



Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.:

Sample No:	COH000001
Overall Sample Assessment	Negative
Your Project Code:	Cox Arnold NT

Sample Type (as collected):	Loam	Head Weight	41.6 kg
Sample Type (as received):	Loam	Wet Weight	kg
Observed Sample Type:	TBE Concentrate		

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						
Almandine				Tr	Tr			Tr		MW				
Anatase				Tr	Tr			Tr		W				
Corundum				Tr	Tr			Tr		W				
Fe Oxide/Hydroxide				100	95			95		W				
Haematite					Tr					MW				
Leucoxene				Tr	Tr			Tr		W				
Phosphate				Tr	Tr			Tr		W				
Rutile				Tr	Tr			Tr		MW				
Tourmaline				Tr	Tr			Tr		WW				
Zircon				Tr	5			5		MW				
TOTAL	%	%	%	100%	100%	%	100%	%						

What Has Been Observed?

Final Conc Weight	0.68 g	Size Range	-0.5+0.2mm
Weight Observed	0.68 g		

Technician: JED

Date Observed: 16-Nov-09

Report Printed: 27/11/2009 4:09:52 PM

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.: -

Sample No: COH000002

Overall Sample Assessment: **Negative**

Your Project Code: Cox Arnold NT

Sample Type (as collected): Loam Head Weight: 46.23 kg
 Sample Type (as received): Loam Wet Weight: kg
 Observed Sample Type: TBE Concentrate

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Anatase				Tr	Tr			Tr		MW					
Barite				Tr	Tr			Tr		MW					
Corundum					Tr			Tr		MW					
Fe Oxide/Hydroxide				100	100			100		W					
Haematite				Tr	Tr			Tr		MW					
Ilmenite				Tr	Tr			Tr		MW					
Kyanite					Tr			Tr		W					
Leucoxene				Tr	Tr			Tr		W					
Rutile				Tr	Tr			Tr		W					
Tourmaline				Tr	Tr			Tr		WW					
Zircon				Tr	Tr			Tr		W					
TOTAL	%	%	%	100%	100%	%	100%	%							

What Has Been Observed?

Final Conc Weight: 5.3000001 g | Size Range: -0.5+0.2mm
 Weight Observed: 5.3000001 g

Technician: JED

Date Observed: 16-Nov-09

Report Printed: 27/11/2009 4:10:17 PM

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.: -

Sample No: **COH000003**

Overall Sample Assessment: **Positive**

Your Project Code: **Cox Arnold NT**

Sample Type (as collected):	Loam	Head Weight	44.52 kg
Sample Type (as received):	Loam	Wet Weight	kg
Observed Sample Type:	TBE Concentrate		

Diamond Number of particles in each size fraction Total particles Description of these particles

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		
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Key Minerals Number of particles in each size fraction Overall Morph. Group Total particles No of particles probed PRIORITY based on Morphology (only) PRIORITY based on morphology and Probe)

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10	Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology (only)	PRIORITY based on morphology and Probe)
Chromite/Cr-Spinel					1			1	WW	B1	2		B	A
black, well rounded, friable														

Other Minerals % Percentage of particles in each size fraction Wear Colour Angularity Lustre Transparency Form/Shape

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10	Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
Anatase								Tr	MW					
Barite				Tr	Tr			Tr	W					
Corundum					Tr			Tr	MF					
Fe Oxide/Hydroxide				100	80			50	MW					
Gahnite								Tr	WW					
Kyanite								Tr	MW					
Leucoxene				Tr	Tr			5	W					
Rutile				Tr	Tr			Tr	W					
Tourmaline				Tr	Tr			15	WW					
Zircon				Tr	20			30	W					
TOTAL	%	%	%	100%	100%	%	100%	%						

What Has Been Observed?

Final Conc Weight	0.3100000 g	Size Range	-0.5+0.2 mm
Weight Observed	0.3100000 g		

Technician: JED

Date Observed: 17-Nov-09

Report Printed: 27/11/2009 4:10:41 PM

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



DIATECH
HEAVY MINERAL SERVICES

Ph 61 8 9361 2596
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Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.: -

Sample No: COH000004

Overall Sample Assessment: **Unresolved**

Your Project Code: Cox Arnold NT

Sample Type (as collected): Loam Head Weight: 45.22 kg
 Sample Type (as received): Loam Wet Weight: kg
 Observed Sample Type: TBE Concentrate

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Chromite/Cr-Spinel								1	W	B1	1	B	B
dull, black, rounded													

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Anatase					Tr		Tr		MW					
Barite					Tr		Tr		MW					
Corundum					Tr		Tr		MF					
Fe Oxide/Hydroxide				100	90		70		W					
Ilmenite					Tr		Tr		MW					
Leucoxene				Tr	5		15		W					
Rutile					Tr		Tr		MW					
Tourmaline					Tr		Tr		WW					
Zircon				Tr	5		15		W					
TOTAL	%	%	%	100%	100%	%	100%	%						

What Has Been Observed?

Final Conc Weight: 0.1800000 g Size Range: -0.5+0.2 mm
 Weight Observed: 0.1800000 g

Technician: JED

Date Observed: 17-Nov-09

Report Printed: 27/11/2009 4:11:05 PM

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



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Ph 61 8 9361 2596

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Detailed Heavy Mineral Analysis

Our Job No.: 09103

Disc No.: -

Sample No: COH000005

Overall Sample Assessment: **Unresolved**

Your Project Code: Cox Arnold NT

Sample Type (as collected): Head Weight: kg
 Sample Type (as received): Wet Weight: kg
 Observed Sample Type:

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Chromite/Cr-Spinel					2			1	W	B1	3		B	B
black, well rounded, friable														

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Almandine					Tr			Tr	MW					
Anatase					Tr			Tr	MW					
Barite				90	50			80	W					
Fe Oxide/Hydroxide				10	10			5	W					
Ilmenite								Tr	MW					
Leucosene					Tr			5	W					
Rutile				Tr	Tr			Tr	MW					
Tourmaline					10			5	WW					
Zircon					30			5	W					
TOTAL	%	%	%	100%	100%	%	100%	%						

What Has Been Observed?

Final Conc Weight: g | Size Range: mm
 Weight Observed: g

Technician: JED

Date Observed: 17-Nov-09

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Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.: -

Sample No: **COH00006**

Overall Sample Assessment: **Negative**

Your Project Code: **Cox Arnold NT**

Sample Type (as collected): **Loam** Head Weight: **41.3 kg**
 Sample Type (as received): **Loam** Wet Weight: **kg**
 Observed Sample Type: **TBE Concentrate**

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Anatase					Tr			Tr		MW					
Barite					Tr			Tr		W					
Corundum					Tr			Tr		MF					
Fe Oxide/Hydroxide					100			90		80					
Gahnite								Tr		Tr					
Leucoxene					Tr			Tr		Tr					
Phosphate					Tr			Tr		Tr					
Rutile					Tr			Tr		MW					
Tourmaline					Tr			5		10					
Zircon					Tr			5		10					
TOTAL		%	%	%	100%	100%	%	100%	%						

What Has Been Observed?

Final Conc Weight: **2.5800000 g** Size Range: **-0.5+0.2mm**
 Weight Observed: **2.5800000 g**

Technician: **JED**

Date Observed: **17-Nov-09**

Report Printed: **27/11/2009 4:11:53 PM**

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample:



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Ph 61 8 9361 2596

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Detailed Heavy Mineral Analysis

Our Job No.: 09103
Disc No.: -

Sample No: COH000007

Overall Sample Assessment: **Negative**

Your Project Code: Cox Arnold NT

Sample Type (as collected): Loam Head Weight: 43.24 kg
 Sample Type (as received): Loam Wet Weight: kg
 Observed Sample Type: TBE Concentrate

Diamond

mm	Number of particles in each size fraction								Total particles	Description of these particles
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10		

Key Minerals

mm	Number of particles in each size fraction								Wear	Overall Morph. Group	Total particles	No of particles probed	PRIORITY based on Morphology only)	PRIORITY based on morphology and Probe)
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Other Minerals

mm	% Percentage of particles in each size fraction								Wear	Colour	Angularity	Lustre	Transparency	Form/Shape
	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10						

Anatase				Tr	Tr			Tr		W					
Corundum					Tr			Tr		MF					
Fe Oxide/Hydroxide				50	10			10		MW					
Kyanite					Tr			Tr		MW					
Leucoxene				50	30			30		W					
Phosphate				Tr	Tr			Tr		WW					
Rutile				Tr	10			10		W					
Tourmaline					10			5		WW					
Zircon				Tr	40			45		W					
TOTAL	%	%	%	100%	100%	%	100%	%							

What Has Been Observed?

Final Conc Weight: 0.5700000 g | Size Range: -0.5+0.2mm
 Weight Observed: 0.5700000 g

Technician: JED

Date Observed: 18-Nov-09

Report Printed: 27/11/2009 4:12:17 PM

Magnetic Fractions vs Size Fraction

mm	+2.0	+1.2	+0.8	+0.4	+0.3	+0.25	+0.20	+0.10
NotMag				All	All		All	

Comment about this sample: