

015173

Page 1

SPERRY-SUN DRILLING SERVICES

CURRAGH RESOURCES INC.
91DY-011991 01 26
CX-LB-10076B

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
0.00	89.65	4.08	0.00	0.00	0.00	0.00	0.00
50.00	89.63	34.42	50.00	0.28 N	0.10 E	0.13	0.38
100.00	89.43	44.49	100.00	0.59 N	0.37 E	0.17	0.43
150.00	89.47	15.61	150.00	0.99 N	0.60 E	0.30	0.55
200.00	89.35	32.72	199.99	1.46 N	0.82 E	0.48	0.42
250.00	89.20	30.82	249.99	1.99 N	1.15 E	0.64	0.30
300.00	89.27	6.94	299.98	2.61 N	1.37 E	0.93	0.65
350.00	89.00	349.41	349.98	3.36 N	1.33 E	1.50	0.75
400.00	88.65	320.59	399.97	4.24 N	0.87 E	2.45	1.35
450.00	88.55	317.82	449.95	5.17 N	0.07 E	3.67	0.24
500.00	88.42	314.02	499.94	6.11 N	0.85 W	4.99	0.33
550.00	87.75	310.19	549.91	7.23 N	2.10 W	6.66	1.36
600.00	86.75	312.43	599.85	8.82 N	3.89 W	9.05	2.01
650.00	86.08	310.59	649.75	10.99 N	6.13 W	12.17	1.39
700.00	85.60	313.26	699.62	13.53 N	8.72 W	15.79	1.02
750.00	85.00	312.92	749.45	16.33 N	11.72 W	19.88	1.20
800.00	84.87	309.54	799.26	19.23 N	15.04 W	24.28	0.65
850.00	84.48	314.16	849.04	22.33 N	18.49 W	28.91	1.15
900.00	84.53	310.74	898.81	25.56 N	22.02 W	33.68	0.66
950.00	84.30	311.81	948.57	28.77 N	25.67 W	38.53	0.51
1000.00	83.80	312.87	998.30	32.26 N	29.50 W	43.70	1.02
1050.00	83.40	313.91	1047.99	36.09 N	33.55 W	49.27	0.83
1100.00	82.75	313.96	1097.63	40.28 N	37.89 W	55.29	1.30
1150.00	82.58	312.00	1147.22	44.63 N	42.56 W	61.67	0.60
1200.00	82.50	313.06	1196.80	49.01 N	47.34 W	68.14	0.32
1250.00	82.67	314.62	1246.38	53.48 N	52.00 W	74.59	0.52
1300.00	82.87	314.72	1295.98	57.91 N	56.47 W	80.89	0.40
1350.00	82.83	316.33	1345.59	62.35 N	60.83 W	87.11	0.41
1400.00	82.50	318.47	1395.18	67.05 N	65.15 W	93.49	0.86
1440.00	81.97	320.18	1434.81	71.15 N	68.67 W	98.88	1.45

THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG 316.01° (TRUE)

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS, THE BOTTOM HOLE
DISPLACEMENT IS 98.88 FEET, IN THE DIRECTION OF 316.01° (TRUE)

Page 1

DY PROJECT - DEVIATION ANALYSIS

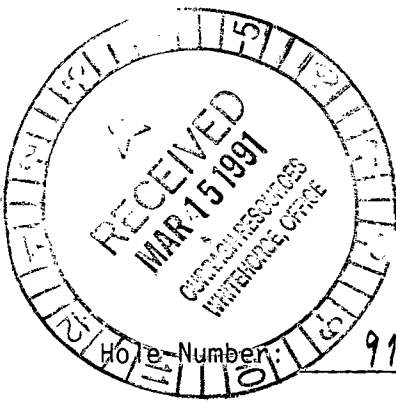
J. ZBETNOFF
91DY-01

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
0	0.0	0.00	0.00	0.00 N	0.00 E	0.00	0.00
100	32.0	0.80	159.99	0.84 N	0.61 E	0.45	0.50
200	30.6	0.60	267.86	2.10 N	1.22 E	1.08	0.28
300	324.8	0.67	399.98	3.56 N	0.87 E	2.49	0.56
400	327.0	1.50	529.95	5.76 N	0.63 W	5.18	0.49
500							
600	323.0	3.05	629.67	9.00 N	2.95 W	9.14	1.56
700	319.0	4.75	769.54	16.35 N	3.99 W	18.61	1.23
800	317.0	5.45	908.98	25.59 N	17.33 W	30.90	0.52
900	322.0	6.25	1027.58	34.83 N	25.17 W	42.93	0.80
1000	325.0	7.00	1276.69	58.28 N	42.14 W	71.84	0.35
1100							
1200	330.0	7.40	1405.66	72.09 N	50.75 W	88.12	0.49
1300	325.0	10.50	1573.57	94.27 N	65.12 W	114.54	1.88
1400	323.0	11.80	1746.26	122.83 N	83.58 W	148.55	0.66
1500	324.5	12.30	1819.73	134.86 N	91.49 W	162.85	1.54
1600	330.0	12.70	1863.52	144.14 N	97.44 W	173.97	2.46
1700							
1800	335.0	12.70	1961.09	163.62 N	107.58 W	195.82	1.10

THE DOGLEG SEVERITY IS IN DEGREES PER 100 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 323.67

EASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE
DISPLACEMENT IS 195.82 FEET. IN THE DIRECTION OF AZ. 323.67

Single shot



CURRAGH RESOURCES INC.

Page 1 of _____

DIAMOND DRILL CORE LOG

Date: Mar. 1/91

Hole Number: 910Y-01

Reference Fabric Orientation Diagram:

Project: DY PROJECT

Location: C ZONE

Claim: _____

Terr. Plane Co-ords.: 900594.50 N

597466.00 E

Grid Co-ords: _____

Elevation: 1093.20m

All symmetry determinations looking

Total Depth: 644.0m

_____ with _____ dipping

Inclination: VERTICAL AT COLLAR

_____ with dip azimuth _____.

Purpose: TO DRILL TEST C ZONE

Reason hole Terminated: DRILLING PROBLEMS

Logged by: D.R. Halliwell

Date(s) Logged: Mar 1/91

Drilling Contractor: Coxen Diamond Drilling

Hole Cemented: Steel down Hole: _____

Size CORE From To Collar Cased and Capped: _____

Assay Lab: N.A.L.

HQ	0.0	5.5	
NQ	5.5	11.0	RECORDED
NQ	11.0	443.8	
BQ	443.8	611.0	REDUCED DRILLING PROBLEMS

Certificate No's: _____

Started: _____ Completed: _____

Code	From	To	Recov.	No.	Unit	Description
L	00	55		001	5C8	(1000) 99:01 HQ CORE Blue-green (chloritized) f.g.-m.g. phaneritic to porphyritic metabasite containing 40% grey f.g. subhedral calcic plagioclase, 30% f.g. subhedral pyroxene → chlorite, 20% dark green-black m.g. subhedral amphibole → chlorite, 5% white-grey f.g. anhedral quartz, and pinkish-white f.g. subhedral K-spar. Massive (No S ₂ overprint). Moderately calcareous. Green-grey black fracture surfaces. Some white (clay mineral) ochre (limonite) fracture surfaces. Cross-cut by off-white quartz-calcite veinlets at all CA angles. Moderately soft to soft. No sulphides. Pervasive chloritization. Good to fair core recovery. Most core loss at 0.0-1.9 (approx. 1.0m). Fair to poor R&D. Blocky to rubble core at 0.0-1.9. Blocky core at 3.5-3.7, 5.3-5.5. No core below 5.5.
L	55	61		002	5C8	? CASING. No core.
L	61	110		003	5C8	NQ CORE (RECORDED?) Blue-green (chloritized) f.g.-m.g. phaneritic to porphyritic metabasite with same mineralogy as above. Massive to weakly PS ₂ foliated. Moderately calcareous. Green-grey-black fracture surfaces. Cross-cut by off-white quartz-calcite veinlets at all CA angles. Moderately soft to soft. No sulphides. Good core recovery. Fair to poor R&D. Blocky core at 6.1-6.5, 7.6-8.1, 9.0-10.0, 10.4-11.0. No core above 6.1. NQ core below 11.0. Takes on weak PS ₂ and lesser CS ₂ foliation down-section.
L	110	175		004	5C8	NQ CORE. (1000#) 90:10

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
											<p>Olive green-grey v.f.g. aphanitic metabasitic groundmass, white f.g. anhedral (leucoxene?) phenocrysts and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture. Weak S_2 +/- S_1 overprint as off-white, olive chlorite laminae/bands following $S_2 \pm S_1/S_2$. Chloritized matrix (amphiboles, pyroxenes). Moderately calcareous. PS_2 foliated to massive (locally, CS_2 foliated). Green-grey (chlorite) and ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. Good core recovery. Fair to poor R&D. Blocky core at 11.4-11.8, 12.4-14.2, 15.4-16.0, 17.0-17.2. Limonite-clay fault gouge at $CA 60^\circ$ at 14.8 (2.0 cm wide). Sharp lower contact at $CA 80^\circ$.</p>
L	175	191							Q05 5CB	<p>$\rightarrow 5F0$ (5F0) 90:10</p> <p>Olive green-grey v.f.g. aphanitic metabasite groundmass, white f.g. anhedral (leucoxene?) phenocrysts and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture. Weak S_2 overprint, as off-white quartz-calcite laminae bands parallel S_2. Moderately calcareous. PS_2 foliated to massive. (CS_2 foliated at 18.6-18.8, 18.9-19.1. Very good core recovery. Good R&D. Sharp upper contact at $CA 80^\circ$. Sharp lower contact at $CA 45^\circ$. Moderately hard at 18.4-18.6.</p> <p>Olive grey weakly chloritic phyllite at 18.6-18.8 is moderately calcareous, CS_2 and PS_2 foliated, moderately soft, has olive silvery grey S_2 fracture surfaces and sharp contacts with 5CB.</p> <p>Black sq. subhedral amphiboles oriented parallel S_2 at 17.1-17.5. No fuchsite.</p>	
L	191	196							AP6 5FA	<p>$\rightarrow 5C0$ (5E0) 90:10</p> <p>Olive grey weakly chloritic phyllite with 10% off-white quartz-calcite laminae/bands following $S_2, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Olive</p>	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											good core recovery. Fair RQD. Blocky core at 21.55-21.6, 22.7-22.9. Sharp upper contact at CA 80°. Sharp lower contact at CA 70°.
L	2.29	2.54					00.9		5F0		→ 5C8 (5F0 → 5D0: 10Q#) 50:40:10 Olive green-grey weakly chloritic phyllite with 10% off-white quartz-calcite siltstone laminae/beds following S ₁ , S ₂ /S ₂ . Weak relict igneous texture, with white f.g. anhedral/leucocryst and black f.g. subhedral (amphiboles, pyroxenes?) plagiocrysts. Moderately calcareous. PS ₂ foliated. Olive-grey S ₂ fracture surfaces. Moderately soft. No sulphides. Good core recovery, RQD. Some ochre (limonite) S ₂ fracture surfaces (surface oxidation). Sharp upper, lower contacts at CA 70°. Blocky to rubbly core at 25.3-25.4. Olive green chloritic phyllite with 10% off-white quartz-calcite laminae, beds following S ₁ , S ₂ /S ₂ at 23.4-24.4 are moderately calcareous, CS ₂ foliated, moderately soft and have sharp contacts parallel S ₂ . White-grey quartz-calcite concordant band (bed? vein?) at 22.9-23.1 are very calcareous, hard, and have sharp contacts with 5F0 → 5C8, 5F0 → 5D0.
L	2.54	2.70					01.0		5F0		→ 5B0 (10Q#) 90:10 Olive grey slightly chloritic phyllite with 10% off-white quartz-calcite siltstone laminae/beds following S ₁ , S ₂ /S ₂ . Moderately calcareous. CS ₂ and PS ₂ foliated. Silvery grey to olive, ochre (limonite) S ₂ fracture surfaces. Moderately soft. No sulphides. Good core recovery. Good to fair RQD. Blocky core at 25.5-25.8, 26.8-27.0. Gradational upper contact parallel S ₂ . Sharp lower contact at CA 80°. White-grey quartz-calcite concordant bands (beds? veins?) at 26.2-26.3, 26.7-26.8 are very calcareous, hard, and have sharp contacts with 5F0 → 5B0.

Lithologic Log

Date: Mar. 1/91 Logged By: D. Halliwell

Code	From	To	Recov.	No.	Unit	Description
L	10 14 16	20 22 24 26 28 30 34 35				<p>White-grey-ochre quartz-calcite-limonite concordant bands (beds? veins?) subparallel to S_2 at 29.9-30.3, 30.7-31.3, etc. are very calcareous, limonitized, hard and have sharp contacts with SB02. At 30.2-30.3, ^{31.5-31.6} contains xenoliths of SC8 → SD0 chloritic metabasite.</p> <p>Blue-grey phyllitic marble interbeds, interlaminae at 33.0, etc. are very calcareous, moderately soft, and have fairly sharp contacts with SB02.</p>
L	35 6	36 5		01.3	10Q#	<p>(SB02:SD0) 65:30:05</p> <p>White-grey-ochre quartz-calcite ± limonite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, have white ± ochre S_2 fracture surfaces, contain clasts of SD0 chloritic phyllite, and have sharp contacts with other units.</p> <p>Dark grey weakly carbonaceous phyllite with 10% off-white quartz-calcite laminated beds following $S_1, S_2/S_2$ are moderately calcareous, moderately soft to soft, has dark silvery grey S_2 fracture surfaces, and have sharp contacts with 10Q#.</p>
L	36 5	40 7		01.4	5B0	<p>(SB02:SE0:10Q#) 50:45:03:02</p> <p>Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and PS_2 foliated. Silvery grey and ochre (limonite) S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good RQD. Sharp upper contact, convoluted at Ct 60°-90°. Sharp lower contact, convoluted at Ct 30°-70°.</p> <p>Darker grey slightly carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, moderately soft to soft, and have gradual contacts with SB02.</p> <p>Blue-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very cal-</p>

Code	From	To	Recov.	No.	Unit	Description
	10	14	16	20	22 24 26 28 30	34 35
						<p>carceous, moderately soft, and have fairly sharp contacts with 5B0, 5B02.</p> <p>White-buff to ochre quartz-calcite ± limonite concordant bands (beds? veins?) sub-parallel to S_2 are moderately calcareous, hard, and have sharp contacts with 5B0, 5B02, 5B0.</p>
L	407	427		015	5B02	<p>BLOCKY TO RUBBLY.</p> <p>Dark to medium gray slightly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery gray, ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. No sulphides. Good core recovery. Fair to poor RQD. Blocky core throughout. Rubbly core at 40.7, 40.9-41.2, 41.9-41.4, 42.6-42.7. Convoluted sharp upper contact at $CA30^\circ-70^\circ$. Sharp lower contact at $CA80^\circ$.</p>
L	427	431		016	5B0	<p>Light to medium gray phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery gray, ochre (limonite) S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good RQD. Blocky core at 42.8. Sharp upper contact at $CA80^\circ$. Fairly sharp lower contact parallel S_2.</p>
L	431	437		017	5EP	<p>(5B0) 60:40 ^{interbeds,}</p> <p>Blue-gray phyllitic marble. Very calcareous. CS_2 and PS_2 foliated. Bluish gray S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pads along laminae, beds parallel S_2. Very good core recovery. Good RQD.</p>

Code	From	To	Recov.	No.	Unit	Description	
1	10	14	16	20	22 24	26 28	30 34 35
							Blocky core at 43.2. Fairly sharp upper/lower contacts parallel S_2 . Light to medium grey phyllite with 10% off-white quartz-calcite laminae/beds following $S_1, S_2/S_2$ are moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with 5E0.
L	43.7	50.7		Q1.8	5B0	(5B02:5E0) 70:25:05	Light to medium phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2 . Late quartz-calcite veins late cross-cutting S_1, S_2 at $\alpha 0^\circ-30^\circ$. Very good core recovery. Good R&D. Fairly sharp upper contact parallel S_2 . Gradational lower contact parallel S_2 . Darker more carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, moderately soft to soft, and have gradational contacts with 5B0. Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with 5B0, 5B02.
L	50.7	51.2		Q1.9	10, Q#	(5C8-5F0) 65:35	White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel (ing S_2 are moderately calcareous, hard and have sharp contacts at $\alpha 70^\circ$ (upper), $\alpha 50^\circ$ (lower). Olive grey chloritic metabasite (\Rightarrow phyllite) at 50.7-50.9 is moderately calcareous, massive to PS_2 foliated, moderately soft. Olive grey S_2 fracture surfaces. Relict porphyritic igneous texture with weak S_2 overprint (trace quartz-calcite laminae parallel S_2). Very good core recovery. Good R&D.

Code	From	To	Recov.	No.	Unit	Description
L	512	582		020	5B0	<p>55002 (5E0:100#) 90:05:05</p> <p>Light to medium phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Very calcareous (quickly etched by 10% HCl acid). CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral cubic pyrite within quartz-calcite pads along bands parallel S_2. Very good core recovery. Good R&D. Minor healed oligonict, clast supported breccia at 54.7. Gradational upper, lower contacts parallel S_2.</p> <p>Bluish-grey phyllitic marble ^{interbeds, interlaminae} at 53.3, 57.5 etc. are very calcareous, moderately soft, and have fairly sharp contacts with 5B0 → 5B02 parallel S_2.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 at 51.4, 51.6-51.7, 51.8-52.1 are very calcareous, hard, and have sharp contacts with 5B0 → 5B02, 5E0.</p>
L	582	587		021	5E0	<p>(5B0) 55:45</p> <p>Bluish-grey phyllitic marble with 10% off-white quartz-calcite ^{siltstone} laminae/beds following $S_1, S_2/S_2$. Very calcareous. CS_2 and PS_2 foliated. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2.</p> <p>Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Gradational contacts with 5E0.</p>
L	587	728		022	5B0	<p>(100#:5E0) 88:10:02</p>

Code	From			To			Recov.	No.	Unit	Description
	10	14	16	20	22	24				
L	7.55		8.46					025	SBØ	(100# : 5EØ) 9Ø:Ø5:Ø5 Light to medium grey phyllite with 20% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_1, S_2$. Moderately calcareous. CS_2 to PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Good core recovery. Fair to poor RØD. Blocky to rubbly core at 77.4-78.Ø, 79.6-79.9, 82.Ø-82.1, 83.1-83.6. Gradational upper, lower contacts parallel S_2 . White-grey buff quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with SBØ, 5EØ. Contain Mg-chlorite phyllitic xenoliths. Bluish-grey phyllitic marble interbeds throughout the unit are very calcareous, moderately soft, and have fairly sharp contacts with other units.
L	8.46		9.ØØ					026	SBØ	(5EØ) 85:15 MARBLY BANDS Light to medium grey phyllite with 10% off-white quartz-calcite siltstone beds/laminae following $S_1, S_2/S_2$. Moderately calcareous. PS_2 and CS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good RØD. Blocky to rubbly core at 87.4-87.5. Gradational upper, lower contacts parallel S_2 . Bluish-grey phyllitic marble interbeds parallel S_2 are very calcareous, PS_2 foliated, moderately soft, and have fairly sharp contacts with SBØ.
L	9.ØØ		12.Ø3					027	SBØ	(SBØ2 : 5EØ : 100#) 5Ø:40:Ø5:Ø5

Code	From	To	Recov.	No.	Unit	Description
	10 14 16	20 22 24 26 28 30	34 35			
						<p>Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Silvery grey, ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2. Very good core recovery, Good RQD. Blocky core at 118.5-118.8, 119.0-119.3 Gradational upper, lower contacts parallel S_2.</p> <p>Darker slightly carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, CS_2 and PS_2 foliated, moderately soft to soft, and have gradational contacts with SBØ.</p> <p>Bluish-grey phyllitic marlstone interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, CS_2 to PS_2 foliated, and have fairly sharp contacts with SBØ, SBØ2.</p> <p>White grey bull quartz-calcite concordant beds (beds? veins?) subparallel S_2 are very calcareous, hard, and have sharp contacts with SBØ, SBØ2, SBØ.</p>
L	1203	1212		Q28	100#	
						<p>White-grey-green bull quartz-calcite concordant beds (beds? veins?) sub-parallel S_2 are moderately calcareous, hard, contain chloritic phyllite and carbonaceous phyllite xenoliths, and have sharp upper (convoluted $(\pm 0^\circ-90^\circ)$), lower ($(\pm 60^\circ)$) contacts. Very good core recovery, Good RQD.</p>
L	1212	1341		Q29	5BØ	(5EØ:100#) 9Ø:Ø5:Ø5
						<p>light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated, Silvery</p>

Code	From	To	Recov.	No.	Unit	Description
1	10	14	16	20	22 24 26 28 30	34 35
						grey and rare ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace cubed-cubic pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good R&D. Blocky to rubbly core at 133.6-133.8. Gradational upper, lower contacts parallel S_2 . Clayey gouge at 133.5. Bluish gray phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and fairly sharp contacts with SB0. White-grey bullquartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with SB0, SB1.
L	1341	1345		030	SB02	RUBBLY ZONE. Dark to medium gray weakly carbonaceous phyllite with off white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 to PS_2 foliated. Dark silvery gray S_2 fracture surfaces. Soft. No sulphides. Good core recovery. Poor core recovery. Rubbly core throughout. Sharp upper lower contacts at CA 90°.
L	1345	1635		031	SB0	(SE0: 100#) 90:05:05 Light to medium grey phyllite with 10% off white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery gray S_2 fracture surfaces. Moderately soft. Trace cubed-cubic (1-2mm dia) pyrite within quartz-calcite pods along bands parallel S_2 ; some replacement by pyrrhotite. Very good core recovery. Good R&D. Blocky core at 143.2-143.3. Gradational upper contact parallel S_2 . Minor healed oligonict chert-supported breccias at 157.3, 163.0. Sharp lower contact at CA 80°.

Core	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
								Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts. S_2 are moderately calcareous, hard, and have sharp contacts with 5BØ, 5EØ.		
L	16.35	16.43				Ø321	ØQ#	(5BØ) 7Ø:3Ø White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, have chloritic phyllite xenoliths, and have sharp contacts with 5BØ. Very good core recovery. Good RQD. Sharp upper, lower contacts at $\text{CA } 80^\circ, \text{CA } 50^\circ$; respectively. No sulphides. Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Sharp contacts with 1ØØ#.		
L	16.43	17.04				Ø33	5BØ	(5BØ2:5EØ) 5Ø:45:Ø5 Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pots along bands parallel S_2 . Very good core recovery. Good RQD. Blocky core at 167.4-167.6, 167.8-168.Ø. Rubbly core at 168.3-168.5. Sharp upper contact at $\text{CA } 50^\circ$. Sharp lower contact at $\text{CA } 80^\circ$. Darker, more carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous. C_2 and P_2 foliated, moderately soft to soft, and have sharp		

DDH 91DY-01

2

8

CURRAGH RESOURCES INC.

Lithologic Log

Page 17

Date: Mar 4/91 Logged By: D. Hallinell

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28	30 34 35	<p>gradational contacts with SBØ.</p> <p>Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts.</p>
1704	1706	034	5EØ	(5BØ) 6Ø:4Ø	<p>Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, have bluish-grey S_2 fracture surfaces, are moderately soft, and have fairly sharp contacts with SBØ. Very good core recovery. Good RQD. Fairly sharp contacts parallel S_2.</p> <p>Light to medium grey phyllite interbeds following S_1, S_2 are moderately calcareous, CS_2 and PS_2 foliated, have silvery grey S_2 fracture surfaces, are moderately soft, and have gradational contacts.</p>
1706	1721	035	5BØ	(100#Ø) 9Ø:1Ø	<p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$ and late quartz-calcite veinlets at $\alpha 0^\circ-20^\circ$. Moderately calcareous CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral cubic pyrite within quartz-calcite pods along bands parallel S_2. Very good core recovery. Good RQD. Gradational upper, lower contacts parallel S_2.</p> <p>Mite-grey-cream buff quartz-calcite-dolomite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with SBØ</p>
1721	1739	036	5BØ	2	BLOCKY & RUBBLY & GOUGE. (100#Ø) 85:15

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28	30 34 35	
					Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Fair to poor core recovery ($\phi 5$ m core loss at 172.4-172.8, 173.3-173.7). Poor to fair RQD (Rubby core at 172.1-172.8, 173.3-173.7. Gradational upper, lower contacts parallel S_2 . Clayey fault zone ($\phi 1$ m wide) at 172.7-172.8 at $\phi 35^\circ$. White-grey-cream bull quartz-calcite-dolomite concordant band (bed vein?) at 173.0-173.1 subparallel to S_2 are moderately to weakly calcareous, hard, and have sharp contacts with $SB\phi 2$.
L 1739	1855	Q37	5B ϕ	(5F ϕ :5B $\phi 2$) 9 ϕ : $\phi 5$: $\phi 5$	Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately to strongly calcareous (locally, quickly etched by 10% HCl acid). CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Very good core recovery. Good RQD. Gradational upper, lower contacts parallel S_2 . Trace euhedral-cubic pyrite within quartz-calcite beds along bands parallel S_2 . Rare pyrrolite, PS_2 euhedral-cubic pyrite pseudomorphs. Olive grey slightly chloritic phyllite at 184.4-184.8 are moderately calcareous, CS_2 and PS_2 foliated, olive silvery grey S_2 fracture surfaces, and have gradational contacts with $5B\phi$. Darker grey weakly carbonaceous phyllite interbeds, interlaminae parallel S_2 are moderately calcareous, moderately soft to soft, have dark silvery grey and rare (183.5) black (graphitic) S_2 fracture surfaces, and have gradational contacts with 5F ϕ , 5B $\phi 2$.

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	
18.55	18.79		038	5B0	→ 5F0 (5E0) 90:10 Olive grey to light grey weakly chloritic (locally) phyllites with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey to olive S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 . Bluish grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, have blue-grey S_2 fracture surfaces and have fairly sharp contacts with 5B0-5F0 parallel S_2 .
18.79	19.20		039	5B0	(5E0:5F0) 90:06:04 Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic (1-3cm. dia.) pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 . Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with 5B0. Olive grey chloritic phyllite at 18B.1 is moderately calcareous, soft and has fairly sharp contacts with 5B0.
19.20	19.24		040	5F0	(100#) 70:30 Olive grey weakly chloritic phyllite has 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$, is moderately calcareous, is PS_2 and CS_2

Interval	From		To		Recov.			No.		Unit	Description
	10	14	16	20	22	24	26	28	30		
											foliated, has olive silvery grey S_2 fracture surfaces, is moderately soft, and has gradational upper and lower contacts parallel S_2 . White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, contain phyllite xenoliths, and have sharp contacts with SFØ.
L	1924	1935							Ø41	5BØ	Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 .
L	1935	1954							Ø42	SFØ	&1 (SF7) 8Ø:2Ø Olive green-grey weakly chloritic phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Moderately soft to moderately hard (194.2-194.9). No sulphides. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 . Banded-chloritic phyllite variant at 194.8-195.4 is moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and has gradational contacts with SFØ & 1.
L	1954	2100							Ø43	5BØ	(5BØ2:5EØ:1ØØ#) 5Ø:3Ø:12:Ø8 Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic

From	To	Recov.	No.	Unit	Description					
						10	14	16	20	22
					pyrite within quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$; occasional pyrochroite as pseudomorphs, after pyrite. Very good core recovery. Good R&D. Gradational upper contact S_2 . Sharp lower contact (at 85°) late quartz-calcite veinlets at $\alpha 0^\circ - 4^\circ$. Darker grey weakly carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, moderately soft ^{to soft} and have gradational contacts with SB0. Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with SB0, SB02. White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with SB0, SB02, SB0.					
21.00	21.04		0441	00#	(SB0: SB2) 70:20:10 White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with SB0, SB2 (xenoliths). Very good core recovery, R&D. Sharp upper contact at $\alpha 85^\circ$; Sharp lower contact at $\alpha 7^\circ$. Olive green chloritic phyllite xenoliths of country rock incorporated into 100# are moderately calcareous, moderately soft, and have sharp contacts with 100#. Dark grey carbonaceous phyllite xenoliths of country rock incorporated into 100# are moderately calcareous, soft, and have sharp contacts with 100#.					
21.04	21.53		045	SB0	(SB0: 100#) 85:10:05 Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good					

From	To	Recov.	No.	Unit	Description
10 14 16	20 22 24	26 28	30 34 35		
					<p>core recovery. Good R&D. Sharp upper contact at CA70°. Sharp lower contacts at CA75°</p> <p>Bluish-grey phyllitic marble interbeds, interlaminae following S₁, S₂ (0.5-2.0m wide) are moderately calcareous, CS₂ and PS₂ foliated, and have fairly sharp contacts with SBØ.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S₂ are moderately calcareous, hard and have sharp contacts with SBØ, SEØ.</p>
L 2153	2159		Ø46	5BØ2 (100#) 6Ø:4Ø	<p>Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae, beds parallel S₂. Moderately calcareous, PS₂ foliated. Dark silvery grey S₂ fracture surfaces. Moderately soft to soft. No sulphides. Vuggy (2.5cm dia.) with limonitic stain (weathered out sulphides?). Good core recovery. Fair R&D. Rubbly core at 215.6-215.9. Sharp upper contacts at CA75°. Sharp lower contacts at CA65°.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) are moderately calcareous, hard, and have sharp contacts with SBØ2. Vuggy (2.5cm dia. vugs) with limonite stain (weathered out sulphides?).</p>
C 2159	2192		Ø47	5BØ	<p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following S₁, S₂, S₃ and late quartz-calcite winlets at CAØ°-3Ø°. Moderately calcareous. CS₂ and PS₂ foliated. Silvery grey S₂ fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S₂. Very good core recovery. Good R&D. Sharp upper contacts at CA65°. Gradational</p>

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											lower contacts parallel S_2 . Occasional ochre (limonite) S_2 fracture surfaces.
L	2192		2196				048		5B02		BLOCKY & RUBBLY. Dark to medium grey slightly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and PS_2 foliated. Dark silvery grey ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. No sulphides. Good core recovery. Poor R&D. Rubbly core throughout. Gradational upper, lower contacts parallel S_2 .
L	2196		2227				049		5B0		Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 .
L	2227		2229				050		5F0 → 5B0		Olive grey slightly chloritic phyllite with 7% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and PS_2 foliated. Olive silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper contact parallel S_2 . Sharp lower contact at 4850.
L	2229		2242				051		5G0 → 5C8.		

From	To	Recov.	No.	Unit	Description					
						10	14	16	20	22
					Olive grey v.f.g. aphanitic metabasite groundmass, white f.g. anhedral (leucocrone?) phenocrysts and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture, S_2 overprint, as off-white quartz-calcite bands, laminae parallel S_2 . Moderately calcareous. PS_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper contact at C185°. Sharp lower contact at C180°. Upper/lower chill margins (dyke, not a sill?).					
2242	2248		052	SFØ	(SEØ) 5Ø:5Ø Olive grey weakly chloritic phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/PS_2$. Moderately calcareous. CS_2 and PS_2 foliated. Olive silt-very grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper, lower contacts at C180°. Bluish-grey phyllitic marble interbeds at 224.4, 224.6-224.8 are very calcareous, CS_2 and PS_2 foliated, moderately soft and have fairly sharp contacts with SFØ.					
2248	2270		053	SFØ	→508 (SCT) 7Ø:3Ø Olive grey v.f.g. aphanitic plagioclase-pyroxene (=chlorite) metabasite groundmass, white f.g. anhedral (leucocrone?) phenocrysts and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture, S_2 overprint, as off-white quartz-calcite laminae, bands parallel S_2 . Moderately calcareous, PS_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper, lower contacts at C180°. Upper/lower chill margins (dyke, not a sill?).					

Core	From		To		Recov.	No.	Unit	Description
	10	14 16	20	22 24 26 28 30				
1	2368	2381				057	5C0	<p>(100) 90:10</p> <p>Olive-grey v.f.g. aphanitic plagioclase-pyroxene (schlerite) metabasite groundmass, white f.g. aphanitic (leucocrone?) phenocrysts and black f.g. -mg (amphibole?) porphyroblasts (elongate parallel S_2) within relict porphyritic or porphyroblastic igneous metamorphic texture. Strong S_2 overprint, as white-grey bull quartz bands parallel S_2 (1-5cm wide, spaced 0.1m apart). Moderately calcareous. PS_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper contact at CA 70°. Sharp lower contact at CA 80°.</p> <p>White-grey bull-quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with 5C0.</p>
4	2381	2388				058	5F4	<p>(5B4 → 5F4) 60:40</p> <p>Yellowish-green grey weakly chloritic ± sericitic phyllite with 5% off-white quartz-dolomite siltstone laminae/beds following S_1, S_2, PS_2. Moderately calcareous. CS_2 and PS_2 foliated. Olive silvery grey, ochre (limonite) S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper/lower contacts at CA 80°.</p> <p>Grey weakly chloritic phyllite variant at 238.3-238.6 were moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have gradational contacts with 5F4.</p>
4	2388	2414				059	5C7	<p>Olive grey v.f.g. aphanitic (plagioclase-pyroxene?) metabasite groundmass, white</p>

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											f.g. anhedral (leucosene?) plagioclase and black f.g. subhedral (amphibole?) porphyroblasts (elongate parallel S_2) within relict porphyritic igneous texture (now metamorphic texture). Moderately calcareous. PS_2 foliated to massive. Olive grey S_2 fracture surfaces; some ochre (limonite) S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper contact at CA 80°; Sharp lower contact at CA 60°. S_2 overprints, as olive chloritic bands parallel S_2 .
L	2414	2430							060	5F.71	Olive green weakly chloritic phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Olive silvery grey S_2 fracture surfaces. Moderately soft to moderately hard (silicified). No sulphides. Very good core recovery, R&D. Sharp upper contact at CA 60°. Gradational lower contact parallel S_2 .
L	2430	2470							061	5B.0 (5E.0) 70:30	Light to medium phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic (1-2cm dia.) pyrite within quartz-calcite pads along bands parallel S_2 ; pyrrhotite locally pseudomorphs pyrite. Very good core recovery, Good R&D. Gradational upper lower contacts parallel S_2 . Bluish grey phyllitic marble interbeds, interlaminae following S_1, S_2 at 243.6-243.9, 244.5, 244.6, 245.0-245.1, 246.1, 246.4, 246.5, 246.6, 247.0 are

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28	30 34 35	
					very calcareous (rapidly etched by 10% HCl acid), C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts with S_{B0} .
247.0	259.2		062	5B0	(5E0:100#) 92:04:04 Light to medium phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite and euhedral cubic pseudomorphs (after pyrite) pyrrhotite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2 . Bluish grey phyllitic marlstone interlaminae, interbeds following S_1, S_2 are very calcareous, C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts White-grey to ochre buff quartz-calcite + limonite concordant band (bed? vein?) at 248.8-249.1 are moderately calcareous, hard, and have sharp contacts
259.2	260.5		063	5C0	→ 25C8 (5F0 → 5F8) 50:50 Olive grey to light aphanitic plagioclase-pyroxene (=chlorite) metabasite groundmass, white fig. anhedra (leucocore?) phenocrysts and black fig. subhedral (amphibole?) phenocrysts within relic porphyritic igneous texture. Weak S_2 overprint as off-white quartz-calcite laminae, beds parallel S_2 . Moderately calcareous, P_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper contact at CA 80°. Sharp lower contact at CA 70°. Upper, lower chill margins (dyke, not a sill?) Olive grey, C_2 -foliated weakly chloritic phyllite at 258.2-259.4

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											26 ϕ .2-26 ϕ .5 are moderately calcareous, moderately soft and have sharp contacts with 5B ϕ \rightarrow 5C8 (gradational contacts with 5B ϕ).
L	26.05	26.74					064		5B ϕ		(5B ϕ 2; 5E ϕ) 6 ϕ :35:05 Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, C_2 and P_2 foliated, silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper contact parallel S_2 . Sharp lower fault gouge contact at $\alpha 15^\circ$. Darker grey weakly carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, C_2 and P_2 foliated, moderately soft to soft, and have gradational contacts with 5B ϕ . Bluish-grey phyllitic marble interbeds, interlaminae (1-2cm wide) are very calcareous, C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts.
L	26.74	26.93					065		5B ϕ 2		BLOCKY & RUBBLY & GOUGE Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, C_2 and P_2 foliated. Dark silvery grey, ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. Good core recovery. Poor R&D. Blocky to rubbly core at 268. ϕ -269. ϕ . Sharp upper fault gouge at $\alpha 15^\circ$. Sharp lower fault gouge at $\alpha 10^\circ$. Clayey gouges ≤ 1.0 cm wide.

T. Code	From		To		Recov.	No.				Unit	Description	
	10	14	16	20		22	24	26	28			30
L	2693		2700				066				5B0	→ 5F0 (5E0) 90:10 Olive grey weakly chloritic phyllite with 10% off-white quartz-calcite laminated beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Olive silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Sharp upper fault gouge contact at CA 10°. Sharp lower contact at CA 80°. Bluish-grey interbeds (269.5, etc.) 10cm. wide of phyllitic marble are very calcareous, moderately soft, and have fairly sharp contacts.
L	2700		2726				067				5C0	→ 5C8 Olive grey r.f.g. aphanitic groundmass, white f.g. anhedral (leucocrone?) phenocrysts and black f.g. subhedral (amphibole, pyroxene) phenocrysts within relict porphyritic igneous texture. Weak S_2 overprint, with off-white quartz-calcite laminae, bands parallel S_2 . Very good core recovery, R&D. Sharp upper contact at CA 80°. Sharp lower contact at CA 70°. Moderately calcareous. PS_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides.
-	2726		2734				068				5F7	Banded-chloritic phyllite is olive-grey, CS_2 and PS_2 foliated, moderately soft, has olive silvery grey S_2 fracture surfaces. Moderately calcareous. No sulphides. Very good core recovery, R&D. Sharp upper contact at CA 70°. Sharp lower contact at CA 80°.

Code	From		To		Recov.		No.		Unit	Description
	10	14 16	20	22 24	26 28	30	34 35			
L	2734	2738					069		5C0	→ 5C8 (5F0) 75:25 Olive grey v.f.g. aphanitic metabasite groundmass, white f.g. anhedral (leucocene?) phenocrysts, and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture. S_2 overprint is off-white, quartz-calcite laminae, bands parallel S_2 . Moderately calcareous. P_2 foliated to massive. Olive grey S_2 fracture surfaces. Very good core recovery. Good R&D. Sharp upper contact at $CA 80^\circ$. Sharp lower contact at $CA 65^\circ$. Olive-grey C_2 foliated chloritic phyllite at 273.7-273.8 is moderately calcareous, moderately soft, and has sharp contact with 5C0 → 5C8, gradational contact with 5B0 → 5F0.
L	2738	2753					070		5B0	→ 5F0 (5E0) 80:20 Light to medium grey ± olive (chlorite) phyllite with 15% off-white quartz-calcite siltstone laminae/beds following S_1 , S_2/S_2 . Moderately calcareous. C_2 and P_2 foliated. Olive silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good R&D. Gradational upper contact parallel S_2 . Sharp lower contact at $CA 70^\circ$. Bluish-grey phyllitic marble at 274.3-274.5 is very calcareous (rapidly etched by 10% HCl acid), C_2 and P_2 foliated, moderately soft, have bluish grey S_2 fracture surfaces, and has fairly sharp contacts with 5B0 → 5F0.
L	2753	2815					071		5C0	→ 5C8 (5C0 → 5C7: 5B0 → 5A) 70:20:10 Olive grey v.f.g. aphanitic metabasitic groundmass, white f.g. anhedral (leucocene?) phenocrysts and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture.

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											<p>Weak S_2 overprint, as off-white quartz-calcite bands, laminae parallel S_2. Plagioclase-pyroxene (schlorite) groundmass. Moderately calcareous. PS_2 foliated to massive. Grey \pm olive S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, R&D. Sharp upper contact at Ct 70°. Sharp lower contact at Ct 65°. Upper chill margin. Lower chill margin apparently not present (Exotic 5B0 \rightarrow 5F0 piece of core at 280.4 - 280.6; piece of core may not be in correct place, but no alternate location exists).</p> <p>Banded-chloritic metabasite variant at 279.9 - 280.4 is moderately calcareous, moderately soft and has gradational contacts with 5C0 \rightarrow 5C8.</p> <p>Weakly chloritic phyllite at 580.4 - 580.6 occurs as one (out of place) piece of core. Unit is moderately calcareous, CS_2 foliated and has sharp contacts with 5C0 \rightarrow 5C8, 5C0 \rightarrow 5C7.</p>
L	2815	2824					072		5B0	\rightarrow 5F7	<p>Light to medium grey phyllite with weak chloritic banding and off-white 20% quartz-calcite laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey \pm olive S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, R&D. Sharp upper contact at Ct 65°. Sharp lower contact at Ct 60°.</p>
L	2824	2845					073		5C8		<p>Olive grey v.f.g. aphanitic plagioclase-pyroxene (schlorite) metabasite groundmass, white f.g. anhedral (clastic?) phenocrysts, and black f.g. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture. S_2 overprint, as off-white quartz-calcite laminae, beds parallel S_2. Moderately calcareous. PS_2 foliated</p>

Lithologic Log

Date: Mar 4/91 Logged By: P. Halliwell

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	
					and massive; locally CS_2 foliated. Olive-grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, R.Q.D. Sharp upper contact at CA 60°. Sharp lower contact at CA 60°.
L 2845	2850		074	5E0 (5B0-5F0)	70:30
					Blue-grey phyllitic marble. Very calcareous (quickly etched by 10% HCl acid). CS_2 and PS_2 foliated. Bluish-grey S_2 surface fractures. Moderately soft. No sulphides. Very good core recovery, R.Q.D. Sharp upper contact at CA 60°. Gradational lower contact parallel S_2 . Grey±olive very weakly chloritic phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with 5E0.
L 2850	2869		075	5B0	(5E0) 70:30
					Light to medium grey phyllite with 7% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, Good R.Q.D. Gradational upper, lower contacts parallel S_2 . Bluish-grey phyllitic marble interbeds, interlaminae (Ø. Ø5-3.Ø cm. wide) following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with 5B0.
L 2869	2872		076	5E0	(5B0) 80:20

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											Bluish-grey phyllitic marble. Very calcareous (quickly etched by 10% HCl acid), CS_2 and PS_2 foliated. Bluish grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, R&D. Gradational upper, lower contacts parallel S_2 . Grey phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, moderately soft, and have gradational contacts with $SE\emptyset$.
	28.72	29.05					0.77		5B \emptyset		(100# : 5E \emptyset) 95 : 05 : TRACE Light to medium grey phyllite with 10% off-white quartz-calcite laminae/bands following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within euhedral-cubic quartz-calcite pods along bands parallel S_2 ; same pyrrhotite pseudomorphs of pyrite. Very good core recovery, Good R&D. Gradational upper, lower contacts parallel S_2 . White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with 5B \emptyset . Occurs at 286.8. Bluish-grey phyllite marble interband at 290.28-290.3 is very calcareous, moderately soft, and have fairly sharp contacts with 5B \emptyset .
	29.05	29.08					0.78		5E \emptyset		Bluish-grey phyllitic marble. Very calcareous (quickly etched by 10% HCl acid), CS_2 and PS_2 foliated. Bluish grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery, R&D. Fairly sharp upper, lower contacts parallel S_2 .

Code	From			To			Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34	35			
1	29.08		29.38							07.9			5B01	→ 5F0 Light to medium grey phyllite with olive tint and 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey ± olive S_2 fracture surfaces. Moderately soft. Weak pervasive chloritization in patches. Good core recovery. Good to fair RQD. Blocky core at 292.4-292.5, 292.8-293.8. Clayey fault gouge 1.5 cm wide at 293.3 at CA 80°. No sulphides. Gradational upper contact parallel S_2 . Sharp lower contact at CA 80°.
2	29.38		29.43							08.0			5B02	Medium to dark grey slightly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Soft. No sulphides. Very good core recovery. Fair to poor RQD. Blocky core throughout. Rubbly core at 293.8-294.2. Almost gouge-like at 294.1. Sharp upper contact at CA 80°. Sharp lower contact at CA 40°.
4	29.43		30.75							08.1			5B03	(5E0) 80:20 Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite and euhedral-pyritohedral pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good to fair RQD. Blocky to rubbly core at 302.6-303.1. Sharp upper contact at CA 40°. Sharp lower contact at CA 60°.

From	To	Recov.	No.	Unit	Description					
10	14	16	20	22	24	26	28	30	34	35
3075	3079		082	100#	White-grey bull quartz-calcite concordant band (bed? vein?) subparallel to S_2 is moderately calcareous, hard, and has sharp contacts with SB ϕ . Very good core recovery. Good R&D. Sharp upper contact at CA 6 ϕ . Sharp lower contact at CA 8 ϕ .					
3079	3231		083	5B ϕ	(5B ϕ → 5F ϕ : 100# : 5E ϕ) 9 ϕ : 6 ϕ : 2 ϕ : 2 ϕ Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2 / S_1, S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Quartz-calcite veinlets at CA 0 ϕ -3 ϕ cross-cut S_1, S_2 . Minor beaded oligomict clast-supported breccias at 315.7-315.8, 318.6-318.8. Trace subhedral-cubic and euhedral pyritohedral pyrite along quartz-calcite laminae, beds, occasionally, pyrrhotite is beginning to replace pyrite. Very good core recovery. Good to fair R&D. Blocky to rubble core at 312.8-312.9, 313.5-313.6. Sharp upper contact at CA 8 ϕ . Gradational lower contact parallel S_2 . Slightly chloritic phyllite at 316.5-317.0 is moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and has gradational contacts with 5B ϕ . White-grey bull quartz-calcite concordant band (bed? vein?) subparallel to S_2 at 313.0-313.2 is moderately calcareous, hard, and has sharp contacts with 5B ϕ , 5B ϕ → 5F ϕ . Bluish-grey phyllitic marble laminae, beds following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with 5B ϕ , 5B ϕ → 5F ϕ .					
3231	3237		084	5C ϕ	(5B ϕ : 5E ϕ) 4 ϕ : 35 : 25 Olive green grey v.f.g. aphanitic plagioclase-pyroxene (chlorite) metabasite, white f.g. anhedral (leucocrone?) phenocrysts and black f.g. subhedral mafics (amphibole,					

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	
					pyroxene?) within relict porphyritic igneous texture. Weak S_2 overprint as olive chlorite bands, laminae parallel S_2 . Moderately calcareous. P_2 foliated to massive. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Fair RQD. Sharp upper contact at $\alpha 80^\circ$. Sharp lower contact at $\alpha 60^\circ$.
					Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Occurs at 323.15-323.16, 323.3-323.5.
					Bluish-grey phyllitic marbles interbeds, interlaminae within $SB\phi$ following S_1, S_2 . Very calcareous. C_2 and P_2 foliated. Moderately soft. Fairly sharp contacts with $SB\phi$.
3237	3351		085	5B ϕ	(5E ϕ :10Q#) 85:10:05 Light to medium grey phyllite with 5% off-white quartz-calcite laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2 ; rim and core replacement (pseudomorphing) by pyrrhotite. Quartz-calcite veinlets crosscutting S_1, S_2 . Some ochre limonite staining on fracture surfaces and along quartz-calcite bands. Minor heated breccia at 331.4-331.5. Very good core recovery. Good to fair RQD. Blocky to rubble core at 328.4-328.6. Sharp upper contact at $\alpha 60^\circ$. Sharp lower contact at $\alpha 75^\circ$.
					Bluish-grey phyllitic marble interbeds, interlaminae at 331.95, 332.7, etc. are very calcareous, C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts with $SB\phi$.
					White-grey±ochre bull quartz-calcite±limonite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with $SB\phi, 5E\phi$. Occur at 328.2-328.4, etc.

Core No.	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
1	335	1	336	3		086	1 0Q#	<p>(5BØ:5EØ) 5Ø:45:Ø5</p> <p>White-grey bull quartz-calcite concordant (beds? veins?) subparallelising S_2 are very calcareous, hard, contain xenoliths of (grey) phyllite and (olive) Mg-chloritic phyllite, and have sharp contacts with 5BØ. Very good core recovery. Good RQD. Sharp upper contact at CA75°. Sharp lower contact at CA70°.</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Moderately soft. No sulphides. Fairly straight quartz-calcite veinlets at CAØ°-3Ø° cross-cut S_1, S_2 (follow L_3, L_4, L_5?). Occur at 335.1-335.2, 335.4-335.5, 335.5-335.5, 335.65-335.85, 336.0-336.2.</p> <p>Bluish grey phyllitic marble interbeds, interlaminae within 5BØ follow S_1, S_2 are very calcareous; moderately soft; and have fairly sharp contacts with 5BØ, 5EØ.</p>		
	336	3	338	4		087	5BØ	<p>(1ØQ#) 95:Ø5</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Minor healed breccia at 337.3-337.5. Good core recovery (Ø.1m core loss at 337.1-337.9). Good RQD. Blocky core at 337.7-337.9. Sharp upper contact at CA70°. Gradational lower contact parallel S_2.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallelising S_2 are moderately calcareous, hard and have sharp contacts with 5BØ.</p>		
	338	4	341	3		088	5BØ	<p>(5EØ) 9Ø:1Ø</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite laminae/beds following</p>		

From	To	Recov.	No.	Unit	Description	
10	14	16	20	22 24 26 28 30	34 35	
						<p>$S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good to very good R&D. Gradational upper, lower contacts parallel S_2.</p> <p>Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with SBØ.</p>
3413	343Ø		Ø89	SBØ	<p>(SBØ2:1ØØ#) 85:1Ø:Ø5</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/PS_2$. Moderately calcareous. $PS_2 > CS_2$ foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Silvery grey and ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic (pseudomorphs after pyrite) of pyrrhotite within quartz-calcite pods along bands parallel S_2. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2.</p> <p>Darker grey slightly carbonaceous interbeds, interlaminae following $S_2 > S_1$ are moderately calcareous, moderately soft to soft, and have gradational contacts with SBØ.</p> <p>White-grey ± ochre bull quartz-calcite ± limonite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with SBØ, SBØ2.</p>	
343Ø	3526		Ø9Ø	SBØ	<p>(SBØ2:5EØ:1ØØ#) 6Ø:3Ø:Ø5:Ø5</p> <p>Light to medium grey phyllite with 1Ø% off-white quartz-calcite laminae/beds following $S_1, S_2/PS_2$. Moderately calcareous. $PS_2 > CS_2$ foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic (1-2cm. dia) pyrite within quartz-calcite pods along bands parallel S_2. Very good core recovery. Good R&D. Gradational upper, lower contacts parallel S_2.</p>	

From	To	Recov.	No.	Unit	Description	
10	14	16	20	22 24 26 28 30	34 35	
						<p>Darker grey weakly carbonaceous phyllite interbeds, interlaminae following $S_2 > S_1$, are moderately calcareous, $PS_2 > CS_2$ foliated, moderately soft, and have gradational contacts parallel S_2.</p> <p>Bluish grey phyllitic marble interbeds, interlaminae following $S_2 > S_1$ are very calcareous, moderately soft, and have fairly sharp contacts with $SB\phi$, $SB\phi 2$.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with $SB\phi$, $SB\phi 2$, $SE\phi$.</p>
3526	3577		091	5B02	($SB\phi:SE\phi:100\phi$) $6\phi:3\phi:05:05$	<p>Dark to medium grey slightly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2. Very good core recovery. Good RQD. Gradational upper, lower contacts parallel S_2.</p> <p>Lighter grey phyllite interbeds, interlaminae following S_1, S_2 are moderately calcareous, moderately soft, and have gradational contacts parallel S_2.</p> <p>Bluish grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with $SB\phi 2$, $SB\phi$.</p> <p>Olive-grey Mg-chlorite-rich phyllite at 356.2-356.3, 357.5-357.7 exist as units and selvages to bull quartz-calcite concordant bands (beds? veins?) subparallel S_2, which are moderately calcareous, hard, and have sharp contacts with $SB\phi 2$, $SB\phi$, $SE\phi$.</p>
3577	3591		092	5B62	\$	

From		To		Recov.			No.		Unit	Description
10	14	16	20	22	24	26	28	30	34	35
										Dark to medium grey slightly carbonaceous phyllite with 5% off-white quartz dolomite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz calcite pods along bands parallel S_2 . Straight quartz calcite veinlets cross-cutting S_1, S_2 at $CA 0^\circ-30^\circ$.
3591	3603					092		5B0	(100#) 80:20	Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite bands (beds? veins?) along bands parallel S_2 . Very good core recovery. Good to fair RQD. Blocky core at 359.6-359.8, 358.9. Gradational upper contact parallel S_2 . Sharp lower contact at $CA 80^\circ$. White-grey to ochre bull quartz-calcite \pm limonite concordant bands (beds? veins?) sub-parallel S_2 are very to moderately calcareous, hard, and have sharp contacts with 5B0.
3603	3620					093		5C0	(5B0) 50:50	Olive grey v.f.g. aphanitic metabasite groundmass, white f.g. euhedral (leucocrone?) phenocrysts, and black f.g. subhedral (amphiboles? pyroxenes?) within relict porphyroitic igneous texture. Strong S_2 overprint, as off-white quartz-calcite bands parallel S_2 . Moderately calcareous. PS_2 foliated to massive. Olive-grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good RQD. Sharp upper, lower contacts at $CA 80^\circ$. Light to medium grey phyllite with 10% off-white quartz-calcite laminae/beds

From	To	Recov.	No.	Unit	Description					
10	14	16	20	22	24	26	28	30	34	35
										following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2 . Occur at 360.5-360.6, 360.9-361.8.
3620	3642		094	5B0	(100#) 70:30					Light to medium grey phyllite with 20% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_1, S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite (1-3cm dia) within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good to fair RQD. Blocky core at 363.2-363.4. Sharp upper, lower contacts at $\sim 80^\circ$. White-grey \pm ochre bull quartz-calcite \pm limonite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with 5B0.
3642	3656		095	5C0	21 (5B02) 60:40					Olive-grey v. fg. ephanitic metabasitic groundmass, white fg. anhedral (lancoxena?) phenocrysts, and black fg. subhedral (amphibole, pyroxene?) phenocrysts within relict porphyritic igneous texture. Strongly S_2 overprinted by off-white quartz-calcite bands parallel S_2 . Moderately calcareous. PS_2 foliated to massive. Olive grey S_2 fracture surfaces. Mod. soft to medium. No sulphides. Very good core recovery. Good to fair RQD. Blocky core at 364.6-364.9. Sharp upper, lower contacts at $\sim 80^\circ$. Dark to medium grey slightly carbonaceous phyllite at 364.6-365.4 is moderately calcareous, CS_2 to PS_2 foliated, moderately soft, and has sharp contacts with 5C0 parallel S_2 . Dark silvery grey \pm ochre (limonite) S_2 fracture surfaces.

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28	30 34 35	
36.56	36.76		096	5B0	(5E0) 95:05 Light to medium grey phyllite with 10% off-white quartz-calcite laminae/beds following $S_1, S_2/P_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Straight quartz-calcite veinlets cross-cutting S_1, S_2 at CA $0^\circ-30^\circ$. Very good core recovery. Good R&D. Sharp upper contact at CA 80° . Sharp lower contact at CA 90° . Trace euhedral cubic pyrite and euhedral pseudomorphs (after pyrite) pyrrhotite within quartz-calcite pods along bands parallel S_2 . Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with 5B0.
36.76	37.06		097	5B02	Dark to medium grey weakly carbonaceous phyllite with 20% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/P_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey, ochre S_2 fracture surfaces. Moderately soft to soft. No sulphides. Poor core recovery (0.2m core loss at 367.6-369.0). Fair to poor R&D. Blocky to rubble core. 367.6-369.0, 369.5-370.6 Clayey ± limonitic fault gouge at 368.5-368.6 at CA 80° . Sharp upper contact at CA 90° . Sharp lower contact at CA 80° .
37.06	38.15		098	5B0	(100# 5E0) 85:10:05 Light to medium grey with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/P_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite (replaced by pyrrhotite) and euhedral-cubic pseudomorph pyrrhotite (0.5-1.5cm dia.) within quartz-calcite pods

From	To	Recov.	No.	Unit	Description
10	14	16	20	22 24 26 28 30	34 35
					380.2-380.3
					along bands parallel S_2 . Minor healed breccias at 372.2-372.3, ¹ Very good core recovery. Good to fair RQD. Blocky core at 373.5-373.7, 376.5 Sharp upper contact at $CA80^\circ$. Sharp lower contact at $CA70^\circ$.
					White-grey \pm ochre bull quartz-calcite \pm limonite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with $SB\emptyset$
					Bluish-grey phyllitic marbles interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with $SB\emptyset$.
381.5	394.7		099	5B0	(5B02:100#) 85:73:02
					Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite (sometimes replaced by pyrrhotite) within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good RQD. Minor healed breccia and blocky to rubbly core at 381.5-382.0 near upper contact. Sharp upper contact at $CA70^\circ$. Sharp lower fault contact at $CA75^\circ$.
					Darker grey more carbonaceous interbeds, interlaminae following S_1, S_2 are moderately calcareous, CS_2 and PS_2 foliated, moderately soft to soft, and have gradational contacts with $SB\emptyset$.
					White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with $SB\emptyset, SB\emptyset$
394.7	410.3		100	5B0	(5E0:100#) 90:05:05
					Light to medium grey phyllite with 15% off-white quartz-calcite laminae/beds

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	<p>following $S_1, S_2 / S_3$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite within quartz-calcite pods along bands parallel S_2. Trace euhedral-cubic pseudomorphs of pyrrhotite after pyrite within quartz-calcite pods along bands parallel S_2. Very good core recovery, Good RQD. Off-white quartz-calcite (straight) veinlets at $CA 80-30^\circ$ cross-cutting S_1, S_2. Sharp upper fault contact at $CA 75^\circ$ containing carbonaceous material (not graphite) and clay. Sharp lower fault contact at $CA 90^\circ$.</p> <p>Bluish grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with $SB\emptyset$.</p> <p>White-grey buff quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with $SB\emptyset, 5F\emptyset$.</p>
41.03	41.06		1.01	5B0.2	<p>RUBBLE & FAULT GOUGE</p> <p>Dark to medium grey pebbles, one cobbles of weakly carbonaceous phyllite and grey silty-textured gouge (mostly clay minerals). Fairly good recovery, but poor RQD throughout. Sharp upper fault contact at $CA 90^\circ$. Sharp lower fault contact at $CA 85^\circ$.</p>
41.06	41.58		1.02	5B0	<p>(5E0 : 5B0 \rightarrow 5F0 : 100#) 60 : 25 : 10 : 05</p> <p>Light to medium grey phyllite with 10% off-white quartz-calcite laminae/beds following $S_1, S_2 / S_3$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Minor healed breccia at 41.5-41.7. Trace euhedral-cubic and euhedral-pyritohedral pyrite within quartz-calcite pods along bands parallel S_2; some is being replaced by pyrrhotite. Very good core recovery,</p>

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28	30 34 35	
					Good R&D. Sharp upper contact at CA 85°. Sharp lower contact at CA 75°. Bluish grey phyllitic marble interbeds, interlaminae at 414.3-414.9 following S_1, S_2 are very calcareous, C_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SBØ. Occurs at 414.1-414.9. Olive grey weakly chloritic phyllite at 412.6-412.8 is moderately calcareous, C_2 and PS_2 foliated, moderately soft, and has gradational contacts with SBØ, SEØ. White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, and have sharp contacts with SBØ, SEØ, SBØ, SEØ.
4158	4163		103	5F16	(100Ø#) 6Ø:4Ø Olive grey chloritic phyllite with <5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly calcareous. C_2 and PS_2 foliated. Olive grey S_2 fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Poor to fair R&D. Blocky to rubble core throughout. Sharp upper, lower contacts at CA 75°. White-grey-cream bull quartz-dolomite-calcite concordant bands (beds? veins?) subparallel S_2 are weakly to moderately calcareous, hard, and have sharp contacts with 5F16.
4163	4172		104	5BØ	(SEØ:100Ø#) 8Ø:15:05 Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, C_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite and euhedral-cubic pseudomorphs (after pyrite) of pyrrhotite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good R&D. Sharp upper, lower contacts

Lithologic Log

Date: Mar. 8/11 Logged By: D. Halliwell

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											at CA75°.
L	41.72	41.77							105 10Q#	(5B0:5E0) 70:20:10	<p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are very calcareous, hard, and have sharp contacts with 5B0, 5E0. Very good core recovery. Good RQD. Sharp upper contact at CA75°. Sharp lower contact at CA65°. Occur at 417.2-417.3, 417.4-417.5, 417.6-417.7.</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides.</p> <p>Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, moderately soft, and have fairly sharp contacts with 5B0.</p>
	41.77	41.85							106 5B0	(5E0) 60:40	<p>Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Silvery grey, ochre (limonite) S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pyrite and euhedral-cubic pseudomorphs (after pyrite) of pyrrhotite within quartz-calcite pods along bands parallel S_2. Very good core recovery. Good to fair RQD. Blocky core at 418.0-418.5. Sharp upper contact at CA65°. Sharp lower contact at CA70°.</p> <p>Bluish grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with 5B0.</p>

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	
4185	4244		107	5B0	<p>(5B02:100#) 60:35:05</p> <p>Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft to (locally) moderately hard. Some ochre (limonite) S_2 fracture surfaces. Trace euhedral-cubic pyrite within quartz-calcite pads along bands parallel S_2; some pyrite is replaced by pyrrhotite. Very good core recovery. Good to fair RQD. Blocky to rubbly core at 418.6-418.8, 419.5-419.8, 420.1-420.5. Clayey fault gouge at CA 75° at 422.2-422.3. Sharp upper contact at CA 70°. Sharp lower contact at CA 80°.</p> <p>Darker grey weakly carbonaceous phyllite interbeds, inter laminae following S_1, S_2 are moderately calcareous, CS_2 and PS_2 foliated, moderately soft to soft, and have gradational contacts with 5B0.</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, contain xenoliths of carbonaceous phyllite, and have sharp contacts with 5B0, 5B02.</p>
4244	4249		108	100#	<p>(5B0) 80:20</p> <p>White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel S_2 are moderately calcareous, hard, ^{and} contains grey phyllite xenoliths. Very good core recovery, RQD. Sharp upper, lower contacts at CA 80°.</p> <p>Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$ are moderately calcareous, CS_2 and PS_2 foliated, have silvery grey S_2 fracture surfaces, and have sharp contacts with 100#.</p>

From	To	Recov.	No.	Unit	Description						
10	14	16	20	22	24	26	28	30	34	35	
424.9	435.2		109	5BØ2	(SBØ:SEØ:1ØØ#) 5Ø:4Ø:Ø8:Ø2 Dark to medium grey weakly carbonaceous phyllite with 1Ø% off-white quartz-calcite siltstone laminae/beds following S ₁ , S ₂ /S ₂ . Moderately calcareous, CS ₂ and PS ₂ foliated. Dark silvery grey S ₂ fracture surfaces. Moderately soft to soft. Trace euhedral-cubic pyrite and euhedral-cubic pseudomorphs (after pyrite) pyrrhotite within quartz-calcite pods along bands parallel S ₂ . Fairly good core recovery (Ø.1m core loss at 428.4-431.6). Fair to poor R.Q.D. Blacky core at 426.6-427.6, 429.2-429.6. Rubbly core at 431.6-431.8. Sharp upper contact at CA 80°. Lighter grey phyllite interbeds, interlaminae following S ₁ , S ₂ are moderately calcareous, CS ₂ and PS ₂ foliated, moderately soft, and have gradational contacts with 5BØ2. Bluish-grey phyllitic marble interbeds, interlaminae following S ₁ , S ₂ are very calcareous, CS ₂ and PS ₂ foliated, moderately soft, and have fairly sharp contacts with 5BØ2, 5BØ. White-grey bull quartz-calcite concordant bands (beds? veins?) subparallel to S ₂ are moderately calcareous, block and have sharp contacts with 5BØ2, 5BØ, SEØ.						
435.2	436.4		110	5BØ	(1ØØ#) 9Ø:1Ø Light to medium grey phyllite with 5Ø% off-white quartz-calcite ^{siltstone} laminae/beds following S ₁ , S ₂ /S ₂ . Moderately calcareous, CS ₂ and PS ₂ foliated. Silvery grey S ₂ fracture surfaces. Moderately soft. No sulphides. Very good core recovery. Good to fair R.Q.D. Blocky to rubbly core at 435.6-435.9, 436.1-436.2. Gradational upper contact parallel S ₂ . Sharp lower contact at CA 45°.						

From	To	Recov.	No.	Unit	Description						
10	14	16	20	22	24	26	28	30	34	35	
											White-grey buff quartz-calcite concordant band (bed? vein?) sub-parallel to S_2 at 435.9-436.1 is moderately calcareous, hard, and has sharp contacts with SBØ.
436.4	437.5		1,1,1	5B,Ø,2	BLOCKY & RUBBLY. Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite ^{siltstone} laminated beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. Very good core recovery. Fair to poor R&D. Blocky to rubbly core throughout. Sharp upper contact at CA 45°. Sharp lower contact at CA 80°.						
437.5	443.8		1,1,2	5B,Ø	(SEP) 95:Ø5 Light to medium grey phyllite with 10% off-white quartz-calcite ^{siltstone} laminated beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft. Trace disseminated euhedral-cubic pyrite; some is being replaced by pyrrhotite. Very good core recovery. Good to fair R&D. Blocky to rubbly core at 441.7-441.8, ^{442.8-443.1} Sharp upper contact at CA 80°. Lower contact at CA 70° marks end of NØ coring. Core was reduced to BØ at this point. Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SBØ.						
443.8	444.4		1,1,3	5B,Ø	RUBBLY						

From	To	Recov.	No.	Unit	Description
10	14 16	20 22 24	26 28 30	34 35	
					Light to medium grey phyllite with 15% off-white quartz-calcite ^{siltstone} laminae/beds following S_1 , S_2 / S_2 as cobbles, pebbles, sand and clay. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft to very soft. No sulphides. Poor core recovery, RQD (reduction to BQ core at 443.8 necessary due to drill-ling problems. Blocky to rubble throughout. Sharp upper contact at CA 70°. Sharp lower contact at CA 80°. Likely fault zone; but no gouge, slickensides etc.
444.4	448.5		1.14	5B01	(5E0) 95:05 Light to medium grey phyllite with 15% off-white quartz-calcite ^{siltstone} laminae/beds following S_1 , S_2 / S_2 . Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace euhedral-cubic pseudomorphs (after pyrite) of pyrrhotite along late, straight quartz-calcite veinlets at CA 0°-30° which cross-cut S_1 , S_2 . Also present in quartz-calcite pads along bands parallel S_2 . Very good core recovery. Good RQD. Sharp upper contact at CA 80°. Sharp lower contact at CA 85°. Bluish-grey phyllitic marble laminae, beds following S_1 , S_2 are very calcareous, C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts with 5B01 down throughout unit.
448.5	449.5		1.15	5B02	RUBBLY WITH GOUGE Dark to medium grey weakly carbonaceous phyllite with 10% off-white ^{siltstone} quartz-calcite laminae/beds following S_1 , S_2 / S_2 . Moderately calcareous. C_2 and P_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Fair core recovery (0.2m core loss at 448.5-449.3). Blocky to rubble core throughout. Gouge and sand at 449.0-449.1 contains some carbonaceous material. Sharp upper

DDH 91 DY-01
2 8CURRAGH RESOURCES INC.
Lithologic LogPage 52Date: Mar 10/91 Logged By: D. Halliwell

From	To	Recov.	No.	Unit	Description				
10	14	16	20	22 24	26 28	30	34	35	
									contact at CA 85°. Sharp lower contact at CA 80°.
4495	4564		1116	5B0	(5E0; 100#) 85:10:05				Light to medium grey phyllite with 15% off-white quartz-calcite siltstone laminae/bands following S ₁ , S ₂ /S ₃ . Moderately to very calcareous (locally, quickly etched by 10% HCl acid). Silvery grey S ₂ fracture surfaces. Moderately soft. Trace to 1% euhedral-cubic pyrite (0.5-1.5 cm. dia.) within quartz-calcite pods along bands parallel to S ₁ ; some are partially, completely (rim?) replaced by pyrrhotite. Very good core recovery. Good R&D. Blocky core at 455.2-455.5. Sharp upper, lower contacts at CA 80°.
									Bluish-grey phyllitic marble interbeds, interlaminae following S ₁ , S ₂ are very calcareous. C ₂ and P ₂ foliated, moderately soft, and have fairly sharp contacts with 5B0.
									White-grey buff quartz-calcite concordant bands/beds (thin?) subparallel to S ₁ are moderately calcareous, hard, and have sharp contacts with 5B0.
4564	4573		1117	5B0	→ 5B02 BLOCKY & RUBBLY & GOUGE				Light to dark grey phyllite with trace carbonaceous material and 5% off-white quartz-calcite siltstone laminae/bands following S ₁ , S ₂ . Moderately calcareous. C ₂ and P ₂ foliated. Silvery grey S ₂ fracture surfaces. Moderately soft to soft. No sulphides. Good core recovery. Poor R&D. Blocky to rubbly core throughout. Clayey gouge at CA 30° at 456.4-456.5 (1m wide). Clayey gouge at CA 80° at 457.1-457.2. Sharp upper, lower contacts at CA 80°.
4573	4635		1118	5B0	(5E0) 90:10				

DDH 9.1.DY-01

2

8

CURRAGH RESOURCES INC.

Lithologic Log

Page 54

Date: Mar 10/91 Logged By: D. Halliwell

From	To	Recov.	No.	Unit	Description	
10	14	16	20	22 24 26 28 30	34 35	
						soft. Trace euhedral-cubic pyrite and trace euhedral-cubic pseudomorphs (after pyrite) of pyrrhotite within quartz-calcite pods along bands parallel S_2 (0.5-1.0 cm diag). Good core recovery. Good to poor R&D. Blocky core at 470.3-470.6. Gradational upper contact parallel S_2 . Sharp lower contact at CA 70°. Late, straight quartz-calcite veinlets at CA 30°.
						Bluish-gray phyllitic marble interbeds, interlaminae following S_1, S_2 occurring throughout unit and ≤ 2 cm wide are very calcareous. CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SBQ .
471.5	472.4		121	5B02	BLOCKY & RUBBLY & GOUGE Dark to medium gray weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2 / S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Low core recovery (0.1 m core loss within unit). Poor R&D. Blocky to rubbly core throughout. Clayey fault zone at 472.1-472.4. CA angle not discernible at upper contact; CA 80° at lower contact. Single euhedral-cubic pyrite crystal (0.5 cm diag) at lower contact.	
472.4	48.1		122	5B02	(10'S#; 5E0) 85:10:05 Light to medium gray phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2 / S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft to soft. Trace euhedral-cubic pseudomorphs (after pyrite) of pyrrhotite within quartz-calcite pods along bands parallel S_2 trace euhedral-cubic pyrite at similar loci. Very good core recovery. Fair to poor R&D. Low breccias. Blocks at 472.4-472.7 (fairly plastic, some cut unit). Sharp upper contact at CA 80°. Sharp lower contact at CA 40°.	

From	To	Recov.	No.	Unit	Description		
10	14	16	20	22 24	26 28	30 34 35	
							White grey buff quartz-calcite concordant bands (beds? veins?) subparallel to S_2 and moderately calcareous, hard, and have sharp contacts with S_{B0} . Contain xenoliths of fine-black carbonaceous phyllite and silty grey (Mg-) chloritic phyllite. Occur at 474.8-475.1, 476.0-476.1, 475.4, 479.4-479.5, 480.8-481.1, etc.
							Bluish-grey phyllitic marble interbeds. Interlaminae following S_1, S_2, S_3 and S_4 through out unit: are very calcareous, C_2 and P_2 foliated moderately soft, and have fairly sharp contacts with S_{B0} .
4811	4816		123	$S_{B0} C_2$	BLOCKY & RUBBLY		Dark to medium grey weakly carbonaceous phyllite with 50% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_3$. Moderately calcareous C_2 and P_2 foliated. Dark silty S_2 fracture surfaces. Moderately soft to soft. No sulphides. Good core recovery. Fair to poor RQD. Blocky to rubbly core throughout. Sharp upper contact at 474.9°. Sharp lower contact at C_{B0} .
4816	4970		124	$S_{B0} C_2$	($S_{B0} : 5E0 : 100\#$) $80 : 10 : 05 : 05$		Dark to medium grey weakly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_3$. Moderately calcareous C_2 and P_2 foliated. Dark silty grey S_2 fracture surfaces. Moderately soft to soft. Trace disseminated euhedral cubic pyrite and within quartz-calcite pads along bands parallel S_2 . Trace disseminated euhedral cubic pseudomorphic (silty pyrite) or pyrrhotite and perillite within quartz-calcite pads along bands parallel S_2 . Very acid core recovery. Good to fair RQD. Blocky core at 483.1-483.2, 491.1-491.4. Sharp upper, lower contacts at C_{B0} .

DDH 91DY-01
2 8CURRAGH RESOURCES INC.
Lithologic LogPage 55Date: Mar 10/91 Logged By: D. Halliwell

From	To	Recov.	No.	Unit	Description						
10	14	16	20	22	24	26	28	30	34	35	
											White grey buff quartz-calcite concordant bands (beds? veins?) subparallel to S_2 are moderately calcareous, hard, and have sharp contacts with SBQ . Certain varieties of grey-black carbonaceous phyllite and silvery grey (Mg-) chloritic phyllite. Occur at 474.8-475.1, 476.0-476.1, 476.4, 479.4-479.55, 480.8-481.1, etc.
											Bluish-grey phyllitic marble interbeds. Interlaminae following S_1 and S_2 cutting through siltstone are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SBQ .
481.1	481.6		123	5B02	BLOCKY & RUBBLY						Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. S_2 and PS_2 foliated. Dark silvery S_2 fracture surfaces. Moderately soft to soft. No sulphides. Fair core recovery. Fair to poor RQD. Blocky to rubbly core throughout. Sharp upper contact at 481.1. Sharp lower contact at 481.6.
481.6	49.70		124	5B02	(5B0: 5E0: 100#) 80:10:05:05						Dark to medium grey weakly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 -fracture surfaces. Moderately soft to soft. Trace disseminated subhedral-cubic pyrite and within quartz-calcite pods clay bands parallel S_2 . Trace disseminated euhedral-cubic pseudomorphs after pyrite and pyrrhotite and pyrrhotite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Good to fair RQD. Blocky core at 483.1-483.2, 491.1-491.4. Sharp upper lower contacts at 480.0.

From	To	Recov.	No.	Unit	Description	
10	14	16	20 22 24	26 28	30 34 35	
						Light to medium phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$ at 492.7-492.8, 494.4-494.6 is moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have gradational contacts with SB02.
						Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 at 491.5 etc. are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SB02, SB0.
						White-grey buff quartz-calcite concordant bands, "beddings" subhorizontal S_2 are moderately calcareous, hard and have sharp contacts with SB02, SB0, SE0.
497.0	499.5		12.5	SB02	(SE0:SD0) 95:05 BLOCKY & RURLY 2 @ 5:1	
						Dark to medium grey weakly calcareous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated.
						Dark silvery grey S_2 fracture surfaces. Moderately soft. No schistosity and compaction. Fair to good Q/D. Blocky to rubbly core at 497.0-497.7, 498.2-498.6, 499.2-499.5. Sharp upper contact at 497.0. Sharp lower contact at 497.0. Tuff zone at 497.3.
						Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 throughout are very calcareous, CS_2 and PS_2 foliated, moderately soft, and have fairly sharp contacts with SB02. Typically 0.5-2.0cm wide.
						Dark (Mg)-chloritic phyllite interbeds parallel S_2 at 497.8, 498.8-498.9 are moderately calcareous, PS_2 foliated, moderately soft and have gradational contacts with SB0, SE0.
499.5	503.1		12.6	SB0	(SD0) 95:05	
						Light to medium grey phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$.

From	To	Recov.	No.	Unit	Description					
10	14	16	20	22	24	26	28	30	34	35
										<p>following $S_1, S_2/S_3$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. Trace disseminated euhedral-cubic pyrite. Very good core recovery. Fair RQD. Sharp upper, lower contacts at CA70°.</p> <p>White-grey bull quartz-calcite concordant bands (bedding) at 502.6, 502.8 sub-parallel S_2 are moderately calcareous, hard and have sharp contacts with S_2.</p>
5031	5061		127	SB03	<p>1100' / 1.100' (17) & (2) 100'</p> <p>Dark to medium weakly carbonaceous phyllite with 5% silt white quartz calcite siltstone laminae/beds following $S_1, S_2/S_3$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Poor core recovery (0.4m core loss at 503.1-504.0, 0.2m core loss at 504.0-504.9). Blocky to rubble core at 503.1-505.4, 505.7-506.1. Sharp upper contact at CA70°. Sharp lower contact at CA80°.</p>					
5061	5200		128	SB02	<p>(SB0:100#; SE0) 50:40:06:04</p> <p>Dark to medium grey weakly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_3$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. Trace euhedral-cubic pseudomorphs of pyrrhotite after pyrite within quartz-calcite pods along bands parallel S_2. Good core recovery. Fair to poor RQD. Blocky core at 511.6-512.9, 515.6-515.9. Sharp upper contact at CA80°. Gradational lower contact parallel S_2.</p> <p>Lighter grey phyllite interbeds, interlaminae following S_1, S_2 throughout unit are moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have gradational contacts with SB02. White-grey bull quartz-calcite concordant bands subparallel S_2 at 509.0-509.1</p>					

Lithologic Log

Date: Jan 15/91 Logged By: D. Halliwell

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
											5B.6-513.7 are moderately calcareous, hard, and have sharp contacts with 5B02, 5B0.
											Bluish-grey phyllitic marble interbeds, interlaminae following S_1, S_2 throughout with are very calcareous, C_2 and P_2 foliated, moderately soft, and have fairly sharp contacts with 5B02, 5B0.
	5200		5210				1219		5B02		BLOCKY & RUBBLY, Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Very good core recovery. Blocky to rubbly core throughout. Gradational upper, lower contacts parallel S_2 .
	5210		5263				130		5B0		(100#) 95:05 Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. C_2 and P_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Occasional ochre (limonite) S_2 fracture surfaces (limonite after pyrite?). Very good core recovery. Good to poor RQD. Blocky core at 523.6-524.2, 524.7-525.4. Gradational upper, lower contacts parallel S_2 . White-grey bull quartz-calcite concordant bands subparallel to S_2 at 521.1-521.3, 521.5-521.7, etc. are moderately calcareous, hard, and have sharp contacts with 5B0.
	5263		5350				131		5B02		(5B0: 100#) 50:30:20 ABUNDANT 100#. Dark to medium weakly carbonaceous phyllite with 10% off-white quartz-calcite

From	To	Recov.	No.	Unit	Description						
10	14	16	20	22	24	26	28	30	34	35	
											<p>siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft. Very good core recovery. Good to poor RQD. Blocky core at 527.0-527.3. Rubbly core at 528.5-528.8. Gradational upper, lower contacts parallel S_2. Trace pyrite, pyrochroite pseudomorphs as disseminations, with quartz-calcite pods along bands parallel S_2. Lighter grey phyllite interbeds, interlaminated following S_1, S_2 throughout unit are moderately calcareous, CS_2 and PS_2 foliated, moderately soft, and have gradational contacts with 5B02.</p> <p>White-grey bull quartz-calcite concordant bands subparallel S_2 at 526.3-526.8-527.0, 527.3-527.6, 530.1-530.2, 530.5-530.7, 531.0-531.3, 532.8-533.0, 533.4-533.6, 534.4-534.5, 534.7, 534.9-535.0 are moderately calcareous, hard, contain xenoliths of carbonaceous and chlorite phyllite, and have sharp contacts with 5B02, 5B0.</p>
535.0	540.1		13.2	5B02	<p>(100#) 90:10</p> <p>Dark to medium weakly carbonaceous phyllite with 10% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. Trace disseminated euhedral cubic pseudomorphs of pyrochroite after pyrite. Good to fair core recovery. (0.6 m. core loss at 537.7-539.0). Good to poor RQD. Blocky to rubbly core at 537.7-539.0. Gradational upper, lower contacts parallel S_2.</p> <p>White-grey bull quartz-calcite concordant band at 539.0-539.5 subparallel S_2 is moderately calcareous, hard, and has sharp contacts with 5B02.</p>						
540.1	540.6		1.33	5B02	(5B2) 80:20						

Lithologic Log

Date: 10/12/91 Logged By: D. Halliwell

From	To	Recov.	No.	Unit	Description						
10	14	16	20	22	24	26	28	30	34	35	
											Dark to medium weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous, CS_2 and PS_2 foliated. Dark gray silvery, black S_2 fracture surfaces with no graphite. Moderately soft. Trace euhedral-cubic pseudomorphs of pyrrhotite after pyrite within quartz-calcite pods along bands parallel S_2 . Very good core recovery. Fair to poor RQD. Blocky to rubble. Core at 545.1-542.1, 543.7-544.4, 545.5-546.4, 546.6-547.4, 547.7-548.6. Gradational upper/lower contacts parallel S_2 .
											Dark gray carbonaceous phyllite interbeds, interlaminae following S_1, S_2 are moderately to weakly calcareous, CS_2 and PS_2 foliated, soft, have black graphitic S_2 fracture surfaces, and have gradational contacts with SBØ2. Occur at 543.9-544.2, 546.2-546.6.
5486	5559		134	SBØ2	(1ØQ#) 95:Ø5						Dark to medium weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately to weakly calcareous, CS_2 and PS_2 foliated. Dark silvery gray S_2 fracture surfaces. Moderately soft to soft. Trace euhedral-cubic pseudomorphs of pyrrhotite after pyrite. Very good core recovery. Good RQD. Blocky core at 548.8-549.2, 549.8-549.9. Gradational upper/lower contacts parallel S_2 .
											White-gray buff quartz-calcite concordant bands (beds/veins) subparallel to S_2 are moderately calcareous, hard and saw sharp contacts with core.
559	5673		135	SBØ2	(5AØ) 95:Ø5						Dark gray to black carbonaceous phyllite with 15% quartz-calcite veinlets at all angles

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16	20 22 24	26 28 30	34 35	<p>Moderately to weakly calcareous. C_2 and PS_2 foliated. Dark grey carbonaceous and black graphitic S_2 fracture surfaces. Soft to moderately soft. Somewhat chaotic appearance but not good SAAC. Trace euhedral-cubic pseudomorphs of pyrrhotite (after pyrite?) within quartz-calcite pods and along quartz-calcite bands parallel S_2 (quartz-carbonate-pyrrhotite band at 566.5. Very good core recovery. Good to fair ROD. Blocky to rubbly core at 548.6-549.1, 560.2-560.8, 561.3-561.7. Gradational upper, lower contacts parallel S_2.</p> <p>Black carbonaceous-graphitic phyllite near upper contact (555.9-556.5) with 15% quartz-calcite veinlets at all CA angles are moderately to weakly carbonaceous, C_2 and PS_2 foliated, soft, have black graphitic S_2 fracture surfaces, and have gradational contacts with 560.2.</p>
L	567.3	571.5		136	5B02	<p>\$ → SFØ LIMONITIC, Dark to medium weakly carbonaceous phyllite with 10's quartz-calcite ± dolomite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately to weakly calcareous. (Dolomitized-limonitized at 570.2-571.5). C_2 and PS_2 foliated. Dark silty-very grey, ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. Trace pyrrhotite as euhedral-cubic pseudomorphs (after pyrite?) within quartz-dolomite-pyrrhotite bands parallel S_2. Rare euhedral-cubic pyrite at similar loci. Slightly olive-chloritic near upper contact (567.3-569.2) as dolomitic bands parallel S_2. Very good core recovery. Good to poor ROD. Blocky to rubbly core at 569.2-570.5, 571.4-573.1. Gradational upper, lower contacts parallel S_2.</p>
L	571.5	573.1		137	5F6	<p>\$ → 4LØ³ LIMONITIC. BLOCKY & RUBBLY</p>

Code	From		To		Recov.	No.	Unit	Description			
	1	10	14	16					20	22	24
								Olive-grey weakly chloritic phyllite with 5% off-white quartz-dolomite ± calcite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly to moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey, ochre (limonitic) S_2 fracture surfaces. Moderately soft to soft. No sulphides (sulphides altered to limonite?) - Good core recovery, Poor R&D. Rubbly core throughout unit. Gradational upper, lower contacts parallel S_2 . Yellowish (sericitic) S_2 fracture surfaces.			
L	5731	5739				138	5F6\$	→ 5B46\$ BLOCKY Olive-grey weakly chloritic phyllite with 5% off-white quartz-dolomite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly calcareous. CS_2 and PS_2 foliated. Olive silvery grey ± yellowish (sericitic) colour S_2 fracture surfaces. Moderately soft. 1% subhedral cubic (pseudomorph after pyrite?) pyrrhotite along quartz-dolomite-pyrrhotite bands parallel S_2 (pyrrhotite clusters 2-3cm long along bands). Very good core recovery. Poor R&D. Blocky core throughout. Gradational upper, lower contacts parallel S_2 .			
L	5739	5765				139	5F6\$ 1/2 → 5B46\$	BLOCKY & RUBBLY Olive-grey weakly chloritic ± sericitic phyllite with 5% off-white quartz-dolomite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly calcareous. Occasionally carbonaceous. CS_2 and PS_2 foliated. Olive silvery grey ± yellowish (sericitic), ochre (limonite) S_2 fracture surfaces. Moderately soft to soft. No sulphides (sulphides altered to limonite?). Good core recovery, Poor R&D. Blocky to rubbly core throughout. Gradational upper, lower contacts parallel S_2 .			
L	5765	5773				140	5B6\$	→ 5F62			

DDH 91DY-01
2 8CURRAGH RESOURCES INC.
Lithologic LogPage 63Date: 12/16/91 Logged By: D. Hallinell

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16	20 22 24	26 28 30	34 35	
						Dark to medium grey ± olive very weakly chloritic phyllite with 5% quartz-dolomite ± calcite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly to (locally) moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey ± olive S_2 fracture surfaces. Moderately soft to soft. Trace cubical-cubic (pseudomorphs after pyrite?) pyrrhotite within quartz-dolomite-calcite joints along bands parallel S_2 . Very good core recovery. Fair to poor RQD. Blocky core throughout. Gradational upper/lower contacts parallel S_2 .
L	5773	5810		141	58162\$ - 58166\$	Dark to medium grey ± olive phyllite with 5% off-white quartz-dolomite siltstone laminae/beds following $S_1, S_2/S_2$. Weakly calcareous. CS_2 and PS_2 foliated. Dark silvery grey ± olive S_2 fracture surfaces. Moderately soft to soft. Trace disseminated cubical-cubic (pseudomorphs after pyrite) pyrrhotite. Very good core recovery. Good to poor RQD. Pulbly core at 579.9-580.2. Gradational upper/lower contacts parallel S_2 .
H	5810	5822		112	58102	Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Dark silvery grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Very good core recovery. Good RQD. Gradational contacts parallel S_2 .
L	5822	5837		143	58144 - 58150	

Code	From		To		Recov.		No.		Unit		Description
	10	14	16	20	22	24	26	28	30	34	
											Light to medium grey \pm greenish yellow weakly chloritic \pm sericitic phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey \pm olive (chlorite) \pm yellow (sericite) S_2 fracture surfaces. Moderately soft. No sulphides. Good core recovery. Good to poor R&D. Blocky to rubble core at 582.2-583.3. Gradational upper/lower contacts parallel S_2 .
L	5837		5888				144		5F0		-> 5C0 (3B0) 60:40 Olive grey weakly chloritic phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Locally has white to siliceous phylloids within v.f.g. ophiolitic groundmass (metabasitic?), strongly overprinted by S_2 . Moderately calcareous. $CS_2 > PS_2$ foliated. Olive silvery grey S_2 fracture surfaces. Moderately soft. Good to poor core recovery (0.8m core loss at 585.8-588.1 (probably at 585.8-586.0) and 587.5-588.1. Good to poor R&D. Rubble core at 583.7-584.3, 584.5-586.0. Gradational upper/lower contacts parallel S_2 . No sulphides. Light to medium grey phyllite with 5% off-white quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$ at 583.7-584.3, 584.5-586.1. Moderately calcareous. CS_2 and PS_2 foliated. Silvery grey S_2 fracture surfaces. Moderately soft. No sulphides.
L	5888		5911				145		5B0 2R		RUBBLY. Dark to medium grey weakly calcareous phyllite with 5% quartz-calcite siltstone laminae/beds following $S_1, S_2/S_2$. Moderately calcareous. CS_2 and PS_2

Code	From		To		Recov.		No.		Unit	Description
	10	14 16	20	22 24	26 28	30	34 35			
										foliated. Dark silvery grey, ochre (limonite) S ₂ fracture surfaces. Moderately soft to soft. No sulphides (Sulphides altered to limonite?). Poor core recovery (0.2m core loss within unit). Poor R&D. Rubbly core throughout. Gradational upper/lower contacts parallel S ₂
L	59.11	604.2			1A.6			5B62	(5B6:5B26) 50:35:15	Dark to medium grey weakly carbonaceous phyllite with 5% off-white quartz-dolomite siltstone laminae/beds following S ₁ , S ₂ /S ₂ . Weakly calcareous. CS ₂ and PS ₂ foliated. Dark silvery grey S ₂ fracture surfaces. Moderately soft to soft. Trace disseminated euhedral-cubic (pseudomorphs after pyrite?) pyrite, often near quartz-dolomite bands parallel S ₂ . Fair core recovery (0.2m core loss at 597.2-600.3). Good to poor R&D. Rubbly core at 593.3-594.2, 595.9-596.4, 596.9-597.0, 598.7-598.9. Gradational upper contact parallel S ₂ . Sharp lower contact at 601.0. Lighter grey phyllite at 591.1-601.0 has 5% off-white quartz-dolomite siltstone laminae/beds following S ₁ , S ₂ /S ₂ are weakly calcareous, CS ₂ and PS ₂ foliated, moderately soft and have gradational contacts with 5B62. Darker grey carbonaceous phyllite interbeds, inter-laminae in lower section (601.0-604.2) have 5% off-white quartz-dolomite siltstone laminae/beds following S ₁ , S ₂ /S ₂ , are weakly calcareous, CS ₂ and PS ₂ foliated, soft, and have gradational contacts with 5B62.
L	604.2	606.8			14.7			5C61	(100# & \$) 60:40	FLUENT & RUBBLY Olive grey silty calcareous metabasite from drags, black calcareous euhedral mafic

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
						Amphibole, pyroxene?) plagioclase, and white f.g. embedded (clenose?) plagioclase with relict porphyroitic calcareous texture. Overprinted by S_2 as black, dark brown, or tie- chloritic bands parallel S_2 , likely calcareous. P_{12} foliated to massive. Olive grey S_2 fracture surfaces. Moderately hard, smooth, lustrous (weakly silicified). No sulphides. Good core recovery. Fair to poor RQD. Blacky to bubbly core at 604.2-605.2, 605.8-606.8. Sharp upper contact at CA 70°. Sharp lower contact at CA 85°.
						White-grey ± cream buff quartz-calcite-dolomite calc. calc. sandstone; (calc? veins?) subhorizontal S_2 at 604.2-604.4, 605.5-606.8. Fair to moderately to weakly calcareous, hard, contains venulitic and minor calcareous phyllitic, and have sharp contacts with 5C61.
L	6068	6092		148	5B62	Dark to medium grey phyllite with 5% off-white quartz-dolomite siltstone laminae/ beds following S_2 , S_2/S_3 . Weakly calcareous. S_2 and P_{12} foliated. Dark silty grey S_2 fracture surfaces. Moderately soft to soft. No sulphides. Very good core recovery. Fair to poor RQD. Blacky core at 607.5-608.1. 608.7- 609.2. Sharp upper, lower contacts at CA 85°.
L	6092	6110		149	5C146 (10Q5) 85:15	Light olive grey v.f.g. aphanitic metabasite. (plagioclase, pyroxene → chlorite) groundmass, black to subblack amphibole plagioclase (→ porphyroblasts, oriented parallel S_2) within relict porphyroitic calcareous texture. Strong S_2 overprint, with olive chloritic bands parallel S_2 . Weakly calcareous. P_{12} foli-

Code	From		To		Feature	S ₀ Dip Direct.	S ₁ Dip Direct.		S ₂ Dip Direct.		Description
	10	14 16	20	22 24 26 28			32 34	38 40	44		
S			53		PSZ				73		Massive metabasite. Measured directly
S			112		PSZ				88		"
S			178		PSZ				61		PS metabasite
S			201		CSZS	1.53	3.1	34.6	7.6		
S			281		CSZS	1.74	2.7	20.2	7.7		
S			349		CSZS	0.38	3.4	22.0	6.7		
S			393		CSZS	0.63	4.5	07.1	7.6		
S			467		CSZS	1.04	3.8	33.6	6.8		
S			53		CSZS	1.56	2.1	27.2	7.1		
S			58		CSZS	0.29	4.7	00.7	8.1		
S			59		CSZS	1.53	4.7	35.5	7.8		
S			69		CSZS	0.29	4.4	20.8	6.6		
S			78		CSZS	0.13	5.1	30.9	5.9		
S			80		CSZS	0.27	5.6	02.8	6.2		
S			88		CSZS	1.52	5.0	00.4	7.4		
S			90		CSZS	0.36	7.5	14.5	8.2		
S			97		CSZS	0.25	6.3	01.2	7.4		
S			107		CSZS	1.10	4.0	14.7	8.3		
S			109		CSZS	0.53	3.8	00.0	7.4		DD ₂
S			118		CSZS	1.17	4.7	32.0	8.3		
S			123		CSZS	1.33	5.3	09.5	7.8		
S			129		CSZS	1.77	5.2	23.1	7.0		
S			131		CSZS	1.10	2.1	21.6	7.8		
S			139		CSZS	0.83	6.1	06.5	8.2		
S			145		CSZS	0.31	3.9	01.1	7.9		
S			150		CSZS	1.27	3.8	23.3	7.4		
S			157		CSZS	0.33	3.8	00.8	6.5		
S			159		CSZS	0.21	5.0	00.7	7.8		
S			167		CSZS	0.62	1.5	01.5	5.8		
S			169		CSZS	0.12	3.2	00.1	7.5		
S			180		CSZS	0.30	5.7	03.5	7.5		
S			185		CSZS	0.42	3.5	05.2	7.6		
S			190		CSZS	1.69	2.9	00.0	7.8		DD ₂
S			193		CSZS	1.29	3.8	03.8	8.3		
S			199		CSZS	0.00	3.0	00.0	7.1		DD ₂
S			206		CSZS	1.49	2.3	16.9	8.0		

Code	From		To		Feature	SYM	S ₀		S ₁		S ₂		Description
	10	14	16	20			Dip	Direct.	Dip	Direct.	Dip	Direct.	
	28	32	34	38	40	44							
S			212		CS2S	T	174	48	3A8	84			
S			218		CS2Z	T	111	41	124	80			
S			225		P.S2	T					8.2		5C0 → 5C8, 5C7
S			230		CS2Z	T	064	25	277	85			
S			233		CS2Z	T	120	17	212	83			
S			242		CS2S	T	165	10	010	7.8			
S			249		CS2Z	T	042	38	168	7.7			
S			253		CS2S	T	020	61	178	7.3			
S			258		CS2S	T	047	24	359	7.1			
S			264		CS2S	T	048	42	307	8.1			
S			271		CS2Z	T	087	07	089	8.1			
S			274		CS2S	T	054	5.0	000	8.5			DD ₂
S			281		CS2S	T	073	1.9	000	4.5			DD ₂
S			290		CS2S	T	118	23	326	7.7			
S			276		CS2Z	T	086	42	194	6.4			
S			300		CS2S	T	012	2.2	006	7.7			
S			306		CS2Z	T	019	40	103	4.7			
S			310		CS2S	T	039	41	023	8.1			
S			317		CS2Z	T	084	44	084	8.3			
S			321		CS2S	T	167	21	059	7.7			
S			330		CS2S	T	011	09	000	7.3			DD ₂
S			336		CS2S	T	172	43	000	7.8			DD ₂
S			340		CS2Z	T	072	3.7	270	7.8			
S			346		CS2S	T	177	39	060	8.0			
S			352		CS2Z	T	015	42	069	8.0			
S			356		CS2S	T	149	23	339	7.4			
S			364		CS2S	T	012	45	000	8.0			DD ₂
S			367		CS2S	T	169	22	000	7.9			DD ₂
S			374		CS2S	T	132	6.1	300	6.3			
S			379		CS2S	T	157	4.2	000	7.5			DD ₂
S			386		CS2Z	T	120	45	292	8.5			
S			393		CS2Z	T	083	36	096	8.8			
S			400		CS2S	T	170	40	353	7.1			
S			404		CS2S	T	020	50	348	8.1			
S			407		CS2S	T	000	0.9	347	7.9			
S			413		CS2S	T	158	2.6	350	6.1			

DDH 91 DY-01
2 8

CURRAGH RESOURCES INC.
Structural Log

Page 70 of

Date: Mar 9/91 Logged By: D. Hillman

Code	From		To		Feature	SYR	S ₀		S ₁		S ₂		Description
	10	14	16	20			22	24	26	28	32	34	
S				4235	GS2S	T	030	46	326	7.1			
S				4289	GS2S	T	056	45	000	62			DD ₂
S				4346	GS2S	T	110	33	274	84			
S				4408	GS2Z	T	041	31	230	85			
S				4433	GS2Z	T	030	1.8	210	81			
S				4475	GS2S	T	143	3A	000	72			DD ₂
S				4522	GS2Z	T	060	40	056	8A			
S				4624	GS2S	T	032	3.6	035	88			
S				4706	GS2S	T	16A	10	000	86			DD ₂
S				4785	GS2S	T	161	37	350	83			
S				4845	GS2S	T	043	42	005	70			
S				4913	GS2S	T	169	43	000	55			DD ₂
S				4955	GS2S	T	038	43	3.50	7.7			
S				5016	GS2S	T	040	4.0	067	8.6			
S				5165	GS2S	T	1.47	2.3	0.04	6.9			
S				5224	GS2S	T	141	40	000	6.9			DD ₂
S				5280	GS2Z	T	057	2.3	066	7.7			
S				5352	GS2Z	T	084	3.6	286	8.3			
S				5445	GS2S	T	113	1.8	042	8.1			
S				5498	GS2S	T	159	3.9	1.09	6.4			
S				5540	GS2Z	T	077	5.0	085	8.2			
S				5638	GS2S	T	156	1.7	005	6.8			
S				5692	GS2S	T	165	1.2	000	6.3			DD ₂
S				5786	GS2S	T	030	6.5	27.7	7.9			
S				5865	GS2-	T	+	+	+	6.1			metabasite
S				5948	GS2S	T	171	6.4	000	8.0			DD ₂
S				6034	GS2S	T	087	2.0	33.9	8.4			
S				6088	GS2	T	033	1.9	020	8.1			

Code	FROM		TO (At)		Feature	REC	UPPER		INTERNAL		LOWER		Description
	Dip	Direct	Dip	Direct			Dip	Direct	Dip	Direct	Dip	Direct	
F	10	14	16	20	22 24 26 28		32	34	38	40	44		
F		00		25	2B								Blocky zone. Lower contact at CA 73°. Limonitic.
F		76		1,73	3B								Blocky zone. Upper, lower contacts at CA 60°, CA 85°; respectively. Limonitic.
F		227		229	1, BR								Blocky to rubbly zone. Upper, lower contacts at CA 85°, CA 70°; respectively. Limonitic.
F		3,59		3,67	2B								Blocky zone. Upper, lower contacts at CA 43°, CA 83°; resp. Limonitic.
F		407		408	1R								Rubbly zone. Upper, lower contacts at CA 55°, CA 67°; respectively. Limonitic.
F		410		412	1B								Blocky zone. Upper, lower contacts at CA 80°, CA 80°; respectively. Limonitic.
F		419		424	2R, X								Rubbly zone. Upper, lower contacts at CA 78°, CA 86°; respectively. Minor healed oligomict elast-supported breccia. Limonitic.
F		5,95		5,99	2, BR								Blocky to rubbly zone. Upper, lower contacts at CA 82°, CA 74°; respectively. Limonitized.
F		6,25		6,29	2, RB								Rubbly-blocky zone. Upper, lower contacts at CA 77°, CA 52°; respectively.
F		66		68	73R								Rubbly zone. Upper, lower contacts at CA 45°, CA 80°; respectively.
F		7,17		7,28	1, RB								Rubbly to blocky zone. Upper, lower contacts at CA 54°, CA 57°; resp.

Fault Log

Code	FROM		TO (At)		Feature	REG	UPPER Dip Direct		INTERNAL Dip Direct		LOWER Dip Direct		Description	
	10	14	16	20			22	24	26	28	32	34		38
F	7.28		7.55		3.B.R									Blocky-rubby zone. Upper, lower contacts at CA 87°, CA 78°; resp
F	10.87		10.89		1.B									Blocky zone. Upper, lower contacts at CA 77°, CA 60°; respectively.
F	11.91		11.94		2.B									Blocky zone. Upper, lower contacts at CA 42°, CA 53°; respectively.
F	13.24		13.25		2.G				39	000				Clayey gouge 4m wide. Upper, lower contacts at CA 39°. Parallel S ₂ (000°/39°)
F	13.41		13.45		2.R									Rubby zone. Upper, lower contacts at CA 86°, CA 88°; respectively.
F	15.16		15.17		1.B.R									Blocky-rubby.
H	16.83		16.85		1.R.G									Rubby. Clay-limonite alteration. Upper, lower contacts at CA 78°, CA 72°; respectively. Attitude of gouge w.r.t. CA, S ₂ strike not possible.
F	17.20		17.28		2.R.G									Rubby. Clay fault gouge at 17.5-17.7 at CA 37°. Some graphitic at 17.8. Rock piece with gouge not in situ; cannot measure attitude w.r.t. S ₂ strike.
F	17.33		17.37		2.B.R									Blocky-rubby. No gouge. Upper, lower contacts at CA 60°, CA 75°; respectively.

Code	FROM				TO (At)				Feature	REG	UPPER Dip Direct				INTERNAL Dip Direct				LOWER Dip Direct				Description				
	1	10	14	16	20	22	24	26			28	32	34	38	40	44	1	10	14	16	20	22		24	26	28	32
F	21	55	21	59	1BR																	Blocky to rubble. Clay coated blocks, rubble. Upper, lower contacts at CA 78°, CA 85°; respectively.					
F	21	92	21	96	2RQ							76	Q18									Rubble. Clay gouge at CA 57° at 219.6. Fault plane at Ø18°/76° to S ₂ strike.					
F	23	79	23	80	1R																	Rubble. Limonite-clay partially healed fractures. Upper, lower contacts at CA 37°, CA 71°; respectively.					
F	23	88	23	92	1B																	Blocky. Upper, lower contacts at CA 10°, CA 78°; respectively.					
F	24	93	24	94	1B																	Blocky. Upper, lower contacts at CA 78°, CA 46°; respectively.					
F	26	74	26	93	3RQ	44	Q32							42	Q23							Blocky, rubble. Clay 10cm Ø thick fault gouges for upper, lower (fault) contacts at CA 11°, CA 5°; respectively. Limonitic clay. Upper fault gouge at Ø32°/44° w.r.t. S ₂ strike. Lower fault gouge at Ø23°/42° w.r.t. S ₂ strike.					
F	29	38	29	41	2ER											46	Q76						Rubble, blocky. Clayey fault gouge. Upper, lower contacts at CA 89°, CA 54°; respectively. Fault plane at Ø76°/46° to S ₂ strike.				
F	30	26	30	31	2B																	Blocky zone. No gouge. Upper, lower contacts at CA 75°, CA 81°; respectively.					

Fault Log

Date: Mar. 9/91 Logged By: D. Halliwell

Code	FROM		TO (At)		Feature	REG.	UPPER		INTERNAL		LOWER		Description
	Dip	Direct	Dip	Direct			Dip	Direct	Dip	Direct	Dip	Direct	
F	3283		3285		1BR								Blocky, rubble zone. Upper lower contacts at α 58°; α 67°; respectively.
F	3676		3690		3RB								Rubble-blocky zone. Upper lower contacts at α 23°; α 65°; respectively. Fault plane not visible.
F	3685		3686		23R								Thin sand. Upper, lower contacts at α 20°; α 20°; respectively. Rubble zone. Fault plane not visible.
F	3698		3706		2SR								Blocky-rubble zone. Upper lower contacts at α 63°; α 71°; respectively.
F	3818		3819		1BR								Blocky-rubble zone. Upper lower contacts at α 45°; α 70°; respectively.
F	3946		3947		2GR					83	824		Rubble zone. Clayey fault zone. Upper lower contacts at α 65° (α 54°); respectively. Fault plane at α 83°/824°; strike.
F	4103		4106		3GR								Rubble with clayey gouge, pebbles, cobbles. Upper lower contacts at α 77°; α 88°; respectively. Not possible to measure attitude of fault plane with α strike.
F	4180		4184		2B								Blocky zone. Upper lower contacts at α 86°; α 76°; respectively.

Code	FROM				TO (At)				Feature	REG	UPPER		INTERNAL		LOWER		Description
	10	14	16	20	22	24	26	28			32	34	36	40	44		
F	4186		4188		1BR												Blocky-rubby zone. Upper, lower contacts at CA 70°, CA 70°; respectively
F	4195		4198		1BR												Blocky-rubby zone. Upper, lower contacts at CA 88°, CA 78°; respectively
F	4222		4223		RC												Rubby zone. Clayey sand. Upper, lower contacts at CA 60°, CA 55°; respectively
F	4316		4318		2RG												Rubby zone. Clayey sand. Upper, lower contacts at CA 55°, CA 85°; respectively. No possibility for determining strike-slip fault plane with 2 strikes
F	4356		4360		2BR												Blocky-rubby. Upper, lower contacts at CA 88°, CA 72°; respectively.
F	4429		4431		2RG	9,2	007										Blocky-rubby. Upper, lower contacts at CA 40°, CA 82°; respectively. Clayey gouge 0.5 cm wide at upper contact. Fault plane at 007/92° to S ₂ strike
F	4436		4438		3BR												Blocky-rubby. Upper contact at CA 85°. Drilling problems at this point necessitated reduction in core size from NQ to BQ.
F	4438		4444		3R,B												Rubby-blocky at start of BQ core drilling. Cobbles, pebbles, granules sand, clay. Lower contact at CA 81°

Fault Log

Date: Mar. 11/91 Logged By: D. Halliwell

Code	FROM		TO (At)		Feature	REG	UPPER Dip Direct		INTERNAL Dip Direct		LOWER Dip Direct		Description
	10	14	16	20			22	24	26	28	32	34	
F	4,485		4,495		3,R,G								Rubby zone. Upper, lower contacts at CA 88°, CA 85°; respectively. Clayey gouge 0.09m wide at 449.0-449.1. Rock too friable to permit attitude measurement w.r.t. S ₂ strike.
F	4,564		4,573		3,B,R								Blocky-rubby. Upper, lower contacts at CA 83°, CA 88°; respectively. Contains clayey gouge (see below).
F	4,564		4,565		2,G		9.5	005					Clayey-limonitic gouge at CA 22°. 1-2cm wide. Fault plane at 005/95° to S ₂ strike.
F	4,635		4,637		2,R,B								Rubby-blocky. Upper, lower contacts at CA 78°, CA 74°; respectively.
F	4,715		4,724		3,R,B								Rubby-blocky. Upper, lower contacts at CA 79°, CA 79°; respectively. Contains clayey fault gouge (see below).
F	4,721		4,723		3,G								Clayey > sandy gouge. Rock is too friable to permit attitude measurement w.r.t. S ₂ strike.
F	4,811		4,816		2,R,B								Rubby-blocky. Upper, lower contacts at CA 76°, CA 87°; respectively.
F	4,831		4,833		1,B,R								Blocky-rubby. Upper, lower contacts at CA 79°, CA 73°; respectively. Clayey gouge at upper contact (see below).
F			4,832										Clayey gouge 1.0cm wide at CA 79°. Attitude measurement w.r.t. S ₂ strike not possible.

Fault Log

Date: Mar. 11/91 Logged By: D. Halliwell

Core	FROM		TO (At)		Feature		REC	UPPER Dip Direct		INTERNAL Dip Direct		LOWER Dip Direct		Description
	10	14	16	20	22	24		26	28	32	34	36	40	
F	49,70		49,76		2,B,R									Blocky-rubby. Upper, lower contacts at CA 76°, CA 81°; respectively. Includes clayey fault gouge (see below).
F	49,72		49,73		1,G			4,8	084					Clayey gouge Ø. 08m. wide at CA 54°. Fault plane at 084°/48° w.r.t. S ₂ strike.
F	49,81		49,86		2,B,R									Blocky-rubby. Upper, lower contacts at CA 74°, CA 80°; respectively.
F	50,31		50,56		3,R,B									Rubby-blocky. Upper, lower contacts at CA 63°, CA 67°; respectively. Contains fault gouge (see below).
F	50,34		50,36		2,G									Clayey gouge. Attitude of fault w.r.t. S ₂ strike not possible.
F	51,47		51,49		2,R,G							8,2	016	Rubby. Upper, lower contacts at CA 67°, CA 53°; respectively. Contains graphitic fault gouge at 51,485-51,49 at CA 53° (lower contact). Fault plane at 016°/82° w.r.t. S ₂ strike.
F	51,57		51,60		1,B,R									Blocky-rubby. Upper, lower contacts at CA 80°, CA 54°; respectively.
F	52,00		52,10		3,B,R									Blocky-rubby. Upper, lower contacts at CA 75°, CA 80°; respectively.
F	52,47		52,54		2,B,R									Blocky-rubby. Upper, lower contacts at CA 76°, CA 87°; respectively.
F	52,64		52,66		1,R,B									Rubby-blocky. Upper, lower contacts at CA 72°, CA 84°; respectively.

Fault Log

Date: Mar 11/99 Logged By: D. Halliwell

Code	FROM				TO (At)				Feature	REG	UPPER Dip Direct				INTERNAL Dip Direct				LOWER Dip Direct				Description
	10	14	16	20	22	24	26	28			28	32	34	38	40	44	40	44	40	44			
F	5,2,7	1	5,2,7	4	2,B,R															Blocky-rubblly. Upper, lower con- tact at CA 80°, CA 63°; respectively			
F	5,2,8	5	5,2,8	9	2,B,R															Blocky-rubblly. Upper, lower contacts at CA 89°, CA 90°; respectively.			
F	5,3,7	7	5,3,9	0	2,B,R															Blocky-rubblly. Upper, lower contacts at CA 57°, CA 46°; respectively. Contains graphitic clay gouge (see below).			
F	5,3,8	9	5,3,9	0	2,G							5,8	0,3	2						Graphitic-clay gouge (Ø, Ø8 m wide) at CA 64°. Fault plane at Ø32°/ 58° w.r.t. S ₂ strike.			
F	5,4,1	1	5,4,1	9	3,B,R															Blocky-rubblly. Upper, lower con- tacts at CA 78°, CA 83°; respectively			
F	5,4,3	8	5,4,4	5	2,B															Blocky. Upper, lower contacts at CA 85°, CA 79°; respectively			
F	5,4,5	3	5,4,6	3	2,B,R															Blocky-rubblly. Upper, lower contacts at CA 42°, CA 18°; respectively			
F	5,4,6	6	5,4,7	4	2,B,R															Blocky-rubblly. Upper, lower contacts at CA 80°, CA 80°; respectively			
F	5,4,8	1	5,4,8	6	2,R															Rubblly. Upper, lower con- tacts at CA 75°, CA 56°; respectively			
F	5,6,0	2	5,6,0	9	2,R,B															Rubblly blocky. Upper, lower con- tacts at CA 86°, CA 73°; respectively			
F	5,6,9	9	5,7,0	5	2,B,R															Blocky-rubblly. Upper, lower contacts at CA 66°, CA 73°; respectively			

Fault Log

Date: Mar. 11/92 Logged By: D. Halliwell

Code	FROM				TO (At)				Feature	REG	UPPER		INTERNAL		LOWER		Description
	10	14	16	20	22	24	26	28			32	34	36	40	44		
F	5711	5	5731	3R													Clayey-laminitic, Rubbly. Upper, lower contacts at CA 70°, CA 70°, respectively.
F	5739		5765	3R,B													Rubbly-blocky, Upper, lower contacts at CA 74°, CA 90°, respectively. Clayey-laminitic gouge at 575.7-575.9 (Ø.1m wide) at CA 75° (See below).
F	5758		5759	2G													Clayey-laminitic gouge Ø.1m wide at CA 75°. Friable rock conditions make attitude measurement w.r.t S ₂ strike impossible.
F	5822		5833	3R,B													Rubbly blocky. Upper, lower contacts at CA 84°, CA 47°, respectively.
F	5837		5843	2R,B													Rubbly-blocky. Upper, lower contacts at CA 88°, CA 48°, respectively.
F	5845		5860	3R,B													Rubbly-blocky. Upper, lower contacts at CA 80°, CA 66°, respectively.
F	5868		5881	2BR													Blocky rubbly. Upper, lower contacts at CA 42°, CA 33°, respectively.
F	5889		5890	1R													Rubbly. Upper, lower contacts at CA 70°, CA 83°, respectively.
F	5892		5911	2RQ													Rubbly. Upper, lower contacts at CA 35°, CA 22°, respectively. Clayey-carbonaceous gouge at 5910-591.7. Rock too friable to permit attitude of fault plane w.r.t S ₂ strike.

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 910Y-01

Units: Feet / Metres

Date: Mar. 2/91

Logged By: D. Halliwell

Page 87 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES w.r.t CA												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
5.5	4.1	1.6	R3	12	2	0	-	-	-	3	14	10	J	53	14	3	J	HQ	
6.1																			
7.3	1.2	0.5	R3	10	2	0	-	-	-	1	15	10	J	18	14	9	J	NQ	NO CORE
7.8	0.5	0.3	R3	10	2	0	-	-	-	1	15	10	J	18	14	9	J	NQ	RECORDED
11.0	2.7	0.3	R3	9	2	0	-	-	-	1	14	10	J	26	12	12	S	Z	RECORDED
14.0	2.1	0.4	R3	9	3	1	16	10	J	1	16	10	J	42	12	4	S	NQ	
15.4	1.3	0.1	R3	10	3	0	-	-	-	2	14	10	J/G	24	12	7	S	7	limonitic-clay ganga
16.0	0.5	0.0	R2	7	3	0	-	-	-	1	14	10	J	19	12	8	S		
17.1	1.1	0.4	R2	8	2	0	-	-	-	3	15	10	J	21	12	8	S		
20.1	3.1	2.5	R3	14	2	1	15	10	J	2	13	10	S	19	12	8	S		
22.9	2.7	1.9	R3	13	2	1	16	10	J	4	16	10	J	20	12	8	S		
25.3	2.3	1.5	R2	14	2	1	14	10	J	2	16	10	J	24	12	7	S		
26.8	1.5	0.4	R2	8	2	1	16	10	J	2	15	10	J	32	12	6	S		
29.3	2.4	1.6	R2	11	2	1	16	10	J	3	14	10	J	32	12	6	S		
30.0	0.8	0.2	R2	12	2	0	-	-	-	3	14	10	J	8	12	9	S		
32.3	2.3	0.8	R2	12	2	1	17	10	J	1	16	10	J	23	12	7	S		
35.4	3.1	2.5	R2	11	2	1	17	10	J	3	16	10	J	63	12	3	S		
36.7	1.4	0.4	R2	10	3	2	15	10	J	4	15	10	J	19	12	8	S		
39.6	3.0	1.4	R2	12	1	1	16	10	J	2	16	10	J	32	12	6	S		
42.7	2.4	0.8	R2	9	3	2	16	10	J	5	16	10	J	42	12	4	S		
45.7	3.0	2.5	R2	11	2	0	-	-	-	1	15	10	J	49	12	3	S		
48.8	3.0	1.6	R2	12	1	0	-	-	-	1	16	10	J	41	12	4	S		
51.8	3.0	1.5	R2	12	1	1	16	10	J	1	16	10	J	39	12	4	S		
53.6	1.8	1.0	R2	13	1	1	14	10	J	0	-	-	-	26	12	7	S		
56.7	3.1	2.2	R2	12	1	1	14	10	J	1	16	10	J	51	11	3	S		
59.7	3.1	0.9	R2	12	1	1	14	10	J	0	-	-	-	57	12	3	S		
62.5	2.6	0.9	R2	8	1	1	16	10	J	2	16	10	J	40	12	4	S		
65.5	3.0	0.3	R2	9	1	2	16	10	J	5	15	10	J	72	12	3	S		
66.4	0.9	0.0	R2	10	3	1	16	10	J	1	16	10	J	16	12	10	S		
71.9	3.1	0.5	R2	9	2	2	15	10	J	3	16	10	J	56	12	3	S		
73.5	1.6	0.4	R2	10/4	4	6	14	10	J	7	16	10	J	29	12	6	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 91DY-01

Units: Feet / Metres

Date: Mar. 2/91

Logged By: D. Halliwell

Page 82 of

Run (Length)	TCR (Length)	RQD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES w.r.t. CA												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
75.1	1.4	0.0	R2	6	2	4	17	10	J	2	16	10	J	33	12	6	S	NQ	
77.1	2.6	1.0	R2	10	1	3	16	10	J	2	14	10	J	43	11	4	S		
80.8	2.1	1.0	R2	11	2	1	14	10	J	5	16	10	J	47	12	3	S		
82.4	2.7	0.8	R2	10	2	0	-	-	-	3	14	10	J	53	12	3	S		
85.0	1.6	0.0	R2	9	1	0	-	-	-	4	16	10	J	41	12	4	S		
87.2	2.2	0.3	R2	10	1	0	-	-	-	2	15	10	J	43	11	4	S		
90.2	3.0	1.2	R2	12	1	0	-	-	-	2	13	10	J	41	12	4	S		
93.3	3.1	2.4	R2	12	1	0	-	-	-	3	14	10	J	32	12	6	S		
96.3	3.0	1.6	R2	13	1	0	-	-	-	1	12	10	J	35	12	5	S		
99.4	3.1	2.2	R2	13	1	0	-	-	-	2	16	10	J	22	11	8	S		
102.4	3.0	2.2	R2	14	1	0	-	-	-	2	14	10	S	26	12	7	S		
105.5	3.0	2.2	R2	13	1	0	-	-	-	2	16	10	J	27	12	7	S		
108.5	3.1	2.7	R2	14	1	0	-	-	-	1	16	10	J	21	11	8	S		
111.3	2.7	1.1	R2	8	3	1	17	10	J	5	13	10	S	49	12	3	S		
113.7	2.4	1.1	R2	10	2	2	17	10	J	7	15	10	J	37	13	5	S		
116.7	3.1	2.0	R2	12	2	1	15	10	J	2	15	10	J	33	12	6	S		
119.8	3.1	1.7	R2	12	2	0	-	-	-	4	15	10	J	36	12	5	S		
121.9	3.1	1.6	R2	12	1	0	-	-	-	1	14	10	J	21	11	8	S		
123.7	2.8	1.1	R2	12	1	0	-	-	-	3	14	10	J	22	12	10	S		
126.8	3.1	1.0	R2	11	1	0	-	-	-	3	16	10	J	65	12	3	S		
129.8	3.0	0.8	R2	10	2	1	16	10	J	4	16	10	J	64	12	3	S		
132.9	3.1	1.4	R2	12	1	0	-	-	-	2	14	10	J	35	12	5	S		
135.0	2.2	0.6	R2	7	1	1	17	10	J	2	15	10	J	37	11	5	S		
138.1	3.1	1.3	R2	12	1	1	18	10	J	2	14	10	J	42	12	4	S		
141.1	1.8	0.8	R2	13	1	0	-	-	-	4	14	10	J	38	12	4	S		
144.2	3.1	2.0	R2	12	1	0	-	-	-	2	16	10	J	58	12	3	S		
147.2	3.2	0.6	R2	12	1	2	14	10	J	2	16	10	J	51	12	4	S		
150.4	3.1	1.2	R2	12	1	1	16	10	J	1	16	10	J	35	12	7	S		
153.5	3.1	1.8	R2	10	1	1	14	10	J	3	16	10	J	45	13	4	S		
156.7	3.1	2.9	R2	14	1	0	-	-	-	0	-	-	-	17	13	8	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 91DY-01

Units: Feet / Metres

Date: Mar. 5/91

Logged By: D. Halliwell

Page 83 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES w.r.t. CA												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
159.7	3.2	3.0	R2	14	1	0	-	-	-	0	-	-	-	17	12	9	S	NØ	
162.3	2.6	1.7	R2	13	1	1	15	10	J	0	-	-	-	18	12	9	S	7	
165.4	3.1	1.6	R2	13	1	0	-	-	-	2	16	10	J	43	13	4	S		
167.6	2.3	1.5	R2	10	3	0	16	10	J	2	12	10	S	22	12	6	S		
169.5	1.9	1.5	R2	7	3	0	16	10	J	2	12	10	S	22	12	6	S		
172.4	2.5	1.9	R2	7	2	1	15	10	J	3	15	10	J	30	12	6	S		
173.3	0.7	0.1	R2	2/9	3	2	16	10	J	2	16	10	J	50	13	3	S,G		clayey fault gouge
175.3	1.7	0.8	R2	6/11	2	1	15	10	J	1	17	10	J	28	12	6	S		
178.3	3.1	2.2	R2	12	1	0	-	-	-	2	15	10	J	25	12	7	S		
181.4	3.1	2.5	R2	12	1	0	-	-	-	0	-	-	-	21	12	8	S		
184.4	3.0	2.3	R2	12	1	0	-	-	-	3	15	10	J	23	12	8	S		
187.5	3.1	2.9	R2	13	1	0	-	-	-	2	16	10	J	11	12	10	S		
190.5	3.1	2.2	R2	11	1	0	-	-	-	2	14	10	J,S	28	12	6	S		
193.7	3.1	2.5	R2	13	1	2	16	10	J	0	-	-	-	22	12	8	S		
196.7	3.1	2.6	R2	12	1	0	-	-	-	1	16	10	J	15	12	10	S		
199.9	3.1	2.7	R2	13	1	0	-	-	-	2	14	10	J	19	12	10	S		
203.0	3.1	2.5	R2	12	1	0	-	-	-	1	15	10	J	28	13	6	S		
206.0	3.1	2.8	R2	13	1	1	17	10	J	1	15	10	J	18	12	8	S		
209.1	3.1	2.2	R2	12	1	0	-	-	-	2	13	12	S	22	12	8	S		
212.1	3.1	1.8	R2	10	1	0	-	-	-	5	17	10	J	32	13	6	S		
215.2	3.0	2.0	R2	10	1	1	16	10	J	4	16	10	J	30	12	6	S		
218.2	2.9	2.0	R2	12	2	2	15	10	J	4	15	10	J	35	12	7	S		
221.3	3.2	1.1	R2	9/5	3	1	15	10	J	3	16	10	J	52	12	3	S		
224.3	3.1	2.9	R3	13	1	0	-	-	-	0	-	-	-	11	13	10	S		
227.4	3.1	2.6	R3	12	1	0	-	-	-	1	16	10	J	19	13	8	S		
230.4	3.1	1.5	R2	11	1	2	17	10	J	1	17	10	J	37	12	7	S		
233.5	3.1	2.2	R2	12	1	0	-	-	-	0	-	-	-	20	12	8	S		
236.5	3.0	2.1	R2	11	1	0	-	-	-	1	18	10	J	23	12	8	S		
239.6	3.1	2.2	R2	11	3	3	15	10	J	8	16	9	J	21	12	8	S		
242.6	3.0	2.9	R3	14	2	0	-	-	-	1	18	10	J	8	12	10	S		
245.7	3.1	2.5	R2	9	1	0	-	-	-	1	16	10	J	21	12	8	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 91DY-01

Units: Feet / Metres

Date: Mar. 4/91

Logged By: D. Halliwell

Page 84 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES w.r.t. CA												CORE SIZE	COMMENTS	
						0-30				30-65				65-90						
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type			
248.7	3.0	2.7	R2	10	1	0	-	-	-	1	14	10	J	21	12	8	S	7		
251.8	3.1	2.6	R2	12	2	1	18	10	J	0	-	-	-	19	12	8	S			
254.8	3.1	2.6	R2	12	1	0	-	-	-	1	19	10	J	22	12	8	S			
257.9	3.1	2.2	R2	12	1	1	14	10	J	3	14	10	J	28	12	6	S			
260.9	3.0	2.5	R2	11	1	1	16	10	J	7	13	10	J	19	12	8	S			
264.0	3.0	2.7	R2	12	1	0	-	-	-	0	-	-	-	24	12	7	S			
267.0	3.1	2.6	R2	12	1	0	-	-	-	0	-	-	-	22	12	8	S			
269.3	2.0	0.6	R1	6	4	2	15	10	S	3	15	10	J	40	13	4	S			clayey fault gouge
272.3	3.1	3.0	R3	14	1	0	-	-	-	0	-	-	-	7	13	10	S			
275.4	3.0	2.5	R3	13	1	0	-	-	-	1	13	10	S	12	13	10	S			
278.4	3.1	3.0	R3	14	1	0	-	-	-	1	16	10	J	5	13	10	S			
281.5	3.1	2.8	R3	13	1	0	-	-	-	2	14	10	S	10	13	10	S			
284.5	3.1	3.1	R3	14	1	0	-	-	-	2	12	10	S	4	13	10	S			
287.6	3.1	2.9	R2	15	1	1	15	10	J	2	13	10	S	20	12	8	S			
290.6	3.1	2.5	R2	13	1	1	14	10	J	1	13	10	S	25	12	7	S			
293.8	3.2	1.9	R2	13/10	2	1	16	10	J	3	14	10	J	42	12	4	S.G			clayey fault gouge
296.9	3.1	1.8	R3	8/14	2	1	16	10	J	4	14	10	J	39	11	4	S.G			clayey fault gouge
300.1	3.2	2.0	R2	13	1	1	15	10	J	3	14	10	S	31	11	6	S			
303.1	3.1	1.9	R2	12/8	2	2	16	10	J	1	16	10	J	37	10	4	S			
306.3	3.1	2.6	R2	13	1	1	16	10	J	1	12	10	J	20	11	8	S			
308.2	2.0	1.7	R2	13	1	0	-	-	-	2	14	10	J	14	12	10	S			
311.2	3.0	2.3	R2	12	1	0	-	-	-	2	12	10	SJ	23	11	8	S			
314.2	3.1	2.5	R2	13	2	0	-	-	-	1	14	10	J	25	10	7	S			
317.4	3.1	2.3	R2	13	1	0	-	-	-	2	14	10	SJ	30	10	6	S			
318.8	1.4	1.2	R2	14	1	0	-	-	-	0	-	-	-	4	10	10	S			
321.9	3.0	2.5	R2	12	1	0	-	-	-	1	16	10	J	28	10	6	S			
324.9	3.0	1.1	R2	14/9	1	0	-	-	-	0	-	-	-	31	10	6	S			
328.0	3.1	2.3	R2	11	1	1	14	10	J	1	15	10	S	34	11	7	S			
331.0	3.0	2.3	R2	12	2	1	16	10	J	2	14	10	J	23	11	6	S			
334.1	3.1	2.7	R2	13	1	0	-	-	-	1	12	10	S	22	11	8	S			

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 91DY-01

Units: Feet / Metres

Date: Mar 9/91

Logged By: D. Hallinell

Page 85 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES wrt CA												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
537.1	3.0	2.5	R2	14	1	0	-	-	-	2	12	10	S	20	10	8	S	NB 7	
337.9	0.7	0.5	R2	10	1	0	-	-	-	0	7	7	J	7	12	10	S		
340.2	2.2	1.5	R2	13	1	0	-	-	-	0	-	-	-	21	11	8	S		
343.2	3.0	2.5	R2	13	1	0	-	-	-	0	-	-	-	21	11	8	S		
346.3	3.1	2.5	R2	12	1	0	-	-	-	1	16	10	J	28	12	6	S		
349.3	3.0	2.4	R2	13	1	0	-	-	-	0	-	-	-	27	12	7	S		
352.3	3.0	2.3	R2	13	1	0	-	-	-	0	-	-	-	27	10	6	S		
355.4	3.0	1.9	R2	12	1	0	-	-	-	1	11	10	S	37	10	5	S		
358.4	3.1	2.6	R2	13	1	0	-	-	-	2	14	10	J	15	11	10	S		
361.5	3.1	1.8	R2	12	1	0	-	-	-	2	14	10	J	37	10	5	S		
364.5	3.0	2.1	R2	10	1	0	-	-	-	1	11	10	S	37	10	5	S		
367.6	3.1	2.0	R2	8/12	1	1	7	10	J	2	12	10	S, J	41	10	4	S		
369.0	1.1	0.2	R1	7	2	1	16	10	J	3	12	10	J	37	9	5	SG		
370.6	1.6	0.4	R1	8	3	1	14	10	J	1	14	10	J	53	10	3	S		
373.7	3.1	1.7	R2	12	1	0	-	-	-	4	16	10	J	47	11	3	S		
376.7	3.0	1.8	R2	12	1	0	-	-	-	2	16	10	J	41	10	4	S		
379.8	3.1	2.5	R2	13	1	1	16	10	J	3	14	10	J	29	11	6	S		
382.8	3.0	2.1	R2	12	1	1	9	10	J	4	16	10	J	30	11	6	S		
385.3	3.1	2.1	R2	12	1	0	7	10	J	3	12	10	J	35	11	6	S		
388.5	3.1	1.8	R2	11	1	0	-	-	-	0	-	-	-	38	10	4	S		
392.0	3.1	1.2	R2	11	1	0	-	-	-	0	-	-	-	38	10	4	S		
395.0	2.7	1.8	R2	12	1	0	-	-	-	0	-	-	-	27	11	5	SG		
398.1	3.0	1.1	R2	9	1	1	14	10	J	1	14	10	J	58	10	3	S		
401.1	3.1	2.2	R2	12	1	1	16	10	J	1	16	10	J	23	10	8	S		
404.2	3.0	2.0	R2	15	1	0	-	-	-	1	16	10	J	23	10	8	S		
407.2	3.1	2.3	R2	14	1	0	-	-	-	4	16	10	S, J	25	10	7	S		
410.3	3.0	2.8	R2	14	1	0	-	-	-	0	-	-	-	23	10	8	S		
413.2	3.0	2.4	R2	2/13	1	1	16	10	J	4	13	10	S	28	12	6	SG		
416.2	3.1	2.4	R2	14/8	1	1	14	10	J	4	10	10	S	26	12	5	S		
419.3	3.1	1.8	R2	12/9	2	2	13	10	J	3	12	10	S	47	10	3	S		
422.3	3.0	1.4	R2	8/11	2	1	14	10	J	3	16	10	J	55	11	3	SG		
425.3	3.1	2.2	R2	13	1	0	-	-	-	3	12	10	J	37	11	7	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 9104-01

Units: Feet / Metres

Date: Mar 9/91

Logged By: D. Halliwell

Page 86 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES w.r.t. <i>CA</i>												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
428.4	3.1	1.2	R2	11	1	0	-	-	-	2	16	10	J	56	9	3	S	NQ	
431.6	3.1	0.9	R2	10	1	1	16	10	J	4	14	10	J	63	11	3	S	7	
431.6	2.9	1.6	M/R2	5/12	2	0	-	-	-	0	-	-	-	58	11	3	S.G.	7	clayey gouge
437.1	2.5	1.5	R2	11	1	2	16	10	J	5	11	10	J	55	11	3	S		
440.1	3.1	1.9	R2	6/13	1	1	14	10	J	1	14	10	J	48	8	3	S		
443.2	3.1	1.2	R2	13/7	1	0	-	-	-	3	16	10	J	59	9	3	S		
443.8	0.6	0.0	R2	9	1	1	16	10	J	1	16	10	J	16	9	9	S		
445.0	1.1?	0.7	R1/R2	3/8	4/2	0	-	-	-	1	14	10	J	39	5	4	S	80	
446.8	1.9	0.9	R2	10	1	0	-	-	-	0	-	-	-	28	10	6	S		
449.3	2.1	0.8	R2/R1	12/4	1	0	-	-	-	4	12	10	S	73	11	2	S		
452.5	3.0	0.7	R2	12	1	1	16	10	J	2	14	10	J	57	9	3	S		
455.5	3.0	0.9	R2	11	1	0	-	-	-	2	14	10	J	72	9	3	S		
458.6	3.1	0.6	R2	10/6	1	1	8	10	G	0	-	-	-	77	8	3	S		
461.8	3.1	1.2	R2	13	1	2	16	10	J	0	-	-	-	45	10	4	S		
464.5	2.8	0.8	R2	12/6	1	1	16	10	J	1	14	10	J	46	8	4	S		
467.6	3.1	1.7	R2	13	1	0	-	-	-	1	16	10	J	47	9	4	S		
470.6	3.0	0.7	R2	9	1	1	15	10	J	1	16	10	J	61	8	3	S		
472.1	1.4	0.2	R2	9/6	1	1	16	10	J	1	16	10	J	34	12	6	S		
474.1	2.0	0.3	R2	2/8	1	1	16	10	J	1	14	10	J	37	11	5	S		
476.6	2.5	0.0	R2	9	1	1	15	10	J	3	13	10	J	55	12	3	S		
478.4	1.7	0.3	R2	9	1	2	16	10	J	1	14	10	J	37	11	5	S		
481.4	2.8	0.5	R2	13	1	1	17	10	J	3	14	10	J	59	11	3	S		
483.2	1.5	0.7	R2	9	1	1	16	10	J	1	14	10	J	40	9	4	S		
486.3	3.1	1.8	R2	13	1	0	-	-	-	1	14	10	J	36	9	5	S		
489.5	3.2	1.2	R2	14	1	0	-	-	-	3	14	10	J	48	8	3	S		
492.7	3.2	1.5	R2	14	1	1	14	10	J	2	14	10	J	48	10	3	S		
495.7	3.1	1.9	R2	13	1	0	-	-	-	1	14	10	J	37	9	5	S		
497.4	1.4	0.3	R2	9	1	0	-	-	-	1	14	10	J	36	9	5	S		
498.3	0.9	0.2	R2	9	1	1	14	10	J	1	16	10	J	37	9	5	S		
500.2	1.5	0.1	R2	9	1	2	14	10	J	1	16	10	J	39	11	3	S		
502.8	2.6	0.3	R2	11	1	1	16	10	J	0	-	-	-	75	10	3	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH# 91DY-01

Units: Feet / Metres

Date: Mar. 11/91

Logged By: D. Halliwell

Page 87 of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES <small>M.P.T. CA</small>												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
504.0	0.7	0.0	R2	8	1	1	14	10	J	1	14	10	J	52	9	3	S	80	
504.9	0.7	0.0	R2	5	2	1	13	10	J	1	12	10	S	37	9	5	S		
505.6	0.7	0.0	R2	5/8	3	0	-	-	-	3	14	10	J	30	10	6	S		
508.5	2.5	0.9	R2	6/12	2	1	14	10	J	2	12	10	S	47	11	4	S		
511.6	3.1	1.5	R2	12	1	1	14	10	J	2	14	10	J	53	11	3	S		
512.8	1.2	0.0	R2	7	1	1	14	10	J	1	16	10	J	46	10	4	S		
515.9	3.2	1.0	R2	11	1	1	14	10	J	1	16	10	J	71	10	3	S		
519.1	3.1	1.4	R2	10	2	1	16	10	J	2	14	10	S	60	11	3	S		
522.0	3.0	0.8	R2	14/8	2	0	-	-	-	4	16	10	J	65	9	3	S		
525.0	3.0	0.3	R2	8	2	0	-	-	-	1	16	10	J	80	10	2	S		
526.4	1.4	0.2	R2	8	2	0	-	-	-	0	-	-	-	63	11	3	S		
527.3	0.7	0.2	R2	8	2	0	-	-	-	0	-	-	-	63	11	3	S		
528.7	1.4	0.1	R2	9/6	2	1	14	10	J	2	15	10	J	41	11	4	S		
531.7	3.1	1.4	R2	12	1	0	-	-	-	1	14	10	J	60	11	3	S		
534.8	3.1	1.6	R2	12	1	0	-	-	-	1	15	10	J	39	10	4	S		
537.7	2.8	1.0	R2	12	1	0	-	-	-	3	14	10	S	35	9	5	S		
539.0	0.6	0.0	R2	8	2	0	-	-	-	2	14	10	S	16	12	0	S		
541.5	2.2	0.6	R2	9	1	1	14	10	J	2	15	10	J	37	11	5	S		
541.9	0.4	0.0	R2	8	1	0	-	-	-	1	14	10	J	18	11	9	S		
544.7	2.8	0.2	R2	8	1	1	14	10	J	3	14	10	S	76	9	2	SG		
547.0	2.2	0.2	R2	8/6	1	0	-	-	-	0	-	-	-	68	9	2	S		clay gouge
549.8	2.9	0.1	R2	6/8	1	1	16	10	J	5	14	10	S	99	10	2	S		
551.8	2.0	0.5	R2	11	1	0	-	-	-	4	12	10	S	52	9	3	S		
554.7	2.9	0.2	R2	9	1	2	14	10	J	2	10	10	S	84	9	2	S		
557.0	2.5	0.5	R2	10	1	1	14	10	J	3	12	10	S	101	9	2	S		
558.7	1.6	0.5	R2	10	1	1	15	10	J	3	14	10	SG	26	9	7	S		graphitic gouge
560.2	1.5	0.8	R2	11	1	0	-	-	-	1	12	10	S	25	11	7	S		
561.6	1.5	0.0	R2	7	1	0	-	-	-	3	12	10	S	53	11	3	S		
564.6	3.2	1.6	R2	11	1	0	-	-	-	3	15	10	S	53	11	3	S		
567.7	3.1	1.9	R2	12	1	0	-	-	-	2	14	10	S	57	11	5	S		
570.4	2.6	2.0	R2	13/8	2	1	15	10	J	4	12	10	S	24	10	2	S		

CURRAGH RESOURCES INC.

GEOTECHNICAL LOG

DDH#

910Y-01

Units: Feet / Metres

Date:

Mar 11/91

Logged By:

D. Halliwell

Page

88

of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES W.r.t. CA												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
571.8	1.3	0.3	R2	9	3	1	15	10	J	2	11	10	S	34	12	5	S	80	
574.4	2.4	0.0	R2	3 1/2	4 2/3	0	-	-	-	0	-	-	-	105	8	2	S	7	
575.9	0.3	0.0	R2	6/1	2	1	10	10	J	1	11	10	S	19	8	8	S		
576.5	0.8	0.0	R2	6	2	1	10	10	J	4	10	10	S	37	9	5	S		
577.1	0.5	0.0	R2	7	1	0	-	-	-	2	10	10	J	24	9	7	S		
580.2	3.1	0.5	R2	11	1	0	-	-	-	4	14	10	S	80	9	2	S		
583.2	3.3	1.0	R2	13 1/2	2	1	14	10	J	4	14	10	J	100	9	2	S		
584.7	1.5	0.1	R2	4	2	2	12	10	J	4	14	10	J	55	11	2	S		
585.8	1.2	0.0	R2	3	2	2	16	10	J	5	15	10	J	30	10	3	S		
588.1	1.4	0.3	R2	10	1	2	16	10	J	2	15	10	J	33	10	3	S		
588.9	0.3	0.0	R2	7	2	2	15	10	J	1	14	10	J	5	11	3	S		
591.1	0.8	0.1	R2/R1	10 1/2	2	1	16	10	J	3	10	10	S	24	9	7	S		
593.0	1.9	0.4	R2	13	1	1	15	10	J	1	14	10	J	35	9	5	S		
594.2	1.0	0.0	R2	8	1	1	16	10	J	4	12	10	J	38	9	4	S		
597.2	3.2	0.8	R2	12	1	1	14	10	J	6	10	10	S	72	9	3	S		
600.3	2.8	0.7	R2	13	1	1	16	10	J	0	-	-	-	75	10	3	S		
603.3	3.0	2.4	R2	12	1	0	-	-	-	4	10	10	S	40	19	3	S		
606.4	3.1	0.3	R2	7	2	2	15	10	J	2	10	10	J	130	11	2	S		
607.3	0.9	0.0	R2	6	1	1	15	10	J	4	10	10	S	45	9	4	S		
608.1	0.6	0.0	R2	5	1	1	15	10	J	1	15	10	J	23	9	8	S		
609.1	1.0	0.0	R2	5	1	1	16	10	J	1	16	10	J	46	9	4	S		
610.3	1.2	0.4	R2	10	1	0	-	-	-	1	15	10	J	36	14	5	J		
611.0	0.7	0.2	R2	9	1	2	16	10	J	1	17	10	J	14	14	9	S		

91DY - Ø 1

Interval From To	Length EmJ	# Joints $\sum_{i=1}^n$	S2	S1 Hardness	Large(A)	Small(B)	AH(C)	Fill(D)	S3 = $(A+B+AG+AD)+0$	RMR = $\sum_{i=1}^n S_i$
2923 2952	2.9	54 19	5	3	100	84	75	50	12.75 = 13	21
299.7	4.5	33 7	15	+	95	84	100	50	16.15 = 16	35
302.6	2.9	36 12	12	4	100	60	75	50	12.50 = 13	29
303.6	1.0	9 9	11	4	100	85	75	50	14.75 = 15	30
308.2	4.6	33 7	15	4	100	84	75	50	12.15 = 13	32
309.2	1.0	17 17	9	4	100	84	75	50	12.75 = 13	26
313.5	4.3	33 8	14	4	100	60	100	50	16.75 = 17	35
314.5	1.0	13 13	8	3.5	100	60	75	50	12.65 = 13	24.5
320.3	5.8	34 6	13.5	4	100	74	100	50	17.35 = 20	37.5
321.9	1.6	16 10	10	+	100	84	75	50	14.85 = 15	29
323.6	1.7	10 6	13.5	4	100	83	75	50	10.58 = 11	28.5
325.2	1.6	23 14	8	4	100	60	75	50	9.50 = 9	21
327.5	2.3	17 7	15	4	100	84	100	50	17.00 = 17	36
328.5	1.0	25 25	3.5	3.5	100	84	75	50	12.75 = 13	20

91DY-Ø1

P. 2

Interval From To	Length [m]	#Joints	$\frac{1}{n} S_2$	S1 (Hardness)	Length(A)	Small(B)	AH.(C)	Fill(D)	S3 = (A+B+C+D)/4	RMR = $\sum_{i=1}^n S_i$	
333.9	5.4	29	5	15	4	100	84	75	50	12.75 \approx 13	32
334.5	0.6	7	12	9	4	100	84	100	50?	17.50 \approx 17	\approx 0
337.1	2.6	23	9	10.5	4	90	85	100	50	17.82 \approx 18	32.5
337.9	0.8	8	10	10	4	100	84	100	50	17.50 \approx 17	31
340.8	2.9	16	6	13.5	4	100	60	100	50?	16.80 \approx 17	34.5
343.0	2.2	14	6	13.5	4	100	84	75	50	12.75 \approx 13	29.5
348.6	5.6	42	8	14	4	100	60	75	50	12.50 \approx 13	31
349.5	0.9	9	10	10	4	100	85	75	50	14.85 \approx 15	29
351.8	2.3	15	7	12	4	100	84	75	50	12.75 \approx 13	29
354.4	2.6	27	10	10	4	100	84	75	50	12.75 \approx 13	29
355.6	1.2	19	16	6	4	100	84	75	50	12.75 \approx 13	21
358.9	3.3	14	4	16.5	4	100	85	100	50?	19.80 \approx 20	40.5
360.3	1.4	20	14	10.5	4	100	60	75	50	12.60 \approx 13	27.5
362.0	1.7	24	11	8	3	100	74	75	50	12.75 \approx 13	24

91DY-Ø1

Interval From To	Length [m]	# Joints	$\frac{L_j}{L}$	S2	S1 (Hardness)	Large(A)	Small(B)	AH.(C)	Fill(D)	S3 = $(1A+1B+1C+1D)/4$	RMR = $\sum_{i=1}^3 S_i$
364.2	2.2	2.9	13	10.5	4.	100	85	75	50	14.85 ≈ 15	29.5
365.6	1.4	20	14	8	4.	100	84	75	50	12.75 ≈ 13	25
367.6	2.0	20	13	12	4.	100	84	75	50	12.75 ≈ 13	29
370.6	3.0	125	42	5	2.5	100	84	75	80	20.45 ≈ 20	22.5
371.8	1.2	27	23	+	3.5	100	84	15	50	14.85 ≈ 15	22.5
376.6	4.8	65	14	11	4	100	84	75	80	20.15 ≈ 20	35
381.5	4.9	39	8	14	4	100	84	75	50	12.65 ≈ 13	31
382.7	1.2	21	18	6	3.5	100	75	75	50	12.75 ≈ 13	22.5
387.2	4.5	49	11	9	+	100	85	75	50	12.75 ≈ 13	26.
388.1	0.9	24	27	3	4	100	84	75	50	15.12 ≈ 15	22
392.3	4.2	43	10	11	4	100	60	75	50	9.05 = 9	24.
394.6	2.3	18	8	14	4	100	84	75	50	12.65 ≈ 13	31
398.1	3.5	67	19	8	2	100	60	75	20	8.35 ≈ 8	14
401.7	1.6	0	2	11	1	100	84	75	50	12.40 ≈ 12	31

91 DY - Ø1

Interval From To	Length [m]	# Joints	S2	S1 (Hardness)	Large (A)	Small (B)	AH (C)	Fill (D)	S3 = (1A+1B+1C+1D)/40	RMR = $\sum_{i=1}^3 S_i$	
364.2	2.2	29	13	10.5	4	100	85	75	50	14.85 ≈ 15	29.5
365.6	1.4	20	14	8	4	100	84	75	50	12.75 ≈ 13	25
367.6	2.0	20	13	12	4	100	84	75	50	12.75 ≈ 13	29
370.6	3.0	125	42	0	2.5	100	84	75	80	20.40 ≈ 20	22.5
371.8	1.2	27	23	+	3.5	100	84	15	50	14.85 ≈ 15	22.5
376.6	4.8	65	14	11	4	100	84	75	80	20.16 ≈ 20	35
381.5	4.9	39	8	14	4	100	84	75	50	12.60 ≈ 13	34
382.7	1.2	21	18	6	3.5	100	75	75	50	12.75 ≈ 13	22.5
387.2	4.5	49	11	9	+	100	85	75	50	12.75 ≈ 13	26
388.1	0.9	24	27	3	4	100	84	75	60	15.12 ≈ 15	22
392.3	4.2	43	10	11	4	100	60	75	50	9.00 = 9	24
394.6	2.3	18	8	14	4	100	84	75	50	12.60 ≈ 13	31
398.1	3.5	67	19	8	2	100	60	75	20	8.38 ≈ 8	14
401.5	3.4	63	21	11	3	100	60	75	50	12.45 ≈ 12	33