Alan Plug

Operator	Amoco Prod Co
Well	Luke GU-4
Location	SW 8-30S-39W
County	Stanton
API	15-187-20661
Elevation	KB 3226
Spud Date	1993

Cored Interval	2600-3024
Core Described	Dubois
KGS Corebarn Loc.	AY6 AY7
Core Depth Correction	CD+4-10' = LD
Date	Feb 8 2000
Description by	MKDubois
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Clastic: 1 Rock Type, 2 Type/Grn Sz, 3 Clay Content - 4 Bedding, 5 Pore Type, 6 Cem/Pore Fill - 7 Water Depth, 8 Fauna, 9 Color

Carb.: Sampl (Plugs, Thin-Sect), Rock Type, Dunham, Clay Content - Grain Size, Pore Type, 2nd Pore - Water Depth, Fauna, Color

Margin	Plugs	Thin-Sect	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
	1		5	2	1	2	1	1	6	7	7		2600	Sli silty mud wkst	CDS	WREFORD
	1		5	2	1	2	1	1	6	7	7					
	2		5	2	1	2	1	1	6	7	7			Sli silty mud-wkst		
	2		5	2	1	2	1	1	6	7	7		05			
			5	2	1	2	1	1	6	7	7					
			5	3	1	4	1	1	5	7	7					
			5	3	1	4	1	1	5	7	7					
	3		5	4	1	4	1	3	4	6	7			pell skel-pkst encr.f pell, Ctd grns		
	3		5	4	1	4	1	3	4	6	7					
	4		5	5	1	5	1	3	4	6	6			Sli sdy skel-pel pkst-grnst	Trans Shoal	W
	4		5	5	1	5	1	3	4	6	6		10			
			5	4	1	4	1	1	4	6	6			Sli silty skel-pel pkst		
			5	4	1	4	1	1	4	6	7					
			5	4	1	4	1	1	4	6	8					
			1	1	4	9	1	4	0	0	7					
2613.5			1	1	4	9	1	4	0	0	7					
2613.8		X	1	2	4	9	1	4	0	0	1					
											1					
											5		15			
											1					
											5					
											5					
			1	2	4	9	1	4	0	0	1		20			
			1	1	4	9	1	4	0	0	1					
			1	1	4	9	1	4	0	0	1				CP	
			1	2	3	9	2	4	0	0	1					
	5		1	2	3	9	2	4	0	0	1					
	5											A				
													25			
2626.2	6	X	1	2	3	9	2	4	0	0	1	A		Minor Vert burr clean shale <10% vol.		
	6															
S	7		1	2	3	9	2	4	0	0		A				
	7															
			1	2	3	9	2	4	0	0	1		30			
			1	2	4	9	1	4	0	0	1					
			1	2	3	9	1	4	0	0						
			1	1	4	9	1	4	0	0	1					
			1	2	4	9	1	4	0	0	1		35			
			1	2	4	9	1	4	0	0	1					
			1	2	4	9	1	4	0	0	1					
			1	1	4	9	1	4	0	0	7					
			1	1	4	9	1	4	0	0	7					A FUNSTON
2639.5	8	X	5	5	0	6	1	2	4	4	3		2640	Algal CH grns / CW Cmgranular cleaning	SHOAL	

Clastic

Rock Type	Type/Grn Sz	Clay Content	Bedding	Pore Type	Cem/Pore Fill	Water Depth	Fauna	Color
1	2	3	4	5	6	7	8	9

Carb.

Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features
8		5	5	0	6	1	2	4	4	3	X X
9		5	5	0	5	1	2	4	4	3	
10		5	4	0	4	0	1	5	5	3	X X
2641.6 10	X	5	4	0	4	0	1	5	5	3	
2654.4	X	2	2	3	4	1	4	8	9	8	
2674.8	X	1	1	4	9	1	4	0	0	1	

Operator: Amoco
Well: Luke 60-4
Location:
County:
API:
Elevation:
Spud Date:

Cored Interval:
Core Described:
KGS Corebarn Loc.:
Core Depth Correction:
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Description by:
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Core Depth	Comments	Depo Envir	Strat Interval
2640	AA w/ encr. forams	SHALE	
	Pkst-mudstone pkst w/ encr. forams		
		CDS	FUNSTON
45		SDS	
	} Flood Pvs. (from Pluto 8/24/08)	CDS	
		SDS	
50			
		TRANS Shoal	
55		SDS	
60	dissolx bivalves & brach		
		CDS	
65		SDS	
		CDS	
70		Trans Shoal	
75		CP	
2680			

Operator	Amoco	Cored Interval	
Well	Lube GU-4	Core Described	
Location		KGS Corebarn Loc.	
County		Core Depth Correction	
API		Date	
Elevation		Description by	
Spud Date		Page	3/11

Clastic: Rock Type (1), Type/Grn Sz (2), Clay Content (3) - Bedding (4), Pore Type (5), Cem/Pore Fill (6) - Water Depth (7), Fauna (8), Color (9)

Carb.: Rock Type, Dunham, Clay Content - Grain Size, Pore Type, 2nd Pore - Water Depth, Fauna, Color

Sample depth	Plugs	Thin Sect	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
													2680			
	11															
2682.7	11	X	1	2	3	9	2	4	0	0	1					
	11		1	2	3	9	2	4	0	0	1					
													85		CP	
	12		5	5	0	3	0	1	4	3	3		90	pell-cocr. from pk-grnst		B1
	12		5	5	0	4	0	1	4	3	4				Shoal (Quiet)	CROUSE
2691.3	12	X	5	5	0	4	0	1	4	3	4					
													95			
													2700			
													05		CP	
2709.6		X	1	2	3	9	1	4	0	0	1		10			
																B2
	13		5	6	0	4	3	1	4	1	4		15	pell- pkst-grnst		MIDDLEBURG
2715.6	13	X	5	5	0	4	3	1	4	2	4	mmm			Shoal (Quiet)	
	11															
	14		5	5	0	5	3	1	4	3	4	X X				
2718.1	14	X	5	5	0	5	3	1	4	3	4			pell-skel, alg. Chlam pkst-grnst	(Shoal Quiet)	
	15		5	[illegible]	[illegible]			1					2720			

Clastic

1 Rock Type	2 Type/Grn Sz	3 Clay Content	4 Bedding	5 Pore Type	6 Cem/Pore Fill	7 Water Depth	8 Fauna	9 Color

Carb.

Sampl: Plugs	Sampl: Thin Sect	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator Amoco
Well Lukc. 60-4
Location
County
API
Elevation
Spud Date

Cored Interval
Core Described
KGS Corebarn Loc.
Core Depth Correction
Date
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Features	Core Depth	Comments	Depo Envir	Strat Interval
	2720			
~ ~		mxd skel wkst (brach, crin, ost, pcll, encr. foram)	C_{DS}	
	25		C	
			P	
	30			
	35			
			— —	—
		pcll pkst-grnst	S_{LAG}	E I S S
	40			B3
	45		C	
			P	
	50			
	55	Pcll wkst-mdst pcll-bryo. bran pk-grnst pcl skell pkst-grnst (Arby. mdst.)	Lagoon	M O, PRIM B4
	2760		C P	

2720.9 — 15 X 5 2 2 - 2 0 1 - 6 6 6 ; 15 5 2 2 - 2 0 1 - 6 6 6
2722.4 X 1 1 4 - 9 1 4 - 0 0 1
2732.6 X 1 2 3 - 9 2 4 - 0 0 1
2739.2 — 16 5 6 0 - 3 3 1 - 4 2 4 ; 16 X 5 6 0 - 3 3 1 - 4 2 4 ; 17 5 6 0 - 4 3 1 - 4 3 4 ; 17 5 6 1 - 5 3 1 - 4 5 4
2749.6 X 1 2 3 - 9 2 4 - 0 0 1
2756.6 — 5 2 1 - 2 0 1 - 3 1 4 ; 18 5 6 0 - 3 0 1 - 4 1 4 ; 18 5 6 0 - 4 0 1 - 4 2 4 ; 19 5 4 0 - 4 0 2 - 5 5 4 ; 19 X 5 3 0 - 4 0 2 - 5 5 4

Clastic

Rock Type	Type/Grn Sz	Clay Content	Bedding	Pore Type	Cem/Pore Fill	Water Depth	Fauna	Color
1	2	3	4	5	6	7	8	9

Carb.

Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator: Amoco
Well: Lulec GU-4
Location:
County:
API:
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Spud Date:

Cored Interval:
Core Described:
KGS Corebarn Loc.:
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																Features	Core Depth	Comments	Depo Envir	Strat Interval
																	2760			
																			C P	
																	65			C O T T O N W O O D
2766.2	20	X	5	6	0	-	5	4	1	-	4	2	4					MG ctdgrn grnst (oolrud?) — micritizedgrn,	Shal	
	20		5	6	0	-	5	4	1	-	4	2	4							
2767.8	21	X	7	5	0	-	4	3	1	-	4	2	4					pell-skel pkst-grnst (dolomitized)	Shal (quiet or Lagoon	
	21		7	5	0	-	4	3	1	-	4	2	4							
																	70	Viabot dst.		
2770.8	22	X	8	8	1	-	3	2	1	-	4	2	4					dolomitized pell - pkst-grnst	"	
	22		8	8	1	-	3	2	1	-	4	2	4							
	23		8	8	1	-	3	2	3	-	4	2	4					dol. pell - pk-grn		
2774.2	23	X	8	8	1	-	3	2	3	-	4	2	4							
																	75			
	24		7	8	1	-	4	2	3	-	5	4	4					Rsk. pell-skel pk-grnst		
	24		7	8	1	-	4	2	3	-	5	4	4							
2777.6	25	X	7	8	1	-	4	2	1	-	5	4	4					dol. wkst		
	26		5	3	1	-	2	0	1	-	6	6	6							
2779.6	26	X	5	3	1	-	2	0	1	-	6	6	6					mxd skel wkst-pkst brach, crin, ostr pel	C D S	
																	80			
2781.4		X	5	3	1	-	4	0	1	-	6	6	6							
																			C P	
																	85			
																	90			
2791.8		X	1	1	4	-	9	1	4	-	0	0	1							
																	95			
2795.8		X	1	2	3	-	9	1	4	-	0	0	1							
																	2800			

Operator	Amoco
Well	Luke GU-4
Location	
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Clastic: 1 Rock Type, 2 Type/Grn Sz, 3 Clay Content - 4 Bedding, 5 Pore Type, 6 Cem/Pore Fill - 7 Water Depth, 8 Fauna, 9 Color

Carb.: Sampl (Plugs, Thin Sect), Rock Type, Dunham, Clay Content - Grain Size, Pore Type, 2nd Pore - Water Depth, Fauna, Color

Sample depth	Plugs	Thin Sect	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
													2800		C P	
													05			
	27		5	6	0	6	0	3	4	5	4		10	f-alg, Cld grn - skel - pell grnst (mini-tiled)	SHOAL	NEVA
2810.7	27	X	5	6	0	6	0	3	4	5	4					
													15			
2816.2		X	6	1	1	2	2	1	6	5	5			Silty dol. w/crinoids		
														} Minor Flood Fcs. (From photo 8/29/06)		
													20			
2821.7		X	4	2	2	2	1	0	6	5	6					
2822.3		X	4	2	2	2	1	0	6	5	6					
													25			
	28		4	2	3	2	1	1	7	6	8		30	V. Silty Mxd Skel wkst		
2830.6	28	X	4	2	3	2	1	1	7	6	8				SDSU	
2831.9 (Check This against other description)		X	∅	1	5	4	1	4	8	9	9			Dysoxic Biv	SDSL	
														} FLOOD FUS (From photo 8/29/06) Definite!?		
													35			BURR
														OK	C P	Dep Sh
													2840			

C

Clastic

Rock Type	Type/Grn Sz	Clay Content	Bedding	Pore Type	Cem/Pore Fill	Water Depth	Fauna	Color
1	2	3	4	5	6	7	8	9

Carb.

Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator: Amoco
Well: Lucc GU-4
Location:
County:
API:
Elevation:
Spud Date:

Cored Interval:
Core Described:
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	Plugs	Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
2841.4	29	X	5	b	0	5	0	0	4	5	3		2840	Ctd grn, oncoid, pcn - skel grnst	Trans?	Salt Lake
	29		5	to	0	5	0	0	4	5	3					
													45		C P	DS
													50			ROCA
2857.4		X	1	2	3	9	1	4	0	0	1		55			
													60			
													65			D
	30		5	1	1	1	0	0	6	8	6		70			REO
2872.6	30	X	5	1	1	1	0	0	6	8	6			Mdst v. Sltstd brnz & ost.	Lagoon?	
	31		5	4	0	5	0	1	4	5	6					EAGLE
2874.6	31	X	5	5	0	6	0	1	4	5	6		75	Ctd grns, Bioturbated grnst (Crin?)	Shoal	
													2880			

Clastic

1 Rock Type	2 Type/Grn Sz	3 Clay Content	4 Bedding	5 Pore Type	6 Cem/Pore Fill	7 Water Depth	8 Fauna	9 Color

Carb.

Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator: Amoco
Well: Luce GU-4
Location:
County:
API:
Elevation:
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Core Described:
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Description by:
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Plugs	Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
32		5	4	1	5	1	2	4	5	3		2880			
2880.6 32	X	5	4	1	5	1	2	4	5	3			Ost. - skel pkst	Shoal	
														C	
2783.2 33	X	4	1	1	2	1	2	6	5	6			Silty Mdst, ost, bryo, crin	O	I
													patches of pkst Δ repl.	S	
2785.1 34	X	4	1	1	2	1	2	6	5	6		85	AA		
35		3	1	1	2	1	2	6	5	6					
35		3	1	1	2	1	2	6	5	6					
36		3	1	3	2	1	1	7	7	8		90		SOSh	FS
															J
															O
												95			H
															N
2897.3	X	1	2	3	9	1	4	0	0	5					S
														C	O
														P	N
												2900			
2904.6	X	1	2	3	9	1	4	0	0	1					
												05			
												10			
		4	2	1	1	0	1	4	2	6			CO_3 Mud-bind bioturbated/bkst	CD_S	
														or Lagoon	
2913.8	X	2	2	2	3	1	5	3	0	5			Silty Dol. fine-med xl lam	TF?	
													thin or Flaser		
												15	Some CO_3 grainy layers		
													w/ some peloid-bio frags		
														CP	
2918.6 37		5	5	0	5	3	1	4	4	4					E
37	X	5	5	0	5	3	1	4	4	4			Pell-skel plast-grnst	Shoal	F
														↓	O
												2920			RAKER

Clastic

Rock Type	Type/Grn Sz	Clay Content	Bedding	Pore Type	Cem/Pore Fill	Water Depth	Fauna	Color
1	2	3	4	5	6	7	8	9

Carb.

Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator: Amoco
Well: Lake Gu-4
Location:
County:
API:
Elevation:
Spud Date:

Cored Interval:
Core Described:
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Sampl: Plugs	Sampl: Thin Sect.	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color	Features	Core Depth	Comments	Depo Envir	Strat Interval
38		6	8	1	2	2	1	4	8	5		2910			
2920.6	X	6	8	1	2	2	1	4	8	5			lt green Slty dol. wf v. Sdy. fus. burrowfilled w/ mxd fos	Lagoon?	FORAKER
		6	8	1	2	2	1	4	8	5					
		3	2	2	4	2	5	5	5	6					
39		3	2	2	4	2	5	5	5	6			dol. Siltstone ripple & burrowed		
39		3	2	2	1	2	5	5	5	6			Crin, brach frags fill burrows	SDSU	
		3	2	2	1	2	5	5	5	6					
2922.3	40 X	3	2	2	1	2	5	5	5	6					
40		3	2	2	1	2	5	5	5	6					
		3	2	2	1	2	5	5	5	6		25			
41		3	2	2	1	2	5	5	5	6					
2925.7	41 X	3	2	2	1	2	5	5	5	6					
		3	2	2	1	2	5	5	5	7					
		3	2	2	1	2	5	5	5	7					
42		3	2	3	1	2	5	5	5	7					
42		3	2	3	1	2	5	5	5	7					
43		3	2	3	1	1	5	5	5	6					
43		3	2	3	1	1	5	5	5	6					
		3	2	3	1	1	5	5	5	6					
		3	2	3	3	1	5	5	5	8		30			
		3	2	3	3	1	5	5	5	7					
		3	2	3	3	1	5	5	5	7					
2931.4	44 X	3	2	3	3	1	5	6	5	7					
44		3	2	3	3	1	5	6	5	7					
												35			
2940.4	X	2	1	3	3	1	4	7	8	7		40			
												45			
		2	1	4	9	1	4	8	9	9				SDSL	
		4	1	3	1	1	0	7	7	7		50	Softy Wkst		
													Dlc US Lg Brach		
														CDS	AMERICUS
2954.0	X	3	1	3	9	1	4	8	7	7		55			
													Shale (Deep) Flood dp Fos.		
													Dlc US Flood Fos. FUSELINIDS		
													Fus. wkst plast		
45		4	3	2	6	0	1	5	5	8					
45		5	5	1	6	0	1	4	3	8			Desiccation wkst cyclet w/		
		5	5	1	6	0	1	4	3	8		2960	dkmtl mudfrzen grns	Tr. Shelf	

Clastic

Rock Type	Type/Grn Sz	Clay Content	Bedding	Pore Type	Cem/Pore Fill	Water Depth	Fauna	Color
1	2	3	4	5	6	7	8	9

Carb.

Sampl Plugs	Sampl Thin Sect	Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color

Operator: Amoco
Well: Luke GU-4
Location:
County:
API:
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Core Described:
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Features	Core Depth	Comments	Depo Envir	Strat Interval
	2960	Sl. Silty oscapod grn plast w/skel & ostra	Shsal Trans	
	65	Marine Siltstone Nearly void of fossils	?	
		Abdt Crinoids	S D S L	
			SDSU	
	70	Mixed fa. - crinoid wkst - plst ← thin 2" IFA cfstgrn plast	CDS	
		Encr. foram ctd grns, encr foram (100%) & mxd skel gnst	Shsal (TT?)	
		Pel-encr foram - skel plust - gnst (less encr forams & branchy grns)	S H D AL	
		Mxd skel wkst w/ silt & encr. foram (fenv)		
	75	Silty mxd wkst	C DS	
		foss fg calc. SS		
	80	Fg SS, g/2 some f. oliissem. Mica & poss Carb. mat. churned (ophiomorpha) & V. ccfrd crinoid frag. & brachs		
		All was f. ripple laminated w/ .5 mm clay lam. from bioturbated / coarse intervals more churned than others		
	85			
	90			
	95			
	3000			

Clastic

Rock Type	Type/Grn Sz	Clay Content	-	Bedding	Pore Type	Cem/Pore Fill	-	Water Depth	Fauna	Color
1	2	3	-	4	5	6	-	7	8	9

Carb.

Sampl		Rock Type	Dunham	Clay Content	Grain Size	Pore Type	2nd Pore	Water Depth	Fauna	Color
Plugs	Thin Sect									

Operator: Amoco
Well: Lulce Gas-4
Location:
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Cored Interval:
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Features	Core Depth	Comments	Depo Envir	Strat Interval
	3000			
	05			
	10	Marine Calc. Siltstone (Shale)		
	15	decr. in Toss		
	20	incr Clay		
	25			
	30			
	35			
	40			

3001.6 — 57 — X
3006.4 — X
3024.1 — X