

DDH 
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 9100-160  
 PARTIAL QUICK-LOG

CURRAGH RESOURCES INC.  
 Lithologic Log

005038

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Date: May 13/91 Logged By: UCP

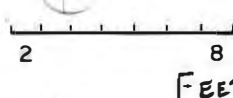
Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30	34 35			
				1		CASING
				2	DIAPIH	Dark grey to very dark grey, noncalcareous shale. SI surfaces have slightly rough texture with wavy grey colour. Cut surfaces has a dull, sooty appearance. Characterized by being very soft - a nail readily scratches the cut surface.
	19.5	19.8		3	DIAPIMF	Same colour grey gouge.
	19.8	21.4		4	DIASIH	Moderately soft, medium to dark grey siltstone. Indistinctly laminated or banded. SI surfaces are slightly rough. Locally can see individual micaceous grains on SI.
	21.4	23.0		5	FI	Very broken, rubble core and mud gouge. Larger pieces of core are typically the siltstone logged above as Unit # 4 (19.8-23.4).
	23.0	25.1		6	DIGSIH	Q Dark grey to black, very hard, noncalcareous porcellanite. Ribbon-banded texture with thin graphitic partings spaced every 1-3cm. Contains quartz-calcite vein. Core very broken. Cut surface has slight frosted & pitted appearance.
	25.1	27.2		7	DIGPIH	± 5

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Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
	1315	1	1411	2						17	DIGPIRIS	
												Dark gray to black, hard, noncalcareous shale. Nail typically leaves metal. Contains minor pyrite. Sl surfaces are smooth black.
	1411	2	1412	7						18	DIGSIXI	
												Hard, medium dark gray siltstone. Contains numerous xcutting fractures infilled with white quartz.
												END OF PARTIAL LOG.
												MAIN REASON FOR LOG WAS TO DOCUMENT THE D&P UNIT AT TOP OF HOLE.

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
											CASING
				1132					2	DIAPYH	±G Dark gray to locally dull black, noncalcareous shale. Cut surface has dull sooty appearance. S2 surfaces are waxy, shiny grey, to dark grey. Characterized by softness - scratches readily and deeply by a nail. Core locally paker chippy.
		1132		1139					3	DIGSK	Pale grey, moderately hard, siltstone to sandstone. So bedding not readily visible. Contains abundant tension fractures infilled with white quartz.
		1139		1197					4	DIAPYHIN	Dark grey, noncalcareous shale. S1 surfaces are smooth and locally have a micaceous sheen. Again the unit is very soft and cuts readily with a nail. Contains numerous lenses of grey siltstone with abundant fine disseminated brassy yellow pyrite. Lenses are up to 1cm thick and 2-3 cm long. They typically form layers as discontinuous bands.
		1197		1440					5	FI	Grey to black gouge. Locally has a few very broken pieces of core - these are typically siltstone and probably represent more coherent siltstone beds caught up in the fault zone as knockers.

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30	34 35		DIGCI	
	14 16	20 22 24 26 28 30	34 35			Dark grey to black, very hard, siliceous shale to porcellanite. Noncalcareous. Has ribbon-banding on 1-3 cm scale as thin carbonaceous partings/laminas between thicker porcellanite intervals.
						REST OF DDH not logged.
						REASON for RE-LOG was to describe the DAPH phyllitic shale.
						END

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CURRAGH RESOURCES INC.  
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Date: May 14/91 Logged By: KCP

Code	From	To	Recov.	No.	Unit	Description						
1	10	14	16	20	22	24	26	28	30	34	35	
	100	1130		1		CASING - NO CORE						
	1130	1415	5	2	DIRIGTI	Moderately soft, slightly calcareous, sooty black shale. Contains abundant tiny, irregular white, qtz-calcite veinlets. Locally contains beds of dark grey, moderately soft siltstone. These are up to 5 cm thick. Thin siltstone bands are strongly disrupted by deformation. So not readily visible. beds like possibly two deformation cleavages. Dominant cleavage break goes roughly along core axis.						
	1415	1470		3	SKISISI	??						
	1470	1915		4	DIRIGTI	Slightly calcareous, medium-dark grey, hard, siltstone interval. May be nodule or large siltstone band. So not visible. Contains coarse quartz-calcite tension fractures.						
						Same as Unit # 2. So not visible (except very locally). Again looks like 2 cleavages w/ second cleavage being essentially down the core axis. Structurally the unit looks very disrupted.						
						E.O.H						



Code	From		To		Recov.				No.				Unit	Description	
	10	14	16	20	22	24	26	28	30	34	35				
		10.0		11.5										CASING - NO CORE	
		11.5		13.2									12	1S1S1S1	MUD Weathered tan mud. Colour is same as weathering colour for Silurian siltstone. NEAR EOI contains weathered siltstone fragments.
		13.2		14.3									13	01RGT	MUD Black mud containing small pieces of black sandy shale.
		14.3		14.8									14		NO CORE
		14.8		16.5									15	01RGT	Sandy black, moderately soft, slightly calcareous shale. Contains abundant irregular pct-calcite streaks/veinlets. Minor fine pyrite blebs and nodules. S <sub>1</sub> surfaces are very irregular. Contains lenses of gray siltstone up to 1cm across. These look like beds which have been disrupted during deformation. Some areas look like 2 cleavages developed.
		16.5		16.9									16	01RGTIN	Black shale with abundant irregular clasts (disrupted beds?) of medium-gray siltstone up to 1cm across. Also contains round dark brown pyrite nodules. As with previous unit have abundant irregular white calcite-pct veinlets.
		16.9		18.6									17	01RGT	Same as Unit # 5 (48.0 - 65.5)

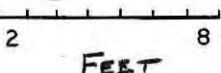


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Date: May 14/91 Logged By: LCP

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30	34 35			
	10 0	15 0		1	SIRLH	Note in footage log that casing was 5' Medium-grey, fine-grained limestone Broken surface is dark grey. Minor thin veinlets
	15 0	18 0		2	SIRLH	Same as above.
	18 0	113 0		3	SISISI	MUD Pale brown mud. Weathering colour exactly same as weathered Silurian siltstone only less intense.
	113 0	1213 0		4		No Core Note of wash away and soil test at 20'
	1213 0	1313 0		5	SISISIH	TOE to 28' consists of pebbles of grey Silurian siltstone. Does not look redrilled. Looks more like possible gravel? Below 28' have dark grey, moderately soft siltstone. Faintly laminated S <sub>1</sub> surfaces are sooty dark grey. Minor orange stain on S <sub>1</sub> surfaces
	1313 0	1413 0		6	IF?	Minor black mud. Contains pebbles within the mud. Most of interval washed away with very poor recovery.

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CURRAGH RESOURCES INC.  
Lithologic Log

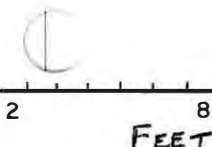
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Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24 26 28 30	34 35			
	430	510		7	SIRLI	Medium grey, very hard, porcellanite. Cut surface has frosted appearance. Broken surface is very irregular. Contains numerous cross-cutting white qtz-calcite veinlets. Indistinctly laminated.
	510	710		8	IF	MUD Black mud "gouge"? locally contains chunks of black, sooty shale. Chunks typically have abundant, white, irregular calcite veinlets typical of the texture for Ordovician shale.
	710	1010		9	SIRLI	Medium grey, fine-grained limestone. Broken surface is irregular and dark grey. Contains cross-cutting qtz-calcite veins. Thickly bedded 5-15 cm with interbeds of dark grey chert, shale, siltstone. Sl cleavage is more prominent in the shaly intervals.
						EOH





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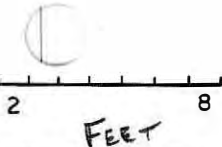
91CC-04

CURRAGH RESOURCES INC.

Lithologic Log

Date: May 14/91 Logged By: KCP

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
	10 0	18 0		1		CASING - NO CORE
	18 0	23 0		2		WASH - NO CORE
	23 0	34.5		3	DIRIG	
						Moderately soft, dark grey to black shale. Contains abundant thin qtz-calcite veinlets. Also contains minor brassy yellow pyrite nodules up to 1 cm across. Irregular, pale grey, disrupted siltstone bands. Deformation texture closely corresponds to that noted in DDH 91CC-06. Crumulation cleavage is definitely visible in some core pieces.
	34.5	41 0		4	SRLHTH	[ORGA]
						Medium to dark grey silty limestone thickly interbedded with black shale as described above for Unit # 3 (23-34.5). Limestone indistinctly laminated and contains thick qtz-calcite veinlets. Possibly nodules within the shale unit.
	41 0	70.5		5	DIRIG	
						Moderately soft, black shale. Cut surface has dull sooty appearance. Contains much fewer qtz-calcite veinlets than when compared to those logged above in this DDH. SI surfaces are reasonably smooth.
	70.5	181.8 0		6	SRLHTH	
						Medium grey, medium silty, silty-looking limestone with thick interbeds of dark grey to black shale. Limestone has minor strobilite texture. Minor thick qtz-calcite veins in limestone. Banding on scale 20cm - 70cm.

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Date: May 14/91 Logged By: KLP

Code	From	To	Recov.	No.	Unit	Description						
1	10	14	16	20	22	24	26	28	30	34	35	
	1910	1912			ORIGIA	?? [SRX]?? Medium grey, calcareous, fine-grained silty limestone. Texture reminds me of abundant dyformed concretions. Numerous gtr. calcite veins. Contains minor, dull sooty black shale interbands. Not quite sure what to call this unit.						
	1912	1916			SISEIKI	Medium dark grey, moderately hard, indistinctly laminated siltstone. Contains minor, thin, irregular dark grey chert nodules. So only poorly visible. Slightly poorly marked by a few pressure soln. stripes.						
	1916	1918			SIRICI	Strongly striped dark grey silty shale and medium grey porcellanite. Porcellanite has frosted appearance on cut surface. Banding on a scale of 1-3 cm.						
						EDH Stratigraphically this DDH appears upside down - yet bedding does not clearly reflect this. ?!?						



Code	From	To	Recov.	No.	Unit	Description
	10 14 16	20 22 24	26 28 30	34 35		
	100	1110		11		CASING - NO CORE
	1110	13170		12	SISISIHL	Dull dark grey to black, slightly calcareous, indistinctly laminated siltstone. So bed almost parallel core axis. Si surfaces are smooth or slightly gritty looking.
	13170	16125		13	SISISIHLK	Same indistinctly laminated siltstone with thick interbeds of medium grey, calcareous siltstone. They could possibly be large nodules. Again so approximately down the core axis. Medium grey beds locally are gradational into the dark grey beds.
	16125	17175		14	SISISIHLQ	Dark grey, moderately soft, indistinctly laminated shaly siltstone to silty shale. Locally contains abundant fine, irregular calcite-quartz veinlets. Laminar marked by slight variations in carbon content. Locally the qt-calcite veinlets give this the appearance of Ordovician shale.
	17175	18110		15	SIRIG	Dark grey, homogeneous, moderately soft to soft, silty shale with 0.5-1 cm interbeds of hard, medium grey porcellanite. Rock has a striped appearance. Contains quartz-calcite veinlets. Porcellanite bands typically have white quartz infilled tension gashes.

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## CURRAGH RESOURCES INC.

## Lithologic Log

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Date: May 14/91

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LCP

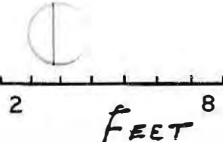
Code	From	To	Recov.	No.	Unit	Description						
1	10	14	16	20	22	24	26	28	30	34	35	
	18110	19130							16	SISISHL		
												Dark gray, indistinctly laminated, soft, silty shale to shaly siltstone. So indistinctly noted by minor variations in carbon. Minor gte-calcite veins Minor diffuse pyrite bands.
	19130	19180							17	SIRIGI		
												Soft, dark gray to black silty shale with thin interbeds of medium gray porcellanite. Porcellanite has frosted appearance on cut surface. Overall unit has a striped appearance.
												EOH



Code	From	To	Recov.	No.	Unit	Description
	10 14 16	20 22 24	26 28 30	34 35		
	100	1140		1		CASING - NO RECOVERY
	1140	12130		2	ORIGIO	Dark gray to dull sooty black silty shale. Contains abundant fine qtz-calcite veinlets which cut So bedding. Also contains minor 10-15 cm intervals of finely laminated, dull black, moderately soft siltstone. Laminar are indistinct. Core only moderately broken. Siltstone intervals do not generally have an extensive qtz-calcite veining.
	12130	12185		13	SISISIKL #	Proportions of two rock types described above are reversed. Dominant unit is moderately soft, indistinctly laminated, dull, sooty black siltstone. Pyrite as tiny specks disseminated in thin bands locally marks So. Contains intervals of black, soft shale with abundant qtz-calcite veining.
	12185	13190		14	ORIGIAN O	Dull black, moderately soft shale with abundant white qtz-calcite veinlets. Veinlets are very irregular and generally parallel S1(?). Also contains nodules of pale grey limestone and nodules of brassy yellow quartz. Pyrite nodules have qtz-calcite shadows. Limestone nodules/concretions have very irregular outlines. Contains minor sooty black, soft, siltstone interbeds.
	13190	14120		15	ORIGAI	Same shale as described previously with abundant large irregular calcite nodules/concretions. Strong stylolitic texture developed with carbonaceous partings.

Code	From	To	Recov.	No.	Unit	Description
1	10 14 16	20 22 24	26 28 30	34 35		
	14120	1918		16	ORIGNIA	
						Moderately soft, dull sooty black, shale. Contains numerous fine white calcite-gt veinlets. Also contains scattered large (up to 3cm) irregular pyrite and grey calcite nodules/concretions. Concretions typically have irregular margins and look to be disrupted by deformation.
						This texture tends to remind me of a shear banded fault rock. Not quite like SA* but not totally dissimilar.
						EOH



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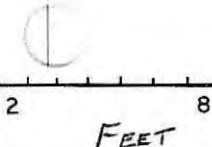
91CC-7

CURRAGH RESOURCES INC.  
Lithologic Log

Date: May 14/91 Logged By: LLP

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28			30
		100		1210							CASING - NO CORE
		1210		13150					ORIG		
											Black, soft, sooty shale. Sl surfaces are shiny black to dull sooty black. Has overall speckled appearance because of fine irregular calcite-quartz veinlets & specks. Sl surfaces are very rough and irregular. Texture may be related to either faulting or two deformation cleavages.
											EDH



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CURRAGH RESOURCES INC.  
 Lithologic Log

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Date: May 14/91 Logged By: KCP

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
	100	1120		11		CASING NO RECOVERY
	1120	1180		12	SRLN	
						Fragments of pale grey, calcareous, finely x-line limestone. Some pieces redrilled. Some pieces have weathered surface. Is this float or core?
	1180	12180		13		NO CORE
						Note that all material washed away.
	12180	13120		14		???
						Golden Sample Interval also contains some limestone pebbles and a lump of dark grey mud.
	13120	13180		15		CAVE ??
						Core box filled with dark grey to black mud and silt. Parts locally look like core.
	13180	15130		16	SRLN	(SRC)
						Uppermost portion of interval is thinly banded dark grey to black micellanite. Strong striped appearance. Rest (most) of interval a medium grey, finely x-line limestone. Entire interval is very rubbley
	15130	16130		17	AFI	
						Very rubbley sections of poor recovery. Pieces of quartz-calcite vein with dark sooty carbonaceous partings.

Code	From		To		Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34		
		1630		1710							S1S1S1L1	Medium dark gray, moderately hard, finely laminated siltstone. Laminar surfaces are indistinct. S <sub>1</sub> surfaces are frothy and slightly irregular.
		1710		1715							S1R1L1	Medium dark gray, moderately hard, finely xlline limestone. Contains abundant scuttling quartz-calcite veins. Stylolitic texture visible on cut surface. Core very broken.
		1715		1814							S1S1S1H1L	Indistinctly laminated dark gray siltstone. S <sub>1</sub> surfaces are planar but not smooth because of silt size. Grey color is sandy.
		1814		1818							S1R1L1	Medium dark gray, finely xlline limestone. S <sub>0</sub> and S <sub>1</sub> are not readily visible. Core is very rubble. Contains numerous quartz-calcite scuttling veins.
												E0H

