00 2484.5-2490.0	20		<0.001		0.5	<0.02
RS-495-00 2490.0-2495.1	20		<0.001		0.7	0.02
RS-495-00 2495.1-2501.0	18		<0.001		<0.5	<0.02
RS-495-00 2501-2508	18		<0.001		0.6	<0.02
RS-495-00 2508.0-2516.1	51		0.001		1.2	0.04
RS-495-00 2516.1-2521.0	49		0.001		1.0	0.03
RS-495-00 2521.0-2526.5	33	24	<0.001	<0.001	<0.5	<0.02
RS-495-00 2526.5-2531.5	71		0.002		0.9	0.03
RS-495-00 2531.5-2536.9	49		0.001		1.2	0.04
RS-495-00 2536.9-2541.5	47		0.001		1.6	0.05
RS-495-00 2541.5-2547.4	20		<0.001		3.3	0.10
RS-495-00 2547.4-2552.4	53		0.002		1.1	0.03
RS-495-00 2552.4-2556.0	37		0.001		1.1	0.03
RS-495-00 2556.0-2562.6	10		<0.001		<0.5	<0.02
RS-495-00 2562.6-2568.0	<5		<0.001		<0.5	<0.02
RS-495-00 2568.0-2574.5	<5		<0.001		<0.5	<0.02
RS-495-00 2574.5-2578.5	38		0.001		<0.5	<0.02

**AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP057388**



**American
Assay
Laboratories**

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00
REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-495-00 2578.5-2584.0	89		0.003		<0.5	<0.02
RS-495-00 2584.0-2587.5	<5		<0.001		<0.5	<0.02
RS-495-00 2587.5-2589.0	<5		<0.001		<0.5	<0.02
RS-495-00 2589-2594	6		<0.001		<0.5	<0.02
RS-495-00 2594.0-2599.4	<5		<0.001		<0.5	<0.02
RS-495-00 2599.4-2606.2	16		<0.001		0.5	<0.02
RS-495-00 2606.2-2611.5	33		<0.001		0.8	0.02
RS-495-00 2611.5-2614.5	21		<0.001		1.1	0.03
RS-495-00 2614.5-2620.0	12		<0.001		<0.5	<0.02
RS-495-00 2620-2630	<5		<0.001		<0.5	<0.02
RS-495-00 2630.0-2637.6	31		<0.001		0.6	<0.02
RS-495-00 2637.6-2640.0	35		0.001		0.7	0.02
RS-495-00 2640-2650	50		0.001		0.7	0.02
RS-495-00 2650-2655	14		<0.001		0.5	<0.02
RS-495-00 2655-2660	51		0.001		0.8	0.02
RS-495-00 2660-2665	<5		<0.001		<0.5	<0.02
RS-495-00 2665-2670	<5		<0.001		<0.5	<0.02
RS-495-00 2670-2677	8		<0.001		<0.5	<0.02
RS-495-00 2677-2680	68		0.002		1.8	0.05
RS-495-00 2680-2690	41		0.001		0.5	<0.02
RS-495-00 2690.0-2698.5	49		0.001		0.8	0.02
RS-495-00 2698.5-2703.5	36		0.001		<0.5	<0.02
RS-495-00 2703.5-2708.0	29	20	<0.001	<0.001	<0.5	<0.02
RS-495-00 2708-2713	19		<0.001		<0.5	<0.02
RS-495-00 2713.0-2717.2	14		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SPO57388



American
Assay
Laboratories

CLIENT : HECLIA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-495-00

REPORTED : 1 JUN 2000

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 PPM	Ag(OZ) D210 OPT
RS-495-00 2717.2-2721.0	52		0.002		4.8	0.14
RS-495-00 2721-2726	30		<0.001		3.3	0.10
RS-495-00 2726.0-2736.6	41		0.001		3.1	0.09
RS-495-00 2736.6-2743.2	31		<0.001		5.0	0.15
RS-495-00 2743.2-2750.0	36		0.001		5.0	0.15
RS-495-00 2750-2761	53	56	0.002	0.002	3.8	0.11
34754	5584		0.163		59.2	1.73

AMERICAN ASSAY LABORATORIES
AAL 03-0 ICP PACKAGE DETECTION LIMITS

ELEMENT	Ag	Al	As	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
SAMPLES	ppb	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm								
	30	0.01	0.5	3	1	0.1	0.01	.01	1	1	0.2	0.01	0.5	10	0.01	1	0.01	2	0.1	0.01	1	0.001	0.3	0.2	0.4	1	0.2	2	0.01	0.2	5	1	2	1

5.0 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
 DIGEST IS PARTIAL FOR AI, B, Ba, Ca, Co, Cr, Fe, K, La, Mg, Mn, Na, Ni, P, Sr, Th, Ti, U, V AND W.
 ORGANIC SOLUTION EXTRACTION AND ULTRASONIC ICP FOR Ag, As, Bi, Cd, Cu, Ga, Mo, Pb, Sb, Se, Te AND Ti.
 Hg BY COLD VAPOR AAS.

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP57388
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
RS-495-00 1290-1310	86	0.86	2.7	0.5	5	77.90	0.13	0.93	0.28	2.00	4	6.39	2.87	7.4	13	0.27	27.4	0.21	1029	2.6	0.118	7.5	0.039	13.35	0.01	0.22	1.3	0.1	21.8	<.02	8.4	0.068	0.02	1.6	2	0.4	103.4
RS-495-00 1340-1360	35	1.09	7	0.5	4	66.30	0.06	0.55	0.11	2.10	3.9	7.07	2.56	7.3	13	0.16	24.5	0.3	723	1.78	0.125	5.4	0.038	6.62	<.01	0.23	1.7	<.1	35.9	<.02	8	0.023	0.02	0.8	<2	<.2	76.4
RS-495-00 1390-1410	89	0.8	2.7	1	5	52.80	0.14	0.3	0.16	2.00	5.8	12.16	3.28	6.6	14	0.25	22.8	0.18	769	3.19	0.085	13.3	0.043	11.38	<.01	0.18	1.3	0.2	16.5	<.02	9.3	0.069	0.03	1	3	0.4	96.8
RS-495-00 1440-1460	101	0.72	2.5	1.1	1	63.00	0.07	0.47	0.08	2.40	7.9	13.89	3.73	6.8	5	0.24	18.4	0.07	1250	4.12	0.099	16.3	0.04	8.66	<.01	0.25	1.6	0.2	14.7	<.02	11	0.091	<.02	1.3	3	0.4	89.9
RS-495-00 1490-1510	86	0.41	2.3	1	3	63.40	0.09	0.23	0.1	1.20	8.3	12.46	3.44	4	7	0.2	14.5	0.03	673	3.98	0.104	26.6	0.036	5.76	<.01	0.22	1.1	0.2	12.6	<.02	10.7	0.091	<.02	1.3	4	0.3	95.7
RS-495-00 1540-1560	76	0.64	3.2	0.9	2	76.70	0.09	0.21	0.05	2.40	10.4	12.06	3.89	6.9	5	0.27	21	0.09	1016	4.95	0.128	18.8	0.038	7.52	<.01	0.24	1.5	0.2	20.8	<.02	11.4	0.088	<.02	1	4	0.5	101.3
RS-495-00 1590-1610	95	0.83	3.9	1.4	2	54.50	0.04	0.84	0.13	2.70	8.1	9.91	4.22	7.1	7	0.26	23.5	0.1	1482	4.29	0.089	23.6	0.045	12.63	<.01	0.33	1.6	0.2	47.7	<.02	12.6	0.096	<.02	1.4	4	1.1	101.6
RS-495-00 1640-1660	94	1.41	4.0	0.9	<1	54.90	0.03	0.78	0.16	2.70	6.3	8.31	3.71	11.4	5	0.3	27.6	0.11	1328	4.05	0.102	12	0.049	18.75	<.01	0.71	1.6	0.2	77.6	<.02	12	0.09	<.02	1.4	2	0.9	102.5
RS-495-00 1690-1710	57	0.75	1.8	0.7	1	62.40	<.02	0.43	0.1	2.40	7	10.95	4.3	9.4	<5	0.18	19.1	0.21	1004	3.69	0.097	22.8	0.044	11.08	0.01	0.75	2.2	0.2	30.4	<.02	11.3	0.074	<.02	1.6	3	0.2	99.5
RS-495-00 1740-1754	131	1.13	30.4	0.4	<1	40.20	0.22	1.03	0.27	7.70	4.1	15.87	3.86	6.7	11	0.11	25.3	0.26	1581	4.35	0.084	7.1	0.142	11.46	0.01	1.04	3.7	0.3	190.2	<.02	5.8	0.17	<.02	1.4	22	0.2	134.5
RS-495-00 1790-1810	105	0.7	1.5	1.5	<1	56.10	0.09	0.39	0.2	2.80	9.4	14.26	4.51	8.5	<5	0.15	22.8	0.2	1060	4.52	0.103	28.4	0.045	6.07	0.01	0.64	2.3	0.3	32.3	<.02	12.1	0.054	<.02	1.7	4	<.2	105.2
RS-495-00 1840-1860	109	1.02	1.3	0.8	2	76.20	0.13	0.87	0.15	2.40	8.7	10.73	4.17	7.5	36	0.29	23.6	0.12	1449	3.66	0.09	19.8	0.042	12.04	<.01	1.6	1.5	0.2	59.1	0.02	10.9	0.02	0.03	1.3	4	<.2	97.1
RS-495-00 1875-1895	105	1.13	1.3	0.6	1	63.60	<.02	1.21	0.11	1.60	4.7	8.26	3.29	7.4	34	0.41	30	0.11	1065	5.85	0.074	15.3	0.033	15.13	0.07	0.96	1.2	0.2	78	<.02	10.9	0.006	0.07	1.2	<2	<.2	97.1
RS-495-00 1897-1898	814	1.21	10.8	9.4	1	29.60	0.06	0.41	0.2	1.50	1	5.42	2.07	6.1	127	0.41	26.7	0.07	466	32.25	0.052	3	0.072	37.22	0.39	3.09	0.9	1.9	134.9	<.02	8.3	<.001	0.14	1.5	<2	0.3	105.6
RS-495-00 1900-1920	196	1.30	3.3	0.9	1	73.50	0.02	1.16	0.09	2.30	3.3	4.97	3.08	8.3	44	0.44	34.6	0.09	1091	2.87	0.073	6.8	0.034	21.91	0.11	0.77	1.3	0.2	90	<.02	10.7	0.004	0.06	0.7	<2	<.2	104
RS-495-00 1920-1933	170	1.2	3.2	0.7	2	59.10	<.02	1.33	0.08	2.60	3	3.14	3.15	8.1	23	0.41	33.7	0.09	1134	2.02	0.063	3.6	0.033	19.59	0.04	0.5	1.4	0.2	109.4	<.02	10.3	0.01	0.05	0.7	<2	<.2	105.4
RS-495-00 1933-1962	236	1.03	2.9	0.4	<1	58.50	<.02	1.62	0.08	2.40	1.8	3.91	2.96	7.5	14	0.38	35.3	0.07	1105	1.67	0.063	3.4	0.032	25.46	0.03	0.47	1.4	0.2	95.7	<.02	10.2	0.011	0.06	0.7	<2	0.4	114.2
RS-495-00 1962-1970	125	0.78	0.8	1.3	2	70.10	0.03	1.6	0.08	1.40	5.1	5.48	2.83	6.6	17	0.4	36.8	0.05	1130	1.79	0.074	7	0.035	20.05	0.01	0.42	1.2	0.2	78.5	0.02	9.2	0.019	0.04	0.7	<2	0.6	84.8
RS-495-00 1970-2000	85	0.89	1.1	1.2	2	74.60	0.02	0.7	0.16	1.10	2.8	3.83	2.46	7.5	14	0.38	36.9	0.06	674	0.86	0.07	4.4	0.036	24.15	<.01	0.33	1	0.2	62.5	<.02	10.1	0.014	0.03	0.6	<2	0.6	81.5
RS-495-00 2000-2040	78	0.96	1.9	1.1	5	67.50	0.13	1.03	0.23	1.00	3.2	4.42	2.61	6.5	12	0.35	34.7	0.09	743	0.82	0.071	4	0.026	20.76	0.01	0.32	0.6	0.1	76.9	<.02	6.7	0.019	0.06	0.5	<2	0.3	87.2
RS-495-00 2040-2070	136	0.91	10.9	0.6	3	77.40	0.16	0.93	0.27	1.90	4.1	4.09	2.08	6.2	17	0.38	39.2	0.08	410	1.89	0.086	4.1	0.027	23.7	0.09	0.56	0.4	<.1	69	<.02	6.2	0.007	0.13	0.6	<2	<.2	74.6
RS-495-00 2070.0-2074.7	73	0.78	3.1	0.4	2	100.60	0.23	2.81	0.27	1.00	5.6	6.43	2.01	4.4	10	0.4	25	0.04	1468	1.63	0.094	10.9	0.031	14.63	0.04	0.32	0.4	0.1	75.2	<.02	4.2	0.008	0.08	0.5	2	<.2	48.1
RS-495-00 2074.7-2080.0	124	1.76	1.1	<.2	<1	101.60	0.8	1.46	0.34	1.20	2.6	5.05	2.05	6.4	18	0.73	34.1	0.18	560	0.59	0.075	6	0.037	21.44	0.02	0.26	0.7	0.1	220.7	0.02	4	0.002	0.19	0.7	<2	<.2	71.9
RS-495-00 2080-2105	114	2.12	1	<.2	2	64.10	0.52	2.12	0.36	1.50	2.3	6.44	2.17	7.3	17	0.76	38.2	0.18	572	3.87	0.071	3	0.039	24.24	0.01	0.31	0.7	<.1	334.2	0.02	3.9	0.001	0.22	0.5	<2	<.2	82.5
RS-495-00 2105-2115	143	1.28	2.0	0.7	<1	100.50	0.24	2.6	0.54	6.20	4.1	9.19	3.13	9.1	23	0.39	27.6	0.08	2512	2.28	0.109	13.5	0.067	18.93	0.02	1.47	1.2	0.2	123	<.02	5	0.014	0.13	0.8	7	<.2	145.4
RS-495-00 2115-2136	130	1.55	0.7	0.7	<1	81.30	0.04	1.29	0.28	6.00	5.7	14.46	4.17	11.9	11	0.45	34.4	0.08	2440	2.38	0.084	11.6	0.129	21.2	0.04	0.76	3.1	0.3	76.9	<.02	7.5	0.051	0.06	1	17	<.2	119.6
RS-495-00 2136-2137	359	1.54	4.5	1.6	<1	59.10	0.02	0.84	0.3	7.80	4.8	12.43	3.99	11	32	0.36	36	0.07	1772	2.11	0.067	10.2	0.133	21.05	0												

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP57388
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm
RS-495-00 2220-2240	152	1.82	0.8	0.7	5	58.8	0.02	1.43	0.22	8	5	11.95	4.01	10.3	18	0.49	36.8	0.09	1508	1.38	0.053	6.2	0.142	23.9	0.07	0.77	3.3	0.1	99.8	<.02	8.1	0.005	0.13	0.8	13	<.2	119.1
RS-495-00 2240-2260	179	1.92	0.5	0.9	5	64.2	0.02	3.36	0.28	7.3	3.5	11.52	4.14	11.7	19	0.52	37.2	0.11	2222	7.73	0.059	5.9	0.125	23.21	0.07	1.03	3.5	<.1	140.1	<.02	8.7	0.021	0.16	0.8	15	<.2	117.3
RS-495-00 2260.0-2267.8	469	1.64	1.5	44.9	3	59.4	0.03	1.06	0.26	5.5	2.8	11.56	3.38	9	18	0.54	36.9	0.08	1439	2.26	0.057	5.3	0.134	23.66	0.44	1.03	2.8	1.9	106.4	<.02	8.9	0.003	0.18	0.8	10	<.2	123
RS-495-00 2267.8-2270.3	884	1.62	4.8	347.3	3	46.4	0.02	1.46	0.25	6.7	3.6	11.27	2.92	7.7	99	0.64	32.4	0.06	1324	2.34	0.046	2.5	0.144	21.83	1.29	2.05	2.3	6	161.5	<.02	7.3	0.001	0.34	0.7	7	<.2	137.1
RS-495-00 2270.3-2280.0	204	1.89	0.7	12.3	4	59.3	0.03	2.02	0.32	5.6	3.6	11.13	3.96	9.7	29	0.53	36.1	0.09	1721	1.94	0.047	4.2	0.132	24.27	0.16	0.99	3.2	0.5	134	<.02	8.2	0.004	0.16	0.7	12	<.2	122.8
RS-495-00 2285-2290	180	2.08	2.6	5.6	6	75.5	0.02	2.6	0.25	9.5	1.8	9.6	4.4	10.6	10	0.61	38.1	0.1	2283	0.87	0.05	4.9	0.135	21.78	0.01	0.42	3.9	0.1	155.1	<.02	8.2	0.033	0.17	0.9	14	<.2	122.6
RS-495-00 2310.0-2322.1	1615	0.97	16.6	33.9	1	53.1	0.47	0.69	0.27	4.8	3.3	9.85	3.3	3	160	0.55	20.9	0.03	640	1.96	0.026	6.4	0.091	27.18	3.46	4.93	0.9	6.9	124	0.03	4.6	<.001	0.43	0.5	4	1.1	105.4
RS-495-00 2322.1-2342.3	1487	0.61	75	34.3	1	25.8	0.02	0.1	0.07	0.8	5.3	5.64	2.02	2.1	115	0.37	25.1	0.01	141	2.3	0.015	16.3	0.003	20.57	0.88	4.85	0.3	7.8	68.3	<.02	8.2	<.001	0.2	0.5	3	<.2	58.6
RS-495-00 2342.3-2366.0	1318	0.89	33.3	44.9	2	110.4	<.02	0.1	0.06	0.3	2.6	6.43	1.77	2.7	285	0.52	30.2	0.01	92	1.33	0.019	6.7	0.003	23.42	1.44	4.28	0.4	7.5	75.2	<.02	10.7	<.001	0.25	0.7	2	<.2	95.4
RS-495-00 2366-2390	2346	0.79	28.4	52.8	3	48.3	0.02	0.11	0.07	0.4	3.3	3.74	1.79	2.5	113	0.46	32.2	0.01	92	1.29	0.017	7.3	0.004	23.58	1.4	4.01	0.3	7	71.5	<.02	10.8	<.001	0.24	0.6	2	<.2	94.5
RS-495-00 2390.0-2412.5	1036	0.6	9.4	35.8	2	91.5	0.02	0.09	0.07	0.5	2	3.48	1.69	2	184	0.35	36.4	0.01	89	0.67	0.016	5.8	0.004	24.71	1.37	1.84	0.3	4.4	69.4	<.02	11.7	<.001	0.14	0.6	<2	<.2	91.9
RS-495-00 2412.5-2435.0	542	0.75	4.4	23.7	1	134.4	<.02	0.08	0.09	0.3	2.9	2.97	1.38	2.2	99	0.4	35.1	0.01	71	0.64	0.014	4.8	0.004	24.3	1.06	3.7	0.3	7.5	62.7	<.02	11.5	<.001	0.38	0.7	<2	<.2	65.8
RS-495-00 2435.0-2454.3	256	0.88	11.5	12.2	1	156.9	0.02	0.96	0.11	0.3	3.3	3.51	1.47	3	69	0.51	36.1	0.02	725	0.89	0.021	6.8	0.005	24.1	1.01	1.71	0.5	2.2	99.3	<.02	12	<.001	0.32	0.8	<2	<.2	59.5
RS-495-00 2454.3-2468.4	3067	0.76	661.8	262.7	4	78.1	0.56	0.28	0.17	3.7	14.8	23.76	2.62	2.8	348	0.34	11.3	0.04	137	9.43	0.023	24.5	0.052	19.18	2.21	14.48	0.7	43.7	108	<.02	3.3	<.001	0.48	0.5	5	0.2	45.4
RS-495-00 2468.4-2484.5	1079	0.78	210.2	74.6	2	189.2	0.1	0.18	0.1	0.6	2.7	4.06	1.02	2.5	91	0.36	12.8	0.04	88	2.29	0.023	7.4	0.005	20.93	0.67	2.96	0.4	11.7	115.3	<.02	4.2	<.001	0.18	0.5	<2	<.2	24.9
RS-495-00 2484.5-2508.0	339	1.05	13	19.3	3	225.3	0.04	0.17	0.12	0.4	3.3	1.15	0.77	2.3	49	0.54	9.7	0.04	66	10.95	0.022	2	0.006	24.68	0.75	1.88	0.4	4	107.5	<.02	3.9	<.001	0.34	2.3	<2	<.2	67.5
RS-495-00 2508.0-2531.5	598	0.85	27.5	36.8	3	198.3	0.4	0.16	0.18	0.6	2.8	1.46	0.95	2.1	48	0.47	15.7	0.03	64	3.75	0.022	2.9	0.008	25.74	1	1.97	0.4	5.9	100.6	<.02	4	<.001	0.26	0.8	<2	<.2	70
RS-495-00 2531.5-2552.4	1205	0.8	30.2	36.6	<1	72.3	1.86	0.15	0.12	0.4	2.4	2.03	0.8	1.9	55	0.4	16.3	0.03	58	2.89	0.02	3.4	0.007	23.87	0.68	2	0.3	6.3	95.4	<.02	4.4	<.001	0.21	0.5	<2	<.2	37
RS-495-00 2552.4-2574.5	383	0.74	10.1	11	2	476.9	0.59	0.96	0.12	0.3	2.8	1.49	0.61	1.8	20	0.35	18.5	0.04	359	1.02	0.027	2.9	0.007	28.17	0.45	1.58	0.3	2.8	173.3	<.02	5.4	<.001	0.17	0.7	<2	<.2	16.9
RS-495-00 2574.5-2594.0	200	0.56	2.8	5.8	2	516	0.02	1.55	0.11	0.2	1.5	0.99	0.5	1	8	0.29	15.9	0.03	630	0.07	0.024	1.4	0.006	23.58	0.41	0.58	0.2	1.8	223.2	<.02	5.1	<.001	0.11	0.6	<2	<.2	26.8
RS-495-00 2594.0-2614.5	492	0.68	12.1	13.1	1	314.8	0.04	0.29	0.11	0.2	1.9	1.38	0.64	1.3	14	0.33	16.1	0.04	131	0.15	0.025	1.7	0.009	24.05	0.59	1.9	0.3	5.5	117.7	<.02	4.9	<.001	0.14	0.5	<2	<.2	29
RS-495-00 2614.5-2637.6	349	0.86	13.7	14.8	2	191.5	0.04	1.01	0.1	0.4	1	0.93	0.9	1.8	20	0.39	15	0.05	519	0.24	0.027	1.8	0.006	25.26	1	1.96	0.4	3.4	192.7	<.02	4.4	<.001	0.17	0.5	<2	<.2	31.9
RS-495-00 2637.6-2660.0	512	0.98	17.8	30.5	6	206.8	0.25	0.58	0.1	0.3	2	1.08	0.68	2	9	0.44	14.8	0.06	195	1.69	0.033	1.2	0.008	23.53	0.7	2.13	0.4	6.3	157.1	<.02	4.3	<.001	0.15	0.6	<2	<.2	27.5
RS-495-00 2660-2677	193	2.97	4.2	3.5	4	142	0.29	2.01	0.3	24.2	60.8	63.61	5.16	8.4	34	0.54	16.4	0.67	1279	0.69	0.045	84.6	0.119	16.5	1.82	2.69	6.3	0.7	253.7	0.03	2.8	0.001	0.31	0.4	73	<.2	126.6
RS-495-00 2677.0-2698.5	842	0.73	45	46.3	2	122.3	0.04	0.26	0.32	1.6	2.3	4.21	1.22	1.7	25	0.31	10.8	0.06	67	3.31	0.031	6.3	0.013	24.76	1.24	2.48	0.4	9.3	133.4	<.02	3	<.001	0.17	0.8	<2	<.2	88.1
RS-495-00 2698.5-2717.2	299	0.67	17.1	21.6	3	106.2	0.02	0.22	0.33	1.1	2.1	1.49	0.36	1.5	20	0.28	5.7	0.05	47	1.13	0.029	3.5	0.007	23.41	0.22	0.76	0.3	5.3	118.8	<.02	3.3	<.001	0.12	0.8	<2	<.2	47.8
RS-495-00 2717.2-2736.6	2848	0.96	52.1	11.7	3	86.3	0.21	1.83	6.92	10.1	15.5	94.36	3.51	2.3	118	0.21	2.4</																				

AMERICAN ASSAY LABORATORIES
AAL 03-0 ICP PACKAGE DETECTION LIMITS

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
30	0.01	0.5	3	1	0.1	0.01	.01	1	1	0.2	0.01	0.5	10	0.01	1	0.01	2	0.1	0.01	1	0.001	0.3	0.2	0.4	1	0.2	2	0.01	0.2	5	1	2	1	

5.0 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
 DIGEST IS PARTIAL FOR Al, B, Ba, Ca, Co, Cr, Fe, K, La, Mg, Mn, Na, Ni, P, Sr, Th, Ti, U, V AND W.
 ORGANIC SOLUTION EXTRACTION AND ULTRASONIC ICP FOR Ag, As, Bi, Cd, Cu, Ga, Mo, Pb, Sb, Se, Te AND Tl.
 Hg BY COLD VAPOR AAS.

CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP57388
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
RS-495-00 1290-1310	86	0.86	2.7	0.5	5	77.90	0.13	0.93	0.28	2.00	4	6.39	2.87	7.4	13	0.27	27.4	0.21	1029	2.6	0.118	7.5	0.039	13.35	0.01	0.22	1.3	0.1	21.8	<.02	8.4	0.068	0.02	1.6	2	0.4	103.4
RS-495-00 1340-1360	35	1.09	7	0.5	4	66.30	0.06	0.55	0.11	2.10	3.9	7.07	2.56	7.3	13	0.16	24.5	0.3	723	1.78	0.125	5.4	0.038	6.62	<.01	0.23	1.7	<.1	35.9	<.02	8	0.023	0.02	0.8	<2	<.2	76.4
RS-495-00 1390-1410	89	0.8	2.7	1	5	52.80	0.14	0.3	0.16	2.00	5.8	12.16	3.28	6.6	14	0.25	22.8	0.18	769	3.19	0.085	13.3	0.043	11.38	<.01	0.18	1.3	0.2	16.5	<.02	9.3	0.069	0.03	1	3	0.4	96.8
RS-495-00 1440-1460	101	0.72	2.5	1.1	1	63.00	0.07	0.47	0.08	2.40	7.9	13.89	3.73	6.8	5	0.24	18.4	0.07	1250	4.12	0.099	16.3	0.04	8.66	<.01	0.25	1.6	0.2	14.7	<.02	11	0.091	<.02	1.3	3	0.4	89.9
RS-495-00 1490-1510	86	0.41	2.3	1	3	63.40	0.09	0.23	0.1	1.20	8.3	12.46	3.44	4	7	0.2	14.5	0.03	673	3.98	0.104	26.6	0.036	5.76	<.01	0.22	1.1	0.2	12.6	<.02	10.7	0.091	<.02	1.3	4	0.3	95.7
RS-495-00 1540-1560	76	0.64	3.2	0.9	2	76.70	0.09	0.21	0.05	2.40	10.4	12.06	3.89	6.9	5	0.27	21	0.09	1016	4.95	0.128	18.8	0.038	7.52	<.01	0.24	1.5	0.2	20.8	<.02	11.4	0.088	<.02	1	4	0.5	101.3
RS-495-00 1590-1610	95	0.83	3.9	1.4	2	54.50	0.04	0.84	0.13	2.70	8.1	9.91	4.22	7.1	7	0.26	23.5	0.1	1482	4.29	0.089	23.6	0.045	12.63	<.01	0.33	1.6	0.2	47.7	<.02	12.6	0.096	<.02	1.4	4	1.1	101.6
RS-495-00 1640-1660	94	1.41	4.0	0.9	<1	54.90	0.03	0.78	0.16	2.70	6.3	8.31	3.71	11.4	5	0.3	27.6	0.11	1328	4.05	0.102	12	0.049	18.75	<.01	0.71	1.6	0.2	77.6	<.02	12	0.09	<.02	1.4	2	0.9	102.5
RS-495-00 1690-1710	57	0.75	1.8	0.7	1	62.40	<.02	0.43	0.1	2.40	7	10.95	4.3	9.4	<5	0.18	19.1	0.21	1004	3.69	0.097	22.8	0.044	11.08	0.01	0.75	2.2	0.2	30.4	<.02	11.3	0.074	<.02	1.6	3	0.2	99.5
RS-495-00 1740-1754	131	1.13	30.4	0.4	<1	40.20	0.22	1.03	0.27	7.70	4.1	15.87	3.86	6.7	11	0.11	25.3	0.26	1581	4.35	0.084	7.1	0.142	11.46	0.01	1.04	3.7	0.3	190.2	<.02	5.8	0.17	<.02	1.4	22	0.2	134.5
RS-495-00 1790-1810	105	0.7	1.5	1.5	<1	56.10	0.09	0.39	0.2	2.80	9.4	14.26	4.51	8.5	<5	0.15	22.8	0.2	1060	4.52	0.103	28.4	0.045	6.07	0.01	0.64	2.3	0.3	32.3	<.02	12.1	0.054	<.02	1.7	4	<.2	105.2
RS-495-00 1840-1860	109	1.02	1.3	0.8	2	76.20	0.13	0.87	0.15	2.40	8.7	10.73	4.17	7.5	36	0.29	23.6	0.12	1449	3.66	0.09	19.8	0.042	12.04	<.01	1.6	1.5	0.2	59.1	0.02	10.9	0.02	0.03	1.3	4	<.2	97.1
RS-495-00 1875-1895	105	1.13	1.3	0.6	1	63.60	<.02	1.21	0.11	1.60	4.7	8.26	3.29	7.4	34	0.41	30	0.11	1065	5.85	0.074	15.3	0.033	15.13	0.07	0.96	1.2	0.2	78	<.02	10.9	0.006	0.07	1.2	<2	<.2	97.1
RS-495-00 1897-1898	814	1.21	10.8	9.4	1	29.60	0.06	0.41	0.2	1.50	1	5.42	2.07	6.1	127	0.41	26.7	0.07	466	32.25	0.052	3	0.072	37.22	0.39	3.09	0.9	1.9	134.9	<.02	8.3	<.001	0.14	1.5	<2	0.3	105.6
RS-495-00 1900-1920	196	1.30	3.3	0.9	1	73.50	0.02	1.16	0.09	2.30	3.3	4.97	3.08	8.3	44	0.44	34.6	0.09	1091	2.87	0.073	6.8	0.034	21.91	0.11	0.77	1.3	0.2	90	<.02	10.7	0.004	0.06	0.7	<2	<.2	104
RS-495-00 1920-1933	170	1.2	3.2	0.7	2	59.10	<.02	1.33	0.08	2.60	3	3.14	3.15	8.1	23	0.41	33.7	0.09	1134	2.02	0.063	3.6	0.033	19.59	0.04	0.5	1.4	0.2	109.4	<.02	10.3	0.01	0.05	0.7	<2	<.2	105.4
RS-495-00 1933-1962	236	1.03	2.9	0.4	<1	58.50	<.02	1.62	0.08	2.40	1.8	3.91	2.96	7.5	14	0.38	35.3	0.07	1105	1.67	0.063	3.4	0.032	25.46	0.03	0.47	1.4	0.2	95.7	<.02	10.2	0.011	0.06	0.7	<2	0.4	114.2
RS-495-00 1962-1970	125	0.78	0.8	1.3	2	70.10	0.03	1.6	0.08	1.40	5.1	5.48	2.83	6.6	17	0.4	36.8	0.05	1130	1.79	0.074	7	0.035	20.05	0.01	0.42	1.2	0.2	78.5	0.02	9.2	0.019	0.04	0.7	<2	0.6	84.8
RS-495-00 1970-2000	85	0.89	1.1	1.2	2	74.60	0.02	0.7	0.16	1.10	2.8	3.83	2.46	7.5	14	0.38	36.9	0.06	674	0.86	0.07	4.4	0.036	24.15	<.01	0.33	1	0.2	62.5	<.02	10.1	0.014	0.03	0.6	<2	0.6	81.5
RS-495-00 2000-2040	78	0.96	1.9	1.1	5	67.50	0.13	1.03	0.23	1.00	3.2	4.42	2.61	6.5	12	0.35	34.7	0.09	743	0.82	0.071	4	0.026	20.76	0.01	0.32	0.6	0.1	76.9	<.02	6.7	0.019	0.06	0.5	<2	0.3	87.2
RS-495-00 2040-2070	136	0.91	10.9	0.6	3	77.40	0.16	0.93	0.27	1.90	4.1	4.09	2.08	6.2	17	0.38	39.2	0.08	410	1.89	0.086	4.1	0.027	23.7	0.09	0.56	0.4	<.1	69	<.02	6.2	0.007	0.13	0.6	<2	<.2	74.6
RS-495-00 2070.0-2074.7	73	0.78	3.1	0.4	2	100.60	0.23	2.81	0.27	1.00	5.6	6.43	2.01	4.4	10	0.4	25	0.04	1468	1.63	0.094	10.9	0.031	14.63	0.04	0.32	0.4	0.1	75.2	<.02	4.2	0.008	0.08	0.5	2	<2	48.1
RS-495-00 2074.7-2080.0	124	1.76	1.1	<.2	<1	101.60	0.8	1.46	0.34	1.20	2.6	5.05	2.05	6.4	18	0.73	34.1	0.18	560	0.59	0.075	6	0.037	21.44	0.02	0.26	0.7	0.1	220.7	0.02	4	0.002	0.19	0.7	<2	<.2	71.9
RS-495-00 2080-2105	114	2.12	1	<.2	2	64.10	0.52	2.12	0.36	1.50	2.3	6.44	2.17	7.3	17	0.76	38.2	0.18	572	3.87	0.071	3	0.039	24.24	0.01	0.31	0.7	<.1	334.2	0.02	3.9	0.001	0.22	0.5	<2	<.2	82.5
RS-495-00 2105-2115	143	1.28	2.0	0.7	<1	100.50	0.24	2.6	0.54	6.20	4.1	9.19	3.13	9.1	23	0.39	27.6	0.08	2512	2.28	0.109	13.5	0.067	18.93	0.02	1.47	1.2	0.2	123	<.02	5	0.014	0.13	0.8	7	<.2	145.4
RS-495-00 2115-2136	130	1.55	0.7	0.7	<1	81.30	0.04	1.29	0.28	6.00	5.7	14.46	4.17	11.9	11	0.45	34.4	0.08	2440	2.38	0.084	11.6	0.129	21.2	0.04	0.76	3.1	0.3	76.9	<.02	7.5	0.051	0.06	1	17	<.2	119.6
RS-495-00 2136-2137	359	1.54	4.5	1.6	<1	59.10	0.02	0.84	0.3	7.80	4.8	12.43	3.99	11	32	0.36	36	0.07	1772	2.11	0.067	10.2	0.133	21.05	0												

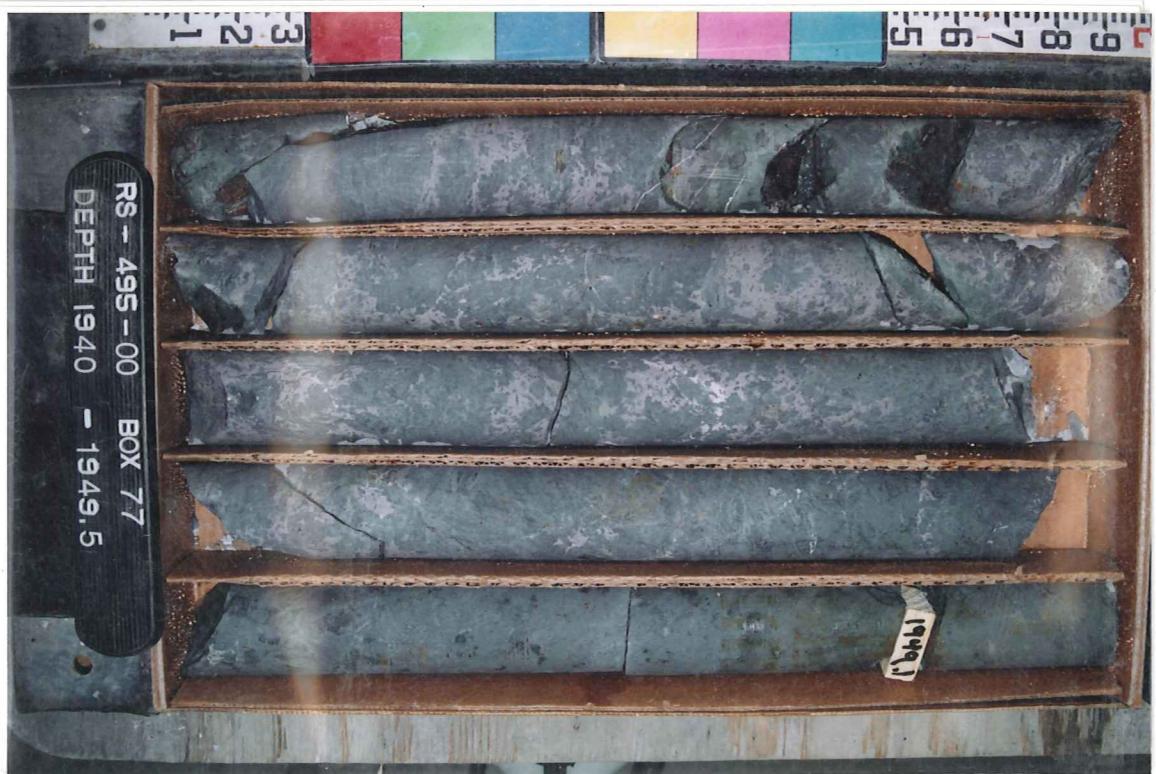
CLIENT: HECLA MINING CO.
 CLIENT REF: KURT ALLEN
 AAL REF: SP57388
 METHOD: AAL03-0

ELEMENT SAMPLES	Ag ppb	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
RS-495-00 2220-2240	152	1.82	0.8	0.7	5	58.8	0.02	1.43	0.22	8	5	11.95	4.01	10.3	18	0.49	36.8	0.09	1508	1.38	0.053	6.2	0.142	23.9	0.07	0.77	3.3	0.1	99.8	<.02	8.1	0.005	0.13	0.8	13	<.2	119.1
RS-495-00 2240-2260	179	1.92	0.5	0.9	5	64.2	0.02	3.36	0.28	7.3	3.5	11.52	4.14	11.7	19	0.52	37.2	0.11	2222	7.73	0.059	5.9	0.125	23.21	0.07	1.03	3.5	<.1	140.1	<.02	8.7	0.021	0.16	0.8	15	<.2	117.3
RS-495-00 2260.0-2267.8	469	1.64	1.5	44.9	3	59.4	0.03	1.06	0.26	5.5	2.8	11.56	3.38	9	18	0.54	36.9	0.08	1439	2.26	0.057	5.3	0.134	23.66	0.44	1.03	2.8	1.9	106.4	<.02	8.9	0.003	0.18	0.8	10	<.2	123
RS-495-00 2267.8-2270.3	884	1.62	4.8	347.3	3	46.4	0.02	1.46	0.25	6.7	3.6	11.27	2.92	7.7	99	0.64	32.4	0.06	1324	2.34	0.046	2.5	0.144	21.83	1.29	2.05	2.3	6	161.5	<.02	7.3	0.001	0.34	0.7	7	<.2	137.1
RS-495-00 2270.3-2280.0	204	1.89	0.7	12.3	4	59.3	0.03	2.02	0.32	5.6	3.6	11.13	3.96	9.7	29	0.53	36.1	0.09	1721	1.94	0.047	4.2	0.132	24.27	0.16	0.99	3.2	0.5	134	<.02	8.2	0.004	0.16	0.7	12	<.2	122.8
RS-495-00 2285-2290	180	2.08	2.6	5.6	6	75.5	0.02	2.6	0.25	9.5	1.8	9.6	4.4	10.6	10	0.61	38.1	0.1	2283	0.87	0.05	4.9	0.135	21.78	0.01	0.42	3.9	0.1	155.1	<.02	8.2	0.033	0.17	0.9	14	<.2	122.6
RS-495-00 2310.0-2322.1	1615	0.97	16.6	33.9	1	53.1	0.47	0.69	0.27	4.8	3.3	9.85	3.3	3	160	0.55	20.9	0.03	640	1.96	0.026	6.4	0.091	27.18	3.46	4.93	0.9	6.9	124	0.03	4.6	<.001	0.43	0.5	4	1.1	105.4
RS-495-00 2322.1-2342.3	1487	0.61	75	34.3	1	25.8	0.02	0.1	0.07	0.8	5.3	5.64	2.02	2.1	115	0.37	25.1	0.01	141	2.3	0.015	16.3	0.003	20.57	0.88	4.85	0.3	7.8	68.3	<.02	8.2	<.001	0.2	0.5	3	<.2	58.6
RS-495-00 2342.3-2366.0	1318	0.89	33.3	44.9	2	110.4	<.02	0.1	0.06	0.3	2.6	6.43	1.77	2.7	285	0.52	30.2	0.01	92	1.33	0.019	6.7	0.003	23.42	1.44	4.28	0.4	7.5	75.2	<.02	10.7	<.001	0.25	0.7	2	<.2	95.4
RS-495-00 2366-2390	2346	0.79	28.4	52.8	3	48.3	0.02	0.11	0.07	0.4	3.3	3.74	1.79	2.5	113	0.46	32.2	0.01	92	1.29	0.017	7.3	0.004	23.58	1.4	4.01	0.3	7	71.5	<.02	10.8	<.001	0.24	0.6	2	<.2	94.5
RS-495-00 2390.0-2412.5	1036	0.6	9.4	35.8	2	91.5	0.02	0.09	0.07	0.5	2	3.48	1.69	2	184	0.35	36.4	0.01	89	0.67	0.016	5.8	0.004	24.71	1.37	1.84	0.3	4.4	69.4	<.02	11.7	<.001	0.14	0.6	<2	<.2	91.9
RS-495-00 2412.5-2435.0	542	0.75	4.4	23.7	1	134.4	<.02	0.08	0.09	0.3	2.9	2.97	1.38	2.2	99	0.4	35.1	0.01	71	0.64	0.014	4.8	0.004	24.3	1.06	3.7	0.3	7.5	62.7	<.02	11.5	<.001	0.38	0.7	<2	<.2	65.8
RS-495-00 2435.0-2454.3	256	0.88	11.5	12.2	1	156.9	0.02	0.96	0.11	0.3	3.3	3.51	1.47	3	69	0.51	36.1	0.02	725	0.89	0.021	6.8	0.005	24.1	1.01	1.71	0.5	2.2	99.3	<.02	12	<.001	0.32	0.8	<2	<.2	59.5
RS-495-00 2454.3-2468.4	3067	0.76	661.8	262.7	4	78.1	0.56	0.28	0.17	3.7	14.8	23.76	2.62	2.8	348	0.34	11.3	0.04	137	9.43	0.023	24.5	0.052	19.18	2.21	14.48	0.7	43.7	108	<.02	3.3	<.001	0.48	0.5	5	0.2	45.4
RS-495-00 2468.4-2484.5	1079	0.78	210.2	74.6	2	189.2	0.1	0.18	0.1	0.6	2.7	4.06	1.02	2.5	91	0.36	12.8	0.04	88	2.29	0.023	7.4	0.005	20.93	0.67	2.96	0.4	11.7	115.3	<.02	4.2	<.001	0.18	0.5	<2	<.2	24.9
RS-495-00 2484.5-2508.0	339	1.05	13	19.3	3	225.3	0.04	0.17	0.12	0.4	3.3	1.15	0.77	2.3	49	0.54	9.7	0.04	66	10.95	0.022	2	0.006	24.68	0.75	1.88	0.4	4	107.5	<.02	3.9	<.001	0.34	2.3	<2	<.2	67.5
RS-495-00 2508.0-2531.5	598	0.85	27.5	36.8	3	198.3	0.4	0.16	0.18	0.6	2.8	1.46	0.95	2.1	48	0.47	15.7	0.03	64	3.75	0.022	2.9	0.008	25.74	1	1.97	0.4	5.9	100.6	<.02	4	<.001	0.26	0.8	<2	<.2	70
RS-495-00 2531.5-2552.4	1205	0.8	30.2	36.6	<1	72.3	1.86	0.15	0.12	0.4	2.4	2.03	0.8	1.9	55	0.4	16.3	0.03	58	2.89	0.02	3.4	0.007	23.87	0.68	2	0.3	6.3	95.4	<.02	4.4	<.001	0.21	0.5	<2	<.2	37
RS-495-00 2552.4-2574.5	383	0.74	10.1	11	2	476.9	0.59	0.96	0.12	0.3	2.8	1.49	0.61	1.8	20	0.35	18.5	0.04	359	1.02	0.027	2.9	0.007	28.17	0.45	1.58	0.3	2.8	173.3	<.02	5.4	<.001	0.17	0.7	<2	<.2	16.9
RS-495-00 2574.5-2594.0	200	0.56	2.8	5.8	2	516	0.02	1.55	0.11	0.2	1.5	0.99	0.5	1	8	0.29	15.9	0.03	630	0.07	0.024	1.4	0.006	23.58	0.41	0.58	0.2	1.8	223.2	<.02	5.1	<.001	0.11	0.6	<2	<.2	26.8
RS-495-00 2594.0-2614.5	492	0.68	12.1	13.1	1	314.8	0.04	0.29	0.11	0.2	1.9	1.38	0.64	1.3	14	0.33	16.1	0.04	131	0.15	0.025	1.7	0.009	24.05	0.59	1.9	0.3	5.5	117.7	<.02	4.9	<.001	0.14	0.5	<2	<.2	29
RS-495-00 2614.5-2637.6	349	0.86	13.7	14.8	2	191.5	0.04	1.01	0.1	0.4	1	0.93	0.9	1.8	20	0.39	15	0.05	519	0.24	0.027	1.8	0.006	25.26	1	1.96	0.4	3.4	192.7	<.02	4.4	<.001	0.17	0.5	<2	<.2	31.9
RS-495-00 2637.6-2660.0	512	0.98	17.8	30.5	6	206.8	0.25	0.58	0.1	0.3	2	1.08	0.68	2	9	0.44	14.8	0.06	195	1.69	0.033	1.2	0.008	23.53	0.7	2.13	0.4	6.3	157.1	<.02	4.3	<.001	0.15	0.6	<2	<.2	27.5
RS-495-00 2660-2677	193	2.97	4.2	3.5	4	142	0.29	2.01	0.3	24.2	60.8	63.61	5.16	8.4	34	0.54	16.4	0.67	1279	0.69	0.045	84.6	0.119	16.5	1.82	2.69	6.3	0.7	253.7	0.03	2.8	0.001	0.31	0.4	73	<.2	126.6
RS-495-00 2677.0-2698.5	842	0.73	45	46.3	2	122.3	0.04	0.26	0.32	1.6	2.3	4.21	1.22	1.7	25	0.31	10.8	0.06	67	3.31	0.031	6.3	0.013	24.76	1.24	2.48	0.4	9.3	133.4	<.02	3	<.001	0.17	0.8	<2	<.2	88.1
RS-495-00 2698.5-2717.2	299	0.67	17.1	21.6	3	106.2	0.02	0.22	0.33	1.1	2.1	1.49	0.36	1.5	20	0.28	5.7	0.05	47	1.13	0.029	3.5	0.007	23.41	0.22	0.76	0.3	5.3	118.8	<.02	3.3	<.001	0.12	0.8	<2	<.2	47.8
RS-495-00 2717.2-2736.6	2848	0.96	52.1	11.7	3	86.3	0.21	1.83	6.92	10.1	15.5	94.36	3.51	2.3	118	0.21	2.4</																				

STYLE NO. 46-6P



RS 495
Boxes 74-76
are missing





S. W ROSE RS-00 BOX 4
DEPTH 1297.5 - 1296.5





S. W ROSE RS-00 BOX 10
DEPTH 1343. - 1352.

1350



1370



1360

1370



S. W ROSE RS-00 BOX 13

DEPTH 1370. - 1379.

2 1

2
1
0
9
8
7
6
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2 9 8 7 6 5



S. W ROSE RS-00 BOX 14
DEPTH 1379. - 1388.5

2
1
0
9
8
7
6
5

2 1

2 1



S. W ROSE RS-00 BOX 15
DEPTH 1388.5 - 1398.

S. W. ROSE RS-00 BOX 16
DEPTH 1398. - 1406.7



S. W. ROSE RS-00 BOX 17
DEPTH 1406.7 - 1416.6



S. W. ROSE RS-00 BOX 18
DEPTH 1416.6 - 1426.





S. W ROSE RS-00 BOX 22
DEPTH 1452.5 - 1460.7



S. W ROSE RS-00 BOX 23
DEPTH 1460.7 - 1470.6



S. W ROSE RS-00 BOX 24
DEPTH 1470.6 - 1479.3

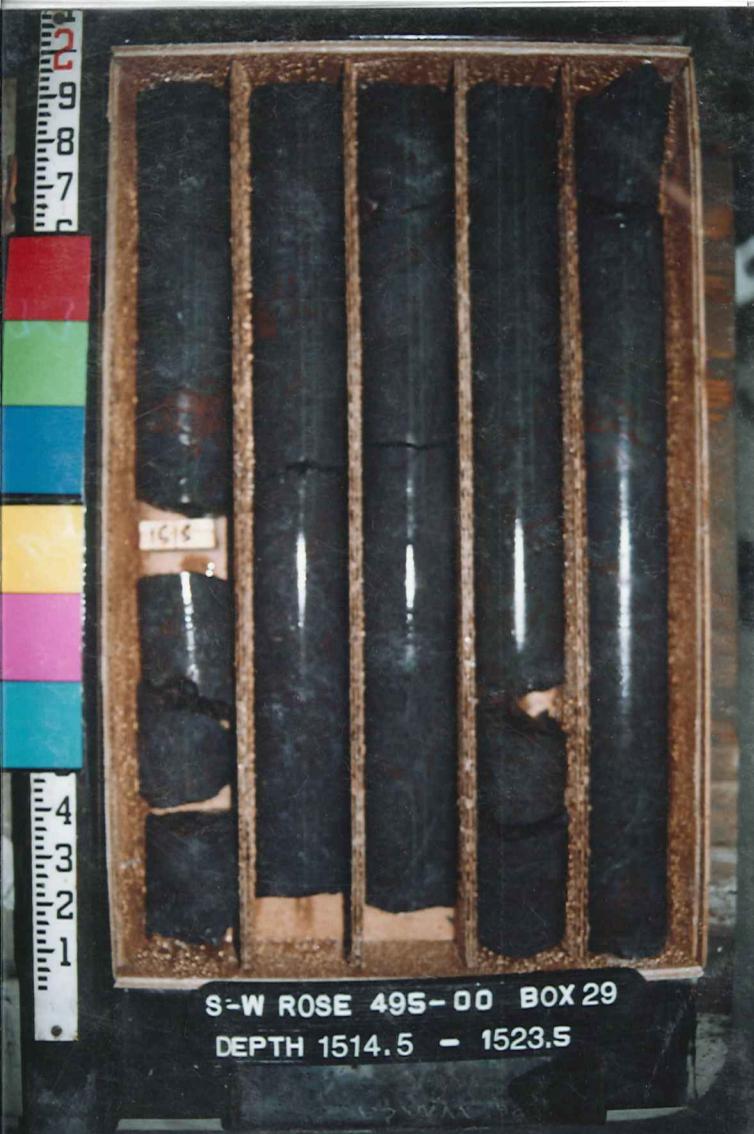




S-W ROSE 495-00, BOX 28
DEPTH 1505. - 1514.5



S-W ROSE 495-00 BOX 29
DEPTH 1514.5 - 1523.5



S-W ROSE 495-00 BOX 30
DEPTH 1523.5 - 1532





S-W ROSE 495-00 BOX 34
DEPTH 1558.8 - 1566.5



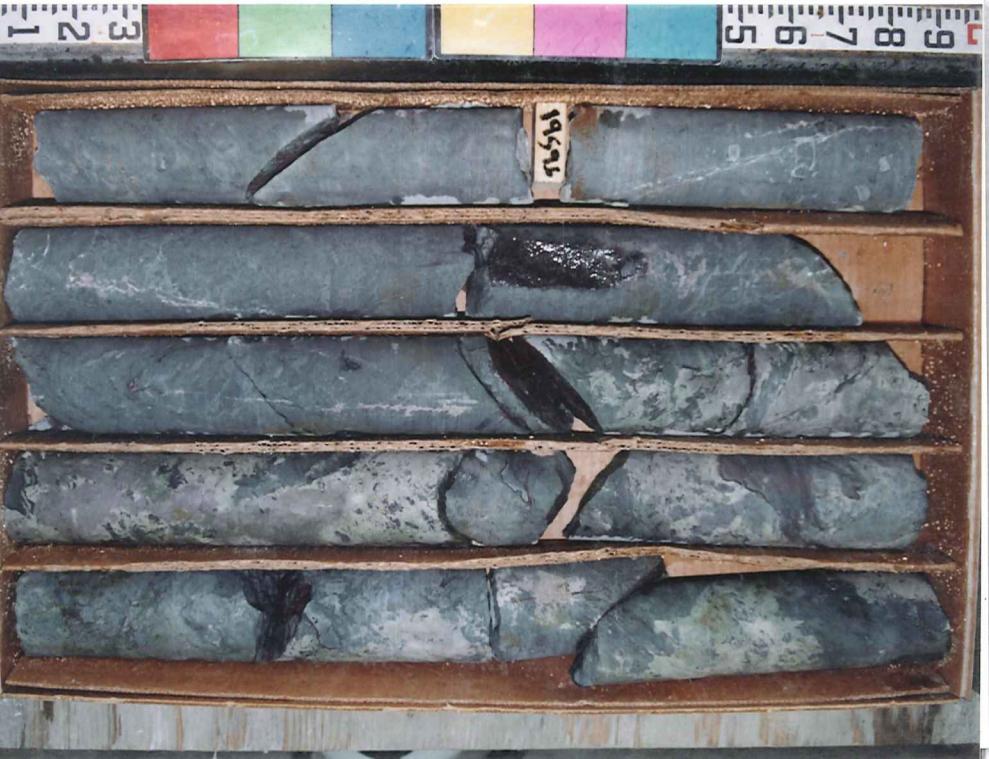
Box 35-72

Missing

Boxes - 35-72

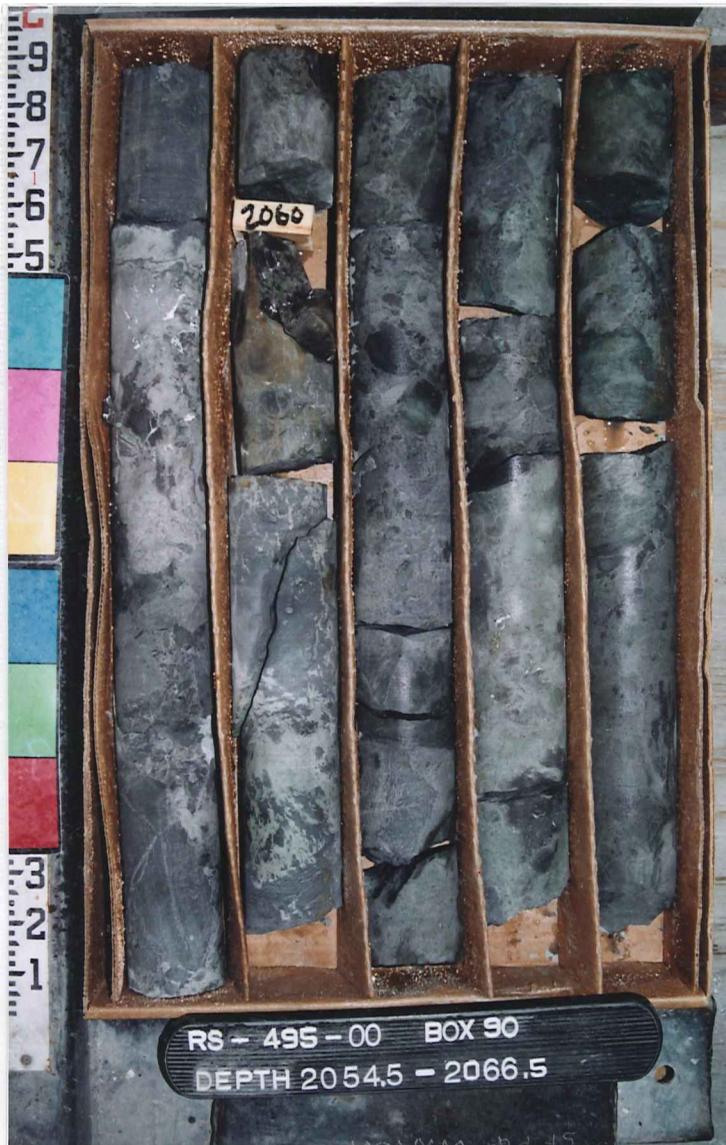
are Missing











1 2 3

5 6 7 8 9

RS - 495 - 00 BOX 91
DEPTH 2066.5 - 2074.5



2079
B-9



RS - 495 - 00 BOX 92
DEPTH 2074.5 - 2083.5



RS - 495 - 00 BOX 93
DEPTH 2083.5 - 2094





RS - 495 - 00 BOX 97
DEPTH 2120.5 - 2129.4



2130.5

2136.3

RS - 495 - 00 BOX 98
DEPTH 2129.4 - 2137.8



RS - 495 - 00 BOX 99
DEPTH 2137.8 - 2146.3





RS - 495 - 00 BOX 103
DEPTH 2174 - 2183.4



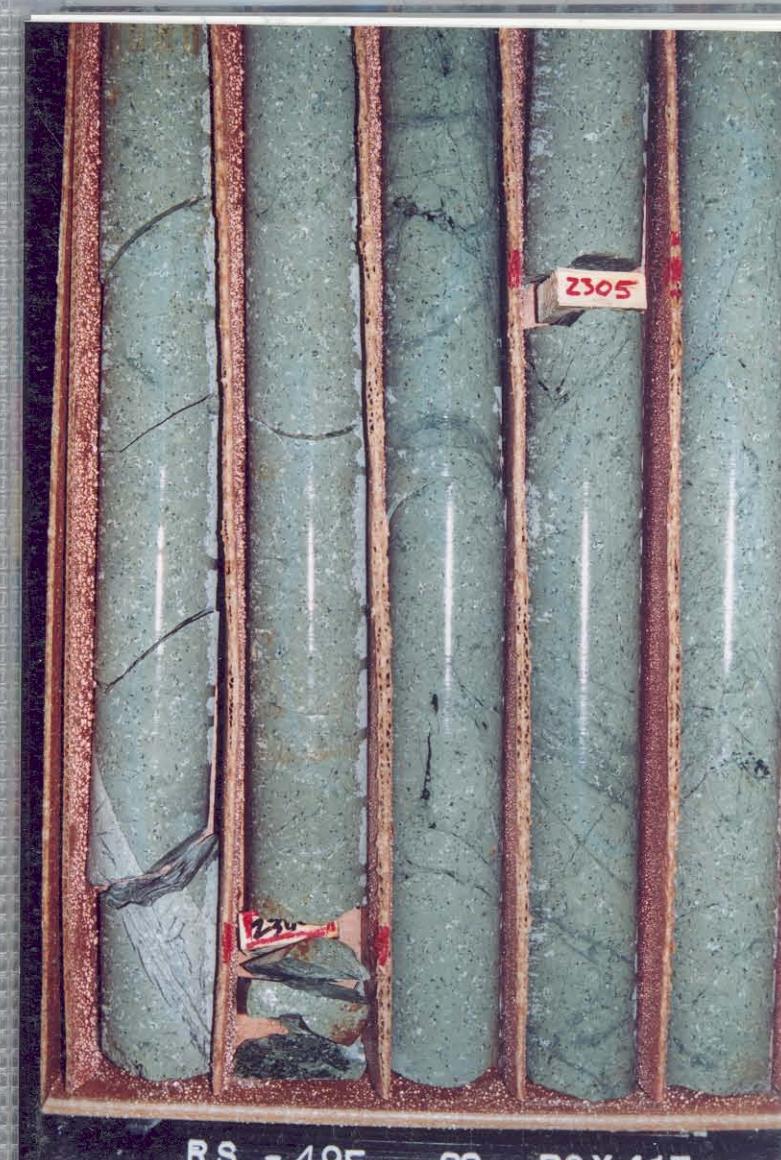
RS - 495 - 00 BOX 104
DEPTH 2183.4 - 2192

RS - 495 - 00 BOX 105
DEPTH 2192 - 2200.7



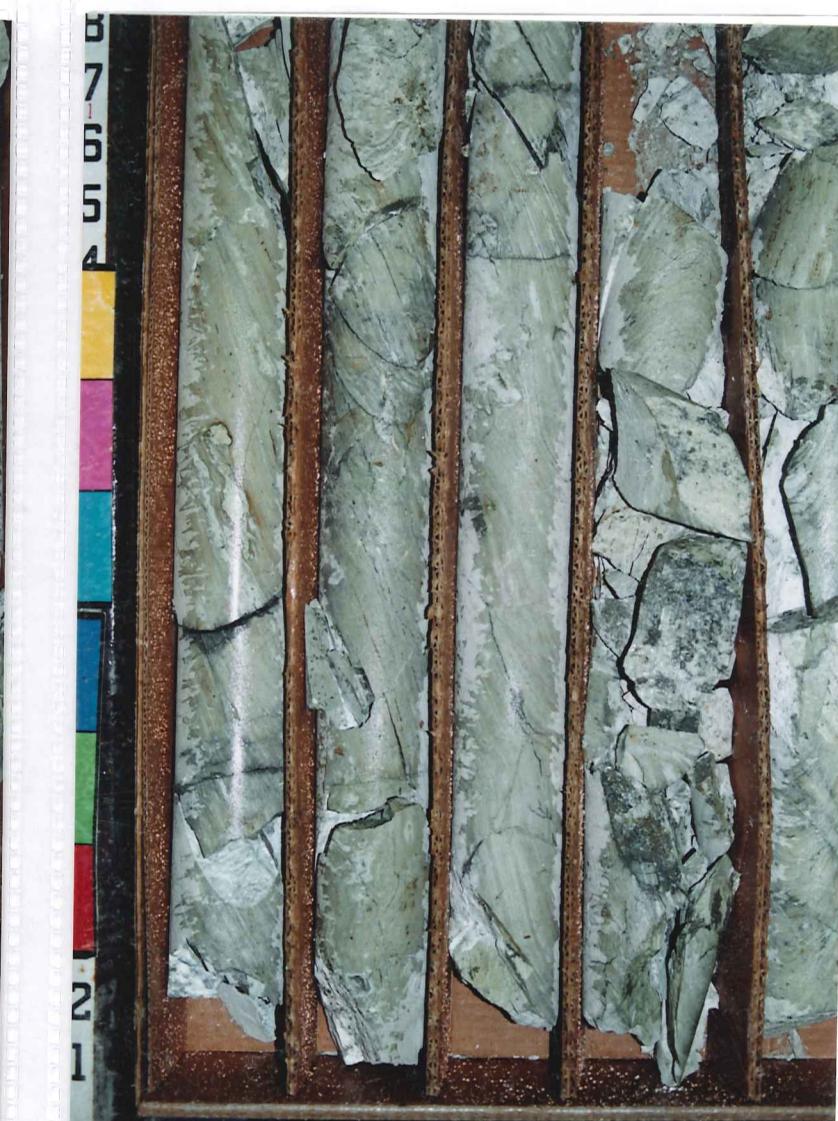






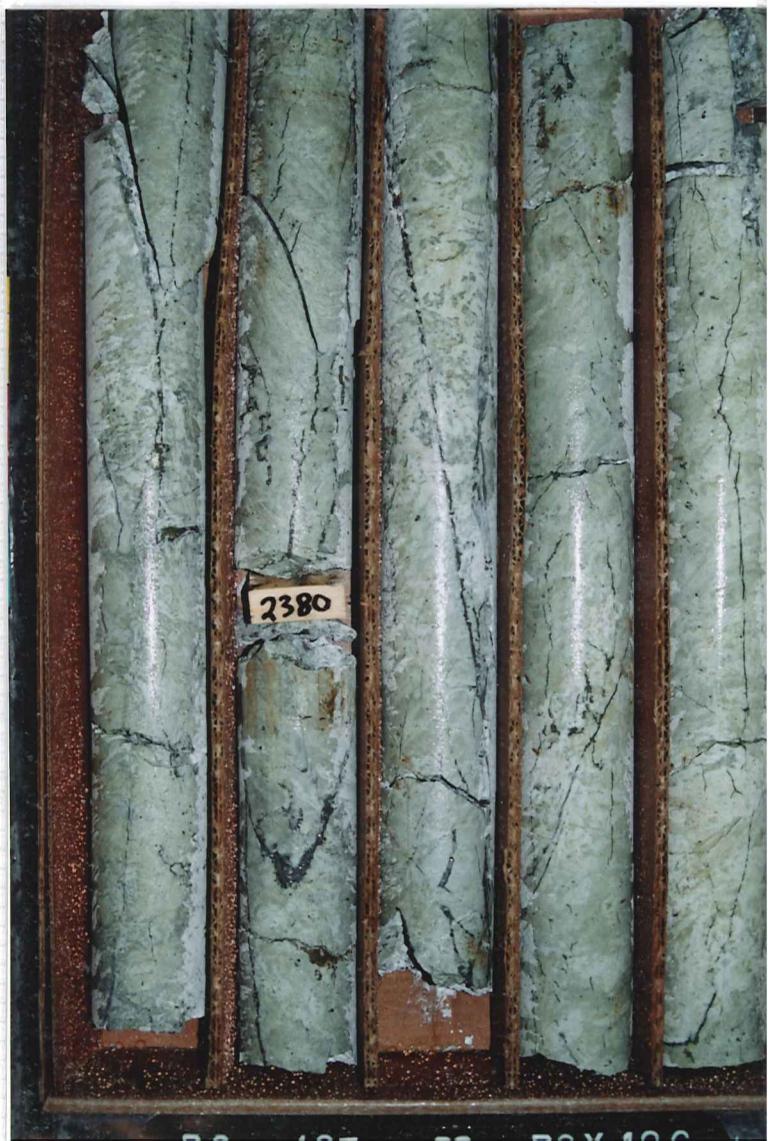


RS - 495 - 00 BOX 121





RS - 495 - 00 BOX 125



RS - 495 - 00 BOX 126





RS - 495 - 00 BOX 131



RS - 495 - 00 BOX 132

RS - 405 - 00 BOX 133



2447²



RS - 405 - 00 BOX 134

2459¹



RS - 405 - 00 BOX 135







RS - 495-00 Box 140

GreatPhoto<NO. 5><035
079 01** N N N-12 <022>

RS - 495 - 00 BOX 143

RS - 495 - 00 BOX 145



RS - 495 - 00 BOX 146



RS - 495 - 00 BOX 146

RS - 495 - 00 BOX 147



2568



RS - 495 - 00 BOX 148



RS - 495 - 00 BOX 149

RS - 495 - 00 BOX 150



RS - 495 - 00 BOX 151







265



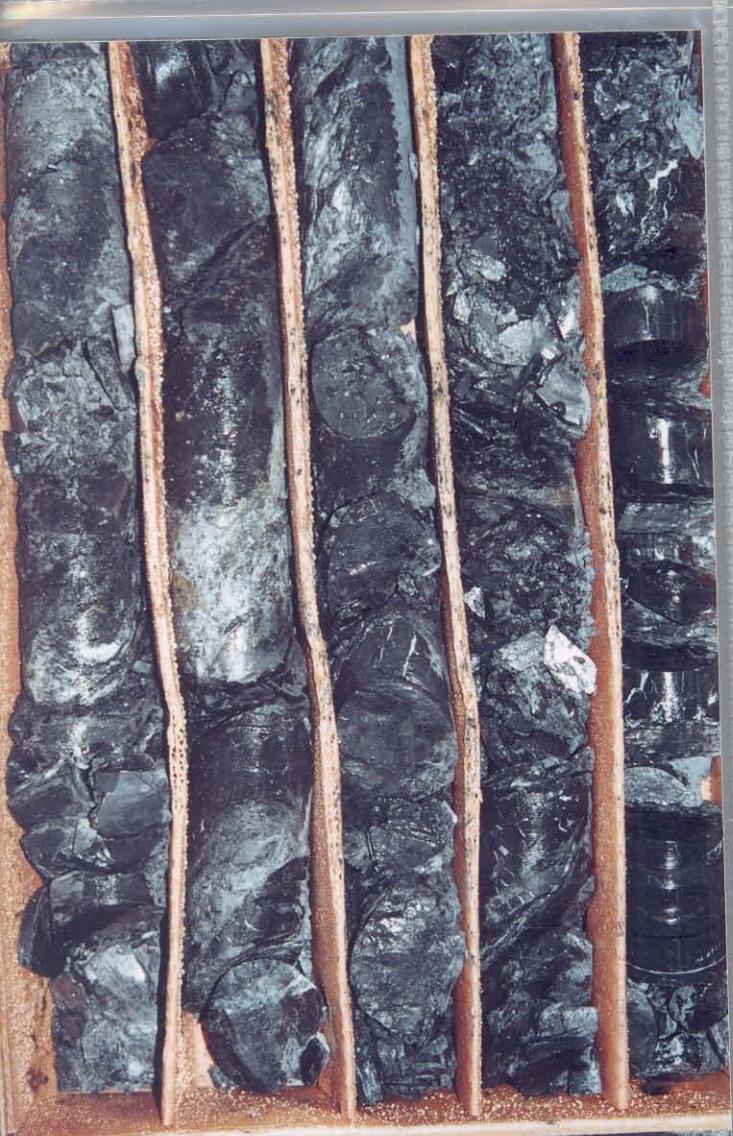
2650



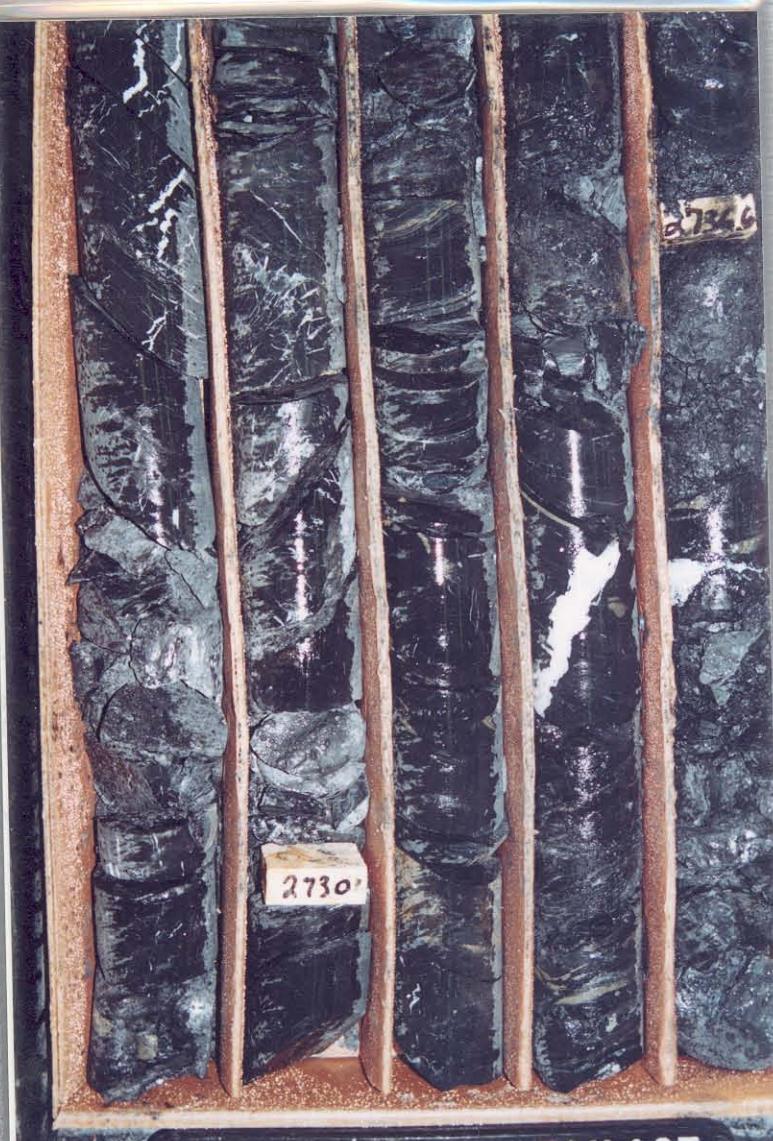
RS - 495 - 88 BOX 160

RS - 495 - 88 BOX 161





RS - 105 - 00 BOX 166



RS - 105 - 00 BOX 167

RS - 495 - 00 BOX 147



2568



RS - 495 - 00 BOX 148



RS - 495 - 00 BOX 149

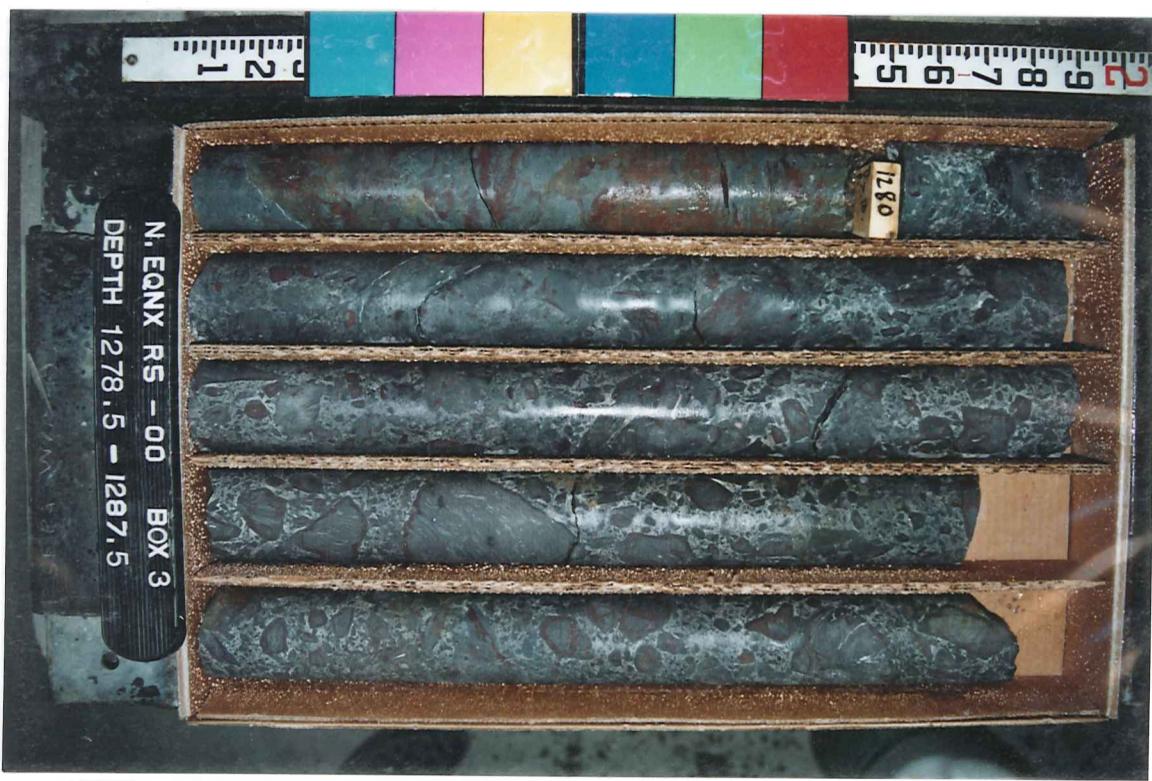


RS - 495 - 00 BOX 168



RS - 495 - 00 BOX 169







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1320

N. EQNX RS - 00 BOX 7
DEPTH 1314.5 - 1324.

2
9
8
7
6
5



N. EQNX RS - 00 BOX 8
DEPTH 1324. - 1333.5





1 2 3 4

7 8 9



W-W ROSE 495-00 BOX 31
DEPTH 1532. - 1541.

1536

1537

1538

1539

1540



W-W ROSE 495-00 BOX 32

DEPTH 1541. - 1548.2

1536

1537

1538

1539

1540



W-W ROSE 495-00 BOX 33

DEPTH 1548.2 - 1558.0







W-W ROSE 495-00 BOX 43

DEPTH 1637.7 - 1644.



W-W ROSE 495-00 BOX 44
DEPTH 1644. - 1652.5



W-W ROSE 495-00 BOX 45
DEPTH 1652.5 - 1663.5





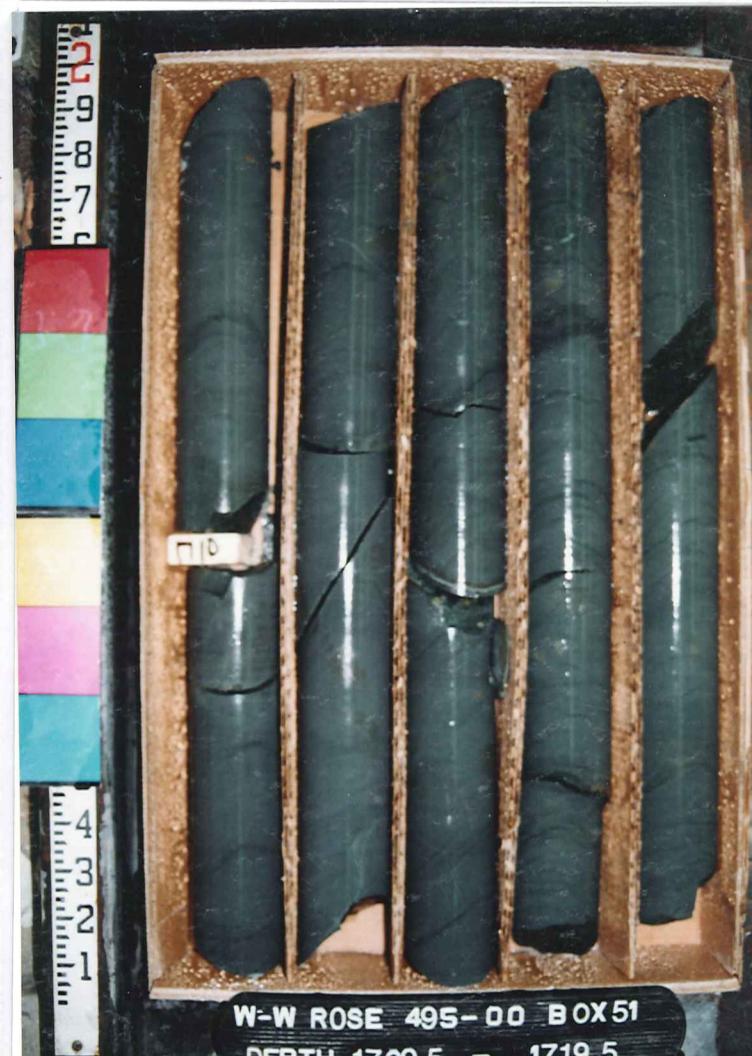
W-W ROSE 495-00 BOX 49
DEPTH 1691.5 - 1700.



W-W ROSE 495-00 BOX 50
DEPTH 1700 - 1709.5



W-W ROSE 495-00 BOX 51
DEPTH 1709.5 - 1719.5









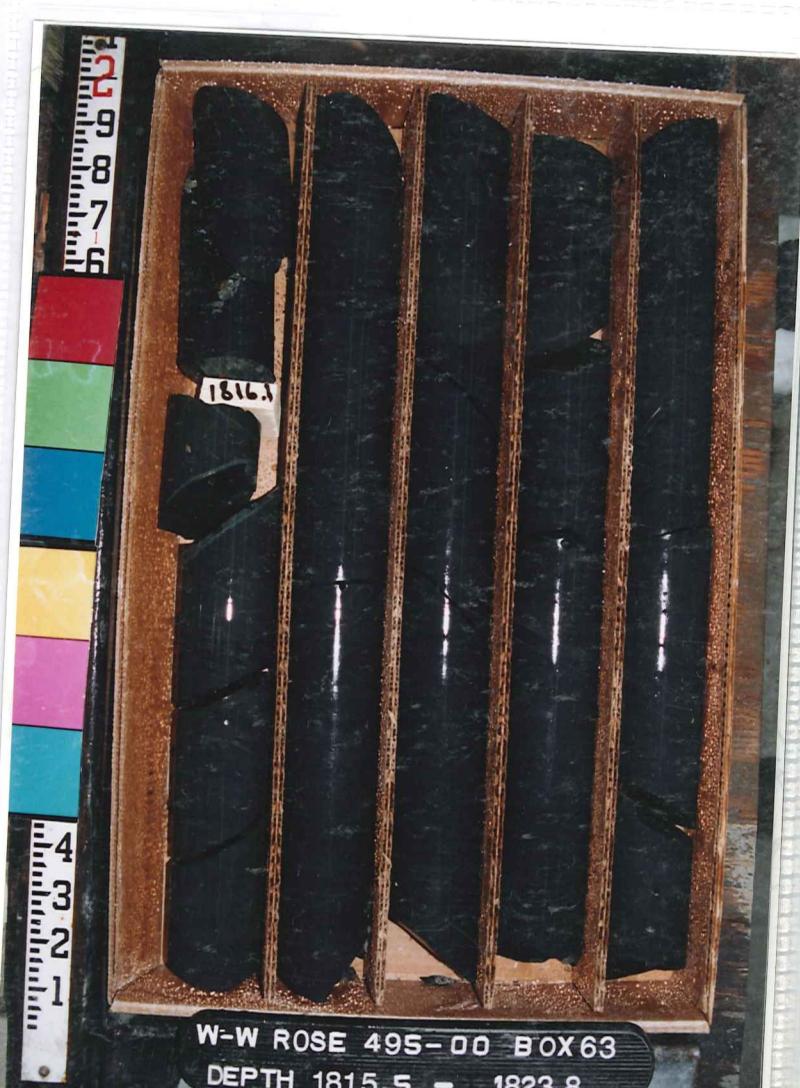
W-W ROSE 495-00 BOX 61
DEPTH 1797. - 1805.5

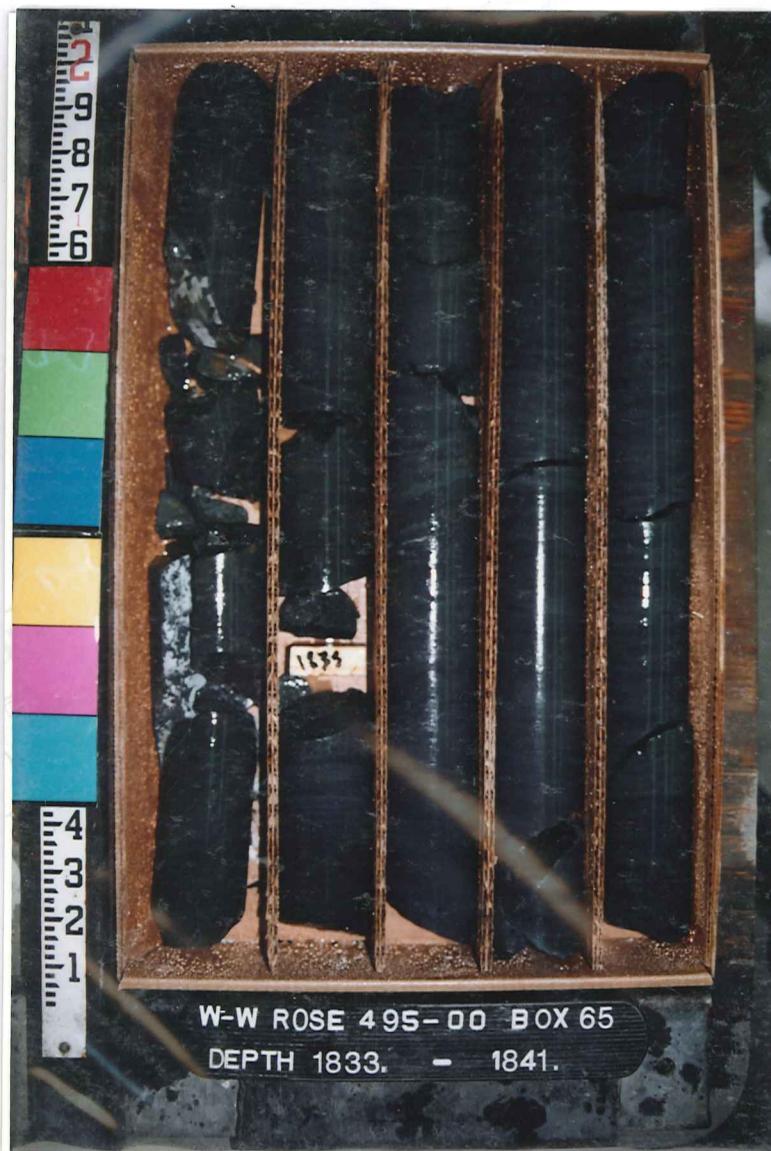


W-W ROSE 495-00 BOX 62
DEPTH 1805.5 - 1815.5



W-W ROSE 495-00 BOX 63
DEPTH 1815.5 - 1823.8





START
RS-0373
Box 1-8



W-W ROSE 495-00 BOX 67
DEPTH 1850. - 1859.



W-W ROSE 495-00 BOX 68
DEPTH 1859. - 1866.6

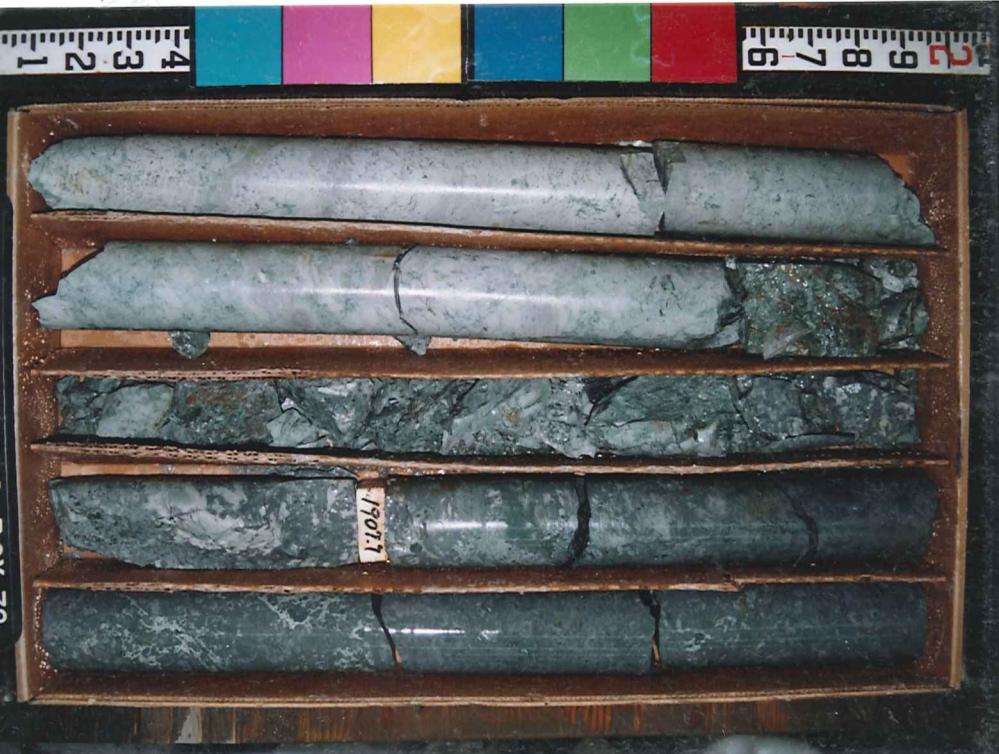


W-W ROSE 495-00 BOX 69
DEPTH 1866.6 - 1875.5

TRAT
SFCG-29
8-1 XOB



W-W ROSE 495-00 BOX 73
DEPTH 1904. - 1910.



W-W ROSE 495-00 BOX 74
DEPTH 1910. - 1921.5



TRATO

29
1800

