Project:	Mt Lyell	**Hole ID:**	DD11CMT008		
Prospect:	King Lyell	**Grid 1:**	AMG66 (55)	**Bearing:**	
Tenement:	RL 3/2006	**Coord's:**	5341776.938 mN	**Dip:**	-90
Drilled By:	Gerald Spaulding Drillers		383619.138 mE	**RL:**	306.997
Rig Type:	SD800				
Date Drilled:	17/5/2011 - 19/5/2011				
Logged by:	Sophie Gardner & Stephen Fox				
Date Logged:	10/09/2011	**Total Depth:**	99.7m		
Core Storage:	CMT Core Shed	**S.S. No: & laboratory**			

Drilling Summary

Core Size	From	To	Total (m)
Mud Rotary	0.00	38.70	38.70
HQ	38.70	99.70	61.00

Survey Data

Depth (m)	Dip	Mag Azm	315 GRL Azm

Survey Instruments

Significant Intersections*

From	To	Length	Description	% Cu	Au ppm	% Zn			SG

DIAMOND DRILL LOG

PROJECT: King Lyell - Copper Clays | HOLE I.D.: CMT DDIICMT008 | PAGE(a) of

LOGGED: Stephen Fox, Sophie Lucraft | TENEMENT No.: RL 3/2006 | SCALE 1:200 | HOLE I.D. DDIICMT008

DATE: 10/9/2011 | PROSPECT: King Lyell | PAGE(b) 1 of 3

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
0							0-38.9		
38									
39	Q_2 vein		Limestone - broken & weathered in part. 2mm qtz veins 1% of unit. Limestone becomes weathered towards the base. At ~42.1m iron replaces limestone. Coarsening downwards.	Gordon limestone			Core loss throughout the limestone		
40									
41	Q_2 vein								
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
61			- Clays - no visible mineralisation -	Goden clays	oxidation				
62									

DIAMOND DRILL LOG

PROJECT: King Lyell - Copper Clays | HOLE I.D. DDICM1008 | PAGE(a) of

LOGGED: S.Fox, S.Garcher | TENEMENT No.: RL 3/2006 | SCALE 1 : 200 | HOLE I.D. DDICM1008

DATE: 10/9/2011 | PROSPECT: King Lyell | PAGE(b) 2 of 3

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
63			convoluted beds - some are feric. Minor sandy bed; possible 'Z' fold in feic band base of unit.						
64									
65						redox			
66									
67									
68									
69									
70									
71									
72			Altered limestone-dolomite; fractured, weak reaction with HCl			Pyrite disseminated			
73			Reduced clay with convoluted bedding and lamination. Iron rich convolutions at the base. Disseminated pyrite throughout.		redox				
74									
75	Py								
76	Py		Fine sand and rare sandy beds throughout						
77			Coarse breccia in a fine grained matrix. Sandy beds throughout		oxidation				
78	Breccia				redox				
79									
80			Clays grading into a sandy base with Sandstone and convoluted bedding throughout. Quartz fragments top of unit.						
81						Copper - disseminated 81.7-91.7m			
82									
83					oxidation				
84					redox				
85					oxidation				
86	Breccia		Coarse breccia in clay matrix Interbedded sands.						
87									

DIAMOND DRILL LOG

PROJECT: King Lyell - Copper Clays. HOLE I.D.: DDH1CMT008 PAGE(a) of

LOGGED: S Fox, S Garcher TENEMENT No.: RL 3/2006 SCALE 1 : 200 HOLE I.D. .....

DATE: 10 / 9 / 2011 PROSPECT: King Lyell. PAGE(b) 3 of 3

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
88			Clay with convoluted bedding, and interbedded sand & clay units. Carbonaceous convoluted bands base & middle of unit.						
89									
90									
91	carc carc carc carc								
92	carc carc carc carc								
93									
94									
95									
96	carc carc carc carc								
97									
98			Quartz rich sandstone, coarsening down. Siltstone conglomerate at base of unit - pebble size quartz (hematite stained) - unsorted with coarse sandstone	Pioneer Sandstone		End of visible Cu mineralisation			
99									
100							EOH 99.1m.		

Key

- laminations
- ≈ : convoluted bedding
- carc: carbonaceous convoluted bedding
- Py. pyrite mineralisation
- weathered limestone
- quartz fragments

Project:	Mt Lyell	**Hole ID:**	DD11CMT010		
Prospect:	King Lyell	**Grid 1:**	AMG66 (55)	**Bearing:**	
Tenement:	RL 3/2006	**Coord's:**	5341799.336 mN	**Dip:**	-90
Drilled By:	Gerald Spaulding Drillers		383588.271 mE	**RL:**	307.202
Rig Type:	SD800				
Date Drilled:	25/5/11-26/5/11				
Logged by:	Sophie Gardner & Stephen Fox				
Date Logged:	7/09/2011	**Total Depth:**	74.4m		
Core Storage:	CMT Core Shed	**S.S. No: & laboratory**			

Drilling Summary

Core Size	From	To	Total (m)
Mud Rotary	0.00	36.90	36.90
HQ	36.90	74.40	37.50

Survey Data

Depth (m)	Dip	Mag Azm	315 GRL Azm
49	-88.8		
67	-88.4		

Survey Instruments

Significant Intersections*

From	To	Length	Description	% Cu	Au ppm	% Zn			SG

DIAMOND DRILL LOG

Copper Clays. PROJECT

HOLE I.D: DDUCMT010

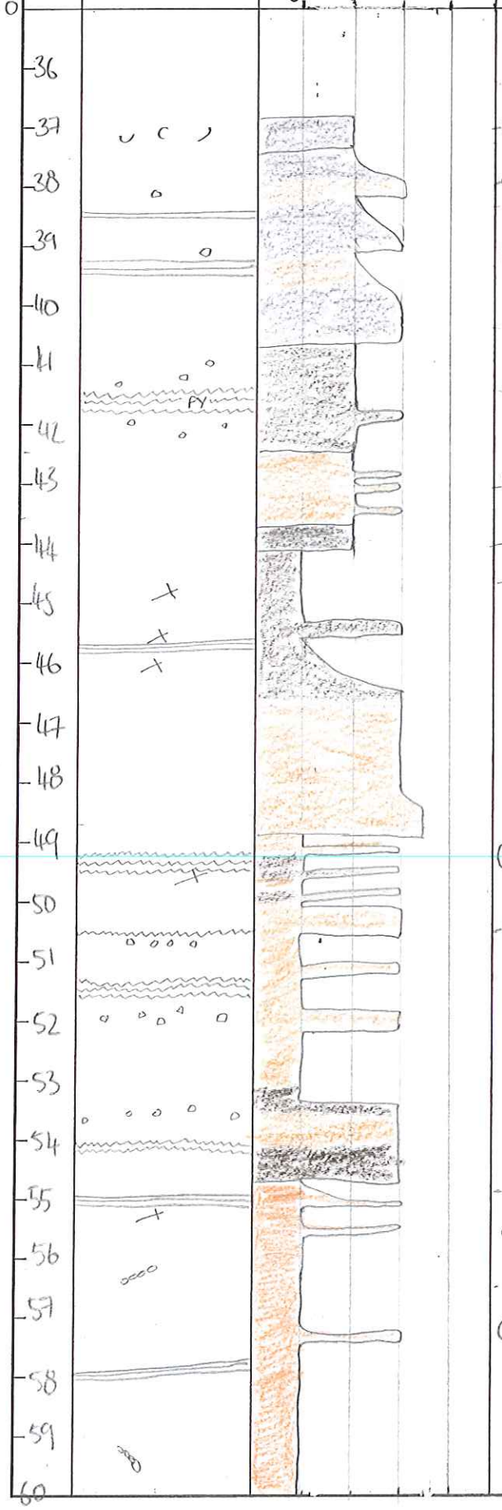
PAGE(a) of

LOGGED: Stephen Cox, Sophie Gacher TENEMENT No.: RL 3/2006 SCALE: 1 : 200

DATE: 7/9/11 PROSPECT: King Lyell

HOLE I.D. DD11CMT010

PAGE(b) 1 of 2



DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
				Precolla 0 - 36.8m		
Limestone with shell fragments + honeycomb in places	Gordon limestone					
cracked sandy unit, interbedded with silty beds. Rare lithic clasts; oxidation of part of unit. Laminated in parts	Gordon Sandstone					
Polymict breccia. Poorly sorted lithic & qtz fragments in a silty matrix. Convoluted bedding top of unit			Pyrite disseminated			
Interbedded silt & sandstone						
Limestone. Partially decomposed. Reacts weakly with HCl.	Gordon limestone					
Clays. Fining up from sandstone base. Micro-faulting throughout; thinly laminated						
Convoluted beds of sand & reduced clays. Microfaulting	Gordon sand	Oxidised				
Interbedded sand & siltstone, convoluted beds & laminations. Angular unsorted lithic fragments	Gordon clays	Redox				
		Redox				
clay microfaulted with minor sandy beds - also laminated		Oxidised	Cu^{+} mineralisation visible from 54.7 - 68.2m; disseminated throughout.			
Clay-mineralised. Lineated lithic fragments. Convoluted bedding.						

DIAMOND DRILL LOG

PROJECT: Copper Clays | HOLE I.D.: DDHCM10D | PAGE(a) of

LOGGED: Stax, S. Gardner | DATE: 7/9/11 | TENEMENT No.: RL 3/2006 | PROSPECT: King Lyell. | SCALE 1:200 | HOLE I.D.: DDHCM10D | PAGE(b) 2 of 2

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
60									
61									
62	o								
63	o o								
64									
65	≈								
66									
67	≈								
68	≈		-Sandstone - coarsening downwards. Appears bleached at top of unit and unaltered base of unit. Lamination in finer beds. Quartz rich sandstone, non mineralised	Pioneer Sandstone.	Bleached Unaltered.	No visible Cu mineralisation from 68.2m.			
69									
70									
71									
72	≈								
73									
74									
75							EOH 74.4m.		

Key

~ : shell casts

o o : lithic fragment

≈ : convoluted bedding

≡ : laminations.

+ : microfault

Py : Pyrite mineralisation

Project:	Mt Lyell	**Hole ID:**	DD11CMT012		
Prospect:	King Lyell	**Grid 1:**	AMG66 (55)	**Bearing:**	
Tenement:	RL 3/2006	**Coord's:**	5341812.776 mN	**Dip:**	-90
Drilled By:	Gerald Spaulding Drillers		383573.685 mE	**RL:**	307.532
Rig Type:	SD800				
Date Drilled:	9/06/11 - 15/6/11				
Logged by:	Sophie Gardner & Stephen Fox				
Date Logged:	16/09/2011	**Total Depth:**	82.4m		
Core Storage:	CMT Core Shed	**S.S. No: & laboratory**			

Drilling Summary

Core Size	From	To	Total (m)
Mud Rotary	0.00	29.70	29.70
HQ	29.70	82.40	52.70

Survey Data

Depth (m)	Dip	Mag Azm	315 GRL Azm
51	-86.4		
87	-86.3		

Survey Instruments

Significant Intersections*

From	To	Length	Description	% Cu	Au ppm	% Zn			SG

DIAMOND DRILL LOG

Copper Clays
PROJECT

HOLE I.D. DD11CMT012

PAGE(a) of

LOGGED S.Fox, S.Gardner TENEMENT No.: BL13/2006

DATE: 16/9/2011 PROSPECT: Icing Lyell

SCALE 1:200

HOLE I.D. DD11CMT012

PAGE(b) 1 of 3

m	STRUCTURE	GRAIN SIZE (Clay, Silt, Sand, Granule, Pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
0							Pre collar		0
30			- Limestone with calcareous sandstone convoluted beds.	Owen Conglomerate					30
31				- Gordon Limestone					31
32									32
33									33
34			Unmineralised clay + sandstone weak reaction with HCl Convoluted bedding with flame structures. Angular fragments of sand		Redox boundary.				34
35									35
36			- Unmineralised clay & inkbeds of convoluted sandstone. Clays are laminated & become convoluted down hole with ~3cm unconsolidated clean white sand Grading upwards.		Fe/oxidation				36
37									37
38									38
39									39
40									40
41									41
42			White sandstone fragments.						42
43			Start of visible mineralisation (Cu^1) after redox boundary		Redox boundary	start of visible Cu^1 mineralisation disseminated			43
44			Clay with sand fragments.						44
45									45
46			Sands with clay fragments						46
47									47
48			Very convoluted bedding						48
49					Redox boundary				49
50	Fe								50
51	Fe								51
52			Limestone fragments						52
53			Cu staining on convoluted beds.						53
54									54

DIAMOND DRILL LOG

PROJECT: Copper Clays

HOLE I.D: DDICMT017

PAGE(a) of

LOGGED: S.Fox, S.Gardner

DATE: 16/9/2011

TENEMENT No.: RL 3/2006

PROSPECT: King Lyell

SCALE 1 : 200

HOLE I.D. DDICMT012

PAGE(b) 2 of 3

m	STRUCTURE	GRAIN SIZE (Clay, Silt, Sand, Granule, Pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
54									
55			Shell fragments & casts						
56									
57			Qtz fragments - some hematised						
58									
59			White sandstone fragments, 2-3cm wide						
60									
61					Redox Boundary				
62									
63			Copper oxidised green on deposition surface with shells & quartz sand						
64			Copper staining						
65									
66									
67									
68			Clean, white sand						
69			Yellow sand & clay						
70									
71									
72									
73			Pale brown, not like copper clays	Pioneer Sandstone		No visible Cu mineralisation ↓			
74			Unconsolidated sand (beach sand)						
75									
76									
77									
78									
79									

DIAMOND DRILL LOG

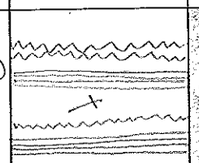
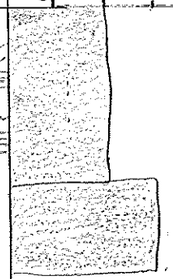
PROJECT: Copper Clays

HOLE I.D.: DDICMT012

PAGE(a) of

LOGGED: S.Fox, S.Gardner TENEMENT No.: RL 3/2006 SCALE 1:200 HOLE I.D. DDICMT012

DATE: 16/9/2011 PROSPECT: King Lyell PAGE(b) 3 of 3

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
80			Redox boundary Convoluted beds & folding white silt & sandstone.						
81									
82									
83							EOH 83.4m.		
84		EOH							

Key
- ≡ : lamination
- + : microfault
- ≈ : convoluted bedding
- ⊃ : shell fragments
- ⇒ : flow direction
- ◌ : white, clean sands
- • : mud fragment
- Fe : ferric nodules

Project:	Mt Lyell	**Hole ID:**	DD11CMT013		
Prospect:	King Lyell	**Grid 1:**	AMG66 (55)	**Bearing:**	
Tenement:	RL 3/2006	**Coord's:**	5341793.047 mN	**Dip:**	-90
Drilled By:	Gerald Spaulding Drillers		383563.573 mE	**RL:**	307.779
Rig Type:	SD800				
Date Drilled:	31/05/2011-2/6/2011				
Logged by:	S. Gardner & S. Fox				
Date Logged:	15/09/2011	**Total Depth:**	68.5m		
Core Storage:	CMT Core Shed	**S.S. No: & laboratory**			

Drilling Summary

Core Size	From	To	Total (m)
Mud Rotary	0.00	22.80	22.80
HQ	22.80	68.50	45.70

Survey Data

Depth (m)	Dip	Mag Azm	315 GRL Azm

Survey Instruments

Significant Intersections*

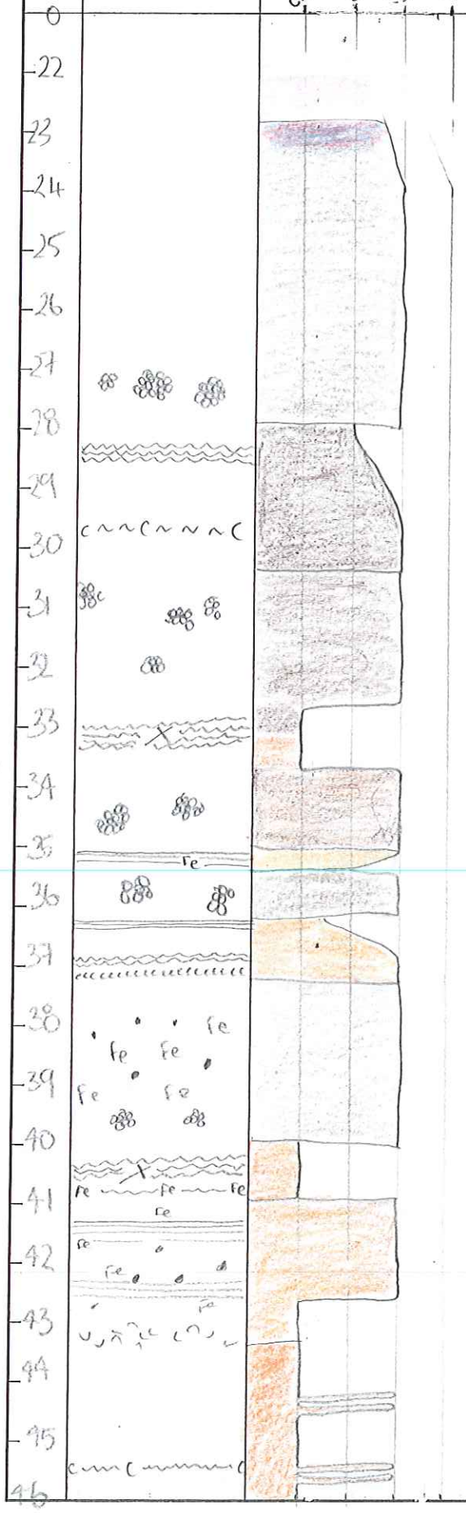
From	To	Length	Description	% Cu	Au ppm	% Zn			SG

DIAMOND DRILL LOG

PROJECT: King Lyell - Copper Clays | HOLE I.D.: DDIICMT013 | PAGE(a) of

LOGGED: S.Fox, S.Garcher | TENEMENT No.: RL 3/2006 | SCALE 1 : 200 | HOLE I.D.: DDIICMT 013

DATE: 15/9/2011 | PROSPECT: King Lyell | PAGE(b) 1 of 2



m	STRUCTURE	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
22		Limestone unit, altered at the top of the unit but not below. Occasional quartz veins throughout. Coarsening and broken downwards. Weathering also increasing downwards.	Gordon limestone	Iron altered top of unit		Precollar to 22.8m		
28		Silt coarsening downwards. Reduced convoluted beds.	Gordon siltstone	redox.				
31		Broken and weathered limestone with a clay interbed. Convoluted bedding & microfault within clay unit.	Gordon limestone					
35	Fe	Sandy bed, fining down & ferric nodules & lamination.	Gordon sandstone	oxidation (Fe)				
36		Limestone, weathered throughout.	Gordon limestone					
37		Sandstone with laminations and convoluted carbonaceous interbeds. Fining up.	Gordon sandstone	oxidation				
38	Fe Fe Fe Fe Fe	Weathered limestone, fairly broken, coarse grained. Ferric nodules and quartz fragments throughout.	Gordon limestone					
40		Convoluted & microfaulted clays. - ferric convolutions base of unit.	Gordon clays. ↓	Oxidation				
41	Fe Fe Fe Fe	Laminated sandstone with ferric nodules & lithic clasts. Shell casts base of unit.			Visible disseminated Cu mineralisation starts 42.4m			
42	Fe Fe							
43	Fe							
44		Clay with sandy interbeds becoming convoluted 'base' of unit. Carbonaceous convoluted beds. Shell casts in sandy units. Lithic fragments.						
45								
46								

DIAMOND DRILL LOG

Copper clays — PROJECT

HOLE I.D. DDHCM1013 — PAGE(a) — of

LOGGED : S. Fox, S. Gardner — TENEMENT No. : RL 3/2006 — SCALE 1 : 200

DATE : 15/9/2011 — PROSPECT : Icing Eyell

HOLE I.D. DDHCM1013 — PAGE(b) 2 of 2

m	STRUCTURE	GRAIN SIZE (Clay, Silt, Sand, Granule, Pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
46									
47			- Clay with convoluted bedding and unsorted lithic and quartz fragments coarsening down into a siltstone. Shell casts in silt.						
48									
49									
50									
51									
52									
53									
54						Visible Cu mineralisation ends 54m			
55									
56					Bleached?				
57			Clays with convoluted bedding						
58									
59									
60									
61									
62					Redox.				
63			Laminated soft sandstone coarsening down into more competent rock and then conglomerate. Conglomerate is poorly sorted with sand and hematite-stained quartz and fuchsite.	Pioneer sandstone.					
64									
65									
66									
67									
68							EOH 68.5		
69									

Project:	Mt Lyell	**Hole ID:**	DD11CMT015		
Prospect:	King Lyell	**Grid 1:**	AMG66 (55)	**Bearing:**	
Tenement:	RL 3/2006	**Coord's:**	5341796.118 mN	**Dip:**	-90
Drilled By:	Gerald Spaulding Drillers		383538.248 mE	**RL:**	308.269
Rig Type:	SD800				
Date Drilled:	15/6/11 - 16/6/11				
Logged by:	S Gardner & S Fox				
Date Logged:	19/09/2011	**Total Depth:**	59.4m		
Core Storage:	CMT Core Shed	**S.S. No: & laboratory**			

Drilling Summary

Core Size	From	To	Total (m)
Mud Rotary	0.00	30.60	30.60
HQ	30.60	59.40	28.80

Survey Data

Depth (m)	Dip	Mag Azm	315 GRL Azm

Survey Instruments

Significant Intersections*

From	To	Length	Description	% Cu	Au ppm	% Zn			SG

DIAMOND DRILL LOG

Copper clays — PROJECT

HOLE I.D. DDIICM101S

PAGE(a) of

LOGGED S. Fox S. Gardner TENEMENT No. EL 3/2006

DATE : 19 / 9 / 2011 PROSPECT : Long Lyell

SCALE 1 : 200

HOLE I.D. DDIICM101S

PAGE(b) 1 of 2

m	STRUCTURE	GRAIN SIZE (clay, silt, sand, granule, pebble)	DESCRIPTION	INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
0									0
29	Pre collar						Precollar to 30.6m		29
30			[illegible] top & bottom						30
31			Polymict, subangular lithic clasts with clay banding top + bottom	Possible fold or slumping structure					31
32									32
33			Limestone, broken with dissolution cavities & honeycomb texture	Cordon Limestone	In places by iron. Possible siderite precipitated & altered				33
34									34
35									35
36									36
37									37
38									38
39			Fine grained brown clay. Contains clasts of unsorted lithic fragments in SiO_2; Feric nodule at base	Cordon clay	Oxidation - pervasive	Visible Copper mineralisation - disseminated 39.8m ↓			39
40									40
41			- Convoluted bedding, microfaulted, alternating beds of sand & clay; Fe banding		Oxidation - pervasive				41
42									42
43			- Mud matrix supported with rare sandy beds with lithic fragments throughout. Qtz fragments towards base + lineations.		Oxidation				43
44									44
45			- Mud dominant matrix with mm interbeds of coarse (~2-3mm) sand. Cross bedded, laminated & convoluted in some beds. Graded bedding.						45
46									46
47									47
48			- Clay with interbedded carbonaceous material. Microfaulting.		Appears unaltered or very weakly altered towards base of unit	Copper mineralisation more associated with carbonaceous material?, disseminated.			48
49			- Feric convoluted banding top middle of unit.						49
50									50
51	X								51
52									52

DIAMOND DRILL LOG

Copper Clays PROJECT

HOLE I.D. DD11CMT015

PAGE(a) of

m	STRUCTURE	GRAIN SIZE (Clay, Silt, Sand, Granule, Pebble)	DESCRIPTION
53			
54			
55			
56			
57			· Sands with micaceas silts interbedded with Quartz rich sands & with Carbonaceas material.
58			
59			
60			

Key

- : laminations
- : honeycomb
- : microfault
- : convoluted bedding.
- : lithic clasts

LOGGED S.Fox, S.Gardner TENEMENT No.: KL 3/2006 SCALE 1 : 200 HOLE I.D. DD11CMT015

DATE: 19/9/2011 PROSPECT: Ichna Lyell PAGE(b) 2 of 2

INTERPRETATION	ALTERATION (type/style)	MINERALISATION (type/style)	NOTES	SAMPLES and T.S.	m
		End of visible Cu mineralisation ~53m			53
					54
					55
					56
Pioneer Sandstone	Appears chalkered				57
					58
					59
					60