Gulf Pittsburg – Midway

Strat Well PM-16

HOLE NO.

DEPARTMENT OF THE ARMY
DIVISION
INSTALLATION
DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station): SWSWSE 32-32S-22E
3. DRILLING AGENCY: P&M (Gulf Minerals)
4. HOLE NO. (As shown on drawing title and file No.): P&M # 16
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE: El. 835
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

32-32-22e

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	40					Clogged by John Harris)
			Top of core		43'	
			Mudshale- dk gy (N3) at base to med lt gy (N6) at top, mod. hard - soft, crumbled, parallel fracture, abundant plant material, very finely divided, few marine fossil frags at base, calcareous cement, clay ironstone bands to 0.3' thick, sharp lower contact w/ coal.		# 1	
	45'					
				10'		
	50					

ENG FORM 1 JUN 87 1836 (TRANSLUCENT) PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1803)

PROJECT HOLE NO.

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	50		Mud-shale - same unit as above.	10'		
		T				
		T				
			Coal, bony, gy blk (N2) smut	0.15'		Scammon coal
			Siltstone - med Hgy (W6), hard, blocky fracs, muddy, micaceous, thinly laminated at base to massive at top, plant frags common, abundant sand sized authigenic siderite crystals & veins, brown Fe oxide stains, gradational lower contact.	6.4'	56'	Seatrock Chelsea S.S. Interval
	60		Mudshale - same unit as below.	33.4'		

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	60		Mud-shale - dk gy (N3) at base to med lt gy (N6) at top, brown mottling; hard, parallel fracs, slightly silty, micaceous, thin horizontal laminae with few very thin silty lenses, abundant plant frags, silty zones show sparse burrows, abundant pyrite nodules 1 cm dia, clay ironstone bands to 0.2' thick, and concentric, round-oval Fe oxide stains, few marine fossil frags & calcareous cement at base, Sharp lower contact w/coal,		# 2	
				33.4'		
	65					
					67'	
					# 3	
	70					

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	70		Mud shale — same as below		# 3	
				33.4'		
	75				77'	
					# 4	
	80					

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (ER 1110-3-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)		19. SIGNATURE OF INSPECTOR		

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	80		Mudshale - same unit as above			
		⊕			#4	
		XXX		33.4'		
		⊕				
	85					
		⊕			87'	
		XXX			#5	
		⊕				
	90					

ENG FORM 1 JUN 87 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	90	T	Mud-shale - same unit as above.			
		XXX				
		T		33.4'	# 5	
		T				
			Coal, blk(NI), banded, mod. bright, sharp contacts	0.4'		Tebo coal
			Siltstone - same unit as below.			Seatrock ?
	95			18.5'		Unnamed S.S.
					97' # 6	
	100					

ENG FORM 1 JUN 57 1836 (TR ...UCENT) (EM 1110-3-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	100		Siltstone – med ltgy (N6) – lt gy(N7), hard, blocky fracture, muddy, micaceous, thinly laminated, wavy bedded at base, upper 2' massive, abundant small plant fragments, bioturbated at base, abundant sand sized authigenic siderite crystals, gradational lower contact.		# 6	
				185'		
	105					
					107'	
					# 7	
	110					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (EM 385-1-3001)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	110		Siltstone – same unit as above,	18.5'		
			Sandstone – med ltgy (N6), hard, blocky fracs, very fine gr. sand, silt & mud, micaceous, qtzose, massive, plant frags, brown Fe oxide stains, gradational lower contact, may be burrowed.	2.8'	#7	Unnamed S.S.
	116		Siltstone – med ltgy (N6) – ltgy (N7), hard, parallel fracture, muddy, micaceous, thinly laminated, wavy bedding, abundant fine plant fragments, bioturbation, abundant sand sized authigenic siderite crystals, intercalating lower contact,	4.2'	117' #8	
			Mudshale – same unit as below,	12.9'		
	120					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (AMC 1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	120		Mud-shale - gy blk (N2) to dk gy (N3), hard, brittle, parallel fracs, slightly silty, micaceous, thin horizontal laminae at base, lenticular bedded with thin lenses at top, abundant plant fragments, few burrows in silty zones, few very fine abraded marine fossil frags, calcareous cement, clay ironst. bands to 0.2' thick, sharp lower contact w/coal.	12.9'	#8	
	125				127'	
					#9	
	130					

ENG FORM 1836 (TR UCENT) 1 JUN 87 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT				SHEET OF
2. LOCATION (Coordinates or Station)				
3. DRILLING AGENCY				
4. HOLE NO. (As shown on drawing title and file No.)		5. NAME OF DRILLER		
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL		7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL		
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE: STARTED / COMPLETED	
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR		

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	130		Claystone – same as above.	12.9'		Weir – Pittsburg
			Coal – blk(N1), banded, mod. bright, sharp contacts	0.3'		Underclay
			Mudstone – lt gy(N7), soft, blocky fracs, silty, micaceous, massive, plant fragments, elongate clay Fe stone concretions & brown Fe oxide stains, gradational lower contact.	4.4'	# 9	
	135		Siltstone – lt gy(N7), micaceous, muddy, hard, blocky fracs, massive, abundant plant frags, few burrows, authigenic siderite crystals and veins, gradational lower contact.	7.2'	136 # 10	
	140					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 87 (RM 1110-3-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	140		Siltstone – same unit as above.	7.2'		
	145		Mudshale – med dk gy (N4), mod hard – hard, parallel fracture, silty, micaceous, lenticular bedded at base with very thin lenses to wavy bedded from 149'–151', abundant plant fragments, some bioturbation, few small fossil fragments unident-ified, small, elongate pyrite nodules & brown Fe oxide stains, gradational lower contact w/ clayish.	12.8'	# 10 146 # 11	
	150					

ENG FORM 1836 (THIS SUPERSEDES PREVIOUS EDITIONS ARE OBSOLETE) 1 JUN 87 (EM 1110-3-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	150		Mud shale - same unit as above		# 11	
				12.8'		
	155		Clay-shale - dk gy (N3), hard, parallel fracture, no silt, micaceous, thin horizontal laminae, non-fossiliferous, few clay ironstone bands less than 1cm thick, localized calcareous cement, sharp lower contact w/coal.		156'	
					# 12	
				8.6'		
		T				
	160	T				

ENG FORM 1 JUN 57 **1836** (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	160		Clay-shale – same unit as above.	8.6'	# 12	
			Coal, blk, (N1), hard smut.	0.1'		"A" Bluejacket coal
	165		Mudstone – med dk gy(N4) at base to med lt gy(N6) at top, soft, crumbled, blocky fracture, silty, micaceous, massive, abundant plant fragments, brown Fe oxide stains, gradational lower contact.	3.4'	166 # 11	
			Clayshale, dk gy(N3), hard, parallel fracs, no silt, thinly laminated, non-fossiliferous few small clay ironstone nodules, to 1 cm dia.	4.8'		
	170					

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT				SHEET OF
2. LOCATION (Coordinates or Station)				
3. DRILLING AGENCY				
4. HOLE NO. (As shown on drawing title and file No.)		5. NAME OF DRILLER		
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL		7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL		
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE: STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR		

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	170		Clayshale - same unit as above.	4.8'	# 13	
			Coal blk(N1), hard, banded, mod. bright, sulfate bloom, sharp contacts.	0.2'		"B" Bluejacket coal
			Mudstone, med lt gy(N6), soft, blocky fracture, silty, micaceous, massive, abundant plant frags, few sand sized authigenic siderite crystals, brown Fe oxide stains, gradational lower contact.	4.4'		Underclay
	175				176'	
			Siltstone - med lt gy(N6), hard, blocky fracs, massive, bioturbated, authigenic siderite crystals at base, gradational lower contact	1.4'	# 14	
			Sandstone - lt gy(N7), stned brown by oil stn, very f - f gr, burrowed, lt - mod oil stn, grad. upper + lower contact,	1.2		Upper Bluejacket S.S.
			Interbedded sandstone & siltstone - sand layers up to 2 cm thick, mod. bioturbated	1.8'		
	180					

ENG FORM 1836 (PERCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	180		Interbedded sandstone and siltstone, same as above, appears burrowed, gradational lower contact	1.8'		
			Sandstone - med brn gy (5YR 5/1), hard, blocky fracs, very fine - fine grained, qtz, micaceous, rippled, few small plant frags, light - moderate oil staining, gradational lower contact	3.0'	#14	Upper Bluejacket S.S.
	185		Siltstone - alternating v ltgy (N8) & med gy (N5) laminae, hard, blocky & parallel fracture, 60% silt & 40% mud, qtz, micaceous, thick laminae, wavy bedded, silty layers up to 1cm thick, thin sand layer interbedded at 184.9 - 185.6, sand lightly oil stained, abundant plant debris, burrows at base, sharp lower Contact.	7.3'	186'	
					# 15	
	190					

ENG FORM 1836 (STUDENT) PREVIOUS EDITIONS ARE OBSOLETE
1 JUN 57 (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN / 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) / 12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES / 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%) / 19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	190		Siltstone – same unit as above.	7.3'		
			Clayshale – dkgy(N3) hard, parallel fracture, no silt, micaceous, non-fossiliferous, 0.2' clay ironstone band at top, gradational lower contact.	2.6'	#15	Dr. Brenner Williamson Thesis These black shales are the equivalent of Heckel's black phosphatic shales & may rep. max. transg. give good G-R log kick, Underclay may be good for correlation
			Shaly Limestone – dkgy(N3) – ltgy(N7), hard, blocky fracs, abundant fossil frags, organic & calcareous mud, brachiopods, bivalves, bryozoa, crinoid stems & other fossils, sharp lower contact.	1.0'		
	195		Coal, blk(N1), banded, mod. bright, hard, sulfate bloom & calc. cement sharp contacts.	0.3'		"C" Bluejacket coal
			Mudstone – med ltgy(N6), soft – mod. hard, blocky fracture, silty micaceous, massive, plant frags, irregular clay ironstone nodules & veins, gradational lower contact.	1.5'	196' #16	
			Mud-shale – same unit as below.	12.4'		
	200					

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (ER 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	200		Mudshale – dkgy(N3) to med dkgy(N4), with few lt gy(N8) silty lenses, hard, parallel fracture, silty, micaceous, thinly laminated and lenticular bedded with very thin lenses, abundant plant & organic material, some zones show extensive bioturbation, few clay ironstone bands less than 1 cm thick, localized, calcareous cement, sharp lower contact w/ coal,	12.4'	# 16	
	205				205 # 17	
			Coal – blk(N1), hard, smut.	0.1'		"D" Bluejacket coal
			Siltstone – med gy(N5) mod. hard, blocky frac, mud increases upward, massive, micaceous, abundant plant frags, gradational lower cont.	1.7'		
	210					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (USAEWES 3-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	210		Siltstone, same unit as above	1.7'		Seatrock
			Sandstone – v lt gy(N8), hard, blocky fracs, very fine-fine gr., micaceous, qtzose, massive, few muddy laminae, sand sized authigenic siderite, gradational lower cont.	1.2'	# 17	Lower Bluejacket S.S.
			Siltstone – med gy(N5), hard, blocky fracture, wavy bedded, bedding largely destroyed by bioturbation micaceous, organic rich, sharp lower contact.	1.4'		
			Mudstone – med lt gy (N6), soft-mod. hard, blocky & concoidal fracs, massive, plant fragments root marks, abundant irregular clay ironstone concretions, 0.1' dia, gradational lower contact.	1.8'		Underclay but no coal. Unnamed coal horizon
	215				215 # 18	
			Mudshale – same unit as below.	19.5'		
	220					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	220		mudshale - same unit as below.		# 18	
				19.5'		
					225	
	225				# 19	
	230					

ENG FORM 1836 1 JUN 57 (TF SLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	230		Mudshale - med dk gy(N4), hard, parallel fracture, silty, micaceous, thin horizontal laminae, abundant plant fragments, few burrows, clay ironstone bands to 0.1' thick, sharp lower contact w/coal, plant fragments decrease	19.5	# 19	
	235				235'	
			Coal, blk(N1), banded, mod. bright, sulfate bloom, sharp contacts,	0.5'	# 20	Drywood coal
			Mudstone - med ltgy(N6), soft-mod. hard, blocky fracture, massive, slightly silty, micaceous, plant fragments, few sand sized authigenic siderite crystals, gradational lower contact.	2.3'		
			Mudshale - same unit as below.	7.7'		
	240					

ENG FORM 1 JUN 57 1836 (TR UCENT) (EM ...-2-1001) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	240		Mudshale - dk gy (N3), at base to med H gy (N6) at top. hard, parallel fracture, slightly silty, micaceous, thin horizontal laminae, few pyritized plant fragments, no apparent diagenetic effects, sharp lower contact w/coal.	7.7'	# 20	
					244'	
					# 21	
	245		Coal - blk (N1), hard, banded, mod. bright sulfate bloomy, sharp contacts.	0.4'		Rowe coal
			Mudstone - med lt. gy (N6), soft, blocky fracture, crumbled, silty, micaceous, massive, abundant plant fragments, irregular clay ironstone concretions, brown Fe oxide stains, gradational lower contact.	4.1'		Underclay
	250					

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	260		Mud-shale- med dk gy(N4) at base to med lt gy(N6) at top, hard, parallel fracture, silty, micaceous, lenticular bedded, with very thin lenses, moderate bioturbation, abundant plant fragments, irregular clay ironstone concretions near top, gradational lower contact.		# 21	
					254'	
				6.0'	# 22	
	255					
			Mudshale- same unit as below.			
				12.2'		
	260					

ENG FORM 1836 1 JUN 87 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	260		Mud-shale - dkgy (N3), hard, parallel fracture, silty, micaceous, thin horizontal laminae, few finely divided plant frags, clay ironstone bands to 0.15' thick, sharp lower contact w/ underclay, few burrows near top	12.2'	# 22	
					264'	
					# 23	
	265					
			Mudstone - same unit as below,	3.8'		Neutral horizon Underclay but no coal,
	270					

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (EM [illegible]-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	270		Mudstone - med ltgy (N6) soft-mod. hard, blocky fracture, slightly silty, micaceous, massive, plant debris, abundant irregular Fe-stone concretions, gradational lower contact.	3.8	# 23	
	275		Mudshale - dkgy (N3) w/ very lt gy (N8) silty laminae, hard, parallel fracture, silty, micaceous, quartzose, lenticular bedded with thin lenses, abundant finely divided plant debris, sparse burrowing, abundant thin clay ironstone bands, < 1 cm, silty lenses decrease upwards, sharp lower contact,	8.4'	274' # 24	
	280					

ENG FORM 1836 (7 JUN 87) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	280		Mudshale – same as above.	5.4'		
			Scour			
			Siltstone – med ltgy (N6) with dkgy (N3) laminae & brown mottling, hard, parallel – blocky fracture, micaceous flaser, wavy bedded w/very thin muddy laminae, abundant plant debris, sandy zone w/plant debris at 284.5' may be a storm cycle, abundant clay ironstone & Fe oxide stains, sharp, scoured lower contact. some bioturbation		# 24	Upper Warner S.S. Interval
				5.9'	284'	
					# 25A	
	285					This core has two boxes numbered 25. 25A – 284'-294' 25B – 294'-303'
			Storm event			
			Scour			
			Mudstone – med ltgy (N6), soft, blocky fracture, massive, plant debris, clay ironstone nodules, auth. siderite, grad. lower cont.	1.3'		Underclay but no coal.
			Claystone – dkgy (N3), mod. hard, parallel fract, no silt, micaceous, thinly laminated, abundant clay ironstone concretions, grad-ational lower contact.	2.2'		
	290					

HOLE NO. _____

DEPARTMENT OF THE ARMY
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DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	290	T⊥ ⊥T T⊥ T⊥ T⊥ ⊥T	Fossiliferous Mud-shale - med dk gy (N4), hard, parallel fracture, silty, micaceous, massive, abundant brachiopods, brach spines, bivalves, crinoid stems, bryozoa, and other marine fossil frags, calcareous cement, calcareous concretions to 0.25' thick, gradational lower contact.	3.0'	# 25A	
	294		Mudshale - dk gy (N3), hard, parallel fracture, silty, micaceous, lenticular bedded w very thin lenses, few very small plant frags, abundant bioturbation, brown Fe oxide stains, sharp lower contact w/ coal.	8.5'	294 # 25B	This core has two boxes numbered 25. 25A - 284' - 294' 25B - 294' - 303'
	296					
	300					

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)		12. MANUFACTURER'S DESIGNATION OF DRILL		

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)		19. SIGNATURE OF INSPECTOR		

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	300		Mud-shale - same unit as above.	8.5'		
			Coal blk (N1), banded, mod. bright, sulfate bloom, sharp contacts,	0.9'	# 25 B	"A" coal
			Mudstone - med Hgy (N6), mod. hard - soft, blocky - concoidal fracture, massive, slightly silty, plant frags, gradational lower contact.	2.0'	303' # 26	Underclay
	305		Mudshale - dk gy (N3) w/ H gy (N7) silty laminae, hard, parallel fracture, silty, micaceous, lenticular bedded with very thin lenses, few small plant frags, burrows, sand sized authigenic siderite crystals, gradational lower contact.	3.4'		
			Clayshale - dk gy (N3), hard, brittle, parallel fracture, no silt, thin horizontal laminae, non-fossiliferous, clay ironstone bands to 0.1' thick, sharp lower contact.	2.7'		
	310					

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	310		Clay-shale – continued,	3.7'		
			Coal, blk (N1), banded, mod. bright + sharp cont.	0.6'		"B" coal
			Mudstone, lt gy (N7) soft, blocky frac. grad. lower cont.	1.1'	#	Underclay
			Mud-shale – dk gy (N3) at base to med lt gy (N6) at top, hard, parallel fracs, silty, micaceous, lenticular bedded with thin lenses, few plant frags, clay ironstone nodules to 0.1' thick, brown Fe oxide stains, gradational lower contact, burrowed,	2.4'	26 313 #	
					27	
	315		Clay shale – same unit as below.	13.7'		
	320					

HOLE NO. _____

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DRILLING LOG

1. PROJECT		SHEET OF
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3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	320		Clayshale – dk gy(N3), hard, brittle, parallel fracture, no silt,, micaceous, thin horizontal laminae, few small plant fragments along bedding planes, small amount of localized calcareous cement. some brown Fe oxide stains, sharp lower contact w/ coal.	13.7'	# 27 323' # 28	
	325	T				
		T				
			Coal, smut	<0.1'		"C" coal
			Mudstone – Same unit as below	6.5'		
	330					

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ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	330		Mudstone – med H gy (N6), soft to mod. hard, blocky – concoidal fracture, massive, slightly silty, micaceous, abundant plant frags, sulfate bloom, irregular clay ironstone nodules to 0.1' diameter, few sand sized authigenic siderite crystals, gradational lower contact.	6.5'	# 28	Underclay
					333'	
					# 29	
	335		Mudshale – same unit as below.	10.2'		
	340					

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4· HOLE NO. (As shown on drawing title and file No.)	5· NAME OF DRILLER	

6· DIRECTION OF HOLE			7· THICKNESS OF OVER-BURDEN	8· DEPTH DRILLED INTO ROCK	9· TOTAL DEPTH OF HOLE
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10· SIZE AND TYPE OF BIT	11· DATUM FOR ELEVATION SHOWN (TBM or MSL)	12· MANUFACTURER'S DESIGNATION OF DRILL			

13· TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14· TOTAL NO. CORE BOXES	15· ELEV. GROUND WATER	16· DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17· ELEV. TOP OF HOLE	18· TOTAL CORE RECOVERY FOR BORING (%)	19· SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	340		mud-shale – dk gy (N3), hard, parallel fracs, silty, micaceous, few very thin silty lenses, lower portion bioturbated, few small plant frags, localized calcareous cement near base, clay ironstone bands at top, up to 0.1' thick, sharp lower contact w/ coal.	10.2'	# 29 343 # 30	
	345		Coal – blk (N1), banded mod. bright, sulfate bloom, calcareous cement in vertical fracs, sharp contacts.	0.8'		"D" coal
			Siltstone – lt gy (N7) hard, blocky fracture, micaceous, muddy, massive, plant fragments, some bioturbation at base, few sand sized authigenic siderite crystals, lt brown Fe oxide stains, sharp lower contact.	6.1'		Seatrock Lower Warner S.S. Interval
	350					

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5. NAME OF DRILLER

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☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

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	350		Siltstone – same unit as above.	6.1'	# 30	Seat rock
					352'	
			Mudshale – same unit as below.		# 31	
	355			18.6'		
	360					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

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	360		Mudshale - dk gy (N3) w/ v lt gy (N8) silty laminae, hard, parallel fracture, silty, lenticular bedded with thick and thin lenses, micaceous, few plant fragments along bedding planes, abundant bioturbation, clay ironstone bands to 0.3' thick, other brown Fe oxide stains, sharp lower contact w/ coal,	18.6'	# 31	
					362'	
					# 32	
	365					
	370		Coal, same as below.	1.4'		Riverton coal

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5. NAME OF DRILLER

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7. THICKNESS OF OVER-BURDEN

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	370		Coal, blk (N1), banded mod. bright, sulfate bloom, contains 0.3' clay parting 0.2' above base, sharp contacts,	1.4 0.3 0.2	# 32	Riverton coal total thickness 1.6'
			Mudstone - med ltgy (N6) mod. hard, blocky fracs, silty, micaceous, massive, plant fragments, gradational lower contact	0.9'	372' # 33	Underclay
			Mud-shale - dk gy (N3), hard, parallel fracture, silty, micaceous, lenticular bedded with very thin lenses, abundant pyritized plant debris, few burrows, abundant irregular brown clay ironstone concretions, gradational lower contact.	7.7'		
	375					
	380					

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	380		Clay-shale - dkgy (N3), hard, parallel fracture, micaceous, thin horizontal laminae, no silt, few very finely divided plant fragments along bedding planes, some pyritized, large pyrite nodules, irregular, up to 0.1' diameter, sharp, disconformable lower contact	5.8'	# 33 382' # 34	
	385		Limestone, v lt gy (N8) hard, blocky fracture, mudstone, no fossils found, massive, fractured, mud oil stained in fracs, finely disseminated pyrite near top, lower contact not observed. sharp, disconformable upper contact,	4.2'		Mississippian Limestone
	390		Bottom of core		390	

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