

Structural Geology

Exp: 316 Site: Coob F Core: 1R Observer: Fabri Summary:

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
1	fissility	17	17			90	6	0	15			14	23	185.9	9.7	
	fissility	43	45			270	6	0	12			41	48	121.4	42.3	
	fissility	88	90			270	4	0	10			85	99	106.5	36.1	
	vein	85	88			270	46	0	10			85	88	"	"	
	Reverse fault	120	121			270	13	0	3	22	270	118	123			
2	normal fault	72	79			30	68	180	40	20	270	73	80	284.7	7.8	
	fissility	7	9			270	8	0	36			4	15	127.5	24.3	
3	fault reverse left-lateral	16	22			90	39	0	22	270	28	16	22	55.8	35.6	
1																(ZR)
																drilling-induced breccia
3	shear band	63	64			270	17	0	1			60	66			
3	shear band	64	66			270	20	0	1			60	66			
3	bedding	63	63			90	2	180	12			60	66			
3	fault (N)	74	74			270	9	180	31	50	90	71	74	138.6	47.9	
3	joint	23	31			270	59	180	21			22	33	235.1	29.9	
3	shear band	86	86			90	2	0	80			71	88	138.6	47.9	

Structural Geology

Exp: 316 Site: 00006 F Core: 2 Observer: Summary:

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
CC	shear band	8	15			270	46	0	43			8	15			
(3)	BR															

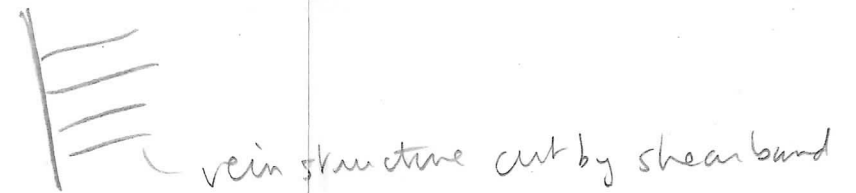
poor recovery. highly brecciated. Large ash contents.

Core 3: fault zone (?)

BR

sections 2/3: fragments of mudstone of sizes of about 1 cm ~ 2 cm frequently, fragments faces are striated (10~20% of faces)
no structure can be measured because of drilling disturbance and rotation during drilling.

Nice structure @ CC 22cm ~ 24cm



The size of the remaining fragments seems to decrease from about 2cm x 3cm at section 2 - 12 ~ 28cm down to about 2 x 3mm or smaller at section 3 - 10 - 20 cm.

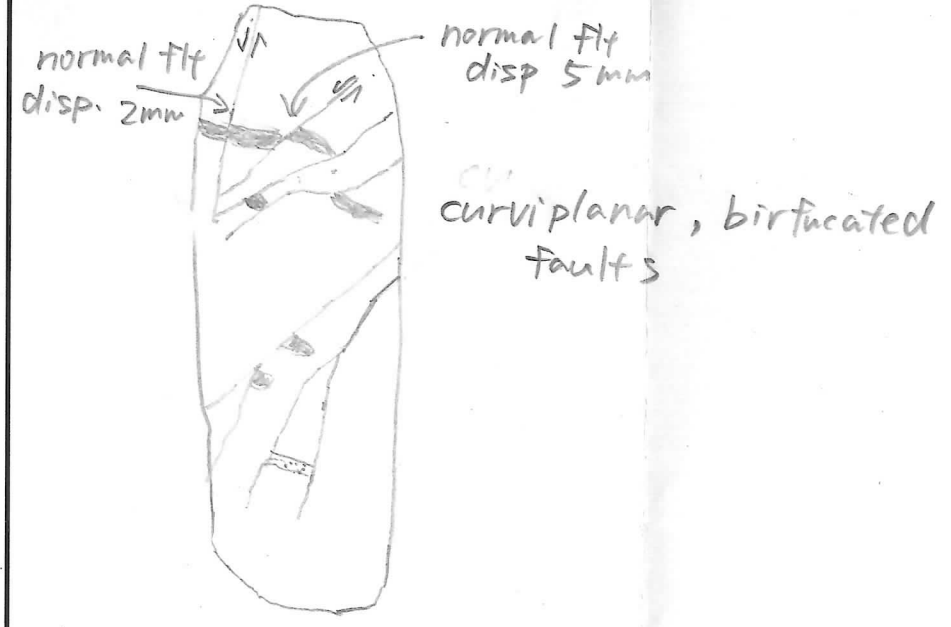
Possible breccia @ section 3 - 20 - 26 cm

Structural Geology

Exp: 316 Site: C000 F Core: 6R Observer: K. V. A. F. Summary:

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes	
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip		
1	fault (LL)	18	21			90	44	52	0	48	90	15	25				
						7R											
						<p>Fractured and brecciated mudstone</p> <p>lack in polished and lincated surfaces</p> <p><u>Drilling-induced</u></p>											

Sec. 1, 2: 5-15cm coherent pieces.
 cc: breccia. fragment size: < 5mm.
 5-27cm.
 (0-5cm: PAL)
 sec. 1, 54-66 cm



Structural Geology

Exp: 316

Site: C0006 F

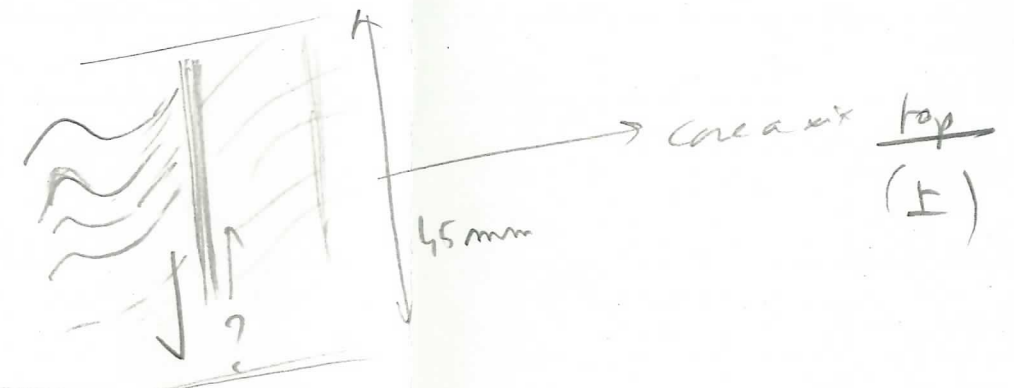
Core: 8R

Observer: Fakhri

Summary:

Section 1: only fragments; many striated surfaces; spaced cleavage
 Section 2: same as 1, but the whole is compacted

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
1	fault (N)	2	8			90	33	180	5			2	8			offset: 1 cm The spaced cleavage is quite irregular
1	fault (N)	2	8			270	50	0	70			2	8	181.3	26.4	
1	spaced cleavage	57	65									57	65			
1	deformation kimberlite	101	101			270	10	0	2			100	104			
	vein structure	100	104													
2																
CC	vein structure	15	21			270	68	0	3							



Section 2: fragments of various sizes (1mm ~ 5cm), angular, many striated surfaces; some fragments show spaced cleavage?

CC: only fragments

vein structures are almost vertical

Structural Geology

Exp: 316

Site: 0006
F

Core: 11R

Observer: Falbr
Li

Summary:

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes	
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip		
1	fault (R)	33	39			270	32	180	27	64	90	14	39			261.8 -14.8	section 2: 0-39 cm: broken interval
1	fault	14	19			90	55	180	6	28	90	14	39				
1	fault	94	101			270	64	123	0			94	101				
	fault	110	116			270	36	180	23	53	90	109	117	261.7	38.7		
	Normal fault	112	118			270	68	180	53	90	90	109	117				
	Reverse fault	123	123			90	0	180	21	64	270	109	142				
	normal fault	23	27			90	62	90	5	53	90	15	38	261.8	-14.8		
	normal fault	132	138			270	65	180	71	41	270	109	142	261.7	38.7		
	reverse fault	131	131			90	0	0	0	79	270	109	142				
	normal fault	130	142			270	20	180	52	53	90	"	"				
	left lateral reverse fault	138	145			270	62	10	0	27	90	"	"				
2	N fault	75	79			270	52	180	36	37	90	71	73	252.4	36.8		
	N fault	48	69			270	64	180	64	28	90	48	61	310.5	50.8		

Structural Geology

Exp: 316

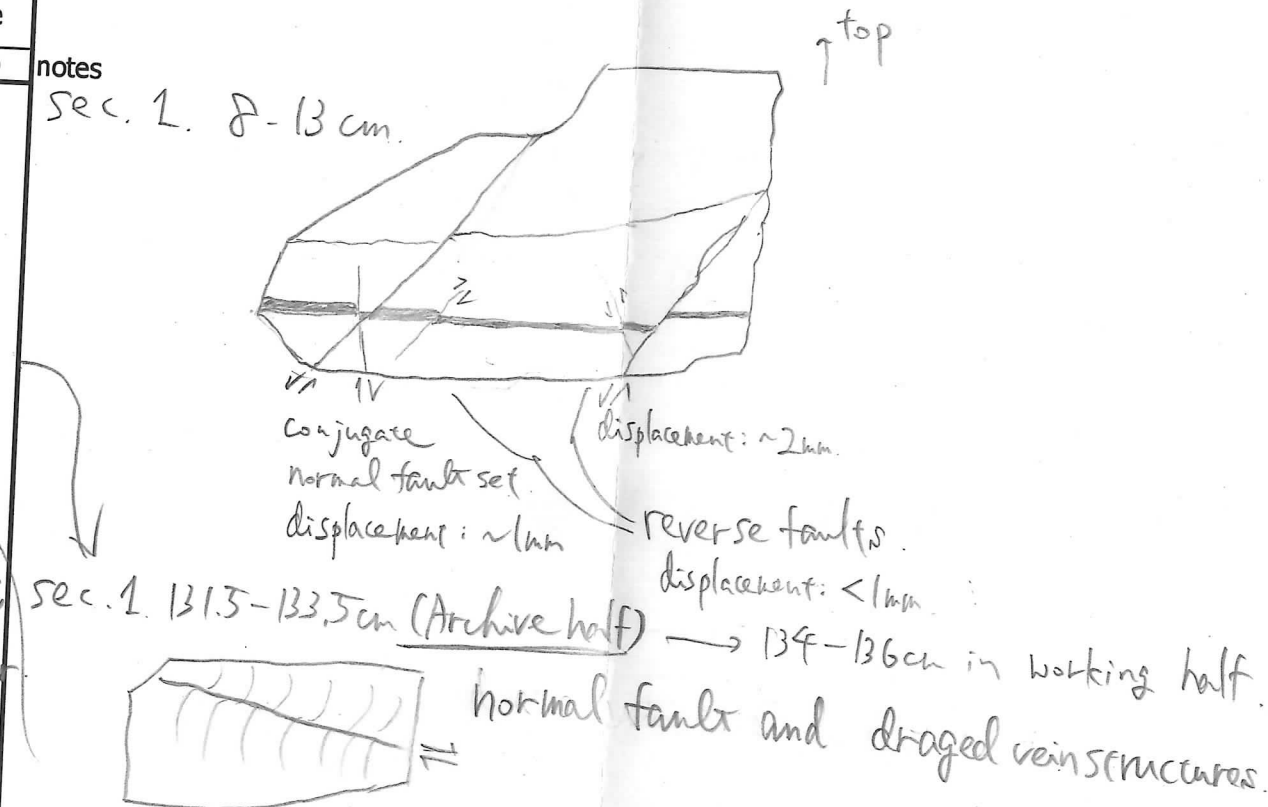
Site: ^{C0006}
F

Core: 12R

Observer: ^{AT}
^{KU}

Summary: Coherent pieces w/ normal and reverse faults.

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes	
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip		
1	fault (normal)	8	13														
	fault (reverse)	8	13														
	fault & vein structure	134	136			270	28	180	18			126	140	159	346	11	
	Sec. 1.	0-53 cm: coherent pieces															
	Sec. 2.	40-122 cm: coherent pieces															
cc	cc.	5-14 cm: coherent pieces.															
		(other parts: WR samples)															
13R1																	
1	fault	10	15														
	fault (normal)	41	47			270	34	180	23								
	bedding	100	101			270	4	180	1			100	106				
	fault	129	135														
cc	vein structure	20	23														



steeply dipping, curvilinear

Summary: Coherent pieces w/ several normal faults.

Structural Geology

Exp: 3/6

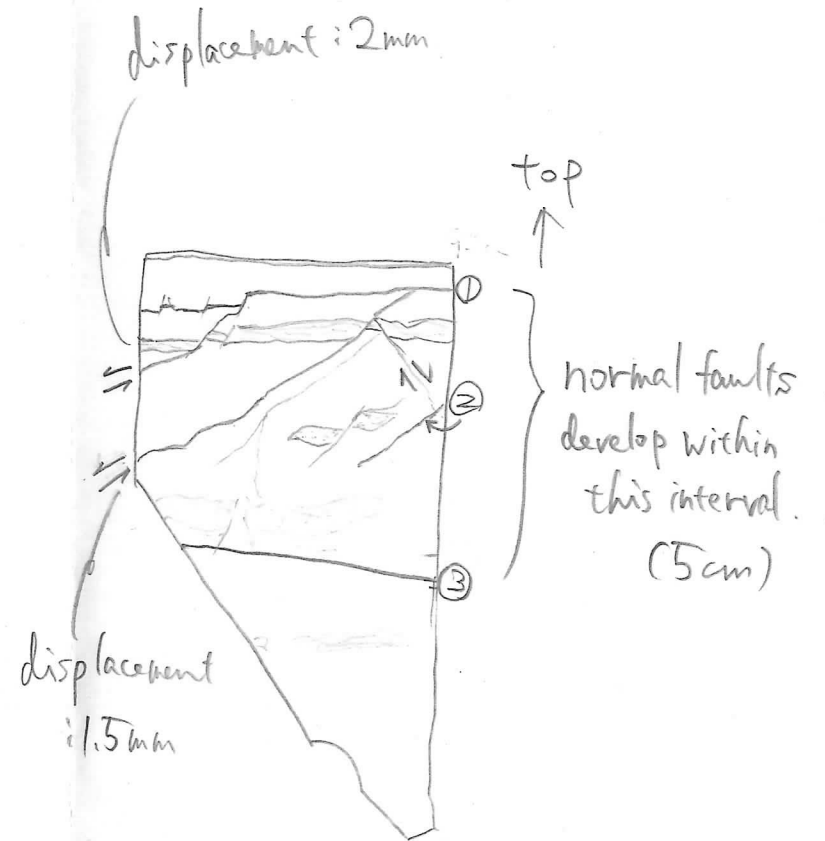
Site: C0006
F

Core: 4R

Observer: K.V.
A.T.

Summary: Same as 12R and 13R

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
2	black seam	① 93	93			270	6	180	2			92	102	163.3	20.5	Sec. 1: Coherent pieces. Sec. 2: Coherent pieces, some normal fault sets in 92-102 cm.
	fault (normal)	② 95	96			270	34	0	11							
	black seam	③ 98	98			90	3	0	6							
1	fault reverse	47	52			270	41	0	56	90	90	42	109	273.6	13.2	15 R found clear striations Section 2 possibly undisturbed (intact?) fault breccia from ~50 cm down to 69 cm
	fault	57	61			90	5	180	72	75	270	"	"			
	fault (N)	65	85			270	76	0	26	5	90	42	109	301.6	3.8	
	fault	86	94			90	59	180	20	35	270	42	109			
	fault (N)	104	109			270	70	0	0	10	90	42	109	254.4	42.8	
2	ash layer	73	80													Drilling-induced breccia, but may be breccia
2	fault (N)	67	71			270	30	180	26	30	90	67	71	252.3	28.7	



15 R

found clear striations
Section 2 possibly undisturbed (intact?) fault breccia from ~50 cm down to 69 cm

Drilling-induced breccia, but may be breccia

Structural Geology

Exp: Site: 06F Core: 16R Observer: JF CFL Summary:



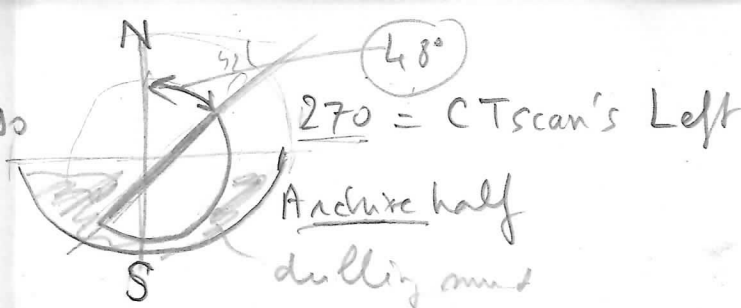
Brecciation all along! possible fault breccia & fault gouge?

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
1	Fault	29	32			90	89	0	05	75	90	27	32	345.9	-9.67	(1) moderately broken from 0 to 36 finely broken (intensely) broken from 36 down to 100 Segment 38 ~ 42: injection? of mud? as seen by Fred on CT scans, but not clear on the W half Fragments are rather angular, and may show polished surfaces
	Fault N	32	33			90	4	180	21	69	270	27	32	"	"	
	Fault breccia															
CC	right lateral fault	7	18			270	88	0	01	64	270	7	18			(2) section 2 consists of fine breccia from 0 to ~41 cm and then of coarse breccia from 41 down to 72. Some of the fragments have striated surfaces some fragments have very small sizes (L < 1mm) => comminution section (2) from 38 to 62: fault-breccia? same as 15R section 3 The fragments are "floating" in a muddy matrix, in a similar way as in 15R-3. drilling mud? tectonic breccia matrix?
	Fault breccia															
1																<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">17R</div>
2																
CC																

17R

Structural Geology

CTscan's right = 90

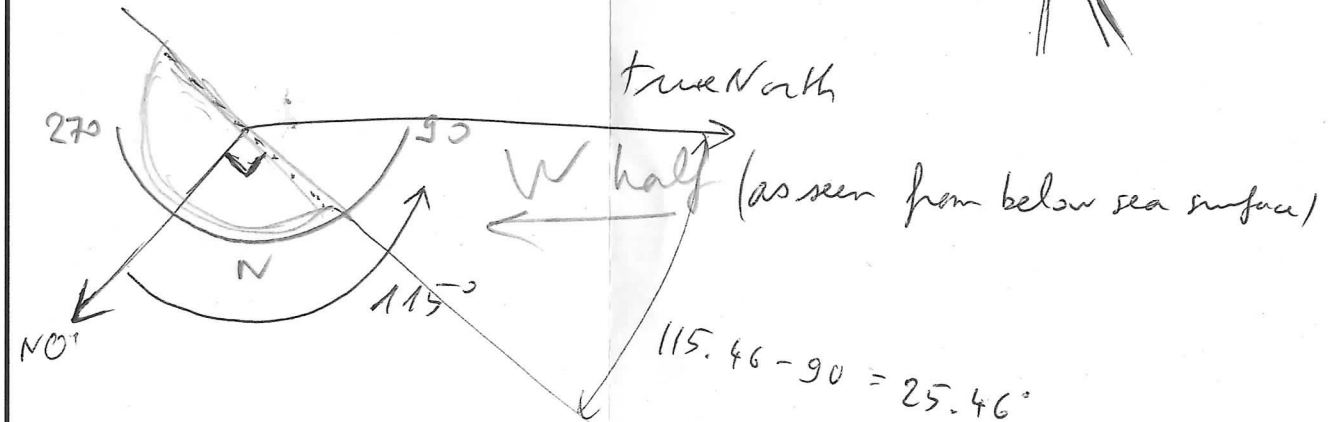


seen from below surface

Exp: 3/6 Site: C0006 F Core: 18R Observer: Summary:

The joint attitude is (N 48° W, 90° X) in the core reference system = (N 132° E, 90° X)

structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
					az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
2 joints	76	114			90	0									Sec. 1. 0-76 cm: Coherent pieces (5-15 cm lengths) 76-114 cm: Coherent pieces w/ joint.
shear zone	49	57													Sec. 2. 0-15 cm: breccia. 15-43 cm: Coherent pieces.
	0	25													CC. breccia and coherent pieces.



$$\begin{array}{r} 180 \\ - 25.46 \\ \hline 154.54 \end{array}$$

(N 154.54° E, 50°)



Structural Geology

Exp: 316 Site: 00006 F Core: 19 R Observer: Falahri Summary: Same as section 1.

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
2	fault	28	31			90	45	0	62	20	90	10	61			Normal
2	shear zone	51	55			270	56	180	25					257.7	28.1	
2	fault	53	60			270	62	180	20	5	90	10	61			Normal
3	fault	8	10			90	25	0	60	40	90	0	44	88.0	40.1	
										second rake →	84	270				
3	fault	10	24			270	3	0	89	7	270	0	44	"	"	LL
3	fault	67	82			90	69	180	80	25	270	60	82	118.9	24.2	N
3	shear band	87	95			90	73	0	30			87	95	239.9	18.1	
4																
5	Shear band	31	40			270	64	0	60			30	50	304.9	9.1	

Structural Geology

Exp: 316 Site: Condol F Core: 19 R Observer: Fabrice Li

Summary:

coherent ^{greenish} mudstone, striations are omnipresent. Many of them might be drilling-induced.

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip	
1	fault	13	15			90	13	0	36	80	90	6	111			Normal
1	fault	19	19			90	9	0	21	85	90	6	111	129.7	26.3	Normal
1	fault	21	23			90	16	0	15	68	90	6	111			Normal
1	fault	26	28			90	20	180	4	58	90	6	111			Normal
1	fault	26	29			90	20	0	44	80	90	6	111			Normal
1	fault	30	38			90	55	0	46	34	90	6	111			Normal
1	fault	43	46			270	32	0	80	62	90	6	111			Normal
1	fault	60	71			270	60	0	63	25	90	6	111	243.5	2.5	LL
1	fault	71	83			90	70	0	20	34	90	6	111			Normal
1	fault	82	89			90	70	180	77	55	90	6	111			Normal
1	shear zone	20	29			270	60	0	1			6	111			
1	shear zone	68	103			270	81	0	85			6	111			
1	shear zone	105	111			270	68	0	69			6	111			

Structural Geology

Exp: 316

Site: C0006
F

Core: 20R

Observer: KU
AY

Summary: coherent pieces overall

Boundaries of coherent pieces are polished and slickenlined

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole		notes	
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip		
2	fault (normal)	70	78			90	63	26	0	20	90	70	78	55.0	12.4		
cc	nothing to describe					21R											
						22R											
1	fault (LL)	104	111			270	57	229	0	42	90	100	111			drilling-induced?	
	fault (LL)	85	90			270	58	123	0	57	270	76	90	296.1	7.2		

Same as 20R.

Sec 1: Coherent pieces

2-cc: breccia

striations: almost perpendicular to core axis (=rotary direction)

C0006

Structural Geology

Exp: Site: F Core: 23 Observer: ^{OF}_{CFL} Summary:

section	structure ID	top of struct	bottom of struct	average depth	thickness (cm)	core face app. dip		2nd app. dip		striation on surface		coherent interval (for P-)		P-mag pole	
						az.	dip	az.	dip	rake	from	top	bottom	az/trend	dip

① 0 - 3: sand ^{size fragments} (washed)
 3 - 14: void
 14 - 49 rounded and clean fragments (washed out)
 49 - 59: IW
 59 - 77: 3 large fragments

Ⓢ, 1 piece of carbonate rock
 nothing to be measured.