6000 0618

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File - Hole No. RS-497
AUTHOR	D. Schoorl; JP Rogowski; B. Morris; K. Allen; L.E Mackedon; V. Reid
DATE OF DOC(S)	2000
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Mining Co. LLC; Hecla Mining Co.; Rosebud Project; North Gator
COMMODITY If not obvious.	gold; silver
NOTES	drill logs; geology; assay; total depth 1780'; invoices; geochemistry 117p.

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

SS: DD 3/21/08
Initials Date
DB:
Initials Date
SCANNED:
Initials Date

Revised: 1/22/08

RS-497

N. Gator

yr 2000

60000618
4010

FLT 1200 1215

Gay 1450-1500

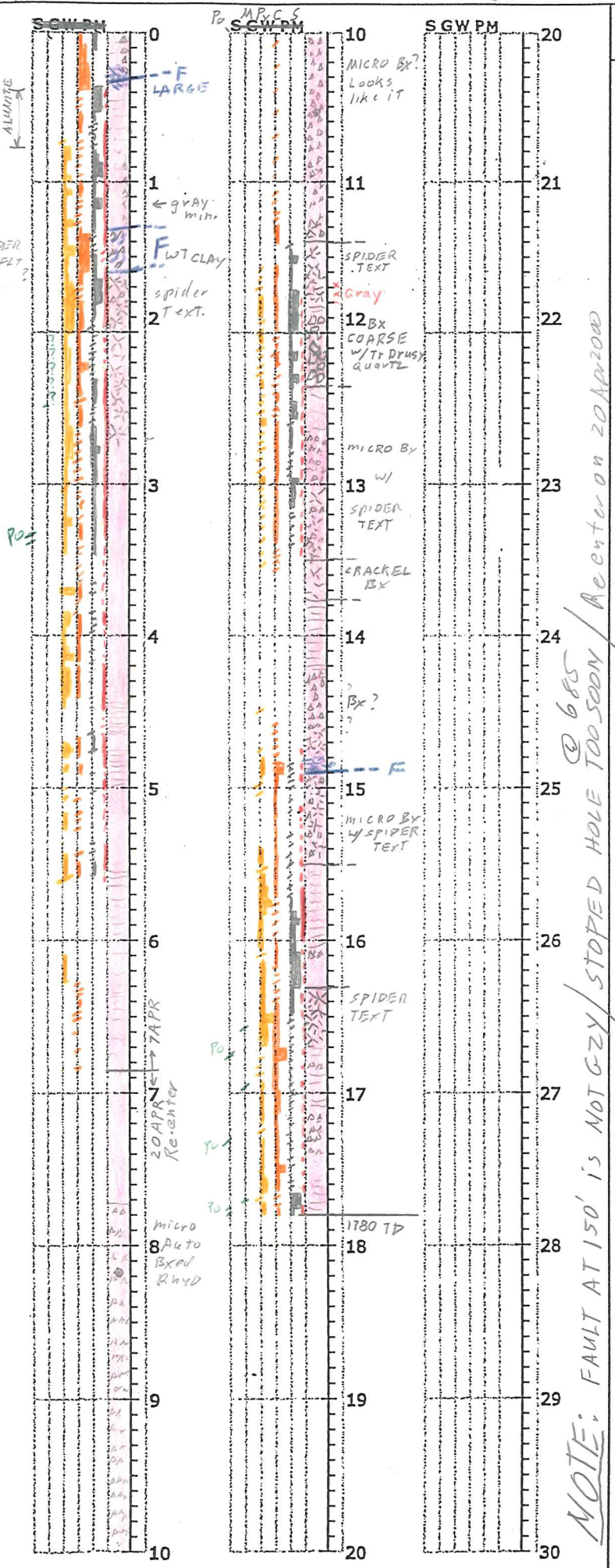
6000617

ROSEBUD MINING COMPANY, LLC.

HOLE #	RS491
FINISH HOLE	7 APR 2000
LOGGED BY	Rogowski
ANGLE	-90°
T.D	~~1780'~~ ~~685~~ TD
SURVEYED TO	Not surveyed
START HOLE	5 Apr 2000 (20 Apr 2000)
HOLE TYPE	RC - 6"
BEARING	—
PAGE 1 OF	19

N. side of Gator In Cender Gyn to hit GZY fault. Re-center on 20 Apr, to verify hit GZY Fault.

COLLAR COORDINATES	
NORTH	2,218,441
EAST	479,064
ELEV	5625'
DRILLER	Don Schoor
DRILLING CO.	E Klund



NOTE: FAULT AT 150' is NOT GZY / STOPED HOLE TOO SOON @ 685 / Re-center on 20 Apr 2000

ALTERATION INTENSITY

1 WEAK	2 MODERATE	3 STRONG

VERITHIN COLOR

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

GRAPHIC LOG

VERITHIN COLOR

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

LBT/WR RHYO Flow

MICRO Bx or PYROCLASTIC UNIT WITHIN THE LBT

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

INTENSITY
1 = WEAK
2 = MODERATE
3 = STRONG
or % by Vol

HOLE NUMBER RS-497
PAGE 2 OF 19
DATE 5 Apr 2000 to 7 Apr 2000
LOGGED BY Rogowski
TOTAL DEPTH ~~685 TD~~ 1780 TD

LOCATION ROSEBUD, NV
NORTHING 2,218,441
EASTING 479,064
ELEVATION 5625
AZIMUTH —
INCLINATION −90°

AREA N. Gator
DRILLING CO. EKlund
RIG TYPE 75E-RC
HOLE SIZE 6"
DOWN HOLE SURVEY BY ~~Not Surveyed~~ surveyed to

0 - 100

2/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	15%	+25%	MAGNA %	QUARTS %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SLF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
0			0-100																																						
			might pass for	VH		2					2					1																									
10			RBQL Porp., but	VH		2+3					2					tr																									
			there are no phenos	VH		1					2+3					0																									
20			at K-spar	H		tr					2+3					tr																									
			call LBT/WR	S		tr					+3					Tr																									
30			Very Alt.	S		tr					+3					1																									
			strong Py	S		tr					+3					0																									
			& Ox Py above																																						
			70 feet																																						
40			Bxed down to 40	VH		3					1							1																							
			but can't tell if			3					1							1																							
50			A Bx or F Bx			3					1					0		2																							
			see traces of			2					2					tr		2																							
60			flow banding			1					2					0		2																							
			throughout			1					2							1																							
70						2					1							1									0	9													
						1					1+2							tr									1														
80						2+3					1																5														
						2+3					1																5														
90						3					tr																2														
						3					tr																2														
100				VH		2					1					0											5														

Large Fault

LBT/WR RH40.

Lump Py & sponge low Oxide Hem, intense low & moderate

wt to yell clay gouge near vert struct.

LBT+Fx/Py Hem w/ox crust

White Zeol/Alunite from weathered & oxidized Gen. alone fract

ox Py mod to strong

Jaro & Hem stain w/wt clay

Py gossan out crop etc.

wt. clay, Jaro & Goet from Ox Py

tr gray min

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

INTENSITY
1 = WEAK
2 = MODERATE
3 = STRONG
or % by Vol

HOLE NUMBER RS-497
PAGE 3 OF 19
DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

1-200

3/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	15%	+25%	MATRIX %	QUARTS %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	AS-SLS %	SPHALERITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
100		m Bx	100-200 LBT/WR	H		2					2					0											3													
110			extreamly alt.			2					2																7													
		12 Yo	Loaded w/silica,			3					1																4	?												
120			wt clay & sulfides			3					1																3	tr	tr				Note							
			Spider text &			2					1																4	tr	?											
130			micro Bx very			2					1																6		tr											
		1 F	wt clay gouge common	m H		2					2																4	tr	tr											
140		1 F	Note: poss	S		1					+3																4													
		1 F	very strong chalcopyrite	S		1																					3													
150		1 F	wt clay in several	S		1																					7	tr-1												
		1 F	areas.	S		2					1																2	tr												
160		1 F	wt spot alt.	S		2					+3																3				Py C									
			common			2					2																6													
170						2+3					2				wt spot alt.												4			Py CD									
		12 Yo				3					1																10	Py C												
180						3					1																5	Py C												
						2					2																15													
190						2					2																7													
						1					2				cel oil												4													
200				H		1					2					0											10													

Hecla MINING COMPANY
ROSEBUD PROJECT DRILL LOG

INTENSITY
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HOLE NUMBER RS - 497
PAGE 4 OF 19
DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

2 - 300

4/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION CLASTS %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	AS-SLF %	SULFATE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
200		Very Alt LBT/WR Rhyolite	200 - 300 LBt/WR	H	Differential alteration looks like a micro Bx LT gray to tan	1					2					0											5		?												
210			strange Py xls			1					2																3														
			micro Bx. bez tan			1					2																4														
220			200 to 225 matrix ~~to~~			1					2																5														
						1					3																4														
230			very strong spider text (micro Bx) Drk Brn matrix.			1					2																5														
			Spider text is			2					2																4		?												
240			prob. an alteration			2					1-2																3		?												
			texture not			2					1																3		?												
250			micro Bx.			1					2																3														
			Note: most			1					2																5														
260			silicification is			1					2																3														
			tan color & is			2					1																5														
270			confined to matrix			2					1																7														
			around ? Kspar ?			2					1																5														
280			white spots that			2-3					1																7														
			are clay			2					1																4														
290			Note clearly very			2					1																3														
			mineralized but			2					1																2														
300			see only Py + Poss mud	H		2					1					0											1														

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

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or % by Vol

HOLE NUMBER RS-497
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DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

AREA 3-400
DRILLING CO.
RIG TYPE
HOLE SIZE
DOWN HOLE SURVEY BY

5/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MASSIVE %	SILICIFICATION QUARTZ %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	K-SUL %	SULFATE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
300			300-400												Tr Green ?																										
			L.Bt/wR	H		2					1					0											3														
310			alteration varies			2					1																5														
			& decreases with			1+2					1+2																4	Py & veinlets													
320			depth below the			2					1																4	"													
			130-160 struct (prob			2					1																6														
330			the cender cyn			2					2																4														
			fault on S. side			2					2																5			Tr Po											
340			at cender cyn.)			2					1																4														
			Do not see any			1+2					1																5														
350			faults related			0					tr																0														
			to the alteration			0					tr																0														
360			in this interval			0					tr																0														
			300-400			0					0																Tr														
370						1					2																8		← contam												
						tr					2																2														
380						0					0																1														
						0					0																Tr														
390			Blu matrix By			1+2					1+2																5														
						1					1+2																5														
400				H		1					2					0											3	Py c/o													

Blk hole

RHYO FLOW

L.BT/WR

Blk hole

B/Gy

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

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HOLE NUMBER RS-497
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DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

4-500

6/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
400			400-500 LBT/WR	MS	
410			where not gray	MS	Gray
			& clay alt is	MS	
420			← mix alt & unalt Prob. contam 15	H	Red Brn
		Bich	the same as	S	
430			usual LBT/WR.		
		Bich	Bleached &		
440			Pyritized zones		Mix Gray
		Bich	are well alt.	S	
450			but do not see	H	
			fault structures		RHYO Red Brn Maroon
460			(Poss alt along		
			bedding away from	H	Alt
470		gry	center Cyn fault	S	
		Bich	Py is cubic	S	Gray
480			& anhedral on	S	
			fract	H	Maroon
490		Dkgy		S	Gray
				H	Maroon
500				H	

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MASSIVE	QUARTZ %	ARGILLIC 5%	15%	+25%	TYPE	COLORS	PROPYLITIC % COLORS	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE
400	tr					2					0							
410	tr					2												
	tr					2												
420	0					0												
430	tr					2												
	tr					2												
440	tr					2												
	tr					2												
450	0					0												
	0					0												
460	0					0					0							
	0					0					tr							
470	1					2					0							
	1&2					2												
480	1&2					2												
	0					0												
490	tr					1&2												
	0					0					0							
500	0					0					tr							

FEET	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SLF %	SILBNE %	BARTE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
400				3														
410				5														
				10														
420				2														
430				3														
				7														
440				6														
				7														
450				5														
				2														
460				1														
				0														
470				0														
				3														
480				8														
				5														
490				6														
				3														
500				0														
				0														

Fine Diss. & on fracs

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

INTENSITY
1 = WEAK
2 = MODERATE
3 = STRONG
or % by Vol

HOLE NUMBER RS-497
PAGE 7 OF 19
DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

7/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	15%	+25%	MASSIVE	QUARTZ %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SLF %	SILBNTE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
500			500-555																																						
			LBT/WR			0					0					0											0														
510		Bleached	Prob alt along		Rhyo	tr					1																3						← contam								
			bedding no faults			0					0																0														
520			visible			tr					1+2																3														
			Py is cubic &			tr					1+2																2														
530			anhedral along fract			0					0					0											tr														
			Clay alt bleached		Alt & Pyritized	0					0					tr											tr														
540		Bleached	areas are white			1					1+2					0											tr														
			spot		wt spot alt	1					1																5						← unusual cubic clusters								
550						1					1+2																7														
						2					2					0											6														
			555-600																																						
560			typical Rhyo			0					0					tr											1														
			LDT/WR Flow w/		Rhyo Tuf Maroon to reddish Brn											1											0														
570			discoloration																																						
			along fract																																						
580			dark gray to reddish																																						
			Brown																																						
590																																									
600						0					0					1											0														

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

INTENSITY
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3 = STRONG
or % by Vol

HOLE NUMBER: RS-497
PAGE 8 OF 19
DATE:
LOGGED BY:
TOTAL DEPTH: 685 TD

LOCATION: ROSEBUD. NV
NORTHING:
EASTING:
ELEVATION:
AZIMUTH:
INCLINATION:

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

6-685 TD 8/19
685-700 Reenter

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MASSIVE	SILICIFICATION QUARTZ	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	AS-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
600			600-685 TD	H	Red Brn mottled gray	1					0					1											0														
610			L.B.T./WR	H		0					0					tr											0														
			typical LBT/WR	mH		6					2					tr											2														
620		Bleedy	but has more	H	gray-Tan	0					2					0											2														
			visible flow	mH		0					2					0											3														
630		LBT/WR Rhyo	banding thru	H		0					tr					1											0														
			up the hole								tr					1																								
640											0					1																								
																2																								
650																1																								
																1																								
660					Rhyo to dark gray											tr																								
																tr																								
670																tr																								
																tr																								
680					Reddish Brown											tr																								
			1st TD on 7 Apr. continue	H		0					0					tr											0														
			on 20 Apr.																																						
690			685-700	H		0					0					tr											0														
			@ 690 contain	H	dk gray	1					0					1											0														
700			690-700 LBT Rhyo	H		0					0					tr											0														

1st TD on 7 Apr @ 685 ft
continue on 20 Apr

Hecla MINING COMPANY
ROSEBUD PROJECT DRILL LOG

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HOLE NUMBER RS-497
PAGE 9 OF 19
DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

7-800 9/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
700–800		LBT/WR Rhyo Flow unit with the LBT/WR Rhyo Tflow (the dark VFX in the LBT/WR group)	700 – 800 LBT/WR Rhyo Flow Hem stain outward from fract + yellowish stain also. Some dk gray clay like material in fract @ 730 see wt clay stgr 1 to 2 mm wide. Dk gray to 750 & reddish brown to 800. Has rare bio phenos. From 770 has what looks like a micro Auto Bx but not sure, this area also has some flow text	H H	VFX in Rhyo flow w/ some flow bands Dk gray

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MATRIX	QUARTS	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SLF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	OPSIDIAN	OBSIDIAN	ANALYTICAL DATA: FROM	TO	W	Au	Ag
700–800	0					0				Tr												0														
710																																				
720										Tr																										
730																																				
740										Tr																										
750																																				
760																																				
770																																				
780																																				
790																																				
800	0					0				Tr												0														

Calcite. Both on fract & within rock

Hecla MINING COMPANY

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HOLE NUMBER RS-497
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DATE
LOGGED BY
TOTAL DEPTH

LOCATION ROSEBUD. NV
NORTHING
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AZIMUTH
INCLINATION

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

8-900

10/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
800		RHYOLITIC Flow BX on AutuBX	800 to 825 LBt/WR Black	H	RHYOLITE Dk gray to Blk
810			Rhyo. Flow, some micro auto by		
820			Blk to 825 then Pale		
			Micro clasts	H	
830			are all rhyolite	H	
840			NOTE: looks		
			more like a		
850			flow and not		
			an Ignembrite		
860			or welded unit.		
			clasts are all		
870			angular & seldom		
			over 2 mm		
880					Flow: Rhyo w/ micro clasts Reddish brown
890					
900				H	

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MATRIX	CLASTS	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	AC-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
800	0					0					0											0														
810											tr																									
820										tr																										
830																																				
840																																				
850																																				
860																																				
870																																				
880																																				
890																																				
900	0					0					tr											0														

Hecla MINING COMPANY

ROSEBUD PROJECT
DRILL LOG

INTENSITY
1 = WEAK
2 = MODERATE
3 = STRONG
or % by Vol

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LOCATION ROSEBUD. NV
NORTHING
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AREA
DRILLING CO.
RIG TYPE
HOLE SIZE
DOWN HOLE SURVEY BY

9-1000

11/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
900		LBT/WR Rhyo Flow Bx	900-1000 LBT/WR Appears to be a rhyolite full of small, angular rhyolite clasts or inclusions. most is matrix supported but a few areas appear to be clast supported. Will call micro Auto Bx	H	MICRO AUTO BX RHYO FLOW Reddish Brown
910					
920					
930					
940					
950					
960					
970					
980					
990			990-100 Original matrix		
1000				H	

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MATRIX	CLASTS	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SUL %	SILBENITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
900	0					0					Tr											0														
910																																				
920																																				
930																																				
940																																				
950																																				
960																																				
970																																				
980																																				
990																																				
1000	0					0					Tr											0														

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

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

10 - 1100

12/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MASSIVE %	SILICIFICATION QUARTZ %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1000		RHYOLITE mixed BX?	1000 – 1100	MH	Very fine grained matrix w/ microclasts Red-Brown	0					Tr-1					Tr											0														
1010			LBT/WR micro													Tr																										
			bx - matrix													1																										
1020			supported. Reddish													1																										
			brown to 1025													Tr																										
1030			then m to drk grey													1																										
			clasts are very													1																										
1040			small – 75% – 1mm													1																										
			prob. similar to													1																										
1050			our Ignimbrite																																						
			on West end of																																						
1060			wild rose ridge																																						
			weak argillic																																						
1070			alt to 1080 then																																						
			very hard																																						
1080			trace at flow	MH							Tr-1																														
			banding	VH							0																														
1090																																									
1100						0										1											0														

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AREA 11-1200
DRILLING CO.
RIG TYPE
HOLE SIZE
DOWN HOLE SURVEY BY

13/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION QLSTS %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CALCITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	K-SUL %	SULFATE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1100		LBT/WR Rhyo Micro Bx or Quartz Quartz Brecc	1100 – 1140	H	micro Bx or Tuff	0					Tr				Calcite veins or Tuffs	1											0													
1110			LBT/WR microBx								Tr					1											0													
			same as above								Tr					Tr											0													
1120											1																													
											1																													
1130			AIT to GRN CLAY. MAY MAKE IT LOOK LIKE BUD								2					1																								
			BUD-LIKE – more clay	S																																				
			alt. to pale green	S	BUD-Like in part						2					1																								
1140			matrix	S		0					2					1											0													
				H		1					Tr					1											0							OXIDIZED	Yellowish Brown Red-Brown						
1150			1140 – 1200 very LBT/WR strong alt. w/			2					1					1																								
			spider text. silicin			3					Tr					Tr																								
1160			is tan to gray &			2					1					Tr											0													
			clay white			2					1					1											Tr													
1170		LBT/WR Rhyo	silica is mostly			2 & 3	with clay				1					0											Tr-1							Gray min							
			chalcedony			2 & 3	"				1					Tr											1					2		Gray min							
1180						3					Tr					Tr											3													
						3					Tr					0											4	Py C&A												
1190						2 & 3					1					0											3	"												
			Poss Large frag Bx w silicin matrix			3					1					0											2		cubic & A. outrad											
1200				H		3					Tr					0											2													

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

12-1300

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
1200		LBT/WR Coarse Bx	Note: suspect	H	Large frag Bx silica cement
1210			from 1200 to 1235		
			could be a large		
1220			frag Bx w/ silica		
			in matrix. Have		
1230			Traces of Dru Qt.		
			Flow banded Py-Aoy frag w/drk?	H	Ltgray, white & Tan
1240		LBT/WR	1200 to 1300	H	
			LBT/WR simi		
1250			spider text tan		Spider text LBT/WR
			silicification & wt		
1260			clay spots		
1270					Gray - white
1280		BX	micro		
		BX	BX		
		HT BY			
1290		ABX ?			
			↑ Tan silica		tan
			← mgry silica	H	
1300				VH	Gray

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MASSIVE %	QUARTS %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE
1200	2					1					0							
						2												
1210	2																	
	2+3					1												
1220	1+2					2												
	2					2												
1230	3					1												
	2					1												
1240	2					2												
	3	wt to tan silica				1												
1250	2+3					1												
	2+3					1												
1260	1					2												
	2					1												
1270	2					2	wt clay											
	2					2		"										
1280	1					2		'										
	1					2												
1290	1					2												
	1					2					0							
1300	3					Tr					1							

FEET	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SUL %	SULFATE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	[illegible]	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1200				3														
1210				2									Tr	Dru Qt			Poss banded silica	
				2	Large cubic								tr	"				
1220				1									Tr	"				
				1														
1230				2									Tr	Drusy			Qt	
				3														
1240				3														
				2														
1250				1		Py C & stgrs												
				2														
1260				4														
				2														
1270				1														
				2														
1280				1														
				2														
1290				2														
				2														
1300				5														

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

13-1400

15/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MASSIVE	SILICIFICATION QZ STS	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	K-SUL %	SULBNE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1300		LBT/WR Rhyo Flow w/ white Bx	13-1350 LBT/WR	H	LBT/WR Bx white & gray	2-3					1					1											1														
1310			spider text & micro			2-3					2																1														
			Bx. strongly alt			2-3					1																2														
1320			to 1310 then alt.			2					2																Tr														
			grades out.			1					2																Tr														
1330			Flow banded in part			1					2																Tr														
						Tr					2																Tr														
1340		LBT/WR Rhyo Flow w/ white Bx	NOTE: 1300 to 1375 could all be auto Bx but I think it is all too small		Varied Bx Flow white & Red Brg	Tr					2																Tr														
						Tr					1																1														
1350						0					1					1											Tr														
			1350 — 1375			0					Tr					2											Tr														
1360		LBT/WR w/ cracked Bx	cracked Bx LBT/WR		LBT/WR Flow Reddish Brown											2											0														
			Rhyo flow flow band													1																										
1370																																									
1380			1375 - 1400																																						
			LBT/WR Rhyo flow																																						
1390			Flow banded																																						
1400				H		0					Tr					1											0														

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

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

14-1500

16/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
1400			1400-1500 LBT/WR	H	Argillic Brown
1410			w/various Bx'es		
			some of it appears to be a flow Bx		
1420		ABx			
		"			
1430		"			
		"			
1440		C Bx			Argillic micro Bx varies to Reddish
1450		ABx?	flow Bx?		
		"			
1460		"			
		"		H	
1470		micro Bx		S	
		"		S	
1480				S	LBT/WR Gray Lt Red Brn
			Gray Fault Gouge 1480-1500 spider Text Bx	VS	
1490				VS	
				H	
1500				H	Gray, Lt Gray

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MAJOR %	CLASTS %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE
1400	0					Tr					1							
1410						Tr												
						1												
1420											1							
											2							
1430																		
1440																		
1450																		
											2							
1460						1					1							
						1					1							
1470						1					1							
						1					2							
1480	0					1					2							
	Tr					3					3							
1490	1					3					Tr							
	1					2					1							
1500	1-2					2					1							

FEET	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	OPEBOX	MOCURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1400				0														
1410																		
1420																		
1430																		
1440																		
				0														
1450				Tr														
				0														
1460																		
1470																		
				0														
1480				Tr														
				1														
1490				3														
				4														
1500				1														

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

15-1600

17/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE
1500			1500-1550		
			LBt/WR - spider	H	
1510			text Bx - or		
			microBx		
1520					
1530					
1540					
1550					
			1550 to 1600		
1560			Fxln granular		
			LBt/WR only		
1570			a trace of flow tex		
			becomes more		
1580			silicif. toward 1600		
1590					
1600				H	

FEET	ALTERATION: SILICIFICATION 5%	15%	+25%	MATRIX %	QUARTS %	ARGILLIC 5%	15%	+25%	TYPE	PROPYLITIC % CHLORITE	CALCITE	POTASSIC % K-SPAR	ALUNITE	OXIDATION 5%	15%	+25%	VIENING %	TYPE
1500	tr					2-3					1							
1510	tr					2					2	clear calc						
	tr					2					2							
1520	0					2					1							
	0					2	grn & wh clay											
1530	0					1-2												
	tr					1+2					1							
1540	tr					2					tr							
	1					2					0							
1550	1+2					1+2												
	0					2												
1560	1					2												
	1					2												
1570	tr					2												
	2					1					0							
1580	2					1					tr							
	0					1					0							
1590	2-3					1					0							
	2					2					tr							
1600	2-3					1					0							

FEET	MINERALIZATION: SULFIDES 5%	15%	+25%	PY %	CPY %	MAR %	K-SLF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1500				Tr	micro cubic													
1510				0														
1520																		
1530				0														
1540				tr														
1550				4														
				3														
1560				2														
1570				2														
1580				5														
1590				4														
1600				6														

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

16-1700

18/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MASSIVE %	SILICIFICATION QUARTZ %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	AC-SULF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBDE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1600		LBT/WR Rhyo	1600-1605 LBT/WR Fx/h granular	H	Fx/h granular Tan	2-3					2					Tr											4														
			1605-1610 spider + ext LBT/WR			2-3					2					Tr											1														
1610			1610-1630 - Hard silicification at		strong silica	3	Gray				Tr					1											4														
1620			LBT/WR - No texture			3	"				Tr					Tr											5														
			visible			3					1					0											4														
1630					m. gray	3					1					Tr											4														
			1630 to 1700 LBT/WR. spider texture moderate or minor Bx.			2					1					0											3														
1640						2-3					1																4														
			Some strong Py			2					1-2																6														
1650				M H		1-2					2																5														
						1					2					0											10														
1660						1					2					1											5														
						1					2					1											4		Tr												
1670					Bx Tan & pale grey	1					2				-wet clay	1											7														
						1					2-3					1											2					Po									
1680						1					2-3					2											2					Tr									
		Bx				1					2					1											1														
1690						Tr					2					2											1														
						1					2					2											3														
1700				M H		Tr					2					2											3		Tr												

Hecla MINING COMPANY

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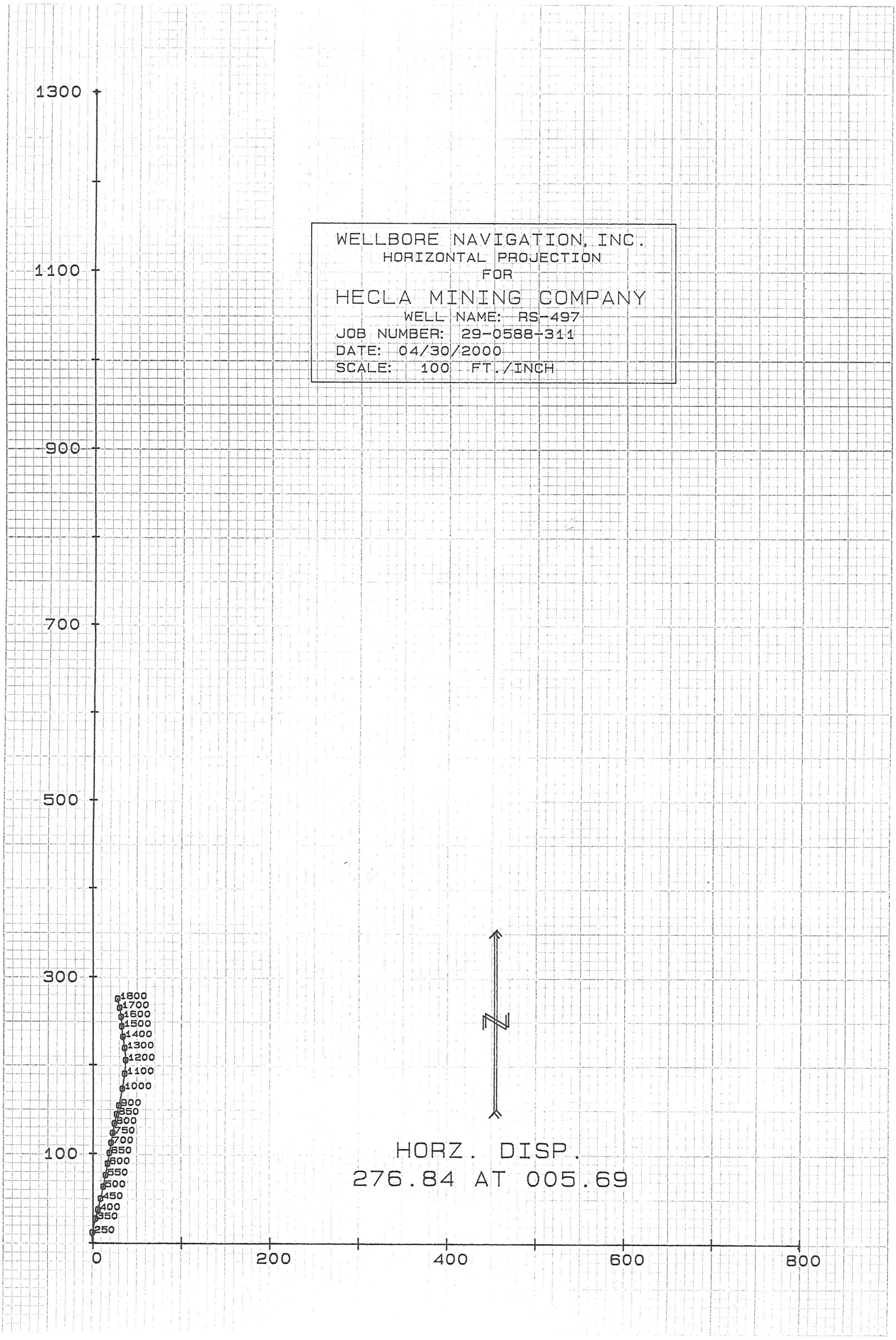
DRILLING CO.
RIG TYPE
HOLE SIZE
DOWN HOLE SURVEY BY

17-1780

19/19

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MAJOR	SILICIFICATION QUARTZ	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % COLORE	PROPYLITIC % CHLORITE	POTASSIC % K-SPAR	POTASSIC % ALUNITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	K-SUL %	SULBIC %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLYBE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
1700		LBT/WR Rhyolite	1700-1780	H	LBT/WR Rhyo some spider tex wt & Tan	1	wt & tan				2					2											4													
1710			LBT/WR mottled			1	"				2					2											5													
			tan, Lt green & white			Tr	"				2					1											4													
1720			clay & silica mix			tr	"				2					tr											3													
			py is cubic &			tr	"				2					2											2					Po								
1730			anhedral			1	"				2					1											1					tr								
			poss some Cp			1	"				2					tr											3													
1740			Num py stgrs			1	"				2					1											3													
						1	"				2					1											2													
1750						tr	"				2-3					1											2													
						1	"				2					tr											5													
1760						1	"				2					0											5													
						1	"				2	Lt grn clay															5													
1770					gray	3	wt & gray				1																3		tr			tr								
						3	tan				1					0											2					Tr								
1780				H		2	"				2					tr											4													
			1780 TD																																					
			I was on vacation																																					
90			I don't know why we																																					
			stopped this hole																																					
00																																								



AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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-497 RECEIVED : 3 MAY 2000

No. SAMPLES : 220 REPORTED : 15 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

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-497 RECEIVED : 9 APR 2000

No. SAMPLES : 138 REPORTED : 19 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 000-005	<5		<0.001		<0.5	<0.02
RS-497 005-010	5		<0.001		<0.5	<0.02
RS-497 010-015	9		<0.001		<0.5	<0.02
RS-497 015-020	12		<0.001		<0.5	<0.02
RS-497 020-025	<5		<0.001		<0.5	<0.02
RS-497 025-030	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 030-035	<5		<0.001		<0.5	<0.02
RS-497 035-040	8		<0.001		<0.5	<0.02
RS-497 040-045	48		0.001		<0.5	<0.02
RS-497 045-050	67		0.002		<0.5	<0.02
RS-497 050-055 60' to 340	58		0.002		<0.5	<0.02
RS-497 055-060 280' 180	90		0.003	240' <0.6	<0.5	<0.02
RS-497 060-065	198		0.006		<0.5	<0.02
RS-497 065-070	182		0.005	7/<0.6	<0.5	<0.02
RS-497 070-075	162	158	0.005	0.005	<0.5	<0.02
RS-497 075-080	152		0.004		<0.5	<0.02
RS-497 080-085	162		0.005		<0.5	<0.02
RS-497 085-090	121		0.004		<0.5	<0.02
RS-497 090-095	112		0.003		<0.5	<0.02
RS-497 095-100	196		0.006		<0.5	<0.02
RS-497 100-105	211	211	0.006	0.006	<0.5	<0.02
RS-497 105-110	163		0.005		<0.5	<0.02
RS-497 110-115	167		0.005		1.6	0.05
RS-497 115-120	156		0.005		<0.5	<0.02
RS-497 120-125	189		0.006		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 125-130	162		0.005		<0.5	<0.02
RS-497 130-135	105		0.003		<0.5	<0.02
RS-497 135-140	108		0.003		<0.5	<0.02
RS-497 140-145	79		0.002		<0.5	<0.02
RS-497 145-150	95		0.003		<0.5	<0.02
RS-497 150-155	142		0.004		<0.5	<0.02
RS-497 155-160	82		0.002		<0.5	<0.02
RS-497 160-165	109		0.003		<0.5	<0.02
RS-497 165-170	171		0.005		<0.5	<0.02
RS-497 170-175	232		0.007		<0.5	<0.02
RS-497 175-180	119		0.003		<0.5	<0.02
RS-497 180-185	131		0.004		<0.5	<0.02
RS-497 185-190	161		0.005		<0.5	<0.02
RS-497 190-195	400		0.012		<0.5	<0.02
RS-497 195-200	210		0.006		<0.5	<0.02
RS-497 200-205	74		0.002		<0.5	<0.02
RS-497 205-210	54	52	0.002	0.002	<0.5	<0.02
RS-497 210-215	26		<0.001		0.6	<0.02
RS-497 215-220	16		<0.001		0.6	<0.02
RS-497 220-225	21		<0.001		0.6	<0.02
RS-497 225-230	50	52	0.001	0.002	0.5	<0.02
RS-497 230-235	187		0.005		0.5	<0.02
RS-497 235-240	61		0.002		0.5	<0.02
RS-497 240-245	127		0.004		0.9	0.03
RS-497 245-250	287		0.008		2.0	0.06

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 250-255	308		0.009		3.9	0.11
RS-497 255-260	386		0.011		4.7	0.14
RS-497 260-265	239		0.007		3.8	0.11
RS-497 265-270	389		0.011		5.7	0.17
RS-497 270-275	302		0.009		3.5	0.10
RS-497 275-280	179		0.005		0.9	0.03
RS-497 280-285	197	206	0.006	0.006	1.1	0.03
RS-497 285-290	202		0.006		0.7	0.02
RS-497 290-295	273		0.008		0.7	0.02
RS-497 295-300	187		0.005		0.7	0.02
RS-497 300-305	291		0.008		0.7	0.02
RS-497 305-310	466		0.014		0.9	0.03
RS-497 310-315	277		0.008		0.9	0.03
RS-497 315-320	438		0.013		1.5	0.04
RS-497 320-325	208	202	0.006	0.006	0.6	<0.02
RS-497 325-330	101		0.003		0.5	<0.02
RS-497 330-335	192		0.006		0.5	<0.02
RS-497 335-340	76		0.002		0.5	<0.02
RS-497 340-345	36		0.001		<0.5	<0.02
RS-497 345-350	10		<0.001		<0.5	<0.02
RS-497 350-355	21		<0.001		0.5	<0.02
RS-497 355-360	<5		<0.001		0.5	<0.02
RS-497 360-365	7		<0.001		<0.5	<0.02
RS-497 365-370	131		0.004		0.5	<0.02
RS-497 370-375	41		0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 375-380	36		0.001		<0.5	<0.02
RS-497 380-385	35		0.001		0.5	<0.02
RS-497 385-390	405	408	0.012	0.012	2.6	0.08
RS-497 390-395	320		0.009	385 to 555	1.6	0.05
RS-497 395-400	75		0.002	170'	0.8	0.02
RS-497 400-405	27		<0.001		0.7	0.02
RS-497 405-410	76		0.002	0.60 Ag	0.6	<0.02
RS-497 410-415	118		0.003		0.5	<0.02
RS-497 415-420	44		0.001		<0.5	<0.02
RS-497 420-425	108		0.003		0.5	<0.02
RS-497 425-430	191		0.006		0.8	0.02
RS-497 430-435	358		0.010		1.6	0.05
RS-497 435-440	420	412	0.012	0.012	3.7	0.11
RS-497 440-445	449		0.013		2.3	0.07
RS-497 445-450	168		0.005		0.9	0.03
RS-497 450-455	50		0.001		0.8	0.02
RS-497 455-460	58	52	0.002	0.002	0.7	0.02
RS-497 460-465	7		<0.001		0.5	<0.02
RS-497 465-470	252		0.007		0.7	0.02
RS-497 470-475	127		0.004		0.6	<0.02
RS-497 475-480	124		0.004		1.0	0.03
RS-497 480-485	54		0.002		0.8	0.02
RS-497 485-490	179		0.005		1.2	0.04
RS-497 490-495	30		<0.001		0.6	<0.02
RS-497 495-500	30		<0.001		0.6	<0.02

385 to 555
170 feet
143 Au

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 500-505	32		<0.001		0.7	0.02
RS-497 505-510	58		0.002		0.7	0.02
RS-497 510-515	16		<0.001		0.6	<0.02
RS-497 515-520	119		0.003		0.7	0.02
RS-497 520-525	34	36	<0.001	0.001	0.6	<0.02
RS-497 525-530	31		<0.001		0.6	<0.02
RS-497 530-535	53		0.002		0.6	<0.02
RS-497 535-540	68		0.002		0.6	<0.02
RS-497 540-545	246		0.007		0.6	<0.02
RS-497 545-550	455		0.013		1.8	0.05
RS-497 550-555	102		0.003		0.8	0.02
RS-497 555-560	42	42	0.001	0.001	0.7	0.02
RS-497 560-565	20	16	<0.001	<0.001	0.7	0.02
RS-497 565-570	<5		<0.001		0.7	0.02
RS-497 570-575	<5		<0.001		0.7	0.02
RS-497 575-580	<5		<0.001		0.6	<0.02
RS-497 580-585	<5		<0.001		0.8	0.02
RS-497 585-590	<5		<0.001		0.7	0.02
RS-497 590-595	<5		<0.001		0.7	0.02
RS-497 595-600	<5	<5	<0.001	<0.001	0.7	0.02
RS-497 600-605	<5		<0.001		0.7	0.02
RS-497 605-610	<5		<0.001		0.6	<0.02
RS-497 610-615	15		<0.001		0.5	<0.02
RS-497 615-620	44		0.001		<0.5	<0.02
RS-497 620-625	26		<0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP056950

CLIENT : HECLA MINING COMPANY
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REFERENCE : RS-497

REPORTED : 19 APR 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 625-630	<5		<0.001		0.6	<0.02
RS-497 630-635	<5		<0.001		0.5	<0.02
RS-497 635-640	<5		<0.001		0.6	<0.02
RS-497 640-645	<5		<0.001		0.5	<0.02
RS-497 645-650	<5		<0.001		0.7	0.02
RS-497 650-655	<5		<0.001		0.5	<0.02
RS-497 655-660	<5	<5	<0.001	<0.001	0.8	0.02
RS-497 660-665	<5		<0.001		0.7	0.02
RS-497 665-670	<5		<0.001		0.6	<0.02
RS-497 670-675	<5		<0.001		0.6	<0.02
RS-497 675-680	<5		<0.001		0.6	<0.02
RS-497 680-685	<5	<5	<0.001	<0.001	0.5	<0.02
89640	6260		0.183		57.9	1.69

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 685-690	10		<0.001		<0.5	<0.02
RS-497 690-695	<5		<0.001		<0.5	<0.02
RS-497 695-700	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 700-705	<5		<0.001		<0.5	<0.02
RS-497 705-710	<5		<0.001		<0.5	<0.02
RS-497 710-715	<5		<0.001		<0.5	<0.02
RS-497 715-720	6		<0.001		0.5	<0.02
RS-497 720-725	<5		<0.001		<0.5	<0.02
RS-497 725-730	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 730-735	<5		<0.001		<0.5	<0.02
RS-497 735-740	<5		<0.001		<0.5	<0.02
RS-497 740-745	<5		<0.001		<0.5	<0.02
RS-497 745-750	<5		<0.001		<0.5	<0.02
RS-497 750-755	<5		<0.001		<0.5	<0.02
RS-497 755-760	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 760-765	<5		<0.001		<0.5	<0.02
RS-497 765-770	<5		<0.001		<0.5	<0.02
RS-497 770-775	<5		<0.001		<0.5	<0.02
RS-497 775-780	<5		<0.001		<0.5	<0.02
RS-497 780-785	<5		<0.001		<0.5	<0.02
RS-497 785-790	<5		<0.001		<0.5	<0.02
RS-497 790-795	<5		<0.001		<0.5	<0.02
RS-497 795-800	<5		<0.001		<0.5	<0.02
RS-497 800-805	<5		<0.001		<0.5	<0.02
RS-497 805-810	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 810-815	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 815-820	<5		<0.001		<0.5	<0.02
RS-497 820-825	<5		<0.001		<0.5	<0.02
RS-497 825-830	<5		<0.001		<0.5	<0.02
RS-497 830-835	<5		<0.001		<0.5	<0.02
RS-497 835-840	<5		<0.001		<0.5	<0.02
RS-497 840-845	<5		<0.001		<0.5	<0.02
RS-497 845-850	<5		<0.001		<0.5	<0.02
RS-497 850-855	<5		<0.001		<0.5	<0.02
RS-497 855-860	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 860-865	<5		<0.001		<0.5	<0.02
RS-497 865-870	<5		<0.001		<0.5	<0.02
RS-497 870-875	<5		<0.001		<0.5	<0.02
RS-497 875-880	<5		<0.001		<0.5	<0.02
RS-497 880-885	<5		<0.001		<0.5	<0.02
RS-497 885-890	<5		<0.001		<0.5	<0.02
RS-497 890-895	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 895-900	<5		<0.001		3.3	0.10
RS-497 900-905	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 905-910	<5		<0.001		<0.5	<0.02
RS-497 910-915	<5		<0.001		<0.5	<0.02
RS-497 915-920	<5		<0.001		<0.5	<0.02
RS-497 920-925	<5		<0.001		<0.5	<0.02
RS-497 925-930	<5		<0.001		<0.5	<0.02
RS-497 930-935	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 935-940	<5		<0.001		<0.5	<0.02
RS-497 940-945	<5		<0.001		<0.5	<0.02
RS-497 945-950	<5		<0.001		<0.5	<0.02
RS-497 950-955	<5		<0.001		<0.5	<0.02
RS-497 955-960	<5		<0.001		<0.5	<0.02
RS-497 960-965	<5		<0.001		<0.5	<0.02
RS-497 965-970	<5		<0.001		<0.5	<0.02
RS-497 970-975	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 975-980	<5		<0.001		<0.5	<0.02
RS-497 980-985	<5		<0.001		<0.5	<0.02
RS-497 985-990	<5		<0.001		<0.5	<0.02
RS-497 990-995	<5		<0.001		<0.5	<0.02
RS-497 995-1000	<5		<0.001		<0.5	<0.02
RS-497 1000-1005	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1005-1010	<5		<0.001		<0.5	<0.02
RS-497 1010-1015	<5		<0.001		<0.5	<0.02
RS-497 1015-1020	<5		<0.001		<0.5	<0.02
RS-497 1020-1025	<5		<0.001		<0.5	<0.02
RS-497 1025-1030	<5		<0.001		<0.5	<0.02
RS-497 1030-1035	<5		<0.001		<0.5	<0.02
RS-497 1035-1040	<5		<0.001		<0.5	<0.02
RS-497 1040-1045	<5		<0.001		<0.5	<0.02
RS-497 1045-1050	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1050-1055	<5		<0.001		<0.5	<0.02
RS-497 1055-1060	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SF057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1060-1065	<5		<0.001		<0.5	<0.02
RS-497 1065-1070	20		<0.001		<0.5	<0.02
RS-497 1070-1075	<5		<0.001		<0.5	<0.02
RS-497 1075-1080	<5		<0.001		<0.5	<0.02
RS-497 1080-1085	<5		<0.001		<0.5	<0.02
RS-497 1085-1090	<5		<0.001		<0.5	<0.02
RS-497 1090-1095	<5		<0.001		<0.5	<0.02
RS-497 1095-1100	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1100-1105	<5		<0.001		<0.5	<0.02
RS-497 1105-1110	8		<0.001		<0.5	<0.02
RS-497 1110-1115	<5		<0.001		<0.5	<0.02
RS-497 1115-1120	<5		<0.001		<0.5	<0.02
RS-497 1120-1125	<5		<0.001		<0.5	<0.02
RS-497 1125-1130	10		<0.001		<0.5	<0.02
RS-497 1130-1135	<5		<0.001		<0.5	<0.02
RS-497 1135-1140	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1140-1145	<5		<0.001		<0.5	<0.02
RS-497 1145-1150	12		<0.001		<0.5	<0.02
RS-497 1150-1155	<5		<0.001		<0.5	<0.02
RS-497 1155-1160	<5		<0.001		<0.5	<0.02
RS-497 1160-1165	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1165-1170	<5		<0.001		<0.5	<0.02
RS-497 1170-1175	<5		<0.001		<0.5	<0.02
RS-497 1175-1180	37		0.001		<0.5	<0.02
RS-497 1180-1185	42		0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1185-1190	53	58	0.002	0.002	1.1	0.03
RS-497 1190-1195	59		0.002		1.4	0.04
RS-497 1195-1200	69		0.002		5.2	0.15
RS-497 1200-1205	66		0.002		1.6	0.05
RS-497 1205-1210	60		0.002		1.8	0.05
RS-497 1210-1215	76		0.002		14.6	0.43
RS-497 1215-1220	67		0.002		2.4	0.07
RS-497 1220-1225	66		0.002		1.3	0.04
RS-497 1225-1230	93		0.003		6.5	0.19
RS-497 1230-1235	91		0.003		3.2	0.09
RS-497 1235-1240	63		0.002		5.2	0.15
RS-497 1240-1245	32	32	<0.001	<0.001	4.5	0.13
RS-497 1245-1250	50		0.001		2.3	0.07
RS-497 1250-1255	36		0.001		<0.5	<0.02
RS-497 1255-1260	49		0.001		<0.5	<0.02
RS-497 1260-1265	43		0.001		1.3	0.04
RS-497 1265-1270	75	64	0.002	0.002	0.9	0.03
RS-497 1270-1275	101		0.003		1.9	0.06
RS-497 1275-1280	59		0.002		1.8	0.05
RS-497 1280-1285	33		<0.001		<0.5	<0.02
RS-497 1285-1290	55	56	0.002	0.002	2.8	0.08
RS-497 1290-1295	42		0.001		16.9	0.49
RS-497 1295-1300	163		0.005		15.3	0.45
RS-497 1300-1305	70		0.002		14.5	0.42
RS-497 1305-1310	53		0.002		9.7	0.28

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1310-1315	39		0.001		5.0	0.15
RS-497 1315-1320	33		<0.001		0.9	0.03
RS-497 1320-1325	30		<0.001		1.9	0.06
RS-497 1325-1330	18		<0.001		1.6	0.05
RS-497 1330-1335	25		<0.001		<0.5	<0.02
RS-497 1335-1340	40		0.001		3.0	0.09
RS-497 1340-1345	26		<0.001		0.5	<0.02
RS-497 1345-1350	<5		<0.001		<0.5	<0.02
RS-497 1350-1355	<5		<0.001		<0.5	<0.02
RS-497 1355-1360	28		<0.001		<0.5	<0.02
RS-497 1360-1365	9		<0.001		<0.5	<0.02
RS-497 1365-1370	<5		<0.001		<0.5	<0.02
RS-497 1370-1375	12		<0.001		<0.5	<0.02
RS-497 1375-1380	23		<0.001		<0.5	<0.02
RS-497 1380-1385	18		<0.001		<0.5	<0.02
RS-497 1385-1390	<5		<0.001		<0.5	<0.02
RS-497 1390-1395	<5		<0.001		<0.5	<0.02
RS-497 1395-1400	5		<0.001		<0.5	<0.02
RS-497 1400-1405	<5		<0.001		<0.5	<0.02
RS-497 1405-1410	5		<0.001		<0.5	<0.02
RS-497 1410-1415	<5		<0.001		<0.5	<0.02
RS-497 1415-1420	<5		<0.001		<0.5	<0.02
RS-497 1420-1425	8		<0.001		<0.5	<0.02
RS-497 1425-1430	7		<0.001		<0.5	<0.02
RS-497 1430-1435	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1435-1440	10		<0.001		<0.5	<0.02
RS-497 1440-1445	13		<0.001		0.8	0.02
RS-497 1445-1450	6		<0.001		<0.5	<0.02
RS-497 1450-1455	<5		<0.001		<0.5	<0.02
RS-497 1455-1460	<5		<0.001		<0.5	<0.02
RS-497 1460-1465	14		<0.001		<0.5	<0.02
RS-497 1465-1470	13		<0.001		<0.5	<0.02
RS-497 1470-1475	<5		<0.001		<0.5	<0.02
RS-497 1475-1480	32		<0.001		<0.5	<0.02
RS-497 1480-1485	30		<0.001		<0.5	<0.02
RS-497 1485-1490	69		0.002		3.0	0.09
RS-497 1490-1495	63		0.002		0.9	0.03
RS-497 1495-1500	13		<0.001		<0.5	<0.02
RS-497 1500-1505	5		<0.001		<0.5	<0.02
RS-497 1505-1510	30	28	<0.001	<0.001	<0.5	<0.02
RS-497 1510-1515	9		<0.001		<0.5	<0.02
RS-497 1515-1520	<5		<0.001		<0.5	<0.02
RS-497 1520-1525	<5		<0.001		<0.5	<0.02
RS-497 1525-1530	33		<0.001		0.9	0.03
RS-497 1530-1535	14		<0.001		0.5	<0.02
RS-497 1535-1540	27		<0.001		1.5	0.04
RS-497 1540-1545	36	36	0.001	0.001	0.8	0.02
RS-497 1545-1550	82		0.002		2.0	0.06
RS-497 1550-1555	81		0.002		2.7	0.08
RS-497 1555-1560	80		0.002		3.3	0.10

15-40-10

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1560-1565	112		0.003		3.7	0.11
RS-497 1565-1570	101		0.003		3.8	0.11
RS-497 1570-1575	147		0.004		4.2	0.12
RS-497 1575-1580	148		0.004		2.9	0.08
RS-497 1580-1585	138		0.004	90 2.8 ppm	2.8	0.08
RS-497 1585-1590	102		0.003		1.9	0.06
RS-497 1590-1595	148		0.004	18 5.0	2.4	0.07
RS-497 1595-1600	141		0.004		2.7	0.08
RS-497 1600-1605	69		0.002		3.7	0.11
RS-497 1805-1610 1560	84	82	0.002	0.002	2.8	0.07
RS-497 1610-1615 to	85		0.002		2.6	0.08
RS-497 1615-1620 1650	128		0.004		4.3	0.13
RS-497 1620-1625 90	85		0.002		2.0	0.06
RS-497 1625-1630 2047	114		0.003		1.7	0.05
RS-497 1630-1635 1.8	127		0.004		1.3	0.04
RS-497 1635-1640 113.7	82		0.002		1.8	0.06
RS-497 1640-1645 114	114		0.003		3.4	0.10
RS-497 1645-1650	122		0.004		3.5	0.10
RS-497 1650-1655	79		0.002		2.5	0.07
RS-497 1655-1660	60		0.002		2.5	0.07
RS-497 1660-1665	30	34	<0.001	<0.001	1.8	0.05
RS-497 1665-1670	98		0.003		1.8	0.05
RS-497 1670-1675	34		<0.001		1.0	0.03
RS-497 1675-1680	26		<0.001		0.7	0.02
RS-497 1680-1685	35		0.001		1.7	0.05

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1685-1690	66		0.002		2.3	0.07
RS-497 1690-1695	59		0.002		2.1	0.06
RS-497 1695-1700	71		0.002		2.2	0.06
RS-497 1700-1705	47		0.001		1.9	0.06
RS-497 1705-1710	88		0.003		2.5	0.07
RS-497 1710-1715	68	73	0.002	0.002	2.5	0.07
RS-497 1715-1720	80		0.002		2.8	0.08
RS-497 1720-1725	69		0.002		2.8	0.08
RS-497 1725-1730	72		0.002		2.6	0.08
RS-497 1730-1735	123		0.004		2.4	0.07
RS-497 1735-1740	47		0.001		2.2	0.06
RS-497 1740-1745	80		0.002		3.1	0.09
RS-497 1745-1750	82		0.002		3.5	0.10
RS-497 1750-1755	60		0.002		2.9	0.08
RS-497 1755-1760	58		0.002		3.0	0.09
RS-497 1760-1765	50		0.001		2.5	0.07
RS-497 1765-1770	62		0.002		2.6	0.08
RS-497 1770-1775	83		0.002		3.7	0.11
RS-497 1775-1780	50		0.001		2.6	0.08
89894	2026		0.059		36.6	1.07

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

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1500 Glendale Ave.
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Telephone
(702) 738-9100
Fax
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Mazatlan Office
Telephone/Fax
011-52-69-170035

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

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: WILDROSE EAST Purchase Order Number:

Date Submitted: 5-1-00 Number of Samples: 219

RESULTS REPORTED IN: ppm [ ] ppb [✓] opt [✓]

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
RS-497	RC	Au & Ag - Use Rosebud Exploration
685 TO 1780		Protocol for Sample Prep &
		Assays
Note: Please Make UP 20	ft	Composits of the pulps
for ICP + Se trace	el	ements.
1 (one) Pulp - Rosebud Production Standard at		
End of Run		

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month

[X] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen
PO Box 2610
Winnemucca, NV 89446

Results to:

Kurt Allen

— Same —

Comments:

CLIENT FILE COPY

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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-497 RECEIVED : 3 MAY 2000

No. SAMPLES : 220 REPORTED : 15 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 685-690	10		<0.001		<0.5	<0.02
RS-497 690-695	<5		<0.001		<0.5	<0.02
RS-497 695-700	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 700-705	<5		<0.001		<0.5	<0.02
RS-497 705-710	<5		<0.001		<0.5	<0.02
RS-497 710-715	<5		<0.001		<0.5	<0.02
RS-497 715-720	6		<0.001		0.5	<0.02
RS-497 720-725	<5		<0.001		<0.5	<0.02
RS-497 725-730	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 730-735	<5		<0.001		<0.5	<0.02
RS-497 735-740	<5		<0.001		<0.5	<0.02
RS-497 740-745	<5		<0.001		<0.5	<0.02
RS-497 745-750	<5		<0.001		<0.5	<0.02
RS-497 750-755	<5		<0.001		<0.5	<0.02
RS-497 755-760	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 760-765	<5		<0.001		<0.5	<0.02
RS-497 765-770	<5		<0.001		<0.5	<0.02
RS-497 770-775	<5		<0.001		<0.5	<0.02
RS-497 775-780	<5		<0.001		<0.5	<0.02
RS-497 780-785	<5		<0.001		<0.5	<0.02
RS-497 785-790	<5		<0.001		<0.5	<0.02
RS-497 790-795	<5		<0.001		<0.5	<0.02
RS-497 795-800	<5		<0.001		<0.5	<0.02
RS-497 800-805	<5		<0.001		<0.5	<0.02
RS-497 805-810	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 810-815	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 815-820	<5		<0.001		<0.5	<0.02
RS-497 820-825	<5		<0.001		<0.5	<0.02
RS-497 825-830	<5		<0.001		<0.5	<0.02
RS-497 830-835	<5		<0.001		<0.5	<0.02
RS-497 835-840	<5		<0.001		<0.5	<0.02
RS-497 840-845	<5		<0.001		<0.5	<0.02
RS-497 845-850	<5		<0.001		<0.5	<0.02
RS-497 850-855	<5		<0.001		<0.5	<0.02
RS-497 855-860	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 860-865	<5		<0.001		<0.5	<0.02
RS-497 865-870	<5		<0.001		<0.5	<0.02
RS-497 870-875	<5		<0.001		<0.5	<0.02
RS-497 875-880	<5		<0.001		<0.5	<0.02
RS-497 880-885	<5		<0.001		<0.5	<0.02
RS-497 885-890	<5		<0.001		<0.5	<0.02
RS-497 890-895	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 895-900	<5		<0.001		3.3	0.10
RS-497 900-905	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 905-910	<5		<0.001		<0.5	<0.02
RS-497 910-915	<5		<0.001		<0.5	<0.02
RS-497 915-920	<5		<0.001		<0.5	<0.02
RS-497 920-925	<5		<0.001		<0.5	<0.02
RS-497 925-930	<5		<0.001		<0.5	<0.02
RS-497 930-935	<5		<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-497 935-940	<5		<0.001		<0.5	<0.02
RS-497 940-945	<5		<0.001		<0.5	<0.02
RS-497 945-950	<5		<0.001		<0.5	<0.02
RS-497 950-955	<5		<0.001		<0.5	<0.02
RS-497 955-960	<5		<0.001		<0.5	<0.02
RS-497 960-965	<5		<0.001		<0.5	<0.02
RS-497 965-970	<5		<0.001		<0.5	<0.02
RS-497 970-975	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 975-980	<5		<0.001		<0.5	<0.02
RS-497 980-985	<5		<0.001		<0.5	<0.02
RS-497 985-990	<5		<0.001		<0.5	<0.02
RS-497 990-995	<5		<0.001		<0.5	<0.02
RS-497 995-1000	<5		<0.001		<0.5	<0.02
RS-497 1000-1005	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1005-1010	<5		<0.001		<0.5	<0.02
RS-497 1010-1015	<5		<0.001		<0.5	<0.02
RS-497 1015-1020	<5		<0.001		<0.5	<0.02
RS-497 1020-1025	<5		<0.001		<0.5	<0.02
RS-497 1025-1030	<5		<0.001		<0.5	<0.02
RS-497 1030-1035	<5		<0.001		<0.5	<0.02
RS-497 1035-1040	<5		<0.001		<0.5	<0.02
RS-497 1040-1045	<5		<0.001		<0.5	<0.02
RS-497 1045-1050	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1050-1055	<5		<0.001		<0.5	<0.02
RS-497 1055-1060	<5		<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-497 1060-1065	<5		<0.001		<0.5	<0.02
RS-497 1065-1070	20		<0.001		<0.5	<0.02
RS-497 1070-1075	<5		<0.001		<0.5	<0.02
RS-497 1075-1080	<5		<0.001		<0.5	<0.02
RS-497 1080-1085	<5		<0.001		<0.5	<0.02
RS-497 1085-1090	<5		<0.001		<0.5	<0.02
RS-497 1090-1095	<5		<0.001		<0.5	<0.02
RS-497 1095-1100	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1100-1105	<5		<0.001		<0.5	<0.02
RS-497 1105-1110	8		<0.001		<0.5	<0.02
RS-497 1110-1115	<5		<0.001		<0.5	<0.02
RS-497 1115-1120	<5		<0.001		<0.5	<0.02
RS-497 1120-1125	<5		<0.001		<0.5	<0.02
RS-497 1125-1130	10		<0.001		<0.5	<0.02
RS-497 1130-1135	<5		<0.001		<0.5	<0.02
RS-497 1135-1140	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1140-1145	<5		<0.001		<0.5	<0.02
RS-497 1145-1150	12		<0.001		<0.5	<0.02
RS-497 1150-1155	<5		<0.001		<0.5	<0.02
RS-497 1155-1160	<5		<0.001		<0.5	<0.02
RS-497 1160-1165	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1165-1170	<5		<0.001		<0.5	<0.02
RS-497 1170-1175	<5		<0.001		<0.5	<0.02
RS-497 1175-1180	37		0.001		<0.5	<0.02
RS-497 1180-1185	42		0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1185-1190	53	58	0.002	0.002	1.1	0.03
RS-497 1190-1195	59		0.002		1.4	0.04
RS-497 1195-1200	69		0.002		5.2	0.15
RS-497 1200-1205	66		0.002		1.6	0.05
RS-497 1205-1210	60		0.002		1.8	0.05
RS-497 1210-1215	76		0.002		14.6	0.43
RS-497 1215-1220	67		0.002		2.4	0.07
RS-497 1220-1225	66		0.002		1.3	0.04
RS-497 1225-1230	93		0.003		6.5	0.19
RS-497 1230-1235	91		0.003		3.2	0.09
RS-497 1235-1240	63		0.002		5.2	0.15
RS-497 1240-1245	32	32	<0.001	<0.001	4.5	0.13
RS-497 1245-1250	50		0.001		2.3	0.07
RS-497 1250-1255	36		0.001		<0.5	<0.02
RS-497 1255-1260	49		0.001		<0.5	<0.02
RS-497 1260-1265	43		0.001		1.3	0.04
RS-497 1265-1270	75	64	0.002	0.002	0.9	0.03
RS-497 1270-1275	101		0.003		1.9	0.06
RS-497 1275-1280	59		0.002		1.8	0.05
RS-497 1280-1285	33		<0.001		<0.5	<0.02
RS-497 1285-1290	55	56	0.002	0.002	2.8	0.08
RS-497 1290-1295	42		0.001		16.9	0.49
RS-497 1295-1300	163		0.005		15.3	0.45
RS-497 1300-1305	70		0.002		14.5	0.42
RS-497 1305-1310	53		0.002		9.7	0.28

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PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
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REFERENCE : RS-497

REPORTED : 15 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1310-1315	39		0.001		5.0	0.15
RS-497 1315-1320	33		<0.001		0.9	0.03
RS-497 1320-1325	30		<0.001		1.9	0.06
RS-497 1325-1330	18		<0.001		1.6	0.05
RS-497 1330-1335	25		<0.001		<0.5	<0.02
RS-497 1335-1340	40		0.001		3.0	0.09
RS-497 1340-1345	26		<0.001		0.5	<0.02
RS-497 1345-1350	<5		<0.001		<0.5	<0.02
RS-497 1350-1355	<5		<0.001		<0.5	<0.02
RS-497 1355-1360	28		<0.001		<0.5	<0.02
RS-497 1360-1365	9		<0.001		<0.5	<0.02
RS-497 1365-1370	<5		<0.001		<0.5	<0.02
RS-497 1370-1375	12		<0.001		<0.5	<0.02
RS-497 1375-1380	23		<0.001		<0.5	<0.02
RS-497 1380-1385	18		<0.001		<0.5	<0.02
RS-497 1385-1390	<5		<0.001		<0.5	<0.02
RS-497 1390-1395	<5		<0.001		<0.5	<0.02
RS-497 1395-1400	5		<0.001		<0.5	<0.02
RS-497 1400-1405	<5		<0.001		<0.5	<0.02
RS-497 1405-1410	5		<0.001		<0.5	<0.02
RS-497 1410-1415	<5		<0.001		<0.5	<0.02
RS-497 1415-1420	<5		<0.001		<0.5	<0.02
RS-497 1420-1425	8		<0.001		<0.5	<0.02
RS-497 1425-1430	7		<0.001		<0.5	<0.02
RS-497 1430-1435	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1435-1440	10		<0.001		<0.5	<0.02
RS-497 1440-1445	13		<0.001		0.8	0.02
RS-497 1445-1450	6		<0.001		<0.5	<0.02
RS-497 1450-1455	<5		<0.001		<0.5	<0.02
RS-497 1455-1460	<5		<0.001		<0.5	<0.02
RS-497 1460-1465	14		<0.001		<0.5	<0.02
RS-497 1465-1470	13		<0.001		<0.5	<0.02
RS-497 1470-1475	<5		<0.001		<0.5	<0.02
RS-497 1475-1480	32		<0.001		<0.5	<0.02
RS-497 1480-1485	30		<0.001		<0.5	<0.02
RS-497 1485-1490	69		0.002		3.0	0.09
RS-497 1490-1495	63		0.002		0.9	0.03
RS-497 1495-1500	13		<0.001		<0.5	<0.02
RS-497 1500-1505	5		<0.001		<0.5	<0.02
RS-497 1505-1510	30	28	<0.001	<0.001	<0.5	<0.02
RS-497 1510-1515	9		<0.001		<0.5	<0.02
RS-497 1515-1520	<5		<0.001		<0.5	<0.02
RS-497 1520-1525	<5		<0.001		<0.5	<0.02
RS-497 1525-1530	33		<0.001		0.9	0.03
RS-497 1530-1535	14		<0.001		0.5	<0.02
RS-497 1535-1540	27		<0.001		1.5	0.04
RS-497 1540-1545	36	36	0.001	0.001	0.8	0.02
RS-497 1545-1550	82		0.002		2.0	0.06
RS-497 1550-1555	81		0.002		2.7	0.08
RS-497 1555-1560	80		0.002		3.3	0.10

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1560-1565	112		0.003		3.7	0.11
RS-497 1565-1570	101		0.003		3.8	0.11
RS-497 1570-1575	147		0.004		4.2	0.12
RS-497 1575-1580	148		0.004		2.9	0.08
RS-497 1580-1585	138		0.004		2.8	0.08
RS-497 1585-1590	102		0.003		1.9	0.06
RS-497 1590-1595	148		0.004		2.4	0.07
RS-497 1595-1600	141		0.004		2.7	0.08
RS-497 1600-1605	69		0.002		3.7	0.11
RS-497 1605-1610	84	82	0.002	0.002	2.8	0.07
RS-497 1610-1615	85		0.002		2.6	0.08
RS-497 1615-1620	128		0.004		4.3	0.13
RS-497 1620-1625	85		0.002		2.0	0.06
RS-497 1625-1630	114		0.003		1.7	0.05
RS-497 1630-1635	127		0.004		1.3	0.04
RS-497 1635-1640	82		0.002		1.9	0.06
RS-497 1640-1645	114		0.003		3.4	0.10
RS-497 1645-1650	122		0.004		3.5	0.10
RS-497 1650-1655	79		0.002		2.5	0.07
RS-497 1655-1660	60		0.002		2.5	0.07
RS-497 1660-1665	30	34	<0.001	<0.001	1.8	0.05
RS-497 1665-1670	98		0.003		1.8	0.05
RS-497 1670-1675	34		<0.001		1.0	0.03
RS-497 1675-1680	26		<0.001		0.7	0.02
RS-497 1680-1685	35		0.001		1.7	0.05

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1685-1690	66		0.002		2.3	0.07
RS-497 1690-1695	59		0.002		2.1	0.06
RS-497 1695-1700	71		0.002		2.2	0.06
RS-497 1700-1705	47		0.001		1.9	0.06
RS-497 1705-1710	88		0.003		2.5	0.07
RS-497 1710-1715	68	73	0.002	0.002	2.5	0.07
RS-497 1715-1720	80		0.002		2.8	0.08
RS-497 1720-1725	69		0.002		2.8	0.08
RS-497 1725-1730	72		0.002		2.6	0.08
RS-497 1730-1735	123		0.004		2.4	0.07
RS-497 1735-1740	47		0.001		2.2	0.06
RS-497 1740-1745	80		0.002		3.1	0.09
RS-497 1745-1750	82		0.002		3.5	0.10
RS-497 1750-1755	60		0.002		2.9	0.08
RS-497 1755-1760	58		0.002		3.0	0.09
RS-497 1760-1765	50		0.001		2.5	0.07
RS-497 1765-1770	82		0.002		2.6	0.08
RS-497 1770-1775	83		0.002		3.7	0.11
RS-497 1775-1780	50		0.001		2.6	0.08
89694	2026		0.059		36.6	1.07

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

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

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: RS-497 RECEIVED : 3 MAY 2000

No. SAMPLES : 220 REPORTED : 10 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 10 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 685-690	10		<0.001			
RS-497 690-695	<5		<0.001			
RS-497 695-700	<5	<5	<0.001	<0.001		
RS-497 700-705	<5		<0.001			
RS-497 705-710	<5		<0.001			
RS-497 710-715	<5		<0.001			
RS-497 715-720	6		<0.001			
RS-497 720-725	<5		<0.001			
RS-497 725-730	<5	<5	<0.001	<0.001		
RS-497 730-735	<5		<0.001			
RS-497 735-740	<5		<0.001			
RS-497 740-745	<5		<0.001			
RS-497 745-750	<5		<0.001			
RS-497 750-755	<5		<0.001			
RS-497 755-760	<5	<5	<0.001	<0.001		
RS-497 760-765	<5		<0.001			
RS-497 765-770	<5		<0.001			
RS-497 770-775	<5		<0.001			
RS-497 775-780	<5		<0.001			
RS-497 780-785	<5		<0.001			
RS-497 785-790	<5		<0.001			
RS-497 790-795	<5		<0.001			
RS-497 795-800	<5		<0.001			
RS-497 800-805	<5		<0.001			
RS-497 805-810	<5		<0.001			

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 10 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 810-815	<5	<5	<0.001	<0.001		
RS-497 815-820	<5		<0.001			
RS-497 820-825	<5		<0.001			
RS-497 825-830	<5		<0.001			
RS-497 830-835	<5		<0.001			
RS-497 835-840	<5		<0.001			
RS-497 840-845	<5		<0.001			
RS-497 845-850	<5		<0.001			
RS-497 850-855	<5		<0.001			
RS-497 855-860	<5	<5	<0.001	<0.001		
RS-497 860-865	<5		<0.001			
RS-497 865-870	<5		<0.001			
RS-497 870-875	<5		<0.001			
RS-497 875-880	<5		<0.001			
RS-497 880-885	<5		<0.001			
RS-497 885-890	<5		<0.001			
RS-497 890-895	<5	<5	<0.001	<0.001		
RS-497 895-900	<5		<0.001			
RS-497 900-905	<5	<5	<0.001	<0.001		
RS-497 905-910	<5		<0.001			
RS-497 910-915	<5		<0.001			
RS-497 915-920	<5		<0.001			
RS-497 920-925	<5		<0.001			
RS-497 925-930	<5		<0.001			
RS-497 930-935	<5		<0.001			

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 935-940	<5		<0.001			
RS-497 940-945	<5		<0.001			
RS-497 945-950	<5		<0.001			
RS-497 950-955	<5		<0.001			
RS-497 955-960	<5		<0.001			
RS-497 960-965	<5		<0.001			
RS-497 965-970	<5		<0.001			
RS-497 970-975	<5	<5	<0.001	<0.001		
RS-497 975-980	<5		<0.001			
RS-497 980-985	<5		<0.001			
RS-497 985-990	<5		<0.001			
RS-497 990-995	<5		<0.001			
RS-497 995-1000	<5		<0.001			
RS-497 1000-1005	<5	<5	<0.001	<0.001		
RS-497 1005-1010	<5		<0.001			
RS-497 1010-1015	<5		<0.001			
RS-497 1015-1020	<5		<0.001			
RS-497 1020-1025	<5		<0.001			
RS-497 1025-1030	<5		<0.001			
RS-497 1030-1035	<5		<0.001			
RS-497 1035-1040	<5		<0.001			
RS-497 1040-1045	<5		<0.001			
RS-497 1045-1050	<5	<5	<0.001	<0.001		
RS-497 1050-1055	<5		<0.001			
RS-497 1055-1060	<5		<0.001			

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1060-1065	<5		<0.001			
RS-497 1065-1070	20		<0.001			
RS-497 1070-1075	<5		<0.001			
RS-497 1075-1080	<5		<0.001			
RS-497 1080-1085	<5		<0.001			
RS-497 1085-1090	<5		<0.001			
RS-497 1090-1095	<5		<0.001			
RS-497 1095-1100	<5	<5	<0.001	<0.001		
RS-497 1100-1105	<5		<0.001			
RS-497 1105-1110	8		<0.001			
RS-497 1110-1115	<5		<0.001			
RS-497 1115-1120	<5		<0.001			
RS-497 1120-1125	<5		<0.001			
RS-497 1125-1130	10		<0.001			
RS-497 1130-1135	<5		<0.001			
RS-497 1135-1140	<5	<5	<0.001	<0.001		
RS-497 1140-1145	<5		<0.001			
RS-497 1145-1150	12		<0.001			
RS-497 1150-1155	<5		<0.001			
RS-497 1155-1160	<5		<0.001			
RS-497 1160-1165	<5	<5	<0.001	<0.001		
RS-497 1165-1170	<5		<0.001			
RS-497 1170-1175	<5		<0.001			
RS-497 1175-1180	37		0.001			
RS-497 1180-1185	42		0.001			

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1185-1190	53	58	0.002	0.002		
RS-497 1190-1195	59		0.002			
RS-497 1195-1200	69		0.002			
RS-497 1200-1205	66		0.002			
RS-497 1205-1210	60		0.002			
RS-497 1210-1215	78		0.002			
RS-497 1215-1220	67		0.002			
RS-497 1220-1225	66		0.002			
RS-497 1225-1230	93		0.003			
RS-497 1230-1235	91		0.003			
RS-497 1235-1240	63		0.002			
RS-497 1240-1245	32	32	<0.001	<0.001		
RS-497 1245-1250	50		0.001			
RS-497 1250-1255	36		0.001			
RS-497 1255-1260	49		0.001			
RS-497 1260-1265	43		0.001			
RS-497 1265-1270	75	64	0.002	0.002		
RS-497 1270-1275	101		0.003			
RS-497 1275-1280	59		0.002			
RS-497 1280-1285	33		<0.001			
RS-497 1285-1290	55	56	0.002	0.002		
RS-497 1290-1295	42		0.001			
RS-497 1295-1300	163		0.005			
RS-497 1300-1305	70		0.002			
RS-497 1305-1310	53		0.002			

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1310-1315	39		0.001			
RS-497 1315-1320	33		<0.001			
RS-497 1320-1325	30		<0.001			
RS-497 1325-1330	18		<0.001			
RS-497 1330-1335	25		<0.001			
RS-497 1335-1340	40		0.001			
RS-497 1340-1345	26		<0.001			
RS-497 1345-1350	<5		<0.001			
RS-497 1350-1355	<5		<0.001			
RS-497 1355-1360	28		<0.001			
RS-497 1360-1365	9		<0.001			
RS-497 1365-1370	<5		<0.001			
RS-497 1370-1375	12		<0.001			
RS-497 1375-1380	23		<0.001			
RS-497 1380-1385	18		<0.001			
RS-497 1385-1390	<5		<0.001			
RS-497 1390-1395	<5		<0.001			
RS-497 1395-1400	5		<0.001			
RS-497 1400-1405	<5		<0.001			
RS-497 1405-1410	5		<0.001			
RS-497 1410-1415	<5		<0.001			
RS-497 1415-1420	<5		<0.001			
RS-497 1420-1425	8		<0.001			
RS-497 1425-1430	7		<0.001			
RS-497 1430-1435	<5		<0.001			

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REFERENCE : RS-497

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1435-1440	10		<0.001			
RS-497 1440-1445	13		<0.001			
RS-497 1445-1450	6		<0.001			
RS-497 1450-1455	<5		<0.001			
RS-497 1455-1460	<5		<0.001			
RS-497 1460-1465	14		<0.001			
RS-497 1465-1470	13		<0.001			
RS-497 1470-1475	<5		<0.001			
RS-497 1475-1480	32		<0.001			
RS-497 1480-1485	30		<0.001			
RS-497 1485-1490	69		0.002			
RS-497 1490-1495	63		0.002			
RS-497 1495-1500	13		<0.001			
RS-497 1500-1505	5		<0.001			
RS-497 1505-1510	30	28	<0.001	<0.001		
RS-497 1510-1515	9		<0.001			
RS-497 1515-1520	<5		<0.001			
RS-497 1520-1525	<5		<0.001			
RS-497 1525-1530	33		<0.001			
RS-497 1530-1535	14		<0.001			
RS-497 1535-1540	27		<0.001			
RS-497 1540-1545	36	36	0.001	0.001		
RS-497 1545-1550	82		0.002			
RS-497 1550-1555	81		0.002			
RS-497 1555-1560	80		0.002			

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057258

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 10 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1560-1565	112		0.003			
RS-497 1565-1570	101		0.003			
RS-497 1570-1575	147		0.004			
RS-497 1575-1580	148		0.004			
RS-497 1580-1585	138		0.004			
RS-497 1585-1590	102		0.003			
RS-497 1590-1595	148		0.004			
RS-497 1595-1600	141		0.004			
RS-497 1600-1605	69		0.002			
RS-497 1605-1610	84	82	0.002	0.002		
RS-497 1610-1615	85		0.002			
RS-497 1615-1620	128		0.004			
RS-497 1620-1625	85		0.002			
RS-497 1625-1630	114		0.003			
RS-497 1630-1635	127		0.004			
RS-497 1635-1640	82		0.002			
RS-497 1640-1645	114		0.003			
RS-497 1645-1650	122		0.004			
RS-497 1650-1655	79		0.002			
RS-497 1655-1660	80		0.002			
RS-497 1660-1665	30	34	<0.001	<0.001		
RS-497 1665-1670	98		0.003			
RS-497 1670-1675	34		<0.001			
RS-497 1675-1680	26		<0.001			
RS-497 1680-1685	35		0.001			

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP057256

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 10 MAY 2000

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-497 1685-1690	66		0.002			
RS-497 1690-1695	59		0.002			
RS-497 1695-1700	71		0.002			
RS-497 1700-1705	47		0.001			
RS-497 1705-1710	88		0.003			
RS-497 1710-1715	68	73	0.002	0.002		
RS-497 1715-1720	80		0.002			
RS-497 1720-1725	69		0.002			
RS-497 1725-1730	72		0.002			
RS-497 1730-1735	123		0.004			
RS-497 1735-1740	47		0.001			
RS-497 1740-1745	80		0.002			
RS-497 1745-1750	82		0.002			
RS-497 1750-1755	60		0.002			
RS-497 1755-1760	58		0.002			
RS-497 1760-1765	50		0.001			
RS-497 1765-1770	62		0.002			
RS-497 1770-1775	83		0.002			
RS-497 1775-1780	50		0.001			
89694	2026		0.059			

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	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 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.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP57256
METHOD: AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 685-700	80	0.68	5.2	4.1	4	94.00	0.08	0.55	0.14	3.30	8.1	12.82	3.61	4.2	489	0.19	16	0.18	721	3.98	0.111	105.4	0.041	50.16	0.13	3.21	1.3	0.4	53.7	< .02	9.4	0.058	0.12	1.4	8	0.7	87.9
RS-497 700-720	92	0.66	2.9	2.5	3	95.70	0.1	0.65	0.17	3.20	12.1	11.23	3.77	4.4	72	0.23	17.7	0.18	934	3.94	0.096	107.2	0.045	17.63	0.02	2.15	1.2	0.3	46.2	0.02	10.2	0.052	0.11	1.5	8	0.6	84.9
RS-497 720-740	105	0.79	2.1	1.6	3	124.50	0.15	0.49	0.14	3.70	9.1	10.8	3.67	5	73	0.24	19.6	0.26	727	4.14	0.104	63.9	0.044	16.57	0.01	1.64	1.3	0.3	40.6	< .02	11	0.047	0.1	1.4	8	0.6	89.2
RS-497 740-760	62	0.84	2.8	2.8	3	67.20	0.11	0.78	0.17	3.30	7.2	8	2.97	5.2	109	0.16	19.6	0.21	774	2.73	0.103	36.9	0.038	18.41	0.02	1.2	1.2	0.2	88.9	< .02	8.9	0.026	0.06	0.9	6	0.4	83
RS-497 760-780	49	0.84	3.0	2.4	2	82.10	0.05	0.68	0.14	3.00	5	5.21	2.85	5	114	0.17	19.2	0.19	694	1.69	0.118	39.9	0.039	10.44	0.02	0.86	1.2	0.2	100.9	< .02	7.7	0.033	0.07	1	7	0.4	76.3
RS-497 780-800	84	0.65	2.3	1.5	4	98.90	0.15	0.35	0.13	3.80	10.3	11.38	3.72	4.8	59	0.22	14.5	0.23	718	3.76	0.164	79.8	0.032	12.7	0.02	0.71	1.6	0.1	33.1	< .02	6.1	0.101	0.08	0.9	10	0.8	75.9
RS-497 800-820	92	0.83	1.8	1.2	3	109.20	0.17	0.49	0.16	4.20	10.8	13.87	3.78	5.6	37	0.26	16.4	0.3	814	3.84	0.192	81.3	0.04	11.75	0.02	0.61	1.6	0.2	40.4	< .02	6.4	0.086	0.11	0.9	13	0.4	81.6
RS-497 820-840	75	0.91	0.9	1.2	4.0	103.00	0.08	0.5	0.59	3.40	7.4	5.04	2.93	6.3	36	0.23	19.4	0.31	650	2.13	0.139	34	0.041	17.34	0.01	0.45	1.3	< .1	59.6	< .02	7.3	0.05	0.11	1.1	9	0.3	92.6
RS-497 840-860	50	0.79	3.2	1.3	4	100.60	0.07	0.62	0.39	3.10	6.7	4.95	2.72	4.9	34	0.22	19	0.19	717	1.79	0.145	28.3	0.038	12.75	< .01	0.66	1.3	0.1	79.7	< .02	6.7	0.039	0.1	0.9	9	0.4	83.4
RS-497 860-880	59	0.72	2.8	0.7	4	104.40	0.12	0.82	0.35	3.20	7.7	5.94	2.93	4.5	29	0.22	19.6	0.15	1045	1.93	0.14	42.6	0.039	13.69	0.01	0.57	1.2	0.1	84.2	< .02	7.3	0.044	0.08	1.3	11	0.5	83.8
RS-497 880-900	46	0.81	3.7	0.7	6	117.20	0.17	0.53	0.18	3.30	4.5	4.66	2.91	4.9	22	0.26	18	0.15	569	1.36	0.144	26.6	0.044	12.64	0.01	0.65	1.3	< .1	76.2	< .02	7.1	0.044	0.1	1.5	12	0.6	85.2
RS-497 900-920	40	0.7	6.2	0.9	2	78.10	0.12	0.85	0.23	2.90	5.4	7.03	2.71	4	21	0.19	20.8	0.13	691	1.21	0.11	51.6	0.051	12.77	< .01	0.7	1.1	0.1	71.4	< .02	7.3	0.03	0.07	1.4	11	0.6	79.6
RS-497 920-940	36	0.64	2.9	0.6	6	73.80	0.15	0.76	0.2	2.90	6.5	5.61	2.59	3.8	22	0.2	19.8	0.11	689	1.03	0.105	42	0.043	10.62	< .01	0.37	1.1	0.2	68.1	< .02	7	0.03	0.06	1	8	0.5	71.3
RS-497 940-960	24	0.69	2.3	0.7	4	68.40	0.04	0.58	0.12	2.90	5.2	3.73	2.4	4.2	7	0.19	20.2	0.14	553	0.87	0.103	24.9	0.037	11.61	0.01	0.33	1	0.1	83.1	< .02	7.2	0.022	0.05	0.6	5	0.4	71.5
RS-497 960-980	30	0.74	2.3	< .2	4	76.40	0.02	0.78	0.16	3.10	4.9	3.02	2.17	4.3	14	0.2	21	0.15	504	0.6	0.114	17	0.04	11.59	< .01	0.29	1.1	0.1	91.3	< .02	6.9	0.02	0.05	0.9	7	0.3	68
RS-497 980-1000	42	0.59	3.5	0.9	4	80.10	0.04	0.82	0.18	2.50	4.3	5.48	2.29	3	39	0.25	23.7	0.07	540	0.76	0.113	11.8	0.042	38.9	0.02	0.42	0.9	0.1	58.9	< .02	7.1	0.032	0.06	0.8	8	0.5	68.7
RS-497 1000-1020	45	0.62	4.8	1	5	83.80	0.08	0.65	0.08	2.50	2.7	3.39	2.11	3.4	30	0.26	24.7	0.08	363	0.57	0.105	13	0.04	19.4	0.01	0.49	0.8	0.1	60.5	< .02	6.6	0.025	0.08	0.8	5	0.4	49.5
RS-497 1020-1040	54	1.21	2.2	1.2	4	76.80	0.11	1.05	0.14	3.10	6.1	3.86	2.23	4.8	22	0.2	24.3	0.31	560	1.07	0.101	18.5	0.041	17.81	0.01	0.38	1	< .1	147.9	0.02	5.6	0.012	0.07	0.9	7	0.2	74.9
RS-497 1040-1060	167	0.94	2.2	1.3	3	68.20	0.17	0.85	0.18	2.90	6	5.12	2.21	3.9	34	0.22	23.2	0.27	525	1.32	0.077	29.7	0.039	16.73	0.01	0.41	0.8	0.2	119.8	0.02	6.1	0.01	0.08	0.9	6	0.2	87.4
RS-497 1060-1080	78	0.98	5.3	6.1	3	91.80	0.1	0.97	0.18	3.80	6.3	6.34	2.33	3.8	426	0.22	23.1	0.28	721	1.95	0.083	37.2	0.038	33.88	0.08	1.43	0.9	0.3	132.9	0.02	5.9	0.009	0.11	0.8	8	0.3	75.7
RS-497 1080-1100	97	0.8	1.7	1.3	6	111.10	0.23	0.84	0.19	4.20	13.9	10.41	3.41	4.6	58	0.31	17.4	0.17	756	2.47	0.163	95.2	0.047	13.79	0.02	0.74	1.2	0.2	75.9	< .02	5.2	0.06	0.1	1	17	0.4	82.5
RS-497 1100-1120	202	1.01	7.5	13.5	5	174.90	0.36	0.82	0.9	3.50	9.2	8.15	2.65	5	39	0.48	22.5	0.16	659	2.59	0.155	23.3	0.046	26.92	0.01	0.82	1.1	0.2	59.4	< .02	6.3	0.043	0.13	1.1	12	0.3	160.7
RS-497 1120-1140	109	1.54	3.6	6.2	1	563.80	0.12	2.27	0.41	3.30	4.8	4.24	1.8	4.9	488	0.46	24.7	0.24	745	1.17	0.079	3.1	0.04	17.37	0.14	2	0.8	0.3	127.2	< .02	6.1	0.004	0.14	1.2	6	< .2	69.7
RS-497 1140-1160	91	0.84	9.4	6.9	2	73.20	0.18	1.24	0.3	0.60	7.9	5.89	1.06	2.9	484	0.48	35.2	0.02	341	1.95	0.022	5.2	0.007	20.84	0.16	4.81	1	0.4	51	< .02	10.7	0.002	0.14	0.5	< 2	0.5	26.3
RS-497 1160-1180	134	0.79	9.0	12.8	1	56.60	0.38	0.6	0.32	0.40	5.3	6.35	1.22	2.9	291	0.52	35.6	0.01	372	2.25	0.021	5	0.006	22.52	0.78	6.95	0.7	1.3	38.3	< .02	10.9	< .001	0.19	0.4	< 2	0.7	49
RS-497 1180-1200	1734	0.73	30.0	44	5	141.60	0.33	0.11	0.22	0.40	8.2	6.92	1.87	2.3	410	0.37	26	0.01	85	1.75	0.01	9.4	0.004	23.82	1.4	11.75	0.4	5.6	22.7	< .02	7.8	< .001	0.17	0.4	< 2	0.4	56.9
RS-497 1200-1220	3893	0.74	39.5	59.2	5	164.50	0.23	0.1	0.4	1.10	5.4	7.86	1.87	2.3	1614	0.32	23.1	0.01	86	1.79	0.01	9.3	0.005	41.85	1.34	14.59	0.3	5	20.2	< .02	7	< .001	0.25	5.4	2	0.4	100.5
RS-497 1220-1240	3192	0.73	33.1	63.9	3	124.90	0.18	0.11	0.25	0.80	8.1	7.78	2.16	2.1	977	0.33	24.1	0.01	91	2.07	0.013	9.9	0.005	46.16	1.68	16.29	0.4	5.3	18.2	< .02	7.8	< .001	0.27	0.7	2	0.9	68.9
RS-497 1240-1260	1832	0.79	9.4	31.1	4	106.70	0.15	0.09	0.13	0.30	7.9	10.58	1.84	2.6	171	0.48	23.2	0.01	115	2.05	0.02	9.1	0.004	91.72	1.34	8.05	0.4	5.9	18.1	< .02	7.2	0.001	0.38	0.5	2	0.5	70.6
RS-497 1260-1280	998	0.87	28.3	62.1	4.0	122.10	0.2	0.16	0.24	1.30	9.8	7.06	2.19	3.2	1999	0.47	26.9	0.03	151	2.42	0.03	7.1	0.006	43.08	1.86	15.26	0.5	8.2	27.9	< .02	8.4	0.001	0.67	1.2	2	0.6	68.7
RS-497 1280-1300	9486	0.7	21.5	63.6	2	96.9	0.14	1.2	0.21	0.6	4	10.21	2.02	2.7	713	0.41	21.5	0.02	1279	2.19	0.026	6.3	0.004	35.34	1.9	14.47	0.4	11.2	31	0.02	6.4	0.001	0.56	1	2	0.4	72.8
RS-497 1300-1320	5425	0.82	11.1	37.9	2	159.8	0.08	1.4	0.33	0.8	5.4	7.36	1.79	2.8	302	0.43	24.7	0.05	960	1.66	0.025	6.3	0.011	35.23	1.33	7.35	0.6	3.9	48	0.03	6.7	0.002	0.37	0.9	3	0.5	64.4
RS-497 1320-1340	816	0.84	11.7	19.5	2	80.6	0.06	1.24	0.36	0.8	7.8	4.38	1.47	3.1	1086	0.47	28.9	0.03	738	1.75	0.022	34.1	0.006	29.73	0.67	8.08	0.7	1.3	49	< .02	8.4	0.002	0.32	1.1	3	0.7	32.2
STANDARD DS2	274	1.66	53.3	194.1	3	147.3	11.14	0.51	10.11	12	157.1	124.99	2.98	6	223	0.16	16	0.58	801	14.88	0.032	33.8	0.084	31.1	0.02	9.27	2.6	2.3	28.8	1.82	3.8	0.091	1.85	17.9	71	6.8	153.6
RS-497 1340-1360	298	0.99	8	12	2	94.2	0.06	2.31	0.4	2.2	6.8	6.23	1.71	3.4	899	0.41	40.5	0.13	879	1.12	0.04	28.5	0.018	16.66	0.25	4.24	1.5	0.8	103.4	< .02	8.5	0.006	0.22	1.8	12	0.4	46.9

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CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP57256
METHOD: AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 1360-1380	141	0.66	10.3	13.7	5	87.8	0.08	1.67	0.24	2.3	8.1	15.81	2.09	2.7	1470	0.33	47.7	0.08	754	1.16	0.049	31.4	0.024	15.78	0.33	5.8	2	0.8	67.9	< .02	9.5	0.012	0.23	1.3	13	0.3	44.6
RS-497 1380-1400	141	0.66	7.6	9.7	3	52.1	0.16	1.85	0.3	2.5	9.9	4.19	2.05	2.8	743	0.33	59.9	0.12	689	1.06	0.05	24.6	0.028	16.91	0.21	4.15	2.3	0.6	87.3	< .02	10.4	0.015	0.16	1.3	15	0.4	43.8
RS-497 1400-1420	113	1.27	4.3	4.7	2	89.1	0.1	1.92	0.43	4.3	9.7	5.59	2.33	5.1	501	0.46	55.5	0.31	917	1.06	0.079	41.2	0.025	14.93	0.12	2.81	2.2	0.4	123.7	< .02	7.8	0.015	0.17	1.4	19	0.3	63.9
RS-497 1420-1440	227	1.48	7.3	9.3	2	103.3	0.06	3.73	0.28	3.8	7.9	5.53	2.12	4.2	657	0.48	40	0.31	1352	0.73	0.033	5.6	0.021	21.77	0.21	4.29	2.5	0.7	206.5	0.02	6.9	0.014	0.23	1.2	15	< .2	48.1
RS-497 1440-1460	206	1.13	6.3	8	1	160.7	0.04	3.22	0.28	3.4	6	4.05	1.65	3.1	820	0.41	41.7	0.21	1186	0.76	0.031	5.3	0.019	16.54	0.21	4.24	1.7	0.6	181.4	< .02	6.8	0.008	0.19	1.1	11	< .2	41.9
RS-497 1460-1480	329	1.01	9.7	13.9	< 1	106.6	0.05	3.88	0.36	3.5	8.2	4.37	1.78	2.8	1128	0.36	25.4	0.27	2167	0.86	0.022	6	0.022	17.05	0.31	6.12	2.5	0.8	241.6	0.02	3.7	0.006	0.22	0.8	9	0.2	48.4
RS-497 1480-1500	492	0.67	19.8	42.2	3	51.4	0.09	1.63	0.3	6.8	6.2	8.44	3.68	2.4	1436	0.33	11.9	0.06	883	1.65	0.026	19.1	0.019	153.88	4.12	11.46	1.4	2.8	87.3	< .02	2.2	0.001	0.51	0.6	6	0.4	65
RS-497 1500-1520	407	0.93	7.2	13.2	< 1	84.5	0.16	3.01	0.39	5.2	8.1	7.81	1.7	3.5	675	0.54	27.8	0.12	2040	1.23	0.046	20	0.027	71.59	0.69	5.35	2.2	0.9	121.9	0.02	5	0.003	0.21	0.8	11	0.5	61.2
RS-497 1520-1540	509	0.59	17.2	24	3	49.5	0.13	1.26	0.22	3.2	6.5	9.51	2.89	2	478	0.41	13.9	0.04	978	1.14	0.016	13.7	0.017	45.91	2.78	5.2	1.3	2.9	60.6	< .02	2.5	0.001	0.24	0.4	5	0.4	44
RS-497 1540-1560	1379	0.66	128.5	61.3	3	46.7	0.33	0.37	0.25	6.3	4.1	12.27	4.05	2.2	1005	0.41	20.8	0.03	290	2.46	0.018	11.5	0.025	51.41	4.35	11.45	0.8	21.5	32.9	< .02	4.7	0.001	0.53	0.6	5	0.4	91.5
RS-497 1560-1580	2289	0.68	125.2	120.5	1	41.8	0.2	0.42	0.26	8.9	5.5	14.53	5.06	2.3	750	0.37	19.6	0.03	517	3.14	0.016	12.2	0.026	77.9	5.49	20.12	0.9	24.6	33.4	0.03	4.8	0.001	0.89	0.8	4	0.4	117
RS-497 1580-1600	1802	0.37	125.7	110.3	1	33.9	0.15	0.2	0.22	4.8	7.7	13.79	4.76	1.4	413	0.2	23.2	0.01	214	2.77	0.012	21.2	0.018	53.88	4.3	17.48	0.5	11.9	23.6	< .02	5.3	0.001	0.51	0.7	4	1.6	76.5
RS-497 1600-1620	1993	0.33	92.9	86.2	2	56.4	0.11	0.31	0.2	5.4	7	13.44	3.82	1.3	392	0.2	24	0.01	321	2.77	0.011	16.8	0.024	45.3	3.58	15	0.5	10.9	27.8	0.02	5.5	0.001	0.54	0.6	3	0.6	85
RS-497 1620-1640	1158	0.43	96.1	86.5	2	46.6	0.27	0.19	0.25	4.6	6.9	16.71	4.01	1.7	639	0.23	22.6	0.01	218	2.77	0.01	22	0.019	43.18	3.31	13.85	0.6	7.9	22.2	0.02	5.4	0.001	0.49	0.6	4	0.8	68.8
RS-497 1640-1660	2063	0.37	110.6	93	1	34.7	0.48	0.49	0.53	8.2	5.8	13.46	5.55	1.3	668	0.27	18	0.02	349	4.14	0.016	18	0.026	73.71	5.89	18.2	0.7	22.1	36.9	< .02	3.6	0.001	1.03	0.4	3	0.4	133.1
RS-497 1660-1680	738	0.73	50	51.1	1	61.8	0.67	1.5	0.89	5.6	8.1	10.46	3.35	2.8	2051	0.38	20.5	0.09	851	2.78	0.015	10.7	0.022	49.42	2.7	13.75	1.8	7.5	69.9	< .02	3.5	0.001	0.62	0.7	6	0.3	96.6
RS-497 1680-1700	1044	0.69	51.5	54.2	< 1	50.2	0.39	1.47	1.22	6.2	7.7	10.15	3.18	2.8	1180	0.34	20.1	0.11	988	2.37	0.013	8.8	0.024	42.34	2.5	12.85	2.3	11	65.5	0.02	3.2	0.001	0.54	0.6	7	0.3	102.2
RS-497 1700-1720	1350	0.6	95.4	66.4	< 1	46.6	0.45	1.07	0.63	7	8.9	11.68	4.2	2.2	1195	0.37	16.1	0.05	651	3.18	0.013	10.2	0.023	54.01	4.33	16.63	1.7	14.3	57.6	< .02	2.7	0.001	0.8	0.5	5	0.3	97.2
RS-497 1720-1740	1332	0.59	68.3	55.3	1	60.9	0.69	0.48	1.17	5.4	12.2	11.69	3.87	2	629	0.36	20	0.04	403	3.72	0.012	13.7	0.024	46.42	3.48	16.97	0.9	13.2	34.4	< .02	3.9	0.001	0.74	0.5	5	0.4	107.4
RS-497 1740-1760	1679	0.48	69.5	69.2	< 1	54.6	0.5	0.23	0.53	3.2	9.9	10.82	4.05	1.6	1058	0.26	22.6	0.02	206	2.91	0.01	8.8	0.013	59.66	3.85	16.12	0.4	16.3	26.2	0.02	4.9	0.001	0.64	0.7	2	0.4	108
RS-497 1760-1780	1826	0.42	59.6	62.4	1	32.6	0.36	0.16	0.6	3	29	17.66	3.72	1.5	270	0.27	27.1	0.01	168	8.03	0.023	12.9	0.013	69.5	3.18	14.12	0.3	13.8	28.4	< .02	6.9	< .001	0.66	0.6	2	0.7	108.5
89694 empty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDARD DS2	263	1.64	55.8	192.2	4	146.5	9.84	0.52	9.86	11.7	155.3	125.31	3.02	5.8	222	0.15	16	0.58	813	13.25	0.031	34	0.087	31.03	0.02	9.12	2.5	2.2	24.8	1.74	3.4	0.091	1.76	17.7	70	7.2	156.7

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	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 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.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP57256
METHOD: AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 685-700	80	0.68	5.2	4.1	4	94.00	0.08	0.55	0.14	3.30	8.1	12.82	3.61	4.2	489	0.19	16	0.18	721	3.98	0.111	105.4	0.041	50.16	0.13	3.21	1.3	0.4	53.7	< .02	9.4	0.058	0.12	1.4	8	0.7	87.9
RS-497 700-720	92	0.66	2.9	2.5	3	95.70	0.1	0.65	0.17	3.20	12.1	11.23	3.77	4.4	72	0.23	17.7	0.18	934	3.94	0.096	107.2	0.045	17.63	0.02	2.15	1.2	0.3	46.2	0.02	10.2	0.052	0.11	1.5	8	0.6	84.9
RS-497 720-740	105	0.79	2.1	1.6	3	124.50	0.15	0.49	0.14	3.70	9.1	10.8	3.67	5	73	0.24	19.6	0.26	727	4.14	0.104	63.9	0.044	16.57	0.01	1.64	1.3	0.3	40.6	< .02	11	0.047	0.1	1.4	8	0.6	89.2
RS-497 740-760	62	0.84	2.8	2.8	3	67.20	0.11	0.78	0.17	3.30	7.2	8	2.97	5.2	109	0.16	19.6	0.21	774	2.73	0.103	36.9	0.038	18.41	0.02	1.2	1.2	0.2	88.9	< .02	8.9	0.026	0.06	0.9	6	0.4	83
RS-497 760-780	49	0.84	3.0	2.4	2	82.10	0.05	0.68	0.14	3.00	5	5.21	2.85	5	114	0.17	19.2	0.19	694	1.69	0.118	39.9	0.039	10.44	0.02	0.86	1.2	0.2	100.9	< .02	7.7	0.033	0.07	1	7	0.4	76.3
RS-497 780-800	84	0.65	2.3	1.5	4	98.90	0.15	0.35	0.13	3.80	10.3	11.38	3.72	4.8	59	0.22	14.5	0.23	718	3.76	0.164	79.8	0.032	12.7	0.02	0.71	1.6	0.1	33.1	< .02	6.1	0.101	0.08	0.9	10	0.8	75.9
RS-497 800-820	92	0.83	1.8	1.2	3	109.20	0.17	0.49	0.16	4.20	10.8	13.87	3.78	5.6	37	0.26	16.4	0.3	814	3.84	0.192	81.3	0.04	11.75	0.02	0.61	1.6	0.2	40.4	< .02	6.4	0.086	0.11	0.9	13	0.4	81.6
RS-497 820-840	75	0.91	0.9	1.2	4.0	103.00	0.08	0.5	0.59	3.40	7.4	5.04	2.93	6.3	36	0.23	19.4	0.31	650	2.13	0.139	34	0.041	17.34	0.01	0.45	1.3	< .1	59.6	< .02	7.3	0.05	0.11	1.1	9	0.3	92.6
RS-497 840-860	50	0.79	3.2	1.3	4	100.60	0.07	0.62	0.39	3.10	6.7	4.95	2.72	4.9	34	0.22	19	0.19	717	1.79	0.145	28.3	0.038	12.75	< .01	0.66	1.3	0.1	79.7	< .02	6.7	0.039	0.1	0.9	9	0.4	83.4
RS-497 860-880	59	0.72	2.8	0.7	4	104.40	0.12	0.82	0.35	3.20	7.7	5.94	2.93	4.5	29	0.22	19.6	0.15	1045	1.93	0.14	42.6	0.039	13.69	0.01	0.57	1.2	0.1	84.2	< .02	7.3	0.044	0.08	1.3	11	0.5	83.8
RS-497 880-900	46	0.81	3.7	0.7	6	117.20	0.17	0.53	0.18	3.30	4.5	4.66	2.91	4.9	22	0.26	18	0.15	569	1.36	0.144	26.6	0.044	12.64	0.01	0.65	1.3	< .1	76.2	< .02	7.1	0.044	0.1	1.5	12	0.6	85.2
RS-497 900-920	40	0.7	6.2	0.9	2	78.10	0.12	0.85	0.23	2.90	5.4	7.03	2.71	4	21	0.19	20.8	0.13	691	1.21	0.11	51.6	0.051	12.77	< .01	0.7	1.1	0.1	71.4	< .02	7.3	0.03	0.07	1.4	11	0.6	79.6
RS-497 920-940	36	0.64	2.9	0.6	6	73.80	0.15	0.76	0.2	2.90	6.5	5.61	2.59	3.8	22	0.2	19.8	0.11	689	1.03	0.105	42	0.043	10.62	< .01	0.37	1.1	0.2	68.1	< .02	7	0.03	0.06	1	8	0.5	71.3
RS-497 940-960	24	0.69	2.3	0.7	4	68.40	0.04	0.58	0.12	2.90	5.2	3.73	2.4	4.2	7	0.19	20.2	0.14	553	0.87	0.103	24.9	0.037	11.61	0.01	0.33	1	0.1	83.1	< .02	7.2	0.022	0.05	0.6	5	0.4	71.5
RS-497 960-980	30	0.74	2.3	< .2	4	76.40	0.02	0.78	0.16	3.10	4.9	3.02	2.17	4.3	14	0.2	21	0.15	504	0.6	0.114	17	0.04	11.59	< .01	0.29	1.1	0.1	91.3	< .02	6.9	0.02	0.05	0.9	7	0.3	68
RS-497 980-1000	42	0.59	3.5	0.9	4	80.10	0.04	0.82	0.18	2.50	4.3	5.48	2.29	3	39	0.25	23.7	0.07	540	0.76	0.113	11.8	0.042	38.9	0.02	0.42	0.9	0.1	58.9	< .02	7.1	0.032	0.06	0.8	8	0.5	68.7
RS-497 1000-1020	45	0.62	4.8	1	5	83.80	0.08	0.65	0.08	2.50	2.7	3.39	2.11	3.4	30	0.26	24.7	0.08	363	0.57	0.105	13	0.04	19.4	0.01	0.49	0.8	0.1	60.5	< .02	6.6	0.025	0.08	0.8	5	0.4	49.5
RS-497 1020-1040	54	1.21	2.2	1.2	4	76.80	0.11	1.05	0.14	3.10	6.1	3.86	2.23	4.8	22	0.2	24.3	0.31	560	1.07	0.101	18.5	0.041	17.81	0.01	0.38	1	< .1	147.9	0.02	5.6	0.012	0.07	0.9	7	0.2	74.9
RS-497 1040-1060	167	0.94	2.2	1.3	3	68.20	0.17	0.85	0.18	2.90	6	5.12	2.21	3.9	34	0.22	23.2	0.27	525	1.32	0.077	29.7	0.039	16.73	0.01	0.41	0.8	0.2	119.8	0.02	6.1	0.01	0.08	0.9	6	0.2	87.4
RS-497 1060-1080	78	0.98	5.3	6.1	3	91.80	0.1	0.97	0.18	3.80	6.3	6.34	2.33	3.8	426	0.22	23.1	0.28	721	1.95	0.083	37.2	0.038	33.88	0.08	1.43	0.9	0.3	132.9	0.02	5.9	0.009	0.11	0.8	8	0.3	75.7
RS-497 1080-1100	97	0.8	1.7	1.3	6	111.10	0.23	0.84	0.19	4.20	13.9	10.41	3.41	4.6	58	0.31	17.4	0.17	756	2.47	0.163	95.2	0.047	13.79	0.02	0.74	1.2	0.2	75.9	< .02	5.2	0.06	0.1	1	17	0.4	82.5
RS-497 1100-1120	202	1.01	7.5	13.5	5	174.90	0.36	0.82	0.9	3.50	9.2	8.15	2.65	5	39	0.48	22.5	0.16	659	2.59	0.155	23.3	0.046	26.92	0.01	0.82	1.1	0.2	59.4	< .02	6.3	0.043	0.13	1.1	12	0.3	160.7
RS-497 1120-1140	109	1.54	3.6	6.2	1	563.80	0.12	2.27	0.41	3.30	4.8	4.24	1.8	4.9	488	0.46	24.7	0.24	745	1.17	0.079	3.1	0.04	17.37	0.14	2	0.8	0.3	127.2	< .02	6.1	0.004	0.14	1.2	6	< .2	69.7
RS-497 1140-1160	91	0.84	9.4	6.9	2	73.20	0.18	1.24	0.3	0.60	7.9	5.89	1.06	2.9	484	0.48	35.2	0.02	341	1.95	0.022	5.2	0.007	20.84	0.16	4.81	1	0.4	51	< .02	10.7	0.002	0.14	0.5	< 2	0.5	26.3
RS-497 1160-1180	134	0.79	9.0	12.8	1	56.60	0.38	0.6	0.32	0.40	5.3	6.35	1.22	2.9	291	0.52	35.6	0.01	372	2.25	0.021	5	0.006	22.52	0.78	6.95	0.7	1.3	38.3	< .02	10.9	< .001	0.19	0.4	< 2	0.7	49
RS-497 1180-1200	1734	0.73	30.0	44	5	141.60	0.33	0.11	0.22	0.40	8.2	6.92	1.87	2.3	410	0.37	26	0.01	85	1.75	0.01	9.4	0.004	23.82	1.4	11.75	0.4	5.6	22.7	< .02	7.8	< .001	0.17	0.4	< 2	0.4	56.9
RS-497 1200-1220	3893	0.74	39.5	59.2	5	164.50	0.23	0.1	0.4	1.10	5.4	7.86	1.87	2.3	1614	0.32	23.1	0.01	86	1.79	0.01	9.3	0.005	41.85	1.34	14.59	0.3	5	20.2	< .02	7	< .001	0.25	5.4	2	0.4	100.5
RS-497 1220-1240	3192	0.73	33.1	63.9	3	124.90	0.18	0.11	0.25	0.80	8.1	7.78	2.16	2.1	977	0.33	24.1	0.01	91	2.07	0.013	9.9	0.005	46.16	1.68	16.29	0.4	5.3	18.2	< .02	7.8	< .001	0.27	0.7	2	0.9	68.9
RS-497 1240-1260	1832	0.79	9.4	31.1	4	106.70	0.15	0.09	0.13	0.30	7.9	10.58	1.84	2.6	171	0.48	23.2	0.01	115	2.05	0.02	9.1	0.004	91.72	1.34	8.05	0.4	5.9	18.1	< .02	7.2	0.001	0.38	0.5	2	0.5	70.6
RS-497 1260-1280	998	0.87	28.3	62.1	4.0	122.10	0.2	0.16	0.24	1.30	9.8	7.06	2.19	3.2	1999	0.47	26.9	0.03	151	2.42	0.03	7.1	0.006	43.08	1.86	15.26	0.5	8.2	27.9	< .02	8.4	0.001	0.67	1.2	2	0.6	68.7
RS-497 1280-1300	9486	0.7	21.5	63.6	2	96.9	0.14	1.2	0.21	0.6	4	10.21	2.02	2.7	713	0.41	21.5	0.02	1279	2.19	0.026	6.3	0.004	35.34	1.9	14.47	0.4	11.2	31	0.02	6.4	0.001	0.56	1	2	0.4	72.8
RS-497 1300-1320	5425	0.82	11.1	37.9	2	159.8	0.08	1.4	0.33	0.8	5.4	7.36	1.79	2.8	302	0.43	24.7	0.05	960	1.66	0.025	6.3	0.011	35.23	1.33	7.35	0.6	3.9	48	0.03	6.7	0.002	0.37	0.9	3	0.5	64.4
RS-497 1320-1340	816	0.84	11.7	19.5	2	80.6	0.06	1.24	0.36	0.8	7.8	4.38	1.47	3.1	1086	0.47	28.9	0.03	738	1.75	0.022	34.1	0.006	29.73	0.67	8.08	0.7	1.3	49	< .02	8.4	0.002	0.32	1.1	3	0.7	32.2
STANDARD DS2	274	1.66	53.3	194.1	3	147.3	11.14	0.51	10.11	12	157.1	124.99	2.98	6	223	0.16	16	0.58	801	14.88	0.032	33.8	0.084	31.1	0.02	9.27	2.6	2.3	28.8	1.82	3.8	0.091	1.85	17.9	71	6.8	153.6
RS-497 1340-1360	298	0.99	8	12	2	94.2	0.06	2.31	0.4	2.2	6.8	6.23	1.71	3.4	899	0.41	40.5	0.13	879	1.12	0.04	28.5	0.018	16.66	0.25	4.24	1.5	0.8	103.4	< .02	8.5	0.006	0.22	1.8	12	0.4	46.9

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT:	HECLA MINING CO.
CLIENT REF:	KURT ALLEN
AAL REF:	SP57256
METHOD:	AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 1360-1380	141	0.66	10.3	13.7	5	87.8	0.08	1.67	0.24	2.3	8.1	15.81	2.09	2.7	1470	0.33	47.7	0.08	754	1.16	0.049	31.4	0.024	15.78	0.33	5.8	2	0.8	67.9	< .02	9.5	0.012	0.23	1.3	13	0.3	44.6
RS-497 1380-1400	141	0.66	7.6	9.7	3	52.1	0.16	1.85	0.3	2.5	9.9	4.19	2.05	2.8	743	0.33	59.9	0.12	689	1.06	0.05	24.6	0.028	16.91	0.21	4.15	2.3	0.6	87.3	< .02	10.4	0.015	0.16	1.3	15	0.4	43.8
RS-497 1400-1420	113	1.27	4.3	4.7	2	89.1	0.1	1.92	0.43	4.3	9.7	5.59	2.33	5.1	501	0.46	55.5	0.31	917	1.06	0.079	41.2	0.025	14.93	0.12	2.81	2.2	0.4	123.7	< .02	7.8	0.015	0.17	1.4	19	0.3	63.9
RS-497 1420-1440	227	1.48	7.3	9.3	2	103.3	0.06	3.73	0.28	3.8	7.9	5.53	2.12	4.2	657	0.48	40	0.31	1352	0.73	0.033	5.6	0.021	21.77	0.21	4.29	2.5	0.7	206.5	0.02	6.9	0.014	0.23	1.2	15	< .2	48.1
RS-497 1440-1460	206	1.13	6.3	8	1	160.7	0.04	3.22	0.28	3.4	6	4.05	1.65	3.1	820	0.41	41.7	0.21	1186	0.76	0.031	5.3	0.019	16.54	0.21	4.24	1.7	0.6	181.4	< .02	6.8	0.008	0.19	1.1	11	< .2	41.9
RS-497 1460-1480	329	1.01	9.7	13.9	< 1	106.6	0.05	3.88	0.36	3.5	8.2	4.37	1.78	2.8	1128	0.36	25.4	0.27	2167	0.86	0.022	6	0.022	17.05	0.31	6.12	2.5	0.8	241.6	0.02	3.7	0.006	0.22	0.8	9	0.2	48.4
RS-497 1480-1500	492	0.67	19.8	42.2	3	51.4	0.09	1.63	0.3	6.8	6.2	8.44	3.68	2.4	1436	0.33	11.9	0.06	883	1.65	0.026	19.1	0.019	153.88	4.12	11.46	1.4	2.8	87.3	< .02	2.2	0.001	0.51	0.6	6	0.4	65
RS-497 1500-1520	407	0.93	7.2	13.2	< 1	84.5	0.16	3.01	0.39	5.2	8.1	7.81	1.7	3.5	675	0.54	27.8	0.12	2040	1.23	0.046	20	0.027	71.59	0.69	5.35	2.2	0.9	121.9	0.02	5	0.003	0.21	0.8	11	0.5	61.2
RS-497 1520-1540	509	0.59	17.2	24	3	49.5	0.13	1.26	0.22	3.2	6.5	9.51	2.89	2	478	0.41	13.9	0.04	978	1.14	0.016	13.7	0.017	45.91	2.78	5.2	1.3	2.9	60.6	< .02	2.5	0.001	0.24	0.4	5	0.4	44
RS-497 1540-1560	1379	0.66	128.5	61.3	3	46.7	0.33	0.37	0.25	6.3	4.1	12.27	4.05	2.2	1005	0.41	20.8	0.03	290	2.46	0.018	11.5	0.025	51.41	4.35	11.45	0.8	21.5	32.9	< .02	4.7	0.001	0.53	0.6	5	0.4	91.5
RS-497 1560-1580	2289	0.68	125.2	120.5	1	41.8	0.2	0.42	0.26	8.9	5.5	14.53	5.06	2.3	750	0.37	19.6	0.03	517	3.14	0.016	12.2	0.026	77.9	5.49	20.12	0.9	24.6	33.4	0.03	4.8	0.001	0.89	0.8	4	0.4	117
RS-497 1580-1600	1802	0.37	125.7	110.3	1	33.9	0.15	0.2	0.22	4.8	7.7	13.79	4.76	1.4	413	0.2	23.2	0.01	214	2.77	0.012	21.2	0.018	53.88	4.3	17.48	0.5	11.9	23.6	< .02	5.3	0.001	0.51	0.7	4	1.6	76.5
RS-497 1600-1620	1993	0.33	92.9	86.2	2	56.4	0.11	0.31	0.2	5.4	7	13.44	3.82	1.3	392	0.2	24	0.01	321	2.77	0.011	16.8	0.024	45.3	3.58	15	0.5	10.9	27.8	0.02	5.5	0.001	0.54	0.6	3	0.6	85
RS-497 1620-1640	1158	0.43	96.1	86.5	2	46.6	0.27	0.19	0.25	4.6	6.9	16.71	4.01	1.7	639	0.23	22.6	0.01	218	2.77	0.01	22	0.019	43.18	3.31	13.85	0.6	7.9	22.2	0.02	5.4	0.001	0.49	0.6	4	0.8	68.8
RS-497 1640-1660	2063	0.37	110.6	93	1	34.7	0.48	0.49	0.53	8.2	5.8	13.46	5.55	1.3	668	0.27	18	0.02	349	4.14	0.016	18	0.026	73.71	5.89	18.2	0.7	22.1	36.9	< .02	3.6	0.001	1.03	0.4	3	0.4	133.1
RS-497 1660-1680	738	0.73	50	51.1	1	61.8	0.67	1.5	0.89	5.6	8.1	10.46	3.35	2.8	2051	0.38	20.5	0.09	851	2.78	0.015	10.7	0.022	49.42	2.7	13.75	1.8	7.5	69.9	< .02	3.5	0.001	0.62	0.7	6	0.3	96.6
RS-497 1680-1700	1044	0.69	51.5	54.2	< 1	50.2	0.39	1.47	1.22	6.2	7.7	10.15	3.18	2.8	1180	0.34	20.1	0.11	988	2.37	0.013	8.8	0.024	42.34	2.5	12.85	2.3	11	65.5	0.02	3.2	0.001	0.54	0.6	7	0.3	102.2
RS-497 1700-1720	1350	0.6	95.4	66.4	< 1	46.6	0.45	1.07	0.63	7	8.9	11.68	4.2	2.2	1195	0.37	16.1	0.05	651	3.18	0.013	10.2	0.023	54.01	4.33	16.63	1.7	14.3	57.6	< .02	2.7	0.001	0.8	0.5	5	0.3	97.2
RS-497 1720-1740	1332	0.59	68.3	55.3	1	60.9	0.69	0.48	1.17	5.4	12.2	11.69	3.87	2	629	0.36	20	0.04	403	3.72	0.012	13.7	0.024	46.42	3.48	16.97	0.9	13.2	34.4	< .02	3.9	0.001	0.74	0.5	5	0.4	107.4
RS-497 1740-1760	1679	0.48	69.5	69.2	< 1	54.6	0.5	0.23	0.53	3.2	9.9	10.82	4.05	1.6	1058	0.26	22.6	0.02	206	2.91	0.01	8.8	0.013	59.66	3.85	16.12	0.4	16.3	26.2	0.02	4.9	0.001	0.64	0.7	2	0.4	108
RS-497 1760-1780	1826	0.42	59.6	62.4	1	32.6	0.36	0.16	0.6	3	29	17.66	3.72	1.5	270	0.27	27.1	0.01	168	8.03	0.023	12.9	0.013	69.5	3.18	14.12	0.3	13.8	28.4	< .02	6.9	< .001	0.66	0.6	2	0.7	108.5
89694 empty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDARD DS2	263	1.64	55.8	192.2	4	146.5	9.84	0.52	9.86	11.7	155.3	125.31	3.02	5.8	222	0.15	16	0.58	813	13.25	0.031	34	0.087	31.03	0.02	9.12	2.5	2.2	24.8	1.74	3.4	0.091	1.76	17.7	70	7.2	156.7

American Assay Laboratories

INVOICE

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

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

(775) 356-0606

INVOICE NO: SP 0057256-IN
INVOICE DATE: 05/29/00

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

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

CUSTOMER P.O.	PROJECT	TERMS
RS-497	WILDROSE EAST	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
220	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
219	DRY/JAW CRUSH ENTIRE SAMPLE	2.30	503.70
219	"JONES" RIFFLE SPLIT	2.40	525.60
219	RING/PUCK MILL	2.00	438.00
220	Au (1 A.T. FIRE ASSAY)	8.00	1,760.00
220	HYDROCHLORIC/NITRIC DIGESTION	2.00	440.00
220	Ag ANALYSES	1.00	220.00
219	COMPOSITE CHARGE	1.25	273.75
56	MULTI-ELEMENT ICP PACKAGE	13.75	770.00

86-2510-477
KAA

NET INVOICE:	4,931.05
LESS DISCOUNT:	1,725.87
FREIGHT:	.00
INVOICE TOTAL:	3,205.18

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: RS-497
No. SAMPLES : 220
MAIN SAMPLE TYPE : DRILL CUTTINGS

RECEIVED : 3 MAY 2000
REPORTED : 28 MAY 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

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 28 MAY 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-497 685-690	10		<0.001		<0.5	<0.02
RS-497 690-695	<5		<0.001		<0.5	<0.02
RS-497 695-700	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 700-705	<5		<0.001		<0.5	<0.02
RS-497 705-710	<5		<0.001		<0.5	<0.02
RS-497 710-715	<5		<0.001		<0.5	<0.02
RS-497 715-720	6		<0.001		0.5	<0.02
RS-497 720-725	<5		<0.001		<0.5	<0.02
RS-497 725-730	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 730-735	<5		<0.001		<0.5	<0.02
RS-497 735-740	<5		<0.001		<0.5	<0.02
RS-497 740-745	<5		<0.001		<0.5	<0.02
RS-497 745-750	<5		<0.001		<0.5	<0.02
RS-497 750-755	<5		<0.001		<0.5	<0.02
RS-497 755-760	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 760-765	<5		<0.001		<0.5	<0.02
RS-497 765-770	<5		<0.001		<0.5	<0.02
RS-497 770-775	<5		<0.001		<0.5	<0.02
RS-497 775-780	<5		<0.001		<0.5	<0.02
RS-497 780-785	<5		<0.001		<0.5	<0.02
RS-497 785-790	<5		<0.001		<0.5	<0.02
RS-497 790-795	<5		<0.001		<0.5	<0.02
RS-497 795-800	<5		<0.001		<0.5	<0.02
RS-497 800-805	<5		<0.001		<0.5	<0.02
RS-497 805-810	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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American Assay Laboratories

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REPORTED : 28 MAY 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-497 810-815	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 815-820	<5		<0.001		<0.5	<0.02
RS-497 820-825	<5		<0.001		<0.5	<0.02
RS-497 825-830	<5		<0.001		<0.5	<0.02
RS-497 830-835	<5		<0.001		<0.5	<0.02
RS-497 835-840	<5		<0.001		<0.5	<0.02
RS-497 840-845	<5		<0.001		<0.5	<0.02
RS-497 845-850	<5		<0.001		<0.5	<0.02
RS-497 850-855	<5		<0.001		<0.5	<0.02
RS-497 855-860	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 860-865	<5		<0.001		<0.5	<0.02
RS-497 865-870	<5		<0.001		<0.5	<0.02
RS-497 870-875	<5		<0.001		<0.5	<0.02
RS-497 875-880	<5		<0.001		<0.5	<0.02
RS-497 880-885	<5		<0.001		<0.5	<0.02
RS-497 885-890	<5		<0.001		<0.5	<0.02
RS-497 890-895	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 895-900	<5		<0.001		3.3	0.10
RS-497 900-905	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 905-910	<5		<0.001		<0.5	<0.02
RS-497 910-915	<5		<0.001		<0.5	<0.02
RS-497 915-920	<5		<0.001		<0.5	<0.02
RS-497 920-925	<5		<0.001		<0.5	<0.02
RS-497 925-930	<5		<0.001		<0.5	<0.02
RS-497 930-935	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

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REPORTED : 28 MAY 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-497 935-940	<5		<0.001		<0.5	<0.02
RS-497 940-945	<5		<0.001		<0.5	<0.02
RS-497 945-950	<5		<0.001		<0.5	<0.02
RS-497 950-955	<5		<0.001		<0.5	<0.02
RS-497 955-960	<5		<0.001		<0.5	<0.02
RS-497 960-965	<5		<0.001		<0.5	<0.02
RS-497 965-970	<5		<0.001		<0.5	<0.02
RS-497 970-975	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 975-980	<5		<0.001		<0.5	<0.02
RS-497 980-985	<5		<0.001		<0.5	<0.02
RS-497 985-990	<5		<0.001		<0.5	<0.02
RS-497 990-995	<5		<0.001		<0.5	<0.02
RS-497 995-1000	<5		<0.001		<0.5	<0.02
RS-497 1000-1005	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1005-1010	<5		<0.001		<0.5	<0.02
RS-497 1010-1015	<5		<0.001		<0.5	<0.02
RS-497 1015-1020	<5		<0.001		<0.5	<0.02
RS-497 1020-1025	<5		<0.001		<0.5	<0.02
RS-497 1025-1030	<5		<0.001		<0.5	<0.02
RS-497 1030-1035	<5		<0.001		<0.5	<0.02
RS-497 1035-1040	<5		<0.001		<0.5	<0.02
RS-497 1040-1045	<5		<0.001		<0.5	<0.02
RS-497 1045-1050	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1050-1055	<5		<0.001		<0.5	<0.02
RS-497 1055-1060	<5		<0.001		<0.5	<0.02

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REFERENCE : RS-497

REPORTED : 28 MAY 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-497 1060-1065	<5		<0.001		<0.5	<0.02
RS-497 1065-1070	20		<0.001		<0.5	<0.02
RS-497 1070-1075	<5		<0.001		<0.5	<0.02
RS-497 1075-1080	<5		<0.001		<0.5	<0.02
RS-497 1080-1085	<5		<0.001		<0.5	<0.02
RS-497 1085-1090	<5		<0.001		<0.5	<0.02
RS-497 1090-1095	<5		<0.001		<0.5	<0.02
RS-497 1095-1100	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1100-1105	<5		<0.001		<0.5	<0.02
RS-497 1105-1110	8		<0.001		<0.5	<0.02
RS-497 1110-1115	<5		<0.001		<0.5	<0.02
RS-497 1115-1120	<5		<0.001		<0.5	<0.02
RS-497 1120-1125	<5		<0.001		<0.5	<0.02
RS-497 1125-1130	10		<0.001		<0.5	<0.02
RS-497 1130-1135	<5		<0.001		<0.5	<0.02
RS-497 1135-1140	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1140-1145	<5		<0.001		<0.5	<0.02
RS-497 1145-1150	12		<0.001		<0.5	<0.02
RS-497 1150-1155	<5		<0.001		<0.5	<0.02
RS-497 1155-1160	<5		<0.001		<0.5	<0.02
RS-497 1160-1165	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1165-1170	<5		<0.001		<0.5	<0.02
RS-497 1170-1175	<5		<0.001		<0.5	<0.02
RS-497 1175-1180	37		0.001		<0.5	<0.02
RS-497 1180-1185	42		0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1185-1190	53	58	0.002	0.002	1.1	0.03
RS-497 1190-1195	59		0.002		1.4	0.04
RS-497 1195-1200	69		0.002		5.2	0.15
RS-497 1200-1205	66		0.002		1.6	0.05
RS-497 1205-1210	60		0.002		1.8	0.05
RS-497 1210-1215	76		0.002		14.6	0.43
RS-497 1215-1220	67		0.002		2.4	0.07
RS-497 1220-1225	66		0.002		1.3	0.04
RS-497 1225-1230	93		0.003		6.5	0.19
RS-497 1230-1235	91		0.003		3.2	0.09
RS-497 1235-1240	63		0.002		5.2	0.15
RS-497 1240-1245	32	32	<0.001	<0.001	4.5	0.13
RS-497 1245-1250	50		0.001		2.3	0.07
RS-497 1250-1255	36		0.001		<0.5	<0.02
RS-497 1255-1260	49		0.001		<0.5	<0.02
RS-497 1260-1265	43		0.001		1.3	0.04
RS-497 1265-1270	75	64	0.002	0.002	0.9	0.03
RS-497 1270-1275	101		0.003		1.9	0.06
RS-497 1275-1280	59		0.002		1.8	0.05
RS-497 1280-1285	33		<0.001		<0.5	<0.02
RS-497 1285-1290	55	56	0.002	0.002	2.8	0.08
RS-497 1290-1295	42		0.001		16.9	0.49
RS-497 1295-1300	163		0.005		15.3	0.45
RS-497 1300-1305	70		0.002		14.5	0.42
RS-497 1305-1310	53		0.002		9.7	0.28

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1310-1315	39		0.001		5.0	0.15
RS-497 1315-1320	33		<0.001		0.9	0.02
RS-497 1320-1325	30		<0.001		1.9	0.06
RS-497 1325-1330	18		<0.001		1.6	0.05
RS-497 1330-1335	25		<0.001		<0.5	<0.02
RS-497 1335-1340	40		0.001		3.0	0.09
RS-497 1340-1345	26		<0.001		0.5	<0.02
RS-497 1345-1350	<5		<0.001		<0.5	<0.02
RS-497 1350-1355	<5		<0.001		<0.5	<0.02
RS-497 1355-1360	28		<0.001		<0.5	<0.02
RS-497 1360-1365	9		<0.001		<0.5	<0.02
RS-497 1365-1370	<5		<0.001		<0.5	<0.02
RS-497 1370-1375	12		<0.001		<0.5	<0.02
RS-497 1375-1380	23		<0.001		<0.5	<0.02
RS-497 1380-1385	18		<0.001		<0.5	<0.02
RS-497 1385-1390	<5		<0.001		<0.5	<0.02
RS-497 1390-1395	<5		<0.001		<0.5	<0.02
RS-497 1395-1400	5		<0.001		<0.5	<0.02
RS-497 1400-1405	<5		<0.001		<0.5	<0.02
RS-497 1405-1410	5		<0.001		<0.5	<0.02
RS-497 1410-1415	<5		<0.001		<0.5	<0.02
RS-497 1415-1420	<5		<0.001		<0.5	<0.02
RS-497 1420-1425	8		<0.001		<0.5	<0.02
RS-497 1425-1430	7		<0.001		<0.5	<0.02
RS-497 1430-1435	<5		<0.001		<0.5	<0.02

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1435-1440	10		<0.001		<0.5	<0.02
RS-497 1440-1445	13		<0.001		0.8	0.02
RS-497 1445-1450	6		<0.001		<0.5	<0.02
RS-497 1450-1455	<5		<0.001		<0.5	<0.02
RS-497 1455-1460	<5		<0.001		<0.5	<0.02
RS-497 1460-1465	14		<0.001		<0.5	<0.02
RS-497 1465-1470	13		<0.001		<0.5	<0.02
RS-497 1470-1475	<5		<0.001		<0.5	<0.02
RS-497 1475-1480	32		<0.001		<0.5	<0.02
RS-497 1480-1485	30		<0.001		<0.5	<0.02
RS-497 1485-1490	69		0.002		3.0	0.09
RS-497 1490-1495	63		0.002		0.9	0.03
RS-497 1495-1500	13		<0.001		<0.5	<0.02
RS-497 1500-1505	5		<0.001		<0.5	<0.02
RS-497 1505-1510	30	28	<0.001	<0.001	<0.5	<0.02
RS-497 1510-1515	9		<0.001		<0.5	<0.02
RS-497 1515-1520	<5		<0.001		<0.5	<0.02
RS-497 1520-1525	<5		<0.001		<0.5	<0.02
RS-497 1525-1530	33		<0.001		0.9	0.03
RS-497 1530-1535	14		<0.001		0.5	<0.02
RS-497 1535-1540	27		<0.001		1.5	0.04
RS-497 1540-1545	36	36	0.001	0.001	0.8	0.02
RS-497 1545-1550	82		0.002		2.0	0.06
RS-497 1550-1555	81		0.002		2.7	0.08
RS-497 1555-1560	80		0.002		3.3	0.10

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1560-1565	112		0.003		3.7	0.11
RS-497 1565-1570	101		0.003		3.8	0.11
RS-497 1570-1575	147		0.004		4.2	0.12
RS-497 1575-1580	148		0.004		2.9	0.08
RS-497 1580-1585	138		0.004		2.8	0.08
RS-497 1585-1590	102		0.003		1.9	0.06
RS-497 1590-1595	148		0.004		2.4	0.07
RS-497 1595-1600	141		0.004		2.7	0.08
RS-497 1600-1605	69		0.002		3.7	0.11
RS-497 1605-1610	84	82	0.002	0.002	2.3	0.07
RS-497 1610-1615	85		0.002		2.6	0.08
RS-497 1615-1620	128		0.004		4.3	0.13
RS-497 1620-1625	85		0.002		2.0	0.06
RS-497 1625-1630	114		0.003		1.7	0.05
RS-497 1630-1635	127		0.004		1.3	0.04
RS-497 1635-1640	82		0.002		1.9	0.06
RS-497 1640-1645	114		0.003		3.4	0.10
RS-497 1645-1650	122		0.004		3.5	0.10
RS-497 1650-1655	79		0.002		2.5	0.07
RS-497 1655-1660	60		0.002		2.5	0.07
RS-497 1660-1665	30	34	<0.001	<0.001	1.8	0.05
RS-497 1665-1670	98		0.003		1.8	0.05
RS-497 1670-1675	34		<0.001		1.0	0.03
RS-497 1675-1680	26		<0.001		0.7	0.02
RS-497 1680-1685	35		0.001		1.7	0.05

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1685-1690	66		0.002		2.3	0.07
RS-497 1690-1695	59		0.002		2.1	0.06
RS-497 1695-1700	71		0.002		2.2	0.06
RS-497 1700-1705	47		0.001		1.9	0.06
RS-497 1705-1710	88		0.003		2.5	0.07
RS-497 1710-1715	68	73	0.002	0.002	2.5	0.07
RS-497 1715-1720	80		0.002		2.8	0.08
RS-497 1720-1725	69		0.002		2.8	0.08
RS-497 1725-1730	72		0.002		2.6	0.08
RS-497 1730-1735	123		0.004		2.4	0.07
RS-497 1735-1740	47		0.001		2.2	0.06
RS-497 1740-1745	80		0.002		3.1	0.09
RS-497 1745-1750	82		0.002		3.5	0.10
RS-497 1750-1755	60		0.002		2.9	0.08
RS-497 1755-1760	58		0.002		3.0	0.09
RS-497 1760-1765	50		0.001		2.5	0.07
RS-497 1765-1770	62		0.002		2.6	0.08
RS-497 1770-1775	83		0.002		3.7	0.11
RS-497 1775-1780	50		0.001		2.6	0.08
89694	2026		0.059		36.6	1.07

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
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CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP67256
METHOD: AAL03-D

ELEMENT	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	Tl	Ti	U	V	W	Zn
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 695-700	80	0.88	5.2	4.1	4	94.00	0.08	0.55	0.14	3.30	8.1	12.82	3.61	4.2	488	0.19	16	0.18	721	3.98	0.111	105.4	0.041	50.16	0.13	3.21	1.3	0.4	53.7	<.02	9.4	0.058	0.12	1.4	8	0.7	87.9
RS-497 700-720	92	0.86	2.9	2.5	3	95.70	0.1	0.65	0.17	3.20	12.1	11.23	3.77	4.4	72	0.23	17.7	0.18	934	3.94	0.096	107.2	0.045	17.63	0.02	2.15	1.2	0.3	46.2	0.02	10.2	0.052	0.11	1.5	8	0.6	84.9
RS-497 720-740	106	0.79	2.1	1.6	3	124.50	0.16	0.49	0.14	3.70	9.1	10.8	3.67	5	73	0.24	19.6	0.26	727	4.14	0.104	83.9	0.044	16.57	0.01	1.64	1.3	0.3	40.6	<.02	11	0.047	0.1	1.4	8	0.6	89.2
RS-497 740-760	62	0.84	2.8	2.8	3	67.20	0.11	0.78	0.17	3.30	7.2	8	2.97	5.2	109	0.16	19.6	0.21	774	2.73	0.103	36.9	0.038	18.41	0.02	1.2	1.2	0.2	69.9	<.02	8.9	0.026	0.06	0.9	6	0.4	83
RS-497 760-780	49	0.84	3.0	2.4	2	82.10	0.05	0.68	0.14	3.00	5	5.21	2.85	5	114	0.17	19.2	0.19	684	1.69	0.118	39.9	0.039	10.44	0.02	0.86	1.2	0.2	100.9	<.02	7.7	0.033	0.07	1	7	0.4	76.3
RS-497 780-800	84	0.85	2.3	1.5	4	98.90	0.15	0.36	0.13	3.60	10.3	11.38	3.72	4.8	59	0.22	14.5	0.23	718	3.76	0.164	79.8	0.032	12.7	0.02	0.71	1.6	0.1	33.1	<.02	8.1	0.101	0.09	0.9	10	0.8	75.9
RS-497 800-820	92	0.83	1.8	1.2	3	109.20	0.17	0.49	0.16	4.20	10.8	13.67	3.78	5.6	37	0.28	16.4	0.3	814	3.84	0.192	81.3	0.04	11.75	0.02	0.61	1.6	0.2	40.4	<.02	6.4	0.086	0.11	0.9	13	0.4	81.6
RS-497 820-840	75	0.91	0.9	1.2	4.0	103.00	0.08	0.5	0.59	3.40	7.4	5.04	2.93	6.3	36	0.23	19.4	0.31	650	2.13	0.139	34	0.041	17.34	0.01	0.45	1.3	<.1	59.6	<.02	7.3	0.05	0.11	1.1	9	0.3	92.6
RS-497 840-860	60	0.79	3.2	1.3	4	100.60	0.07	0.62	0.39	3.10	6.7	4.85	2.72	4.9	34	0.22	19	0.19	717	1.78	0.145	28.3	0.038	12.75	<.01	0.66	1.3	0.1	79.7	<.02	6.7	0.039	0.1	0.9	9	0.4	83.4
RS-497 860-880	59	0.72	2.8	0.7	4	104.40	0.12	0.82	0.35	3.20	7.7	5.94	2.93	4.5	29	0.22	19.6	0.15	1045	1.93	0.14	42.6	0.039	13.69	0.01	0.57	1.2	0.1	84.2	<.02	7.3	0.044	0.08	1.3	11	0.5	83.8
RS-497 880-900	46	0.81	3.7	0.7	6	117.20	0.17	0.63	0.18	3.30	4.5	4.66	2.91	4.9	22	0.28	19	0.15	569	1.36	0.144	26.6	0.044	12.64	0.01	0.65	1.3	<.1	76.2	<.02	7.1	0.044	0.1	1.5	12	0.6	85.2
RS-497 900-920	40	0.7	6.2	0.9	2	78.10	0.12	0.85	0.23	2.90	5.4	7.03	2.71	4	21	0.19	20.8	0.13	691	1.21	0.11	51.6	0.061	12.77	<.01	0.7	1.1	0.1	71.4	<.02	7.3	0.03	0.07	1.4	11	0.6	79.6
RS-497 920-940	36	0.84	2.9	0.6	6	73.80	0.15	0.76	0.2	2.90	6.5	5.61	2.59	3.8	22	0.2	19.8	0.11	689	1.03	0.105	42	0.043	10.62	<.01	0.37	1.1	0.2	68.1	<.02	7	0.03	0.06	1	8	0.5	71.3
RS-497 940-960	24	0.69	2.3	0.7	4	68.40	0.04	0.58	0.12	2.90	5.2	3.73	2.4	4.2	7	0.19	20.2	0.14	563	0.87	0.103	24.9	0.037	11.61	0.01	0.33	1	0.1	83.1	<.02	7.2	0.022	0.05	0.6	5	0.4	71.5
RS-497 960-980	30	0.74	2.3	<.2	4	76.40	0.02	0.78	0.16	3.10	4.9	3.02	2.17	4.3	14	0.2	21	0.15	504	0.6	0.114	17	0.04	11.68	<.01	0.29	1.1	0.1	91.3	<.02	6.8	0.02	0.05	0.9	7	0.3	68
RS-497 980-1000	42	0.59	3.8	0.9	4	80.10	0.04	0.82	0.18	2.50	4.3	5.48	2.29	3	39	0.25	23.7	0.07	540	0.76	0.113	11.8	0.042	38.9	0.02	0.42	0.9	0.1	68.9	<.02	7.1	0.032	0.06	0.8	8	0.5	68.7
RS-497 1000-1020	45	0.62	4.8	1	5	83.90	0.08	0.65	0.08	2.50	2.7	3.39	2.11	3.4	30	0.26	24.7	0.08	363	0.57	0.106	13	0.04	19.4	0.01	0.49	0.8	0.1	60.5	<.02	6.6	0.025	0.08	0.8	6	0.4	49.5
RS-497 1020-1040	54	1.21	2.2	1.2	4	76.80	0.11	1.06	0.14	3.10	6.1	3.86	2.23	4.8	22	0.2	24.3	0.31	560	1.07	0.101	18.5	0.041	17.81	0.01	0.38	1	<.1	147.9	0.02	5.6	0.012	0.07	0.9	7	0.2	74.9
RS-497 1040-1060	167	0.94	2.2	1.3	3	68.20	0.17	0.85	0.18	2.90	6	5.12	2.21	3.9	34	0.22	23.2	0.27	525	1.32	0.077	29.7	0.039	16.73	0.01	0.41	0.8	0.2	119.6	0.02	6.1	0.01	0.08	0.9	6	0.2	87.4
RS-497 1060-1080	78	0.98	5.3	6.1	3	91.80	0.1	0.97	0.18	3.80	6.3	6.34	2.33	3.8	426	0.22	23.1	0.28	721	1.95	0.089	37.2	0.038	33.98	0.06	1.43	0.9	0.3	132.9	0.02	5.9	0.008	0.11	0.8	8	0.3	75.7
RS-497 1080-1100	87	0.8	1.7	1.3	6	111.10	0.23	0.84	0.19	4.20	13.9	10.41	3.41	4.6	58	0.31	17.4	0.17	756	2.47	0.163	95.2	0.047	13.79	0.02	0.74	1.2	0.2	75.9	<.02	5.2	0.06	0.1	1	17	0.4	82.5
RS-497 1100-1120	202	1.01	7.5	13.5	5	174.90	0.38	0.62	0.9	3.60	9.2	8.15	2.65	5	39	0.48	22.5	0.16	659	2.58	0.155	23.3	0.046	26.92	0.01	0.82	1.1	0.2	59.4	<.02	6.3	0.043	0.13	1.1	12	0.3	160.7
RS-497 1120-1140	109	1.54	3.6	6.2	1	563.80	0.12	2.27	0.41	3.30	4.8	4.24	1.8	4.9	488	0.46	24.7	0.24	745	1.17	0.079	3.1	0.04	17.37	0.14	2	0.8	0.3	127.2	<.02	6.1	0.004	0.14	1.2	6	<.2	69.7
RS-497 1140-1160	91	0.84	9.4	6.9	2	73.20	0.18	1.24	0.3	0.60	7.9	5.89	1.06	2.9	494	0.48	35.2	0.02	341	1.96	0.022	5.2	0.007	20.84	0.16	4.81	1	0.4	51	<.02	10.7	0.002	0.14	0.5	<2	0.5	26.3
RS-497 1160-1180	134	0.79	8.0	12.8	1	58.60	0.38	0.6	0.32	0.40	5.3	6.35	1.22	2.9	291	0.52	35.6	0.01	372	2.25	0.021	5	0.006	22.52	0.78	6.95	0.7	1.3	38.3	<.02	10.9	<.001	0.19	0.4	<2	0.7	49
RS-497 1180-1200	1734	0.73	30.0	44	5	141.60	0.33	0.11	0.22	0.40	6.2	6.92	1.87	2.3	410	0.37	26	0.01	85	1.76	0.01	9.4	0.004	23.82	1.4	11.75	0.4	5.6	22.7	<.02	7.8	<.001	0.17	0.4	<2	0.4	56.9
RS-497 1200-1220	3893	0.74	39.5	69.2	5	184.50	0.23	0.1	0.4	1.10	5.4	7.86	1.87	2.3	1614	0.32	23.1	0.01	86	1.79	0.01	9.3	0.005	41.85	1.34	14.59	0.3	5	20.2	<.02	7	<.001	0.25	5.4	2	0.4	100.5
RS-497 1220-1240	3192	0.73	33.1	63.9	3	124.90	0.18	0.11	0.25	0.80	6.1	7.78	2.16	2.1	977	0.33	24.1	0.01	91	2.07	0.013	9.9	0.005	46.16	1.68	16.29	0.4	6.3	18.2	<.02	7.8	<.001	0.27	0.7	2	0.9	68.9
RS-497 1240-1260	1832	0.79	9.4	31.1	4	106.70	0.15	0.09	0.13	0.30	7.9	10.58	1.84	2.6	171	0.48	23.2	0.01	115	2.05	0.02	9.1	0.004	91.72	1.34	8.05	0.4	5.9	18.1	<.02	7.2	0.001	0.38	0.5	2	0.5	70.6
RS-497 1260-1280	988	0.87	28.3	62.1	4.0	122.10	0.2	0.16	0.24	1.30	9.8	7.06	2.19	3.2	1999	0.47	26.9	0.03	151	2.42	0.03	7.1	0.006	43.08	1.86	15.26	0.5	8.2	27.9	<.02	8.4	0.001	0.67	1.2	2	0.6	68.7
RS-497 1280-1300	9486	0.7	21.5	63.6	2	96.9	0.14	1.2	0.21	0.6	4	10.21	2.02	2.7	713	0.41	21.5	0.02	1279	2.19	0.026	6.3	0.004	35.34	1.9	14.47	0.4	11.2	31	0.02	6.4	0.001	0.56	1	2	0.4	72.8
RS-497 1300-1320	5425	0.82	11.1	37.9	2	159.8	0.08	1.4	0.33	0.8	5.4	7.36	1.79	2.8	302	0.43	24.7	0.05	960	1.66	0.025	6.3	0.011	35.23	1.33	7.35	0.6	3.9	49	0.03	6.7	0.002	0.37	0.9	3	0.5	64.4
RS-497 1320-1340	816	0.84	11.7	19.5	2	80.6	0.06	1.24	0.36	0.8	7.8	4.38	1.47	3.1	1096	0.47	28.9	0.03	738	1.75	0.022	34.1	0.006	29.73	0.67	8.06	0.7	1.3	49	<.02	8.4	0.002	0.32	1.1	3	0.7	32.2
STANDARD DS2	274	1.66	53.3	194.1	3	147.3	11.14	0.51	10.11	12	167.1	124.99	2.98	6	223	0.16	16	0.58	801	14.88	0.032	33.8	0.064	31.1	0.02	9.27	2.6	2.3	28.8	1.82	3.8	0.091	1.85	17.9	71	6.8	153.6
RS-497 1340-1360	298	0.99	8	12	2	94.2	0.06	2.31	0.4	2.2	6.8	6.23	1.71	3.4	899	0.41	40.5	0.13	879	1.12	0.04	28.5	0.018	16.66	0.25	4.24	1.5	0.8	103.4	<.02	8.5	0.006	0.22	1.8	12	0.4	46.9

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE
SPARKS, NV 89431
PHONE: (775) 356-0606
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CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP57256
METHOD: AAL03-0

ELEMENT	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	Tl	Ti	U	V	W	Zn
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 1360-1380	141	0.66	10.3	13.7	5	87.8	0.08	1.67	0.24	2.3	8.1	15.81	2.09	2.7	1470	0.33	47.7	0.06	754	1.16	0.049	31.4	0.024	15.78	0.33	5.8	2	0.8	67.9	<.02	9.5	0.012	0.23	1.3	13	0.3	44.6
RS-497 1380-1400	141	0.66	7.6	9.7	3	52.1	0.16	1.85	0.3	2.5	9.9	4.19	2.05	2.8	743	0.33	59.9	0.12	689	1.06	0.05	24.6	0.028	16.91	0.21	4.15	2.3	0.6	87.3	<.02	10.4	0.015	0.16	1.3	15	0.4	43.8
RS-497 1400-1420	113	1.27	4.3	4.7	2	89.1	0.1	1.92	0.43	4.3	9.7	5.59	2.33	5.1	501	0.48	55.5	0.31	917	1.06	0.079	41.2	0.025	14.93	0.12	2.81	2.2	0.4	123.7	<.02	7.8	0.015	0.17	1.4	19	0.3	63.9
RS-497 1420-1440	227	1.48	7.3	9.3	2	103.3	0.08	3.73	0.28	3.8	7.9	5.53	2.12	4.2	657	0.48	40	0.31	1352	0.73	0.033	5.6	0.021	21.77	0.21	4.29	2.5	0.7	206.5	0.02	6.9	0.014	0.23	1.2	15	<.2	48.1
RS-497 1440-1460	206	1.13	6.3	8	1	160.7	0.04	3.22	0.28	3.4	6	4.06	1.66	3.1	820	0.41	41.7	0.21	1196	0.76	0.031	5.3	0.019	16.54	0.21	4.24	1.7	0.8	181.4	<.02	6.8	0.008	0.19	1.1	11	<.2	41.9
RS-497 1460-1480	329	1.01	9.7	13.9	<1	106.8	0.05	3.88	0.36	3.5	8.2	4.37	1.78	2.8	1128	0.36	25.4	0.27	2167	0.86	0.022	6	0.022	17.05	0.31	6.12	2.5	0.8	241.6	0.02	3.7	0.006	0.22	0.8	9	0.2	48.4
RS-497 1480-1500	492	0.67	19.8	42.2	3	51.4	0.09	1.63	0.3	6.8	6.2	8.44	3.68	2.4	1438	0.33	11.9	0.06	893	1.65	0.026	19.1	0.019	159.88	4.12	11.46	1.4	2.8	87.3	<.02	2.2	0.001	0.51	0.6	6	0.4	65
RS-497 1500-1520	407	0.93	7.2	13.2	<1	84.5	0.16	3.01	0.39	5.2	8.1	7.81	1.7	3.5	676	0.54	27.8	0.12	2040	1.23	0.046	20	0.027	71.59	0.69	5.35	2.2	0.9	121.8	0.02	5	0.003	0.21	0.8	11	0.5	61.2
RS-497 1520-1540	509	0.58	17.2	24	3	49.5	0.13	1.26	0.22	3.2	6.5	9.51	2.69	2	478	0.41	13.9	0.04	976	1.14	0.016	13.7	0.017	45.91	2.78	5.2	1.3	2.9	60.6	<.02	2.5	0.001	0.24	0.4	5	0.4	44
RS-497 1540-1560	1379	0.66	128.5	61.3	3	46.7	0.39	0.37	0.25	6.3	4.1	12.27	4.05	2.2	1005	0.41	20.8	0.03	290	2.46	0.018	11.5	0.025	51.41	4.35	11.45	0.8	21.5	32.8	<.02	4.7	0.001	0.63	0.6	5	0.4	91.5
RS-497 1560-1580	2289	0.68	125.2	120.5	1	41.8	0.2	0.42	0.26	8.9	5.5	14.63	5.06	2.3	750	0.37	19.6	0.03	517	3.14	0.016	12.2	0.026	77.9	5.49	20.12	0.9	24.6	33.4	0.03	4.6	0.001	0.89	0.8	4	0.4	117
RS-497 1580-1600	1802	0.37	125.7	110.3	1	33.9	0.15	0.2	0.22	4.8	7.7	13.79	4.76	1.4	413	0.2	23.2	0.01	214	2.77	0.012	21.2	0.018	53.88	4.3	17.48	0.5	11.9	23.6	<.02	5.3	0.001	0.51	0.7	4	1.6	76.5
RS-497 1600-1620	1993	0.33	92.9	86.2	2	56.4	0.11	0.31	0.2	5.4	7	13.44	3.82	1.3	392	0.2	24	0.01	321	2.77	0.011	16.8	0.024	45.3	3.58	15	0.5	10.9	27.8	0.02	5.5	0.001	0.54	0.6	3	0.6	85
RS-497 1620-1640	1158	0.43	96.1	88.5	2	46.6	0.27	0.19	0.25	4.6	6.9	16.71	4.01	1.7	639	0.23	22.6	0.01	216	2.77	0.01	22	0.019	43.18	3.31	13.85	0.6	7.9	22.2	0.02	5.4	0.001	0.49	0.6	4	0.8	68.8
RS-497 1640-1660	2063	0.37	110.6	93	1	34.7	0.48	0.49	0.53	8.2	5.8	13.46	5.55	1.3	668	0.27	18	0.02	349	4.14	0.016	18	0.026	73.71	5.69	18.2	0.7	22.1	36.9	<.02	3.6	0.001	1.03	0.4	3	0.4	133.1
RS-497 1660-1680	739	0.73	50	51.1	1	61.8	0.67	1.5	0.89	5.6	8.1	10.46	3.35	2.8	2051	0.38	20.5	0.09	851	2.78	0.015	10.7	0.022	49.42	2.7	13.75	1.8	7.5	69.9	<.02	3.5	0.001	0.62	0.7	6	0.3	96.6
RS-497 1680-1700	1044	0.69	51.5	54.2	<1	50.2	0.39	1.47	1.22	6.2	7.7	10.15	3.18	2.8	1160	0.34	20.1	0.11	968	2.37	0.013	8.8	0.024	42.34	2.5	12.85	2.3	11	85.5	0.02	3.2	0.001	0.54	0.6	7	0.3	102.2
RS-497 1700-1720	1350	0.6	95.4	66.4	<1	46.6	0.45	1.07	0.63	7	8.9	11.68	4.2	2.2	1195	0.37	16.1	0.05	651	3.18	0.013	10.2	0.023	54.01	4.33	16.63	1.7	14.3	57.6	<.02	2.7	0.001	0.8	0.5	5	0.3	97.2
RS-497 1720-1740	1332	0.59	68.3	55.3	1	60.9	0.69	0.48	1.17	5.4	12.2	11.69	3.87	2	629	0.36	20	0.04	403	3.72	0.012	13.7	0.024	46.42	3.48	16.97	0.9	13.2	34.4	<.02	3.9	0.001	0.74	0.5	5	0.4	107.4
RS-497 1740-1760	1679	0.48	69.5	69.2	<1	54.6	0.5	0.23	0.53	3.2	9.9	10.82	4.05	1.6	1058	0.26	22.6	0.02	206	2.91	0.01	8.8	0.013	59.66	3.85	16.12	0.4	16.3	26.2	0.02	4.9	0.001	0.64	0.7	2	0.4	108
RS-497 1760-1780	1826	0.42	59.6	62.4	1	32.6	0.36	0.16	0.6	3	29	17.66	3.72	1.5	270	0.27	27.1	0.01	168	8.03	0.023	12.9	0.013	69.5	3.18	14.12	0.3	13.8	28.4	<.02	6.9	<.001	0.66	0.6	2	0.7	108.5
89694 empty	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDARD DS2	263	1.64	55.8	192.2	4	146.5	9.84	0.52	9.86	11.7	155.3	125.31	3.02	5.8	222	0.15	16	0.58	813	13.25	0.031	34	0.087	31.03	0.02	9.12	2.5	2.2	24.8	1.74	3.4	0.091	1.76	17.7	70	7.2	156.7

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: RS-497 RECEIVED : 3 MAY 2000

No. SAMPLES : 220 REPORTED : 28 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 28 MAY 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-497 685-690	10		<0.001		<0.5	<0.02
RS-497 690-695	<5		<0.001		<0.5	<0.02
RS-497 695-700	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 700-705	<5		<0.001		<0.5	<0.02
RS-497 705-710	<5		<0.001		<0.5	<0.02
RS-497 710-715	<5		<0.001		<0.5	<0.02
RS-497 715-720	6		<0.001		0.5	<0.02
RS-497 720-725	<5		<0.001		<0.5	<0.02
RS-497 725-730	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 730-735	<5		<0.001		<0.5	<0.02
RS-497 735-740	<5		<0.001		<0.5	<0.02
RS-497 740-745	<5		<0.001		<0.5	<0.02
RS-497 745-750	<5		<0.001		<0.5	<0.02
RS-497 750-755	<5		<0.001		<0.5	<0.02
RS-497 755-760	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 760-765	<5		<0.001		<0.5	<0.02
RS-497 765-770	<5		<0.001		<0.5	<0.02
RS-497 770-775	<5		<0.001		<0.5	<0.02
RS-497 775-780	<5		<0.001		<0.5	<0.02
RS-497 780-785	<5		<0.001		<0.5	<0.02
RS-497 785-790	<5		<0.001		<0.5	<0.02
RS-497 790-795	<5		<0.001		<0.5	<0.02
RS-497 795-800	<5		<0.001		<0.5	<0.02
RS-497 800-805	<5		<0.001		<0.5	<0.02
RS-497 805-810	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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REPORTED : 28 MAY 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-497 810-815	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 815-820	<5		<0.001		<0.5	<0.02
RS-497 820-825	<5		<0.001		<0.5	<0.02
RS-497 825-830	<5		<0.001		<0.5	<0.02
RS-497 830-835	<5		<0.001		<0.5	<0.02
RS-497 835-840	<5		<0.001		<0.5	<0.02
RS-497 840-845	<5		<0.001		<0.5	<0.02
RS-497 845-850	<5		<0.001		<0.5	<0.02
RS-497 850-855	<5		<0.001		<0.5	<0.02
RS-497 855-860	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 860-865	<5		<0.001		<0.5	<0.02
RS-497 865-870	<5		<0.001		<0.5	<0.02
RS-497 870-875	<5		<0.001		<0.5	<0.02
RS-497 875-880	<5		<0.001		<0.5	<0.02
RS-497 880-885	<5		<0.001		<0.5	<0.02
RS-497 885-890	<5		<0.001		<0.5	<0.02
RS-497 890-895	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 895-900	<5		<0.001		3.3	0.10
RS-497 900-905	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 905-910	<5		<0.001		<0.5	<0.02
RS-497 910-915	<5		<0.001		<0.5	<0.02
RS-497 915-920	<5		<0.001		<0.5	<0.02
RS-497 920-925	<5		<0.001		<0.5	<0.02
RS-497 925-930	<5		<0.001		<0.5	<0.02
RS-497 930-935	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 935-940	<5		<0.001		<0.5	<0.02
RS-497 940-945	<5		<0.001		<0.5	<0.02
RS-497 945-950	<5		<0.001		<0.5	<0.02
RS-497 950-955	<5		<0.001		<0.5	<0.02
RS-497 955-960	<5		<0.001		<0.5	<0.02
RS-497 960-965	<5		<0.001		<0.5	<0.02
RS-497 965-970	<5		<0.001		<0.5	<0.02
RS-497 970-975	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 975-980	<5		<0.001		<0.5	<0.02
RS-497 980-985	<5		<0.001		<0.5	<0.02
RS-497 985-990	<5		<0.001		<0.5	<0.02
RS-497 990-995	<5		<0.001		<0.5	<0.02
RS-497 995-1000	<5		<0.001		<0.5	<0.02
RS-497 1000-1005	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1005-1010	<5		<0.001		<0.5	<0.02
RS-497 1010-1015	<5		<0.001		<0.5	<0.02
RS-497 1015-1020	<5		<0.001		<0.5	<0.02
RS-497 1020-1025	<5		<0.001		<0.5	<0.02
RS-497 1025-1030	<5		<0.001		<0.5	<0.02
RS-497 1030-1035	<5		<0.001		<0.5	<0.02
RS-497 1035-1040	<5		<0.001		<0.5	<0.02
RS-497 1040-1045	<5		<0.001		<0.5	<0.02
RS-497 1045-1050	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1050-1055	<5		<0.001		<0.5	<0.02
RS-497 1055-1060	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 28 MAY 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-497 1060-1065	<5		<0.001		<0.5	<0.02
RS-497 1065-1070	20		<0.001		<0.5	<0.02
RS-497 1070-1075	<5		<0.001		<0.5	<0.02
RS-497 1075-1080	<5		<0.001		<0.5	<0.02
RS-497 1080-1085	<5		<0.001		<0.5	<0.02
RS-497 1085-1090	<5		<0.001		<0.5	<0.02
RS-497 1090-1095	<5		<0.001		<0.5	<0.02
RS-497 1095-1100	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1100-1105	<5		<0.001		<0.5	<0.02
RS-497 1105-1110	8		<0.001		<0.5	<0.02
RS-497 1110-1115	<5		<0.001		<0.5	<0.02
RS-497 1115-1120	<5		<0.001		<0.5	<0.02
RS-497 1120-1125	<5		<0.001		<0.5	<0.02
RS-497 1125-1130	10		<0.001		<0.5	<0.02
RS-497 1130-1135	<5		<0.001		<0.5	<0.02
RS-497 1135-1140	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1140-1145	<5		<0.001		<0.5	<0.02
RS-497 1145-1150	12		<0.001		<0.5	<0.02
RS-497 1150-1155	<5		<0.001		<0.5	<0.02
RS-497 1155-1160	<5		<0.001		<0.5	<0.02
RS-497 1160-1165	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 1165-1170	<5		<0.001		<0.5	<0.02
RS-497 1170-1175	<5		<0.001		<0.5	<0.02
RS-497 1175-1180	37		0.001		<0.5	<0.02
RS-497 1180-1185	42		0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

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REFERENCE : RS-497

REPORTED : 28 MAY 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-497 1185-1190	53	58	0.002	0.002	1.1	0.03
RS-497 1190-1195	59		0.002		1.4	0.04
RS-497 1195-1200	69		0.002		5.2	0.15
RS-497 1200-1205	66		0.002		1.6	0.05
RS-497 1205-1210	60		0.002		1.8	0.05
RS-497 1210-1215	76		0.002		14.6	0.43
RS-497 1215-1220	67		0.002		2.4	0.07
RS-497 1220-1225	66		0.002		1.3	0.04
RS-497 1225-1230	93		0.003		6.5	0.19
RS-497 1230-1235	91		0.003		3.2	0.09
RS-497 1235-1240	63		0.002		5.2	0.15
RS-497 1240-1245	32	32	<0.001	<0.001	4.5	0.13
RS-497 1245-1250	50		0.001		2.3	0.07
RS-497 1250-1255	36		0.001		<0.5	<0.02
RS-497 1255-1260	49		0.001		<0.5	<0.02
RS-497 1260-1265	43		0.001		1.3	0.04
RS-497 1265-1270	75	64	0.002	0.002	0.9	0.03
RS-497 1270-1275	101		0.003		1.9	0.06
RS-497 1275-1280	59		0.002		1.8	0.05
RS-497 1280-1285	33		<0.001		<0.5	<0.02
RS-497 1285-1290	55	56	0.002	0.002	2.8	0.08
RS-497 1290-1295	42		0.001		16.9	0.49
RS-497 1295-1300	163		0.005		15.3	0.45
RS-497 1300-1305	70		0.002		14.5	0.42
RS-497 1305-1310	53		0.002		9.7	0.28

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1310-1315	39		0.001		5.0	0.15
RS-497 1315-1320	33		<0.001		0.9	0.02
RS-497 1320-1325	30		<0.001		1.9	0.06
RS-497 1325-1330	18		<0.001		1.6	0.05
RS-497 1330-1335	25		<0.001		<0.5	<0.02
RS-497 1335-1340	40		0.001		3.0	0.09
RS-497 1340-1345	26		<0.001		0.5	<0.02
RS-497 1345-1350	<5		<0.001		<0.5	<0.02
RS-497 1350-1355	<5		<0.001		<0.5	<0.02
RS-497 1355-1360	28		<0.001		<0.5	<0.02
RS-497 1360-1365	9		<0.001		<0.5	<0.02
RS-497 1365-1370	<5		<0.001		<0.5	<0.02
RS-497 1370-1375	12		<0.001		<0.5	<0.02
RS-497 1375-1380	23		<0.001		<0.5	<0.02
RS-497 1380-1385	18		<0.001		<0.5	<0.02
RS-497 1385-1390	<5		<0.001		<0.5	<0.02
RS-497 1390-1395	<5		<0.001		<0.5	<0.02
RS-497 1395-1400	5		<0.001		<0.5	<0.02
RS-497 1400-1405	<5		<0.001		<0.5	<0.02
RS-497 1405-1410	5		<0.001		<0.5	<0.02
RS-497 1410-1415	<5		<0.001		<0.5	<0.02
RS-497 1415-1420	<5		<0.001		<0.5	<0.02
RS-497 1420-1425	8		<0.001		<0.5	<0.02
RS-497 1425-1430	7		<0.001		<0.5	<0.02
RS-497 1430-1435	<5		<0.001		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
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REFERENCE : RS-497

REPORTED : 28 MAY 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-497 1435-1440	10		<0.001		<0.5	<0.02
RS-497 1440-1445	13		<0.001		0.8	0.02
RS-497 1445-1450	6		<0.001		<0.5	<0.02
RS-497 1450-1455	<5		<0.001		<0.5	<0.02
RS-497 1455-1460	<5		<0.001		<0.5	<0.02
RS-497 1460-1465	14		<0.001		<0.5	<0.02
RS-497 1465-1470	13		<0.001		<0.5	<0.02
RS-497 1470-1475	<5		<0.001		<0.5	<0.02
RS-497 1475-1480	32		<0.001		<0.5	<0.02
RS-497 1480-1485	30		<0.001		<0.5	<0.02
RS-497 1485-1490	69		0.002		3.0	0.09
RS-497 1490-1495	63		0.002		0.9	0.03
RS-497 1495-1500	13		<0.001		<0.5	<0.02
RS-497 1500-1505	5		<0.001		<0.5	<0.02
RS-497 1505-1510	30	28	<0.001	<0.001	<0.5	<0.02
RS-497 1510-1515	9		<0.001		<0.5	<0.02
RS-497 1515-1520	<5		<0.001		<0.5	<0.02
RS-497 1520-1525	<5		<0.001		<0.5	<0.02
RS-497 1525-1530	33		<0.001		0.9	0.03
RS-497 1530-1535	14		<0.001		0.5	<0.02
RS-497 1535-1540	27		<0.001		1.5	0.04
RS-497 1540-1545	36	36	0.001	0.001	0.8	0.02
RS-497 1545-1550	82		0.002		2.0	0.06
RS-497 1550-1555	81		0.002		2.7	0.08
RS-497 1555-1560	80		0.002		3.3	0.10

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1560-1565	112		0.003		3.7	0.11
RS-497 1565-1570	101		0.003		3.8	0.11
RS-497 1570-1575	147		0.004		4.2	0.12
RS-497 1575-1580	148		0.004		2.9	0.08
RS-497 1580-1585	138		0.004		2.8	0.08
RS-497 1585-1590	102		0.003		1.9	0.06
RS-497 1590-1595	148		0.004		2.4	0.07
RS-497 1595-1600	141		0.004		2.7	0.08
RS-497 1600-1605	69		0.002		3.7	0.11
RS-497 1605-1610	84	82	0.002	0.002	2.3	0.07
RS-497 1610-1615	85		0.002		2.6	0.08
RS-497 1615-1620	128		0.004		4.3	0.13
RS-497 1620-1625	85		0.002		2.0	0.06
RS-497 1625-1630	114		0.003		1.7	0.05
RS-497 1630-1635	127		0.004		1.3	0.04
RS-497 1635-1640	82		0.002		1.9	0.06
RS-497 1640-1645	114		0.003		3.4	0.10
RS-497 1645-1650	122		0.004		3.5	0.10
RS-497 1650-1655	79		0.002		2.5	0.07
RS-497 1655-1660	60		0.002		2.5	0.07
RS-497 1660-1665	30	34	<0.001	<0.001	1.8	0.05
RS-497 1665-1670	98		0.003		1.8	0.05
RS-497 1670-1675	34		<0.001		1.0	0.03
RS-497 1675-1680	26		<0.001		0.7	0.02
RS-497 1680-1685	35		0.001		1.7	0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP057256

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 1685-1690	66		0.002		2.3	0.07
RS-497 1690-1695	59		0.002		2.1	0.06
RS-497 1695-1700	71		0.002		2.2	0.06
RS-497 1700-1705	47		0.001		1.9	0.06
RS-497 1705-1710	88		0.003		2.5	0.07
RS-497 1710-1715	68	73	0.002	0.002	2.5	0.07
RS-497 1715-1720	80		0.002		2.8	0.08
RS-497 1720-1725	69		0.002		2.8	0.08
RS-497 1725-1730	72		0.002		2.6	0.08
RS-497 1730-1735	123		0.004		2.4	0.07
RS-497 1735-1740	47		0.001		2.2	0.06
RS-497 1740-1745	80		0.002		3.1	0.09
RS-497 1745-1750	82		0.002		3.5	0.10
RS-497 1750-1755	60		0.002		2.9	0.08
RS-497 1755-1760	58		0.002		3.0	0.09
RS-497 1760-1765	50		0.001		2.5	0.07
RS-497 1765-1770	62		0.002		2.6	0.08
RS-497 1770-1775	83		0.002		3.7	0.11
RS-497 1775-1780	50		0.001		2.6	0.08
89694	2026		0.059		36.6	1.07

LBT

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	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 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.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP56950
METHOD: AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 000-020	66	1.04	100	8.9	11	169.00	0.13	0.17	0.36	2.40	9.6	18.41	3.36	4.5	4568	0.19	20.5	0.06	89	5.27	0.074	8.6	0.032	48.44	0.29	13.26	0.7	3.9	84.4	< .02	8.7	0.004	0.27	2.9	14	0.4	40.8
RS-497 020-040	28	1.18	15.5	3.7	5	196.80	0.51	0.72	0.27	2.80	4.2	8.42	1.75	5.2	1192	0.22	18.9	0.13	31	0.96	0.123	2	0.023	34.62	0.19	3.42	1.7	0.8	81.5	< .02	5.1	0.002	0.23	1.6	9	< .2	59
RS-497 040-060	46	0.66	44	50.7	4	98.60	0.11	0.07	0.19	1.80	11.2	22.65	3.29	5.4	5960	0.06	13.5	0.02	101	3.83	0.016	11.1	0.019	23.8	0.1	32.78	0.4	5.7	42	< .02	5.3	0.001	0.13	2.1	8	0.5	32.4
RS-497 060-080	121	0.92	96.1	162.4	1	65.00	0.44	0.05	0.08	4.80	7.5	12.05	3.03	4.6	37625	0.11	16.4	0.01	61	2.89	0.022	5.8	0.016	20.84	1.26	41.82	0.4	24.1	58.6	< .02	6.1	0.001	1.3	1.5	4	0.6	19.7
RS-497 080-100	106	1.02	61.6	125.1	1	46.70	0.13	0.04	0.23	8.60	9	18.56	3.18	3.3	8901	0.06	14.4	0.01	124	3.68	0.012	11	0.017	18.17	1.98	35.93	0.4	10.9	63.7	< .02	4.9	0.002	2.08	6.2	4	0.8	24.2
RS-497 100-120	88	0.93	96.2	149.6	< 1	60.90	0.04	0.03	12.84	11.20	8.3	17.36	3.43	2.2	8451	0.04	12.6	0.01	103	7	0.008	8.7	0.017	16.39	2.62	55.08	0.4	8.1	57.8	< .02	4.4	0.001	2.51	7.6	3	0.8	42.8
RS-497 120-140	77	1.1	128.1	107	1	81.90	0.03	0.06	8.68	10.40	11.4	20.76	4.04	2.3	16334	0.02	13.2	0.01	160	6.96	0.009	11.1	0.054	13.98	2.63	45.9	0.9	13.3	184.7	0.02	3.6	0.001	2.64	17	3	0.7	77.8
RS-497 140-160	111	0.87	102.6	92.6	< 1	84.10	0.03	0.05	1.03	9.60	5.1	14.31	2.79	3.6	8819	0.05	21.6	0.01	41	3.69	0.01	4.1	0.02	26.01	2.6	42.46	0.5	5.4	47.9	< .02	7	0.001	1.27	6.9	2	0.3	125.4
RS-497 160-180	86	1.23	114.1	168	< 1	79.70	0.04	0.05	0.86	9.50	3.6	14.38	2.92	4.2	7827	0.06	16.8	0.02	39	3.24	0.013	3.7	0.016	48.12	2.57	41.29	0.5	6	41.6	< .02	5	0.001	1.61	4.2	2	0.4	140.6
RS-497 180-200	91	1.14	141.9	216.2	< 1	72.00	0.62	0.08	0.76	8.90	5.1	9.77	3.07	3.6	13682	0.05	17	0.02	41	2.62	0.013	4.1	0.021	20.84	2.75	49.03	0.6	8.5	51.2	< .02	5.2	0.001	2.04	3.9	2	0.4	155.1
RS-497 200-220	95	0.91	74.8	38.4	< 1	58.70	0.32	0.05	0.21	5.60	4.8	6.49	2.85	3.9	6532	0.09	18.2	0.02	33	1.82	0.013	2.7	0.016	18.93	2.71	27.4	0.6	3.4	42.1	< .02	6.3	0.002	0.77	2	2	0.4	90.1
RS-497 220-240	75	0.94	31.8	78.3	< 1	76.00	0.09	0.05	0.94	7.00	3.6	6.87	2.8	3.7	4085	0.09	20.3	0.02	34	1.31	0.013	2.8	0.021	19.14	2.6	18.43	0.7	5.2	57.1	< .02	6.4	0.002	0.8	1.6	< 2	0.4	55.6
RS-497 240-260	2103	1.33	95.6	277.3	< 1	36.40	0.12	0.05	0.37	5.90	5.5	9.62	3.02	4.5	6879	0.05	19	0.02	49	2.41	0.009	4.2	0.012	20.07	2.62	37.39	0.6	10.4	21	< .02	5.5	0.001	1.61	1.8	2	0.5	70
RS-497 260-280	2535	0.96	130.5	275.9	< 1	65.50	0.03	0.04	0.65	9.10	5.6	8.79	3.06	3.9	9278	0.07	18.2	0.02	44	6.28	0.013	3.9	0.008	19.12	2.61	57.22	0.6	13	11	< .02	5.9	0.001	3.21	1.9	2	0.5	91.9
RS-497 280-300	290	1.28	127.3	187.5	< 1	42.50	0.03	0.04	0.4	7.10	7.2	10.39	2.95	4.4	7227	0.05	14.6	0.01	61	11.35	0.01	5.1	0.011	18.25	2.24	50.4	0.6	8.1	11.3	< .02	4.8	0.002	3.61	2.3	3	0.5	92
RS-497 300-320	437	1.1	45.7	352.1	< 1	69.10	0.05	0.05	0.9	12.60	6.1	8.87	3.29	4.6	3740	0.12	16.7	0.02	40	2.05	0.015	3.4	0.013	19.65	2.93	44.58	0.6	15.9	19.5	< .02	6.5	0.002	2.27	1.5	2	0.4	108.5
RS-497 320-340	163	0.8	45.5	145.6	< 1	68.20	0.03	0.06	0.39	9.40	5.4	8.15	2.99	3.9	2802	0.12	20.5	0.02	49	1.53	0.014	4.1	0.013	22.54	2.67	31.07	0.7	9.8	20.9	< .02	7.4	0.002	1.62	1.2	2	0.4	97.9
RS-497 340-360	76	0.97	9.1	16.2	1	78.10	0.07	0.13	0.1	2.10	3.6	4.08	2.26	4.2	849	0.15	20.5	0.09	79	0.91	0.02	1.5	0.014	19.35	0.7	19.54	1.2	1.3	17.6	< .02	8.3	0.028	0.34	1.1	3	0.5	64.4
RS-497 360-380	120	1.05	21.1	49.5	< 1	75.40	0.04	0.17	0.14	3.70	2.8	5.06	2.78	4.4	1501	0.15	18.5	0.1	84	1.32	0.025	2.2	0.02	13.41	1.94	19.5	1	2.9	17.9	< .02	7.7	0.019	0.53	1.3	2	0.3	50.8
RS-497 380-400	888	1.31	55.5	243.6	< 1	123.20	0.02	0.23	0.3	3.90	8.4	7.49	3.21	6	3122	0.13	18.1	0.11	76	4.87	0.026	2.6	0.108	18.35	2.64	46.03	1	11.3	99.6	< .02	6.5	0.008	2.2	3.3	2	0.5	298.3
RS-497 400-420	164	1.13	30.2	80.4	< 1	78.60	0.02	0.3	0.15	2.70	2.7	6.66	2.65	5.6	1320	0.13	21	0.1	90	2.09	0.023	1.9	0.093	16.24	2.31	28.93	1	5.9	30.4	< .02	7.4	0.008	0.7	2.5	3	0.6	80.2
RS-497 420-440	1137	1.26	58.7	283.2	< 1	98.10	0.03	0.24	0.33	5.40	8	7.2	3.47	6.2	2807	0.12	20.4	0.11	65	21.23	0.024	2	0.06	28.02	3.34	47.99	1	17.7	46.6	< .02	6.4	0.002	1.64	2.6	2	0.6	95.3
RS-497 440-460	609	1.13	38.7	184.2	< 1	117.50	0.04	0.3	0.64	3.90	6.5	7.56	3.49	5.5	1729	0.15	19.8	0.12	1390	5.02	0.024	2.6	0.051	29.84	2.04	26.21	1.1	9.1	43.4	< .02	7	0.014	0.85	2.6	4	0.8	200.8
RS-497 460-480	224	1.23	27.5	127.2	< 1	83.90	0.06	0.46	0.19	2.90	4.5	5.49	3.14	5.9	1006	0.17	20.2	0.13	1014	1.58	0.035	1.6	0.041	35.91	2.22	20.84	1.1	9.1	38.7	< .02	7.5	0.007	0.65	1.8	3	0.5	134.5
RS-497 480-500	315	1.14	15.6	65.1	< 1	76.00	0.05	0.43	0.11	2.50	4.4	6.24	2.87	5.4	902	0.19	21.7	0.11	1271	1.38	0.027	2.5	0.041	19.5	1.33	17.45	1.1	4	34.8	< .02	7.9	0.021	0.41	1.1	4	0.7	132.2
RS-497 500-520	146	1.11	14.4	53.3	< 1	86.90	0.04	0.27	0.16	2.70	3.2	5.27	2.8	5.3	930	0.19	22.8	0.11	940	1.66	0.02	2.1	0.064	17.09	1.78	19.38	1.1	3.1	17.4	< .02	7.5	0.021	0.36	1.4	3	1	131
RS-497 520-540	115	1.26	14.0	41.2	< 1	55.40	0.06	0.44	0.23	2.50	4.6	4.33	2.67	6	1300	0.17	22.5	0.15	1374	1.68	0.022	1.7	0.055	20.38	1.41	14.32	1.1	2.7	30.8	< .02	7.1	0.015	0.38	2.1	3	0.7	116.6
RS-497 540-560	452	1.13	30.6	212.2	< 1	74.70	0.1	0.48	0.24	3.50	6.5	8	2.99	7.5	2509	0.14	21.2	0.12	739	3.51	0.026	2.7	0.059	15.55	2.29	32.13	1.3	10.3	38.2	< .02	6.8	0.009	1.23	3.6	3	0.5	138.8
RS-497 560-580	108	1.12	1.6	6.1	< 1	48.10	0.08	0.96	0.07	2.70	6.5	7.41	2.9	5.8	103	0.19	17.9	0.23	720	2.37	0.049	4.2	0.048	6.91	0.02	4.21	1.4	0.5	42.5	< .02	8.9	0.065	0.04	2.7	6	0.7	92.3
RS-497 580-600	86	1.35	1.8	2.3	< 1	67.00	0.1	1.06	0.2	2.50	5.2	6.61	2.77	6.1	56	0.22	19.8	0.24	632	1.68	0.045	3.1	0.05	7.42	< .01	4.58	1.4	0.4	43.7	< .02	8.4	0.043	0.02	2.3	5	0.6	77.1
RS-497 600-620	65	1.48	15.8	13.7	< 1	84.2	0.11	0.97	0.18	2.7	4.1	6.08	2.76	6.9	1850	0.2	19.9	0.17	646	1.42	0.04	3.5	0.051	10.74	1.24	13.29	1.2	2	44.8	< .02	6.6	0.015	0.12	2	5	0.6	76.2
RS-497 620-640	88	1.65	8.2	7.2	< 1	60.6	0.11	1.11	0.09	2.2	3.2	5.1	2.85	6.8	840	0.23	21.2	0.15	416	1.13	0.03	2.2	0.052	17.99	1.1	8.4	1.1	1.3	60.9	< .02	6.5	0.013	0.06	1.4	5	1.1	80.6
RS-497 640-660	58	0.97	2.1	2.3	< 1	58.3	0.05	1.06	0.18	2.5	6	8.88	2.77	4.9	51	0.21	18.8	0.14	668	1.57	0.057	4.2	0.046	9.38	< .01	2.79	1.3	0.4	53.3	< .02	8.8	0.034	< .02	1.6	6	0.5	79.5
STANDARD DS2	252	1.69	57.2	190	3	151.5	10.71	0.53	10.2	12.6	157.3	127.33	3.01	6.5	250	0.16	17.4	0.61	771	14.12	0.032	34.7	0.088	35.1	0.02	8.6	2.7	2.4	29.1	1.83	3.6	0.093	1.82	20	73	6.3	158.9
RS-497 660-685	44	0.97	3	0.5	2	60	< .02	0.9	0.09	2.7	4.6	6.39	2.9	4.8	1664	0.19	19.2	0.17	761	1.33	0.065	4	0.048	13.56	< .01	5.75	1.3	< .1	62.2	< .02	9.2	0.033	0.02	1.1	5	0.7	79

AMERICAN ASSAY LABORATORIES
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CLIENT:	HECLA MINING CO.
CLIENT REF:	KURT ALLEN
AAL REF:	SP56950
METHOD:	AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
89640	61408	2.42	120.1	6040.8	3	109.8	0.1	0.93	1.56	4.1	4.9	25.53	2.67	7.3	376	0.86	18.7	0.14	332	6.27	0.065	4.4	0.056	29.09	2.55	21.54	1	23.9	57.1	0.03	3.8	0.007	0.4	1.6	9	0.3	93.1

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CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP66850
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-497 000-020	66	1.04	190	8.9	11	169.00	0.13	0.17	0.36	2.40	9.6	18.41	3.36	4.5	4568	0.19	20.5	0.06	89	5.27	0.074	9.6	0.032	48.44	0.29	13.26	0.7	3.9	84.4	<.02	8.7	0.004	0.27	2.9	14	0.4	40.8
RS-497 020-040	28	1.18	16.5	3.7	5	196.80	0.51	0.72	0.27	2.80	4.2	8.42	1.75	5.2	1192	0.22	18.9	0.13	31	0.96	0.123	2	0.023	34.62	0.19	3.42	1.7	0.8	81.5	<.02	5.1	0.002	0.23	1.6	9	<.2	69
RS-497 040-060	46	0.66	44	50.7	4	98.60	0.11	0.07	0.19	1.80	11.2	22.66	3.29	5.4	5960	0.08	13.5	0.02	101	3.83	0.016	11.1	0.019	23.8	0.1	32.78	0.4	5.7	42	<.02	5.3	0.001	0.13	2.1	8	0.5	32.4
RS-497 060-080	121	0.92	96.1	162.4	1	65.00	0.44	0.05	0.08	4.80	7.5	12.05	3.03	4.6	37625	0.11	16.4	0.01	61	2.89	0.022	5.8	0.016	20.84	1.26	41.82	0.4	24.1	68.6	<.02	6.1	0.001	1.3	1.5	4	0.6	19.7
RS-497 080-100	106	1.02	61.6	125.1	1	46.70	0.13	0.04	0.23	8.60	9	18.56	3.19	3.3	8901	0.06	14.4	0.01	124	3.68	0.012	11	0.017	18.17	1.98	35.93	0.4	10.9	63.7	<.02	4.9	0.002	2.08	6.2	4	0.8	24.2
RS-497 100-120	88	0.93	96.2	149.6	<1	60.90	0.04	0.03	12.84	11.20	8.3	17.36	3.43	2.2	8451	0.04	12.6	0.01	103	7	0.006	8.7	0.017	16.39	2.62	56.69	0.4	8.1	57.8	<.02	4.4	0.001	2.51	7.8	3	0.8	42.8
RS-497 120-140	77	1.1	128.1	107	1	81.90	0.03	0.06	8.68	10.40	11.4	20.76	4.04	2.3	16334	0.02	13.2	0.01	169	6.96	0.009	11.1	0.054	13.98	2.63	45.9	0.8	13.3	184.7	0.02	3.6	0.001	2.64	17	3	0.7	77.8
RS-497 140-160	111	0.87	102.6	92.6	<1	84.10	0.03	0.06	1.03	9.60	5.1	14.31	2.79	3.8	8819	0.06	21.6	0.01	41	3.69	0.01	4.1	0.02	26.01	2.6	42.46	0.5	5.4	47.9	<.02	7	0.001	1.27	6.9	2	0.3	125.4
RS-497 160-180	86	1.23	114.1	168	<1	79.70	0.04	0.05	0.86	9.50	3.6	14.38	2.92	4.2	7827	0.08	16.8	0.02	39	3.24	0.013	3.7	0.016	48.12	2.57	41.29	0.5	6	41.6	<.02	5	0.001	1.61	4.2	2	0.4	140.6
RS-497 180-200	91	1.14	141.9	216.2	<1	72.00	0.62	0.08	0.76	8.90	5.1	9.77	3.07	3.6	13682	0.05	17	0.02	41	2.62	0.013	4.1	0.021	20.84	2.75	49.03	0.6	8.5	51.2	<.02	5.2	0.001	2.04	3.9	2	0.4	156.1
RS-497 200-220	95	0.91	74.8	38.4	<1	68.70	0.32	0.05	0.21	5.60	4.8	6.49	2.85	3.9	6532	0.09	18.2	0.02	33	1.92	0.013	2.7	0.016	18.93	2.71	27.4	0.6	3.4	42.1	<.02	6.3	0.002	0.77	2	2	0.4	90.1
RS-497 220-240	75	0.94	31.8	78.3	<1	76.00	0.09	0.05	0.94	7.80	3.6	6.87	2.8	3.7	4085	0.09	20.3	0.02	34	1.31	0.013	2.8	0.021	19.14	2.6	18.43	0.7	5.2	67.1	<.02	6.4	0.002	0.8	1.6	<2	0.4	56.6
RS-497 240-260	2103	1.33	95.6	277.3	<1	36.40	0.12	0.05	0.37	5.90	5.5	9.62	3.02	4.5	6879	0.06	19	0.02	49	2.41	0.009	4.2	0.012	20.07	2.62	37.39	0.6	10.4	21	<.02	5.9	0.001	1.61	1.8	2	0.6	70
RS-497 260-280	2535	0.96	130.6	275.9	<1	65.60	0.03	0.04	0.65	9.10	5.6	8.79	3.06	3.9	9278	0.07	19.2	0.02	44	6.28	0.013	3.9	0.008	19.12	2.61	67.22	0.6	13	11	<.02	5.9	0.001	3.21	1.9	2	0.5	91.9
RS-497 280-300	290	1.28	127.3	187.5	<1	42.50	0.03	0.04	0.4	7.10	7.2	10.39	2.95	4.4	7227	0.06	14.6	0.01	61	11.35	0.01	5.1	0.011	18.25	2.24	50.4	0.6	8.1	11.3	<.02	4.8	0.002	3.61	2.3	3	0.5	92
RS-497 300-320	437	1.1	45.7	352.1	<1	69.10	0.05	0.05	0.9	12.60	6.1	8.87	3.29	4.6	3740	0.12	16.7	0.02	40	2.05	0.015	3.4	0.013	19.65	2.93	44.58	0.6	15.9	19.6	<.02	6.5	0.002	2.27	1.5	2	0.4	108.5
RS-497 320-340	163	0.8	45.5	145.6	<1	68.20	0.03	0.06	0.39	9.40	5.4	8.15	2.99	3.9	2802	0.12	20.5	0.02	49	1.53	0.014	4.1	0.013	22.64	2.67	31.07	0.7	9.8	20.9	<.02	7.4	0.002	1.62	1.2	2	0.4	97.9
RS-497 340-360	76	0.97	9.1	16.2	1	78.10	0.07	0.13	0.1	2.10	3.6	4.08	2.26	4.2	849	0.15	20.5	0.08	79	0.91	0.02	1.5	0.014	19.35	0.7	19.54	1.2	1.3	17.6	<.02	8.3	0.028	0.34	1.1	3	0.5	64.4
RS-497 360-380	129	1.05	21.1	49.5	<1	75.40	0.04	0.17	0.14	3.70	2.8	5.06	2.78	4.4	1601	0.15	18.5	0.1	84	1.32	0.025	2.2	0.02	13.41	1.84	19.5	1	2.9	17.9	<.02	7.7	0.019	0.53	1.3	2	0.3	50.8
RS-497 380-400	888	1.31	55.5	243.6	<1	123.20	0.02	0.23	0.3	3.90	8.4	7.49	3.21	6	3122	0.13	18.1	0.11	76	4.87	0.026	2.6	0.108	18.35	2.84	46.83	1	11.3	99.6	<.02	6.6	0.008	2.2	3.3	2	0.5	298.3
RS-497 400-420	164	1.13	30.2	80.4	<1	78.60	0.02	0.3	0.16	2.70	2.7	6.66	2.65	5.6	1320	0.13	21	0.1	50	2.09	0.023	1.9	0.093	16.24	2.31	28.93	1	6.9	30.4	<.02	7.4	0.008	0.7	2.5	3	0.6	80.2
RS-497 420-440	1137	1.26	59.7	283.2	<1	98.10	0.03	0.24	0.33	5.40	8	7.2	3.47	6.2	2807	0.12	20.4	0.11	65	21.23	0.024	2	0.06	28.02	3.34	47.99	1	17.7	46.6	<.02	6.4	0.002	1.64	2.6	2	0.6	95.3
RS-497 440-460	609	1.13	38.7	184.2	<1	117.50	0.04	0.3	0.64	3.90	6.5	7.56	3.49	5.5	1729	0.15	19.8	0.12	1390	5.02	0.024	2.8	0.051	29.84	2.04	26.21	1.1	9.1	43.4	<.02	7	0.014	0.86	2.6	4	0.8	200.8
RS-497 460-480	224	1.23	27.5	127.2	<1	83.90	0.06	0.46	0.19	2.80	4.5	5.49	3.14	6.9	1006	0.17	20.2	0.13	1014	1.58	0.035	1.6	0.041	35.91	2.22	20.84	1.1	9.1	38.7	<.02	7.5	0.007	0.66	1.8	3	0.5	134.5
RS-497 480-500	316	1.14	15.6	65.1	<1	76.00	0.05	0.43	0.11	2.50	4.4	6.24	2.87	6.4	902	0.19	21.7	0.11	1271	1.38	0.027	2.5	0.041	19.5	1.33	17.45	1.1	4	34.8	<.02	7.9	0.021	0.41	1.1	4	0.7	132.2
RS-497 500-520	146	1.11	14.4	53.3	<1	86.90	0.04	0.27	0.16	2.70	3.2	5.27	2.8	6.3	930	0.19	22.8	0.11	940	1.66	0.02	2.1	0.064	17.09	1.78	19.38	1.1	3.1	17.4	<.02	7.5	0.021	0.36	1.4	3	1	131
RS-497 520-540	115	1.26	14.0	41.2	<1	55.40	0.05	0.44	0.23	2.50	4.6	4.33	2.67	6	1300	0.17	22.5	0.16	1374	1.69	0.022	1.7	0.066	20.38	1.41	14.32	1.1	2.7	30.8	<.02	7.1	0.015	0.38	2.1	3	0.7	116.6
RS-497 540-560	462	1.13	30.6	212.2	<1	74.70	0.1	0.48	0.24	3.50	6.5	8	2.99	7.5	2609	0.14	21.2	0.12	739	3.61	0.026	2.7	0.059	16.55	2.29	32.13	1.3	10.3	38.2	<.02	6.8	0.009	1.23	3.6	3	0.5	139.8
RS-497 560-580	108	1.12	1.6	6.1	<1	48.10	0.08	0.95	0.07	2.70	6.5	7.41	2.9	6.8	103	0.19	17.9	0.23	720	2.37	0.049	4.2	0.048	6.91	0.02	4.21	1.4	0.5	42.5	<.02	8.9	0.005	0.04	2.7	6	0.7	92.3
RS-497 580-600	96	1.36	1.8	2.3	<1	67.00	0.1	1.06	0.2	2.60	5.2	6.61	2.77	6.1	56	0.22	19.8	0.24	632	1.68	0.045	3.1	0.05	7.42	<.01	4.58	1.4	0.4	43.7	<.02	8.4	0.043	0.02	2.3	5	0.6	77.1
RS-497 600-620	65	1.48	15.8	13.7	<1	84.2	0.11	0.97	0.18	2.7	4.1	6.08	2.76	6.9	1850	0.2	19.9	0.17	648	1.42	0.04	3.5	0.051	10.74	1.24	13.29	1.2	2	44.8	<.02	8.6	0.015	0.12	2	5	0.6	76.2
RS-497 620-640	88	1.65	8.2	7.2	<1	60.6	0.11	1.11	0.09	2.2	3.2	6.1	2.85	6.8	840	0.23	21.2	0.16	416	1.13	0.03	2.2	0.052	17.99	1.1	8.4	1.1	1.3	60.9	<.02	8.5	0.013	0.06	1.4	5	1.1	80.6
RS-497 640-660	58	0.97	2.1	2.3	<1	58.3	0.05	1.06	0.18	2.5	6	8.88	2.77	4.9	51	0.21	18.8	0.14	668	1.57	0.057	4.2	0.046	9.38	<.01	2.79	1.3	0.4	53.3	<.02	8.8	0.034	<.02	1.6	6	0.6	79.5
STANDARD DS2	252	1.69	67.2	190	3	151.5	10.71	0.63	10.2	12.6	157.3	127.33	3.01	6.5	250	0.16	17.4	0.61	771	14.12	0.032	34.7	0.088	35.1	0.02	8.6	2.7	2.4	29.1	1.83	3.8	0.093	1.82	20	73	6.3	158.9
RS-497 660-685	44	0.97	3	0.5	2	60	<.02	0.9	0.09	2.7	4.6	6.39	2.9	4.8	1664	0.19	19.2	0.17	761	1.33	0.065	4	0.048	13.56	<.01	5.75	1.3	<.1	62.2	<.02	9.2	0.033	0.02	1.1	5	0.7	79

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT: HECLA MINING CO.
CLIENT REF: KURT ALLEN
AAL REF: SP66950
METHOD: AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
89640	61400	2.41	120.1	6040.8	3	109.8	0.1	0.93	1.66	4.1	4.9	26.53	2.67	7.3	376	0.96	18.7	0.14	332	6.27	0.065	4.4	0.056	28.09	2.65	21.54	1	23.9	57.1	0.03	3.8	0.007	0.4	1.6	9	0.3	93.1

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	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 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.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (775) 356-0606
FAX: (775) 356-1413

CLIENT:	HECLA MINING CO.
CLIENT REF:	KURT ALLEN
AAL REF:	SP56950
METHOD:	AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
RS-497 000-020	66	1.04	100	8.9	11	169.00	0.13	0.17	0.36	2.40	9.6	18.41	3.36	4.5	4568	0.19	20.5	0.06	89	5.27	0.074	8.6	0.032	48.44	0.29	13.26	0.7	3.9	84.4	< .02	8.7	0.004	0.27	2.9	14	0.4	40.8
RS-497 020-040	28	1.18	15.5	3.7	5	196.80	0.51	0.72	0.27	2.80	4.2	8.42	1.75	5.2	1192	0.22	18.9	0.13	31	0.96	0.123	2	0.023	34.62	0.19	3.42	1.7	0.8	81.5	< .02	5.1	0.002	0.23	1.6	9	< .2	59
RS-497 040-060	46	0.66	44	50.7	4	98.60	0.11	0.07	0.19	1.80	11.2	22.65	3.29	5.4	5960	0.06	13.5	0.02	101	3.83	0.016	11.1	0.019	23.8	0.1	32.78	0.4	5.7	42	< .02	5.3	0.001	0.13	2.1	8	0.5	32.4
RS-497 060-080	121	0.92	96.1	162.4	1	65.00	0.44	0.05	0.08	4.80	7.5	12.05	3.03	4.6	37625	0.11	16.4	0.01	61	2.89	0.022	5.8	0.016	20.84	1.26	41.82	0.4	24.1	58.6	< .02	6.1	0.001	1.3	1.5	4	0.6	19.7
RS-497 080-100	106	1.02	61.6	125.1	1	46.70	0.13	0.04	0.23	8.60	9	18.56	3.18	3.3	8901	0.06	14.4	0.01	124	3.68	0.012	11	0.017	18.17	1.98	35.93	0.4	10.9	63.7	< .02	4.9	0.002	2.08	6.2	4	0.8	24.2
RS-497 100-120	88	0.93	96.2	149.6	< 1	60.90	0.04	0.03	12.84	11.20	8.3	17.36	3.43	2.2	8451	0.04	12.6	0.01	103	7	0.008	8.7	0.017	16.39	2.62	55.08	0.4	8.1	57.8	< .02	4.4	0.001	2.51	7.6	3	0.8	42.8
RS-497 120-140	77	1.1	128.1	107	1	81.90	0.03	0.06	8.68	10.40	11.4	20.76	4.04	2.3	16334	0.02	13.2	0.01	160	6.96	0.009	11.1	0.054	13.98	2.63	45.9	0.9	13.3	184.7	0.02	3.6	0.001	2.64	17	3	0.7	77.8
RS-497 140-160	111	0.87	102.6	92.6	< 1	84.10	0.03	0.05	1.03	9.60	5.1	14.31	2.79	3.6	8819	0.05	21.6	0.01	41	3.69	0.01	4.1	0.02	26.01	2.6	42.46	0.5	5.4	47.9	< .02	7	0.001	1.27	6.9	2	0.3	125.4
RS-497 160-180	86	1.23	114.1	168	< 1	79.70	0.04	0.05	0.86	9.50	3.6	14.38	2.92	4.2	7827	0.06	16.8	0.02	39	3.24	0.013	3.7	0.016	48.12	2.57	41.29	0.5	6	41.6	< .02	5	0.001	1.61	4.2	2	0.4	140.6
RS-497 180-200	91	1.14	141.9	216.2	< 1	72.00	0.62	0.08	0.76	8.90	5.1	9.77	3.07	3.6	13682	0.05	17	0.02	41	2.62	0.013	4.1	0.021	20.84	2.75	49.03	0.6	8.5	51.2	< .02	5.2	0.001	2.04	3.9	2	0.4	155.1
RS-497 200-220	95	0.91	74.8	38.4	< 1	58.70	0.32	0.05	0.21	5.60	4.8	6.49	2.85	3.9	6532	0.09	18.2	0.02	33	1.82	0.013	2.7	0.016	18.93	2.71	27.4	0.6	3.4	42.1	< .02	6.3	0.002	0.77	2	2	0.4	90.1
RS-497 220-240	75	0.94	31.8	78.3	< 1	76.00	0.09	0.05	0.94	7.00	3.6	6.87	2.8	3.7	4085	0.09	20.3	0.02	34	1.31	0.013	2.8	0.021	19.14	2.6	18.43	0.7	5.2	57.1	< .02	6.4	0.002	0.8	1.6	< 2	0.4	55.6
RS-497 240-260	2103	1.33	95.6	277.3	< 1	36.40	0.12	0.05	0.37	5.90	5.5	9.62	3.02	4.5	6879	0.05	19	0.02	49	2.41	0.009	4.2	0.012	20.07	2.62	37.39	0.6	10.4	21	< .02	5.5	0.001	1.61	1.8	2	0.5	70
RS-497 260-280	2535	0.96	130.5	275.9	< 1	65.50	0.03	0.04	0.65	9.10	5.6	8.79	3.06	3.9	9278	0.07	18.2	0.02	44	6.28	0.013	3.9	0.008	19.12	2.61	57.22	0.6	13	11	< .02	5.9	0.001	3.21	1.9	2	0.5	91.9
RS-497 280-300	290	1.28	127.3	187.5	< 1	42.50	0.03	0.04	0.4	7.10	7.2	10.39	2.95	4.4	7227	0.05	14.6	0.01	61	11.35	0.01	5.1	0.011	18.25	2.24	50.4	0.6	8.1	11.3	< .02	4.8	0.002	3.61	2.3	3	0.5	92
RS-497 300-320	437	1.1	45.7	352.1	< 1	69.10	0.05	0.05	0.9	12.60	6.1	8.87	3.29	4.6	3740	0.12	16.7	0.02	40	2.05	0.015	3.4	0.013	19.65	2.93	44.58	0.6	15.9	19.5	< .02	6.5	0.002	2.27	1.5	2	0.4	108.5
RS-497 320-340	163	0.8	45.5	145.6	< 1	68.20	0.03	0.06	0.39	9.40	5.4	8.15	2.99	3.9	2802	0.12	20.5	0.02	49	1.53	0.014	4.1	0.013	22.54	2.67	31.07	0.7	9.8	20.9	< .02	7.4	0.002	1.62	1.2	2	0.4	97.9
RS-497 340-360	76	0.97	9.1	16.2	1	78.10	0.07	0.13	0.1	2.10	3.6	4.08	2.26	4.2	849	0.15	20.5	0.09	79	0.91	0.02	1.5	0.014	19.35	0.7	19.54	1.2	1.3	17.6	< .02	8.3	0.028	0.34	1.1	3	0.5	64.4
RS-497 360-380	120	1.05	21.1	49.5	< 1	75.40	0.04	0.17	0.14	3.70	2.8	5.06	2.78	4.4	1501	0.15	18.5	0.1	84	1.32	0.025	2.2	0.02	13.41	1.94	19.5	1	2.9	17.9	< .02	7.7	0.019	0.53	1.3	2	0.3	50.8
RS-497 380-400	888	1.31	55.5	243.6	< 1	123.20	0.02	0.23	0.3	3.90	8.4	7.49	3.21	6	3122	0.13	18.1	0.11	76	4.87	0.026	2.6	0.108	18.35	2.64	46.03	1	11.3	99.6	< .02	6.5	0.008	2.2	3.3	2	0.5	298.3
RS-497 400-420	164	1.13	30.2	80.4	< 1	78.60	0.02	0.3	0.15	2.70	2.7	6.66	2.65	5.6	1320	0.13	21	0.1	90	2.09	0.023	1.9	0.093	16.24	2.31	28.93	1	5.9	30.4	< .02	7.4	0.008	0.7	2.5	3	0.6	80.2
RS-497 420-440	1137	1.26	58.7	283.2	< 1	98.10	0.03	0.24	0.33	5.40	8	7.2	3.47	6.2	2807	0.12	20.4	0.11	65	21.23	0.024	2	0.06	28.02	3.34	47.99	1	17.7	46.6	< .02	6.4	0.002	1.64	2.6	2	0.6	95.3
RS-497 440-460	609	1.13	38.7	184.2	< 1	117.50	0.04	0.3	0.64	3.90	6.5	7.56	3.49	5.5	1729	0.15	19.8	0.12	1390	5.02	0.024	2.6	0.051	29.84	2.04	26.21	1.1	9.1	43.4	< .02	7	0.014	0.85	2.6	4	0.8	200.8
RS-497 460-480	224	1.23	27.5	127.2	< 1	83.90	0.06	0.46	0.19	2.90	4.5	5.49	3.14	5.9	1006	0.17	20.2	0.13	1014	1.58	0.035	1.6	0.041	35.91	2.22	20.84	1.1	9.1	38.7	< .02	7.5	0.007	0.65	1.8	3	0.5	134.5
RS-497 480-500	315	1.14	15.6	65.1	< 1	76.00	0.05	0.43	0.11	2.50	4.4	6.24	2.87	5.4	902	0.19	21.7	0.11	1271	1.38	0.027	2.5	0.041	19.5	1.33	17.45	1.1	4	34.8	< .02	7.9	0.021	0.41	1.1	4	0.7	132.2
RS-497 500-520	146	1.11	14.4	53.3	< 1	86.90	0.04	0.27	0.16	2.70	3.2	5.27	2.8	5.3	930	0.19	22.8	0.11	940	1.66	0.02	2.1	0.064	17.09	1.78	19.38	1.1	3.1	17.4	< .02	7.5	0.021	0.36	1.4	3	1	131
RS-497 520-540	115	1.26	14.0	41.2	< 1	55.40	0.06	0.44	0.23	2.50	4.6	4.33	2.67	6	1300	0.17	22.5	0.15	1374	1.68	0.022	1.7	0.055	20.38	1.41	14.32	1.1	2.7	30.8	< .02	7.1	0.015	0.38	2.1	3	0.7	116.6
RS-497 540-560	452	1.13	30.6	212.2	< 1	74.70	0.1	0.48	0.24	3.50	6.5	8	2.99	7.5	2509	0.14	21.2	0.12	739	3.51	0.026	2.7	0.059	15.55	2.29	32.13	1.3	10.3	38.2	< .02	6.8	0.009	1.23	3.6	3	0.5	138.8
RS-497 560-580	108	1.12	1.6	6.1	< 1	48.10	0.08	0.96	0.07	2.70	6.5	7.41	2.9	5.8	103	0.19	17.9	0.23	720	2.37	0.049	4.2	0.048	6.91	0.02	4.21	1.4	0.5	42.5	< .02	8.9	0.065	0.04	2.7	6	0.7	92.3
RS-497 580-600	86	1.35	1.8	2.3	< 1	67.00	0.1	1.06	0.2	2.50	5.2	6.61	2.77	6.1	56	0.22	19.8	0.24	632	1.68	0.045	3.1	0.05	7.42	< .01	4.58	1.4	0.4	43.7	< .02	8.4	0.043	0.02	2.3	5	0.6	77.1
RS-497 600-620	65	1.48	15.8	13.7	< 1	84.2	0.11	0.97	0.18	2.7	4.1	6.08	2.76	6.9	1850	0.2	19.9	0.17	646	1.42	0.04	3.5	0.051	10.74	1.24	13.29	1.2	2	44.8	< .02	6.6	0.015	0.12	2	5	0.6	76.2
RS-497 620-640	88	1.65	8.2	7.2	< 1	60.6	0.11	1.11	0.09	2.2	3.2	5.1	2.85	6.8	840	0.23	21.2	0.15	416	1.13	0.03	2.2	0.052	17.99	1.1	8.4	1.1	1.3	60.9	< .02	6.5	0.013	0.06	1.4	5	1.1	80.6
RS-497 640-660	58	0.97	2.1	2.3	< 1	58.3	0.05	1.06	0.18	2.5	6	8.88	2.77	4.9	51	0.21	18.8	0.14	668	1.57	0.057	4.2	0.046	9.38	< .01	2.79	1.3	0.4	53.3	< .02	8.8	0.034	< .02	1.6	6	0.5	79.5
STANDARD DS2	252	1.69	57.2	190	3	151.5	10.71	0.53	10.2	12.6	157.3	127.33	3.01	6.5	250	0.16	17.4	0.61	771	14.12	0.032	34.7	0.088	35.1	0.02	8.6	2.7	2.4	29.1	1.83	3.6	0.093	1.82	20	73	6.3	158.9
RS-497 660-685	44	0.97	3	0.5	2	60	< .02	0.9	0.09	2.7	4.6	6.39	2.9	4.8	1664	0.19	19.2	0.17	761	1.33	0.065	4	0.048	13.56	< .01	5.75	1.3	< .1	62.2	< .02	9.2	0.033	0.02	1.1	5	0.7	79

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CLIENT:	HECLA MINING CO.
CLIENT REF:	KURT ALLEN
AAL REF:	SP56950
METHOD:	AAL03-0

ELEMENT	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
SAMPLES	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
89640	61408	2.42	120.1	6040.8	3	109.8	0.1	0.93	1.56	4.1	4.9	25.53	2.67	7.3	376	0.86	18.7	0.14	332	6.27	0.065	4.4	0.056	29.09	2.55	21.54	1	23.9	57.1	0.03	3.8	0.007	0.4	1.6	9	0.3	93.1

SP

SUBMITTAL FORM

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Address: PO Box 2610

City Winnemucca State NV Zip 89446

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

Project Name: Gator Purchase Order Number:

Date Submitted: 8 Apr 2000 Number of Samples: 137

RESULTS REPORTED IN: ppm [ ] ppb [✓] opt [✓]

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
Drill Hole RS-497	RC	AuAg - Use Rosebud Exploration
		Protocol Sample Prep & Assay
0 To 685		
Note: Please make up 20 ft composits of the pulps		
for ICP + Se Trace elements.		
1 (one) Pulp - Rosebud		
Production Standard		
@ End of Run		

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month

[X] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen
PO Box 2610
Winnemucca, NV 89446

Results to:

Kurt Allen

— Same —

Comments:

CLIENT FILE COPY

American Assay Laboratories

INVOICE

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

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

(775) 356-0606

INVOICE NO: SP 0056950-IN
INVOICE DATE: 05/12/00

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

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

CUSTOMER P.O.	PROJECT	TERMS
RS-497	KURT ALLEN	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
138	SAMPLES RECEIVED	.00	.00
1	NO PREPARATION REQUIRED	.00	.00
137	DRY/JAW CRUSH ENTIRE SAMPLE	2.30	315.10
137	EXCESSIVE WETNESS	1.00	137.00
137	ROTARY SPLIT	2.40	328.80
137	RING/PUCK MILL	2.00	274.00
138	Au (1 A.T. FIRE ASSAY)	8.00	1,104.00
138	HYDROCHLORIC/NITRIC DIGESTION	2.00	276.00
138	Ag ANALYSES	1.00	138.00
137	COMPOSITE CHARGE	1.25	171.25
35	MULTI-ELEMENT ICP PACKAGE	13.75	481.25

86-2510-477
SA

NET INVOICE:	3,225.40
LESS DISCOUNT:	1,128.89
FREIGHT:	.00
INVOICE TOTAL:	2,096.51

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP056950

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS
: KURT ALLEN
:
:

CLIENT REFERENCE No: RS-497 RECEIVED : 9 APR 2000
No. SAMPLES : 138 REPORTED : 11 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 000-005	<5		<0.001		<0.5	<0.02
RS-497 005-010	5		<0.001		<0.5	<0.02
RS-497 010-015	9		<0.001		<0.5	<0.02
RS-497 015-020	12		<0.001		<0.5	<0.02
RS-497 020-025	<5		<0.001		<0.5	<0.02
RS-497 025-030	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 030-035	<5		<0.001		<0.5	<0.02
RS-497 035-040	8		<0.001		<0.5	<0.02
RS-497 040-045	48		0.001		<0.5	<0.02
RS-497 045-050	67		0.002		<0.5	<0.02
RS-497 050-055	58		0.002		<0.5	<0.02
RS-497 055-060	90		0.003		<0.5	<0.02
RS-497 060-065	198		0.006		<0.5	<0.02
RS-497 065-070	182		0.005		<0.5	<0.02
RS-497 070-075	162	158	0.005	0.005	<0.5	<0.02
RS-497 075-080	152		0.004		<0.5	<0.02
RS-497 080-085	162		0.005		<0.5	<0.02
RS-497 085-090	121		0.004		<0.5	<0.02
RS-497 090-095	112		0.003		<0.5	<0.02
RS-497 095-100	196		0.006		<0.5	<0.02
RS-497 100-105	211	211	0.006	0.006	<0.5	<0.02
RS-497 105-110	163		0.005		<0.5	<0.02
RS-497 110-115	167		0.005		1.6	0.05
RS-497 115-120	156		0.005		<0.5	<0.02
RS-497 120-125	189		0.006		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

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CLIENT : HECLA MINING COMPANY
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REFERENCE : RS-497

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 125-130	162		0.005		<0.5	<0.02
RS-497 130-135	105		0.003		<0.5	<0.02
RS-497 135-140	108		0.003		<0.5	<0.02
RS-497 140-145	79		0.002		<0.5	<0.02
RS-497 145-150	95		0.003		<0.5	<0.02
RS-497 150-155	142		0.004		<0.5	<0.02
RS-497 155-160	82		0.002		<0.5	<0.02
RS-497 160-165	109		0.003		<0.5	<0.02
RS-497 165-170	171		0.005		<0.5	<0.02
RS-497 170-175	232		0.007		<0.5	<0.02
RS-497 175-180	119		0.003		<0.5	<0.02
RS-497 180-185	131		0.004		<0.5	<0.02
RS-497 185-190	161		0.005		<0.5	<0.02
RS-497 190-195	400		0.012		<0.5	<0.02
RS-497 195-200	210		0.006		<0.5	<0.02
RS-497 200-205	74		0.002		<0.5	<0.02
RS-497 205-210	54	52	0.002	0.002	<0.5	<0.02
RS-497 210-215	26		<0.001		0.6	<0.02
RS-497 215-220	16		<0.001		0.6	<0.02
RS-497 220-225	21		<0.001		0.6	<0.02
RS-497 225-230	50	52	0.001	0.002	0.5	<0.02
RS-497 230-235	187		0.005		0.5	<0.02
RS-497 235-240	61		0.002		0.5	<0.02
RS-497 240-245	127		0.004		0.9	0.03
RS-497 245-250	287		0.008		2.0	0.06

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 250-255	308		0.009		3.9	0.11
RS-497 255-260	386		0.011		4.7	0.14
RS-497 260-265	239		0.007		3.8	0.11
RS-497 265-270	389		0.011		5.7	0.17
RS-497 270-275	302		0.009		3.5	0.10
RS-497 275-280	179		0.005		0.9	0.03
RS-497 280-285	197	206	0.006	0.006	1.1	0.03
RS-497 285-290	202		0.006		0.7	0.02
RS-497 290-295	273		0.008		0.7	0.02
RS-497 295-300	187		0.005		0.7	0.02
RS-497 300-305	291		0.008		0.7	0.02
RS-497 305-310	466		0.014		0.9	0.03
RS-497 310-315	277		0.008		0.9	0.03
RS-497 315-320	438		0.013		1.5	0.04
RS-497 320-325	208	202	0.006	0.006	0.6	<0.02
RS-497 325-330	101		0.003		0.5	<0.02
RS-497 330-335	192		0.006		0.5	<0.02
RS-497 335-340	76		0.002		0.5	<0.02
RS-497 340-345	36		0.001		<0.5	<0.02
RS-497 345-350	10		<0.001		<0.5	<0.02
RS-497 350-355	21		<0.001		0.5	<0.02
RS-497 355-360	<5		<0.001		0.5	<0.02
RS-497 360-365	7		<0.001		<0.5	<0.02
RS-497 365-370	131		0.004		0.5	<0.02
RS-497 370-375	41		0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 375-380	36		0.001		<0.5	<0.02
RS-497 380-385	35		0.001		0.5	<0.02
RS-497 385-390	405	408	0.012	0.012	2.6	0.08
RS-497 390-395	320		0.009		1.6	0.05
RS-497 395-400	75		0.002		0.8	0.02
RS-497 400-405	27		<0.001		0.7	0.02
RS-497 405-410	76		0.002		0.6	<0.02
RS-497 410-415	118		0.003		0.5	<0.02
RS-497 415-420	44		0.001		<0.5	<0.02
RS-497 420-425	108		0.003		0.5	<0.02
RS-497 425-430	191		0.006		0.8	0.02
RS-497 430-435	358		0.010		1.6	0.05
RS-497 435-440	420	412	0.012	0.012	3.7	0.11
RS-497 440-445	449		0.013		2.3	0.07
RS-497 445-450	168		0.005		0.9	0.03
RS-497 450-455	50		0.001		0.8	0.02
RS-497 455-460	58	52	0.002	0.002	0.7	0.02
RS-497 460-465	7		<0.001		0.5	<0.02
RS-497 465-470	252		0.007		0.7	0.02
RS-497 470-475	127		0.004		0.6	<0.02
RS-497 475-480	124		0.004		1.0	0.03
RS-497 480-485	54		0.002		0.8	0.02
RS-497 485-490	179		0.005		1.2	0.04
RS-497 490-495	30		<0.001		0.6	<0.02
RS-497 495-500	30		<0.001		0.6	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 500-505	32		<0.001		0.7	0.02
RS-497 505-510	58		0.002		0.7	0.02
RS-497 510-515	16		<0.001		0.6	<0.02
RS-497 515-520	119		0.003		0.7	0.02
RS-497 520-525	34	36	<0.001	0.001	0.6	<0.02
RS-497 525-530	31		<0.001		0.6	<0.02
RS-497 530-535	53		0.002		0.6	<0.02
RS-497 535-540	68		0.002		0.6	<0.02
RS-497 540-545	246		0.007		0.6	<0.02
RS-497 545-550	455		0.013		1.8	0.05
RS-497 550-555	102		0.003		0.8	0.02
RS-497 555-560	42	42	0.001	0.001	0.7	0.02
RS-497 560-565	20	16	<0.001	<0.001	0.7	0.02
RS-497 565-570	<5		<0.001		0.7	0.02
RS-497 570-575	<5		<0.001		0.7	0.02
RS-497 575-580	<5		<0.001		0.6	<0.02
RS-497 580-585	<5		<0.001		0.8	0.02
RS-497 585-590	<5		<0.001		0.7	0.02
RS-497 590-595	<5		<0.001		0.7	0.02
RS-497 595-600	<5	<5	<0.001	<0.001	0.7	0.02
RS-497 600-605	<5		<0.001		0.7	0.02
RS-497 605-610	<5		<0.001		0.6	<0.02
RS-497 610-615	15		<0.001		0.5	<0.02
RS-497 615-620	44		0.001		<0.5	<0.02
RS-497 620-625	26		<0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 625-630	<5		<0.001		0.6	<0.02
RS-497 630-635	<5		<0.001		0.5	<0.02
RS-497 635-640	<5		<0.001		0.6	<0.02
RS-497 640-645	<5		<0.001		0.5	<0.02
RS-497 645-650	<5		<0.001		0.7	0.02
RS-497 650-655	<5		<0.001		0.5	<0.02
RS-497 655-660	<5	<5	<0.001	<0.001	0.8	0.02
RS-497 660-665	<5		<0.001		0.7	0.02
RS-497 665-670	<5		<0.001		0.6	<0.02
RS-497 670-675	<5		<0.001		0.6	<0.02
RS-497 675-680	<5		<0.001		0.6	<0.02
RS-497 680-685	<5	<5	<0.001	<0.001	0.5	<0.02
89640	6260		0.183		57.9	1.69

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

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

HECLA MINING COMPANY

COPIES TO : BRIAN MORRIS

: KURT ALLEN

:

:

CLIENT REFERENCE No: RS-497 RECEIVED : 9 APR 2000

No. SAMPLES : 138 REPORTED : 11 MAY 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. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 000-005	<5		<0.001		<0.5	<0.02
RS-497 005-010	5		<0.001		<0.5	<0.02
RS-497 010-015	9		<0.001		<0.5	<0.02
RS-497 015-020	12		<0.001		<0.5	<0.02
RS-497 020-025	<5		<0.001		<0.5	<0.02
RS-497 025-030	<5	<5	<0.001	<0.001	<0.5	<0.02
RS-497 030-035	<5		<0.001		<0.5	<0.02
RS-497 035-040	8		<0.001		<0.5	<0.02
RS-497 040-045	48		0.001		<0.5	<0.02
RS-497 045-050	67		0.002		<0.5	<0.02
RS-497 050-055	58		0.002		<0.5	<0.02
RS-497 055-060	90		0.003		<0.5	<0.02
RS-497 060-065	198		0.006		<0.5	<0.02
RS-497 065-070	182		0.005		<0.5	<0.02
RS-497 070-075	162	158	0.005	0.005	<0.5	<0.02
RS-497 075-080	152		0.004		<0.5	<0.02
RS-497 080-085	162		0.005		<0.5	<0.02
RS-497 085-090	121		0.004		<0.5	<0.02
RS-497 090-095	112		0.003		<0.5	<0.02
RS-497 095-100	196		0.006		<0.5	<0.02
RS-497 100-105	211	211	0.006	0.006	<0.5	<0.02
RS-497 105-110	163		0.005		<0.5	<0.02
RS-497 110-115	167		0.005		1.6	0.05
RS-497 115-120	156		0.005		<0.5	<0.02
RS-497 120-125	189		0.006		<0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 125-130	162		0.005		<0.5	<0.02
RS-497 130-135	105		0.003		<0.5	<0.02
RS-497 135-140	108		0.003		<0.5	<0.02
RS-497 140-145	79		0.002		<0.5	<0.02
RS-497 145-150	95		0.003		<0.5	<0.02
RS-497 150-155	142		0.004		<0.5	<0.02
RS-497 155-160	82		0.002		<0.5	<0.02
RS-497 160-165	109		0.003		<0.5	<0.02
RS-497 165-170	171		0.005		<0.5	<0.02
RS-497 170-175	232		0.007		<0.5	<0.02
RS-497 175-180	119		0.003		<0.5	<0.02
RS-497 180-185	131		0.004		<0.5	<0.02
RS-497 185-190	161		0.005		<0.5	<0.02
RS-497 190-195	400		0.012		<0.5	<0.02
RS-497 195-200	210		0.006		<0.5	<0.02
RS-497 200-205	74		0.002		<0.5	<0.02
RS-497 205-210	54	52	0.002	0.002	<0.5	<0.02
RS-497 210-215	26		<0.001		0.6	<0.02
RS-497 215-220	16		<0.001		0.6	<0.02
RS-497 220-225	21		<0.001		0.6	<0.02
RS-497 225-230	50	52	0.001	0.002	0.5	<0.02
RS-497 230-235	187		0.005		0.5	<0.02
RS-497 235-240	61		0.002		0.5	<0.02
RS-497 240-245	127		0.004		0.9	0.03
RS-497 245-250	287		0.008		2.0	0.06

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-497 250-255	308		0.009		3.9	0.11
RS-497 255-260	386		0.011		4.7	0.14
RS-497 260-265	239		0.007		3.8	0.11
RS-497 265-270	389		0.011		5.7	0.17
RS-497 270-275	302		0.009		3.5	0.10
RS-497 275-280	179		0.005		0.9	0.03
RS-497 280-285	197	206	0.006	0.006	1.1	0.03
RS-497 285-290	202		0.006		0.7	0.02
RS-497 290-295	273		0.008		0.7	0.02
RS-497 295-300	187		0.005		0.7	0.02
RS-497 300-305	291		0.008		0.7	0.02
RS-497 305-310	466		0.014		0.9	0.03
RS-497 310-315	277		0.008		0.9	0.03
RS-497 315-320	438		0.013		1.5	0.04
RS-497 320-325	208	202	0.006	0.006	0.6	<0.02
RS-497 325-330	101		0.003		0.5	<0.02
RS-497 330-335	192		0.006		0.5	<0.02
RS-497 335-340	76		0.002		0.5	<0.02
RS-497 340-345	36		0.001		<0.5	<0.02
RS-497 345-350	10		<0.001		<0.5	<0.02
RS-497 350-355	21		<0.001		0.5	<0.02
RS-497 355-360	<5		<0.001		0.5	<0.02
RS-497 360-365	7		<0.001		<0.5	<0.02
RS-497 365-370	131		0.004		0.5	<0.02
RS-497 370-375	41		0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

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REFERENCE : RS-497

REPORTED : 11 MAY 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-497 375-380	36		0.001		<0.5	<0.02
RS-497 380-385	35		0.001		0.5	<0.02
RS-497 385-390	405	408	0.012	0.012	2.6	0.08
RS-497 390-395	320		0.009		1.6	0.05
RS-497 395-400	75		0.002		0.8	0.02
RS-497 400-405	27		<0.001		0.7	0.02
RS-497 405-410	76		0.002		0.6	<0.02
RS-497 410-415	118		0.003		0.5	<0.02
RS-497 415-420	44		0.001		<0.5	<0.02
RS-497 420-425	108		0.003		0.5	<0.02
RS-497 425-430	191		0.006		0.8	0.02
RS-497 430-435	358		0.010		1.6	0.05
RS-497 435-440	420	412	0.012	0.012	3.7	0.11
RS-497 440-445	449		0.013		2.3	0.07
RS-497 445-450	168		0.005		0.9	0.03
RS-497 450-455	50		0.001		0.8	0.02
RS-497 455-460	58	52	0.002	0.002	0.7	0.02
RS-497 460-465	7		<0.001		0.5	<0.02
RS-497 465-470	252		0.007		0.7	0.02
RS-497 470-475	127		0.004		0.6	<0.02
RS-497 475-480	124		0.004		1.0	0.03
RS-497 480-485	54		0.002		0.8	0.02
RS-497 485-490	179		0.005		1.2	0.04
RS-497 490-495	30		<0.001		0.6	<0.02
RS-497 495-500	30		<0.001		0.6	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 500-505	32		<0.001		0.7	0.02
RS-497 505-510	58		0.002		0.7	0.02
RS-497 510-515	16		<0.001		0.6	<0.02
RS-497 515-520	119		0.003		0.7	0.02
RS-497 520-525	34	36	<0.001	0.001	0.6	<0.02
RS-497 525-530	31		<0.001		0.6	<0.02
RS-497 530-535	53		0.002		0.6	<0.02
RS-497 535-540	68		0.002		0.6	<0.02
RS-497 540-545	246		0.007		0.6	<0.02
RS-497 545-550	455		0.013		1.8	0.05
RS-497 550-555	102		0.003		0.8	0.02
RS-497 555-560	42	42	0.001	0.001	0.7	0.02
RS-497 560-565	20	16	<0.001	<0.001	0.7	0.02
RS-497 565-570	<5		<0.001		0.7	0.02
RS-497 570-575	<5		<0.001		0.7	0.02
RS-497 575-580	<5		<0.001		0.6	<0.02
RS-497 580-585	<5		<0.001		0.8	0.02
RS-497 585-590	<5		<0.001		0.7	0.02
RS-497 590-595	<5		<0.001		0.7	0.02
RS-497 595-600	<5	<5	<0.001	<0.001	0.7	0.02
RS-497 600-605	<5		<0.001		0.7	0.02
RS-497 605-610	<5		<0.001		0.6	<0.02
RS-497 610-615	15		<0.001		0.5	<0.02
RS-497 615-620	44		0.001		<0.5	<0.02
RS-497 620-625	26		<0.001		0.5	<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP056950

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-497

REPORTED : 11 MAY 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-497 625-630	<5		<0.001		0.6	<0.02
RS-497 630-635	<5		<0.001		0.5	<0.02
RS-497 635-640	<5		<0.001		0.6	<0.02
RS-497 640-645	<5		<0.001		0.5	<0.02
RS-497 645-650	<5		<0.001		0.7	0.02
RS-497 650-655	<5		<0.001		0.5	<0.02
RS-497 655-660	<5	<5	<0.001	<0.001	0.8	0.02
RS-497 660-665	<5		<0.001		0.7	0.02
RS-497 665-670	<5		<0.001		0.6	<0.02
RS-497 670-675	<5		<0.001		0.6	<0.02
RS-497 675-680	<5		<0.001		0.6	<0.02
RS-497 680-685	<5	<5	<0.001	<0.001	0.5	<0.02
89640	6260		0.183		57.9	1.69

WELLBORE NAVIGATION, INC.
WINNEMUCCA, NEVADA

JOB NUMBER: 29-0588-311

WELL NAME: RS-497

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL HORZ	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION	TEMP. DEG F
1800.0	1773.73	27.47	-275.472	-83.97	347.34	275.47 N	27.47 E	0.01	0.00	276.84	AT 005.69	101.38

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*************************************************************
*                          ********                         *
*       THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF         *
*                          ********                         *
*  1800.0 FEET EQUALS      276.84    FEET AT   005.69       *
*                          ********                         *
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WELLBORE NAVIGATION, INC.
WINNEMUCCA, NEVADA

JOB NUMBER: 29-0588-311

WELL NAME: RS-497

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL HORZ	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISPLACEMENT DISP.	STATION DISPLACEMENT DIRECTION	TEMP. DEG F
0.0	0.00	0.00	0.000	-89.54	355.73	0.00 N	0.00 E	0.00		0.00	AT 000.00	
50.0	50.00	-0.05	-0.464	-89.39	351.95	0.46 N	0.05 W	0.31	0.15	0.47	AT 353.57	093.92
100.0	99.99	-0.51	-1.236	-88.49	320.60	1.24 N	0.51 W	2.08	1.04	1.34	AT 337.68	092.52
150.0	149.95	-1.20	-2.966	-87.13	347.22	2.97 N	1.20 W	3.33	1.66	3.20	AT 337.93	092.17
200.0	199.82	-1.42	-6.492	-84.71	001.53	6.49 N	1.42 W	5.21	2.61	6.64	AT 347.68	091.75
250.0	249.54	-0.82	-11.760	-83.08	010.30	11.76 N	0.82 W	3.75	1.87	11.79	AT 356.02	091.67
300.0	299.04	0.54	-18.653	-80.76	011.83	18.65 N	0.54 E	4.66	2.33	18.66	AT 001.67	091.22
350.0	348.26	2.73	-27.142	-79.03	016.61	27.14 N	2.73 E	3.84	1.92	27.28	AT 005.74	090.70
400.0	397.13	5.55	-37.336	-76.54	014.53	37.34 N	5.55 E	5.06	2.53	37.75	AT 008.45	090.66
450.0	445.50	8.54	-49.623	-74.15	013.00	49.62 N	8.54 E	4.84	2.42	50.35	AT 009.77	089.95
500.0	493.60	11.48	-62.937	-74.20	011.91	62.94 N	11.48 E	0.60	0.30	63.98	AT 010.34	089.20
550.0	541.76	14.16	-76.123	-74.58	010.99	76.12 N	14.16 E	0.91	0.45	77.43	AT 010.53	088.20
600.0	590.07	16.50	-88.771	-75.60	010.01	88.77 N	16.50 E	2.10	1.05	90.29	AT 010.53	087.30
650.0	638.59	18.47	-100.715	-76.38	008.62	100.71 N	18.47 E	1.70	0.85	102.39	AT 010.39	086.83
700.0	687.22	20.25	-112.203	-76.73	009.03	112.20 N	20.25 E	0.73	0.36	114.02	AT 010.23	082.18
750.0	735.94	22.12	-123.285	-77.29	010.11	123.29 N	22.12 E	1.22	0.61	125.25	AT 010.17	083.52
800.0	784.73	24.17	-134.022	-77.45	011.58	134.02 N	24.17 E	0.72	0.36	136.18	AT 010.22	085.89
850.0	833.58	26.58	-144.375	-77.99	014.72	144.38 N	26.58 E	1.72	0.86	146.80	AT 010.43	086.19
900.0	882.54	29.07	-154.223	-78.57	013.54	154.22 N	29.07 E	1.26	0.63	156.94	AT 010.67	087.55
950.0	931.56	31.19	-163.850	-78.68	011.38	163.85 N	31.19 E	0.88	0.44	166.79	AT 010.78	088.88
1000.0	980.66	32.89	-173.141	-79.54	009.26	173.14 N	32.89 E	1.90	0.95	176.24	AT 010.76	089.66
1050.0	1029.86	34.34	-181.923	-79.95	009.51	181.92 N	34.34 E	0.82	0.41	185.14	AT 010.69	090.73
1100.0	1079.15	35.53	-190.201	-80.79	006.61	190.20 N	35.53 E	1.94	0.97	193.49	AT 010.58	091.52
1150.0	1128.53	36.46	-198.049	-81.02	007.01	198.05 N	36.46 E	0.48	0.24	201.38	AT 010.43	092.56
1200.0	1177.96	36.74	-205.556	-81.63	356.89	205.56 N	36.74 E	3.28	1.64	208.81	AT 010.13	093.73
1250.0	1227.47	36.24	-212.530	-82.29	354.80	212.53 N	36.24 E	1.44	0.72	215.60	AT 009.68	093.91
1300.0	1276.99	35.62	-219.361	-81.94	354.81	219.36 N	35.62 E	0.70	0.35	222.23	AT 009.22	094.56
1350.0	1326.54	34.68	-225.995	-82.64	348.86	225.99 N	34.68 E	2.12	1.06	228.64	AT 008.73	095.48
1400.0	1376.13	33.51	-232.251	-82.73	349.88	232.25 N	33.51 E	0.32	0.16	234.66	AT 008.21	096.09
1450.0	1425.75	32.62	-238.385	-83.02	353.67	238.39 N	32.62 E	1.10	0.55	240.61	AT 007.79	096.54
1500.0	1475.42	32.09	-244.059	-83.89	355.89	244.06 N	32.09 E	1.81	0.91	246.16	AT 007.49	096.89
1550.0	1525.13	31.79	-249.459	-83.69	357.77	249.46 N	31.79 E	0.57	0.29	251.48	AT 007.26	097.28
1600.0	1574.83	31.49	-254.862	-83.88	355.76	254.86 N	31.49 E	0.58	0.29	256.80	AT 007.04	098.23
1650.0	1624.56	30.82	-260.094	-83.99	349.51	260.09 N	30.82 E	1.34	0.67	261.91	AT 006.76	099.23
1700.0	1674.28	29.76	-265.226	-83.98	347.32	265.23 N	29.76 E	0.46	0.23	266.89	AT 006.40	101.29
1750.0	1724.00	28.62	-270.347	-83.97	347.38	270.35 N	28.62 E	0.02	0.01	271.86	AT 006.04	101.29

WELLBORE NAVIGATION, INC.
WINNEMUCCA, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* HECLA MINING COMPANY *
****

JOB NUMBER: 29-0588-311

WELL NAME: RS-497

LOCATION: GATOR

SURVEY DATE: 04/30/2000

SURVEY ENGINEER: VERN REID

GYRO REFERENCE BEARING: TRUE NORTH

TIE-ON COORDINATES AT: 0 M.D.
TAKEN FROM: COLLAR

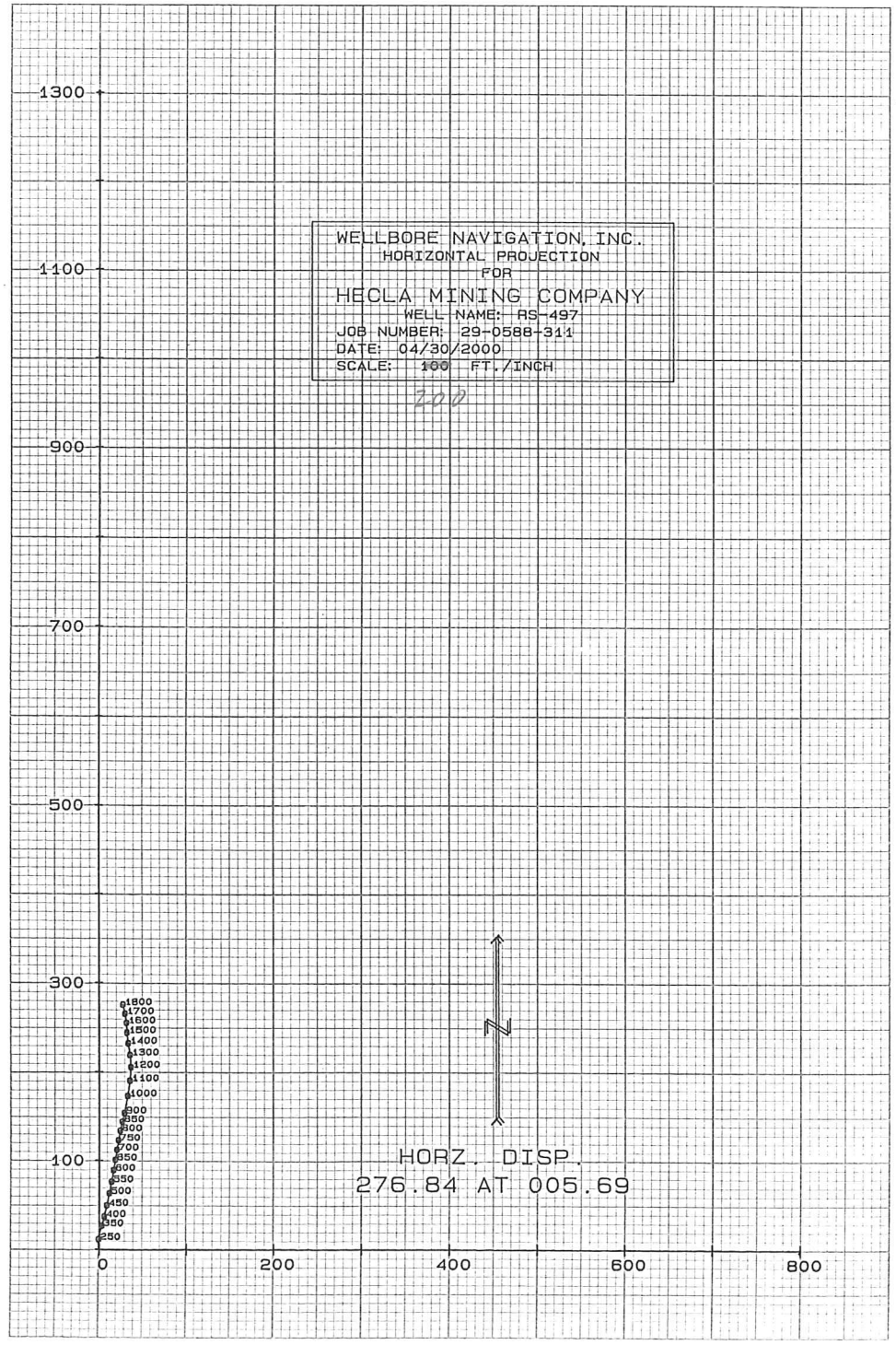
VERTICAL SECTION CALCULATED IN A
PROPOSAL DIRECTION OF: 090.00
WATER CONTACT= 679'

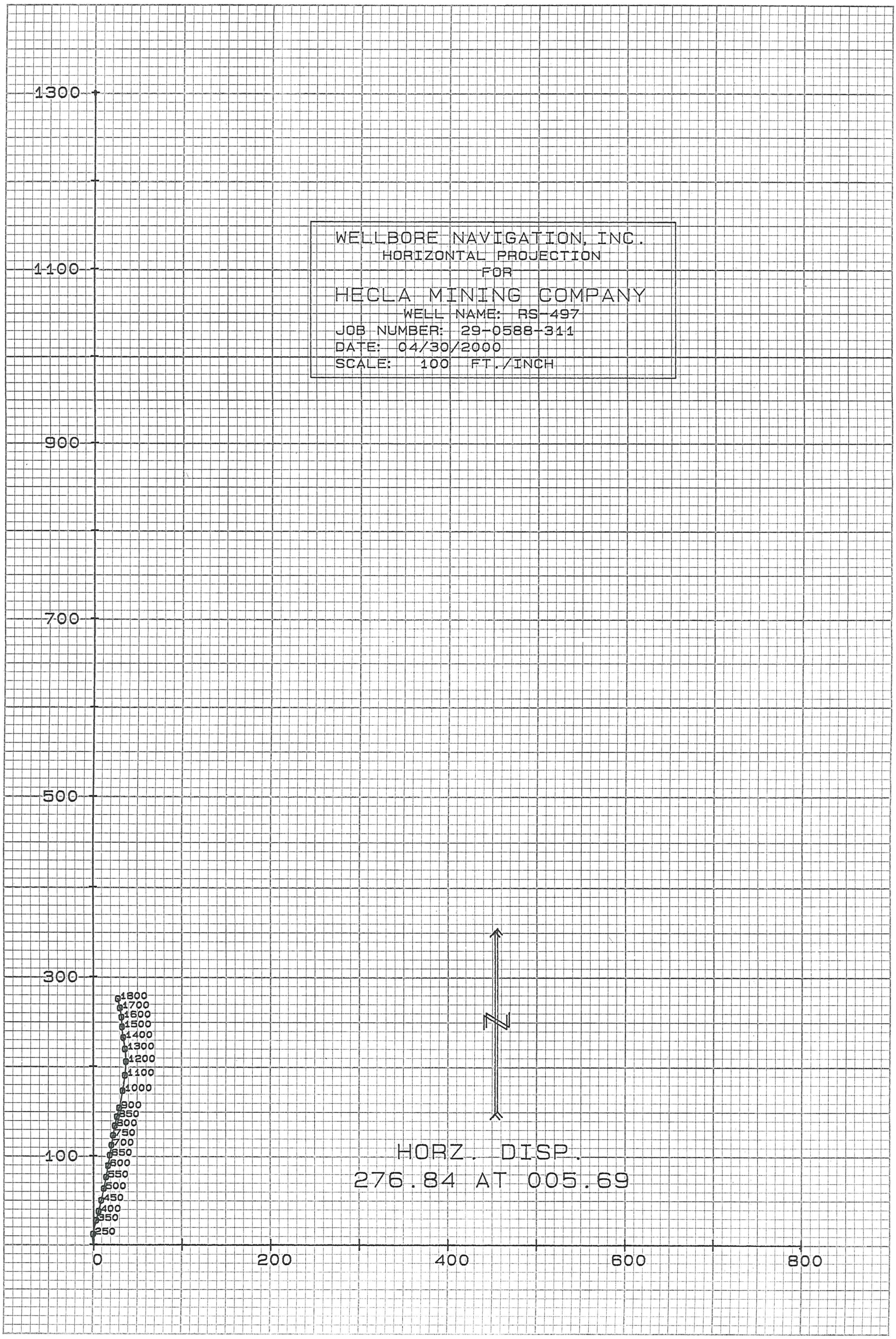
****
***** DEPTH MEASURED IN FEET *******
****

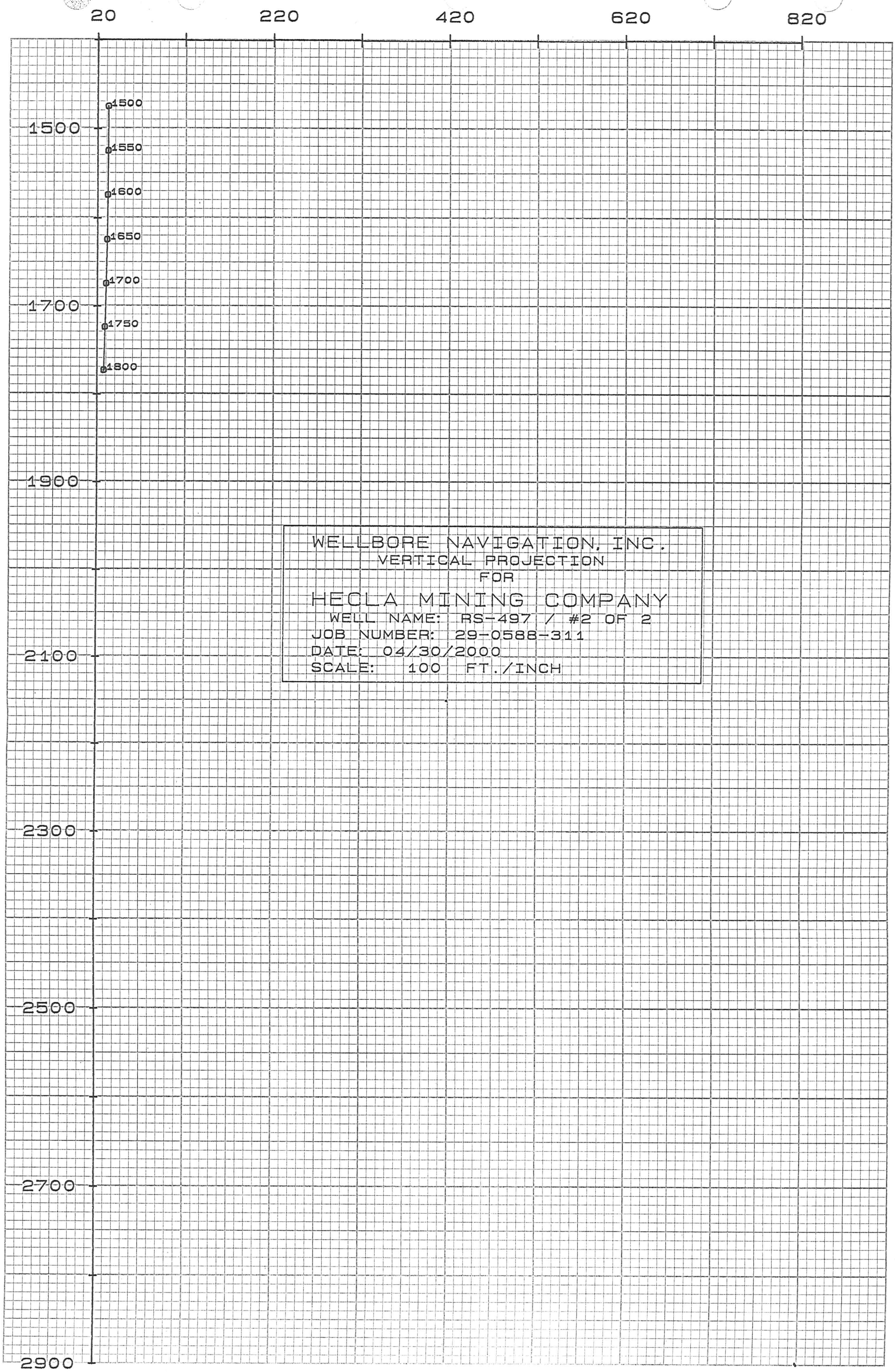
COMMENTS: **** EKLUND *****
** DON SCHOORL **

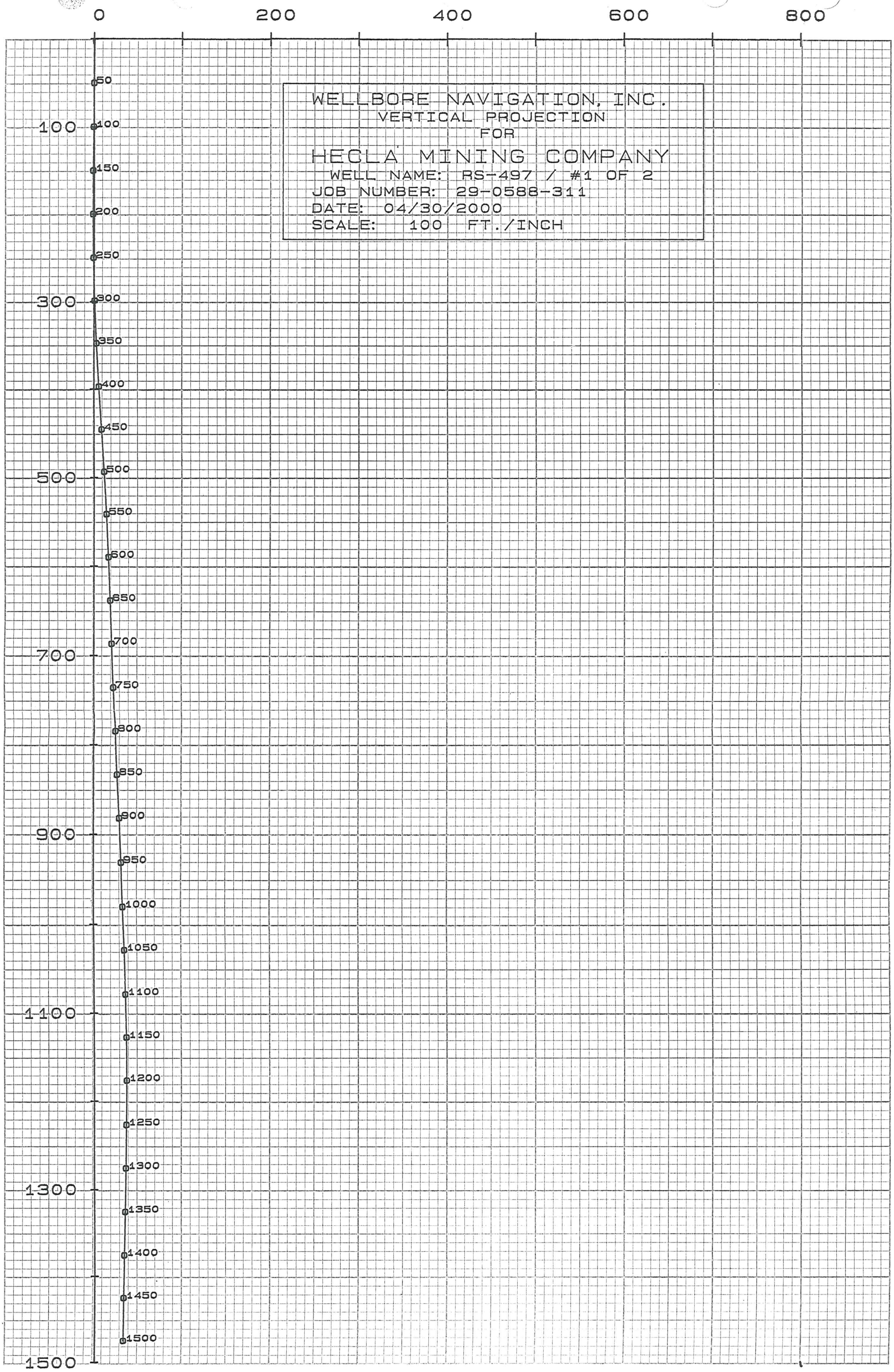
PROJECTED F/1725' T/1800'.

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


WELLBORE NAVIGATION, INC.
HORIZONTAL PROJECTION
FOR
HECLA MINING COMPANY
WELL NAME: RS-497
JOB NUMBER: 29-0588-311
DATE: 04/30/2000
SCALE: 100 FT./INCH
200
1300
1100
900
700
500
300
100
0
200
400
600
800
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
850
800
750
700
650
600
550
500
450
400
350
250
N
HORZ. DISP.
276.84 AT 005.69







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