

### Structural Geology Observation Sheet

Exp.: 358 Site: 24 Hole: E Core: 1 Observer: OR

Summary:

Do not enter into log sheets. All Drill induced

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → *1* Bottom → *1*	top	bottom	az./trend	dip	
1	Bscut	41	42			180	4	270	1							upper ~60cm quite heavily damaged / rubble  # all is sandy + disturbed. NOT worth taking PMAG
	Bscut	54	54			180	6	90	0							
	"	69	70			0	0	90	0							
	"	21	21			0	0	90	0							
2	"	21	21			0	0	90	0							All drillily damaged + bisected
3	"	3	3	2mm	180	3	270	1								
4	"	28	30	10cm	0	0	90	0								

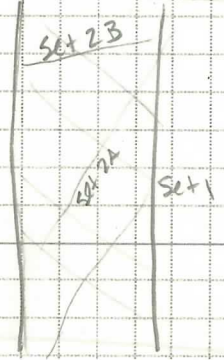
All biscuits

Measured in XCT before seeing core

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 24 Hole: E Core: 2 Observer: CR Summary: Shear bands everywhere?

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → +1° Bottom → -1°	top	bottom	az./trend	dip	
1	deformation bands	3	22		each 1-2mm wide	0	9	90	31							Not measured yet. (Subhorizontal beds? (micrometric) or biscuits? INACT)
	Bed	10	19		1cm	0	0	270	13							- 10 parallel shear bands bright CT bands that cut what appears to be sub horizontal bedding each 1-2 mm wide
	bed	21	21		2-5 mm	0	0	90	0							* a-41 a WR sample (no cover remains)
	conjugate sets of def bands	23	51		(set 1)	180	2	270	22							 <p>I think bedding is sub horizontal</p>
				(set 2A)	90	55	105	0	23	41						
				(set 2B)	90	10	0	4								
Bed	27	28		2cm	0	0	90	0			23	41			Check in CORE	
defn bed				45	90	09	0	12								

Measured in CT

# Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 24 Hole: E Core: 2 Observer: CR Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → * Bottom → -1*	top	bottom	az./trend	dip	
2	dip bed	30	33			0	22	90	47			45	33			
2	dip bed	40	53		2mm	90	64	353	0			60	67			⇒ reverse strike shear dip. bed
2	bed	63	64		3cm	180	7	25	0			60	67			
3	Bed	14	16		1cm	0	0	90	0			-	-			Iw sample
	dip bed	17	21			180	56	270	45			-	-			XCT

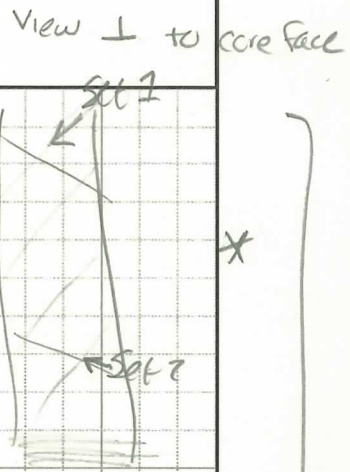
max in CT

### Structural Geology Observation Sheet

Exp.: 354 Site: 24 Hole: E Core: 2 Observer: CR Summary: thin conjugate shear bands w/ occasional subhoriz / gently dipping thick shear bands

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → * Bottom → *	top	bottom	az./trend	dip	
4	ZON OF deformation bands	0	37	main Set1	1-2mm each	0	33	90	33			0	41			parallel bands, ~11 in interval few conjugates ~2-3 in interval (will appear as parallel sets in core face)
						180	25	90	9							
4	bed	16	17			0	0	90	0			0	41			composite shear band? many layers
						180	18	270	20							
4	wide deformation band	30	33		1cm	180	15	90	2							sectors tend to bisect at subhorizontal def bands
						180	15	90	2							
4	def. conjugate bands	40	55	Set1	1-2mm each	270	1	180	1			41	55			def. bed composite? many layers
						0	33	90	22							
4	small deformation band	53	55	minor set 2	2mm	180	62	270	22							section taken for ASR
						180	10	0	0							
4	DB	60	65	62	1-2mm	180	16	90	32			55	64			→ 92-94 as far PMAG
						180	12	270	17							
4	DB	60	62	62	1-2mm	180	18	90	31							92-94 as far PMAG
						0	24	270	30							
4	wide def band	55	64		1cm	0	0	90	7							
						0	0	90	7							
4	conjugate def bands	87	98	main set 1		90	24	180	6			83	111			
						90	23	0	12							
4	DB	104	109			90	29	0	10							
						90	30	0	11							
4	DB	104	109			90	24	10	19							
						90	23	0	18							
4	DB	104	109			270	52	0	32							
						270	52	0	32							

4 bed 121 90 1 180 13



CT measure

# Structural Geology Observation Sheet

Exp.: 354 Site: 24 Hole: E Core: 2 Observer: CR Summary:

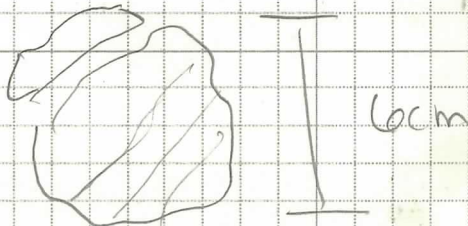
No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → +1* Bottom → -1*	top	bottom	az./trend	dip	
5	DB	12	17	main set 1	1-3mm	180	6	270	30			3	17			7-9a PMAG
						180	6	270	33							
						180	8	270	28							
						180	19	270	34							
						180	12	270	26							
5	con. de F bands	35	124	main set 1		90	38	180	6			80	107			
						270	30	180	16							
5	DB	37	40			0	1	270	21							
						356	0	270	38							
5	DB	68	80			180	6	270	36							
						180	4	270	30							
						0	5	270	31							
						0	1	270	23							
						0	4	90	11							
5	DB	99	102			180	9	270	24			93	121			
						180	11	270	35 → 2'	270'						
5	bed	130	131			180	2	90	7							
cc																noting

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 10624 Hole: E Core: 3 Observer: BJ Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → +1° Bottom → -1°	top	bottom	az./trend	dip	
1		0	98													gravel w/ sand + mud (disaggregated)
2		0	74													gravel w/ sand + mud (disaggregated)
3		0	103													gravel w/ sand + mud (disaggregated)
4		90	96			-	-	-	-							<p>Looked at <del>core</del> core cuttings clasts &gt; 1cm</p> <ul style="list-style-type: none"> <li>- one from section 1 - no deformation</li> <li>- 3 from section 2 - no def.</li> <li>- 3 from section 3 - no def.</li> <li>- Scoop of a few Yr found of cuttings ~42cc</li> <li>no deformation</li> </ul>  <p>3 deformation bands but clast has been rotated on any axis</p>

### Structural Geology Observation Sheet

Exp.: 358 Site: C0624 Hole: E Core: 4 Observer: BJ Summary:

No. \_\_\_\_\_

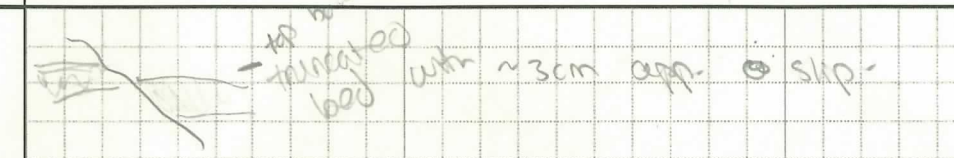
Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → +1° Bottom → -1°	top	bottom	az./trend	dip	
1	bed	32	35			0	0	90	0			/	/			
1	defn bands	58		58		0	0	90	22			-	-			
1	defn bands			74		0	45	90	47			67	74			
2	defn bands			19		180	30	270	32			-	-			
1	def bands	10	13			<del>180</del> 0	0	0	0	←		-	-			Def bands? not visible in CT could be laminae but at top of an area?
1	bed	53	55			270	6	0	3			-	-			
1	def band	69	73			90	30	0	31			67	75			
4	def band	1	4		1-2mm	90	18	180	20			0	6			
3	bed	23	25			0	0	90	0			-	-			
3	def band	23	25			90	5	0	55			-	-			truncates deformed block w/ normal sense offset order 0.5-1cm
3	bed	63	65			0	0	90	0			58	67			

Measured in CT

# Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: E Core: 4 Observer: \_\_\_\_\_ Summary: \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → * Bottom → -1*	top	bottom	az./trend	dip	
3	def band	98	103			90	40	180	09			90	110			 <p>truncated bed with ~3cm app. slip.</p> <p>2nd meas in CT</p>
	def band	102	105			90	18	180	29			90	110			
3	def bands	123	126		hairline	270	40	180	14			122	127			faint parallel network of def bands
	def band	123	126		"	270	40	351	00			122	127			
3	def band	132	134			270	34	180	25			127	134			- def band of apparent normal offset of ~0.5cm - sub horizontal
	def band	132	134			270	5	0	0			127	134			
4	bed	6	13		Contacts look like they are drilling distributed										light grey unit. Sub horizontal? * meas in CT	
4	def band	82	88		1-2mm	270	49	350	0	3°	270°	68°	88°			branching
4	def band	129	129		1-2mm	90	1°	0	1			126	131			Sub horizontal, sharp contacts * meas in CT
4	bed	29	29		1cm	90	0	0	0							meas in CT
	bed	42	42		1cm	90	0	0	0							

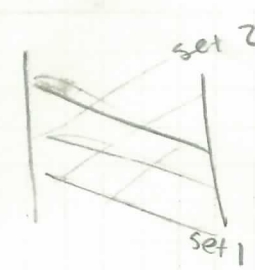


Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 24 Hole: E Core: 5 Observer: OR Summary: Flat bedding; few deformation bands

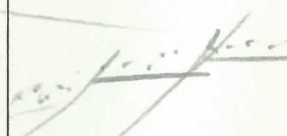
Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top -- "1" Bottom -- "-1"	top	bottom	az./trend	dip	
1	def. band	10	20			270	25	0	38			10	20			shear bands
1	def. band	54	59		hardly set 1	90	60	0	20			54	59			conjugate def bands bedding
1					set 2	270	29	180	16			54	59			
1	bed	54	54			270	10	0	17			54	59			
1	<del>bed</del>	<del>119</del>	<del>120</del>			270	2	780	2							
1	bed	19	120			270	2	780	2							
2	Bed	18	18			90	0	0	0							- measured in CT
	Bed	35	35			270	2	0	0		N/A					- measured in CT
2	Bed	5	6			270	0	0	0							meas in core
2	Bed	67	68			270	0	0	0							meas in core
4	Bed	3	4			270	2	0	2							
4	def. band	18	20			0	28	90	6							Faint. Not clearly visible in core. should intersect core face with $\sim 0^\circ$ app dip.
4	Bed	36	36			0	0	270	2							
4	def. band	66	70			0	45	90	12							- core fractured along shear band. measured in CT



### Structural Geology Observation Sheet

Exp.: 358 Site: 24 Hole: E Core: 5 Observer: CR Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → "+" Bottom → "-"	top	bottom	az./trend	dip	
5	Bed	6	7			90	0	0	0							
	def bands	9	12			90	30	180	30							
	"	8	10			270	27	0	31							
	"	8	10			90	5	0	15							
5	normal fault	26	33			270	<del>56</del>	180	54			19	50			 <p>2 faults offset <del>at</del> silt bed w/ planar laminae offsets of 0.5-1cm 2nd orientation in CT. faults fall apart</p>
	normal fault	26	33			270	60	180	52			19	50			
5	def band	35	39			270	35	140	0			19	50			

### Structural Geology Observation Sheet

Exp.: 358 Site: C0024 Hole: E Core: GR Observer: AD/BJ Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top → +1* Bottom → -1*	top	bottom	az./trend	dip	
1	Bed			36		90	10	0	7							
	Det. Band			78		270	5	0	14							
	DB			80		90	5	180	10							
	DB	102	110	-		90	74	0	0							
	DB	102	110	-		90	80	351	0							
	DB	102	110	X		90	62	20	0							
2	DB	127	133			90	35									
	DB	54	60			90	8					54	114			
	DB	54	60			90	14					"	"			
	DB	60	70			0	80	90	66							I (PMAG 67-69C)
	bed			99		90	45	0	24							
3	DB			25		270	80	0	10			20	35			

# Structural Geology Observation Sheet

No. \_\_\_\_\_


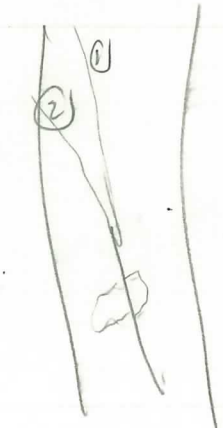
Exp.: 358 Site: 06024 Hole: E Core: 7 Observer: AD/BJ Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top $\rightarrow$ "1" Bottom $\rightarrow$ "-1"	top	bottom	az./trend	dip	
1		0	132													disrupted
2		0	21													disrupted
3		0	98													disrupted
4	bed	104	105			90	10	130	3							
	bed	107	108			90	8	0	8							
cc		0	17													disrupted

### Structural Geology Observation Sheet

No. \_\_\_\_\_

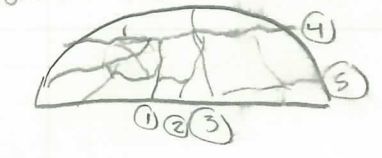
Exp.: 358 Site: 24 Hole: E Core: 8 Observer: CR Summary: \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top -- "1" Bottom -- "-1"	top	bottom	az./trend	dip	
3	Bed	13	14			90	2	180	6			0	35			
3	Def band? minor fault	26	33			270	88	055	0			0	35			<del>crossed fault vein?</del>
3	Def band? minor fault	32	35			90	40	188	0			0	35			> ? Hard to observe.
3	Def Band	44	46			90	12	180	20			41	46			faint.
3	def band	55	61		①	90	78	22	0			50	80			Confusable set 
	def band	58	61		②	90	38	?	?				85			
3	def band	64	66			90	83	355	0			48	85			
	def band	63	67			90	47	356	0							
3	def band	70	85			90	70	001°	0							bottom is v. fractured
3	def band	90	110		①	90	75	348	0			91	95			
3	def band	94	98		②	90	65	312	0			91	95			

### Structural Geology Observation Sheet

No. \_\_\_\_\_

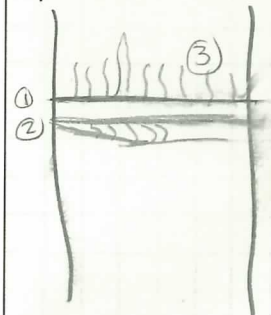
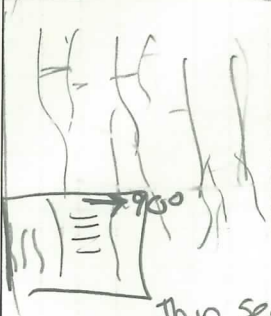

Exp.: 358 Site: 24 Hole: E Core: 9 Observer: YY Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top $\rightarrow$ "1" Bottom $\rightarrow$ "-1"	top	bottom	az./trend	dip	
1	Bedding	9	9.5			250	5	180	2			9	22	← Black ss between 10 and 23 cm no high CT-bands perhaps DB are bedding?		
		11	11			250	5	180	1							
	DB	13	14			250	6	0	1							
		16.5	17			250	6	0	3							
		19	20			250	11	180	1							
		20	21			250	8	180	1							
		25	25			90	1	0	4							
		28	28			0	0	90	5			22	42			
	Bedding D.B	30.5	31			0	0	90	5							
		39	39.5			90	3	0	4							
	D.B	45	47			250	3	0	7			42	59			
		63	63.5			250	3	0	2							
		66	66.5			250	3	0	7							
		68	69			250	7	0	10			59	75			
1	D.B	71	72			250	4	0	13							
		74	75			250	3	0	8							
		74	75			250	4	0	9							
		74	75			250	4	0	9							
		74	75			250	2	0	7							
2	Sediment-filled veins	0	9			270	85	4	0			0	9	700 veins across core wavy. Offset beds w/ app. displacements of ~2-5mm on bedding parallel / axis $\perp$ cut face veins form Abreccia network 		
		②				270	85	20	0							
		③				270	85	332	0							
		④				0	2	85	0							
		⑤				0	2	87	0							
2	Bed	46	47			90	4	0	5			34	54	x7 } bedding // shear bands thin to zero across core } sheath fold? x9 } bedding parallel shear bands * all bands are // + have similar orientation bands truncate beds + burrows in $\perp$ section		
						90	3	0	5			34	54			
2	Shear bands sub horiz.													not visible in CT intend soft sed deformation (during slumping?)		

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 24 Hole: E Core: 9 Observer: CR Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤ 90)	from (±1, 90 or 270) * Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
4	horiz def band	18	"			90	3	180	7			14	45			 <p>Sed filled veins in core axis show have <del>all a red</del> a random/brecciated pattern.</p>
4	horiz def band	18	"			90	3	180	7							
4	sed filled veins	16	17			90	2	all over								
4	Bed	21	"			90	3	180	3							
4	sed filled veins 4 large 710 small	27	40			90	85	every direction				10	46			 <p>Network of sediment filled veins w/ 1-2 mm vert app. offset</p>
4	sed filled veins (710)	50	69			270	75	206	0°			64	70			
					① main band	90	85	22	10°							 <p>Begin mega vertical thick band def band? fault? sed filled vein with offset merges into structure</p>
					②	90	5	0	10°							
					③	270	70°	5	0°							
					④											
																<p>Associated with about 3cm of apparent normal offset.</p> <p>Horizontal bands between ① and ④ only appear on the cut core face.</p>

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: 24 Hole: E Core: 9 Observer: CR Summary:

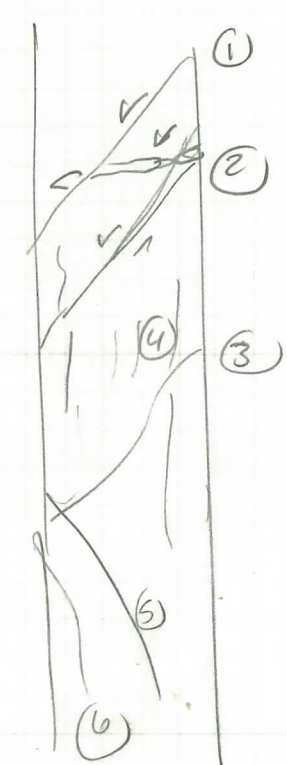
Section No.	Structure ID	Top of Struct	Bottom of Struct	ave, depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
4	horizontal def band	94	95			90	14°	0	7°			50	96			
4	Sediment filled veins	93	96			90	4°	25	0°							
5	Fault?	0	39			90	88°	351	0°			0	39			About 2-3 cm of apparent vertical offset. The fault is near vertical and changing to apparent thrust to normal offset.
5	Def bands	24	37			90	89°	8	0°							
5	Sediment filled veins	28	32			90	87°	15	0°							
5	Bedding	58	59			90	2°	180	4°			-	-			
5	Bedding	127	127			90	4°	0	5°							
5	Fault	106	111			90	38°	50	0°			109	115			→ offset because (zoophycos) with apparent thrust motion of 4 mm.



### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: \_\_\_\_\_ Site: \_\_\_\_\_ Hole: \_\_\_\_\_ Core: 10 Observer: CR Summary: \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top $\rightarrow$ "+" Bottom $\rightarrow$ "-"	top	bottom	az./trend	dip	
1		22	29		①	270	45					20	48 (35)			 <p>4 = set of 5 sub vert veins</p>
		26	29		②	270	30									
		29	32		③	270	90									
		27	33		④	270	80									
		32	36		⑤	90	75									
		34	37		⑥	90	80									
1	bed			23		270	5									
1	bed			58		270	14									
1	DB			56		0	8	270	11			48	60			thick beds ~ 2mm w/ chl in smear slide cuts/truncates shearbed @ 56c
	DB			54		180	28	90	19							
	DB			61		180	40	90	23							
2	DB			11		180	31	90	33							
3	sea crack	0	7			0	90									sea filled fractures (normal slip) 1-2mm sea filled subvertical cracks
	sea crack	17	34			0	90									
	sea crack	37	45			90	52									
	NF	50	60													


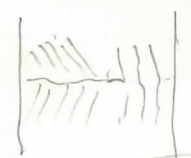
29-31  
PMAG

57-59  
PMAG

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: Site: 358 Hole: E Core: 10 Observer: AD/ST Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes		
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top → +1° Bottom → -1°	top	bottom	az./trend	dip			
3	bed			43		270	4	0	11									
	fault	52	55			90	45	0	0								sum apparent displacement (normal)	
		54	57														→  circular features	
3	sed fract.	60	73			270	55										no apparent offset	
						90	58											
						subvertical.												
	DB	73	77			270	75										-reverse dip slip zone	
						270	74										cuts <u>z above</u> (uncertain slip)	
						90	38											
3	sed cracks	77	84			0	90	322	0								z generations of sed filled vertical cracks	
		80	83			90	30											
						90	28											
4	DB			3		90	9	0	2									
		8	17															→ ash layer
	sed crack	17	20															 sed. cracks (subhorizontal crack)
	DB			26		270	12	0	10									
	DB			29.5		90	13	180	15									
	sed filled	30	70															subvertical hairline sed filled fractures
CC	sed crack	8	12															subvertical

Structural Geology Observation Sheet

Exp.: 358 Site: C0024 Hole: E Core: 11 Observer: ADIYY Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top → +1* Bottom → -1*	top	bottom	az./trend	dip	
1	DB Bed cracks minor NF Bed fault	0	20	3	~2mm	90	4	186	5							subvertical cracks minor normal fault  normal faults 1mm apparent normal slip  ash layer w/ bioturbation
						96	4	180	8							
						270	69	317	0							
						96	8	0	3							
						270	65	310	0							
1		37	54													
1	bed			75		270	7	0	1							
1	bed			123		270	9									
1	fault			123		90	25	0	25							normal fault 3mm apparent slip 1:1
3	vein ss.	8	12													subvertical
3	minor NF	21	28			270	82	332	0						1mm 1mm 0.5mm 2mm 2mm normal faults minor normal slip (0.5-2mm)	
						270	82	353	0	20	67					
						270	82	346	0							
						270	85	345	0							
						270	82	337	0							
3	bed	39	40			270	5	180	5							
	vein ss.	56 91 110	58 93 113													subvertical, curvilinear/sigmoidal

39-41  
PMAG

### Structural Geology Observation Sheet

Exp.: 358 Site: CG024 Hole: E Core: 11 Observer: DF/CR Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top - "1" Bottom - "-1"	top	bottom	az./trend	dip	
4	minor faults	0	2		set 1	270	73	030	0			0	6			array of minor faults with 1-2 mm offset (conjugate sets in core axis view)
4	sed filled veins	3.5	6		set 2	270	73	320	0			0	6			curvilinear array of minor faults in 0-2 cm above look similar to set of
4	Fault (single slip) left lateral not healed	10	19			090	60	40	0	8	270 (-1)	8	42			* likely a primary fault re-fractured by drilling may have been an open fracture
4	shear band	16	16			270	13	0	4			8	42			could be a primary sed structure but looks sharp. bedding parallel
4	sed filled veins	17	20			-	-	-	-			8	42			branches + arcuate spacing have veins near vertical
4	minor faults	21	25			-	-	-	-			-	-			curvilinear fractures spacing of ~1-2mm
4	Fault (not healed)	24	31			090	57	40°	0							fault has been fractured by drilling
4	fault (not healed)	36	41			090	82	346	0							2.5 mm apparent normal offset. to ~1mm at (displacement gradient) 2-3 mm spacing
4	sed filled veins	59	61			-	-	-	-							cm spacing but high

4-6 PMAG

PMAG 39-47

normal faults

# Structural Geology Observation Sheet

Exp.: 358 Site: 24 Hole: ~~12~~ Core: 12 Observer: CR/DF Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct (cm)	Bottom of Struct (cm)	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top - "1" Bottom - "-1"	top	bottom	az./trend	dip	
1	minor sed filled veins	53	50													
1	sed. filled veins	8	10	-	hair-line											spacing ~ 2mm wavy - v. faint sub-vertical - azimuth not measured
1	bedding	33	34	-		090	02	000	07			21	50			
1	minor faults	30	50	-		270	88	292	20	fault 1		21	50			3 main minor faults w/ smaller structures with ~1cm spacing branching. Only 3 main faults measured, 1-3 mm offset apparent normal. - but some apparent thrust as faults change dip (minor compared to app. normal). parallel to each - merge on horiz. surface
		32	41	-		270	87	322	00	fault 2						
		33	50	-		270	85	322	00	fault 3						
2	2 hair-line fractures	6	15	-	hair-line	270	72					6	16			fractures are sub-parallel, but merge towards the bottom of the core.
2	minor branch faults	32	73	-		270	01	347	00			31	77			1-3 sub-parallel minor branching faults - near vertical.
2	bedding	38	36			090	02	000	07			31	77			some have displacements, others don't. Displ. < 1mm.
2	bedding	47	48			090	10	000	05			31	77			
2	minor faults w/ hairline fractures	47	55	-	v. fine	090	87	356	00			31	77			
2	set of minor faults	68	78	-	0.5 mm	270	68	340	00			31	77			0.5-1cm spacing. Anastomosing and branching.

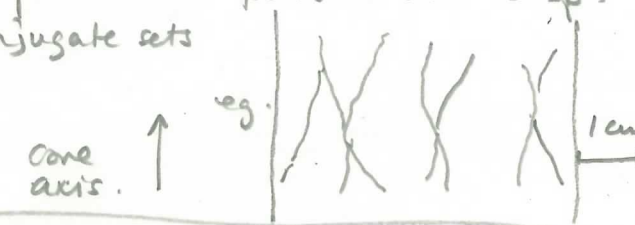
PMAg 33-35

64-66 PMAg

### Structural Geology Observation Sheet

Exp.: 358 Site: 24 Hole: E Core: 12 Observer: CR/DF Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤90)	from (±1, 90 or 270) * Top - "1" Bottom - "-1"	top	bottom	az./trend	dip	
2	minor faults	94	111	-		090	75	347	00	fault 1		94	111	-	-	6 minor faults 0.5mm thick. Associated with 3-7mm displ. apparent normal. (1 has section of app. thrust). Sub-parallel, branching in the core face <u>and</u> in core axis face. Orientations of 3 of the 6 faults measured.
						090	79	340	00	fault 2						
						090	78	342	00	fault 3						
4	bedding	18	19	-		090	02	000	03			14	31			no observable structures,
4	set of minor faults	63	74	-		270	78	315	00	-	-	63	117			~8 with 0.5cm spacing. Subparallel + branching.
4	det. band	80	85	-	1mm	270	42	355	00	-	-	63	117			thick ~1mm - no observable offset
4	set of minor faults	83	88	-		090	80	325	00	-	-	63	117			0.5cm spacing - subparallel. ~12 in coreface.
4	bedding	77		-		270	01	000	02	-	-	63	117			
4	minor faults	103	107	-	<1mm	270	88	060	00	-	-	63	117			2mm - 4mm spacing. Curvilinear minor faults <1mm disp!. Some appear to be low-angle conjugate sets <1mm thickness
4	minor faults	110	117	-	<1mm	270	86	352	00	-	-	63	117			
5	set of minor faults	0	3	-	<1mm	090	88	050	00	-	-	0	64			1mm scale offset. Cm-scale spacing - subparallel.
5	2 minor faults	0	3	-	~1mm thick	180	88	080	00	-	-	0	64			Parallel to the core-face - hence not readily seen. Offsets ~1mm or less. ↳ parallel to core axis too.

106-108 PMAG

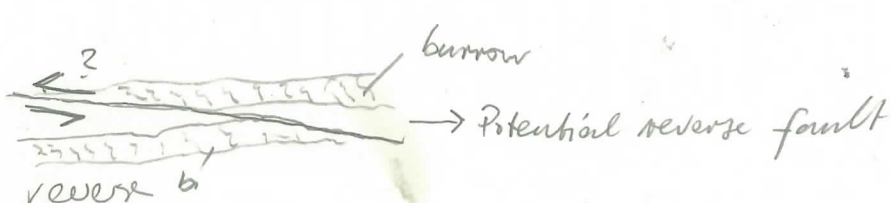
70-72 PMAG

5-8 PMAG

### Structural Geology Observation Sheet

Exp.: 358 Site: C0624 Hole: E Core: 12 Observer: CR/DF/AD/BJ Summary:

No. \_\_\_\_\_

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes	
						az.	dip	az.	dip	rake (±90)	from (±1, 90 or 270) * Top → "+" Bottom → "-"	top	bottom	az./trend	dip		
5	minor faults	15	25	-	0.5 mm	270	89	045	00	-	-	0	64			Minor faults w/ 0.5 mm wide 1mm offset 1cm spacing. Sub-parallel.	Offset dies off to top and bottom → restricted to one horizon in the core.
5	bedding	9	10	-	-	090	05	180	06			0	64				
5	bedding	86	87	-	-	270	04	180	01			80	97				no observable structures.
5	bedding	116	117	-	-	270	04	180	04								no observable structures in this interval.
6	faults	14	20														macrofaults w/ subvertical 1-2 mm apparent displacement (normal) } sets of faults 
6	faults	28	32														
6	DB			37		90	5	0	18			0	72				
	DB			39		270	6	0	19								
	bed			41		270	3	180	6								
	fault	51	53			90	7	180	17								
	fault	60	71.5														macrofaults w/ normal displacement (subvertical)
	fault	96	111														minor normal faults (subvertical)
	fault	119	124														subvertical minor normal fault
	fault	127	141			90	77	0	48								minor normal faults (all < 1mm) irregular; 2nd apparent dip estimate
						90	78	0	48								
						90	77	0	48								
						90	73	0	48								

PMA6  
40-42

### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 353 Site: 20021 Hole: E Core: 12 Observer: ADKJ Summary:

Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake ( $\leq 90$ )	from ( $\pm 1, 90$ or $270$ ) * Top $\rightarrow$ "1" Bottom $\rightarrow$ "-1"	top	bottom	az./trend	dip	
7	fault	49	55													subvertical normal fault w/ limited offset
cc																all cracked



### Structural Geology Observation Sheet

No. \_\_\_\_\_

Exp.: 358 Site: C0024 Hole: E Core: 13G Observer: DFCR Summary: Ghost core.



Section No.	Structure ID	Top of Struct	Bottom of Struct	ave. depth	Thickness of Struct	Core face app. Dip		2nd app. Dip		Striation on surface		Coherent interval (for P-mag)		P-mag pole		Notes
						az.	dip	az.	dip	rake (≤ 90)	from (± 1, 90 or 270) * Top → "1" Bottom → "-1"	top	bottom	az./trend	dip	
7	fractures + minor faults <hr/> bedding	14	40													<p>4-6cm across 5 blocks that have been rotated <del>together</del> along multiple axes, independantly from one another. (orient. + position data are lost)</p> <p>Will not measure any orientations</p> <p><del>fracture</del> sets of branching hairline fractures + minor faults w/ mm-scale offset cm spacing between faults/fractures oriented near orthogonal to bedding in cut face. probably similar to features in core 12</p> <p>R.</p>