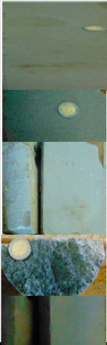


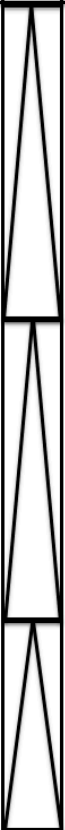
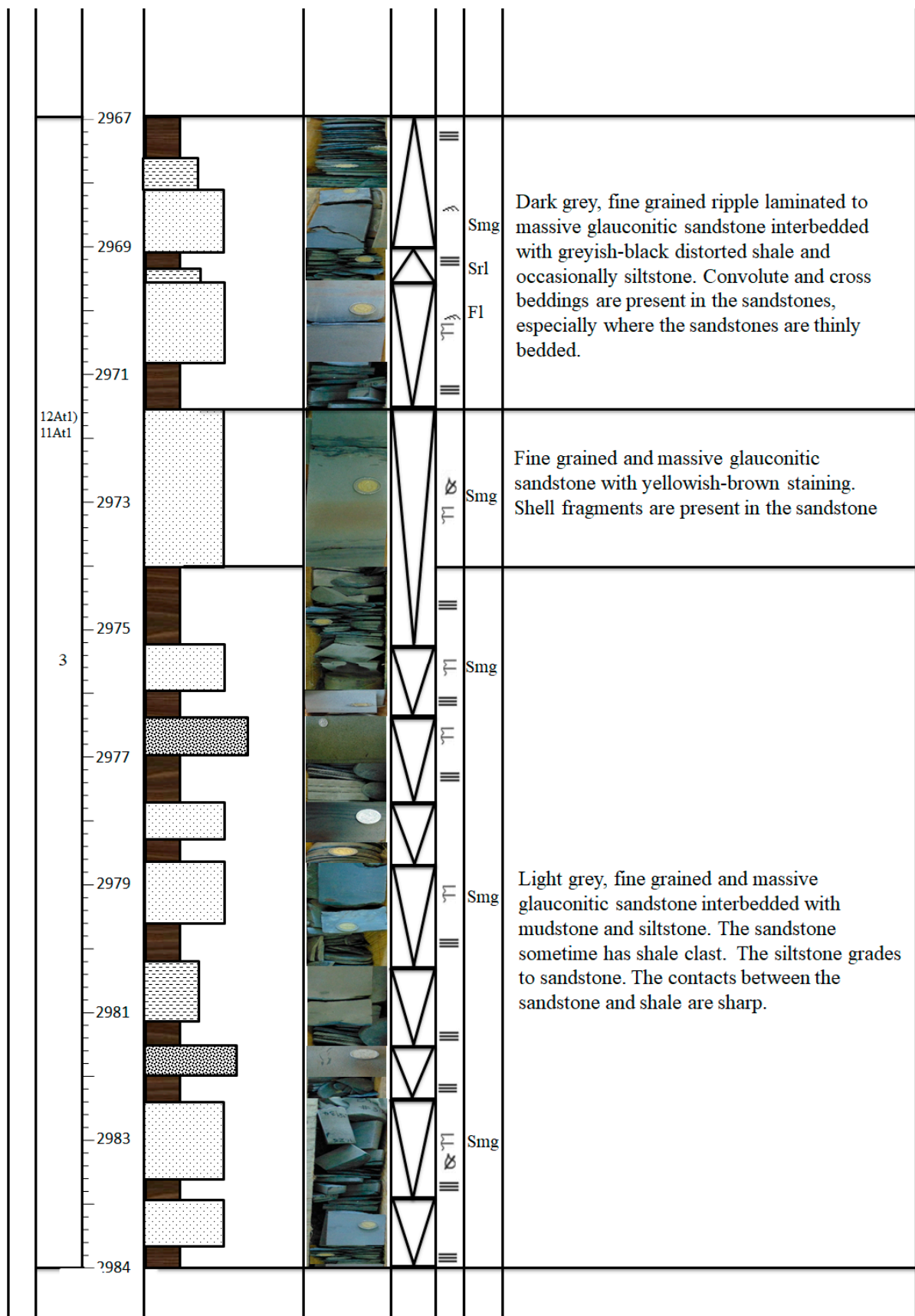


# STRATIGRAPHY

BOREHOLE E-AH1														
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY						PHOTOGRAPH	CYCLES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION	
			MUD		SAND									
			CLAY	SILT	FINE	MEDIUM	COARSE	CONGLOMERATE						
1	F-E 13At1	2471										Smg	Fine grained and massive glauconitic sandstone with yellowish-brown staining. Shell fragments are present in the sandstone	
		2473												
		2475									Smg			
		2477												
		2479										F1 Smg	Dark grey, laminated to thin bedded black shale interbedded with medium grained glauconitic sandstone. The shale is characterized by near horizontal bedding and the contacts between the shale and sandstone are erosional.	
		2481												
		2483											Smg	Fine grained massive glauconitic sandstone with yellowish-brown staining, shale clast and high angular bedding. There are sediment injection features in the sandstone.
		2485												

	Disc structure		Horizontal lamination		Horizontal bedding		Massive bedding		Clast imbrication
	Shell fragment		Stylolite		Ripple cross lamination		Cross bedding		Flaser bedding
	Rip-up clast		Mudstone		Shale		Siltstone		Fine grained sandstone
	Medium grained sandstone		Coarse grained sandstone		Conglomerate		Gravel		Clay

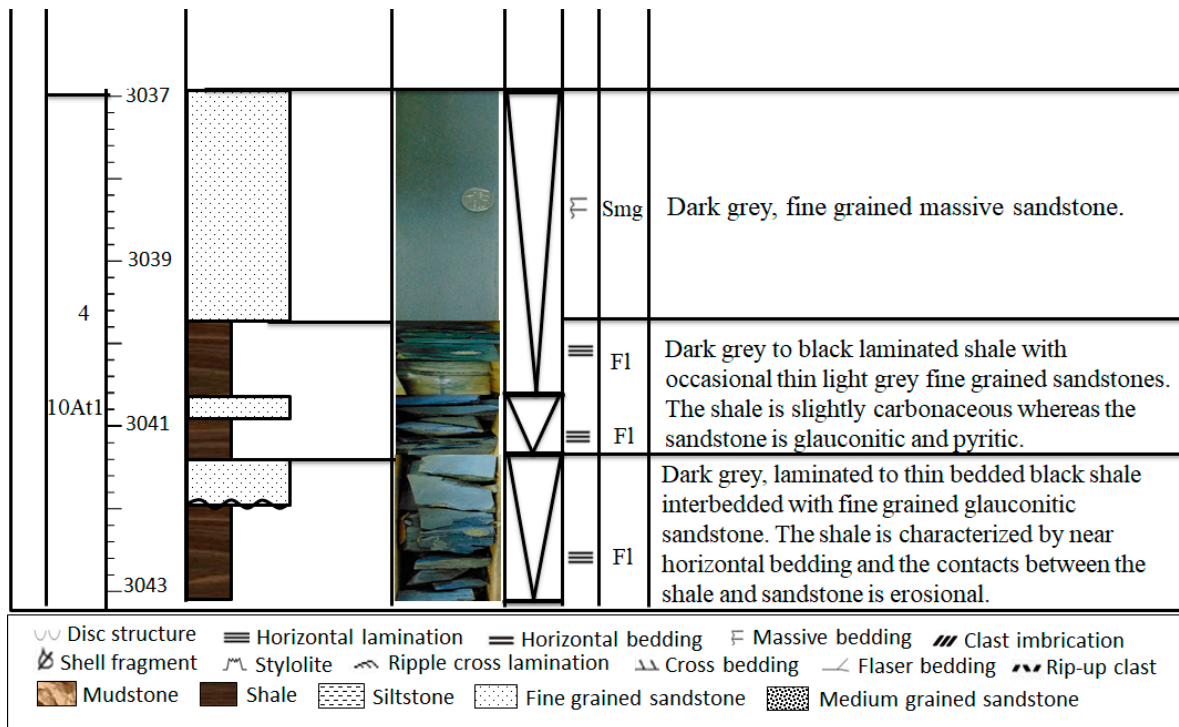
BOREHOLE E-AJ1													
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY						PHOTOGRAPH	CYCLOTHERM	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION
			MUD		SAND			CONGLOMERATE					
			CLAY	SILT	FINE	MEDIUM	COARSE						
	1	2701									Smg		Light to dark grey, fine to medium grained massive sandstone. The sandstones are blocky to crumbly, dolomitic in some places and slightly glauconitic.
		2703											
		2705											
	2	2720									Smg		Light to dark grey, fine to medium grained massive sandstone. The sandstones are blocky to crumbly, dolomitic in some places and slightly glauconitic.
		2722											
		2724											
		2726											
		2728											
		2730											



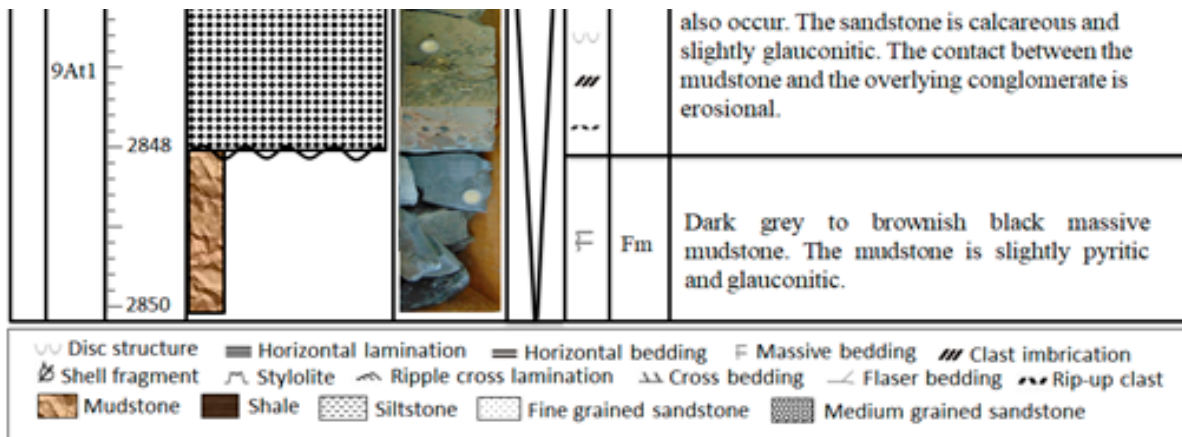
Dark grey, fine grained ripple laminated to massive glauconitic sandstone interbedded with greyish-black distorted shale and occasionally siltstone. Convolute and cross beddings are present in the sandstones, especially where the sandstones are thinly bedded.

Fine grained and massive glauconitic sandstone with yellowish-brown staining. Shell fragments are present in the sandstone

Light grey, fine grained and massive glauconitic sandstone interbedded with mudstone and siltstone. The sandstone sometime has shale clast. The siltstone grades to sandstone. The contacts between the sandstone and shale are sharp.



BOREHOLE E-BA1														
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY						PHOTOGRAPH	CYCLES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION	
			MUD		SAND			CONGLOMERATE						
			CLAY	SILT	FINE	MEDIUM	COARSE							
1		2828										Smg	Light to dark grey, fine to medium grained massive glauconitic sandstone interbedded with black carbonaceous mudstone.	
												Fc		
													F1	Light brownish grey laminated clay-rich siltstones. It is slightly carbonaceous and sandy in places and also glauconitic.
		2830											Fc	Dark grey to black laminated shale with occasional thin light grey fine grained sandstones. The shale is slightly carbonaceous whereas the sandstone is glauconitic and pyritic.
													Fc	
														Light grey, medium grained glauconitic sandstone.
		2832											Fc	Dark grey to black, laminated slightly carbonaceous shale.
		2834											Smg	
2836														
2	13Atl											Smg	Light to dark grey, fine to medium grained massive sandstone. The sandstones are blocky to crumbly, dolomitic in some places and slightly glauconitic.	
		2838										Smg		
		2840										Smg		
													Smg	
		2842											Smg	
		2844											The conglomerate is predominantly matrix supported and exhibits fining upward sequence. The clasts are claystone and siltstone. The matrix is a light brownish grey fine to medium grained sandstone. Occasional shell fragments	
		2846										Gmm		



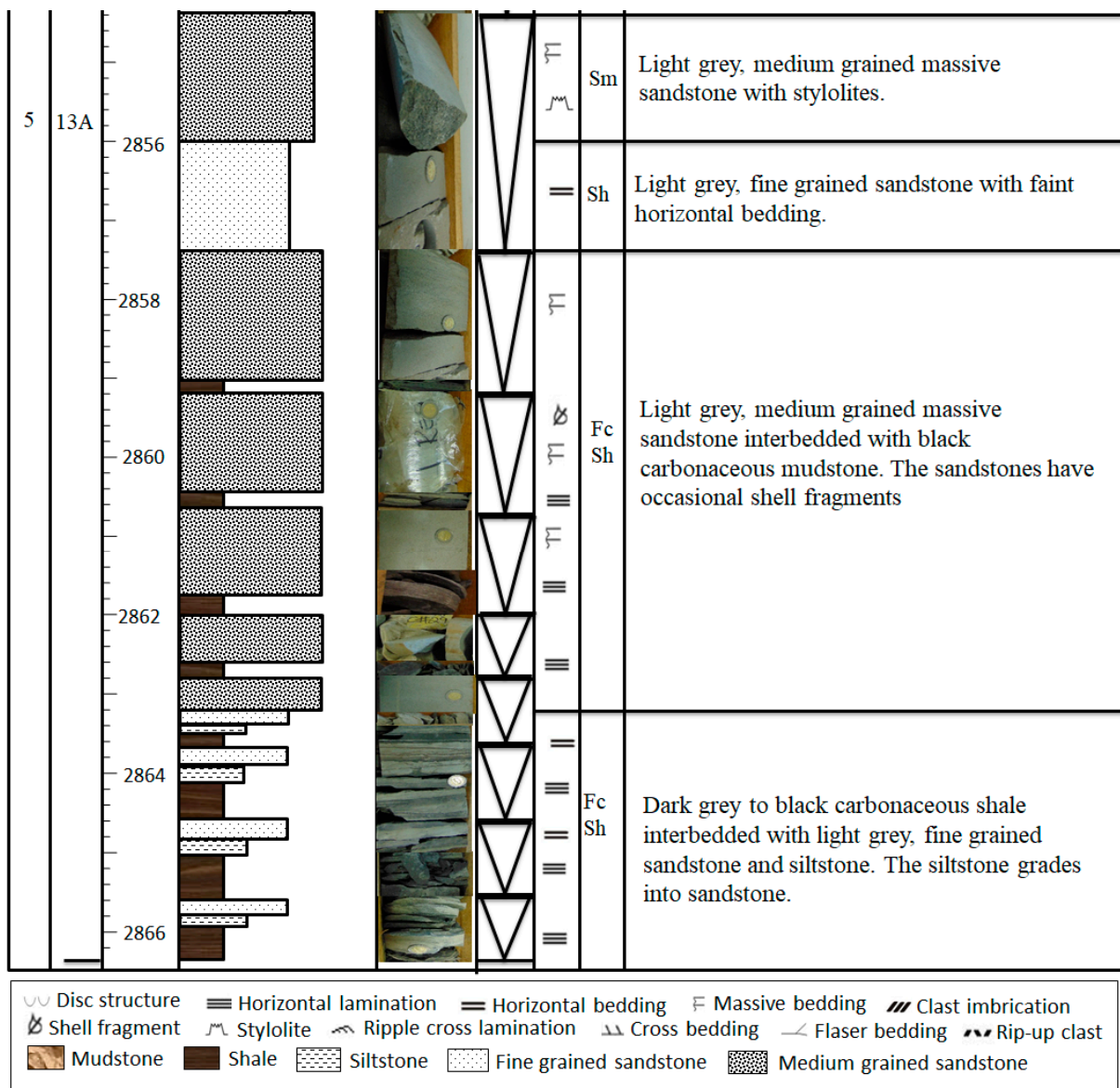


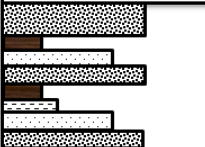










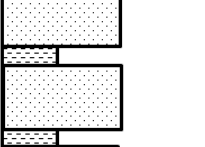


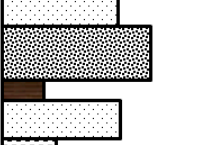





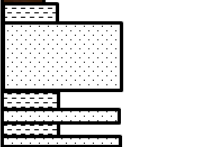


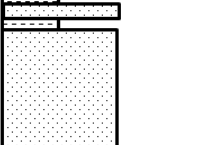


BOREHOLE E-BB1												
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY					PHOTOGRAPH	CYCLES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION
			MUD		SAND							
			CLAY	SILT	FINE	MEDIUM	COARSE					
1	14A	2537								Smg	Light grey, fine grained and massive glauconitic sandstone. The sandstone is mostly structureless. Shell fragments are occasionally present in the sandstone.	
		Smg								Light to dark grey, fine grained and massive sandstone. The sandstones are blocky to crumbly, dolomitic in some places and slightly glauconitic. Brownish discolouration is occasionally seen in the sandstone which could be due to the dolomite and iron-calcite cement.		
									Fc	Greyish-black mudstone		
									Srl	Light grey, very fine grained sandstone with stylolites and ripple laminations		
										Black carbonaceous shale		
									Smg	Light grey, very fine grained massive sandstone. Cross bedding, stylolites, discolouration, shell fragments and sharp contact with the underlying shale		
									Fl	Black shale with siltstone laminae		
									Smg	Light grey, very fine grained massive sandstone with shell fragments, concretions (dolomite) and occasional shale clast		
										Mudstone with sandstone and siltstone laminae.		
2									2547			
		Sh, Fl	Light grey, fine grained sandstone with mudstone laminae									
			Smg	Light grey, fine grained sandstone interbedded with mudstone and siltstone. The siltstone grades to sandstone. The sandstone has ripple laminations and small load structures.								
			Fc	Carbonaceous shale with trace fossils and bioturbated								
			Srl	Thinly interbedded sandstone and shale. The sandstone has ripple lamination, small scale load structures, trace fossils and carbonaceous fragments.								
			Sm	Massive sandstone with shelly fragments.								
			Sm	Light grey massive sandstone interbedded with shale. The contacts between the sandstone and shale are sharp.								
	2555					Sm	Dark grey massive sandstone interbedded with shale. The sandstone has flame structures and bioturbated.					

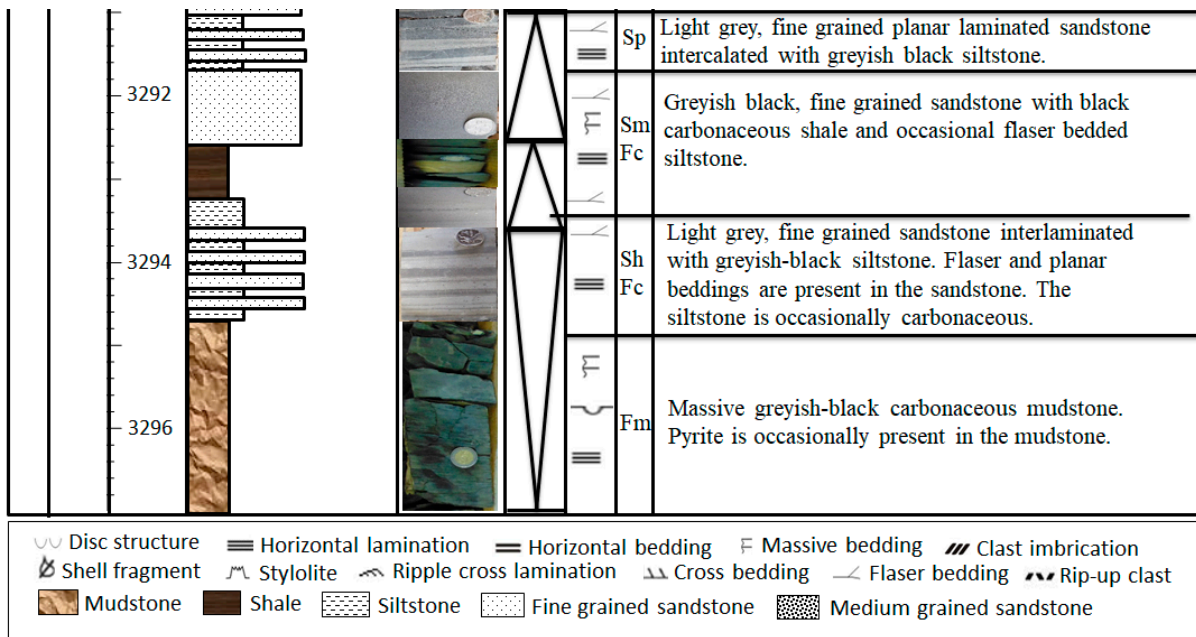
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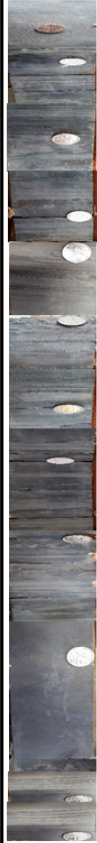















BOREHOLE E-BB1 ( CORE 4 - 5)													
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY						PHOTOGRAPH	CYCLES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION
			MUD		SAND								
			CLAY	SILT	FINE	MEDIUM	COARSE	CONGLOMERATE					
4	13A	2719											Greyish, fine grained, massive sandstone. The sandstone is glauconitic, slightly carbonaceous with occasional shell fragments.
		2721											Black shale interbedded with siltstone laminae
		2723											Greyish, fine grained, faintly laminated to massive sandstone with stylolite. The sandstone has faint horizontal bedding and the bedding is sometimes disturbed by loading.
		2725											Black shale interbedded with horizontally laminated glauconitic sandstone and siltstone. The sandstone shows fining upward sequence with a thin medium grained glauconitic sandstone at the base.
		2725											Core missing
		2846											Dark grey, medium grained massive sandstone with stylolite development.
	2848							Light grey, fine grained massive sandstone with slight inclined bedding.					
	2850												
	2852							Light grey, fine grained sandstone with faint horizontal bedding.					
		2854											

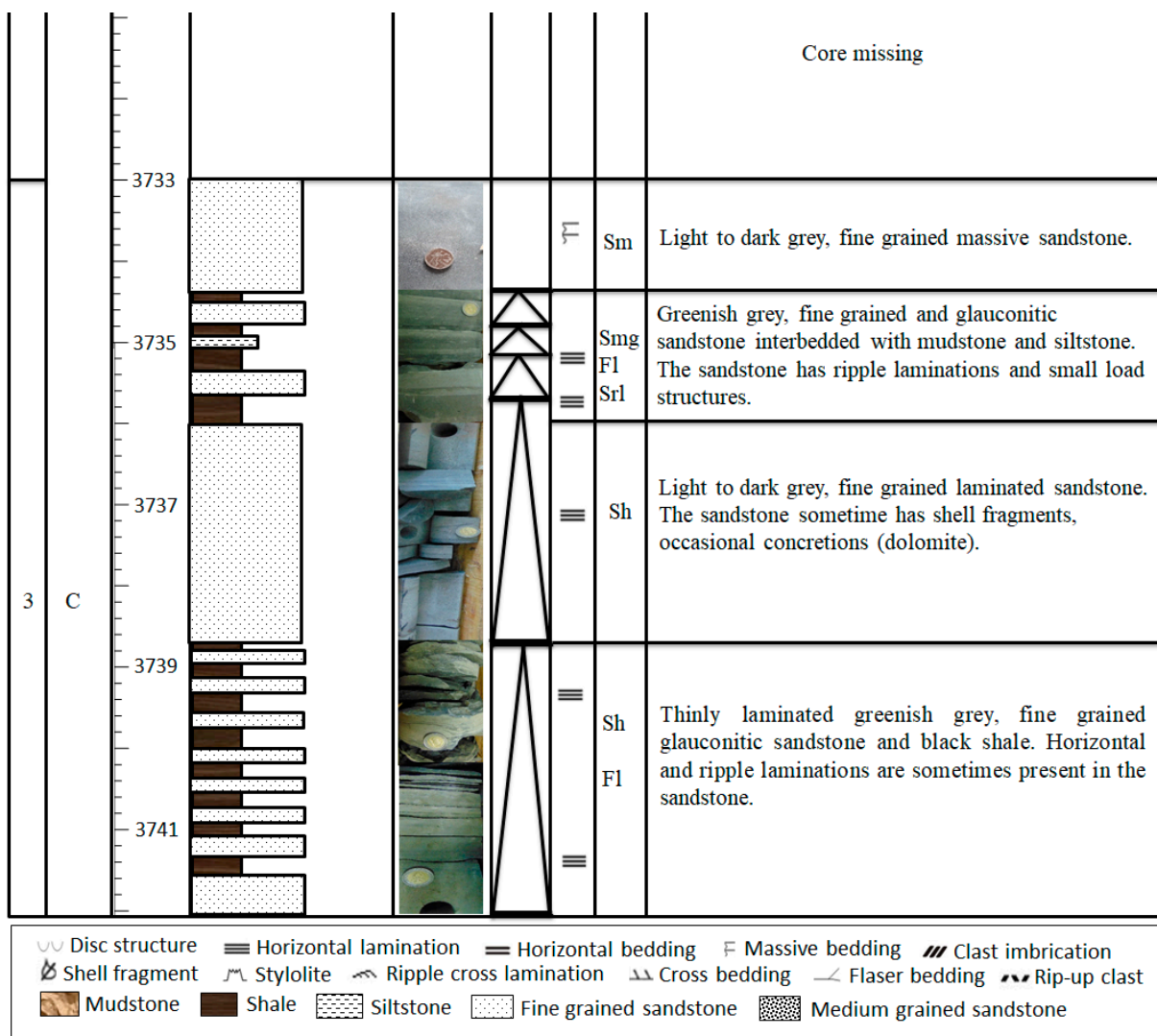


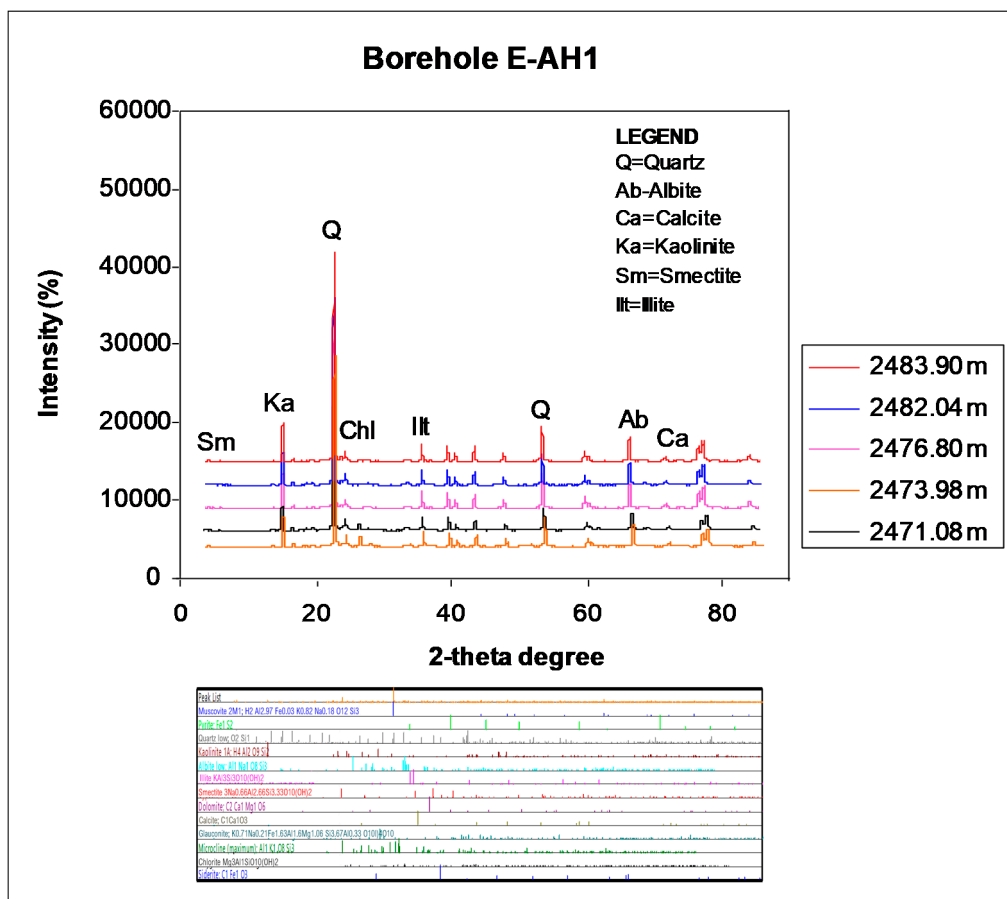
BOREHOLE E-BB1 (CORE 6 - 8)																
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY						PHOTOGRAPH	CYCLES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION			
			MUD		SAND											
			CLAY	SILT	FINE	MEDIUM	COARSE	CONGLOMERATE								
													Core missing			
6	13A	2872										Sm Fl	Light to dark grey, fine to medium grained massive sandstone interbedded with greyish black shale and occasional siltstone. The sandstone bed grades upwards into mudstone.			
		2874													Fc	Massive greyish-black carbonaceous mudstone. Pyrite is occasionally present in the mudstone.
		2876														
													Core missing			
8	Pre -6A	3280										Sm Fl	Dark grey, fine grained, massive sandstone			
													Dark grey to greyish black carbonaceous shale with flaser bedded siltstone.			
		3282												Sm Sr	Greyish, fine grained, massive to poorly stratified sandstone. Faint laminations are occasionally present.	
															Light grey, fine grained sandstone interlaminated with greyish to black siltstone. Horizontal and ripple laminations, flaser bedding and load structures are present in the sandstone and siltstone (in places).	
		3284												Sh Fl	Greyish, medium grained, faintly laminated sandstone	
															Light grey, fine grained sandstone interlaminated with greyish to black mudstone and siltstone.	
		3286													Dark grey, fine grained, sandstone interbedded with siltstone and dark grey to greyish black shale. The sedimentary structures in the sandstones and siltstones are ripple, horizontal and planar laminations, convolute and flaser beddings. The sandstone bed grades upwards into shale.	
		3288												Sh Fc	Greyish-black, fine grained, faintly laminated sandstone	
															Light grey, fine grained sandstone interlaminated with greyish-black siltstone. The siltstone is carbonaceous.	
3290									Sm Sh	Greyish, fine grained, massive to poorly stratified sandstone. Faint laminations are occasionally present.						



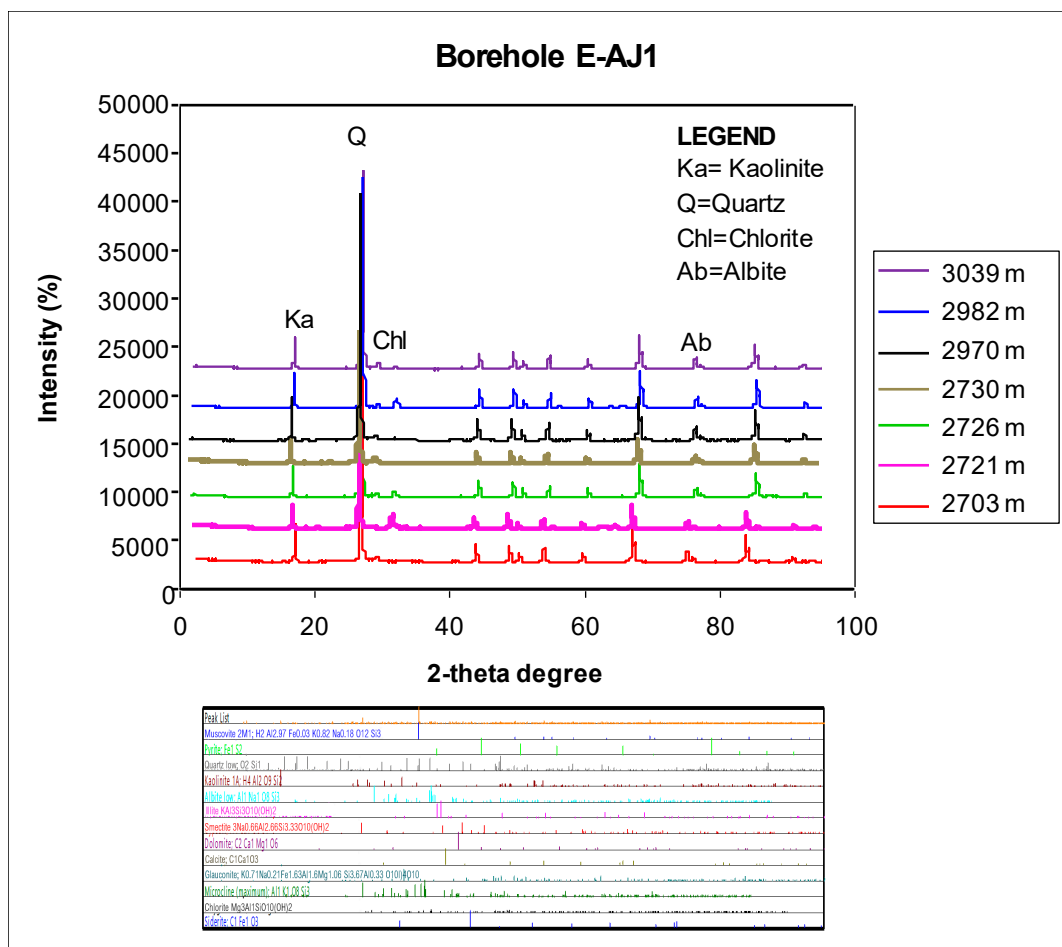
BOREHOLE E-BB1																	
CORE NO	HORIZON	DEPTH (m)	LITHOLOGY					PHOTOGRAPH	CYCLCES	STRUCTURES	FACIES CODE	LITHOLOGICAL DESCRIPTION					
			MUD		SAND												
			CLAY	SILT	FINE	MEDIUM	COARSE										
1	F to C	3260									Sm	Light to dark grey, fine grained massive sandstone.					
		3262									Smg Srl Fl	Dark grey, fine grained ripple laminated to massive glauconitic sandstone interbedded with greyish-black distorted shale and occasionally siltstone. Convolute and cross beddings are present in the sandstones, especially where the sandstones are thinly bedded.					
		3264															
		3266									Smg Fl						
		3268									Smg	Greyish-black, fine grained massive glauconitic sandstone.					
		3270									Smg Fl	Light grey, fine grained ripple laminated glauconitic sandstone interbedded with greyish-black shale.					
												Core missing					
		2	F to C	3526										Smg	Light grey, fine grained and massive glauconitic sandstone interbedded with mudstone and siltstone. The sandstone sometime has shale clast. The siltstone grades to sandstone. The contacts between the sandstone and shale are sharp.		
				3528										Fl			
				3530													
							Core missing										



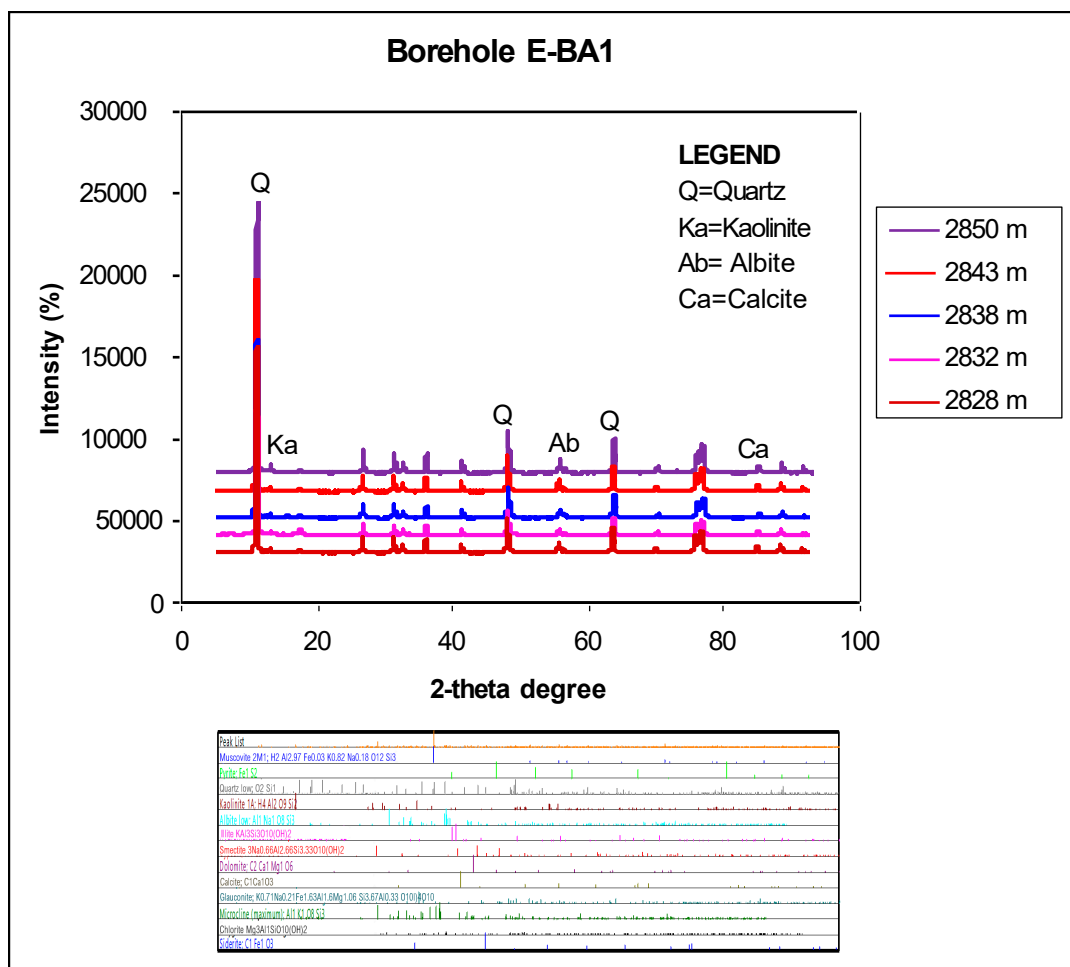




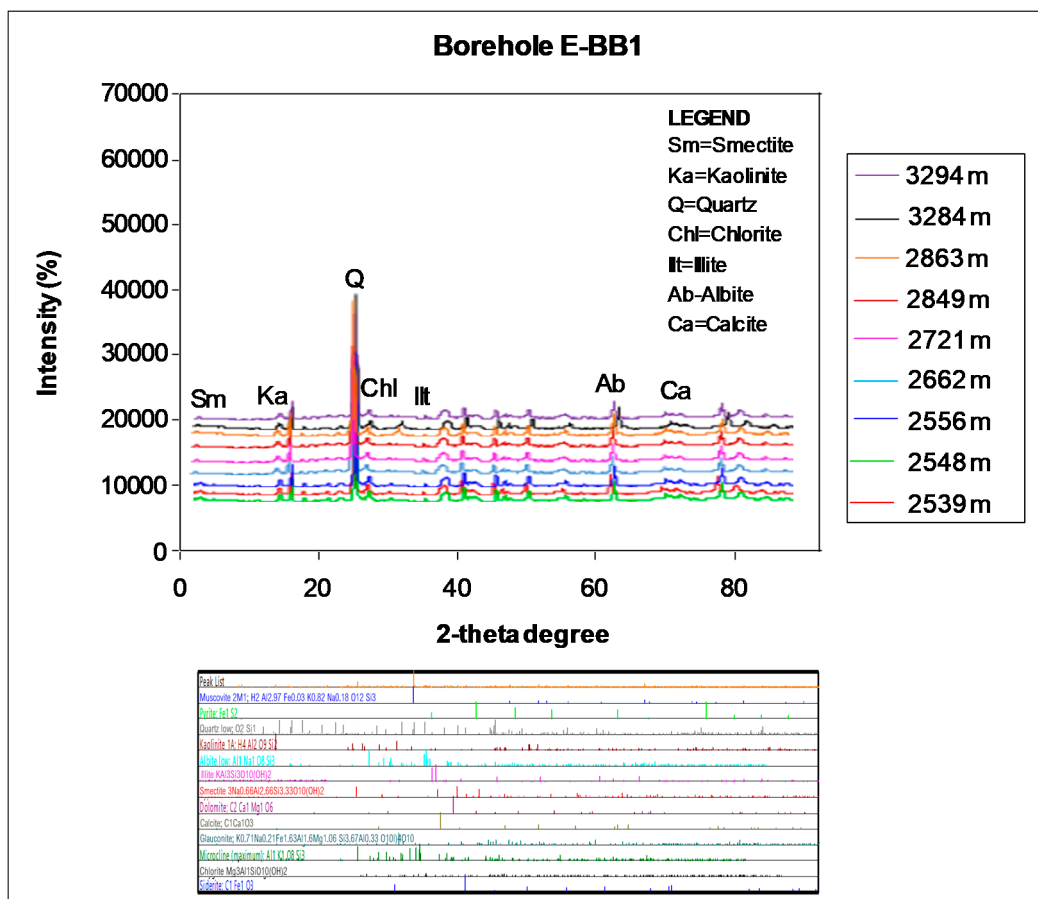
XRD pattern for Borehole E-AH1.



XRD pattern for Borehole E-AJ1.

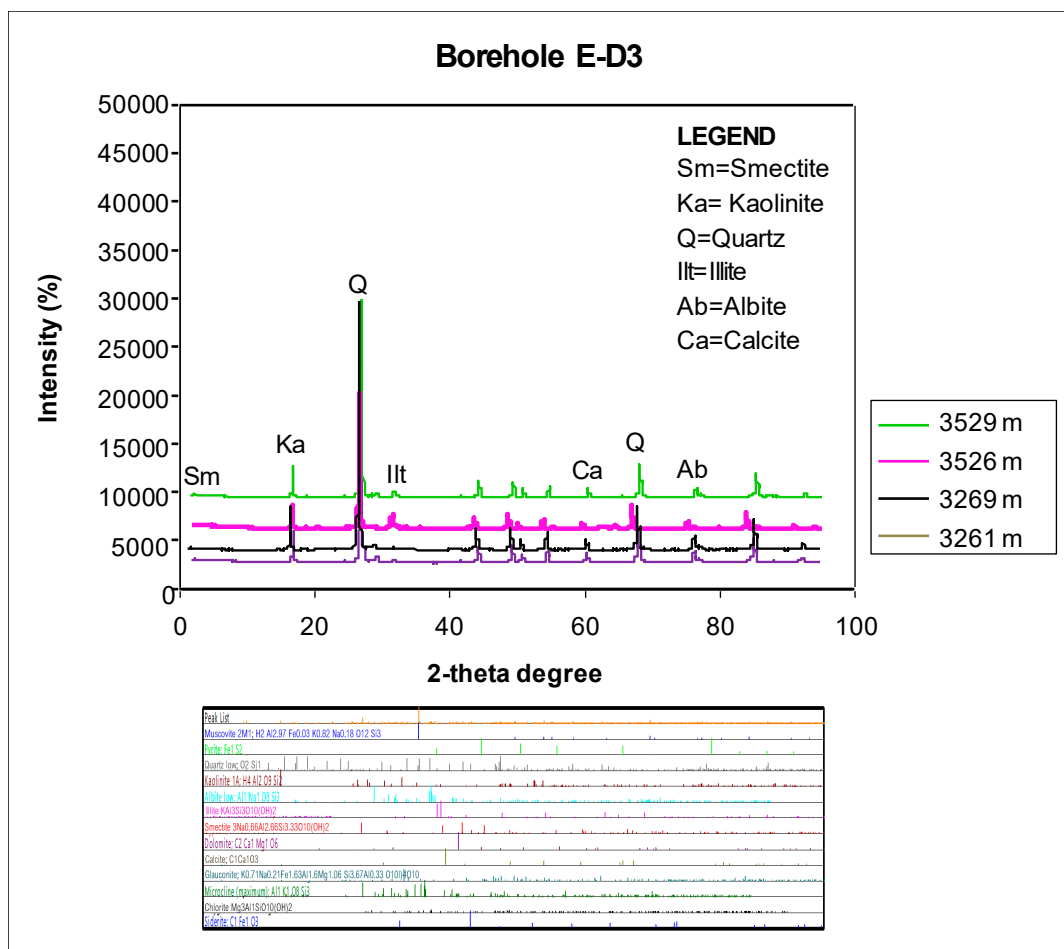


XRD pattern for Borehole E-BA1.



XRD pattern for Borehole E-BB1.





XRD pattern for Borehole E-D3.