60001939

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. 96-356
AUTHOR	S. King; M. Brady; C. Ballew; R. Vance; G. Muerhoff; B. Thomas
DATE OF DOC(S)	1996 - 1998
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Newmont Gold Co.; Eklund Drilling; Hecla Mining Co.; West Dozer
COMMODITY If not obvious	gold silver
NOTES	Drill log; geology; assay; total depth 1440'; handwritten notes; directional survey; receipt; geochemistry 61p.

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

SS:	DD	5/22/08
	Initials	Date
DB:	MAH	
	Initials	Date
SCANNED:		
	Initials	Date

Revised: 1/22/08

Drill log Rosebud 96-356
re log

60001439 4010

10 foot samples
0 – 1440 TD

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

HOLE NUMBER 96-356
PAGE 1 OF 15
DATE 3/18/96
LOGGED BY M.W. Brady
TOTAL DEPTH 1440

LOCATION
NORTHING 2,205,106.78
EASTING 481,329.28
ELEVATION 5,278.19
AZIMUTH 141.45°
INCLINATION -60°

AREA West Dozer
DRILLING CO. Eklund
RIG TYPE RC/Track
HOLE SIZE 5 1/4
DOWN HOLE SURVEY BY WELNAV

60001439

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION QUARTS %	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-SLF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
5			0-60 Qal ?																																						
10			air drilling																																						
15																																									
20																																									
25																																									
30																																									
35																																									
40																																									
45																																									
50																																									
55																																									
60			weathered zone w/red brn clay + fox coals. wk cal fiz. 60-80	S		–						x coals							100%			–		–																	
80			Brn tuff w/ lt green glc eyes damp @ 80 – foam. Mly intrusive			–					x coals	–							85% – 90%			–		x fine clots			5%													

SEE ASSAY CERTIFICATES

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LOCATION
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	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	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
100	✓		Brown tuff w/ Lt green qtz eyes	mod											✓	✓			60-80%					X			X														
105	✓		Mg intrusive								X coots				✓																										
110	✓														✓																										
115	✓														✓																										
120	✓														✓																										
125	✓														✓																										
130	✓						X								✓																										
135	✓						(?)								✓																										
140	✓		silicified - qtz flooded w/ 1-3mm py clots	mod - hard				X?			—				✓				50/50 70 unox					5-7%			X														
150	✓																																								
160	✓																																								
170	✓																																								
180	✓		Lt green tuff w/ diss py grains unox Mg intrusive started making water approx. 5gpm	wk - mod		wk ?					wk ?				✓				unox					5% fine diss																	
190	✓														✓																										
200	✓														✓																										

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DRILLING CO.
RIG TYPE
HOLE SIZE
DOWN HOLE SURVEY BY

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 %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
			Lt green tuff	wk mn		—					x pess				✓				x					x			3-5% diss														
210			dissp throughout; coarser 1-2mm clots of py local												✓																										
			5-10% f particles brown												✓																										
			feox coats → partially oxid.												✓																										
220			driller thinks no caving												✓																										
															✓																										
			weak/gives py+chlor=propylitic alteration												✓																										
230			Phy intrusive												✓																										
															✓																										
240															✓																										
															✓																										
250															✓																										
															✓																										
260															✓																										
															✓																										
270															✓																										
															✓																										
280															✓																										
															✓																										
290															✓																										
															✓																										
300															✓																										

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HOLE SIZE
DOWN HOLE SURVEY BY

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION QUARTZ %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALBITE	OXIDATION 5%	OXIDATION 15%	OXIDATION +25%	VIENING %	VIENING TYPE	MINERALIZATION: SULFIDES 5%	SULFIDES 15%	SULFIDES +25%	PY %	CPY %	MAR %	AG-SULF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOLCURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
	✓		Lt green Tuff as before w/ diss py 5-10% part oxidized.	wk min		–					x poss				✓				x					x			3-5% diss														
	✓		phy intrusive												✓																										
310	✓		Lt green tuff as before but wk silic			x																																			
	✓																		✓					or less			1-3% diss py														
320			Lt green tuff w/ less diss py and more chlorite w/ Lithics			–									✓																										
330															✓																										
															✓																										
340															✓				more																						
															✓																										
350			darker green → possibly more densly welded			–									✓																										
360															✓																										
															✓																										
370															✓																										
															✓																										
380															✓																										
															✓																										
390			Lt green tuff a.a. w/ 1-3% diss py. 5-10% oxide fragments w/ Lithics			–									✓				wk x																						
400															✓																										

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DOWN HOLE SURVEY BY

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 %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
			Lt green tuff wk welded 1% diss py w/5% ox fragments w/Lithics			–					x coats				✓				x?					–	–	–	1%	–	–	–	–	–									
410															✓																										
			Apple green tuff w/qtz phenos 1% diss py no ox w/Lithics			–									✓				–					–																		
420															✓																										
430															✓																										
440															✓																										
450															✓																										
460			Lt green tuff (30%) OK brown tuff (70%) possible increase in welding 0-1% fine diss py but weak unoxidized? wk calcite fizz w/Lithics			–					–				✓	✓			–					–			<1%	–	–	–	–	–									
470															✓	✓																									
480															✓	✓																									
490															✓	✓																									
500																✓																									

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FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION QUARTZ %	ARGILLIC 5%	ARGILLIC 15%	ARGILLIC +25%	ARGILLIC TYPE	PROPYLITIC % CHLORITE	PROPYLITIC % CALCITE	POTASSIC % K-SPAR	POTASSIC % ALBITE	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
			Lt green tuff (10%) Dark brown tuff (90%) Prob andesite flow. Tr diss py	mod		–					–				✓				–					–			<1%														
510															✓																										
520			Applegreen + Lt green tuff Tr diss py. qtz + sanidine total rich. w/Lithics	mod		–					–				✓				–					–																		
530															✓																										
540															✓																										
550															✓																										
560			add booster compressor making about 20 gpm water.												✓																										
570			Apple green tuff a.a. xtals much less w/Lithics.	mod		–									✓				–					–																		
580															✓																										
590															✓																										
600															✓																										

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			Apple green tuff few xtals. <1% fine diss pyrite. fine grained equigranular w/ Lithics	min		–					–				✓									–	–	–	<1%														
610															✓																										
															✓																										
620															✓																										
															✓																										
630															✓																										
															✓																										
640															✓																										
			no change												✓																										
650															✓																										
															✓																										
660															✓																										
															✓																										
670															✓																										
															✓																										
680															✓																										
															✓																										
690															✓																										
															✓																										
700															✓																										

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			Apple green tuff. w/few xtals <1% fine diss. py. w/Lithics	min		–					–				✓				–					–			<1%														
710			Apple green tuff a.a (50%) + Dk brn-Blk Tuff (50%) <1% disp py.	min		–					–				✓				–					–																	
720			Apple green tuff a.a. w/Lithics	min		–					–				✓				–					–																	
730															✓																									
740															✓																									
750			making less water; possibly 10-15 gpm												✓																									
760															✓																									
770			Apple green + Dark green tuff w/<1% fine diss py + diss black mineral? fine grained equigranular xtals w/Lithics	min		–					–				✓				–					–																	
780															✓																									
790															✓																									
800															✓																									

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HOLE SIZE
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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 %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
810			Applegreen tuff (80%) + dark brown tuff (20%) fine grained equigranular. Tr. fine diss py (w/ Lithics	min		–					–				✓				–					–	–	–	<1%														
	✓														✓																										
			Lt green tuff equigranular (fine) Tr fine diss py	min		–					–				✓				–					–	–	–															
820	✓		Mag / intrusive												✓																										
															✓																										
830	✓														✓																										
															✓																										
840	✓														✓																										
															✓																										
850	✓														✓																										
															✓																										
860	✓		no change												✓																										
															✓																										
870	✓														✓																										
															✓																										
880	✓														✓																										
															✓																										
890	✓														✓																										
															✓																										
900	✓														✓																										

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	✓		Ltgreen tuff equigranular (fine) Tr fine diss py	min		–					–				✓				–					–			<1%														
	✓		dkg intusive												✓																										
910																																									
	✓														✓																										
	✓														✓																										
920																																									
	✓														✓																										
	✓														✓																										
930																																									
	✓		Ltgreen + grey equigranular (fine) tuff a.a.	min		–					–				✓				–					–																		
	✓														✓																										
940																																									
	✓														✓																										
	✓														✓																										
950																																									
	✓														✓																										
	✓														✓																										
960																																									
	✓		w/1% pyrite in clots + diss.												✓												1%														
	✓														✓																										
970																																									
	✓														✓												<1%														
	✓														✓																										
980																																									
	✓		no change												✓																										
	✓														✓																										
990																																									
	✓														✓																										
	✓														✓																										
1000																																									

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	✓		Lt green tuff fine equigranular xtals. Tr diss py	min		–					–				✓				–					–			1%														
	✓		Hbg intrusive												✓																										
1010																																									
	✓														✓																										
	✓														✓																										
1020																																									
	✓														✓																										
	✓														✓																										
1030																																									
	✓														✓																										
	✓														✓																										
1040																																									
	✓														✓																										
	✓		Same - no change												✓																										
1050																																									
	✓														✓																										
	✓														✓																										
1060																																									
	✓														✓																										
	✓														✓																										
1070																																									
	✓														✓																										
	✓														✓																										
1080																																									
	✓														✓																										
	✓														✓																										
1090																																									
	✓														✓																										
	✓														✓																										
1100																																									

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DRILL LOG

HOLE NUMBER 96-356
PAGE 12 OF 15
DATE
LOGGED BY
TOTAL DEPTH

LOCATION
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

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 %	K-SUL %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
	✓		Lt green fine equigranular tuff coarse pyrite in clstf + veinlets	min		–					–				✓				–					–			1-2%														
			hydrothermal												✓				–																						
	✓																																								
110			a.a. w/ fine diss py.	min		–					–				✓				–								<1%														
	✓																																								
															✓																										
	✓															✓																									
120																																									
	✓														✓																										
																✓																									
	✓														✓																										
130																																									
	✓														✓																										
															✓																										
	✓														✓																										
140			Lt green fine equigranular tuff (70%)			wk ?					–				✓				x poss ?																						
	✓		Lt brn fine grained tuff (30%)	min																																					
			partially oxidized ?																																						
	✓		fine diss py in unox particles												✓																										
150																																									
	✓		hydrothermal												✓																										
	✓														✓																										
160																																									
	✓														✓																										
	✓														✓																										
170																																									
			Lt green fine equigranular tuff																																						
	✓		w/ tr. fine diss. py	min											✓																										
	✓		hydrothermal												✓																										
180																																									
	✓														✓																										
	✓														✓																										
190																																									
	✓														✓																										
	✓														✓																										
200																																									
	✓														✓																										
206																																									

Hecla MINING COMPANY

ROSEBUD PROJECT
DRILL LOG

HOLE NUMBER 96-356
PAGE 13 OF 15
DATE
LOGGED BY
TOTAL DEPTH

LOCATION
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

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 %	K-SLF %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
	✓		Lt green fine grained equigranular tuff w/ pinx feldspar (?) veinlets	min		?					–				✓		?		–					–			<1%														
			Tr diss. pyrite																																						
	✓		Mg intrusive												✓																										
1210																																									
	✓														✓																										
	✓														✓																										
1220																																									
	✓														✓																										
	✓														✓																										
1230																																									
	✓		Lt green to gray fine grained equigranular tuff w/ Tr diss py	min							–				✓				–					–																	
	✓														✓																										
1240			a.a w/ 3mm wide qtz veinlets																			2%	wk qtz																		
	✓										–				✓				–					–																	
	✓														✓																										
1250																																									
	✓		Lt green fine grained equigranular tuff	min							–				✓				–					–																	
	✓														✓																										
1260																																									
	✓		poss wk silic	mod		X ?					–				✓				–					–																	
	✓														✓																										
1270																																									
	✓		a.a. w/ 3mm wide qtz vein (clear)								–				✓				–			1%	clear qtz	–																	
	✓														✓																										
1280																																									
	✓		Lt green-green fine grained equigranular tuff w/ Tr diss py								–				✓				–					–																	
	✓														✓																										
1290																																									
	✓														✓																										
	✓														✓																										
1300																																									

Hecla MINING COMPANY

ROSEBUD PROJECT DRILL LOG

HOLE NUMBER 96-356
PAGE 14 OF 15
DATE
LOGGED BY
TOTAL DEPTH

LOCATION
NORTHING
EASTING
ELEVATION
AZIMUTH
INCLINATION

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

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	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 %	STIBNITE %	BARITE %	METALLURGY: OXIDE	SULF	CARBON	MOISTURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
			Lt green fine grained tuff w/ white qtz vnlts 3mm w w/py Tr diss py	min		x ?					–				✓				–			1%	qtz				<1%													
			(hey intrusive			|									✓																									
1310			Lt green fine grained tuff	mm		–					–				✓				–			–																			
															✓																									
1320															✓																									
															✓																									
1330			Lt green fine grained tuff qtz flooded	mod		x					–								–			–																			
						|																																	
1340			pyrite increasing in 1-3mm clots poss qtz flooded	mod		x					–								–			–					2-3 %														
						|																																	
1350			pyrite increasing more in clots	mod		x					–																3-5 %														
						|																																	
1360			qtz veinlets 2-3mm wide	mod		x					–											1%	qtz																	
						|																																	
1370			some calcite	soft		–					–				–	✓			–			1-2 %	qtz cal				2-4 %														
																✓																									
1380			pyrite in clots + veinlets	soft		–					?				✓	–			–			?																			
															✓																									
1390			stibnite specks ?			–					?				✓				–			?																			
1400																																									

Hecla MINING COMPANY

ROSEBUD PROJECT
DRILL LOG

HOLE NUMBER 96-356
PAGE 15 OF 15
DATE
LOGGED BY
TOTAL DEPTH

LOCATION
NORTHING
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INCLINATION

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

FEET	GRAPHIC	ROCK TYPE	LITHOLOGY	HARDNESS	TEXTURE	ALTERATION: SILICIFICATION 5%	SILICIFICATION 15%	SILICIFICATION +25%	SILICIFICATION MATRIX %	SILICIFICATION QUARTS %	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	MOCURE	ANALYTICAL DATA: FROM	TO	W	Au	Ag
	V		Lt green fine equigranular tuff py in clots, no veinlets	min-soft		–					?	or crushed			✓				–			–					1-2 %														
	V		Hy intrusive												✓																										
1410	V														✓																										
	V														✓																										
1420			J-Tza – black argillite w/ calcite veinlets Py 1-2% dics – syngenetic ?	mod		–					–								–			2-4% calcite																			
1430																																									
			TD 1440																																						
1440			3:15pm Stopped – no change; did not look mineralized, needed some time to abandon hole before end of dly																																						
			Ctc between Tuff/J-Tza possibly fault. Driller said soft drilling.																																						

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL: Page 1/6	HOLE#:
LOGD BY: mw Brady	COUNTY: Pershing	EASTING:	BEARING:	DRB
UTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:	

DEPTH in FEET	COLOR (WET)	ALUVM (1)	BADGER (2)	CHOCOLT (3)	UBUD (4)	UBRADY (5)	MKRPOR (6)	LBUD (7)	DOZER (8)	WILDROS (9)	SURGTUF (10)	ASH FLO (11)	LAVA (12)	AUTOBXA (13)	INTRUSV (14)	DASALT (15)	ANDESIT (16)	RHYOLIT (17)	ROCKEN (18)	GOUGE (19)	GRAPHIC	MANGAN (17)	HEMAT (18)	LIMON (19)	PYRITE (20)	GRAPHIC	UNALTRD (21)	PROPYLT (22)	ARG (23)	RPLSIL (23)	STKWKS (24)	VEINS (25)	CALCITE (26)	(27)	GRAPHIC	COMMENTS: Sample Recovery / Composite Geochem Intervals	SAMPLE No
10																								2														5
20																																						10
30																																						15
40																																						20
50																																						25
60																																						30
70																																						35
80																																						40
90																																						45
100	100																																					50
110	TAN + WTE																							2														55
120																									1													60
130																									1													65
140																									1													70
150	150																								1													75
160																									1													80
170																									1													85
180																									1													90
190																									1													95
200	200																								1													100
210	WTE + TAN																								1													105
220																									1													110
230																									1													115
240																									1													120
250																									1													125
260																									1				3									130
270																									1				2									135
280																									1													140
290																									1													145
300																									1													150
310																									1													155
320																									1													160
330																									1													165
340																									1													170
350																									1													175
360																									1													180
370																									1													185
380																									1													190
390																									1													195
400																									1													200
410																									2												Equigranular tuff w mod qtz+py veinlets	205
420																																						210
430																																						215
440																																						220
450																																						225
460																																						230
470																																						235
480																																						240
490																																						245
500																																						250

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL: Page 2/6	HOLE#:
LOGD BY: MWB	COUNTY: Pershing	EASTING:	BEARING:	DRB
DTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:	

DRILLING NOTES: TIME | Water H2O Cement Bits Hole C

STRATIGRAPHY/LITHOLOGY

DEPTH in FEET	COLOR (WET)	ALLUVM 1	BADGER 2	CHOCOLT 3	UBUD 4	BRADY 5	MKR POR 6	LBUD 7	DOZER 8	WILDROS 9	SURGTUF 10	ASHOFLO 11	LAVA 12	AUTOBXA 13	INTRUSV 14	BASALT 15	ANDESIT 16	RHYOLIT 17	BROKEN 18	GOUGE 19	GRAPHIC 20
260	WTE+ TAN																				
270																					
280																					
290																					
300																					
310																					
320	TAN																				
330	TAN+ LTGRN																				
340																					
350																					
360	APPLE GRN																				
370																					
380																					
390																					
400	TAN+ LTGRN																				
410																					
420	LTGRN																				
430																					
440																					
450																					
460																					
470	APPLE GRN+ GRY																				
480																					
490																					
500																					

STRCT

ALTERATION & MINERALIZATION

DEPTH in FEET	OXD'TN MANGAN 17	HEMAT 18	LIMON 19	PYRITE 20	GRAPHIC	UNALTRD 21	PROPYLT 22	ARG 23	RPLSIL 24	STKWKS 25	VEINS 26	CALCITE 27	GRAPHIC
260				2									
270													
280													
290													
300													
310													
320				1				2					
330								1					
340													
350													
360													
370													
380													
390													
400													
410				1									
420													
430													
440													
450													
460													
470												1	
480													
490													
500													

COMMENTS

Sample Recovery

Composite Geochem Interval:

DEPTH in FEET	COMMENTS
260	Equigranular tuff w/ min qtz + py veinlets
320	FAULT (?)
330	SURGE TUFF
360	SURGE TUFF
400	SURGE TUFF
420	LITHIC RICH SURGE TUFF
470	LITHIC RICH SURGE TUFF

SAMPLE No

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL Page 3/6
LOGD BY: MWB	COUNTY: Pershing	EASTING:	BEARING:
UTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:

HOLE#: DRB

DRILLING NOTES		COLOR (WET)	STRATIGRAPHY/LITHOLOGY																	STRCT		GRAPHIC	ALTERATION & MINERALIZATION																	GRAPHIC	COMMENTS	SAMPLE No
TIME	Dates, H20, Casing, Bits, Hole C		ALUVMO	BADGER	CHOCOLT	BUD	BRADY	MKRPOR	BUD	DOZER	WILDROS	SURGTUF	ASHOFLO	LAVA0	AUTOBXA	INTRUSV	BASALT	ANDESIT	RHYOLIT	BROKEN	GOUGE		OXD'T'N GANGAN	HEMAT	LIMON	PYRITE		NALTRD	PROPYLT	ARG	RPL SIL	STKWKS	VEINS	CALCITE				Sample Recovery	Composite Geochem Intervals	
DEPTH in FEET			1	2	3	4	5	6	7	8	9	10	11	12	13	11	12	13	14	15	16		17	18	19	20		21	22	22	23	24	25	26	27					
	510	DK RD BRN																						2														LITHIC RICH SURGE TUFF IMPREGNATED w/ RED BRN HEMATITE	505 510
	520																																						515 520
	530	APPLE GRN																																				LITHIC RICH SURGE TUFF	525 530
	540																																						535 540
	550																																						545 550
	560																																						555 560
	570																																						565 570
	580																																						575 580
	590																																						585 590
	600																																						595 600
	610	APPLE GRN																																				LITHIC RICH SURGE TUFF JTRu trays less	605 610
	620																																						615 620
	630																																						625 630
	640																																						635 640
	650																																						645 650
	660																																						655 660
	670																																						665 670
	680																																						675 680
	690																																						685 690
	700																																						695 700
	710	LT GRN																						–		–												LITHIC RICH SURGE TUFF w/ JTRu trays	705 710
	720																																						715 720
	730																																						725 730
	740																																						735 740
	750	WTE-LTGRN																																				Greyrainbow lithic rich surge tuff	745 750

Filename: drbLOG.xls

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL Page 4/6
LOGD BY: MWB	COUNTY: Pershing	EASTING:	BEARING:
UTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:

HOLE#: 96 DRB 356

DRILLING NOTES: TIME | Dates, H20, Casing, Bits, Hole Co

DEPTH in FEET

STRATIGRAPHY/LITHOLOGY

Depth	COLOR (WET)	1 ALUVM	2 BADGER	3 CHOCOLT	4 UBUD	5 BRADY	6 MKRPOR	7 LBUD	8 DOZER	9 WILDROS	10 URGTUF	11 ASHOFLO	12 LAVA0	13 AUTOBXA	11 INTRUSV	12 BASALT	13 ANDESIT	14 RHYOLIT	15 BROKEN	16 GOUGE	GRAPHIC
760	APPLE GRN							//			/										
770								/			/										
780								/			/										
790								/			/										
800								/			/										
810	LTGRN								//									/			
820									/									/			
830									/									/			
840									/									/			
850									/									/			
860									/									/			
870	WTE+ LTGRY								/									/			
880									/									/			
890									/									/			
900									/									/			
910	WTE+ LTGRY								/									/			
920									/									/			
930									/									/			
940									/									/			
950									/									/			
960									/									/			
970									/									/			
980									/									/			
990									/									/			
1000									/									/			

ALTERATION & MINERALIZATION

Depth	OXD'T'N GANGAN 17	HEMAT 18	LIMON 19	PYRITE 20	GRAPHIC	UNALTRD 21	PROPYLT 22	ARG 23	RPLSIL 23	STKWKS 24	VEINS 25	CALCITE 26	27	GRAPHIC
760														
770														
780														
790														
800														
810			-	Tr			1	—		—				
820														
830														
840														
850														
860														
870			1											
880														
890														
900														
910			2					—		Tr				
920														
930														
940														
950														
960														
970														
980														
990														
1000														

COMMENTS

Sample Recovery

Composite Geochem Intervals

Depth	Comments
760	LITHIC RICH SURG TUFF
	↓Ea frags 760-800
910	equigranular flow w/trace gb. veinlet
	↓stockworks diss lim (py pseudo)
	org brn + maroon + lim. along
	fractures

SAMPLE No

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL:	Page 1/5/6	HOLE#: 96
LOGD BY: MWB	COUNTY: Pershing	EASTING:	BEARING:		DRB 356
UTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:		

DEPTH to FEET	COLOR (WET)	ALUVM (1)	BADGER (2)	CHOCOLT (3)	UBUD (4)	UBRADY (5)	MKR POR (6)	LBUD (7)	DOZER (8)	WILDROS (9)	SURGTUF (10)	ASH FLO (11)	LAVA (12)	AUTOBXA (13)	INTRUSV (14)	BASALT (15)	ANDESIT (16)	RHYOLIT (17)	ROKEN (18)	GOUGE (19)	GRAPHIC (20)	OXD'TN MANGAN (21)	HEMAT (22)	LIMON (23)	PYRITE (24)	GRAPHIC (25)	UNALTRD (26)	PROPYLT (27)	ARG (28)	RPLSIL (29)	STKWKS (30)	VEINS (31)	CALCITE (32)	(33)	GRAPHIC (34)	COMMENTS	SAMPLE No
10	WTE+ LTGRY																							1					2		1						5
10																																					10
10																																					15
10																																					20
10																																					25
10																																					30
10																																					35
10																																					40
10																																					45
10																																					50
10																																					55
10																																					60
10	LTGRN																				TR															fine equigranular rhy	65
10																																					70
10																																					75
10																																					80
10																																					85
10																																					90
10																																					95
1																																					100
1	LTGRN +WTE																								1											fine equigranular rhy.	105
1																																					110
1																																					115
1																																					120
1																																					125
1																																					130
1																																					135
1																																					140
1	LTGRN +TAN																				TR															fine equigranular rhy	145
1																																					150
1																																					155
1																																					160
1	LTGRN																																			fine equigranular rhy	165
1																																					170
1																																					175
1																																					180
1																																					185
1																																					190
1																																					195
1																																					200
1	WTE+ LTGRN																								1							1				fine equigranular rhy.	205
1																																					210
1																																					215
1																																					220
1																																					225
1																																					230
1																																					235
1																																					240
1																																					245
1																																					250

Sample Recovery

Composite Geochem Interval:

PROJECT: ROSEBUD	STATE: Nevada	NORTHING:	TOTAL:	Page 6/6	HOLE#: 96
LOGD BY: MWB	COUNTY: Pershing	EASTING:	BEARING:		DRB 356
DTM#: NK 11-10-06	SEC. T. N., R.	ELEVATION:	ANGLE:		

DRILLING NOTES: TIME | Dates: H/O Cement Bits Hole C

DEPTH in FEET	COLOR (WET)	ALLUVM (1)	BADGER (2)	CHOCOLT (3)	BUD (4)	BRADY (5)	MKR POR (6)	BUD (7)	OZER (8)	WILDROS (9)	SURGTUF (10)	ASHOFLO (11)	ALVADO (12)	AUTOBXA (13)	INTRUSV (14)	BASALT (15)	ANDESIT (16)	HYOLIT (17)	BROKEN (18)	GOUGE (19)	GRAPHIC (20)	OXD'T'N MANGAN (21)	HEMAT (22)	LIMON (23)	PYRITE (24)	GRAPHIC (25)	UNALTRD (26)	PROPYLT (27)	ARG (28)	RPL SIL (29)	STKWKS (30)	VEINS (31)	CALCITE (32)	(33)	GRAPHIC (34)
1260	WTE + LTGRN																								1										
1270	LTGRN																														1				
1280																																			
1290																																			
1300																																			
1310	LTGRN																																		
1320																																			
1330																									3						3				
1340	WTE+LT GRY+LT GRN																																		
1350																																			
1360																																			
1370																																			
1380																																			
1390	WTE + LTGRN																								2										
1400																																			
1410																																			
1420																																			
1430	BLK																								2								3		
1440																																			
1450																																			
1460																																			
1470																																			
1480																																			
1490																																			
1500																																			

Silica, Py, MAR, Red of Fine Ash size, wt tuff inclots

STRATIGRAPHY/LITHOLOGY — STRCT — ALTERATION & MINERALIZATION

COMMENTS

Sample Recovery

Composite Geochem Interval:

fine equigranular rhy flows

vfine equigranular rhy flows w/ trdiss py

mod ate veinlets w/ tirediss py
bladed marcasite 1330-1340
soft wt clay
Appears to be replacement of Tuff

FINE equigranular rhy (?) flows
cubic py < 1%
bladed marcasite 1390-1400

Jza - black argillite w/calcite veinlets + Py

TD 1440

5278.19

N 2,205,106.78
E 481,329.28

Qal

weathering zone

1

Brn Tuff (Rhyo intru)

Py clots

2

Lt green Tuff

Diss py

(Rhyo Intru)

Equi Gray

3

Lt Grn tuff 3-5%
w/Dis Py

4988

Lt grn tuff w/ lithics Less Py 1-3%

Surge Tuff

Darker Green but same
w/ Lithics & 1-3% Py

4

same/maybe some welding
0-1% py wk calcite

5

Drk Brn tuff poss And flow
tr Diss py

Lt grn tuff w/ lithics
some apple Grn
< 1% Py

6

Drk Brn to Blk Tuff

Some green tuff w/
Lithics

surg tuff

same FGT

8

Drk Brn - Blk

same Lt green FGT

3rd Logger.

FGT
or
Rhyo

2nd Logger says Rhyo Intru

9

10

11

12

some 3mm Qt veinlets

0.024/0.07

wk silicified
3mm Qt veinlets clear

3-5% py

13

0.35/0.5
0.09+/0.1

Lt gray Qt w mar
prop vein

Py in clots

2.4

0.109/0.06 stib?

14

1420

TR-ALS 1-2% Py

ROSEBUD
96 - 356
1" = 100'
In plane of hole

BORATORIES
S REPORT SP037714

American Assay Laboratories

P.O. BOX 11530
RENO, NV,,USA
Ph.1-702-356-0606, Fax.1-702-356-1413

American Assay Laboratories

HECLA MINING CO.

: CHARLIE MUERHOFF

:

:

:

ENCE No: 96-356

: 144

TYPE : DRILL CUTTINGS

RECEIVED : 26 MAR 1996

REPORTED : 5 APR 1996

BAO-1360: 25' @ 0.223, .41

BAC-1390: 50' @ 0.116, 0.30

SLATIVE DISCLAIMER :-
of this assay were based solely upon the content of the
nitted. Any decision to invest should be made only after
ial investment value of the claim or deposit has been
based on the results of assays of multiple samples of
materials collected by the prospective investor or by a
person selected by him and based on an evaluation of all
g data which is available concerning any proposed project.

ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
FA60	15%	OPT	0.001
FA60	15%	OPT	0.001
D210	10%	OPT	0.02

~~1230~~ -

BAC-1390: 16' @ 0.142

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0000-0010	<0.001		<0.02
96-356 0010-0020	0.001		<0.02
96-356 0020-0030	0.001		0.03
96-356 0030-0040	0.001		<0.02
96-356 0040-0050	<0.001		<0.02
96-356 0050-0060	0.001		<0.02
96-356 0060-0070	<0.001		<0.02
96-356 0070-0080	0.008	0.008	0.10
96-356 0080-0090	0.002		0.03
96-356 0090-0100	<0.001		<0.02
96-356 0100-0110	<0.001		<0.02
96-356 0110-0120	<0.001		<0.02
96-356 0120-0130	<0.001		0.02
96-356 0130-0140	0.002		0.06
96-356 0140-0150	0.004		0.04
96-356 0150-0160	0.004		0.05
96-356 0160-0170	0.002		0.04
96-356 0170-0180	0.002		0.06
96-356 0180-0190	0.002		0.05
96-356 0190-0200	0.002		0.05
96-356 0200-0210	0.002		0.04
96-356 0210-0220	0.003		0.07
96-356 0220-0230	0.005		0.11
96-356 0230-0240	0.005	0.005	0.11
96-356 0240-0250	0.003		0.08

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0250-0260	0.004		0.08
96-356 0260-0270	0.004		0.10
96-356 0270-0280	0.003		0.06
96-356 0280-0290	0.002		0.04
96-356 0290-0300	0.002		0.05
96-356 0300-0310	0.003		0.06
96-356 0310-0320	0.002		0.05
96-356 0320-0330	0.002		0.07
96-356 0330-0340	<0.001		<0.02
96-356 0340-0350	0.001		<0.02
96-356 0350-0360	0.002		0.16
96-356 0360-0370	0.002		0.06
96-356 0370-0380	0.001		0.02
96-356 0380-0390	0.001		<0.02
96-356 0390-0400	0.008	0.008	0.04
96-356 0400-0410	0.001		0.02
96-356 0410-0420	<0.001		0.02
96-356 0420-0430	<0.001		<0.02
96-356 0430-0440	<0.001		<0.02
96-356 0440-0450	<0.001		<0.02
96-356 0450-0460	0.001		<0.02
96-356 0460-0470	<0.001		<0.02
96-356 0470-0480	<0.001		<0.02
96-356 0480-0490	<0.001	<0.001	<0.02
96-356 0490-0500	<0.001		<0.02

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ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0500-0510	<0.001		<0.02
96-356 0510-0520	0.001		<0.02
96-356 0520-0530	<0.001		<0.02
96-356 0530-0540	0.001		<0.02
96-356 0540-0550	<0.001		<0.02
96-356 0550-0560	<0.001		<0.02
96-356 0560-0570	0.002		<0.02
96-356 0570-0580	<0.001		<0.02
96-356 0580-0590	0.002		<0.02
96-356 0590-0600	0.001		<0.02
96-356 0600-0610	<0.001		<0.02
96-356 0610-0620	<0.001		<0.02
96-356 0620-0630	0.001		<0.02
96-356 0630-0640	<0.001		<0.02
96-356 0640-0650	<0.001		<0.02
96-356 0650-0660	<0.001		<0.02
96-356 0660-0670	<0.001	<0.001	<0.02
96-356 0670-0680	<0.001		<0.02
96-356 0680-0690	0.001		<0.02
96-356 0690-0700	<0.001		<0.02
96-356 0700-0710	<0.001		<0.02
96-356 0710-0720	<0.001		<0.02
96-356 0720-0730	<0.001		<0.02
96-356 0730-0740	<0.001		<0.02
96-356 0740-0750	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0750-0760	<0.001		<0.02
96-356 0760-0770	<0.001		<0.02
96-356 0770-0780	<0.001		<0.02
96-356 0780-0790	<0.001	<0.001	<0.02
96-356 0790-0800	<0.001		<0.02
96-356 0800-0810	<0.001		<0.02
96-356 0810-0820	<0.001		<0.02
96-356 0820-0830	0.001		<0.02
96-356 0830-0840	0.001		<0.02
96-356 0840-0850	0.001		<0.02
96-356 0850-0860	<0.001		<0.02
96-356 0860-0870	<0.001		<0.02
96-356 0870-0880	<0.001		<0.02
96-356 0880-0890	<0.001		<0.02
96-356 0890-0900	<0.001		<0.02
96-356 0900-0910	<0.001		<0.02
96-356 0910-0920	<0.001		<0.02
96-356 0920-0930	<0.001		<0.02
96-356 0930-0940	<0.001		<0.02
96-356 0940-0950	<0.001		<0.02
96-356 0950-0960	<0.001		<0.02
96-356 0960-0970	<0.001	<0.001	<0.02
96-356 0970-0980	<0.001		<0.02
96-356 0980-0990	<0.001		<0.02
96-356 0990-1000	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 1000-1010	<0.001		<0.02
96-356 1010-1020	<0.001	<0.001	<0.02
96-356 1020-1030	<0.001		<0.02
96-356 1030-1040	<0.001		<0.02
96-356 1040-1050	<0.001		<0.02
96-356 1050-1060	<0.001		<0.02
96-356 1060-1070	<0.001		<0.02
96-356 1070-1080	<0.001		<0.02
96-356 1080-1090	<0.001		<0.02
96-356 1090-1100	<0.001		<0.02
96-356 1100-1110	0.004	0.004	0.04
96-356 1110-1120	<0.001		<0.02
96-356 1120-1130	0.001		0.02
96-356 1130-1140	<0.001		<0.02
96-356 1140-1150	<0.001		<0.02
96-356 1150-1160	<0.001		<0.02
96-356 1160-1170	<0.001		<0.02
96-356 1170-1180	<0.001		<0.02
96-356 1180-1190	<0.001		<0.02
96-356 1190-1200	<0.001		<0.02
96-356 1200-1210	0.001		0.03
96-356 1210-1220	<0.001		<0.02
96-356 1220-1230	0.009		0.06
96-356 1230-1240	0.021	0.018	0.07
96-356 1240-1250	0.007		0.06

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

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REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT	
96-356 1250-1260	0.001	0.007	0.02	
96-356 1260-1270	0.001		0.03	
96-356 1270-1280	<0.001	<0.001	0.03	
96-356 1280-1290	0.007		0.03	
96-356 1290-1300	0.007	0.007	0.02	
96-356 1300-1310	0.006		0.03	
96-356 1310-1320	0.002		0.02	
96-356 1320-1330	0.002		0.02	
96-356 1330-1340	0.002		0.02	
96-356 1340-1350	0.357		0.62	- rod connection
96-356 1350-1360	0.089		0.19	
96-356 1360-1370	0.017		0.04	- rod
96-356 1370-1380	0.055		0.11	
96-356 1380-1390	0.093		0.51	- rod
96-356 1390-1400	0.005		0.06	
96-356 1400-1410	0.005		0.05	- rod
96-356 1410-1420	0.005		0.03	
96-356 1420-1430	0.005		0.07	
96-356 1430-1440	0.002		0.05	

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048448

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

NEWMONT GOLD COMPANY

COPIES TO : C. BALLEW
: R. VANCE
:
:

CLIENT REFERENCE No: 96-356 RECEIVED : 6 APR 1998

No. SAMPLES : 13 REPORTED : 10 APR 1998

MAIN SAMPLE TYPE : SAMPLES ANALYSED AS RECEIVED

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
AuR2	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuRZ2	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02
AAL01-2+Se	AAL01-2+Se	10%		

SIGNATORY : Susan King M.S.

APR-24-98 13:42 7023561413 P.01 R-508 Job-351
04/24/1998 12:52 7023561413 AMERICAN ASSAY LABS PAGE 01

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048448

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Au	Au(R)	AuR2	Au(OZ)	Au(RZ)	AuRZ2	Ag
96-356 1280-1290	164			0.005			1.1
96-356 1290-1300	200			0.006			<0.5
96-356 1300-1310	141			0.004			0.7
96-356 1310-1320	10			<0.001			<0.5
96-356 1320-1330	100			0.003			<0.5
96-356 1330-1340	74	202	356	0.002	0.006	0.010	<0.5
96-356 1340-1350	11960	11107		0.349	0.324		17.3
96-356 1350-1360	3230			0.094			3.5
96-356 1360-1370	784			0.023			5.8
96-356 1370-1380	1678			0.049			2.1
96-356 1380-1390	3258	3720		0.095	0.109		2.4
96-356 1390-1400	628			0.018			2.8
96-356 1400-1410	220			0.006			1.4

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APR-24-98 13:42 7023561413 P.02 R-508 Job-351

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP048448

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Ag(OZ)AAL01-2+
96-356 1280-1290	0.03
96-356 1290-1300	<0.02
96-356 1300-1310	0.02
96-356 1310-1320	<0.02
96-356 1320-1330	<0.02
96-356 1330-1340	<0.02
96-356 1340-1350	0.50
96-356 1350-1360	0.10
96-356 1360-1370	0.17
96-356 1370-1380	0.06
96-356 1380-1390	0.07
96-356 1390-1400	0.08
96-356 1400-1410	0.04

04/24/1998 12:52 7023561413 AMERICAN ASSAY LABS PAGE 03
APR-24-98 13:42 7023561413 P.03 R-508 Job-351

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ANALYSIS REPORT SP048448

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

NEWMONT GOLD COMPANY

COPIES TO : C. BALLEW
: R. VANCE
:
:

CLIENT REFERENCE No: 96-356 RECEIVED : 6 APR 1998

No. SAMPLES : 13 REPORTED : 10 APR 1998

MAIN SAMPLE TYPE : SAMPLES ANALYSED AS RECEIVED

→ Check ASSAYS and ICP analyses of original pulps.

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
AuR2	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuRZ2	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048448

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	AuR2 FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuRZ2 FA30 OPT	Ag D210 ppm
96-356 1280-1290	164			0.005			1.1
96-356 1290-1300	200			0.006			<0.5
96-356 1300-1310	141			0.004			0.7
96-356 1310-1320	10			<0.001			<0.5
96-356 1320-1330	100			0.003			<0.5
96-356 1330-1340	74	202	356	0.002	0.006	0.010	<0.5
96-356 1340-1350	11960	11107		0.349	0.324		17.3
96-356 1350-1360	3230			0.094			3.5
96-356 1360-1370	784			0.023			5.8
Check ASSAYS 96-356 1370-1380	1678			0.049			2.1
96-356 1380-1390	3258	3720		0.095	0.109		2.4
96-356 1390-1400	628			0.018			2.8
96-356 1400-1410	220			0.006			1.4

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048448

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Ag(OZ) D210 OPT
96-356 1280-1290	0.03
96-356 1290-1300	<0.02
96-356 1300-1310	0.02
96-356 1310-1320	<0.02
96-356 1320-1330	<0.02
96-356 1330-1340	<0.02
96-356 1340-1350	0.50
96-356 1350-1360	0.10
96-356 1360-1370	0.17
96-356 1370-1380	0.06
96-356 1380-1390	0.07
96-356 1390-1400	0.08
96-356 1400-1410	0.04

check assays

AMERICAN ASSAY LABORATORIES

AAL 01-2 ICP PACKAGE DETECTION LIMITS

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

0.500 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
DIGEST IS PARTIAL FOR B, Ba, Ca, Cr, Fe, La, Mg, Mn, Sr, Ti AND W.
DIGEST IS LIMITED FOR Al, K AND Na.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (702) 356-0606
FAX: (702) 356-1413

CLIENT: *NEWMONT GOLD COMPANY*
CLIENT REF: ROSEBUD EXPLORATION
AAL REF: SP048448
METHOD: AAL 01-2 + Se

ELEMENT	Ag	Al	As	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Sr	Th	Ti	U	V	W	Zn
SAMPLES	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
96-356 1280-1290	0.7	0.85	36	< 3	238	< 3	0.89	0.6	1	11	14	2.4	10	0.22	37	0.03	1265	32	0.05	1	0.015	28	< 3	4.1	61	9	< .01	< 8	1	< 2	120
96-356 1290-1300	0.3	0.94	18	< 3	357	< 3	0.91	0.5	1	16	10	2.17	20	0.29	43	0.03	726	19	0.07	2	0.016	32	< 3	2.3	67	9	< .01	< 8	1	< 2	123
96-356 1300-1310	1	1.08	26	< 3	289	< 3	2.77	0.6	1	8	10	2.52	10	0.37	51	0.08	1246	4	0.04	1	0.017	43	< 3	3.2	152	9	< .01	< 8	< 1	< 2	156
96-356 1310-1320	0.7	0.81	20	< 3	262	< 3	1.92	0.4	1	5	6	1.94	< 10	0.27	47	0.06	1080	2	0.04	< 1	0.014	33	< 3	2.6	112	8	< .01	< 8	< 1	< 2	120
96-356 1320-1330	0.3	0.73	44	< 3	149	< 3	0.84	0.2	< 1	9	10	1.85	10	0.19	59	0.08	746	3	0.04	1	0.011	32	< 3	3.4	98	12	< .01	< 8	< 1	< 2	92
96-356 1330-1340	0.5	0.73	42	< 3	152	< 3	0.87	< .2	< 1	7	5	1.75	10	0.18	47	0.1	984	2	0.04	1	0.009	24	< 3	4.3	116	10	< .01	< 8	< 1	< 2	70
96-356 1340-1350	13.1	0.42	84	< 3	25	< 3	0.27	< .2	1	10	98	2.57	15	0.12	48	0.04	265	5	0.02	1	0.01	33	11	11.7	51	11	< .01	< 8	1	2	85
96-356 1350-1360	7	0.42	94	< 3	25	< 3	0.16	0.6	1	9	102	2.35	55	0.15	48	0.02	50	4	0.02	1	0.014	34	10	9.3	40	12	< .01	< 8	< 1	< 2	191
96-356 1360-1370	1.2	0.92	62	< 3	60	< 3	0.14	0.6	1	5	35	2.73	45	0.18	37	0.11	1013	3	0.02	< 1	0.015	32	4	7.6	39	10	< .01	< 8	< 1	< 2	139
96-356 1370-1380	3.6	0.68	40	< 3	77	< 3	6.58	0.4	< 1	4	31	1.93	70	0.23	23	0.1	2131	4	0.03	< 1	0.01	26	3	5.2	447	5	< .01	21	1	< 2	123
96-356 1380-1390	2.2	0.41	30	< 3	43	< 3	1.31	< .2	< 1	4	23	1.76	45	0.22	42	0.04	547	4	0.02	< 1	0.007	33	8	12.9	94	10	< .01	< 8	< 1	< 2	88
96-356 1390-1400	1.2	0.42	42	< 3	36	< 3	0.88	< .2	< 1	7	11	1.56	45	0.25	47	0.03	313	3	0.02	< 1	0.007	25	6	11.9	76	10	< .01	< 8	< 1	< 2	65
96-356 1400-1410	1.2	0.45	73	< 3	26	< 3	1.5	< .2	< 1	7	30	2.01	75	0.26	42	0.04	492	4	0.02	< 1	0.008	47	8	13.4	113	10	< .01	< 8	< 1	< 2	121
STANDARD C3	5.4	1.86	57	18	148	21	0.57	23.4	11	167	64	3.28	975	0.16	19	0.59	758	25	0.04	36	0.088	36	18	0.7	29	19	0.1	17	81	20	157
STANDARD G-2	< .3	0.98	< 2	< 3	223	< 3	0.65	< .2	4	76	4	1.93	< 10	0.47	8	0.57	515	1	0.09	7	0.093	4	< 3	0.1	75	4	0.13	< 8	40	2	40

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

(702) 356-0606

INVOICE NO: SP 0048448-IN
INVOICE DATE: 04/27/98

INVOICE TO:
NEWMONT EXPLORATION LTD.
861 W. 6TH STREET
WINNEMUCCA NV 89445

NEWMONT EXPLORATION LTD.
861 W. 6TH STREET
WINNEMUCCA NV 89445

CUSTOMER P.O.	PROJECT	TERMS
96-356	ROSEBUD EXPLOR.	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
13	SAMPLES RECEIVED	.00	.00
13	NO PREPARATION REQUIRED	.00	.00
13	Au (1 A.T. FIRE ASSAY)	8.00	104.00
13	HYDROCHLORIC/NITRIC DIGESTION	2.00	26.00
13	Ag ANALYSES	1.00	13.00
13	MULTI-ELEMENT ICP PACKAGE	9.80	127.40
13	Se ANALYSES	7.15	92.95

COPY

NET INVOICE	363.35
LESS DISCOUNT	127.17
FREIGHT:	.00
INVOICE TOTAL:	236.18

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP048448

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

NEWMONT GOLD COMPANY

COPIES TO : C. BALLEW
: R. VANCE
:
:

NGC analyses for Pete Rogowski Study April, 1998

CLIENT REFERENCE No: 96-356 RECEIVED : 6 APR 1998

No. SAMPLES : 13 REPORTED : 10 APR 1998

MAIN SAMPLE TYPE : SAMPLES ANALYSED AS RECEIVED
Pulps

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
AuR2	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuRZ2	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048448

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	AuR2 FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuRZ2 FA30 OPT	A D21 pp
96-356 1280-1290	164			0.005			1.
96-356 1290-1300	200			0.006			<0.
96-356 1300-1310	141			0.004			0.
96-356 1310-1320	10			<0.001			<0.
96-356 1320-1330	100			0.003			<0.
96-356 1330-1340	74	202	356	0.002	0.006	0.010	<0.
96-356 1340-1350	11960	11107		0.349	0.324		17.
96-356 1350-1360	3230			0.094			3.
96-356 1360-1370	784			0.023			5.
96-356 1370-1380	1678			0.049			2.
96-356 1380-1390	3258	3720		0.095	0.109		2.
96-356 1390-1400	628			0.018			2.
96-356 1400-1410	220			0.006			1.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP048448

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 10 APR 1998

SAMPLES	Ag(OZ) D210 OPT
96-356 1280-1290	0.03
96-356 1290-1300	<0.02
96-356 1300-1310	0.02
96-356 1310-1320	<0.02
96-356 1320-1330	<0.02
96-356 1330-1340	<0.02
96-356 1340-1350	0.50
96-356 1350-1360	0.10
96-356 1360-1370	0.17
96-356 1370-1380	0.06
96-356 1380-1390	0.07
96-356 1390-1400	0.08
96-356 1400-1410	0.04

AMERICAN ASSAY LABORATORIES

AAL 01-2 ICP PACKAGE DETECTION LIMITS

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

0.500 GRAMS OF PULP IS DIGESTED WITH HYDROCHLORIC AND NITRIC ACID AT 95 DEGREE CENTIGRADE FOR ONE HOUR.
DIGEST IS PARTIAL FOR B, Ba, Ca, Cr, Fe, La, Mg, Mn, Sr, Ti AND W.
DIGEST IS LIMITED FOR Al, K AND Na.

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
PHONE: (702) 356-0606
FAX: (702) 356-1413

CLIENT: *NEWMONT GOLD COMPANY*
CLIENT REF: ROSEBUD EXPLORATION
AAL REF: SP048448
METHOD: AAL 01-2 + Se

ELEMENT SAMPLES	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppb	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Se ppm	Sr ppm	Th ppm	Ti %	U ppm	V ppm	W ppm	Zn ppm
96-356 1280-1290	0.7	0.85	36	< 3	238	< 3	0.89	0.6	1	11	14	2.4	10	0.22	37	0.03	1265	32	0.05	1	0.015	28	< 3	4.1	61	9	< .01	< 8	1	< 2	120
96-356 1290-1300	0.3	0.94	18	< 3	357	< 3	0.91	0.5	1	16	10	2.17	20	0.29	43	0.03	726	19	0.07	2	0.016	32	< 3	2.3	67	9	< .01	< 8	1	< 2	123
96-356 1300-1310	1	1.08	26	< 3	289	< 3	2.77	0.6	1	8	10	2.52	10	0.37	51	0.08	1246	4	0.04	1	0.017	43	< 3	3.2	152	9	< .01	< 8	< 1	< 2	156
96-356 1310-1320	0.7	0.81	20	< 3	262	< 3	1.92	0.4	1	5	6	1.94	< 10	0.27	47	0.06	1080	2	0.04	< 1	0.014	33	< 3	2.6	112	8	< .01	< 8	< 1	< 2	120
96-356 1320-1330	0.3	0.73	44	< 3	149	< 3	0.84	0.2	< 1	9	10	1.85	10	0.19	59	0.08	746	3	0.04	1	0.011	32	< 3	3.4	98	12	< .01	< 8	< 1	< 2	92
96-356 1330-1340	0.5	0.73	42	< 3	152	< 3	0.87	< .2	< 1	7	5	1.75	10	0.18	47	0.1	984	2	0.04	1	0.009	24	< 3	4.3	116	10	< .01	< 8	< 1	< 2	70
96-356 1340-1350	13.1	0.42	84	< 3	25	< 3	0.27	< .2	1	10	98	2.57	15	0.12	48	0.04	265	5	0.02	1	0.01	33	11	11.7	51	11	< .01	< 8	1	2	85
96-356 1350-1360	7	0.42	94	< 3	25	< 3	0.16	0.6	1	9	102	2.35	55	0.15	48	0.02	50	4	0.02	1	0.014	34	10	9.3	40	12	< .01	< 8	< 1	< 2	191
96-356 1360-1370	1.2	0.92	62	< 3	60	< 3	0.14	0.6	1	5	35	2.73	45	0.18	37	0.11	1013	3	0.02	< 1	0.015	32	4	7.6	39	10	< .01	< 8	< 1	< 2	139
96-356 1370-1380	3.6	0.68	40	< 3	77	< 3	6.58	0.4	< 1	4	31	1.93	70	0.23	23	0.1	2131	4	0.03	< 1	0.01	26	3	5.2	447	5	< .01	21	1	< 2	123
96-356 1380-1390	2.2	0.41	30	< 3	43	< 3	1.31	< .2	< 1	4	23	1.76	45	0.22	42	0.04	547	4	0.02	< 1	0.007	33	8	12.9	94	10	< .01	< 8	< 1	< 2	88
96-356 1390-1400	1.2	0.42	42	< 3	36	< 3	0.88	< .2	< 1	7	11	1.56	45	0.25	47	0.03	313	3	0.02	< 1	0.007	25	6	11.9	76	10	< .01	< 8	< 1	< 2	65
96-356 1400-1410	1.2	0.45	73	< 3	26	< 3	1.5	< .2	< 1	7	30	2.01	75	0.26	42	0.04	492	4	0.02	< 1	0.008	47	8	13.4	113	10	< .01	< 8	< 1	< 2	121
STANDARD C3	5.4	1.86	57	18	148	21	0.57	23.4	11	167	64	3.28	975	0.16	19	0.59	758	25	0.04	36	0.088	36	18	0.7	29	19	0.1	17	81	20	157
STANDARD G-2	< .3	0.98	< 2	< 3	223	< 3	0.65	< .2	4	76	4	1.93	< 10	0.47	8	0.57	515	1	0.09	7	0.093	4	< 3	0.1	75	4	0.13	< 8	40	2	40

American Assay Laboratories

INVOICE

Remit To: P.O. Box1153C
Reno, Nevada 8951C
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431

(702) 356-0606

INVOICE NO: SP 0048448-IN
INVOICE DATE: 04/27/98

INVOICE TO:
NEWMONT EXPLORATION LTD.
861 W. 6TH STREET
WINNEMUCCA NV 89445

NEWMONT EXPLORATION LTD.
861 W. 6TH STREET
WINNEMUCCA NV 89445

CUSTOMER P.O.	PROJECT	TERMS
96-356	ROSEBUD EXPLOR.	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
13	SAMPLES RECEIVED	.00	.00
13	NO PREPARATION REQUIRED	.00	.00
13	Au (1 A.T. FIRE ASSAY)	8.00	104.00
13	HYDROCHLORIC/NITRIC DIGESTION	2.00	26.00
13	Ag ANALYSES	1.00	13.00
13	MULTI-ELEMENT ICP PACKAGE	9.80	127.40
13	Se ANALYSES	7.15	92.95

COPY

NET INVOICE:	363.35
LESS DISCOUNT:	127.17
FREIGHT:	.00
INVOICE TOTAL:	236.18

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

P.O. BOX 11530
RENO, NV,,USA
Ph.1-702-356-0606, Fax.1-702-356-1413

HECLA MINING CO.

COPIES TO : CHARLIE MUERHOFF

:

:

:

CLIENT REFERENCE No: 96-356 RECEIVED : 26 MAR 1996

No. SAMPLES : 144 REPORTED : 5 APR 1996

MAIN SAMPLE TYPE : DRILL CUTTINGS

BAC-1360 : 20' @ 0.223, .41

BAC-1390' : 50' @ 0.116, 0.30

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

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

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0000-0010	<0.001		<0.02
96-356 0010-0020	0.001		<0.02
96-356 0020-0030	0.001		0.03
96-356 0030-0040	0.001		<0.02
96-356 0040-0050	<0.001		<0.02
96-356 0050-0060	0.001		<0.02
96-356 0060-0070	<0.001		<0.02
96-356 0070-0080	0.008	0.008	0.10
96-356 0080-0090	0.002		0.03
96-356 0090-0100	<0.001		<0.02
96-356 0100-0110	<0.001		<0.02
96-356 0110-0120	<0.001		<0.02
96-356 0120-0130	<0.001		0.02
96-356 0130-0140	0.002		0.06
96-356 0140-0150	0.004		0.04
96-356 0150-0160	0.004		0.05
96-356 0160-0170	0.002		0.04
96-356 0170-0180	0.002		0.06
96-356 0180-0190	0.002		0.05
96-356 0190-0200	0.002		0.05
96-356 0200-0210	0.002		0.04
96-356 0210-0220	0.003		0.07
96-356 0220-0230	0.005		0.11
96-356 0230-0240	0.005	0.005	0.11
96-356 0240-0250	0.003		0.08

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ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0250-0260	0.004		0.08
96-356 0260-0270	0.004		0.10
96-356 0270-0280	0.003		0.06
96-356 0280-0290	0.002		0.04
96-356 0290-0300	0.002		0.05
96-356 0300-0310	0.003		0.06
96-356 0310-0320	0.002		0.05
96-356 0320-0330	0.002		0.07
96-356 0330-0340	<0.001		<0.02
96-356 0340-0350	0.001		<0.02
96-356 0350-0360	0.002		0.16
96-356 0360-0370	0.002		0.06
96-356 0370-0380	0.001		0.02
96-356 0380-0390	0.001		<0.02
96-356 0390-0400	0.008	0.008	0.04
96-356 0400-0410	0.001		0.02
96-356 0410-0420	<0.001		0.02
96-356 0420-0430	<0.001		<0.02
96-356 0430-0440	<0.001		<0.02
96-356 0440-0450	<0.001		<0.02
96-356 0450-0460	0.001		<0.02
96-356 0460-0470	<0.001		<0.02
96-356 0470-0480	<0.001		<0.02
96-356 0480-0490	<0.001	<0.001	<0.02
96-356 0490-0500	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 0500-0510	<0.001		<0.02
96-356 0510-0520	0.001		<0.02
96-356 0520-0530	<0.001		<0.02
96-356 0530-0540	0.001		<0.02
96-356 0540-0550	<0.001		<0.02
96-356 0550-0560	<0.001		<0.02
96-356 0560-0570	0.002		<0.02
96-356 0570-0580	<0.001		<0.02
96-356 0580-0590	0.002		<0.02
96-356 0590-0600	0.001		<0.02
96-356 0600-0610	<0.001		<0.02
96-356 0610-0620	<0.001		<0.02
96-356 0620-0630	0.001		<0.02
96-356 0630-0640	<0.001		<0.02
96-356 0640-0650	<0.001		<0.02
96-356 0650-0660	<0.001		<0.02
96-356 0660-0670	<0.001	<0.001	<0.02
96-356 0670-0680	<0.001		<0.02
96-356 0680-0690	0.001		<0.02
96-356 0690-0700	<0.001		<0.02
96-356 0700-0710	<0.001		<0.02
96-356 0710-0720	<0.001		<0.02
96-356 0720-0730	<0.001		<0.02
96-356 0730-0740	<0.001		<0.02
96-356 0740-0750	<0.001		<0.02

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 1000-1010	<0.001		<0.02
96-356 1010-1020	<0.001	<0.001	<0.02
96-356 1020-1030	<0.001		<0.02
96-356 1030-1040	<0.001		<0.02
96-356 1040-1050	<0.001		<0.02
96-356 1050-1060	<0.001		<0.02
96-356 1060-1070	<0.001		<0.02
96-356 1070-1080	<0.001		<0.02
96-356 1080-1090	<0.001		<0.02
96-356 1090-1100	<0.001		<0.02
96-356 1100-1110	0.004	0.004	0.04
96-356 1110-1120	<0.001		<0.02
96-356 1120-1130	0.001		0.02
96-356 1130-1140	<0.001		<0.02
96-356 1140-1150	<0.001		<0.02
96-356 1150-1160	<0.001		<0.02
96-356 1160-1170	<0.001		<0.02
96-356 1170-1180	<0.001		<0.02
96-356 1180-1190	<0.001		<0.02
96-356 1190-1200	<0.001		<0.02
96-356 1200-1210	0.001		0.03
96-356 1210-1220	<0.001		<0.02
96-356 1220-1230	0.009		0.06
96-356 1230-1240	0.021	0.018	0.07
96-356 1240-1250	0.007		0.06

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP037714

American Assay Laboratories

CLIENT : HECLA MINING CO.
PROJECT : ROSEBUD
REFERENCE : 96-356

REPORTED : 5 APR 1996

SAMPLES	Au(OZ) FA60 OPT	Au(RZ) FA60 OPT	Ag(OZ) D210 OPT
96-356 1250-1260	0.001	0.007	0.02
96-356 1260-1270	0.001		0.03
96-356 1270-1280	<0.001	<0.001	0.03
96-356 1280-1290	0.007		0.03
96-356 1290-1300	0.007	0.007	0.02
96-356 1300-1310	0.006		0.03
96-356 1310-1320	0.002		0.02
96-356 1320-1330	0.002		0.02
96-356 1330-1340	0.002		0.02
96-356 1340-1350	0.357		0.62
96-356 1350-1360	0.089		0.19
96-356 1360-1370	0.017		0.04
96-356 1370-1380	0.055		0.11
96-356 1380-1390	0.093		0.51
96-356 1390-1400	0.005		0.06
96-356 1400-1410	0.005		0.05
96-356 1410-1420	0.005		0.03
96-356 1420-1430	0.005		0.07
96-356 1430-1440	0.002		0.05

WELNAV
ELKO, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* HECLA *
****

JOB NUMBER: 29-0588-311

WELL NAME: 96-356 / MINE COORDINATES

LOCATION: ROSEBUD PROJECT

SURVEY DATE: 3-21-96

SURVEY ENGINEER: B.THOMAS

GYRO REFERENCE BEARING: 202.50

TIE-ON COORDINATES AT: 0 M.D.
TAKEN FROM: COLLAR
SURFACE Y-COORD: 2205095
SURFACE X-COORD: 481338
SURF. ELEVATION: 0

WELNAV

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

COMMENTS: **** EKLUND ****
*** DRILLING ***

PROJECT F/1340' T/1550'

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

WELNAV
ELKO,NEVADA

JOB NUMBER: 29-0588-311 WELL NAME: 96-356 / MINE COORDINATES

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	TRUE ELEV	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
0.0	0.00	0.00	0.000	-59.70	141.452	205095.00 N	481338.00 E	0.00		%2257018.00	AT 012.31
50.0	-43.40	%2257002.00	-232.053	-60.76	144.272	205075.00 N	481353.00 E	3.51	1.76	%2257002.00	AT 012.31
100.0	-87.33	%2256986.00	-214.395	-62.18	145.282	205056.00 N	481366.80 E	3.00	1.50	%2256986.00	AT 012.31
150.0	-131.95	%2256970.00	-198.127	-64.20	147.072	205037.00 N	481379.40 E	4.35	2.18	%2256970.00	AT 012.31
200.0	-177.42	%2256955.00	-183.850	-66.62	150.772	205019.00 N	481390.10 E	5.73	2.87	%2256955.00	AT 012.32
250.0	-223.57	%2256941.00	-171.264	-68.16	152.082	205002.00 N	481399.30 E	3.24	1.62	%2256941.00	AT 012.32
300.0	-270.09	%2256927.00	-159.543	-68.80	152.872	204986.00 N	481407.80 E	1.40	0.70	%2256926.00	AT 012.32
350.0	-316.89	%2256913.00	-148.385	-69.96	153.342	204970.00 N	481415.70 E	2.34	1.17	%2256913.00	AT 012.32
400.0	-364.07	%2256900.00	-137.941	-71.41	153.442	204956.00 N	481423.20 E	2.90	1.45	%2256900.00	AT 012.32
450.0	-411.68	%2256888.00	-128.511	-73.03	154.902	204942.00 N	481429.80 E	3.36	1.68	%2256888.00	AT 012.32
500.0	-459.70	%2256877.00	-120.246	-74.65	156.632	204929.00 N	481435.50 E	3.38	1.69	%2256877.00	AT 012.32
550.0	-508.08	%2256866.00	-113.071	-76.07	158.732	204917.00 N	481440.30 E	3.03	1.52	%2256866.00	AT 012.32
600.0	-556.74	%2256857.00	-106.910	-77.34	161.372	204907.00 N	481444.30 E	2.81	1.41	%2256857.00	AT 012.32
650.0	-605.67	%2256848.00	-101.838	-78.98	163.882	204897.00 N	481447.30 E	3.44	1.72	%2256848.00	AT 012.32
700.0	-654.85	%2256840.00	-97.668	-80.21	166.792	204888.00 N	481449.70 E	2.67	1.34	%2256840.00	AT 012.32
750.0	-704.20	%2256832.00	-94.399	-81.26	169.742	204880.00 N	481451.30 E	2.31	1.15	%2256832.00	AT 012.32
800.0	-753.67	%2256826.00	-91.657	-82.13	170.762	204873.00 N	481452.50 E	1.76	0.88	%2256826.00	AT 012.32
850.0	-803.26	%2256820.00	-89.177	-83.17	167.842	204867.00 N	481453.70 E	2.21	1.10	%2256819.00	AT 012.32
900.0	-852.94	%2256815.00	-86.923	-83.81	168.822	204861.00 N	481454.90 E	1.30	0.65	%2256815.00	AT 012.32
950.0	-902.69	%2256811.00	-84.857	-84.80	166.812	204857.00 N	481455.90 E	2.02	1.01	%2256810.00	AT 012.32
1000.0	-952.53	%2256807.00	-83.092	-85.92	165.062	204853.00 N	481456.90 E	2.26	1.13	%2256806.00	AT 012.32
1050.0	-1002.42	%2256804.00	-81.476	-86.53	163.192	204849.00 N	481457.80 E	1.24	0.62	%2256804.00	AT 012.32
1100.0	-1052.33	%2256801.00	-80.086	-86.75	166.072	204847.00 N	481458.60 E	0.55	0.28	%2256801.00	AT 012.32
1150.0	-1102.26	%2256799.00	-79.034	-87.20	166.922	204844.00 N	481459.20 E	0.90	0.45	%2256799.00	AT 012.32
1200.0	-1152.21	%2256796.00	-78.058	-87.59	168.042	204842.00 N	481459.70 E	0.79	0.39	%2256796.00	AT 012.32
1250.0	-1202.16	%2256795.00	-77.043	-87.48	165.172	204840.00 N	481460.20 E	0.33	0.16	%2256794.00	AT 012.32
1300.0	-1252.11	%2256793.00	-75.954	-87.41	162.392	204837.00 N	481460.80 E	0.29	0.14	%2256792.00	AT 012.32
1340.0	-1292.07	%2256791.00	-75.090	-87.45	162.292	204836.00 N	481461.30 E	0.10	0.04	%2256791.00	AT 012.32
1400.0	-1352.02	%2256789.00	-73.775	-87.49	163.242	204833.00 N	481462.10 E	0.10	0.06	%2256788.00	AT 012.32
1550.0	-1501.87	%2256783.00	-70.469	-87.46	162.432	204827.00 N	481464.10 E	0.03	0.05	%2256783.00	AT 012.32

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*************************************************************
*                         ********                          *
*      THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF          *
*                         ********                          *
*  1550.0 FEET EQUALS %2256783.00   FEET AT  012.32         *
*                         ********                          *
*************************************************************
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WELNAV
ELKO, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* HECLA *
****

JOB NUMBER: 29-0588-311

WELL NAME: 96-356

LOCATION: ROSEBUD PROJECT

SURVEY DATE: 3-21-96

SURVEY ENGINEER: B.THOMAS

GYRO REFERENCE BEARING: 202.50

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

WELNAV

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

COMMENTS: **** EKLUND ****
*** DRILLING ***

PROJECT F/1340' T/1550'

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

B. Thomas

COMPANY REPRESENTATIVE

WELNAV
ELKO, NEVADA

JOB NUMBER: 29-0588-311 WELL NAME: 96-356

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
0.0	0.00	0.00	0.000	-59.70	141.45	0.00 N	0.00 E	0.00		0.00	AT 000.00
50.0	43.40	24.28	-5.148	-60.76	144.27	19.78 S	14.99 E	3.51	1.76	24.82	AT 142.84
100.0	87.33	47.79	-9.313	-62.18	145.28	39.28 S	28.77 E	3.00	1.50	48.69	AT 143.78
150.0	131.95	70.08	-12.710	-64.20	147.07	58.01 S	41.33 E	4.35	2.18	71.23	AT 144.53
200.0	177.42	90.77	-14.874	-66.62	150.77	75.80 S	52.09 E	5.73	2.87	91.98	AT 145.50
250.0	223.57	109.95	-16.016	-68.16	152.08	92.68 S	61.29 E	3.24	1.62	111.11	AT 146.52
300.0	270.09	128.28	-16.766	-68.80	152.87	108.94 S	69.77 E	1.40	0.70	129.37	AT 147.36
350.0	316.89	145.88	-17.293	-69.96	153.34	124.65 S	77.74 E	2.34	1.17	146.90	AT 148.05
400.0	364.07	162.41	-17.704	-71.41	153.44	139.43 S	85.15 E	2.90	1.45	163.37	AT 148.59
450.0	411.68	177.68	-17.883	-73.03	154.90	153.17 S	91.81 E	3.36	1.68	178.57	AT 149.06
500.0	459.70	191.59	-17.661	-74.65	156.63	165.85 S	97.53 E	3.38	1.69	192.40	AT 149.54
550.0	508.08	204.21	-17.039	-76.07	158.73	177.54 S	102.33 E	3.03	1.52	204.92	AT 150.04
600.0	556.74	215.66	-16.002	-77.34	161.37	188.34 S	106.27 E	2.81	1.41	216.25	AT 150.57
650.0	605.67	225.82	-14.623	-78.98	163.88	198.12 S	109.35 E	3.44	1.72	226.29	AT 151.10
700.0	654.85	234.70	-12.988	-80.21	166.79	206.85 S	111.64 E	2.67	1.34	235.06	AT 151.64
750.0	704.20	242.53	-11.127	-81.26	169.74	214.73 S	113.29 E	2.31	1.15	242.78	AT 152.18
800.0	753.67	249.49	-9.207	-82.13	170.76	221.84 S	114.52 E	1.76	0.88	249.66	AT 152.70
850.0	803.26	255.68	-7.595	-83.17	167.84	228.13 S	115.69 E	2.21	1.10	255.79	AT 153.11
900.0	852.94	261.19	-6.272	-83.81	168.82	233.68 S	116.84 E	1.30	0.65	261.26	AT 153.43
950.0	902.69	266.02	-5.148	-84.80	166.81	238.53 S	117.88 E	2.02	1.01	266.07	AT 153.70
1000.0	952.53	269.99	-4.361	-85.92	165.06	242.46 S	118.86 E	2.26	1.13	270.02	AT 153.88
1050.0	1002.42	273.23	-3.824	-86.53	163.19	245.62 S	119.75 E	1.24	0.62	273.26	AT 154.01
1100.0	1052.33	276.12	-3.326	-86.75	166.07	248.45 S	120.53 E	0.55	0.28	276.14	AT 154.12
1150.0	1102.26	278.71	-2.793	-87.20	166.92	251.01 S	121.15 E	0.90	0.45	278.72	AT 154.24
1200.0	1152.21	280.92	-2.296	-87.59	168.04	253.23 S	121.64 E	0.79	0.39	280.93	AT 154.34
1250.0	1202.16	283.03	-1.858	-87.48	165.17	255.32 S	122.14 E	0.33	0.16	283.03	AT 154.43
1300.0	1252.11	285.23	-1.511	-87.41	162.39	257.46 S	122.77 E	0.29	0.14	285.23	AT 154.51
1340.0	1292.07	287.01	-1.276	-87.45	162.29	259.17 S	123.31 E	0.10	0.04	287.01	AT 154.56
1400.0	1352.02	289.63	-0.910	-87.49	163.24	261.70 S	124.10 E	0.10	0.06	289.63	AT 154.63
1550.0	1501.87	296.17	0.012	-87.46	162.43	268.01 S	126.05 E	0.03	0.05	296.17	AT 154.81

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*                          ********                         *
*      THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF          *
*                          ********                         *
*  1550.0 FEET EQUALS    296.17    FEET AT   154.81         *
*                          ********                         *
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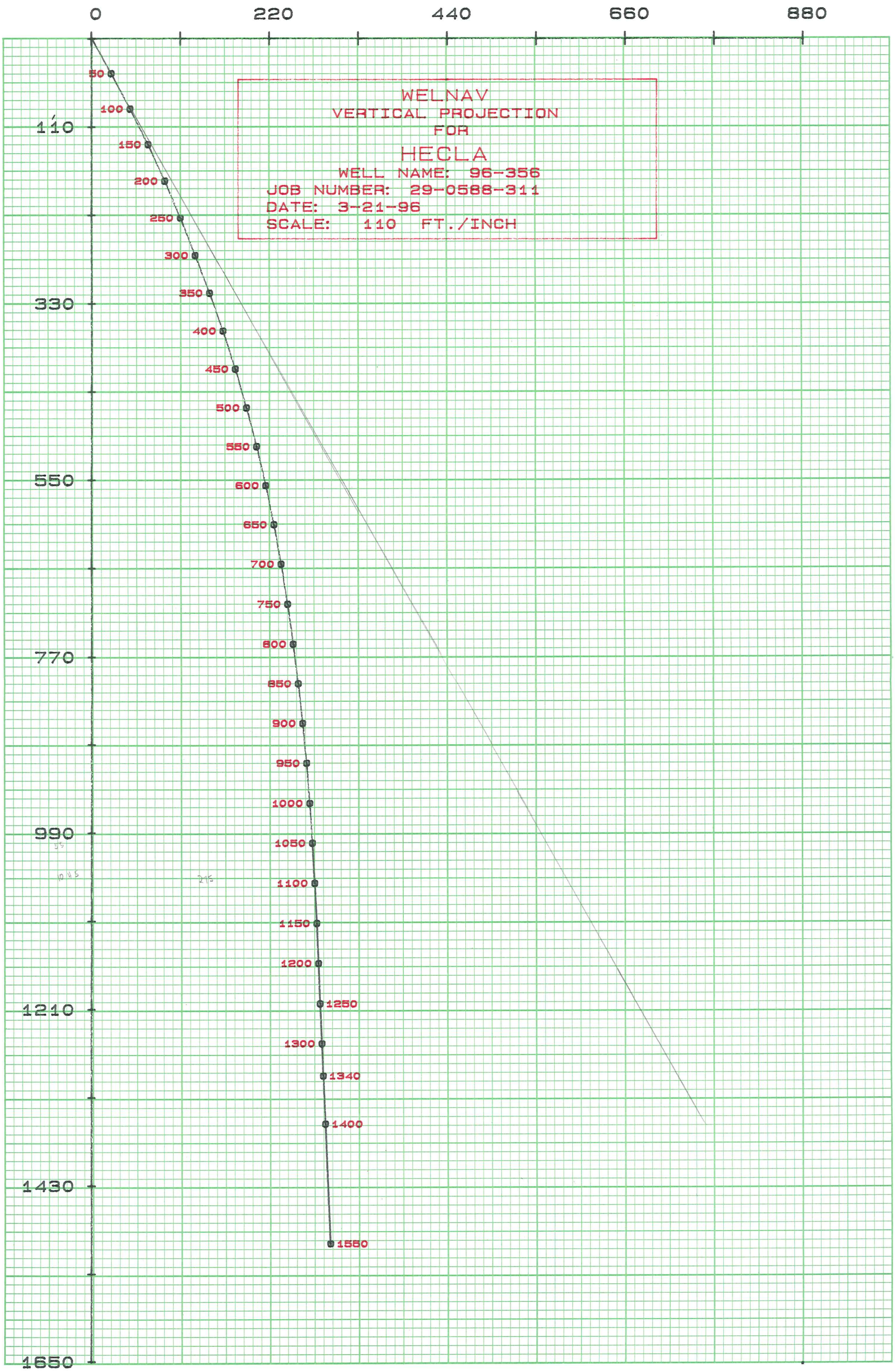
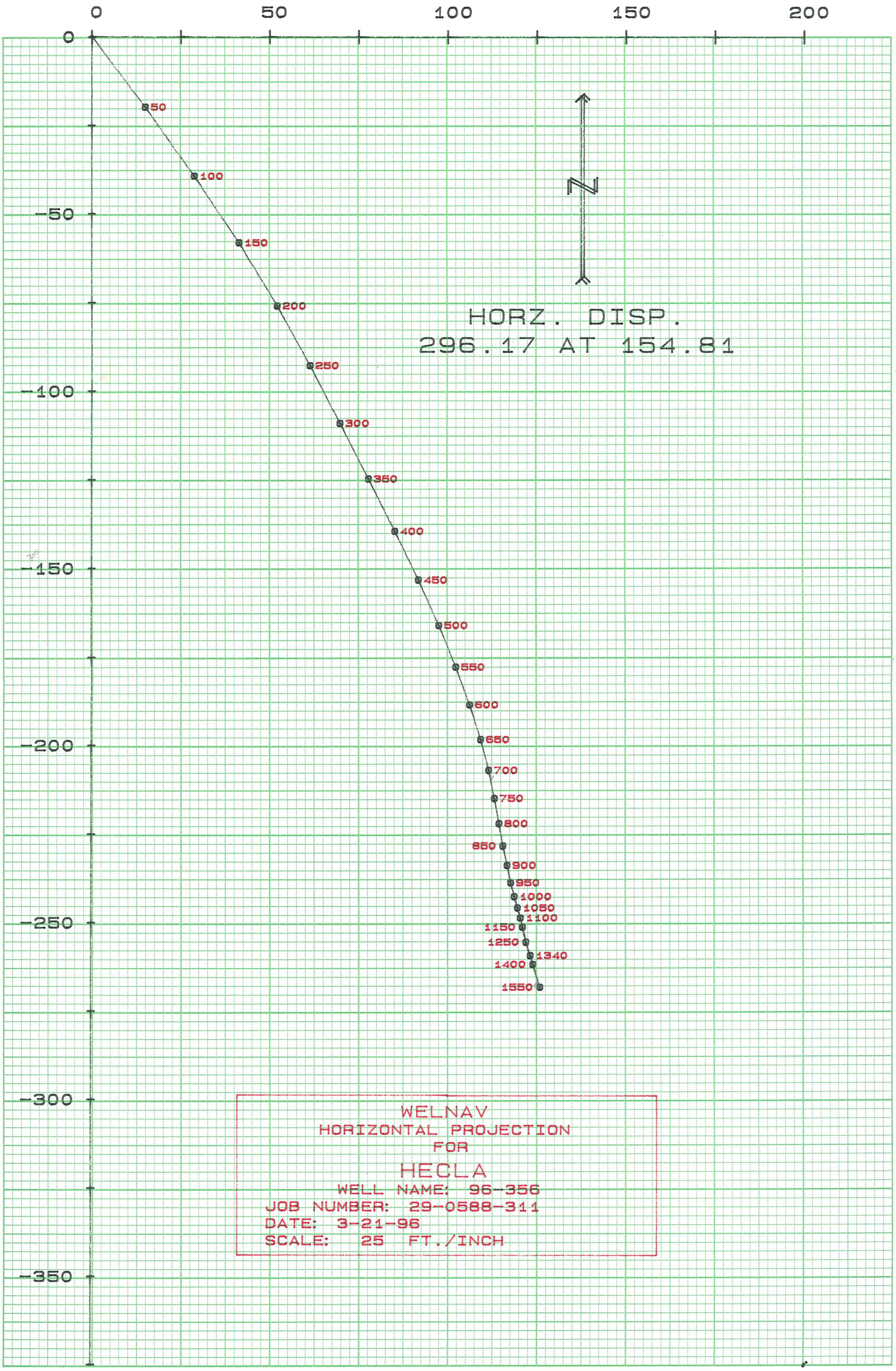
CK PRINTING CENTER (801) 467-2841



CK PRINTING CENTER (801) 467-2841



WELNAV
ELKO,NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* HECLA *
****

OB NUMBER: 29-0588-311

ELL NAME: 96-356 / MINE COORDINATES

OCATION: ROSEBUD PROJECT

URVEY DATE: 3-21-96

URVEY ENGINEER: B.THOMAS

YRO REFERENCE BEARING: 202.50

IE-ON COORDINATES AT: 0 M.D.
AKEN FROM: COLLAR
URFACE Y-COORD: 2205095
URFACE X-COORD: 481338
URF. ELEVATION: 0

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

OMMENTS: **** EKLUND ****
*** DRILLING ***

PROJECT F/1340' T/1550'

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

WELNAV
ELKO,NEVADA

OB NUMBER: 29-0588-311 WELL NAME: 96-356 / MINE COORDINATES

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	TRUE ELEV	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
0.0	0.00	0.00	0.000	-59.70	141.452	205095.00 N	481338.00 E	0.00		%2257018.00	AT 012.31
50.0	-43.40	%2257002.00	-232.053	-60.76	144.272	205075.00 N	481353.00 E	3.51	1.76	%2257002.00	AT 012.31
100.0	-87.33	%2256986.00	-214.395	-62.18	145.282	205056.00 N	481366.80 E	3.00	1.50	%2256986.00	AT 012.31
150.0	-131.95	%2256970.00	-198.127	-64.20	147.072	205037.00 N	481379.40 E	4.35	2.18	%2256970.00	AT 012.31
200.0	-177.42	%2256955.00	-183.850	-66.62	150.772	205019.00 N	481390.10 E	5.73	2.87	%2256955.00	AT 012.32
250.0	-223.57	%2256941.00	-171.264	-68.16	152.082	205002.00 N	481399.30 E	3.24	1.62	%2256941.00	AT 012.32
300.0	-270.09	%2256927.00	-159.543	-68.80	152.872	204986.00 N	481407.80 E	1.40	0.70	%2256926.00	AT 012.32
350.0	-316.89	%2256913.00	-148.385	-69.96	153.342	204970.00 N	481415.70 E	2.34	1.17	%2256913.00	AT 012.32
400.0	-364.07	%2256900.00	-137.941	-71.41	153.442	204956.00 N	481423.20 E	2.90	1.45	%2256900.00	AT 012.32
450.0	-411.68	%2256888.00	-128.511	-73.03	154.902	204942.00 N	481429.80 E	3.36	1.68	%2256888.00	AT 012.32
500.0	-459.70	%2256877.00	-120.246	-74.65	156.632	204929.00 N	481435.50 E	3.38	1.69	%2256877.00	AT 012.32
550.0	-508.08	%2256866.00	-113.071	-76.07	158.732	204917.00 N	481440.30 E	3.03	1.52	%2256866.00	AT 012.32
600.0	-556.74	%2256857.00	-106.910	-77.34	161.372	204907.00 N	481444.30 E	2.81	1.41	%2256857.00	AT 012.32
650.0	-605.67	%2256848.00	-101.838	-78.98	163.882	204897.00 N	481447.30 E	3.44	1.72	%2256848.00	AT 012.32
700.0	-654.85	%2256840.00	-97.668	-80.21	166.792	204888.00 N	481449.70 E	2.67	1.34	%2256840.00	AT 012.32
750.0	-704.20	%2256832.00	-94.399	-81.26	169.742	204880.00 N	481451.30 E	2.31	1.15	%2256832.00	AT 012.32
800.0	-753.67	%2256826.00	-91.657	-82.13	170.762	204873.00 N	481452.50 E	1.76	0.88	%2256826.00	AT 012.32
850.0	-803.26	%2256820.00	-89.177	-83.17	167.842	204867.00 N	481453.70 E	2.21	1.10	%2256819.00	AT 012.32
900.0	-852.94	%2256815.00	-86.923	-83.81	168.822	204861.00 N	481454.90 E	1.30	0.65	%2256815.00	AT 012.32
950.0	-902.69	%2256811.00	-84.857	-84.80	166.812	204857.00 N	481455.90 E	2.02	1.01	%2256810.00	AT 012.32
1000.0	-952.53	%2256807.00	-83.092	-85.92	165.062	204853.00 N	481456.90 E	2.26	1.13	%2256806.00	AT 012.32
1050.0	-1002.42	%2256804.00	-81.476	-86.53	163.192	204849.00 N	481457.80 E	1.24	0.62	%2256804.00	AT 012.32
1100.0	-1052.33	%2256801.00	-80.086	-86.75	166.072	204847.00 N	481458.60 E	0.55	0.28	%2256801.00	AT 012.32
1150.0	-1102.26	%2256799.00	-79.034	-87.20	166.922	204844.00 N	481459.20 E	0.90	0.45	%2256799.00	AT 012.32
1200.0	-1152.21	%2256796.00	-78.058	-87.59	168.042	204842.00 N	481459.70 E	0.79	0.39	%2256796.00	AT 012.32
1250.0	-1202.16	%2256795.00	-77.043	-87.48	165.172	204840.00 N	481460.20 E	0.33	0.16	%2256794.00	AT 012.32
1300.0	-1252.11	%2256793.00	-75.954	-87.41	162.392	204837.00 N	481460.80 E	0.29	0.14	%2256792.00	AT 012.32
1340.0	-1292.07	%2256791.00	-75.090	-87.45	162.292	204836.00 N	481461.30 E	0.10	0.04	%2256791.00	AT 012.32
1400.0	-1352.02	%2256789.00	-73.775	-87.49	163.242	204833.00 N	481462.10 E	0.10	0.06	%2256788.00	AT 012.32
1550.0	-1501.87	%2256783.00	-70.469	-87.46	162.432	204827.00 N	481464.10 E	0.03	0.05	%2256783.00	AT 012.32

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*************************************************************
*                        ********                           *
*     THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF           *
*                        ********                           *
*  1550.0 FEET EQUALS %2256783.00   FEET AT  012.32         *
*                        ********                           *
*************************************************************
```

WELNAV
ELKO, NEVADA

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

****
* HECLA *
****

JOB NUMBER: 29-0588-311

WELL NAME: 96-356

LOCATION: ROSEBUD PROJECT

SURVEY DATE: 3-21-96

SURVEY ENGINEER: B.THOMAS

GYRO REFERENCE BEARING: 202.50

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

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

COMMENTS: **** EKLUND ****
*** DRILLING ***

PROJECT F/1340' T/1550'

****
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*** THIS DIRECTIONAL SURVEY REPORT IS ****
** CORRECT TO THE BEST OF MY KNOWLEDGE ***
* AND IS SUPPORTED BY ACTUAL FIELD DATA! *
**
**
** B. Thomas **
** COMPANY REPRESENTATIVE **
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WELNAV
ELKO,NEVADA

B NUMBER: 29-0588-311 WELL NAME: 96-356

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	COORDINATES DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISPLACEMENT DISP. DIRECTION
0.0	0.00	0.00	0.000	-59.70	141.45	0.00 N	0.00 E	0.00		0.00 AT 000.00
50.0	43.40	24.28	-5.148	-60.76	144.27	19.78 S	14.99 E	3.51	1.76	24.82 AT 142.84
100.0	87.33	47.79	-9.313	-62.18	145.28	39.28 S	28.77 E	3.00	1.50	48.69 AT 143.78
150.0	131.95	70.08	-12.710	-64.20	147.07	58.01 S	41.33 E	4.35	2.18	71.23 AT 144.53
200.0	177.42	90.77	-14.874	-66.62	150.77	75.80 S	52.09 E	5.73	2.87	91.98 AT 145.50
250.0	223.57	109.95	-16.016	-68.16	152.08	92.68 S	61.29 E	3.24	1.62	111.11 AT 146.52
300.0	270.09	128.28	-16.766	-68.80	152.87	108.94 S	69.77 E	1.40	0.70	129.37 AT 147.36
350.0	316.89	145.88	-17.293	-69.96	153.34	124.65 S	77.74 E	2.34	1.17	146.90 AT 148.05
400.0	364.07	162.41	-17.704	-71.41	153.44	139.43 S	85.15 E	2.90	1.45	163.37 AT 148.59
450.0	411.68	177.68	-17.883	-73.03	154.90	153.17 S	91.81 E	3.36	1.68	178.57 AT 149.06
500.0	459.70	191.59	-17.661	-74.65	156.63	165.85 S	97.53 E	3.38	1.69	192.40 AT 149.54
550.0	508.08	204.21	-17.039	-76.07	158.73	177.54 S	102.33 E	3.03	1.52	204.92 AT 150.04
600.0	556.74	215.66	-16.002	-77.34	161.37	188.34 S	106.27 E	2.81	1.41	216.25 AT 150.57
650.0	605.67	225.82	-14.623	-78.98	163.88	198.12 S	109.35 E	3.44	1.72	226.29 AT 151.10
700.0	654.85	234.70	-12.988	-80.21	166.79	206.85 S	111.64 E	2.67	1.34	235.06 AT 151.64
750.0	704.20	242.53	-11.127	-81.26	169.74	214.73 S	113.29 E	2.31	1.15	242.78 AT 152.18
800.0	753.67	249.49	-9.207	-82.13	170.76	221.84 S	114.52 E	1.76	0.88	249.66 AT 152.70
850.0	803.26	255.68	-7.595	-83.17	167.84	228.13 S	115.69 E	2.21	1.10	255.79 AT 153.11
900.0	852.94	261.19	-6.272	-83.81	168.82	233.68 S	116.84 E	1.30	0.65	261.26 AT 153.43
950.0	902.69	266.02	-5.148	-84.80	166.81	238.53 S	117.88 E	2.02	1.01	266.07 AT 153.70
1000.0	952.53	269.99	-4.361	-85.92	165.06	242.46 S	118.86 E	2.26	1.13	270.02 AT 153.88
1050.0	1002.42	273.23	-3.824	-86.53	163.19	245.62 S	119.75 E	1.24	0.62	273.26 AT 154.01
1100.0	1052.33	276.12	-3.326	-86.75	166.07	248.45 S	120.53 E	0.55	0.28	276.14 AT 154.12
1150.0	1102.26	278.71	-2.793	-87.20	166.92	251.01 S	121.15 E	0.90	0.45	278.72 AT 154.24
1200.0	1152.21	280.92	-2.296	-87.59	168.04	253.23 S	121.64 E	0.79	0.39	280.93 AT 154.34
1250.0	1202.16	283.03	-1.858	-87.48	165.17	255.32 S	122.14 E	0.33	0.16	283.03 AT 154.43
1300.0	1252.11	285.23	-1.511	-87.41	162.39	257.46 S	122.77 E	0.29	0.14	285.23 AT 154.51
1340.0	1292.07	287.01	-1.276	-87.45	162.29	259.17 S	123.31 E	0.10	0.04	287.01 AT 154.56
1400.0	1352.02	289.63	-0.910	-87.49	163.24	261.70 S	124.10 E	0.10	0.06	289.63 AT 154.63
1550.0	1501.87	296.17	0.012	-87.46	162.43	268.01 S	126.05 E	0.03	0.05	296.17 AT 154.81

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*                         ********                          *
*      THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF          *
*                         ********                          *
*  1550.0 FEET EQUALS    296.17    FEET AT   154.81         *
*                         ********                          *
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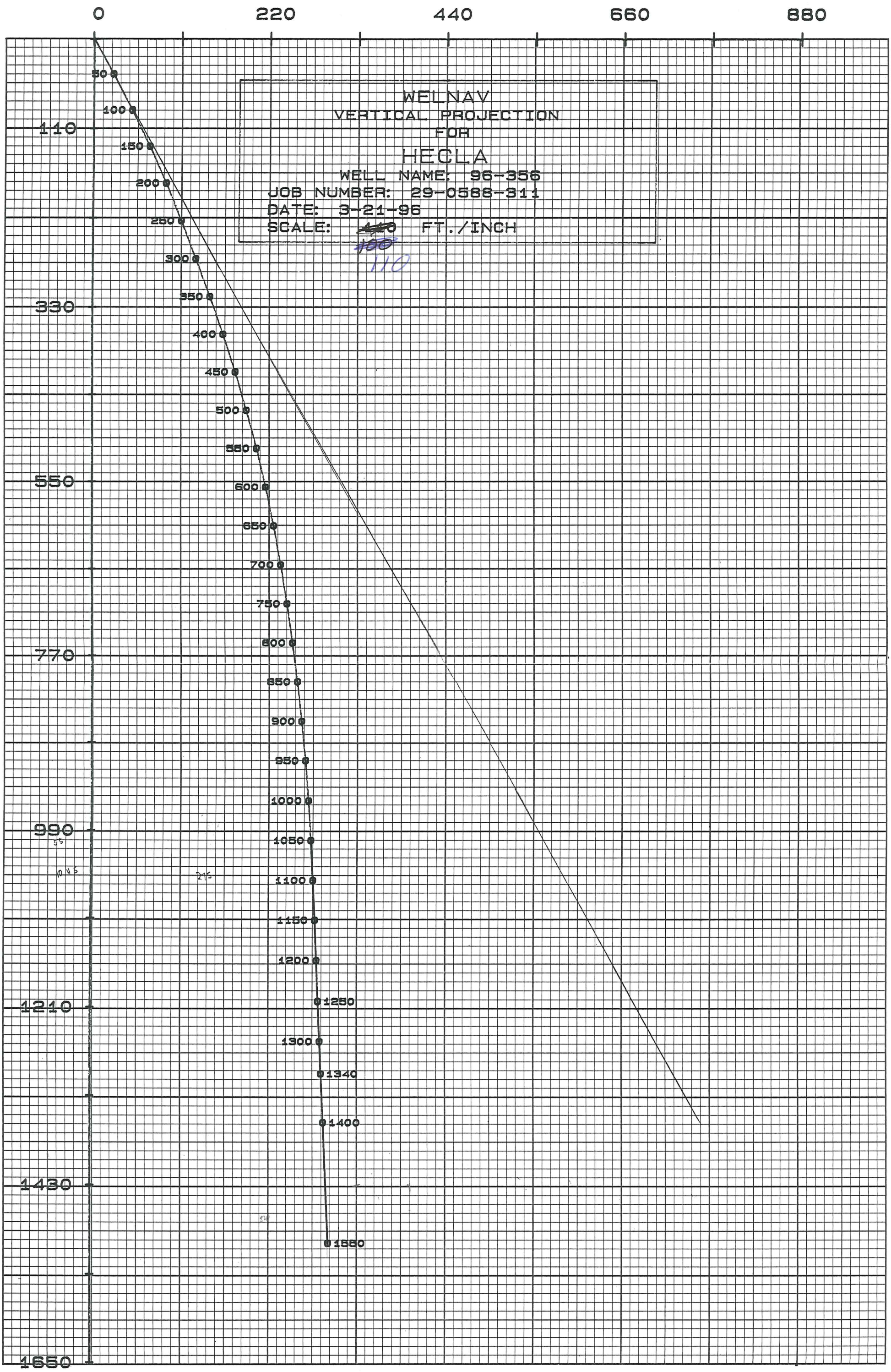

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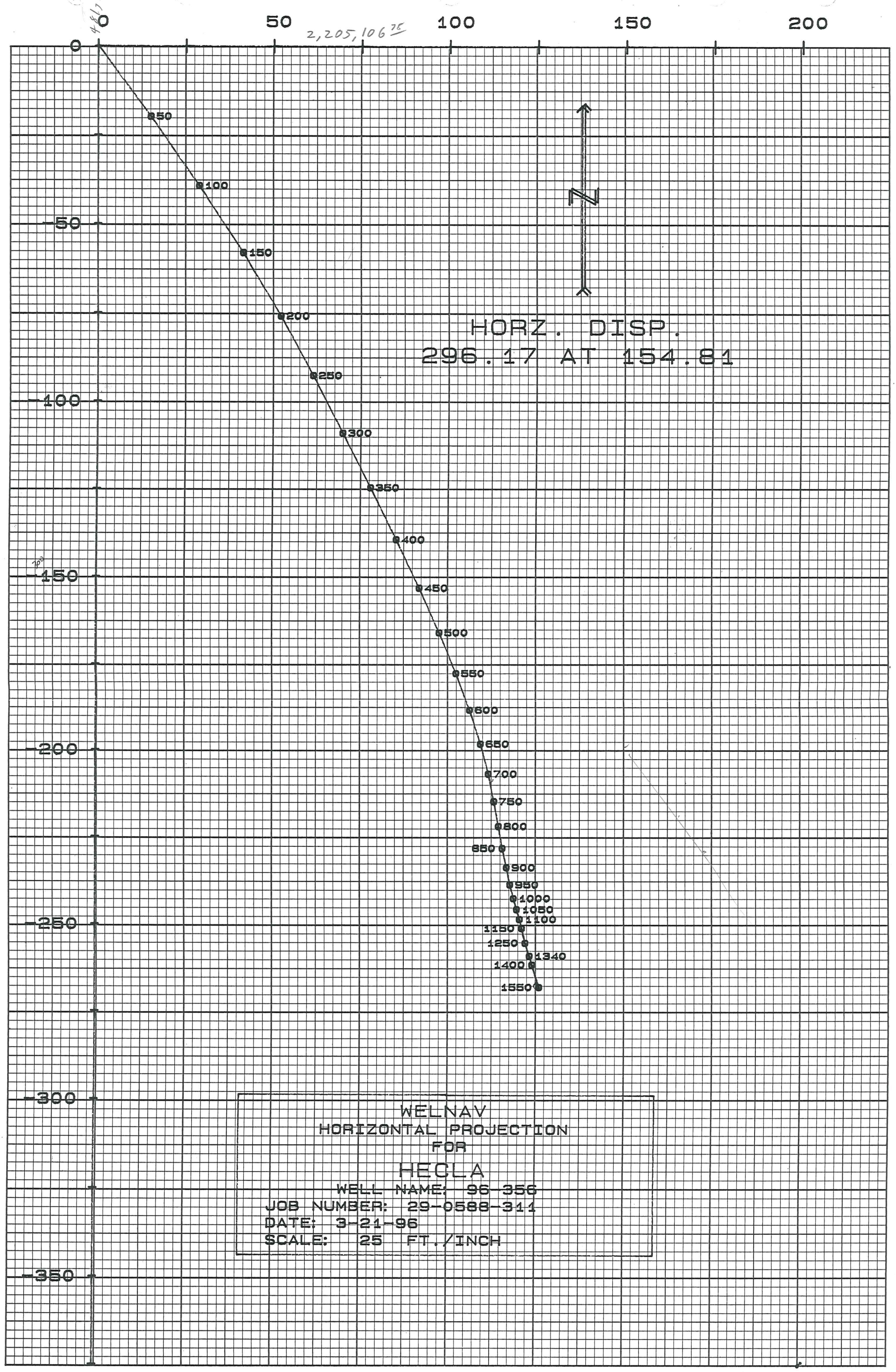
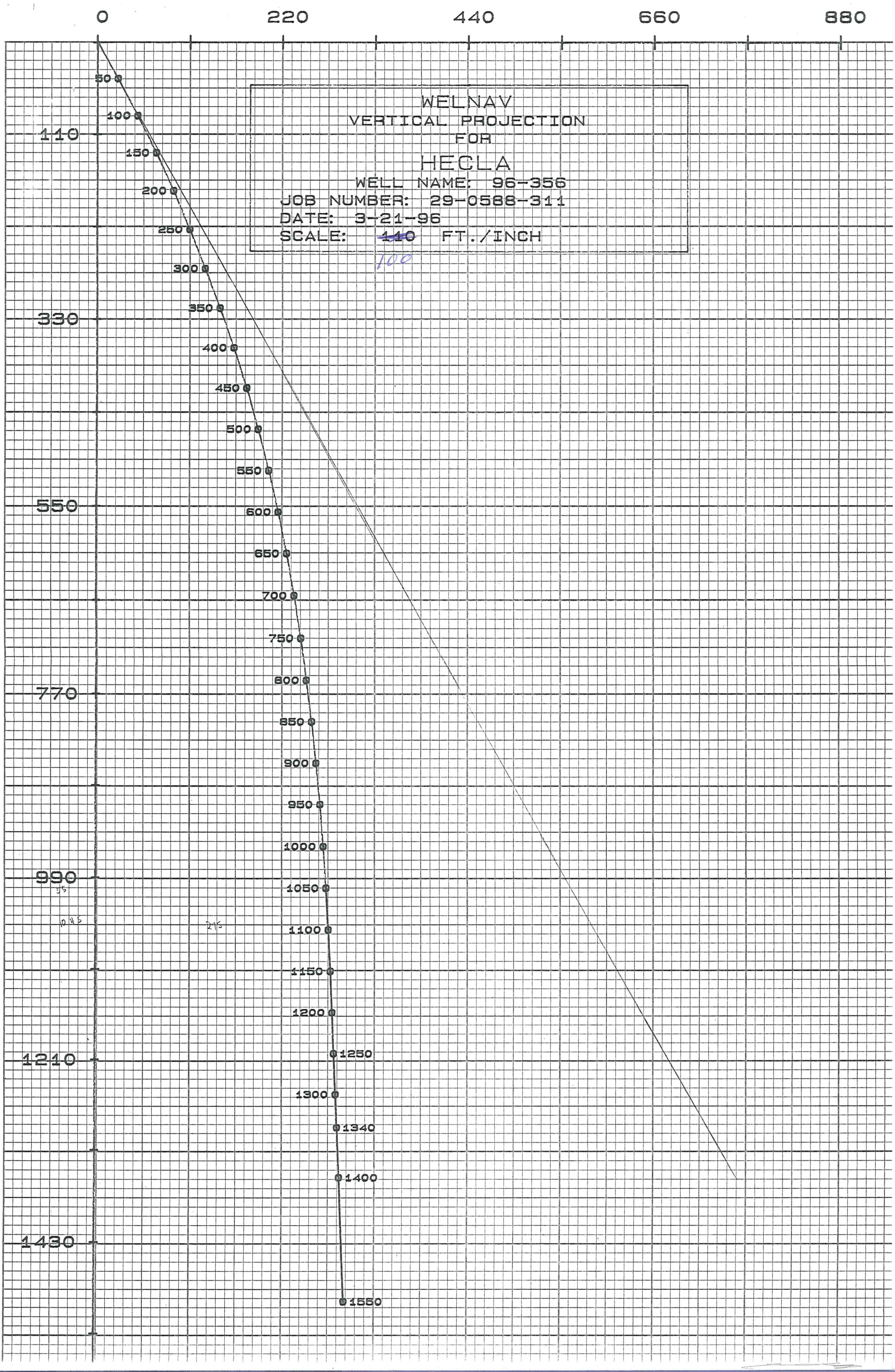
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