60001146

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-D349-99
AUTHOR	D. Mackerrow; L. Mackedon; C. Ballew; R. Vance; K. Allen
DATE OF DOC(S)	1999
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.; Newmont Gold Co.
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; photographs; total depth 524' receipt; handwritten notes; downhole camera images geochemistry; down hole survey 64 p. 3 down hole camera images

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

	Initials	Date
SS:	DP	5/13/08
DB:	Mah	
SCANNED:	NB	

Revised: 1/22/08

RS-D349-99

349

60001146 4010

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

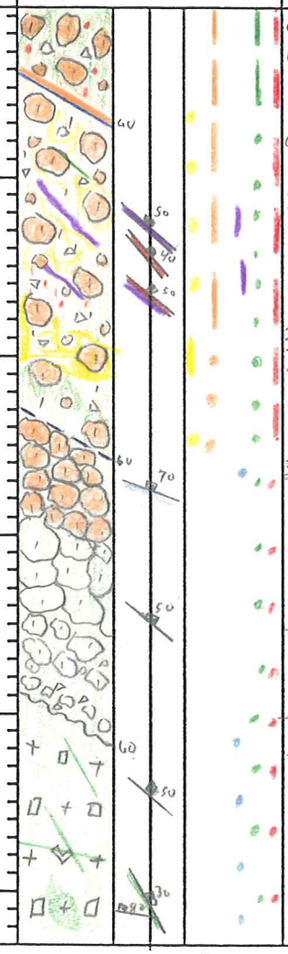
Barite Intensity → ... --- ——

Hecla MINING COMPANY

ROSEBUD PROJECT DIAMOND DRILL LOG

HOLE NUMBER	RS-D349-99	LOCATION	41 Muck Buy
PAGE 1 OF 8		NORTHING	
DATE	5-7-99	EASTING	
LOGGED BY	D.G. Muckerron	ELEVATION	
SCALE	1"=10"	AZIMUTH	N85°E
TOTAL DEPTH	524	INCLINATION	-44

REMARKS

LITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td		0-40.2 DOZER Autobreccia ted Dozer Rhyolite Argillized clast in a brown Volcanic clay matrix. Highly argillized clast are white to pale green with a yellow over print. 0-24.4 much more Expansion to Autobreccia. AT 24.4 there is a 60° tcu terminus to highly expanded Autobxa 29-35 matrix and clast are all the same pale green gray with minimal expansion or rotation 35-40.2 matrix of breccia increases as you approach the fault but contact is not faulted	10 20 30 40		Collar of drill hole was in floor of 41 muck buy. Rib above hole appeared brecciated. 0-24.4 Highly expanded Autobreccia. I think this is faulted. Rotation & Exp. 5.9 60° tcu gouge plane 1" wide. Elevated chlorite in hanging wall. 24.4-30.5 Autobxa text gradual fades to fractures and faint ghost clast 34-40.2 Gradual increase in autobxa texture 40.2 Irregular intrusive contact on average low to moderate to core axis 60° tcu	0-5.9 ARGILLIZED AND moderately heavy chloritic alteration. 0-24 Decreasing argillitic and chloritic alteration 5.9-24.4 QTZ VEINS with open vug containing Barite py and marcasite. Individual pyrite cups up to 1/8" diameter. Spotty silica in breccia matrix 18.6-20.5 QTZ VEIN stockwork. Druzy QTZ Vug coating. Bladed marcasite in vugs 15.5 Barite crystals to 1/4" on 50° tcu with rotting qtz 27 calcite crystals on fracture 29-40.2 Minimal argillization
BMTP		40.2-178 BUDMARKER TYPE PORPHYRY Rhyolite porphyry. pale green gray to gray in color. White plag phenocrysts, Aglomerated multiple crystal present but not in a very low Volume.	50		44-69 Fracture Frequency 4-5 to the ft	minimal alteration other the chlorite. Sulfide veinlets of Py/marc. Present. Chlorite coats all fracture surface calcite found in fracture and filling phenocryst cavities

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	A
0	3					
3	5.9					
5.9	9					
9	14					
14	18.6					
18.6	20.5					
20.5	24.4					
24.4	29					
29	34					
34	36.6					
36.6	40.2					
40.2	44					
44	48					
48	53					

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LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
BMTP		40.2 – 178 BUD MARKER TYPE PORPHYRY Pale greenish gray Rhyolite porphyry Fine grain matrix with white Plag phenocryst. Calcite has replaced Sanadine crystals. Locally Sulfides have also replaced phenocrysts. 104 – 109 Chloritic alteration bleed from fractures into rock with greater intensity 111 – 116 Elevated fracturing with crackle Bxa intensity from 112.7 – 114 103.5 Thin Section → Pink 121 white clay	50 60 70 80 90 100 110 120	40 80 30 40 70 70 30 60 40 30 70 20 30 70 41	80 – 70° to a fracture has oblique slip 80° to da 93.5 Drusy qtz coated 40° to a fracture 112.7 – 114 CRACKLE Bxa 115 – 115.4 Narrow crackle Bxa	53 – 99 Veins of Pyrite and fracture surface phy coatings 69 – 74 Sulfide replaces phenocryst in porphyry. Calcite veinlets or surface coating present but mostly phenocryst replacement 93.5 Open vuggy fracture with Drusy qtz. 119 – 120 Traces of white clay on fractures.	48 53 56 59 64 69 74 79 84 89 94.2 99 104 109 114 119	53 56 59 64 69 74 79 84 89 94.2 99 104 109 114 119				

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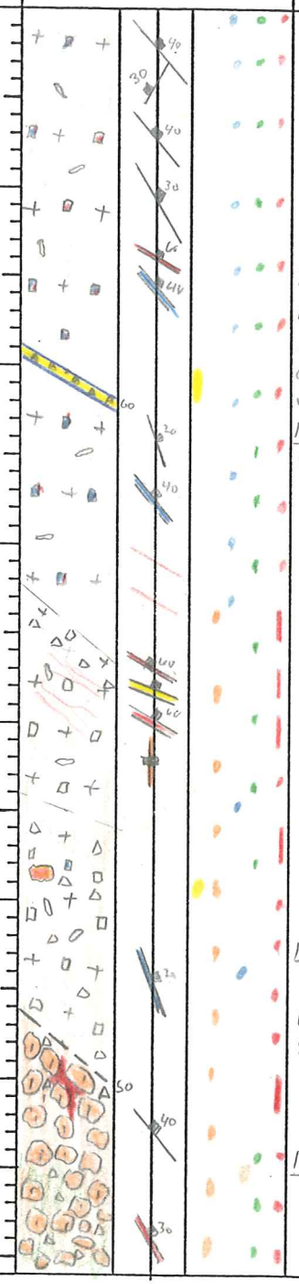
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
BMTP	R	40.2 – 178 BUD MARKER TYPE PORPHYRY Pale green gray porphyry continues Calcite forms pseudomorps of Plag. and Sanidine. Py/marc crystals also form pseudomorps or just grow in former crystal caste. From 147.7 Rock color picking a trace of hematite staining. This is very faint but increase toward Dozer contact, AT 147.7 A thin calcite vein dip 40° tca with apparent crackle breccia on the down hole side for 2" A green hydrothermally altered clay heals the Breccia. 154.5 Porphyry has increasing tight fracture and discontinuous auto breccia, Rock begins to look like Dozer except for Phenocryst. Pino 174.4 brn zwith clay	120 130 140 150 160 170 180 190		140 - 50° tca Fx with oblique slip 60° tcdo 140.5-141 SILICA HEALED Rubble breccia. 2" of QTZ stock work in hanging wall 141-141.5 FOOTWALL veins 30° tca 178. CONTACT LOSS during drilling Foliation in area is 50° tca 188 Pyrite veinlets 30° tca	154-159 weak swarm of Py/marc. veinlets with largest having a 60° tca orientation, weakens 159-164 158 1" qtz vein with Py/marc. 164-169 Pyrite agglomeration with largest mass containing silica 161-178 Increased Hydrothermally altered clay, Pale green clay 154.4 -164.5 Calcite pseudomorph and through vein swarm 164 ARGILLIZATION INCREASES with volcanic clay 184.5-200 Trace to low level chlorite 180-181 Large agglomerations of Pyrite up to 3" long and 2" wide 178-188 INCREASING Argillization
Td		178 – 232.8 DOZER Fine grained tan to white Rhyolite. Auto brecciated texture carries to 219 from contact				

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
119	124				
124	129				
129	134				
134	137				
137	140				
140	141.5				
141.5	145				
145	149				
149	154				
154	159				
159	164				
164	169				
169	174.4				
174.4	178				
178	181.5				
181.5	184.5				
184.5	188				
188	193				

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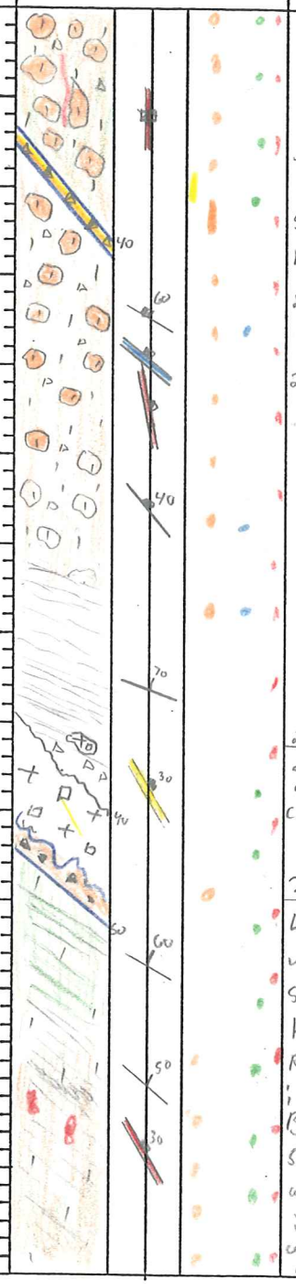
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	178-232.8 DOZER Fine grained pale tan to greenish gray rhyolite. Fault zone at 199.7-201. has a footwall with a high concentration of hydrothermally altered clay veins to 208 210 Auto breccia clast contain faint foliation laminii 219 DOZER a planar foliation 231-232.8 Traces of Rhyolite Porphyry have intruded breccia textures	190 200 210 220 230 240 250 260		199.7-201 Fault zone with silica healed rubble Breccia from 199.7 to 200.4 and a crush gouge zone from 200.4 to 200.7	201 Calcite on fracture surface 199.7-208 clay veins are Hydrothermally altered 201-232.8 Core has a orange brown color from hematite 221-224 White clay veins with hydro alter veins 225 - Druzy QTZ vug with bladed marcasite
BMTP		232.8-239.2 BUDMARKER TYPE PORPHYRY Rhyolite Porphyry. Plagioclase and Sanadine replaced by clay of containing bladed Py after marcasite			232.8 CONTACT broken during drilling 40° tca clay fracture at the contact 237.3-239.2 Low contact breccia with very irregular surface at 237.3 and knife edge at 239.2 Ripup clast of Dozer in the fault Breccia Breccia matrix is not silicifide, Clast are subrounded, There is increased expansion and rotation toward footwall plane	232.8-239.2 Porphyry has qtz vein sworn with 40° tca orientation 239.2, chlorite weathering from fractures and stain foliation boundary. Argillic alteration is trace to nonexistent 249 - Argillization and bleaching increase Pyrite aglomerations made from larger size crystals
Td		239.2-307.9 DOZER Fine grain rhyolite with a planar laminated texture dipping 60° tca 249-249.5 Possible "wormy SPHAT" texture				

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
188	193				
193	197				
197	199.7				
199.7	201				
201.7	206				
206	208.5				
208.5	213.5				
213.5	218.5				
218.5	224				
224	229				
229	232.8				
232.8	236.4				
236.4	239.2				
239.2	244				
244	249				
249	254				
254	259				

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LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td	R	239.2 – 307.9 DOZER Fine grained rhyolite Pale greenish white colored flow. Local aggregations of Pyrite form dark sulfide masses micro breccias alongs some fractures may contain elevated chlorite Pyrite Marcasite veinlets present Local flow banding present covering only .3' intervals. Auto brecciated texture Pyrite in some vein is very white in color and associated pyrargyrite can be found in the fractures. First seen during this logging at 292 FT.	260 270 280 290 300 310 320 330	40 40 40 40 50 40 50 60 35 40 20 60 60 20 50 40	260–274 Foliation of Dozer steepens and fades 274 – 280 Core is very hard not quite silicified 270–287 sulfide is healing weak to moderate fracture 292.7–297.2 crackle to milled breccia, milled breccia last 1' of zone 30° tca fracture with 60° to dip axis of fracture 307.9–314 QTZ VEIN with small druzy coating). 314 open vug 20° tca 313–316 48° tca Py/marc. Vein swarm 325.4 30° tca contact with 40° tda 324.8–327 Breccia/stock work with entrapped dozer	263–274 QTZ VEINS with py/marc. in small druzy qtz vugs 270 Sulfide mineralization gradually increases in veinlets and sulfide aggregation 287–307.4 INCREASING silicification with higher intensity around small qtz. healed fractures 292.7–297.2 Moderate to Heavy chloritic alteration. Sharp boundaries to alteration. Brecciated footwall 297.2–298.4 Very light py at 297.2 as mass 301.7 open fracture with druzy qtz and bladed marcasite 307.9–314 QTZ VEINS are partially milky white or partially clear. 314–317 QTZ/Py/marc stock work to sharp 30° tca bxa healed by clear qtz. Footwall has elevated chlorite 324.8–327 .5' highly millite moderately chloritized dozer in silicious stock work/crackle bxa, culiteic.	259 264 269 274 279 284.1 287 290 292.7 297.2 298.4 301.4 304 307.9 310.7 314 317 318.3 322.8 324.9 327 330.8					
BmTp		307.9 – 337.5 BUD MARKER TYPE INTRUSIVE Rhyolite porphyry. Pale green tint from chloritic alteration. White plag. phenocryst. Sanidine phenocryst also present. High frequency of Pyrite/marcasite veins (ff=8). Porphyry is silicified around higher density. 324.9–325.4 CRUSA BRECCIATED DOZER										

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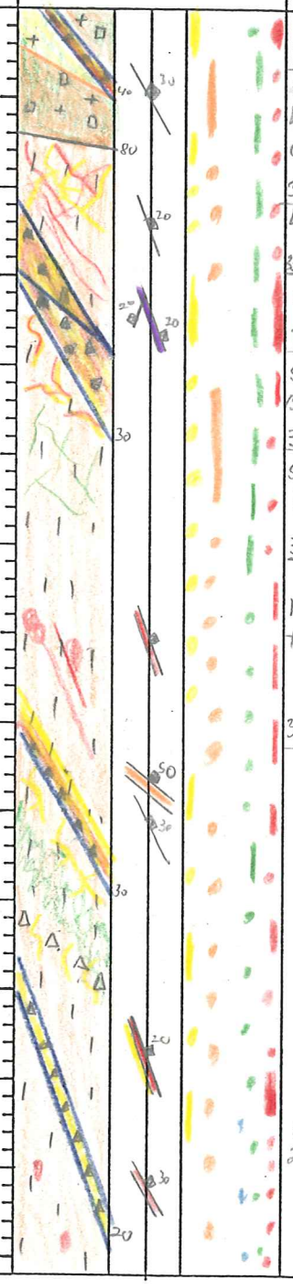
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
BMP TYP	R	307.9-337.5 BUD MARKER TYPE PORPHYRY Porphyry continues with moderate chloritic alterating causing pale green color	330 340		330.8-331.7 Silica healed milled breccia subrounded clast of BMTP. 331.7-333.9 silica healed stockwork 35-300 tcu with dip slip 300 tcu 336.5-339.4 Dark silica healed milled Breccia 346.5-347.4 Dark Silica healed milled breccia 374.3-375 milled breccia dark silica matrix hanging wall silicification to 372.7	327 - white mineral with py. Pyrargyrite 331.7-333.9 white clay out/ 333.9-337.5 ARGILLIZED Porphyry 331.7-333.5 Dark sulfide masses disseminating out of fractures 333.5-337.5 Argillized porphyry could possibly be Dozer with contact at 66° tca 337.5-338.9 QTL stockwork and crackle 85xo 338.9-346.5 Sulfide veinlets, white clays Crackle breccia texture 346.5-349.4 Dark Silica healed milled breccia: Barite on fracture 349.4-352.5 Footwall stock work of qtz/pyhoro. 352.5-358 Highly argillized and chloritize Dozer 358-362.4 Veinlets in argillized Dozer 362.4-367.6 Dark sulfide aggregates and highangle veins 367.6-372.7 Pyhoro high angle stockwork 372.7-375 silicifide Dozer with white clay Dark silica slip surface 2" with with Barite 372.7-377.4 Footwall stockwork and argillization ←
Td		337.5-524 DO ZER Chloritized volcanic flow Fine grained rhyolite 333.5-337.5 Argillized chloritized Porphyry with fragments of less chloritized porphyry. Looks like Dozer unless you use a microscope, but maybe Dozer.	350 360 370 380 390 400		381.4-382 Crackle Breccia 390-392 Silica healed bre 20° tca thin trace thickness	

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
330.8	331.7				
331.7	333.5				
333.5	337.5				
337.5	338.9				
338.9	343				
343	346.5				
346.5	349.4				
349.4	352.5				
352.5	358				
358	362.4				
362.4	367.6				
367.6	372.7				
372.7	375				
375	377.4				
377.4	381.4				
381.4	382.9				
382.9	385				
385	389.2				
389.2	391				
391	392.5				
392.5	397				
397	402				

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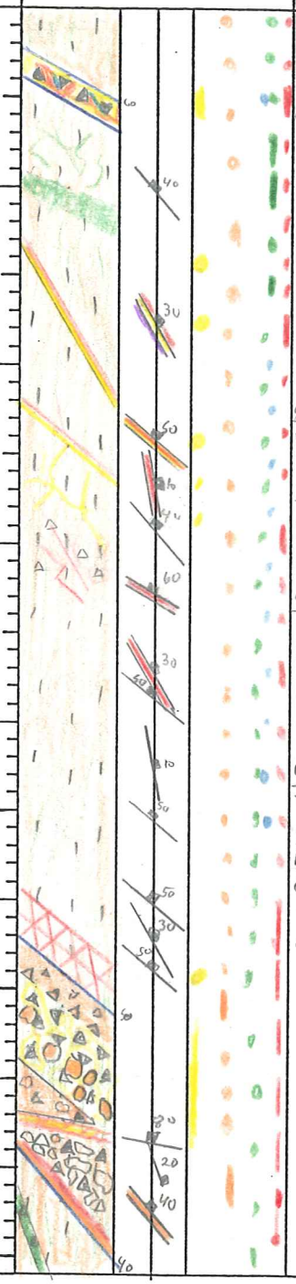
LITH.	OX/RED.	LITHOLOGY	FT
Td		337.5-524 DOZER Fine grain Ryholite Flow continue 403.8 – 432.3 weak to moderate qtz/Py/more stockwork 409.7-411.3 - MODERATE to heavy chlorite Pirna Green Clay 410.5 Fractures swarm look like chlorite healed crackle bxa 432.3 – 450.7 Fine grain Dozer Noticeably weaker in sulfides and fractureing. 50° tca Fracture dominates A High angle fracture with Py/more. can be seen 30° tca is off set by the 50° tca fracture 430-431 Crackle/mosaic bxa not silicified matrix has fine dark sulfide. Breccia has no sharp boundary and grades in and out of existence 454.3-467 Fault zone with variable brecciation intensity. 454.3-456 Breccia is mosaic with volcanic clay matrix. Minor qtz veinlets and small drusy qtz vug. 456-459.7 mostly crackle breccia with 2" of mosaic bxa at 456.5 QTZ veining has healed all the breccia. Open drusy qtz vugs. Distructive qtz clay development at 459.5, 459.7 – 460.6 healed Rubble breccia with dark sulfide in volcanic clay matrix, Under microscope sulfide was not visible in matrix of breccia 460.6-462.3 Volcanic clay healed crackle bxa look like it could be Auto bxa, 462.3-463.5 Heavy stockwork with Black coating and white clay spider work of fracture, Dominate direction 80° tca Pirna 467 white clay	400 410 420 430 440 450 460 470

GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
	403.8-432.3 VEIN 1-7½ and healed breccia forming a weak level stockwork, weak sporadic crackle bxa 403.8-405.1 Crackle bxa with qtz/Py/more calcite matrix Foliation 50° tca 418 - open vug qtz vein with Druzy qtz Barite and Bladed Marcasite. 423.5-428.7 QTZ VEIN with weak local crackle bxa. 430-431 Crackle/mosaic bxa 430.7 40° tca Fracture with dipslip 30° tca (tds 450.7-454.3 Fracture zone in hanging wall of fault. X-cutting 50° tca Fracture flooded with Py/more. 454.3-467 Fault Zone with crackle and mosaic breccia Partial Silica healing Open Vugs with 30°-40° tca. See right for detailed discription	403.8-405.3 Silica Pyrite matrix bxa Disintergrating qtz. Calcite also in matrix 403.8-416 Chlorite increased to moderate level with spotty silicification 418 OPEN VEIN with ½" Barite crystals Marcasite blades with Py coating and Pyrargyrite 424.4 50° tca ½" QTZ Py/more/vein. white clay 450.7-454.3 Py/more veinlets in 50° tca, Veinlets Cross cut. 10° tca veinlets 420-450.7 Trace to weak calcite coating on some fracture

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
397	402				
402	403.8				
403.8	405.3				
405.3	409.7				
409.7	415.3				
415.3	418.8				
418.8	424.4				
424.4	428.7				
428.7	432.3				
432.3	436				
436	441				
441	446				
446	450.7				
450.7	454.3				
454.3	456				
456	459.7				
459.7	460.6				
460.6	462.2				
462.2	464.2				
464.2	467				
467	471.3				

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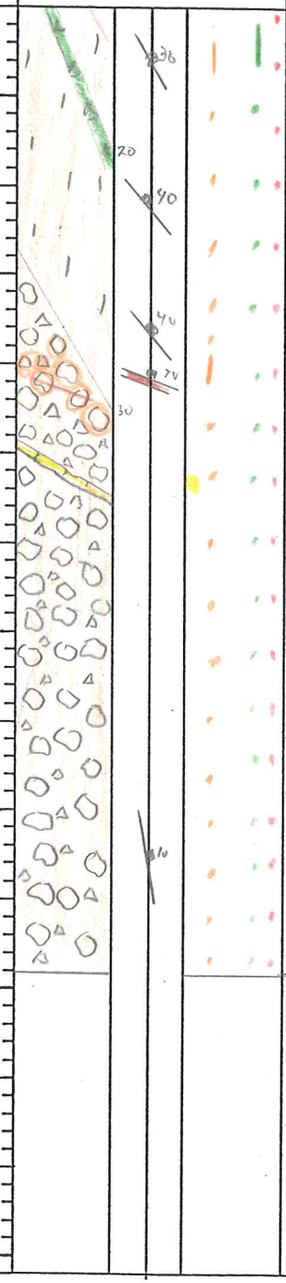
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	337.5 - 524 DOZER Fine grain Rhyolite flow continues Pale greenish white from a general chloritic/argillic alteration 454.3-467 Fault zone description continues. 464.2 - 467, stockwork grades to healed rubble breccia from 464.5 - 464.9 clast are subrounded with some angular corners, motion has not highly milled fragments. Dark matrix is not the highly silicified sulfide/silica. Surrounding fracture have silica. 464.9 - 466.5 Healed mosaic breccia with dark non silica matrix 466.5 - 467 Heavy concentration of bladed marcasite in sheared dozer last 1" is white clay derived from destroyed qtz vein. Oblique slip 30° to dip axis of fracture 488 - 524 Autobrecciated Doze with 496-497 as solid. Breccia clast up to 4" in diameter. Hematite in autobreccia matrix increases from 506 to 524 TD 524	470 480 490 500 510 520 530 540		471.3 - 483 - Chloritic high angle volcanic clay matrix Breccia 488 - 495.8 Auto breccia with weakly hematite stained volcanic clay matrix. Upper contact is sharp lower contact fades into fracture 497 - 524 Auto Brecciated Texture 491.0 - 70° to a fracture with Py/Marcasite and Oblique slip 60° to a (Td/a) 506-512 Drilling problems with a mislatch Td/a = To core dip axis	466.5 - 467 Bladed Marcasite in sheared dozer on footwall plane of fault 496 - 497 Traces of Silicification 506-512 Fragments of Py/marc. vein in rubble mislatch cause caving

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
471.3	476				
476	481				
481	486				
486	488				
488	491.1				
491.1	496				
496	501				
501	506				
506	509				
509	512				
512	516				
516	519				
519	524				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D349-99 DATE: 4-28-99 LOGGED BY: D.G. Macherron PAGE 1 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
0	5	66	100	44										
5	9	87	102	60										
9	14	84	100	42										
14	19	100	90	54										
19	24	100	100	60										
24	34	100	102	73										
34	44	100	101	57										
44	53	83	97	51										
53	59	88	100	30										
59	69	92	102	39										
69	79	100	101	64										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D349-99 DATE: 4-28-99 LOGGED BY: D.G. MacKerrow PAGE 2 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY /FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
79	89	100	100	57										
89	99	100	100	81										
99	109	100	99	72										
109	119	100	101	69										
119	129	100	101	51										
129	139	100	100	47										
139	149	95	100	96										
149	159	97	101	80										
159	169	100	102	67										
169	178	100	100	78										
178	188	100	101	92										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D349-99 DATE: 4-28-91 LOGGED BY: D.G. Mackerrow PAGE 3 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
188	198	90	101	86										
198	206	94	100	51										
206	208.5	100	88	64										
208.5	218.5	100	99	81										
218.5	224	100	100	73										
224	229	100	98	62										
229	239	88	100	54										
239	249	79	100	70										
249	259	100	102	60										
259	269	100	101	81										
269	279	83	100	50										
279	287	87	91	51										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RSD349-99 DATE: 5-3-99 LOGGED BY: D.G. MacKerron PAGE 4 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY /FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
287	294	100	107	84										
294	304	100	98	82										
304	314	100	102	93										
314	320	100	105	95										
320	329	97	100	84										
329	338	88	94	62										
338	348	89	106	39										
348	358	92	102	61										
358	368	95	100	73										
368	377	89	99	48										
377	387	98	100	87										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D349-99 DATE: 5-3-99 LOGGED BY: D.G. MacKerron PAGE 5 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY /FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
387	407	100	101	100										
407	416	100	98	77										
416	426	100	98	61										
426	436	100	101	78										
436	446	100	103	64										
446	456	85	102	70										
456	466	99	100	92										
466	476	96	101	60										
476	486	100	103	91										
486	496	74	100	45										
496	506	98	101	68										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D349-99 DATE: 5-4-99 LOGGED BY: D.G. MacKerron PAGE 6 OF 6

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
506	509	100	93	30										
509	516	64	77	31										
516	524	62	92	27										

Newmont Gold Core Form

Hole# RS-D349-99
Logged by D.G. Mackenzie
Date 5-6-99
Area 41 Mach Bay
Coords
Az/Incl N85°E/-44
Total Depth 524
Contractor Lomy year

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Alteration:	Met.: FeOx	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay	Mineralogy: Ba SO4
			Td		Tan									0-40.2 DOZER	1	2	0	0	0	2		0	0	0	1	1	0	1	0
														Auto breccia texture						1								1	0
20																													1
															0	1													
40			Bent p	Rhyo Porp	Lem Gray			60						40.2 - 178 BUD MARKER TYPE PORPHYRY		0											1		
60																													
80																									2	2			
																									1	1			
100																													
120																													
140									60						1														
160																1				0		Tr					0	Tr	
								40																			1		
																											0	1	
180			Td	Rhyo	Tan				50					178-232.8 DOZER						1		0							
																2													
200														Fault 199.7-201	2					0									

Newmont Gold Core Form

Hole# RS-D349-99
Logged by D.G. MacKerron
Date 5-5-99
Area 41 mile Bay
Coords
Az/Incl
Total Depth 524
Contractor Long year

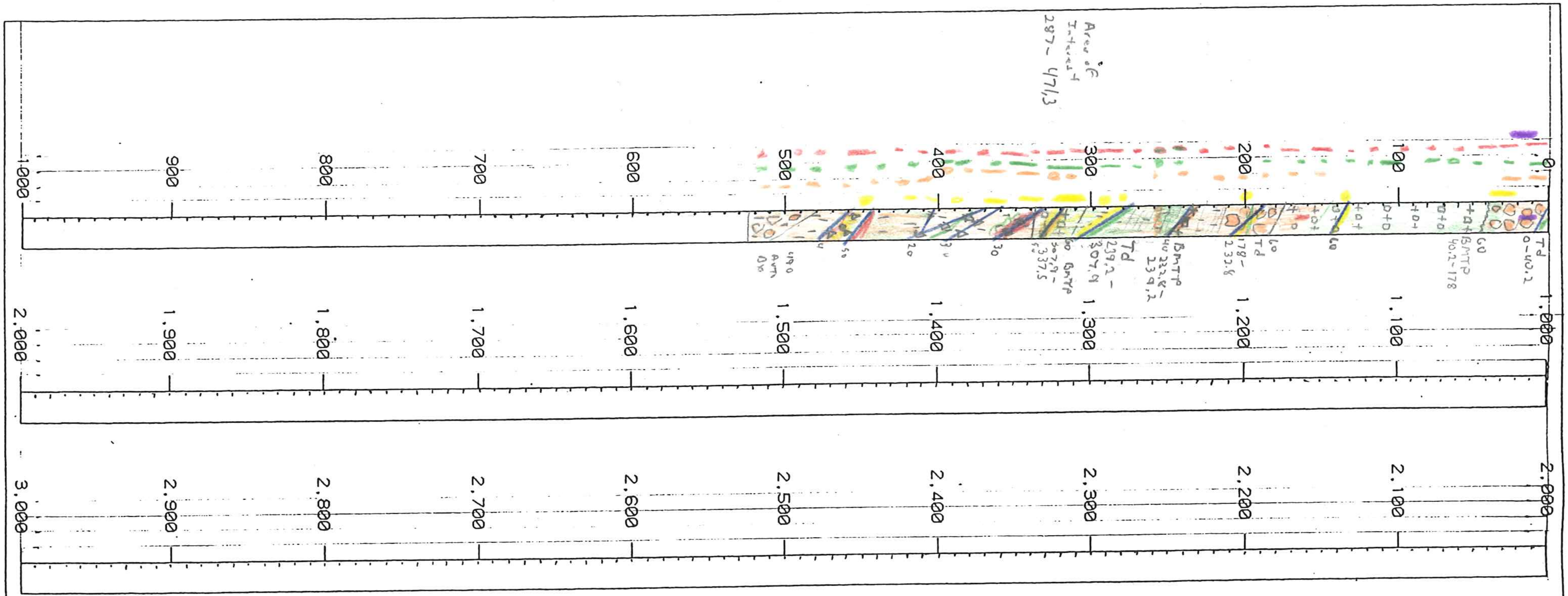
Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments
			Td	Rhy	Grn white									178 - DOZER
														232.8
220														
			BMTP	Rhy Porph	Grey				40					232.8 - BUD MARKER TYPE PORPHYRY
240														239.2
			Td						50					239.2 - DOZER
														307.9
260														
280														
300														
			BMTP	Rhyo Porphy					60					307.9 - BUD MARKER TYPE PORPHYRY
														337.5
320														
									60					
340			Td											337.5 - DOZER
														524
360														
380														
400														

Footage	Alteration: Silic	argillic	clay	prop	Sericite	Chlorite		Met.: FEOX	CO3	Sulfide	Mineralogy: Pyrite	Marcasite	Calc/Dolo	Clay	$BaSO_4$
	1 0	1	0	0	0	0		1 Tr	0	0	1	1	0	2	0
														1	
220													1 0		
														0	
		1 0				1		0							
240		1 0													
		1													
260															
280															
	0	1													
						2							1 0		
300						1					2 1				
												2 1			
	1													1	
											2	2			
320	0										1	1			
	1										2	2			
	0										1	1			
	3										3 2	2 2			
	0	2									1	1			
340	1 6	1													
														1	
	3	0									3	3		0	
	2										2	2			
	1	2									1	1			
														1	
360	0	1												0	
	1										2	2			
											1 1	1 1		1	
	3	0												3	
	1 0	1				2								0	
380						1									
											3	3			
400											1	1			

Newmont Gold Core Form

Hole# RS-D 349-99
Logged by D.G. MacKarron
Date 5-5-99
Area 41 Mach Bay
Coords
Az/Incl
Total Depth 524
Contractor Longyear

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay	Mineralogy: Bg.S.4
400			Td	Rhyo	Pale green white									337.5- DOZER	0	1	0	0	0	1	0	0	0	1	1	0	0	0
														524 Rhyolite Flow										2	2	1	1	
																										0		
																				2								
																				1								
															0													
420																								2	2			1
															0									1	1	1		0
															0													
440																												
																										0		
																								2	2			
									40																			
460															1												1	
															0													
															0													
																1				1				1	1		3	
																				1							1	
									40																		0	
480														488-524 Auto breccia														
															0	0												
500																												
520														TD 524														
540																												



LITHOLOGY	TEXTURES	STRUCTURES	CONTACTS
PLAT/FLOW	LITHIC FRAGMENTS	BRECCIA	LOST, GRADATIONAL OR INFERRED
MASSIVE AT/FLOW	CRYSTALS	FAULT CLAY OR GOUGE	80 SHARP (WITH ANGLE TO CORE)
LST-	LAPILLI	FRACTURE ZONE	WAVY
PMBX -	AMYGDULES	VEINS QTZ	ROUGH OR JAGGED
TOS/Bud Epiclastics		VEINLETS	Barite PYRITIZATION
BMB - Rhyolitic Porphyry	SPHERULITE	VEINS CALC	CHLORITIZATION
RHYOLITE - DOZER	SHARDS		ARGILLIZATION
ALS - PHYLLITES			SILICIFICATION
			GRAPHIC LOG

LOCATION ON GRID: 41 Much Bay	FINAL COLLAR COORDINATES	START 4/25/99	FINISH 4/28/99	LOGGED BY D.G. Mackerrow
LAB American	NORTH	HOLE TYPE Core		SURVEYED TO 400
JOB #	EAST	BEARING N 85°E	ANGLE -44	T. D. 524
	ELEV			
DRILLING COMPANY Longyear	DRILLER Pat Bonford			
The Rosebud Mining Company LLC		PAGE 1 OF 1		HOLE # RS-0349-99

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053385

American Assay Laboratories

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

NEWMONT GOLD COMPANY

COPIES TO : C. BALLEW

: R. VANCE

: K. ALLEN

:

CLIENT REFERENCE No: RS-D349-99 RECEIVED : 10 MAY 1999

No. SAMPLES : 70 REPORTED : 28 MAY 1999

MAIN SAMPLE TYPE : DRILL CORE

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

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053385

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 0-3	397	206	0.012	0.006	1.7	0.05
RS-D349-99 3.0-5.9	56		0.002		1.0	0.03
RS-D349-99 5.9-9.0	78		0.002		1.0	0.03
RS-D349-99 9-14	60		0.002		3.5	0.10
RS-D349-99 14.0-18.6	68		0.002		1.7	0.05
RS-D349-99 18.6-20.5	58		0.002		3.2	0.09
RS-D349-99 20.5-24.4	50		0.001		1.2	0.04
RS-D349-99 24.4-29.0	12		<0.001		<0.5	<0.02
RS-D349-99 24.4-29.0B	1064		0.031		<0.5	<0.02
RS-D349-99 29-34	<5		<0.001		<0.5	<0.02
RS-D349-99 34.0-36.6	<5		<0.001		<0.5	<0.02
RS-D349-99 36.6-40.2	14		<0.001		<0.5	<0.02
RS-D349-99 40.2-44.0	<5		<0.001		<0.5	<0.02
RS-D349-99 44-48	<5		<0.001		2.2	0.06
RS-D349-99 48-53	<5		<0.001		0.6	<0.02
RS-D349-99 53-56	<5		<0.001		0.8	0.02
RS-D349-99 56-59	52		0.002		0.5	<0.02
RS-D349-99 59-64	6		<0.001		0.8	0.02
RS-D349-99 64-69	8		<0.001		0.5	<0.02
RS-D349-99 69-74	18		<0.001		0.8	0.02
RS-D349-99 74-79	<5		<0.001		<0.5	<0.02
RS-D349-99 79-84	18		<0.001		0.6	<0.02
RS-D349-99 84-89	8		<0.001		<0.5	<0.02
RS-D349-99 89.0-94.2	178		0.005		1.7	0.05
RS-D349-99 94.2-99.0	136		0.004		1.7	0.05

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053385

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 99-104	6		<0.001		<0.5	<0.02
RS-D349-99 104-109	<5		<0.001		<0.5	<0.02
RS-D349-99 109-114	16		<0.001		0.5	<0.02
RS-D349-99 114-119	90		0.003		0.8	0.02
RS-D349-99 119-124	48		0.001		0.6	<0.02
RS-D349-99 124-129	<5		<0.001		<0.5	<0.02
RS-D349-99 129-134	<5		<0.001		<0.5	<0.02
RS-D349-99 134-137	<5		<0.001		<0.5	<0.02
RS-D349-99 137-140	56		0.002		1.0	0.03
RS-D349-99 140.0-141.5	858		0.025		2.3	0.07
RS-D349-99 141.5-145.0	34		<0.001		0.9	0.03
RS-D349-99 145-149	34	32	<0.001	<0.001	1.5	0.04
RS-D349-99 149-154	8		<0.001		<0.5	<0.02
RS-D349-99 154-159	1928		0.056		8.1	0.24
RS-D349-99 159-164	30		<0.001		1.0	0.03
RS-D349-99 164-169	6		<0.001		1.0	0.03
RS-D349-99 169.0-174.4	10		<0.001		0.8	0.02
RS-D349-99 174.4-178.0	8		<0.001		0.8	0.02
RS-D349-99 174.4-178.0B	1003	1032	0.029	0.030	<0.5	<0.02
RS-D349-99 178.0-181.5	46		0.001		1.5	0.04
RS-D349-99 181.5-184.5	350		0.010		1.1	0.03
RS-D349-99 184.5-188.0	166		0.005		1.3	0.04
RS-D349-99 188-193	108		0.003		1.7	0.05
RS-D349-99 193-197	202		0.006		2.0	0.06
RS-D349-99 197.0-199.7	54	52	0.002	0.002	1.5	0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053385

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 199.7-201.0	110		0.003		1.3	0.04
RS-D349-99 201-206	238		0.007		1.1	0.03
RS-D349-99 206.0-208.5	<5		<0.001		<0.5	<0.02
RS-D349-99 208.5-213.5	96		0.003		0.8	0.02
RS-D349-99 213.5-218.5	92		0.003		0.8	0.02
RS-D349-99 218.5-224.0	680	818	0.020	0.024	0.9	0.03
RS-D349-99 224-229	190		0.006		6.0	0.18
RS-D349-99 229.0-232.8	68		0.002		1.1	0.03
RS-D349-99 232.8-236.4	84		0.002		0.8	0.02
RS-D349-99 236.4-239.2	112		0.003		1.7	0.05
RS-D349-99 239.2-244.0	100		0.003		0.6	<0.02
RS-D349-99 244-249	<5		<0.001		<0.5	<0.02
RS-D349-99 249-254	1122	1164	0.033	0.034	<0.5	<0.02
RS-D349-99 254-259	442		0.013		<0.5	<0.02
RS-D349-99 259-264	242		0.007		1.0	0.03
RS-D349-99 264-269	98		0.003		1.0	0.03
RS-D349-99 269-274	224		0.007		1.2	0.04
RS-D349-99 274-279	66		0.002		0.6	<0.02
RS-D349-99 279.0-284.1	64		0.002		0.7	0.02
RS-D349-99 284.1-287.0	460		0.013		1.4	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	3	0.01	0.2	1	1	1	0.01	10	0.01	1	0.01	2	1	0.01	1	0.001	3	3	0.1	1	2	0.01	8	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.

CLIENT:	*NEWMONT GOLD COMPANY*
CLIENT REF:	ROSEBUD EXPLORATION
AAL REF:	SP053385
METHOD:	AAL 01-2 + Se

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

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
RS-D349-99 0.0-5.9	1.2	0.4	46	< 3	121	< 3	0.17	1.4	1	9	10	1.53	230	0.26	44	0.03	83	3	0.01	4	0.006	29	4	10.9	20	11	< .01	< 8	1	< 2	80
RS-D349-99 5.9-29.0	1.4	0.42	62	< 3	118	< 3	0.27	< .2	< 1	14	10	2.08	88	0.29	40	0.02	200	4	0.01	7	0.005	25	4	10.6	23	8	< .01	< 8	1	< 2	63
RS-D349-99 29.0-40.2	0.3	0.56	3	< 3	31	< 3	0.49	0.2	< 1	9	7	1.58	11	0.35	51	0.03	451	3	0.03	2	0.006	29	< 3	1.9	29	11	< .01	< 8	1	< 2	92
RS-D349-99 40.2-59.0	1	0.51	23	3	30	< 3	1	0.6	< 1	7	8	1.94	17	0.36	33	0.03	671	3	0.03	3	0.015	25	< 3	2.8	59	9	< .01	< 8	< 1	< 2	107
RS-D349-99 59-79	0.6	0.49	20	< 3	30	< 3	0.74	0.2	< 1	7	7	2.09	7	0.37	33	0.02	569	3	0.03	2	0.014	22	3	3.8	40	9	< .01	< 8	1	< 2	99
RS-D349-99 79-99	0.8	0.45	36	< 3	30	< 3	0.53	0.3	< 1	12	11	2.25	12	0.33	33	0.02	831	3	0.04	7	0.014	21	5	7.7	37	9	< .01	< 8	1	< 2	110
RS-D349-99 99-119	0.6	0.68	17	< 3	38	4	0.95	0.7	< 1	16	13	2.61	13	0.35	33	0.03	1076	4	0.05	9	0.023	25	4	3.5	82	9	< .01	< 8	2	< 2	103
RS-D349-99 119-137	< .3	0.67	7	< 3	22	3	1.41	0.3	1	12	11	2.32	5	0.37	26	0.03	1693	2	0.04	4	0.025	29	4	1.8	89	9	< .01	< 8	2	< 2	77
RS-D349-99 137-154	1.6	0.47	56	< 3	54	< 3	0.51	< .2	< 1	7	8	1.74	23	0.32	26	0.02	390	2	0.03	< 1	0.019	30	5	8.8	52	7	< .01	< 8	1	< 2	52
RS-D349-99 154-178	1.2	0.44	23	< 3	26	3	0.43	< .2	< 1	4	6	1.53	7	0.32	28	0.02	445	1	0.03	1	0.011	30	8	3.8	43	8	< .01	< 8	< 1	< 2	48
RS-D349-99 178.0-199.7	1.4	0.46	59	< 3	21	< 3	0.15	< .2	< 1	8	8	2.11	15	0.29	43	0.03	75	2	0.02	1	0.006	24	6	13.7	44	11	< .01	< 8	1	< 2	42
RS-D349-99 199.7-218.5	0.9	0.44	17	< 3	122	< 3	0.37	0.2	< 1	9	7	1.27	14	0.34	59	0.02	296	3	0.02	4	0.011	28	5	6.4	56	13	< .01	16	1	< 2	44
RS-D349-99 218.5-232.8	1	0.35	23	< 3	150	< 3	0.21	< .2	1	10	10	1.46	9	0.29	62	0.02	150	2	0.02	3	0.006	28	4	12.3	45	15	< .01	13	1	< 2	88
RS-D349-99 232.8-239.2	1.1	0.38	47	< 3	86	< 3	0.24	0.2	< 1	9	9	1.87	6	0.32	32	0.02	143	2	0.02	5	0.009	22	5	15	49	8	< .01	< 8	1	< 2	75
RS-D349-99 239.2-259.0	0.6	0.43	20	< 3	118	< 3	0.19	0.3	< 1	14	10	2.06	14	0.35	66	0.02	165	4	0.03	9	0.009	25	5	2.7	47	16	< .01	< 8	1	< 2	71
RS-D349-99 259-274	1.3	0.41	31	< 3	130	< 3	0.08	< .2	< 1	14	12	1.89	11	0.35	66	0.02	103	4	0.04	9	0.007	25	6	9.5	47	16	< .01	< 8	1	< 2	71
RS-D349-99 274-287	1	0.47	34	< 3	61	< 3	0.28	< .2	< 1	18	14	2.07	9	0.36	67	0.02	414	4	0.05	8	0.007	21	6	10.9	55	17	< .01	< 8	2	< 2	79
STANDARD C3/DS2	5.2	1.81	59	17	146	22	0.54	22.4	9	155	61	3.17	252	0.16	18	0.56	772	24	0.04	35	0.085	32	14	2.7	27	20	0.08	19	74	14	157
STANDARD G-2	< .3	0.92	< 2	< 3	214	< 3	0.62	0.3	4	71	2	1.89	< 5	0.47	7	0.56	535	2	0.07	7	0.091	5	< 3	< .1	68	4	0.12	< 8	37	2	42

xAMERICAN ASSAY LABORATORIES
ANALYSIS REPORT SP053354

American Assay Laboratories

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

NEWMONT GOLD COMPANY

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

CLIENT REFERENCE No: RS-D349-99 RECEIVED : 6 MAY 1999
No. SAMPLES : 73 REPORTED : 28 MAY 1999
MAIN SAMPLE TYPE : DRILL CORE

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

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053354

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 287-290	1008		0.029		1.3	0.04
RS-D349-99 290.0-292.7	7		<0.001		<0.5	<0.02
RS-D349-99 292.7-297.2	140		0.004		<0.5	<0.02
RS-D349-99 297.2-298.4	117		0.003		0.5	<0.02
RS-D349-99 298.4-301.4	33		<0.001		<0.5	<0.02
RS-D349-99 301.4-304.0	1068	978	0.031	0.029	1.6	0.05
RS-D349-99 304.0-307.9	112		0.003		0.9	0.03
RS-D349-99 304.0-307.9B	95		0.003		<0.5	<0.02
RS-D349-99 307.9-310.7	625		0.018		2.3	0.07
RS-D349-99 310.7-314.0	1250		0.036		2.8	0.08
RS-D349-99 314-317	1270		0.037		4.6	0.13
RS-D349-99 317.0-318.3	7242		0.211		10.1	0.29
RS-D349-99 318.3-322.8	230		0.007		1.4	0.04
RS-D349-99 322.8-324.9	674		0.020		1.7	0.05
RS-D349-99 324.9-327.0	1463		0.043		2.4	0.07
RS-D349-99 327.0-330.8	77		0.002		0.7	0.02
RS-D349-99 330.8-331.7	982		0.029		5.1	0.15
RS-D349-99 331.7-333.5	834		0.024		2.3	0.07
RS-D349-99 333.5-337.5	41	40	0.001	0.001	1.3	0.04
RS-D349-99 337.5-338.9	287		0.008		2.4	0.07
RS-D349-99 338.9-343.0	60		0.002		<0.5	<0.02
RS-D349-99 343.0-346.5	74		0.002		0.6	<0.02
RS-D349-99 346.5-349.4	283		0.008		3.0	0.09
RS-D349-99 346.5-349.4B	1021		0.030		<0.5	<0.02
RS-D349-99 349.4-352.5	3169	3098	0.092	0.090	4.8	0.14

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053354

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 352.5-358.0	201		0.006		1.7	0.05
RS-D349-99 358.0-362.4	143		0.004		1.1	0.03
RS-D349-99 362.4-367.6	1243		0.036		4.7	0.14
RS-D349-99 367.6-372.7	82		0.002		1.3	0.04
RS-D349-99 372.7-375.0	216		0.006		3.1	0.09
RS-D349-99 375.0-377.4	1493	1408	0.044	0.041	3.5	0.10
RS-D349-99 377.4-381.4	361		0.011		1.7	0.05
RS-D349-99 381.4-382.9	948		0.028		3.2	0.09
RS-D349-99 382.9-385.0	75		0.002		0.7	0.02
RS-D349-99 385.0-389.2	340		0.010		1.5	0.04
RS-D349-99 389.2-391.0	162		0.005		1.4	0.04
RS-D349-99 391.0-392.5	256		0.007		4.6	0.13
RS-D349-99 392.5-397.0	37		0.001		0.6	<0.02
RS-D349-99 397-402	52		0.002		0.6	<0.02
RS-D349-99 402.0-403.8	328		0.010		2.7	0.08
RS-D349-99 403.8-405.3	1122		0.033		8.7	0.25
RS-D349-99 405.3-409.7	17	14	<0.001	<0.001	0.8	0.02
RS-D349-99 409.7-415.3	138		0.004		2.0	0.06
RS-D349-99 415.3-418.8	562		0.016		2.4	0.07
RS-D349-99 418.8-424.4	170		0.005		1.6	0.05
RS-D349-99 424.4-428.7	1150	1072	0.034	0.031	10.0	0.29
RS-D349-99 428.7-432.3	665		0.019		1.3	0.04
RS-D349-99 432.3-436.0	168		0.005		1.1	0.03
RS-D349-99 436-441	53		0.002		0.8	0.02
RS-D349-99 441-446	100		0.003		1.3	0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP053354

American Assay Laboratories

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 28 MAY 1999

SAMPLES	Au FA30 ppb	Au(R) FA30 ppb	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	Ag D210 ppm	Ag(OZ) D210 OPT
RS-D349-99 446.0-450.7	60		0.002		1.4	0.04
RS-D349-99 450.7-454.3	208		0.006		1.5	0.04
RS-D349-99 454.3-456.0	239		0.007		6.2	0.18
RS-D349-99 456.0-459.7	469		0.014		5.9	0.17
RS-D349-99 459.7-460.6	910	886	0.027	0.026	5.8	0.17
RS-D349-99 460.6-462.2	1342		0.039		2.8	0.08
RS-D349-99 462.2-464.2	7342		0.214		26.4	0.77
RS-D349-99 464.2-467.0	805		0.023		8.0	0.23
RS-D349-99 464.2-467.0B	181		0.005		<0.5	<0.02
RS-D349-99 467.0-471.3	34		<0.001		<0.5	<0.02
RS-D349-99 471.3-476.0	5		<0.001		<0.5	<0.02
RS-D349-99 476-481	23		<0.001		0.8	0.02
RS-D349-99 481-486	21		<0.001		<0.5	<0.02
RS-D349-99 486-488	<5		<0.001		<0.5	<0.02
RS-D349-99 488.0-491.1	27		<0.001		1.1	0.03
RS-D349-99 491.1-496.0	14		<0.001		<0.5	<0.02
RS-D349-99 496-501	85		0.002		<0.5	<0.02
RS-D349-99 501-506	67		0.002		1.3	0.04
RS-D349-99 506-509	58		0.002		1.5	0.04
RS-D349-99 509-512	35		0.001		0.7	0.02
RS-D349-99 512-516	17		<0.001		<0.5	<0.02
RS-D349-99 516-519	106		0.003		0.6	<0.02
RS-D349-99 519-524	14		<0.001		<0.5	<0.02

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	3	0.01	0.2	1	1	1	0.01	10	0.01	1	0.01	2	1	0.01	1	0.001	3	3	0.1	1	2	0.01	8	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.

CLIENT:	*NEWMONT GOLD COMPANY*
CLIENT REF:	ROSEBUD EXPLORATION
AAL REF:	SP053354
METHOD:	AAL 01-2 + Se

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

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
RS-D349-99 287.0-298.4	0.5	0.74	18	3	153	4	0.55	0.5	< 1	16	13	3.12	30	0.39	63	0.04	613	4	0.04	7	0.01	23	5	5.9	71	16	< .01	< 8	2	< 2	61
RS-D349-99 298.4-307.9	1	0.75	19	5	126	< 3	0.14	0.3	1	19	11	2.02	27	0.43	70	0.02	538	6	0.06	4	0.008	23	5	9.4	53	17	< .01	< 8	1	< 2	107
RS-D349-99 307.9-318.3	4	0.78	117	3	126	< 3	0.09	0.7	1	13	13	1.84	20	0.49	34	0.02	84	10	0.05	6	0.01	27	11	30.7	54	10	< .01	< 8	1	< 2	111
RS-D349-99 318.3-331.7	2.1	0.7	51	3	230	< 3	0.18	0.7	< 1	12	9	1.39	23	0.47	40	0.02	116	26	0.05	6	0.01	28	7	16.3	63	12	< .01	< 8	1	< 2	124
RS-D349-99 331.7-346.5	2.5	0.83	29	< 3	249	4	0.2	< .2	1	11	7	1.02	29	0.49	66	0.03	98	8	0.04	2	0.009	24	5	8.3	112	16	< .01	< 8	1	< 2	90
RS-D349-99 346.5-349.4	3	0.6	46	< 3	314	< 3	0.14	0.4	2	5	10	0.75	52	0.36	63	0.02	45	77	0.02	5	0.007	27	6	11	117	15	< .01	< 8	1	< 2	74
RS-D349-99 349.4-367.6	2	0.9	52	< 3	126	< 3	0.14	0.6	1	10	7	1.82	66	0.5	65	0.03	77	12	0.03	1	0.006	26	8	17.5	104	15	< .01	< 8	1	< 2	104
RS-D349-99 367.6-381.4	1.9	0.72	71	< 3	126	3	0.19	0.5	1	6	6	1.47	56	0.4	65	0.03	86	15	0.02	2	0.006	26	8	15.5	135	15	< .01	< 8	< 1	< 2	72
RS-D349-99 381.4-391.0	1.8	0.84	60	< 3	114	3	0.2	0.5	1	6	7	0.93	23	0.44	63	0.03	75	9	0.03	3	0.006	24	6	11.6	130	16	< .01	< 8	1	< 2	59
RS-D349-99 391.0-392.5	4.4	0.62	79	< 3	90	3	0.33	< .2	1	10	6	1.51	55	0.42	52	0.03	229	146	0.02	< 1	0.005	22	11	16.1	130	13	< .01	< 8	3	< 2	70
RS-D349-99 392.5-409.7	2.3	0.91	62	< 3	157	< 3	0.34	0.4	1	7	10	1.25	40	0.49	64	0.04	154	6	0.04	2	0.009	24	9	10.9	169	17	< .01	< 8	1	< 2	71
RS-D349-99 409.7-432.3	3.1	0.76	81	5	184	< 3	0.23	0.5	2	5	7	1.08	28	0.39	63	0.04	112	10	0.03	2	0.007	26	9	16.6	177	16	< .01	< 8	1	< 2	85
RS-D349-99 432.3-450.7	1.2	0.77	49	3	52	< 3	0.25	< .2	< 1	6	6	1.34	20	0.49	73	0.03	161	4	0.05	1	0.008	26	6	12.1	143	18	< .01	< 8	1	< 2	91
RS-D349-99 450.7-467.0	8.8	0.81	55	< 3	199	< 3	0.14	0.4	< 1	5	8	0.99	47	0.47	67	0.03	48	156	0.03	1	0.006	26	7	15.3	178	16	< .01	< 8	1	< 2	84
RS-D349-99 467-488	0.5	0.95	18	< 3	138	< 3	0.36	0.7	1	9	9	1.38	9	0.51	86	0.04	381	5	0.06	< 1	0.01	22	4	1.6	153	19	< .01	< 8	1	< 2	59
RS-D349-99 488-509	1	1.2	61	8	111	3	0.25	0.4	< 1	3	5	2.46	10	0.59	67	0.05	220	3	0.04	< 1	0.012	27	5	4.2	229	17	< .01	< 8	1	< 2	42
RS-D349-99 509-524	0.8	1.34	20	5	48	< 3	0.13	< .2	< 1	3	6	1.03	< 5	0.65	82	0.04	155	3	0.05	< 1	0.01	29	4	4.4	174	18	< .01	< 8	1	< 2	38
STANDARD C3/DS2	5.3	1.93	58	19	154	27	0.57	23.8	13	165	62	3.37	249	0.17	19	0.59	805	25	0.04	35	0.087	33	15	2.8	29	21	0.08	22	76	16	163
STANDARD G-2	< .3	1.04	< 2	< 3	241	< 3	0.66	1.1	4	78	6	1.98	< 5	0.51	8	0.59	555	1	0.1	7	0.093	5	< 3	< .1	77	5	0.13	< 8	40	2	45

CLIENT: *NEWMONT GOLD COMPANY*
CLIENT REF: ROSEBUD EXPLORATION
AAL REF: SP053385
METHOD: AAL 01-2 + Se

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431
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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
RS-D349-99 0.0-5.9	1.2	0.4	46	< 3	121	< 3	0.17	1.4	1	9	10	1.53	230	0.26	44	0.03	83	3	0.01	4	0.006	29	4	10.9	20	11	< .01	< 8	1	< 2	80
RS-D349-99 5.9-29.0	1.4	0.42	62	< 3	118	< 3	0.27	< .2	< 1	14	10	2.08	88	0.29	40	0.02	200	4	0.01	7	0.005	25	4	10.6	23	8	< .01	< 8	1	< 2	63
RS-D349-99 29.0-40.2	0.3	0.56	3	< 3	31	< 3	0.49	0.2	< 1	9	7	1.58	11	0.35	51	0.03	461	3	0.03	2	0.006	29	< 3	1.9	29	11	< .01	< 8	1	< 2	92
RS-D349-99 40.2-59.0	1	0.51	23	3	30	< 3	1	0.6	< 1	7	8	1.94	17	0.36	33	0.03	671	3	0.03	3	0.015	25	< 3	2.8	59	9	< .01	< 8	< 1	< 2	107
RS-D349-99 59-79	0.6	0.49	20	< 3	30	< 3	0.74	0.2	< 1	7	7	2.09	7	0.37	33	0.02	569	3	0.03	2	0.014	22	3	3.8	40	9	< .01	< 8	1	< 2	99
RS-D349-99 79-99	0.8	0.45	36	< 3	30	< 3	0.53	0.3	< 1	12	11	2.25	12	0.33	33	0.02	831	3	0.04	7	0.014	21	5	7.7	37	9	< .01	< 8	1	< 2	110
RS-D349-99 99-119	0.6	0.68	17	< 3	38	4	0.95	0.7	< 1	16	13	2.61	13	0.35	33	0.03	1076	4	0.05	9	0.023	25	4	3.5	82	9	< .01	< 8	2	< 2	103
RS-D349-99 119-137	< .3	0.67	7	< 3	22	3	1.41	0.3	1	12	11	2.32	5	0.37	26	0.03	1693	2	0.04	4	0.025	29	4	1.8	89	9	< .01	< 8	2	< 2	77
RS-D349-99 137-154	1.6	0.47	56	< 3	54	< 3	0.51	< .2	< 1	7	8	1.74	23	0.32	26	0.02	390	2	0.03	< 1	0.019	30	5	8.8	52	7	< .01	< 8	1	< 2	52
RS-D349-99 154-178	1.2	0.44	23	< 3	26	3	0.43	< .2	< 1	4	6	1.53	7	0.32	28	0.02	445	1	0.03	1	0.011	30	8	3.8	43	8	< .01	< 8	< 1	< 2	48
RS-D349-99 178.0-199.7	1.4	0.46	59	< 3	21	< 3	0.15	< .2	< 1	8	8	2.11	15	0.29	43	0.03	75	2	0.02	1	0.006	24	6	13.7	44	11	< .01	< 8	1	< 2	42
RS-D349-99 199.7-218.5	0.9	0.44	17	< 3	122	< 3	0.37	0.2	< 1	9	7	1.27	14	0.34	59	0.02	296	3	0.02	4	0.011	28	5	6.4	56	13	< .01	16	1	< 2	44
RS-D349-99 218.5-232.8	1	0.35	23	< 3	150	< 3	0.21	< .2	1	10	10	1.46	9	0.29	62	0.02	150	2	0.02	3	0.006	28	4	12.3	45	15	< .01	13	1	< 2	88
RS-D349-99 232.8-239.2	1.1	0.38	47	< 3	86	< 3	0.24	0.2	< 1	9	9	1.87	6	0.32	32	0.02	143	2	0.02	5	0.009	22	5	15	49	8	< .01	< 8	1	< 2	75
RS-D349-99 239.2-259.0	0.6	0.43	20	< 3	118	< 3	0.19	0.3	< 1	14	10	2.08	14	0.35	66	0.02	165	4	0.03	9	0.009	25	5	2.7	47	16	< .01	< 8	1	< 2	71
RS-D349-99 259-274	1.3	0.41	31	< 3	130	< 3	0.08	< .2	< 1	14	12	1.89	11	0.35	66	0.02	103	4	0.04	9	0.007	25	6	9.5	47	16	< .01	< 8	1	< 2	71
RS-D349-99 274-287	1	0.47	34	< 3	61	< 3	0.28	< .2	< 1	18	14	2.07	9	0.36	67	0.02	414	4	0.05	8	0.007	21	6	10.9	55	17	< .01	< 8	2	< 2	79
STANDARD C3/DS2	5.2	1.81	59	17	146	22	0.54	22.4	9	155	61	3.17	252	0.16	18	0.56	772	24	0.04	35	0.085	32	14	2.7	27	20	0.08	19	74	14	157
STANDARD G-2	< .3	0.92	< 2	< 3	214	< 3	0.62	0.3	4	71	2	1.89	< 5	0.47	7	0.56	535	2	0.07	7	0.091	5	< 3	< .1	68	4	0.12	< 8	37	2	42

CLIENT: *NEWMONT GOLD COMPANY*
CLIENT REF: ROSEBUD EXPLORATION
AAL REF: SP053354
METHOD: AAL 01-2 + Se

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

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
RS-D349-99 287.0-298.4	0.5	0.74	18	3	153	4	0.55	0.5	< 1	16	13	3.12	30	0.39	63	0.04	613	4	0.04	7	0.01	23	5	5.9	71	16	< .01	< 8	2	< 2	61
RS-D349-99 298.4-307.9	1	0.75	19	5	126	< 3	0.14	0.3	1	19	11	2.02	27	0.43	70	0.02	538	6	0.06	4	0.008	23	5	9.4	53	17	< .01	< 8	1	< 2	107
RS-D349-99 307.9-318.3	4	0.78	117	3	126	< 3	0.09	0.7	1	13	13	1.84	20	0.49	34	0.02	84	10	0.05	6	0.01	27	11	30.7	54	10	< .01	< 8	1	< 2	111
RS-D349-99 318.3-331.7	2.1	0.7	51	3	230	< 3	0.18	0.7	< 1	12	9	1.39	23	0.47	40	0.02	116	26	0.05	6	0.01	28	7	16.3	63	12	< .01	< 8	1	< 2	124
RS-D349-99 331.7-346.5	2.5	0.83	29	< 3	249	4	0.2	< .2	1	11	7	1.02	29	0.49	66	0.03	98	8	0.04	2	0.009	24	5	8.3	112	16	< .01	< 8	1	< 2	90
RS-D349-99 346.5-349.4	3	0.6	46	< 3	314	< 3	0.14	0.4	2	5	10	0.75	52	0.36	63	0.02	45	77	0.02	5	0.007	27	6	11	117	15	< .01	< 8	1	< 2	74
RS-D349-99 349.4-367.6	2	0.9	52	< 3	126	< 3	0.14	0.6	1	10	7	1.82	66	0.5	65	0.03	77	12	0.03	1	0.006	26	8	17.5	104	15	< .01	< 8	1	< 2	104
RS-D349-99 367.6-381.4	1.9	0.72	71	< 3	126	3	0.19	0.5	1	6	6	1.47	56	0.4	65	0.03	86	15	0.02	2	0.006	26	8	15.5	135	15	< .01	< 8	< 1	< 2	72
RS-D349-99 381.4-391.0	1.8	0.84	60	< 3	114	3	0.2	0.5	1	6	7	0.93	23	0.44	63	0.03	75	9	0.03	3	0.006	24	6	11.6	130	16	< .01	< 8	1	< 2	59
RS-D349-99 391.0-392.5	4.4	0.62	79	< 3	90	3	0.33	< .2	1	10	6	1.51	55	0.42	52	0.03	229	146	0.02	< 1	0.005	22	11	16.1	130	13	< .01	< 8	3	< 2	70
RS-D349-99 392.5-409.7	2.3	0.91	62	< 3	157	< 3	0.34	0.4	1	7	10	1.25	40	0.49	64	0.04	154	6	0.04	2	0.009	24	9	10.9	169	17	< .01	< 8	1	< 2	71
RS-D349-99 409.7-432.3	3.1	0.76	81	5	184	< 3	0.23	0.5	2	5	7	1.08	28	0.39	63	0.04	112	10	0.03	2	0.007	26	9	16.6	177	16	< .01	< 8	1	< 2	85
RS-D349-99 432.3-450.7	1.2	0.77	49	3	52	< 3	0.25	< .2	< 1	6	6	1.34	20	0.49	73	0.03	161	4	0.05	1	0.008	26	6	12.1	143	18	< .01	< 8	1	< 2	91
RS-D349-99 450.7-467.0	8.8	0.81	55	< 3	198	< 3	0.14	0.4	< 1	5	8	0.99	47	0.47	67	0.03	48	156	0.03	1	0.006	26	7	15.3	178	16	< .01	< 8	1	< 2	84
RS-D349-99 467-488	0.5	0.95	18	< 3	138	< 3	0.36	0.7	1	9	9	1.38	9	0.51	86	0.04	381	5	0.06	< 1	0.01	22	4	1.6	153	19	< .01	< 8	1	< 2	59
RS-D349-99 488-509	1	1.2	61	8	111	3	0.25	0.4	< 1	3	5	2.46	10	0.59	67	0.05	220	3	0.04	< 1	0.012	27	5	4.2	229	17	< .01	< 8	1	< 2	42
RS-D349-99 509-524	0.8	1.34	20	5	48	< 3	0.13	< .2	< 1	3	6	1.03	< 5	0.65	82	0.04	155	3	0.05	< 1	0.01	29	4	4.4	174	18	< .01	< 8	1	< 2	38
STANDARD C3/DS2	5.3	1.93	58	19	154	27	0.57	23.8	13	165	62	3.37	249	0.17	19	0.59	805	25	0.04	35	0.087	33	15	2.8	29	21	0.08	22	76	16	163
STANDARD G-2	< .3	1.04	< 2	< 3	241	< 3	0.66	1.1	4	78	6	1.98	< 5	0.51	8	0.59	555	1	0.1	7	0.093	5	< 3	< .1	77	5	0.13	< 8	40	2	45

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP053385

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

NEWMONT GOLD COMPANY

COPIES TO : C. BALLEW

: R. VANCE 0-287

: K. ALLEN

:

N51

CLIENT REFERENCE No: RS-D349-99 RECEIVED : 10 MAY 1999

No. SAMPLES : 70 REPORTED : 21 MAY 1999

MAIN SAMPLE TYPE : DRILL CORE

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

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP053385

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 21 MAY 1999

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 0-3	397	206	0.012	0.006	1.7	0.05
RS-D349-99 3.0-5.9	56		0.002		1.0	0.03
RS-D349-99 5.9-9.0	78		0.002		1.0	0.03
RS-D349-99 9-14	60		0.002		3.5	0.10
RS-D349-99 14.0-18.6	68		0.002		1.7	0.05
RS-D349-99 18.6-20.5	58		0.002		3.2	0.09
RS-D349-99 20.5-24.4	50		0.001		1.2	0.04
RS-D349-99 24.4-29.0	12		<0.001		<0.5	<0.02
RS-D349-99 24.4-29.0B	1064		0.031		<0.5	<0.02
RS-D349-99 29-34	<5		<0.001		<0.5	<0.02
RS-D349-99 34.0-36.6	<5		<0.001		<0.5	<0.02
RS-D349-99 36.6-40.2	14		<0.001		<0.5	<0.02
RS-D349-99 40.2-44.0	<5		<0.001		<0.5	<0.02
RS-D349-99 44-48	<5		<0.001		2.2	0.06
RS-D349-99 48-53	<5		<0.001		0.6	<0.02
RS-D349-99 53-56	<5		<0.001		0.8	0.02
RS-D349-99 56-59	52		0.002		0.5	<0.02
RS-D349-99 59-64	6		<0.001		0.8	0.02
RS-D349-99 64-69	8		<0.001		0.5	<0.02
RS-D349-99 69-74	18		<0.001		0.8	0.02
RS-D349-99 74-79	<5		<0.001		<0.5	<0.02
RS-D349-99 79-84	18		<0.001		0.6	<0.02
RS-D349-99 84-89	8		<0.001		<0.5	<0.02
RS-D349-99 89.0-94.2	178		0.005		1.7	0.05
RS-D349-99 94.2-99.0	136		0.004		1.7	0.05

AMERICAN ASSAY LABORATORIES

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REPORTED : 21 MAY 1999

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 99-104	6		<0.001		<0.5	<0.02
RS-D349-99 104-109	<5		<0.001		<0.5	<0.02
RS-D349-99 109-114	16		<0.001		0.5	<0.02
RS-D349-99 114-119	90		0.003		0.8	0.02
RS-D349-99 119-124	48		0.001		0.6	<0.02
RS-D349-99 124-129	<5		<0.001		<0.5	<0.02
RS-D349-99 129-134	<5		<0.001		<0.5	<0.02
RS-D349-99 134-137	<5		<0.001		<0.5	<0.02
RS-D349-99 137-140	56		0.002		1.0	0.03
RS-D349-99 140.0-141.5	858		0.025		2.3	0.07
RS-D349-99 141.5-145.0	34		<0.001		0.9	0.03
RS-D349-99 145-149	34	32	<0.001	<0.001	1.5	0.04
RS-D349-99 149-154	8		<0.001		<0.5	<0.02
RS-D349-99 154-159	1928		0.056		8.1	0.24
RS-D349-99 159-164	30		<0.001		1.0	0.03
RS-D349-99 164-169	6		<0.001		1.0	0.03
RS-D349-99 169.0-174.4	10		<0.001		0.8	0.02
RS-D349-99 174.4-178.0	8		<0.001		0.8	0.02
RS-D349-99 174.4-178.0B	1003	1032	0.029	0.030	<0.5	<0.02
RS-D349-99 178.0-181.5	46		0.001		1.5	0.04
RS-D349-99 181.5-184.5	350		0.010		1.1	0.03
RS-D349-99 184.5-188.0	166		0.005		1.3	0.04
RS-D349-99 188-193	108		0.003		1.7	0.05
RS-D349-99 193-197	202		0.006		2.0	0.06
RS-D349-99 197.0-199.7	54	52	0.002	0.002	1.6	0.04

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP053385

CLIENT : NEWMONT GOLD COMPANY
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REFERENCE : RS-D349-99

REPORTED : 21 MAY 1999

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 199.7-201.0	110		0.003		1.3	0.04
RS-D349-99 201-206	238		0.007		1.1	0.03
RS-D349-99 206.0-208.5	<5		<0.001		<0.5	<0.02
RS-D349-99 208.5-213.5	96		0.003		0.8	0.02
RS-D349-99 213.5-218.5	92		0.003		0.8	0.02
RS-D349-99 218.5-224.0	680	818	0.020	0.024	0.9	0.03
RS-D349-99 224-229	190		0.006		6.0	0.18
RS-D349-99 229.0-232.8	68		0.002		1.1	0.03
RS-D349-99 232.8-236.4	84		0.002		0.8	0.02
RS-D349-99 236.4-239.2	112		0.003		1.7	0.05
RS-D349-99 239.2-244.0	100		0.003		0.6	<0.02
RS-D349-99 244-249	<5		<0.001		<0.5	<0.02
RS-D349-99 249-254	1122	1164	0.033	0.034	<0.5	<0.02
RS-D349-99 254-259	442		0.013		<0.5	<0.02
RS-D349-99 259-264	242		0.007		1.0	0.03
RS-D349-99 264-269	98		0.003		1.0	0.03
RS-D349-99 269-274	224		0.007		1.2	0.04
RS-D349-99 274-279	66		0.002		0.6	<0.02
RS-D349-99 279.0-284.1	64		0.002		0.7	0.02
RS-D349-99 284.1-287.0	460		0.013		1.4	0.04

PROVISIONAL REPORT SP053354

PO BOX 11530
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NEWMONT GOLD COMPANY

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

287-524

CLIENT REFERENCE No: RS-D349-99 RECEIVED : 6 MAY 1999

No. SAMPLES : 73 REPORTED : 16 MAY 1999

MAIN SAMPLE TYPE : DRILL CORE

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

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au	FA30	15%	ppb	5
Au(R)	FA30	15%	ppb	5
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
Ag	D210	10%	ppm	0.5
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Leonard E. Mackedon B.S.

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP053354

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 16 MAY 1999

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 287-290	1008		0.029		1.3	0.04
RS-D349-99 290.0-292.7	7		<0.001		<0.5	<0.02
RS-D349-99 292.7-297.2	140		0.004		<0.5	<0.02
RS-D349-99 297.2-298.4	117		0.003		0.5	<0.02
RS-D349-99 298.4-301.4	33		<0.001		<0.5	<0.02
RS-D349-99 301.4-304.0	1068	978	0.031	0.029	1.6	0.05
RS-D349-99 304.0-307.9	112		0.003		0.9	0.03
RS-D349-99 304.0-307.9B	95		0.003		<0.5	<0.02
RS-D349-99 307.9-310.7	625		0.018		2.3	0.07
RS-D349-99 310.7-314.0	1250		0.036		2.8	0.08
RS-D349-99 314-317	1270		0.037		4.6	0.13
RS-D349-99 317.0-318.3	7242		0.211		10.1	0.29
RS-D349-99 318.3-322.8	230		0.007		1.4	0.04
RS-D349-99 322.8-324.9	674		0.020		1.7	0.05
RS-D349-99 324.9-327.0	1463		0.043		2.4	0.07
RS-D349-99 327.0-330.8	77		0.002		0.7	0.02
RS-D349-99 330.8-331.7	982		0.029		5.1	0.15
RS-D349-99 331.7-333.5	834		0.024		2.3	0.07
RS-D349-99 333.5-337.5	41	40	0.001	0.001	1.3	0.04
RS-D349-99 337.5-338.9	287		0.008		2.4	0.07
RS-D349-99 338.9-343.0	60		0.002		<0.5	<0.02
RS-D349-99 343.0-346.5	74		0.002		0.6	<0.02
RS-D349-99 346.5-349.4	283		0.008		3.0	0.09
RS-D349-99 346.5-349.4B	1021		0.030		<0.5	<0.02
RS-D349-99 349.4-352.5	3169	3098	0.092	0.090	4.8	0.14

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 352.5-358.0	201		0.006		1.7	0.05
RS-D349-99 358.0-362.4	143		0.004		1.1	0.03
RS-D349-99 362.4-367.6	1243		0.036		4.7	0.14
RS-D349-99 367.6-372.7	82		0.002		1.3	0.04
RS-D349-99 372.7-375.0	216		0.006		3.1	0.09
RS-D349-99 375.0-377.4	1493	1408	0.044	0.041	3.5	0.10
RS-D349-99 377.4-381.4	361		0.011		1.7	0.05
RS-D349-99 381.4-382.9	948		0.028		3.2	0.09
RS-D349-99 382.9-385.0	75		0.002		0.7	0.02
RS-D349-99 385.0-389.2	340		0.010		1.5	0.04
RS-D349-99 389.2-391.0	162		0.005		1.4	0.04
RS-D349-99 391.0-392.5	256		0.007		4.6	0.13
RS-D349-99 392.5-397.0	37		0.001		0.6	<0.02
RS-D349-99 397-402	52		0.002		0.6	<0.02
RS-D349-99 402.0-403.8	328		0.010		2.7	0.08
RS-D349-99 403.8-405.3	1122		0.033		8.7	0.25
RS-D349-99 405.3-409.7	17	14	<0.001	<0.001	0.8	0.02
RS-D349-99 409.7-415.3	138		0.004		2.0	0.06
RS-D349-99 415.3 418.8	562		0.016		2.4	0.07
RS-D349-99 418.8-424.4	170		0.005		1.6	0.05
RS-D349-99 424.4-428.7	1150	1072	0.034	0.031	10.0	0.29
RS-D349-99 428.7-432.3	665		0.019		1.3	0.04
RS-D349-99 432.3-436.0	168		0.005		1.1	0.03
RS-D349-99 436-441	53		0.002		0.8	0.02
RS-D349-99 441-446	100		0.003		1.3	0.04

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP053354

CLIENT : NEWMONT GOLD COMPANY
PROJECT : ROSEBUD
REFERENCE : RS-D349-99

REPORTED : 16 MAY 1999

SAMPLES	Au	Au(R)	Au(OZ)	Au(RZ)	Ag	Ag(OZ)
RS-D349-99 446.0-450.7	60		0.002		1.4	0.04
RS-D349-99 450.7-454.3	208		0.006		1.5	0.04
RS-D349-99 454.3-456.0	239		0.007		6.2	0.18
RS-D349-99 456.0-459.7	469		0.014		5.9	0.17
RS-D349-99 459.7-460.6	910	886	0.027	0.026	5.8	0.17
RS-D349-99 460.6-462.2	1342		0.039		2.8	0.08
RS-D349-99 462.2-464.2	7342		0.214		26.4	0.77
RS-D349-99 464.2-467.0	805		0.023		8.0	0.23
RS-D349-99 464.2-467.0B	181		0.005		<0.5	<0.02
RS-D349-99 467.0-471.3	34		<0.001		<0.5	<0.02
RS-D349-99 471.3-476.0	5		<0.001		<0.5	<0.02
RS-D349-99 476-481	23		<0.001		0.8	0.02
RS-D349-99 481-486	21		<0.001		<0.5	<0.02
RS-D349-99 486-488	<5		<0.001		<0.5	<0.02
RS-D349-99 488.0-491.1	27		<0.001		1.1	0.03
RS-D349-99 491.1-496.0	14		<0.001		<0.5	<0.02
RS-D349-99 496-501	85		0.002		<0.5	<0.02
RS-D349-99 501-506	67		0.002		1.3	0.04
RS-D349-99 506-509	58		0.002		1.5	0.04
RS-D349-99 509-512	35		0.001		0.7	0.02
RS-D349-99 512-516	17		<0.001		<0.5	<0.02
RS-D349-99 516-519	106		0.003		0.6	<0.02
RS-D349-99 519-524	14		<0.001		<0.5	<0.02

SP

SUBMITTAL FORM

American Assay Laboratories

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Santiago, Chile
Mendoza, Argentina

Company: Newmont Gold

Address: Winnemucca Office

City Winnemucca State NV Zip 89445

Telephone Number: ( ) Fax Number: ( )

Project Name: Rosebud Exploration Purchase Order Number:

Date Submitted: Number of Samples: 68 + 2 Pulps

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
RS-D 349-99	core	FA 30 Au, Ag D210
		AA 1-2 ICP + Se
		Composite as shown on attachment
STANDARDS: 23.1B, 178.0B (NO ICP)	Pulps	Au Ag Only
RS-D349-99 MS-3 (RMG1) 23.1 B		
RS-D349-99 MS-3 (RMG1) 178.0 B		

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:

Charlotte Ballew
Winnemucca Office

Results to:

Randy Vance Newmont Winnemucca

Kurt Allen Rosebud Mine

Comments:

Newmont Rosebud Standard Prep

CLIENT FILE COPY

RS-D349-99 **LAB COPY**

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number	Pulp
0	3	3	x	x			1	
3	5.9	2.9	x	x	x	5.9	2	
5.9	9	3.1	x	x			3	
9	14	5	x	x			4	
14	18.6	4.6	x	x			5	
18.6	20.5	1.9	x	x			6	
20.5	24.4	3.9	x	x			7	
24.4	29	4.6	x	x	x	23.1	8	23.1B
29	34	5	x	x			9	
34	36.6	2.6	x	x			10	
36.6	40.2	3.6	x	x	x	11.2	11	
40.2	44	3.8	x	x			12	
44	48	4	x	x			13	
48	53	5	x	x			14	
53	56	3	x	x			15	
56	59	3	x	x	x	18.8	16	
59	64	5	x	x			17	
64	69	5	x	x			18	
69	74	5	x	x			19	
74	79	5	x	x	x	20	20	
79	84	5	x	x			21	
84	89	5	x	x			22	
89	94.2	5.2	x	x			23	
94.2	99	4.8	x	x	x	20	24	
99	104	5	x	x			25	
104	109	5	x	x			26	
109	114	5	x	x			27	
114	119	5	x	x	x	20	28	
119	124	5	x	x			29	
124	129	5	x	x			30	
129	134	5	x	x			31	
134	137	3	x	x	x	18	32	
137	140	3	x	x			33	
140	141.5	1.5	x	x			34	
141.5	145	3.5	x	x			35	
145	149	4	x	x			36	
149	154	5	x	x	x	17	37	
154	159	5	x	x			38	
159	164	5	x	x			39	
164	169	5	x	x			40	
169	174.4	5.4	x	x			41	
174.4	178	3.6	x	x	x	24	42	178.0B

178	181.5	3.5	x	x			43
181.5	184.5	3	x	x			44
184.5	188	3.5	x	x			45
188	193	5	x	x			46
193	197	4	x	x			47
197	199.7	2.7	x	x	x	21.7	48
199.7	201	1.3	x	x			49
201	206	5	x	x			50
206	208.5	2.5	x	x			51
208.5	213.5	5	x	x			52
213.5	218.5	5	x	x	x	18.8	53
218.5	224	5.5	x	x			54
224	229	5	x	x			55
229	232.8	3.8	x	x	x	14.3	56
232.8	236.4	3.6	x	x			57
236.4	239.2	2.8	x	x	x	6.4	58
239.2	244	4.8	x	x			59
244	249	5	x	x			60
249	254	5	x	x			61
254	259	5	x	x	x	19.8	62
259	264	5	x	x			63
264	269	5	x	x			64
269	274	5	x	x	x	15	65
274	279	5	x	x			66
279	284.1	5.1	x	x			67
284.1	287	2.9	x	x	x	13	68

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
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Telephone
(702) 356-0606
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2320 Last Chance Rd.
Nevada 89801
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Elko, NV 89801
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(702) 738-9100
Fax
(702) 738-2594

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

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: Newmont Gold

Address: Winnemucca Office

City Winnemucca State N Zip 89445

Telephone Number: ( ) Fax Number: ( )

Project Name: Rosebud Exploration Purchase Order Number:

Date Submitted: 5-5-99 Number of Samples: 70 + 3 pulps

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

SAMPLE IDENTIFICATION	TYPE	ELEMENTS REQUIRED
RS-D349-99	core	FA 30 Au, Ag D210
		AA 1-2 ICP + Se
		composite as shown on attachment
STANDARDS: 307.9B, 349.4B,	Pulps	Au, Ag Only
467.0B (NO ICP)		
PEEL HERE RS-D349-99 MS-1 (RMG1) 307.9B	RS-D349-99 MS-3 (RMG1) 349.4B	PEEL HERE RS-D349-99 MS-2 (RMG1) 467.0B

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:

Charlotte Bellen
Winnemucca Office

Results to:

Randy Vance Newmont Winnemucca
Kurt Allen Rosebud Mine

Comments:

Newmont Rosebud standard Prep
Rush: 287 thru 471.3

CLIENT FILE COPY

RS-D349-99 **LAB COPY**

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number	Pulp
287	290	3	x	x			1	
290	292.7	2.7	x	x			2	
292.7	297.2	4.5	x	x			3	
297.2	298.4	1.2	x	x	x	11.4	4	
298.4	301.4	3	x	x			5	
301.4	304	2.6	x	x			6	
304	307.9	3.9	x	x	x	9.5	7	307.9B
307.9	310.7	2.8	x	x			8	
310.7	314	3.3	x	x			9	
314	317	3	x	x			10	
317	318.3	1.3	x	x	x	10.4	11	
318.3	322.8	4.5	x	x			12	
322.8	324.9	2.1	x	x			13	
324.9	327	2.1	x	x			14	
327	330.8	3.8	x	x			15	
330.8	331.7	0.9	x	x	x	13.4	16	
331.7	333.5	1.8	x	x			17	
333.5	337.5	4	x	x			18	
337.5	338.9	1.4	x	x			19	
338.9	343	4.1	x	x			20	
343	346.5	3.5	x	x	x	14.8	21	
346.5	349.4	2.9	x	x	x	2.9	22	349.4B
349.4	352.5	3.1	x	x			23	
352.5	358	5.5	x	x			24	
358	362.4	4.4	x	x			25	
362.4	367.6	5.2	x	x	x	18.2	26	
367.6	372.7	5.1	x	x			27	
372.7	375	2.3	x	x			28	
375	377.4	2.4	x	x			29	
377.4	381.4	4	x	x	x	13.8	30	
381.4	382.9	1.5	x	x			31	
382.9	385	2.1	x	x			32	
385	389.2	4.2	x	x			33	
389.2	391	1.8	x	x	x	9.6	34	
391	392.5	1.5	x	x	x	1.5	35	
392.5	397	4.5	x	x			36	
397	402	5	x	x			37	
402	403.8	1.8	x	x			38	
403.8	405.3	1.5	x	x			39	
405.3	409.7	4.4	x	x	x	17.2	40	

409.7	415.3	5.6	x	x			41	
415.3	418.8	3.5	x	x			42	
418.8	424.4	5.6	x	x			43	
424.4	428.7	4.3	x	x			44	
428.7	432.3	3.6	x	x	x	22.6	45	
432.3	436	3.7	x	x			46	
436	441	5	x	x			47	
441	446	5	x	x			48	
446	450.7	4.7	x	x	x	18.4	49	
450.7	454.3	3.6	x	x			50	
454.3	456	1.7	x	x			51	
456	459.7	3.7	x	x			52	
459.7	460.6	0.9	x	x			53	
460.6	462.2	1.6	x	x			54	
462.2	464.2	2	x	x			55	
464.2	467	2.8	x	x	x	16.3	56	467.0B
467	471.3	4.3	x	x			57	
471.3	476	4.7	x	x			58	
476	481	5	x	x			59	
481	486	5	x	x			60	
486	488	2	x	x	x	21	61	
488	491.1	3.1	x	x			62	
491.1	496	4.9	x	x			63	
496	501	5	x	x			64	
501	506	5	x	x			65	
506	509	3	x	x	x	21	66	
509	512	3	x	x			67	
512	516	4	x	x			68	
516	519	3	x	x			69	
519	524	5	x	x	x	15	70	

RS-D349-99

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number	Pulp
0	3	3	x	x			1	
3	5.9	2.9	x	x	x	5.9	2	
5.9	9	3.1	x	x			3	
9	14	5	x	x			4	
14	18.6	4.6	x	x			5	
18.6	20.5	1.9	x	x			6	
20.5	24.4	3.9	x	x			7	
24.4	29	4.6	x	x	x	23.1	8	23.1B
29	34	5	x	x			9	
34	36.6	2.6	x	x			10	
36.6	40.2	3.6	x	x	x	11.2	11	
40.2	44	3.8	x	x			12	
44	48	4	x	x			13	
48	53	5	x	x			14	
53	56	3	x	x			15	
56	59	3	x	x	x	18.8	16	
59	64	5	x	x			17	
64	69	5	x	x			18	
69	74	5	x	x			19	
74	79	5	x	x	x	20	20	
79	84	5	x	x			21	
84	89	5	x	x			22	
89	94.2	5.2	x	x			23	
94.2	99	4.8	x	x	x	20	24	
99	104	5	x	x			25	
104	109	5	x	x			26	
109	114	5	x	x			27	
114	119	5	x	x	x	20	28	
119	124	5	x	x			29	
124	129	5	x	x			30	
129	134	5	x	x			31	
134	137	3	x	x	x	18	32	
137	140	3	x	x			33	
140	141.5	1.5	x	x			34	
141.5	145	3.5	x	x			35	
145	149	4	x	x			36	
149	154	5	x	x	x	17	37	
154	159	5	x	x			38	
159	164	5	x	x			39	
164	169	5	x	x			40	
169	174.4	5.4	x	x			41	
174.4	178	3.6	x	x	x	24	42	178.0B

178	181.5	3.5	x	x			43	
181.5	184.5	3	x	x			44	
184.5	188	3.5	x	x			45	
188	193	5	x	x			46	
193	197	4	x	x			47	
197	199.7	2.7	x	x	x	21.7	48	
199.7	201	1.3	x	x			49	
201	206	5	x	x			50	
206	208.5	2.5	x	x			51	
208.5	213.5	5	x	x			52	
213.5	218.5	5	x	x	x	18.8	53	
218.5	224	5.5	x	x			54	
224	229	5	x	x			55	
229	232.8	3.8	x	x	x	14.3	56	
232.8	236.4	3.6	x	x			57	
236.4	239.2	2.8	x	x	x	6.4	58	
239.2	244	4.8	x	x			59	
244	249	5	x	x			60	
249	254	5	x	x			61	
254	259	5	x	x	x	19.8	62	
259	264	5	x	x			63	
264	269	5	x	x			64	
269	274	5	x	x	x	15	65	
274	279	5	x	x			66	
279	284.1	5.1	x	x			67	
284.1	287	2.9	x	x	x	13	68	
287	290	3	x	x			69	
290	292.7	2.7	x	x			70	
292.7	297.2	4.5	x	x			71	
297.2	298.4	1.2	x	x	x	11.4	72	
298.4	301.4	3	x	x			73	
301.4	304	2.6	x	x			74	
304	307.9	3.9	x	x	x	9.5	75	307.9B
307.9	310.7	2.8	x	x			76	
310.7	314	3.3	x	x			77	
314	317	3	x	x			78	
317	318.3	1.3	x	x	x	10.4	79	
318.3	322.8	4.5	x	x			80	
322.8	324.9	2.1	x	x			81	
324.9	327	2.1	x	x			82	
327	330.8	3.8	x	x			83	
330.8	331.7	0.9	x	x	x	13.4	84	

331.7	333.5	1.8	x	x			85	
333.5	337.5	4	x	x			86	
337.5	338.9	1.4	x	x			87	
338.9	343	4.1	x	x			88	
343	346.5	3.5	x	x	x	14.8	89	
346.5	349.4	2.9	x	x	x	2.9	90	349.4B
349.4	352.5	3.1	x	x			91	
352.5	358	5.5	x	x			92	
358	362.4	4.4	x	x			93	
362.4	367.6	5.2	x	x	x	18.2	94	
367.6	372.7	5.1	x	x			95	
372.7	375	2.3	x	x			96	
375	377.4	2.4	x	x			97	
377.4	381.4	4	x	x	x	13.8	98	
381.4	382.9	1.5	x	x			99	
382.9	385	2.1	x	x			100	
385	389.2	4.2	x	x			101	
389.2	391	1.8	x	x	x	9.6	102	
391	392.5	1.5	x	x	x	1.5	103	
392.5	397	4.5	x	x			104	
397	402	5	x	x			105	
402	403.8	1.8	x	x			106	
403.8	405.3	1.5	x	x			107	
405.3	409.7	4.4	x	x	x	17.2	108	
409.7	415.3	5.6	x	x			109	
415.3	418.8	3.5	x	x			110	
418.8	424.4	5.6	x	x			111	
424.4	428.7	4.3	x	x			112	
428.7	432.3	3.6	x	x	x	22.6	113	
432.3	436	3.7	x	x			114	
436	441	5	x	x			115	
441	446	5	x	x			116	
446	450.7	4.7	x	x	x	18.4	117	
450.7	454.3	3.6	x	x			118	
454.3	456	1.7	x	x			119	
456	459.7	3.7	x	x			120	
459.7	460.6	0.9	x	x			121	
460.6	462.2	1.6	x	x			122	
462.2	464.2	2	x	x			123	
464.2	467	2.8	x	x	x	16.3	124	467.0B
467	471.3	4.3	x	x			125	
471.3	476	4.7	x	x			126	
476	481	5	x	x			127	
481	486	5	x	x			128	
486	488	2	x	x	x	21	129	

488	491.1	3.1	x	x			130
491.1	496	4.9	x	x			131
496	501	5	x	x			132
501	506	5	x	x			133
506	509	3	x	x	x	21	134
509	512	3	x	x			135
512	516	4	x	x			136
516	519	3	x	x			137
519	524	5	x	x	x	15	138

STP41DHS.CR5 05/04/99 11:51:20

Point	Northing	Easting	Elevation	Description
1	2,203,651.1210	483,267.4530	4,756.37	D347
23	2,203,651.7966	483,272.3170	4,753.37	D348
24	2,203,652.5251	483,273.4820	4,750.38	D349
25	2,203,648.1846	483,267.4532	4,743.57	D350

Down Hole Survey Data
RS-D349-99

Footage	Measured Bearing	Corrected Azimuth -15.66	Measured Inclination	Calculated Dip
40	65.5	81.2	45.25	-44.8
200	65.5	81.2	45.75	-44.3
400	64.5	80.2	45.75	-44.3

STP41DHS.CR5 05/04/99 11:48:27

Point	Northing	Easting	Elevation	Description
1	2,203,651.1210	483,267.4530	4,756.37	D347
23	2,203,651.7966	483,272.3170	4,753.37	D348
24	2,203,652.5251	483,273.4820	4,750.38	D349
25	2,203,648.1846	483,267.4532	4,743.57	D350

Store 41

VTBORE~1.CR5 05/13/99 13:18:03

Point	Northing	Easting	Elevation	Description
1	2,203,794.1530	482,609.1790	4,649.69	VENT
2	2,203,826.1480	482,595.4780	4,646.23	ED-6BS
3	2,203,775.6550	482,621.3442	4,635.91	D353
4	2,203,772.1657	482,622.2298	4,636.56	D352
5	2,203,770.0147	482,626.4114	4,637.34	D351

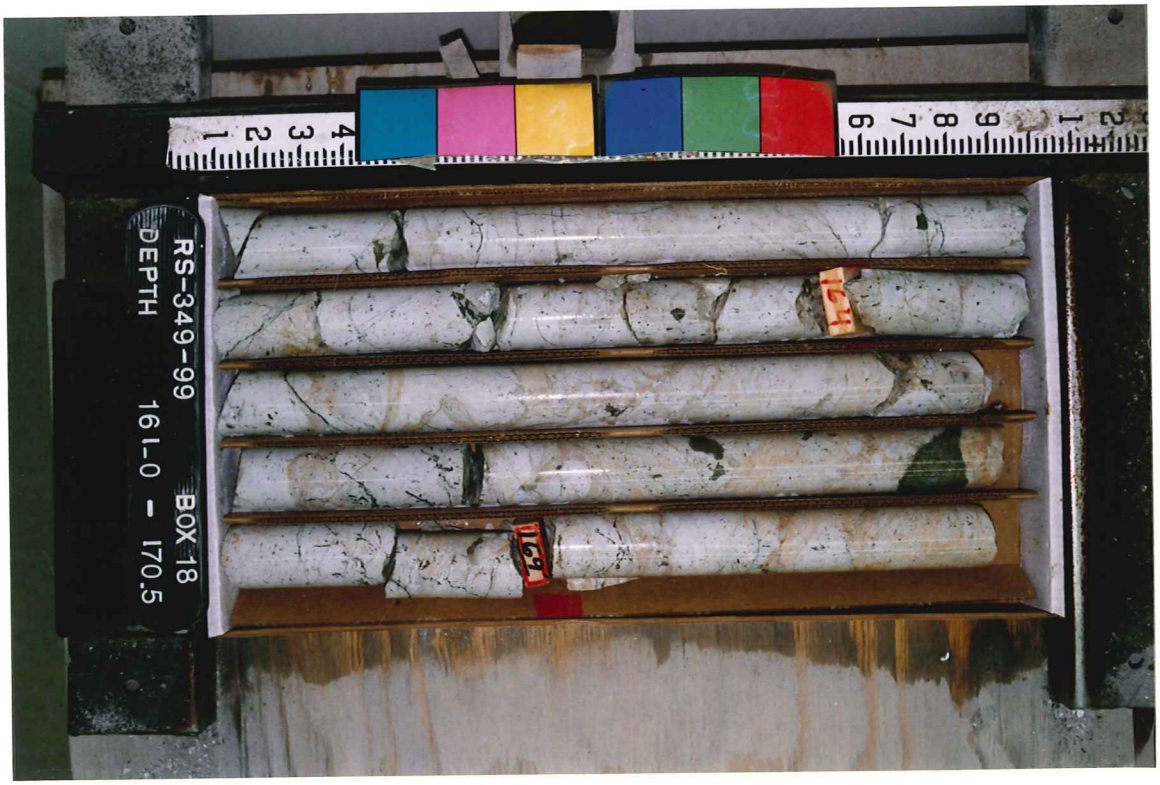
RS-349-99

Boxes 1-15
are Missing

Boxes 1-15 Missing

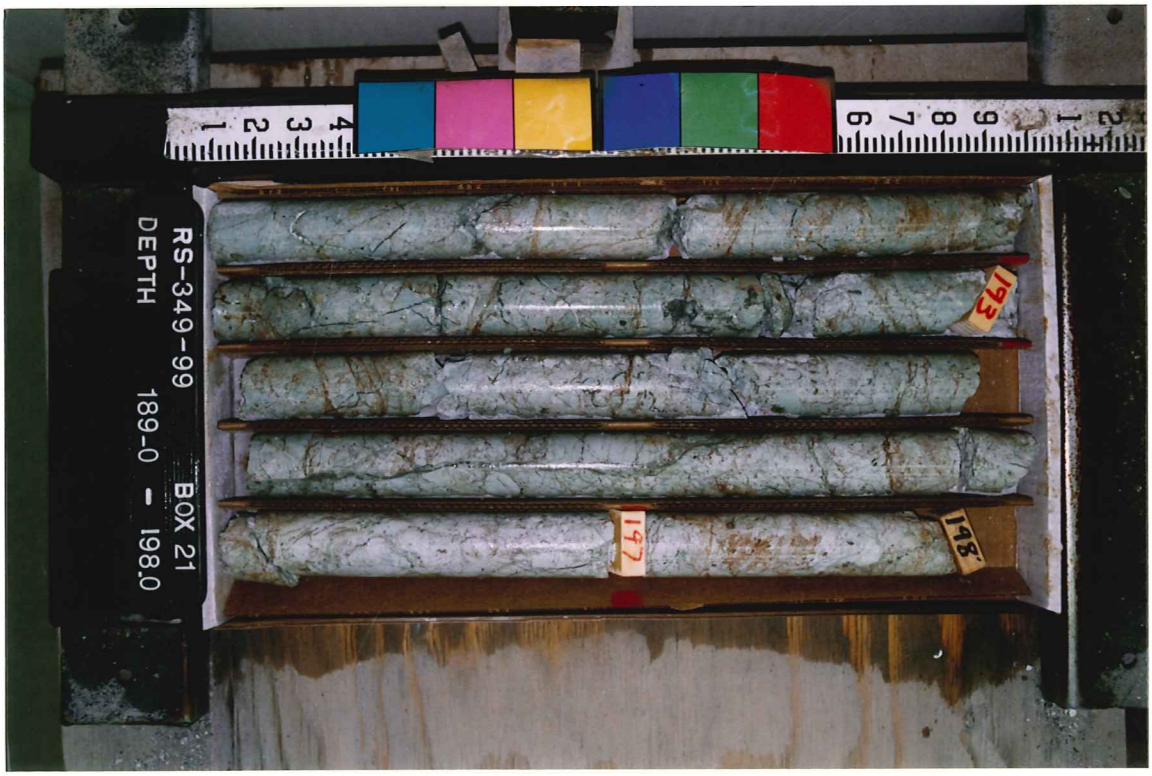
159
154
RS-349-99 BOX 17
DEPTH 151-0 - 161.0

145
141.5
RS-349-99 BOX 16
DEPTH 141-5 - 151.0


164
169
RS-349-99 BOX 18
DEPTH 161-0 - 170.5

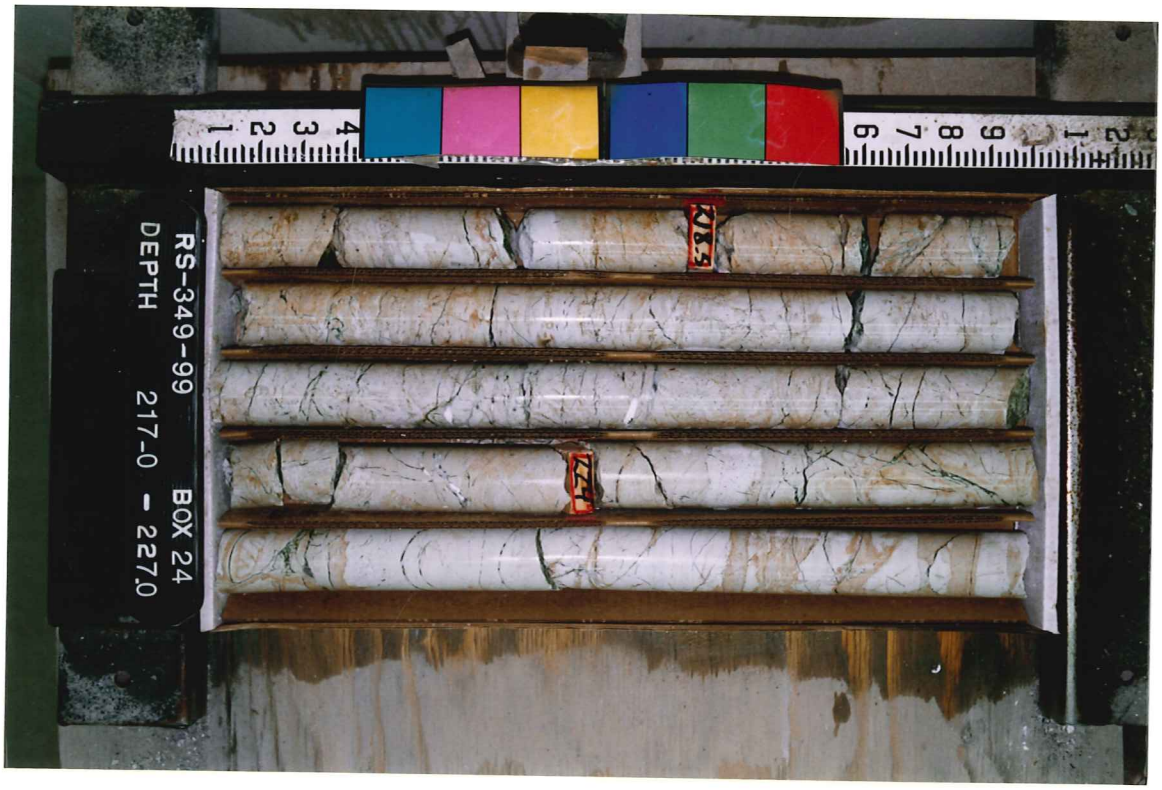
181.5
184.5
188
RS-349-99 BOX 20
DEPTH 179-5 - 189.0

174.4
178
RS-349-99 BOX 19
DEPTH 170-5 - 179.5


193
197
198
RS-349-99 BOX 21
DEPTH 189-0 - 198.0

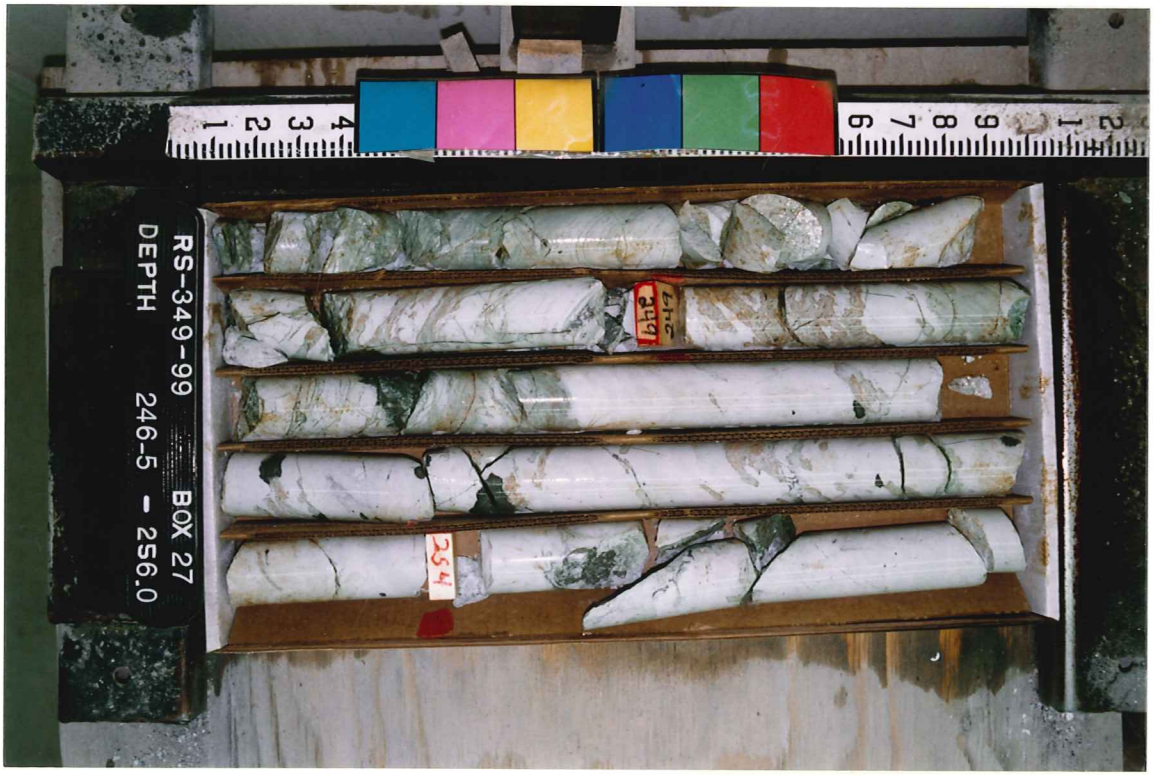
RS-349-99 BOX 23
DEPTH 208-0 - 217.0

RS-349-99 BOX 22
DEPTH 198-0 - 208.0


RS-349-99 BOX 24
DEPTH 217-0 - 227.0

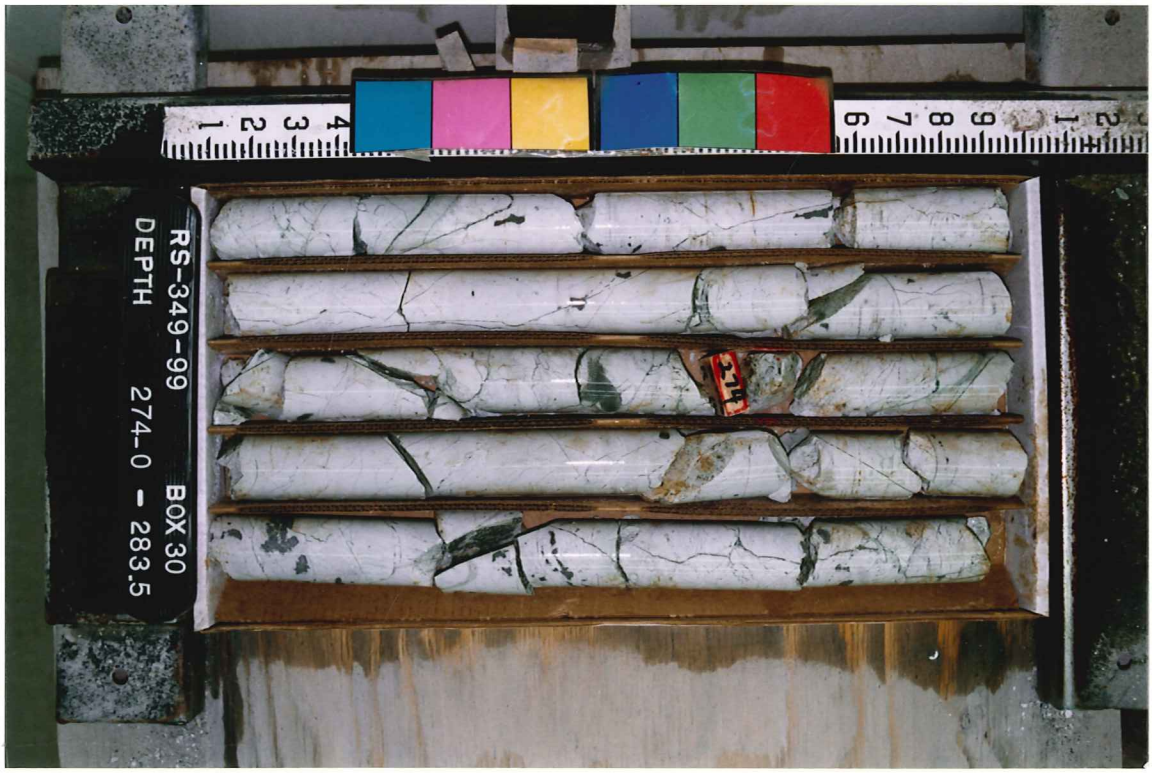
236.4
237.2
239
244
RS-349-99 BOX 26
DEPTH 237-0 - 246.5

229
232.8
RS-349-99 BOX 25
DEPTH 227-0 - 237.0


244
254
RS-349-99 BOX 27
DEPTH 246-5 - 256.0

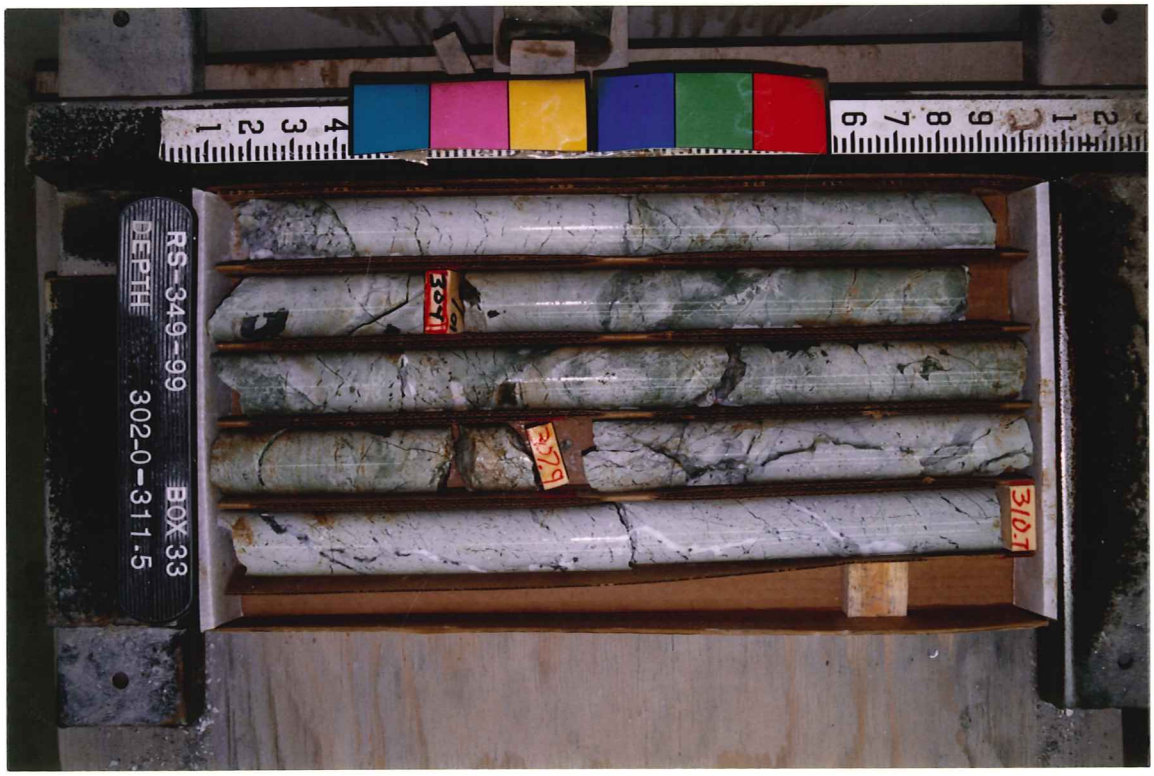
274
269
RS-349-99 BOX 29
DEPTH 265-0 - 274.0

264
259
RS-349-99 BOX 28
DEPTH 256-0 - 265.0


274
RS-349-99 BOX 30
DEPTH 274-0 - 283.5

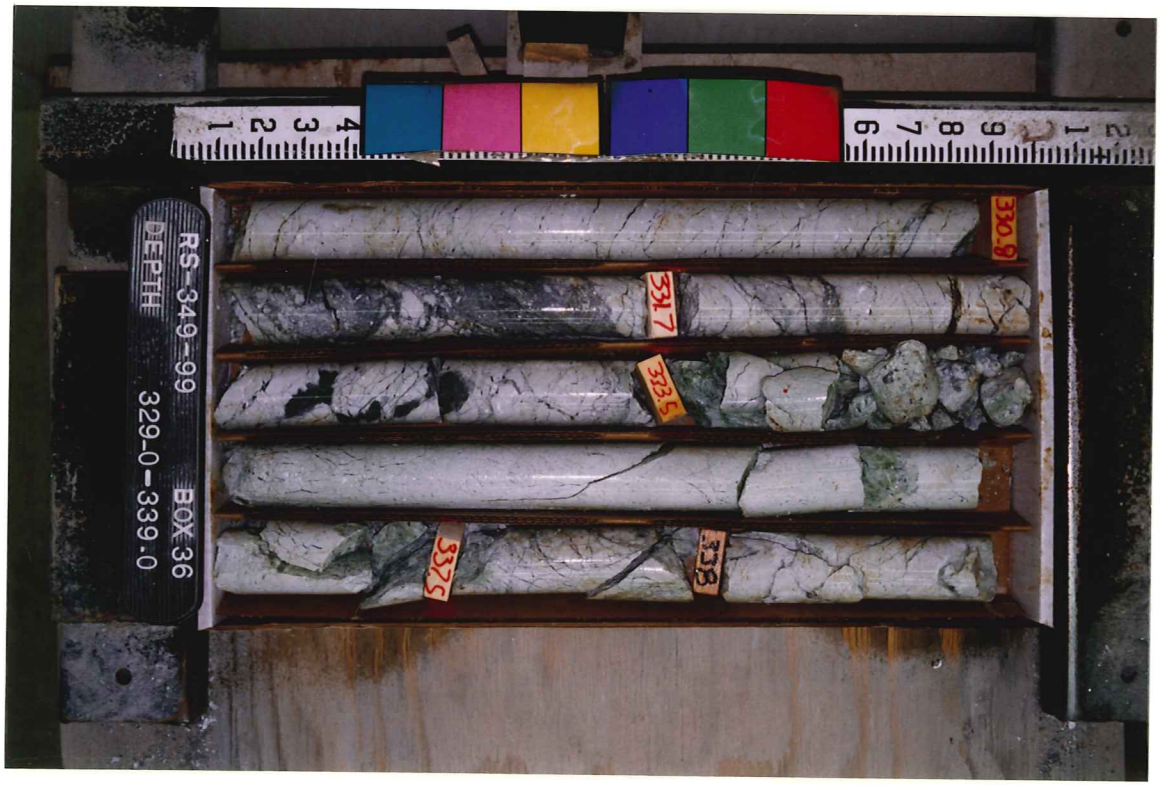
294
297.2
298.4
292.7
301.4
RS-349-99 BOX 32
DEPTH 293-0-302-0

287
290
RS-349-99 BOX 31
DEPTH 283-5-293-0


307.9
309.9
310.7
RS-349-99 BOX 33
DEPTH 302-0-311-5

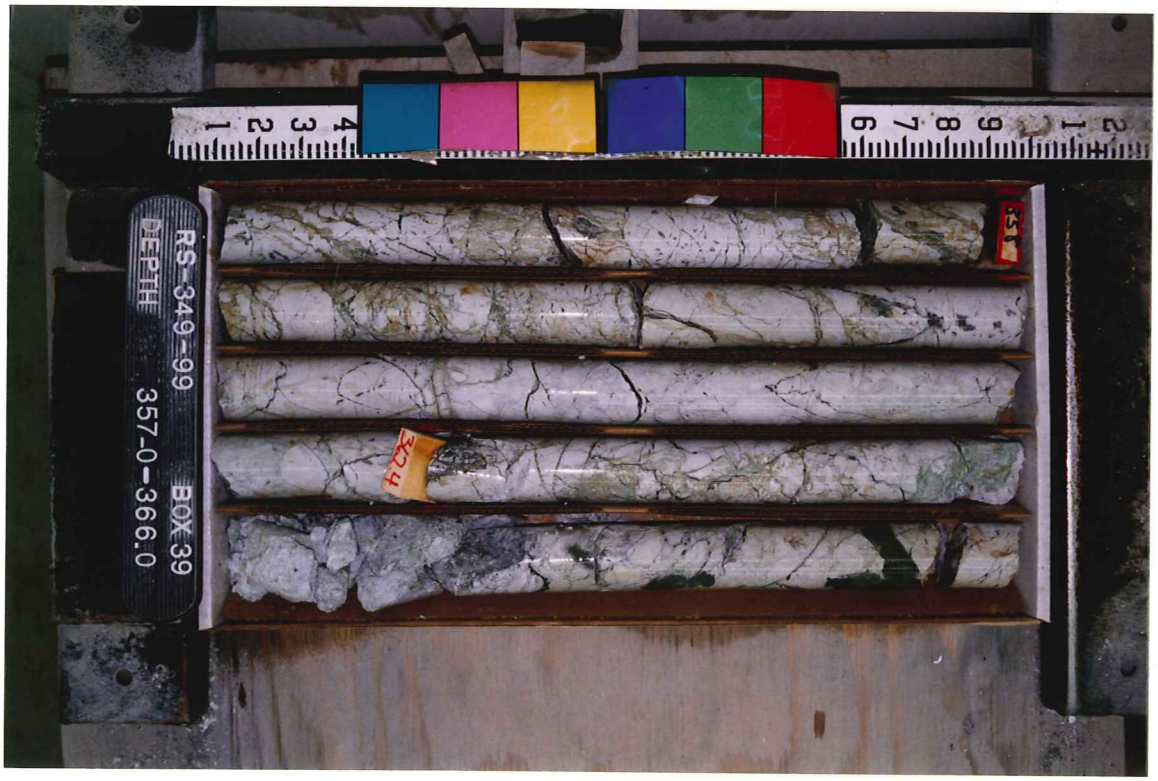
RS-349-99 BOX 35
DEPTH 320- -329.0
320
322.9
324.9
327
329

RS-349-99 BOX 34
DEPTH 311.5-320.0
314
317
318.3


RS-349-99 BOX 36
DEPTH 329.0-339.0
330.9
331.7
333.5
335.5
338

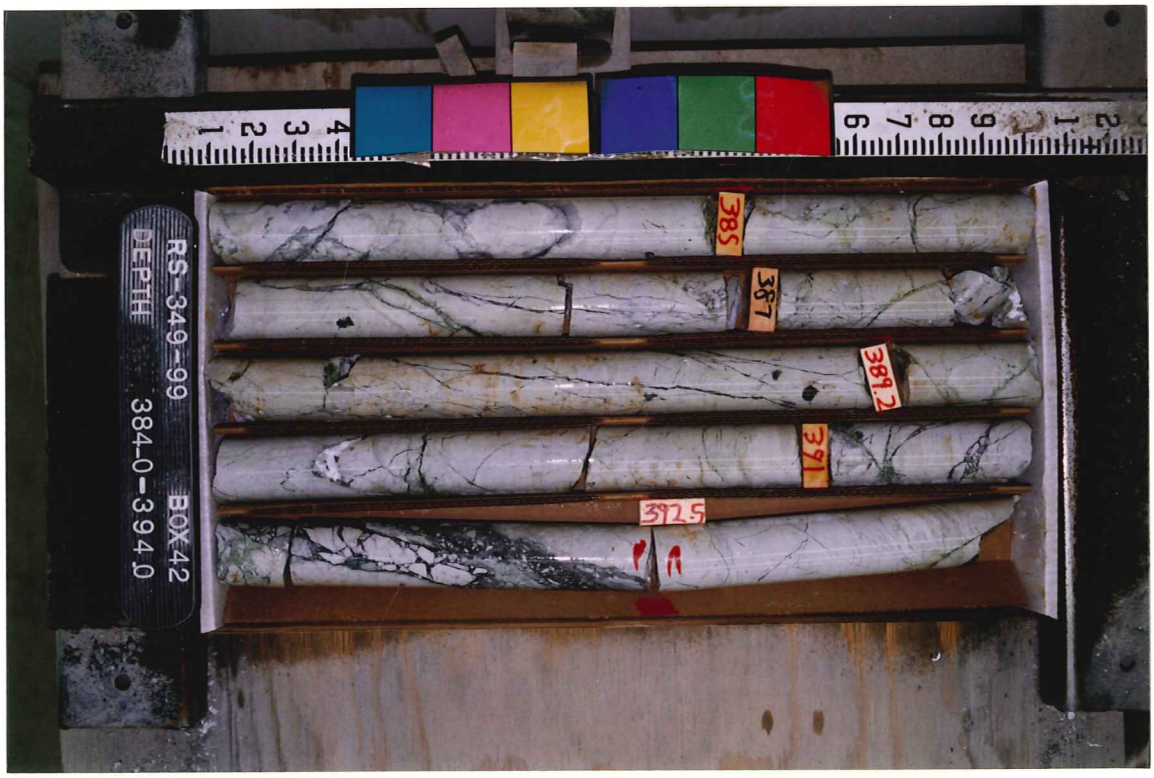
348.4
352.5
348
RS-349-99
BOX 38
DEPTH
348-0-357-0

343
346.5
338.9
RS-349-99
BOX 37
DEPTH
339-0-348-0


RS-349-99
BOX 39
DEPTH
357-0-366.0

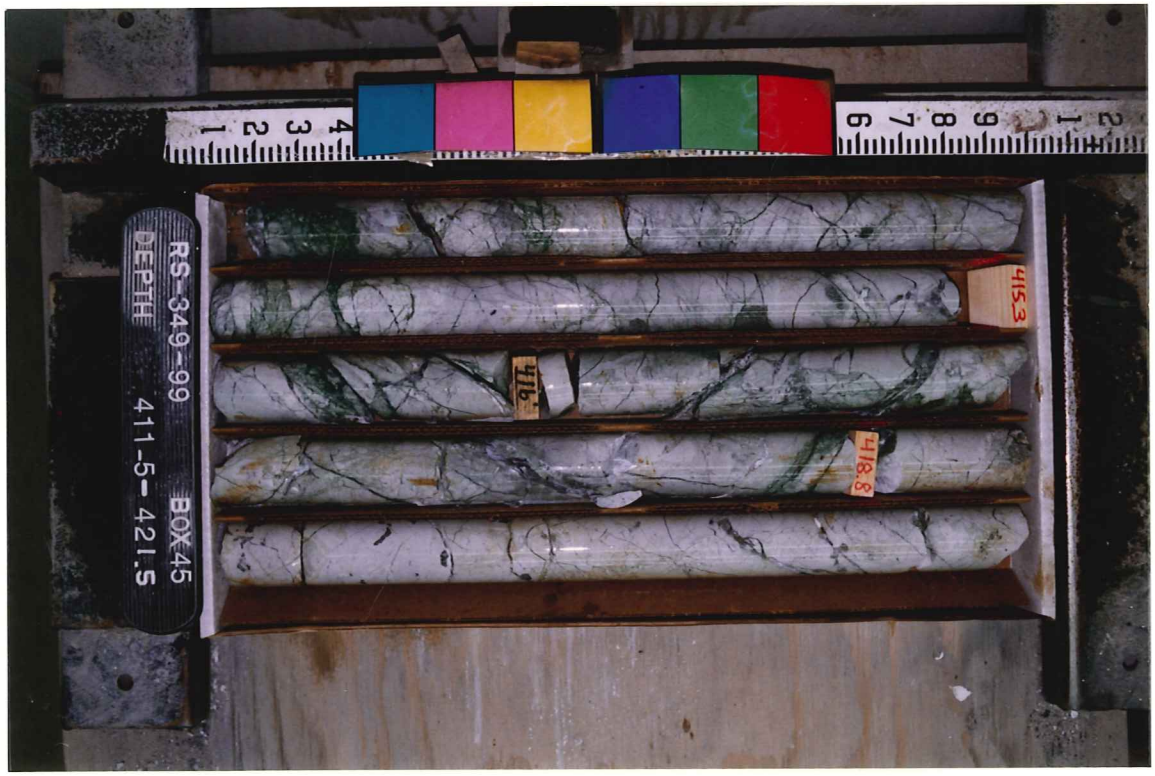
RS-349-99 BOX 41
DEPTH 375-0-384.0
375
377
377.4
381.4
382.9

RS-349-99 BOX 40
DEPTH 366-0-375.0
367.6
372.7


RS-349-99 BOX 42
DEPTH 384-0-394.0
385
387
389.2
391
392.5

403.8
405.3
407
409.7
RS-349-99 BOX 44
DEPTH 402-0- 411.5

402
RS-349-99 BOX 43
DEPTH 394-0- 402.0


415.3
416
418.8
RS-349-99 BOX 45
DEPTH 411-5- 421.5

RS-349-99 BOX 47
DEPTH 430-5- 440.0

RS-349-99 BOX 46
DEPTH 421-5- 430.5

WELL RS-D349-99

DEPTH Collar (40')

PICTURE NO.

INCLINATION

OBS. DIR.

COR. DIR.

TOOL FACE

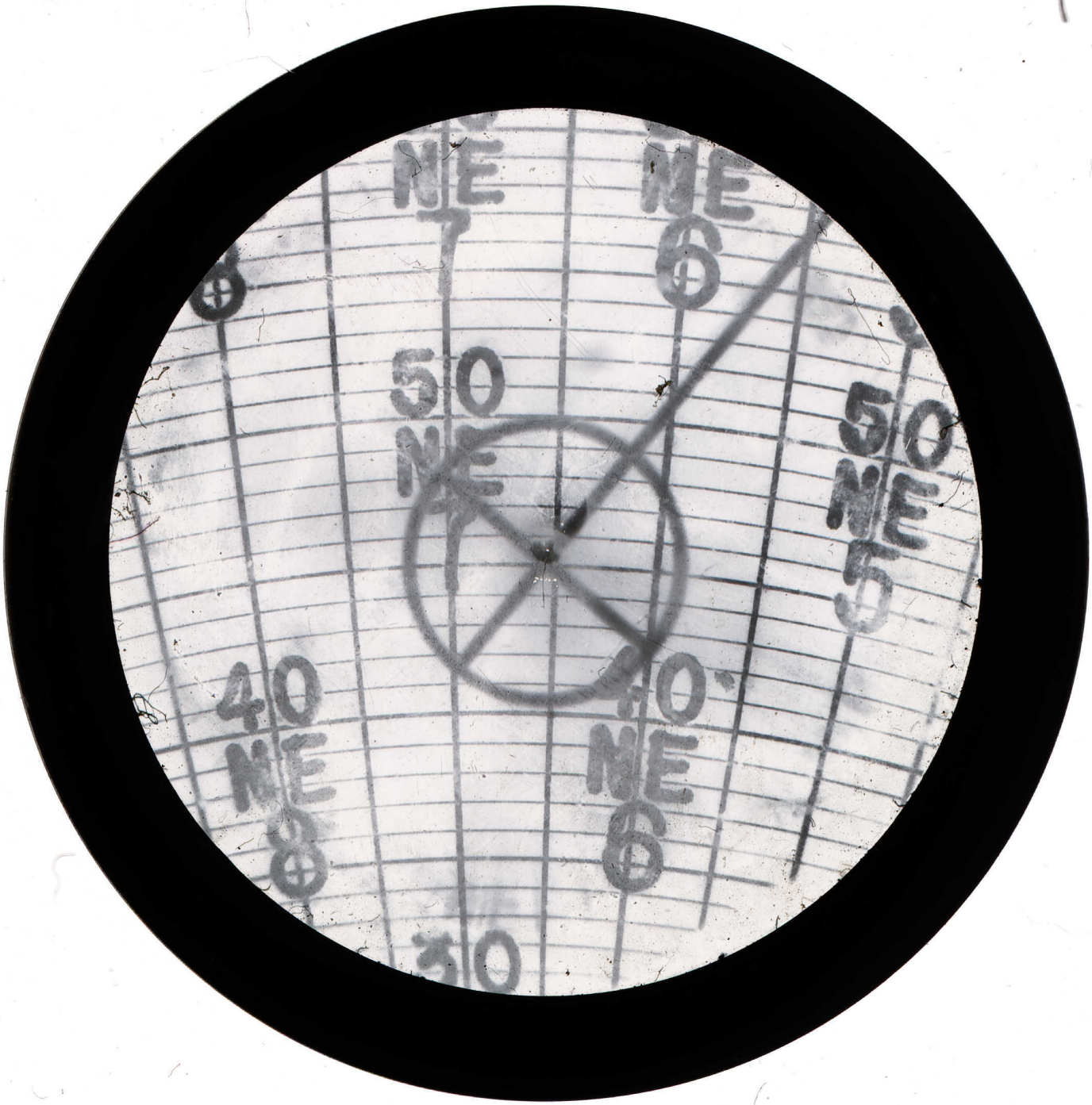
RUN BY ROGERS

DATE 4-27-99

CHECKED BY

sperry-sun

DRILLING SERVICES


NE 7
NE 6
50
NE 4
50
NE 5
40
NE 8
40
NE 8
30

WELL RS-D349-99

DEPTH 200'

PICTURE NO.

INCLINATION

OBS. DIR.

COR. DIR.

TOOL FACE

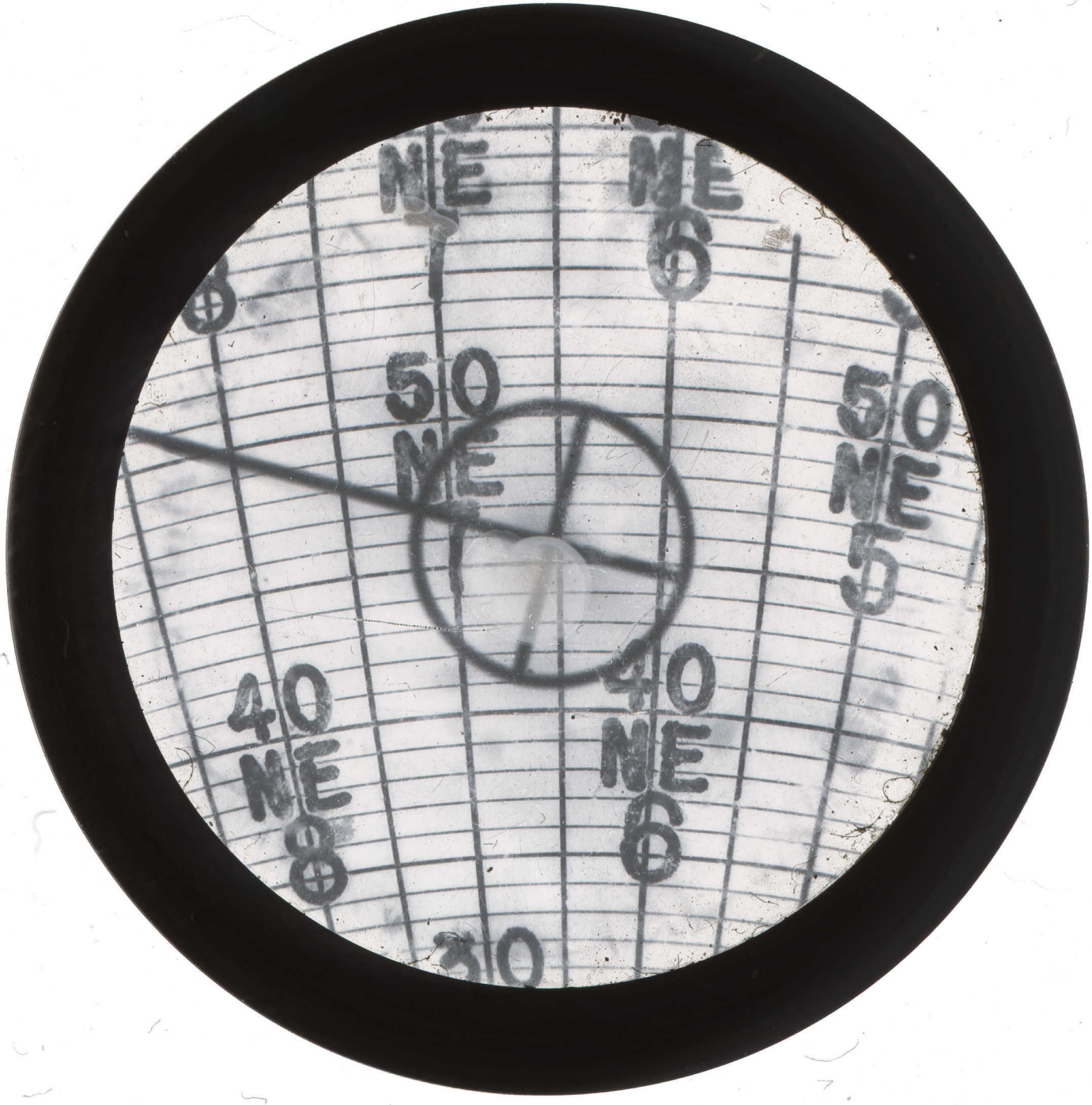
RUN BY ROGERS

DATE 4-27-99

CHECKED BY

sperry-sun

DRILLING SERVICES


NE
NE
6
50
NE
50
NE
5
40
NE
40
NE
6
30

WELL RS-D349-99

DEPTH 4100'

PICTURE NO.

INCLINATION

OBS. DIR.

COR. DIR.

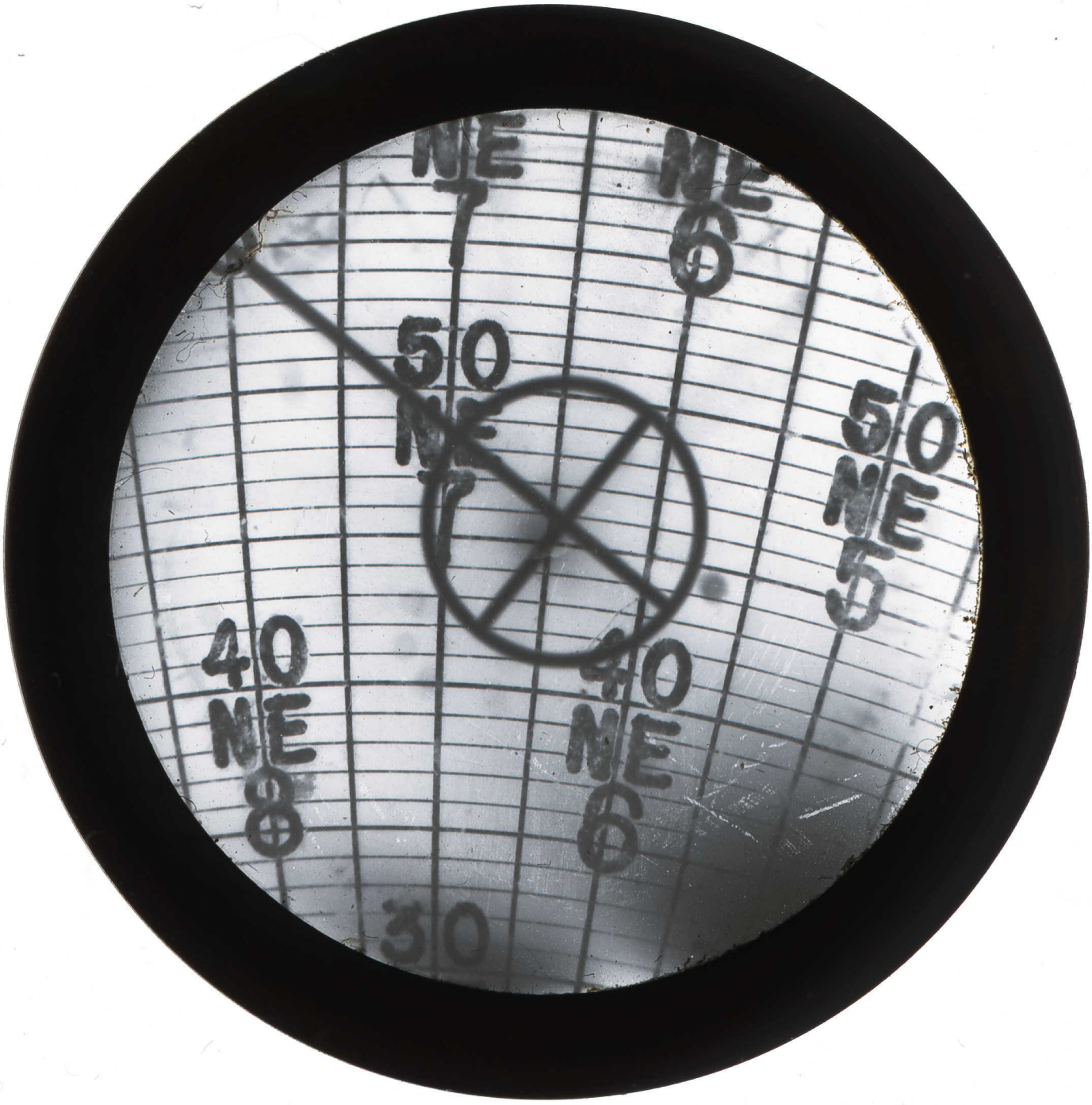
TOOL FACE

RUN BY ROGERS

DATE 4-27-99

CHECKED BY

sperry-sun
DRILLING SERVICES


NE 7
NE 6
50
50 NE 7
50 NE 5
40 NE 8
40 NE 6
30