

							FIELD BORING LOG					1 of 10
	SAM	Pl F	T	.9		ניי		,	WELL		PROJE	
(F			$\exists$	PER 6"	ш	) LOC	MATERIAL DESCRIPTION			REMARKS	200-08466-0	
ОЕРТН (FT)	NO/TYPE	SYMBOL	ς. Γ.	BLOWS	N-VALUE	BORING LOG	CLASSIFICATION	т	PW-A1		NAME:	
DE	ÓN	SY	%	BL(	/- Z	ВО					AWS Wellfield Exp	o. Test Wells
6 <u>00</u>							LIMESTONE, Pale Yellow (2.5 Y 8/2),	_		Echinoderm	CLIENT:	TWA
							Grainstone to Packstone, moderately to poorly			Oligopyus Pholani &	LOCATION:	Site A
_			F				indurated, fossiliferous	_		Lepidocyclina ocalana	BORIN	<u>IG</u>
										(very minor)	GR. ELEV:	~70' NGVD
610			_								DIA-TYPE:	12.25"
6 <u>10</u>			ļ				LIMESTONE, Pale Yellow (2.5 Y 8/2),	_			DEPTH:	2360'
			ŀ				Grainstone to Packstone, moderately to poorly	_		Dictyoconus &	DATE STARTED:	09/08/09
			ŀ				indurated, fossiliferous			Lepidocyclina ocalana	DATE ENDED:	01/07/10
			ŀ							(very minor)	GROUNDY	<u>VATER</u>
620			_								DEPTH:	
6 <u>20</u>			-				LIMESTONE, Pale Yellow (2.5 Y 8/2),				TIME:	
<b>1</b>			ŀ				Grainstone to Packstone, moderately to poorly			Echinoderm Oligopyus	DATE:	
			ŀ				indurated, fossiliferous			Pholani & Dictyoconus	REMARKS:	
_			ŀ							(very minor)	<u>DRILLI</u>	<u>NG</u>
630											RIG TYPE:	
6 <u>30</u>			Ī				DOLOSTONE (95%) / Limestone (5%), Light				CREW:	FDD
			ŀ				Yellowish Brown (2.5 Y 6/3), Grainstone to				SUPERVISOR:	Adrian
			ŀ				Boundstone, moderate to well indurated, very				PIEZ/WI	<u>ELL</u>
			ŀ				finely crystalline "sucrosic"				CASING DIAM:	
640			_}								CASING TYPE:	
6 <u>40</u>			ŀ				LIMESTONE, Very Minor Dolostone and Clay,				CASING DEPTH:	
l			þ				Pale Yellow (2.5 Y 8/2), Grainstone to			Diatrace	SCREEN DEPTH:	
I			ŀ				Packstone, moderate to poorly indurated,			Dictyoconus Americanus?	SCREEN LENGTH:	
<b> </b>			ŀ				fossiliferous				FILTER PACK:	
650			_								RISER HEIGHT ALS:	
6 <u>50</u>			ŀ				DOLOSTONE (90%) / Limestone (10%), Light				T.O.C. ELEV:	
I			ŀ				Brownish Gray (2.5 Y 6/2), Grainstone to				REMAR	KS
l			þ				Boundstone, moderate to well indurated,				Munsell Color C	Chart Used
l			ŀ				Aphnocrystalline					
660			-				BW Note: Under microscope Dol. had nodules of ?					



				1			FIELD BORING LOG					2 of 40
	041	D: -		9			FIELD BURING LUG	Τ,	WELL		PPO IEC	2 of 10
F.	SAM	PLE	=	PER (		LOG	MATERIAL DESCRIPTION		<b></b>	REMARKS	PROJECT	
ОЕРТН (FT)	NO/TYPE	BOL	: :	WS F	N-VALUE	BORING LOG	CLASSIFICATION	Т	PW-A1	VEINIAKVO	200-08466-080 NAME:	14
DEP	L/ON	SYMBOL	% REC.	BLOWS	/∧-N	BOR					AWS Wellfield Exp. T	est Wells
660							LIMESTONE, Pale Yellow (2.5 Y 8/2),				CLIENT:	TWA
							Grainstone to Packstone, moderately to poorly				LOCATION:	Site A
							indurated, fossiliferous			Dictyoconus	BORING	ì
			-								GR. ELEV:	~70' NGVD
670			-								DIA-TYPE:	12.25"
6 <u>70</u>			-				LIMESTONE, Pale Yellow (2.5 Y 8/2),				DEPTH:	2360'
			-				Grainstone to Packstone, moderately to poorly				DATE STARTED:	09/08/09
							indurated, fossiliferous			Dictyoconus	DATE ENDED:	01/07/10
			ŀ								GROUNDWA	TER
680											DEPTH:	
6 <u>80</u>			-				DOLOSTONE (80%) / Limestone (20%), Very				TIME:	
			ŀ				Minor Clay, Light Brownish Gray (2.5 Y 6/2),				DATE:	
			-				Grainstone to Boundstone, moderate to well				REMARKS:	_
			-				indurated, very finely crystalline "sucrosic"				DRILLING	<u>3</u>
690											RIG TYPE:	
6 <u>90</u>			-				DOLOSTONE (98%) / Limestone (2%), Light				CREW:	FDD
			ŀ				Brownish Gray (2.5 Y 6/2), Boundstone,			Dolomite	SUPERVISOR:	Adrian
			-				well indurated, very finely crystalline			replacement of Lepdi? (very	PIEZ/WEL	<u>.L</u>
			-				"sucrosic", slightly porous			minor)	CASING DIAM:	
700											CASING TYPE:	
700			-				DOLOSTONE (80%) / Limestone (20%), Light				CASING DEPTH:	
l			-				Brownish Gray (2.5 Y 6/2), Grainstone			Diet a serve (very	SCREEN DEPTH:	
l			-				to Boundstone, moderate to well indurated,			Dictyoconus (very minor)	SCREEN LENGTH:	
_							very finely crystalline "sucrosic"				FILTER PACK:	
710			-								RISER HEIGHT ALS:	
7 <u>10</u>							DOLOSTONE, Very Minor Limestone, Light			Last 30' of drilling	T.O.C. ELEV:	
_			•				Yellowish Brown (2.5 Y 6/3), Grainstone to	]		the Kelly was	REMARK	<u>s</u>
			ŀ				Boundstone, moderate to well indurated, very			bouncing around and getting large	Munsell Color Cha	art Used
			ļ				finely crystalline "sucrosic"			cuttings, FDD replaces BIT		
720												



					FIELD BORING LOG				3 of 10
ОЕРТН (FT)	NO/TYPE S	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	VELI PW-A	REMARKS	PROJE 200-08466-0 NAME: AWS Wellfield Exp	08014
7 <u>20</u>  730			-		DOLOSTONE, Very Minor Limestone and Clay,  Light Yellowish Brown (2.5 Y 6/3), Grainstone to Boundstone, moderate to well indurated, very  finely crystalline "sucrosic"			CLIENT: LOCATION: BORIN GR. ELEV: DIA-TYPE:	TWA Site A  VG  ~70' NGVD  12.25"
7 <u>30</u> ————————————————————————————————————			-		LIMESTONE, Light Gray to Light Yellowish Brown  (2.5Y 7/2 to 6/3), Grainstone, moderate to well  indurated, high to medium porosity			DEPTH:  DATE STARTED:  DATE ENDED:  GROUNDY  DEPTH:	2360' 09/08/09 01/07/10 <b>VATER</b>
7 <u>40</u> — 750			-		LIMESTONE, Very Minor Dolostone (fine crystalline "sucrosic"), Light Yellowish Brown  (2.5Y 6/4), Grainstone, moderate to well indurated, high to medium porosity			TIME:  DATE:  REMARKS:  DRILLI  RIG TYPE:	NG
7 <u>50</u>  760			-		LIMESTONE / DOLOSTONE, Light Yellowish Brown to  Olive Brown (2.5Y 6/4 to 4/3), Grainstone / very fine  crystalline ("honeycomb"), moderate to well indurated,  high porosity			CREW: SUPERVISOR: PIEZ/W CASING DIAM: CASING TYPE:	FDD Adrian <b>ELL</b>
760 			-		LIMESTONE, Minor Dolostone (very fine to fine crystalline "sucrosic" & "honeycomb"), Light Gray to Olive Brown (2.5Y 7/2 to 4/3), Grainstone, moderate to well indurated, high to medium porosity			CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS:	
7 <u>70</u>  780			-		LIMESTONE / Dolostone, Light Gray to Olive Brown  (2.5Y 7/2 to 4/3), Grainstone / very fine to fine  crystalline("sucrosic" & "honeycomb"), moderate to well  indurated, high to medium porosity, minor dark layering			T.O.C. ELEV:  REMAR  Munsell Color (	



					FIELD BORING LOG						4 of 10
рертн (FT)	NO/TYPE SYMBOL	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION		WEL		REMARKS	PROJE 200-08466-0 NAME: AWS Wellfield Exp	<b>CT</b> 08014
780					DOLOSTONE / LIMESTONE, Dark Olive Brown to Light					CLIENT:	TWA
-					Brownish Gray (2.5Y 3/3 to 6/2), Grainstone / fine  crystalline ("sucrosic"), moderate to well indurated,	1				LOCATION:  BORIN	Site A
-					medium to low porosity					GR. ELEV:	~70' NGVD
790										DIA-TYPE:	12.25"
7 <u>90</u>			=		DOLOSTONE, Pale Brown (10 YR 6/3),					DEPTH:	2360'
			-		2.5 Y 8/2), crystalline matrix with low porosity,	-			Very hard and	DATE STARTED:	09/08/09
-					< 1 cm to 3 cm fragments				slow drilling ~10' per hour	DATE ENDED:	01/07/10
					_	+				GROUNDY	<u>/ATER</u>
800	$\vdash$				DOLOSTONE (85%) / Limestone (15%),					DEPTH: TIME:	
000			-		Yellowish Brown to Pale Yellow (10 YR 5/4 to	1				DATE:	
			-		2.5 Y 8/2), crystalline matrix with low porosity,			slow drillin	Very hard and slow drilling ~10'	REMARKS:	
					< 1 cm to 3 cm fragments				per hour	DRILLI	NG
810			=							RIG TYPE:	
8 <u>10</u>					DOLOSTONE (90%) / Limestone (10%),					CREW:	FDD
			-		Yellowish Brown to Pale Yellow (10 YR 5/3 to				Very hard and	SUPERVISOR:	Adrian
-			-		2.5 Y 8/2), crystalline matrix with low porosity,	4			slow drilling ~10' per hour	PIEZ/WI	<u>ELL</u>
			-		< 1 cm to 3 cm fragments					CASING DIAM:	
820										CASING TYPE:	
8 <u>20</u>			-		DOLOSTONE (90%) / Limestone (10%),  Yellowish Brown to Pale Yellow (10 YR 5/3 to	1				CASING DEPTH:  SCREEN DEPTH:	
-			-		2.5 Y 8/2), crystalline matrix with low porosity,				Very hard and slow drilling ~10'	SCREEN LENGTH:	
			-		< 1 cm to 3 cm fragments				per hour	FILTER PACK:	
830										RISER HEIGHT ALS:	
8 <u>30</u>					DOLOSTONE (75%) / Limestone (25%),					T.O.C. ELEV:	
l —					Yellowish Brown to Pale Yellow (10 YR 5/3 to	4		Very hard and slow drilling ~10'	REMAR	KS	
_					2.5 Y 8/2), crystalline matrix with low porosity	$\blacksquare$		S	per hour - Dictyconus	Munsell Color C	hart Used
						+	Dictyconus				
840											



					FIELD BORING LOG				5 of 10
ОЕРТН (FT)	NO/TYPE SYMBOL	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	VEL PW- <i>P</i>	REMARKS	PROJE 200-08466-0 NAME: AWS Wellfield Exp	08014
840  850					DOLOSTONE (75%) / Limestone (25%),  Yellowish Brown to Pale Yellow (10 YR 5/3 to  2.5 Y 8/2), crystalline matrix with low porosity		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shark Tooth	CLIENT:  LOCATION:  BORIN  GR. ELEV:  DIA-TYPE:	TWA Site A  IG ~70' NGVD 12.25"
8 <u>50</u> ————————————————————————————————————					DOLOSTONE (80%) / Limestone (20%),  Light Yellowish Brown to Pale Yellow (10 YR 6/4  2.5 Y 8/2), crystalline matrix with low  porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shell Casts	DEPTH:  DATE STARTED:  DATE ENDED:  GROUNDV  DEPTH:	2360' 09/08/09 01/07/10 <b>VATER</b>
8 <u>60</u> ————————————————————————————————————					DOLOSTONE (70%) / Limestone (30%),  Light Yellowish Brown to Pale Yellow (10 YR 6/4  2.5 Y 8/2), crystalline matrix with low  porosity, < 1 cm to 3 cm fragments		Very hard and slow drilling ~10' per hour - Echinoderm Oligopyus Pholani & Shell Casts	TIME:  DATE:  REMARKS:  DRILLI  RIG TYPE:	<u>NG</u>
87 <u>0</u> 					DOLOSTONE (80%) / Limestone (20%),  Yellowish Brown to Pale Yellow (10 YR 5/3 to  2.5 Y 8/2), crystalline matrix with low  porosity, < 1 cm to 3 cm fragments		Last 8' of drilling not as slow - Echinoderm Oligopyus Pholani	CREW: SUPERVISOR: PIEZ/WI CASING DIAM: CASING TYPE:	FDD Adrian ELL
880 — — 890					DOLOSTONE (85%) / Limestone (15%),  Yellowish Brown to Pale Yellow (10 YR 5/4 to  2.5 Y 8/2), crystalline matrix with low  porosity, < 1 cm to 3 cm fragments		Fossiliferrous - Ooids?	CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS:	
890 ————————————————————————————————————					DOLOSTONE (85%) / Limestone (15%),  Yellowish Brown to Pale Yellow (10 YR 5/4 to  2.5 Y 8/2), crystalline matrix with low  porosity, < 1 cm to 3 cm fragments		Echinoderm Oligopyus Pholani & Lepidocyclina ocalana	T.O.C. ELEV:  REMAR  Munsell Color C	



					FIELD BORING LOG				6 of 10
ОЕРТН (FT)	NO/TYPE SYMBOL	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	VEL	REMARKS	PROJE 200-08466-0 NAME: AWS Wellfield Exp	O8014
900					DOLOSTONE (85%) / Limestone (15%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),  very minor clay and quartz sand, crystalline  matrix with low porosity, well indurated  DOLOSTONE (90%) / Limestone (10%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),		Echinoderm Oligopyus Pholani & Dictyconus (very minor)	CLIENT:  LOCATION:  BORIN  GR. ELEV:  DIA-TYPE:  DEPTH:  DATE STARTED:	TWA Site A  IG  ~70' NGVD  12.25"  2360'  09/08/09
920 920 — — 930					crystalline matrix with very low porosity,  well indurated  DOLOSTONE (90%) / Limestone (10%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),  crystalline matrix with very low porosity,  well indurated		Dictyconus, Lepidocyclina ocalana & Cirbrobulimina Cushmani?	DATE ENDED:  GROUNDY  DEPTH:  TIME:  DATE:  REMARKS:  DRILLI  RIG TYPE:	
930 940 940 950					DOLOSTONE (90%) / Limestone (10%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),  crystalline matrix with very low porosity,  well indurated  DOLOSTONE (85%) / Limestone (15%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),  crystalline matrix with very low porosity,  moderately indurated		Dictyconus & Lepidocyclina ocalana (minor)	CREW: SUPERVISOR: PIEZ/WI  CASING DIAM: CASING TYPE: CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS:	FDD Adrian ELL
950 950 ————————————————————————————————					DOLOSTONE (85%) / Limestone (15%),  Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),  crystalline matrix with very low porosity,  moderately indurated		Dictyconus & Coskinolina elongata	T.O.C. ELEV:  REMAR  Munsell Color C	



							FIELD BORING LOG					7 of 10
	SAM	IPI F		.9		(D		١	WELL		PROJE	
				PER 6"	ш	LOG	MATERIAL DESCRIPTION			REMARKS	200-08466-0	
ОЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	BLOWS	N-VALUE	BORING LOG	CLASSIFICATION	Т	PW-A1		NAME:	
DEF	ÔΝ	SΥI	% F	BLC	\-\ \-\	BO					AWS Wellfield Exp	. Test Wells
9 <u>60</u>							DOLOSTONE (90%) / Limestone (10%),	_			CLIENT:	TWA
							Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),	_		Dictyconus, Lepidocyclina	LOCATION:	Site A
							crystalline matrix with very low porosity,	_		ocalana & Coskinolina	BORIN	<u>IG</u>
							moderately indurated	_		elongata	GR. ELEV:	~70' NGVD
970											DIA-TYPE:	12.25"
970							DOLOSTONE (90%) / Limestone (10%),	_			DEPTH:	2360'
							Pale Brown to Pale Yellow (10 YR 6/3 to 2.5 Y 8/2),	_		Dietycopus (yory	DATE STARTED:	09/08/09
							crystalline matrix with very low porosity,	_		Dictyconus (very minor)	DATE ENDED:	01/07/10
							moderately indurated	_			GROUNDY	<u>/ATER</u>
980											DEPTH:	
980							DOLOSTONE, Pale Brown (10 YR 6/3), very minor	_			TIME:	_
							Limestone, crystalline matrix, No porosity, < 1 cm	_		Drill pipe	DATE:	
							sheets of black lamination, well indurated	_		bouncing, hard drilling	REMARKS:	
								_		uning	DRILLI	NG
990											RIG TYPE:	
990							DOLOSTONE, Pale Brown (10 YR 6/3), very minor				CREW:	FDD
							Limestone, crystalline matrix, low porosity,			Drill pipe	SUPERVISOR:	Adrian
							well indurated	_		bouncing, hard drilling	PIEZ/WI	<u>ELL</u>
										Gg	CASING DIAM:	
1000											CASING TYPE:	
10 <u>00</u>							DOLOSTONE, Pale Brown (10 YR 6/3), very minor	$\perp$			CASING DEPTH:	
<u> </u>							Limestone, crystalline matrix, low porosity,	_		Caskinstins	SCREEN DEPTH:	
_							moderately indurated	_		Coskinolina elongata	SCREEN LENGTH:	
											FILTER PACK:	
1010											RISER HEIGHT ALS:	
10 <u>10</u>							DOLOSTONE, Pale Brown (10 YR 6/3), Very minor	_			T.O.C. ELEV:	
							Limestone, crystalline matrix, low porosity,	_	Coskinolina	Coskinolina	REMAR	KS
							moderately indurated			Coskinolina elongata (very minor)	Munsell Color C	hart Used
										( : ,		
1020												



						FIELD BORING LOG				8 of 10
ОЕРТН (FT)	NO/TYPE S	% REC.	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL PW-A1	REMARKS	PROJEC 200-08466-080 NAME: AWS Wellfield Exp. 1	C <b>T</b> 014
10 <u>20</u>  1030 10 <u>30</u>						DOLOSTONE, Pale Brown (10 YR 6/3), very minor  Limestone, crystalline matrix, low porosity,  moderately indurated  DOLOSTONE, Pale Brown (10 YR 6/3), very minor  Limestone, crystalline matrix, low porosity,		Dictyconus (very minor)	CLIENT:  LOCATION:  BORING  GR. ELEV:  DIA-TYPE:  DEPTH:  DATE STARTED:	TWA Site A  ~70' NGVD  12.25"  2360'  09/08/09
1040						moderately indurated  DOLOSTONE, Pale Brown (10 YR 6/3), very minor		Dictyconus (very minor)	DATE ENDED:  GROUNDWA  DEPTH:  TIME:	01/07/10 ATER
1050						Limestone, crystalline matrix, low porosity,  well indurated		Drill pipe bouncing, hard drilling	DATE:  REMARKS:  DRILLIN  RIG TYPE:	<u>G</u>
10 <u>50</u>   1060						DOLOSTONE, Pale Brown (10 YR 6/3), Very minor  Limestone, crystalline matrix, low porosity,  well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclina ocalana (minor)	CREW: SUPERVISOR: PIEZ/WEI CASING DIAM: CASING TYPE:	FDD Adrian L <b>L</b>
10 <u>60</u>  1070						DOLOSTONE, Pale Brown (10 YR 6/3), very minor  Limestone, crystalline matrix, low porosity,  well indurated		Drill pipe bouncing, hard drilling - Echinoderm Oligopyus Pholani & Lepidocyclina ocalana (minor)	CASING DEPTH:  SCREEN DEPTH:  SCREEN LENGTH:  FILTER PACK:  RISER HEIGHT ALS:	
1070						DOLOSTONE, Pale Brown (10 YR 6/3), very minor  Limestone, crystalline matrix, low porosity,  moderately indurated		Echinoderm Oligopyus Pholani & Lepidocyclina ocalana (very minor)	T.O.C. ELEV:  REMARK  Munsell Color Ch	



							FIELD BORING LOG				9 of 10
ОЕРТН (FT)	NO/TYPE S		% REC.	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL PW-A1	REMARKS	PROJE 200-08466-0 NAME:	<b>CT</b> 08014
日 10 <u>80</u>	N	SY	%	BL	ż	BC	LIMESTONE, Pale Brown (10 YR 6/3), very minor			AWS Wellfield Exp	Test Wells
							Dolostone < 1 cm, moderate porosity (honey		Lepidocyclina ocalana	LOCATION: BORIN	Site A
							comb), moderately indurated		(very minor)	GR. ELEV:	~70' NGVD
1090							LIMECTONE (000) / Delectore (400) / Very Dele			DIA-TYPE:	12.25"
10 <u>90</u>							LIMESTONE (90%) / Dolostone (10%), Very Pale  Brown (10 YR 8/2), slightly chalky, Dolostone		Dictyconus,	DEPTH: DATE STARTED:	2360' 09/08/09
							< 1 cm & Crystalline, moderately indurated		Lepidocyclina ocalana & Coskinolina	DATE ENDED:	01/07/10
1100									elongata	GROUNDY DEPTH:	<u>VATER</u>
11 <u>00</u>							LIMESTONE, Pale Brown (10 YR 6/3), moderate			TIME:	
							porosity (honey comb), moderately indurated			DATE:	
										DRILLI	NG
1110										RIG TYPE:	
11 <u>10</u>	,						DOLOSTONE, Very Pale Brown (10 YR 7/3), Very			CREW:	FDD
	,						minor Limestone, crystalline matrix with very low			SUPERVISOR: PIEZ/WI	Adrian
_							porosity, moderately indurated			CASING DIAM:	
1120										CASING TYPE:	
11 <u>20</u>							DOLOSTONE, Very Pale Brown (10 YR 7/3), Very			CASING DEPTH:	
							minor Limestone, crystalline matrix with very low			SCREEN DEPTH:	
_							porosity, moderately to well indurated			SCREEN LENGTH: FILTER PACK:	
1130										RISER HEIGHT ALS:	
11 <u>30</u>							LIMESTONE, Very Pale Brown (10 YR 7/3), Minor			T.O.C. ELEV:	
_							Dolostone, abundant small vugs "honey comb",			REMAR	KS
							moderately indurated			Munsell Color C	Chart Used
1140											



						FIELD BORING LOG				10 of 1	10
ОЕРТН (FT)	NO/TYPE S	% REC.	BLOWS PER 6"	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION		WELL PW-A1	REMARKS	PROJECT 200-08466-08014  NAME: AWS Wellfield Exp. Test Wells	
1140						LIMESTONE, Very Pale Brown (10 YR 7/3), Minor  Dolostone, moldic porosity and "honey comb" porosity,  moderately indurated	-		Dictyconus (very minor)	CLIENT: TWA  LOCATION: Site A  BORING  GR. ELEV: ~70' NGV  DIA-TYPE: 12.25"	
11 <u>50</u>						LIMESTONE, Very Pale Brown (10 YR 7/3), Minor  Dolostone, low to moderate porosity (moldic to honey  comb), moderately indurated	- - - -		Lepidocyclina ocalana & Shell Casts (very minor)	DEPTH: 2360'  DATE STARTED: 09/08/09  DATE ENDED: 01/07/10  GROUNDWATER  DEPTH:	
1160						LIMESTONE, Very Pale Brown (10 YR 7/3), Minor  Dolostone, low to moderate porosity (moldic to honey  comb), moderately indurated				TIME:  DATE:  REMARKS:  DRILLING  RIG TYPE:	
11 <u>70</u> 						LIMESTONE, Very Pale Brown (10 YR 7/3), Minor  Dolostone, low to moderate porosity (moldic to honey comb), moderately indurated  LIMESTONE (80%) / Dolostone (20%), Light Gray	-		Echinoderm Oligopyus Pholani & Lepidocyclina ocalana	CREW: FDD  SUPERVISOR: Adrian  PIEZ/WELL  CASING DIAM:  CASING TYPE:  CASING DEPTH:	
1190						(10 YR 7/2) to Brown (10 YR 5/3), Very Minor  Clay, low to moderate porosity (moldic to honeycomb),  well indurated	-		Lepidocyclina ocalana (minor)	SCREEN DEPTH:  SCREEN LENGTH:  FILTER PACK:  RISER HEIGHT ALS:  T.O.C. ELEV:	
1200							-		No Sample Return	REMARKS  Munsell Color Chart Used	<u>d</u>



				- 20			FIELD BORING LOG				1 of 20
	SAM	1PLE	Π	9 2		ŋ		WELL		PROJE	
(FT)				BLOWS PER 6'	ш	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-0	
DЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	SWC	N-VALUE	RING	CLASSIFICATION	TPW-A1		NAME:	
DE	Ŏ	SYI	- - -	BL(	<u>-</u> Z	BO				AWS Wellfield Exp.	Test Wells
11 <u>90</u>										CLIENT:	TWA
										LOCATION:	Site A
									No Sample Return	BORIN	<u>G</u>
										GR. ELEV:	~70' NGVD
1200										DIA-TYPE:	12.25"
12 <u>00</u>			-				LIMESTONE (90%) / Dolostone (10%), Pale Yellow	_		DEPTH:	2360'
							(2.5 Y 8/3) to Light Yellowish Brown (2.5 Y 6/3),	_		DATE STARTED:	11/23/09
							low porosity, minor dark layering, moderately indurated	_		DATE ENDED:	01/07/10
								_		GROUNDW	ATER
1210			_							DEPTH:	
12 <u>10</u>							LIMESTONE, Pale Yellow (2.5 Y 8/3), Very Minor			TIME:	
							Dolomite, low porosity (moldic to honeycomb),	_		DATE:	
							very minor dark layering, moderately indurated	_		REMARKS:	
								_		DRILLIN	<u>1G</u>
1220										RIG TYPE:	
12 <u>20</u>							LIMESTONE, Pale Yellow (2.5 Y 8/3), minor			CREW:	FDD
							Dolomite, low porosity (moldic to honeycomb),			SUPERVISOR:	Adrian
							moderately indurated			PIEZ/WE	<u>LL</u>
										CASING DIAM:	
1230										CASING TYPE:	
12 <u>30</u>			-				LIMESTONE, Pale Yellow (2.5 Y 8/3), very low	_		CASING DEPTH:	
							porosity (minor honeycomb), moderately indurated	_		SCREEN DEPTH:	
								_		SCREEN LENGTH:	
								_		FILTER PACK:	
1240										RISER HEIGHT ALS:	
12 <u>40</u>							LIMESTONE, Pale Yellow (2.5 Y 7/3), moderate	_		T.O.C. ELEV:	
							porosity (honeycomb), moderately indurated			REMAR	KS
							<del>-</del>	_		Munsell Color C	hart Used
								_			
1250											



							FIELD BORING LOG				2 04 20
	0414	4DL E		9	1	<b>4</b> D	FIELD BORING LOG	WELL		DDO IE	2 of 20
Ē	SAM		-	BLOWS PER 6		BORING LOG	MATERIAL DESCRIPTION	***************************************	REMARKS	PROJE 200-08466-	
ОЕРТН (FT)	NO/TYPE	SYMBOL		MS MS	N-VALUE	RING	CLASSIFICATION	TPW-A1	KLWAKKO	NAME:	00014
DEP	/ON	SYN	א ( א	BLO	^ N	BOF				AWS Wellfield Exp	o. Test Wells
12 <u>50</u>							LIMESTONE, Pale Yellow (2.5 Y 8/3), Very Minor			CLIENT:	TWA
							Dolomite, Very Low Porosity (minor "honeycomb"),			LOCATION:	Site A
							moderately indurated			BORIN	<u>1G</u>
			H							GR. ELEV:	~70' NGVD
1260										DIA-TYPE:	12.25"
1260							LIMESTONE, Pale Yellow (2.5 Y 8/3), Very Minor			DEPTH:	2360'
							Dolomite, Very Low Porosity (minor "honeycomb"),			DATE STARTED:	11/23/09
							Very Minor Dark Layering, moderately indurated			DATE ENDED:	01/07/10
										GROUNDY	<u>VATER</u>
1270										DEPTH:	
1270							LIMESTONE, Pale Yellow (2.5 Y 7/3), minor dolomite,			TIME:	
l							moderate to low porosity (honeycomb), very minor			DATE:	
							dark layering, moderately indurated			REMARKS:	
										DRILLI	<u>NG</u>
1280										RIG TYPE:	
1280							LIMESTONE, Pale Yellow (2.5 Y 7/3) to Gray			CREW:	FDD
							(2.5 Y 5/1), minor Dolomite, low to moderate porosity			SUPERVISOR:	Adrian
							(honeycomb), minor dark, layering, moderately			PIEZ/W	<u>ELL</u>
							indurated			CASING DIAM:	
1290										CASING TYPE:	
12 <u>90</u>							DOLOSTONE, Pale Brown (10 YR 6/3) to Pale Yellow			CASING DEPTH:	
							(2.5 Y 7/3), Minor Limestone, Low Porosity, moderate			SCREEN DEPTH:	
							to well indurated			SCREEN LENGTH:	
										FILTER PACK:	
1300										RISER HEIGHT ALS:	
13 <u>00</u>							DOLOSTONE, Pale Brown (10 YR 6/3) to Pale Yellow			T.O.C. ELEV:	
			F				(2.5 Y 7/3), minor Limestone, low to moderate porosity	_		REMAR	RKS
			E				(honeycomb), moderate to well indurated	_		Munsell Color (	Chart Used
			F								
1310											



										1	
						FIELD BORING LOG					3 of 20
_	SAMP	LE	BLOWS PER 6'		90		V	VELL		PROJE	<u>CT</u>
ОЕРТН (FT)	7. P.	, i	S PE	E E	BORING LOG	MATERIAL DESCRIPTION			REMARKS	200-08466-0	08014
H H	NO/TYPE SYMBOL	% REC.	WO-	N-VALUE	ORIN	CLASSIFICATION	TF	W-A1		NAME:	
	žί	%	В	Ż	B(					AWS Wellfield Exp	. Test Wells
13 <u>10</u>						DOLOSTONE, Light Yellowish brown (10 YR 6/4),	4			CLIENT:	TWA
						moderate to highly porous (honeycomb), moderately	4			LOCATION:	Site A
						indurated				BORIN	<u>IG</u>
										GR. ELEV:	~70' NGVD
1320										DIA-TYPE:	12.25"
13 <u>20</u>						DOLOSTONE, Very Pale Brown (10 YR 7/3),				DEPTH:	2360'
						moderate to low porosity (minor vugs and	4			DATE STARTED:	11/23/09
						honeycomb), moderate to well indurated				DATE ENDED:	01/07/10
										GROUNDY	<u>VATER</u>
1330										DEPTH:	
13 <u>30</u>						LIMESTONE, Light Gray (10 YR 7/2), Packstone,				TIME:	
						low porosity, moderate to well indurated				DATE:	
										REMARKS:	
										<u>DRILLI</u>	NG
1340										RIG TYPE:	
13 <u>40</u>						LIMESTONE (80%), DOLOSTONE (20%), Very Pale				CREW:	FDD
						Brown (10 YR 7/3), low to moderate porosity,	4			SUPERVISOR:	Adrian
						moderate to well indurated, minor dark layering	4			PIEZ/W	<u>ELL</u>
							4			CASING DIAM:	
1350										CASING TYPE:	
13 <u>50</u>						LIMESTONE, Very Pale Brown (10 YR 7/3), low to				CASING DEPTH:	
						high porosity (honeycomb), well indurated				SCREEN DEPTH:	
									Kelley bouncing (hard drilling)	SCREEN LENGTH:	_
										FILTER PACK:	
1360										RISER HEIGHT ALS:	
13 <u>60</u>						LIMESTONE, Very Pale Brown (10 YR 7/3), low to				T.O.C. ELEV:	
						moderate porosity (honeycomb), well indurated	]			REMAR	KS
l							]		Kelley bouncing (hard drilling)	Munsell Color C	Chart Used
1370											



										T T
							FIELD BORING LOG			4 of 20
ОЕРТН (FT)		SYMBOL T	% REC.	BLOWS PER 6'	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	WELL TPW-A1	REMARKS	PROJECT 200-08466-08014 NAME:
出 13 <u>70</u>	NO	λS	%	BL	\-\Z	ВС	DOLOSTONE (60%) to LIMESTONE (40%), Very Pale			AWS Wellfield Exp. Test Wells  CLIENT: TWA
							Brown (10 YR 7/3) to Pale Yellow (2.5 Y 8/3), low to moderate porosity, well to moderately indurated,			LOCATION: Site A  BORING
1380							dark layering,			GR. ELEV:         ~70' NGVD           DIA-TYPE:         12.25"
13 <u>80</u>							DOLOSTONE, Pale Brown (10 YR 6/3), moderate  porosity, moderate to well indurated,			DEPTH: 2360'  DATE STARTED: 11/23/09
							very minor dark layering, minor LIMESTONE			DATE ENDED: 01/07/10  GROUNDWATER
1390 13 <u>90</u>							DOLOSTONE, Pale Brown (10 YR 6/3) to Very Pale			DEPTH: TIME:
_							Brown (10 YR 7/3), low porosity, well indurated			DRILLING
1400 1400		H					LIMESTONE (90%) to DOLOSTONE (10%), Gray to	1		RIG TYPE:  CREW: FDD
			-  -  -  -				Light Gray (10 YR 6/1 to 7/1), low porosity,  well indurated	- - -		SUPERVISOR: Adrian  PIEZ/WELL  CASING DIAM:
1410 1410							DOLOSTONE, Pale Brown (10 YR 6/3) to Very Pale			CASING TYPE: CASING DEPTH:
_							Brown (10 YR 7/3), moderate porosity, well indurated	- - -		SCREEN DEPTH:  SCREEN LENGTH:  FILTER PACK:
1420 1420							DOLOSTONE, Pale Brown (10 YR 6/3), moderate to	1		RISER HEIGHT ALS:  T.O.C. ELEV:
							low porosity, well indurated	  -  -		REMARKS  Munsell Color Chart Used
1430										



						FIELD BORING LOG					5 of 20
	SAMP	LE	.9		ഗ		١	WELL		PROJE	
ОЕРТН (FT)	й -	ı	PER 6'	ш	BORING LOG	MATERIAL DESCRIPTION			REMARKS	200-08466-0	
PTH	NO/TYPE SYMBOL	% REC.	BLOWS	N-VALUE	RINC	CLASSIFICATION	TF	PW-A	1	NAME:	
DE	NO SY	8 8	BL	ź	ВО					AWS Wellfield Exp	. Test Wells
14 <u>30</u>						DOLOSTONE, Dark Grayish Brown (10 YR 4/2),	_			CLIENT:	TWA
						moderate to high porosity, sucrosic texture,				LOCATION:	Site A
						well indurated				BORIN	<u>IG</u>
										GR. ELEV:	~70' NGVD
1440										DIA-TYPE:	12.25"
14 <u>40</u>						DOLOSTONE, Dark Grayish Brown (10 YR 4/2),				DEPTH:	2360'
						moderate to high porosity (minor vuggy), sucrosic				DATE STARTED:	11/23/09
						texture, well indurated				DATE ENDED:	01/07/10
										GROUNDY	<u>/ATER</u>
1450										DEPTH:	
14 <u>50</u>						DOLOSTONE, Brown (10 YR 5/3), moderate to high				TIME:	
						porosity (minor vuggy), sucrosic texture, well				DATE:	
						indurated				REMARKS:	
										<u>DRILLI</u>	NG
1460										RIG TYPE:	
14 <u>60</u>						DOLOSTONE, Brown (10 YR 5/3), low to moderate				CREW:	FDD
_						porosity, sucrosic texture, well indurated,				SUPERVISOR:	Adrian
						dark to gray layering,				PIEZ/WI	<u>ELL</u>
							_			CASING DIAM:	
1470										CASING TYPE:	
14 <u>70</u>						DOLOSTONE, Yellowish-Brown (10 YR 5/4),				CASING DEPTH:	
						moderate porosity, sucrosic texture, moderate to well			Small to Very	SCREEN DEPTH:	
						indurated			Small Dolostone Fragments	SCREEN LENGTH:	
										FILTER PACK:	
1480							$\perp$			RISER HEIGHT ALS:	
14 <u>80</u>						DOLOSTONE, Yellowish-Brown (10 YR 5/4),				T.O.C. ELEV:	
						moderate to high porosity, sucrosic texture,	_		Small to Very	REMAR	KS
						moderate to well indurated, minor dark layering,		Small Dolostone Fragments	Munsell Color C	hart Used	
l									1 raginonis		
1490											



							FIELD BORING LOG				6 of 20
	SAM	1PLE	<u> </u>	9 2		ტ		WELL		PROJE	
(FT)		П		; PER 6'	ш	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-	
ОЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	BLOWS	N-VALUE	RINC	CLASSIFICATION	TPW-A1		NAME:	
DE	ON.	SYI	1 %	BL(	\ <u>_</u>	BO				AWS Wellfield Exp	o. Test Wells
14 <u>90</u>							DOLOSTONE, Yellowish-Brown to Light Yellowish	4		CLIENT:	TWA
							(10 YR 5/4 to 6/4), moderate to low porosity, sucrosic		Small to Very	LOCATION:	Site A
							texture, well indurated		Small Dolostone Fragments	BORIN	<u>IG</u>
			ŀ							GR. ELEV:	~70' NGVD
1500			ļ							DIA-TYPE:	12.25"
15 <u>00</u>			ŀ				DOLOSTONE, Dark Grayish Brown to Very Pale Brown			DEPTH:	2360'
			-				(10 YR 4/2 to 7/4), fine to coarse grain sand,	_	450014- 45001	DATE STARTED:	11/23/09
			}				with well indurated Dolostone), low to high porosity,	_	1500' to 1508' very soft material	DATE ENDED:	01/07/10
_			-				well to poorly indurated	_		GROUNDY	<u>VATER</u>
1510		Ц								DEPTH:	
15 <u>10</u>			-				DOLOSTONE, Yellowish Brown (10 YR 5/4),	$\bot$		TIME:	
			-				low to moderate porosity, sucrosic texture, moderate	_		DATE:	
			-				to well indurated	_		REMARKS:	
			-							<u>DRILLI</u>	NG
1520		Ш								RIG TYPE:	
15 <u>20</u>							DOLOSTONE, Yellowish Brown (10 YR 5/4),			CREW:	FDD
			}				Grainstone (grainy to sandy matrix with well indurated	_		SUPERVISOR:	Adrian
							Dolostone), low to moderate porosity, sucrosic texture,	_		PIEZ/W	<u>ELL</u>
			-				well to poorly indurated	4		CASING DIAM:	
1530		Ц	_							CASING TYPE:	
15 <u>30</u>							DOLOSTONE, Brown (10 YR 5/3), low to moderate	4		CASING DEPTH:	
							porosity, sucrosic texture, moderat to well indurated	4		SCREEN DEPTH:	
								4		SCREEN LENGTH:	
			-					_		FILTER PACK:	
1540		Ц	_							RISER HEIGHT ALS:	
15 <u>40</u>			}				DOLOSTONE, Brown (10 YR 5/3), moderate porosity,	4		T.O.C. ELEV:	
			}				sucrosic texture, moderate to well indurated	$\downarrow \mid \mid$		REMAR	<u>RKS</u>
			-					_		Munsell Color (	Chart Used
			1								
1550											



				•							1	
							FIELD BORING LOG					7 of 20
H (FT)		IPLE	יי	S LEN O	ROPING LOG	90.0	MATERIAL DESCRIPTION	WELL	-	REMARKS	PROJE 200-08466-	
ОЕРТН (FT)	NO/TYPE	SYMBOL	% REC.		N-VAL		CLASSIFICATION	TPW-A	.1		NAME: AWS Wellfield Exp	o. Test Wells
15 <u>50</u>							DOLOSTONE, Brown (10 YR 4/3), low to moderate	_			CLIENT:	TWA
							porosity, sucrosic texture, moderate to well indurated				LOCATION:	Site A
								_			BORIN	<u>1G</u>
								_			GR. ELEV:	~70' NGVD
1560											DIA-TYPE:	12.25"
15 <u>60</u>							DOLOSTONE, Brown (10 YR 4/3), to Grainstone	_			DEPTH:	2360'
							(grainy to sandy matrix with well indurated Dolostone,				DATE STARTED:	11/23/09
							minor ~2 cm pieces), low to moderate porosity,				DATE ENDED:	01/07/10
							sucrosic texture, moderate to well indurated				GROUNDY	<u>VATER</u>
1570											DEPTH:	
15 <u>70</u>							DOLOSTONE, Brown (10 YR 4/3),				TIME:	
							low porosity, sucrosic texture, well indurated,				DATE:	
							minor sand				REMARKS:	
											<u>DRILLI</u>	<u>NG</u>
1580											RIG TYPE:	
15 <u>80</u>							DOLOSTONE, Brown (10 YR 4/3), to Grainstone				CREW:	FDD
							(grainy to sandy matrix with well indurated Dolostone,			very minor dark fragments	SUPERVISOR:	Adrian
							minor ~2 cm pieces), low porosity, sucrosic texture,			>0.5cm, minor	PIEZ/W	<u>ELL</u>
_							moderate to well indurated	_		dark layering	CASING DIAM:	
1590											CASING TYPE:	
15 <u>90</u>							DOLOSTONE, Brown (10 YR 5/3), 0.5 - 1.0 cm	4			CASING DEPTH:	
						L	fragments, to Grainstone, well indurated, low	_			SCREEN DEPTH:	
						L	porosity, minor sand, sucrosic texture, CHERT, White	_			SCREEN LENGTH:	
							to Black (10YR 8/1 to 2/1), 1 - 2 cm fragments	4			FILTER PACK:	
1600		igdash	_	1	$\bot$	_					RISER HEIGHT ALS:	
16 <u>00</u>			F			L	DOLOSTONE, Very Pale Brown to Brown	$\perp \mid \cdot \mid$			T.O.C. ELEV:	
						L	(10YR 7/3 to 4/3), sandy, fine grained, LIMESTONE,			1604' - 1610' encountered	REMAR	<u>rks</u>
			F			L	to Grainstone, minor porosity, crystalline, up to 4 cm			cavity or poorly indurated sandy	Munsell Color (	Chart Used
			E				fragments, fossiliferous	_		formation		
1610												



							FIELD DODING LOG			4	_
	1		ı	70			FIELD BORING LOG	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			8 of 20
ОЕРТН (FT)	NO/TYPE S		% REC.	BLOWS PER 6	N-VALUE	BORING LOG	MATERIAL DESCRIPTION CLASSIFICATION	TPW-A1	REMARKS	PROJE 200-08466-0 NAME: AWS Wellfield Exp	08014
16 <u>10</u> 1620  1620	2	6		В			LIMESTONE/DOLOMITE, Very Pale Brown (10YR 7/3), sandy, fine grained, LIMESTONE, grainstone, moderate porosity (fenestral), crystalline, up to 4 cm fragments, fossiliferous (abunduant echinoids)  DOLOSTONE, Pale Brown (10YR 6/3), 0.25 - 0.5 cm fragments with fine grained sand, moderate to well indurated, crystalline, to grainstone, moderate porosity	-	Hard drilling at 1627'	CLIENT: LOCATION: BORIN GR. ELEV: DIA-TYPE: DEPTH: DATE STARTED: DATE ENDED:	TWA Site A  VG  -70' NGVD  12.25"  2360'  11/23/09  01/07/10
1630 16 <u>30</u>			-				DOLOSTONE, Brown (10YR 4/3), 0.25 - 2.0 cm  fragments with fine grained sand, moderate to well	-		DEPTH: TIME: DATE:	<u>VATER</u>
1640 1640							layering  DOLOSTONE, Brown (10YR 4/3), 0.25 - 2.0 cm	-		REMARKS:  DRILLI  RIG TYPE:  CREW:	NG FDD
1650			-				fragments with fine grained sand, moderate to well indurated, crystalline, low porosity, dark layering	- - -		SUPERVISOR:  PIEZ/W  CASING DIAM:  CASING TYPE:	Adrian <b>ELL</b>
1650			- - - - - -				DOLOSTONE, Light Brownish Gray to Grayish Brown  (10YR 4/3), moderate to well indurated, crystalline texture, low porosity, minor dark layering	-		CASING DEPTH: SCREEN DEPTH: SCREEN LENGTH: FILTER PACK: RISER HEIGHT ALS:	
16 <u>60</u>			-				DOLOSTONE, Pale Brown (10YR 6/3), 0.25 - 0.5 cm  fragments, fine grained sand, moderate to well  indurated, crystalline texture, low porosity	- - -	small dolostone fragments (<1 to 0.25 cm)	T.O.C. ELEV:  REMAR  Munsell Color (	



							FIELD BORING LOG				9 of 20
	SAM	1PLE	T	9 2		ō		WELL		PROJE	
(FT)	П	П		3 PER 6'	핃	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-0	
DЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	BLOWS	N-VALUE	RINC	CLASSIFICATION	TPW-A1		NAME:	
DE	ON N	SY	1 % 	BL(	\ <u>_</u>	ВО				AWS Wellfield Exp	o. Test Wells
16 <u>70</u>							DOLOSTONE, Light Brownish Gray (10 YR 4/2),	4		CLIENT:	TWA
							low to moderate porosity, crystalline texture,			LOCATION:	Site A
							minor sand (fine grained), 0.25 - 0.50 cm fragments,			BORIN	<u> 1G</u>
			ŀ				moderately indurated, minor dark layering			GR. ELEV:	~70' NGVD
1680										DIA-TYPE:	12.25"
16 <u>80</u>							DOLOSTONE, Light Brownish Gray (10 YR 4/2),			DEPTH:	2360'
			ŀ				0.25 - 0.5 cm fragments, fine grained sand,	_	small dolostone	DATE STARTED:	11/23/09
			ŀ				moderately to well indurated, crystalline texture,	_	fragments (<1 to 0.25 cm),	DATE ENDED:	01/07/10
			ŀ				low porosity	_	increase in sand	GROUNDY	<u>VATER</u>
1690										DEPTH:	
16 <u>90</u>			ŀ				DOLOSTONE, Light Brownish Gray to Grayish Brown	_		TIME:	
							(10 YR 6/2 to 5/2), low porosity, crystalline texture,	_		DATE:	
							very minor sand (fine grained), 0.25 - 0.50 cm	_		REMARKS:	
							fragments, moderately indurated, dark layering	_		<u>DRILLI</u>	NG
1700										RIG TYPE:	
17 <u>00</u>							DOLOSTONE, Light Brownish Gray (10 YR 6/2),	_		CREW:	FDD
							low porosity, crystalline texture, sand (fine grained),			SUPERVISOR:	Adrian
							0.25 - 0.50 cm fragments, moderately indurated,			PIEZ/W	<u>ELL</u>
							dark layering			CASING DIAM:	
1710										CASING TYPE:	
17 <u>10</u>			ŀ				DOLOSTONE, Light Brownish Gray (10 YR 6/2),	_		CASING DEPTH:	
_			ŀ				porous, dark layering, crystalline texture,	_		SCREEN DEPTH:	
			ŀ				sand (fine grained), 0.25 - 0.50 cm fragments,	_		SCREEN LENGTH:	
			ŀ				moderately indurated	_		FILTER PACK:	
1720										RISER HEIGHT ALS:	
17 <u>20</u>			ŀ				DOLOSTONE, Light Brownish Gray (10 YR 6/2),	_		T.O.C. ELEV:	
			ŀ				low porosity, crystalline texture, sandy	_		REMAR	RKS
			ŀ				(fine to coarse grained), 0.5 - 2.0 cm fragments,			Munsell Color (	Chart Used
			ŀ				moderately to well indurated, dark layering				
1730			_								



				_			FIELD BORING LOG				10 of 20
	SAM	IPLE	٥	0	T	ტ		WELL		PROJE	
(FT)	Й	٦	DEDE	֡֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֓֡֓֓֡֓֡	ш	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-	
ОЕРТН (FT)	NO/TYPE	SYMBOL % PEC			N-VALUE	RINC	CLASSIFICATION	TPW-A1		NAME:	
DE	N	SY %		. P.	ż	ВО				AWS Wellfield Exp	o. Test Wells
17 <u>30</u>							DOLOSTONE, Light Brownish Gray (10 YR 6/2),			CLIENT:	TWA
							low porosity, dark layering, crystalline texture,	_		LOCATION:	Site A
							sandy (fine to coarse grained), 0.5 - 1.0 cm fragments,	_		BORIN	<u>IG</u>
							moderate to well indurated			GR. ELEV:	~70' NGVD
1740										DIA-TYPE:	12.25"
17 <u>40</u>							DOLOSTONE, Light Brownish Gray to Pale Brown			DEPTH:	2360'
							(10 YR 6/2 to 6/3), low to moderate porosity,		small dolostone	DATE STARTED:	11/23/09
							crystalline to sucrosic texture, sandy (fine to coarse		fragments (<1 to 0.25 cm),	DATE ENDED:	01/07/10
							grained), 0.5 - 1.0 cm fragments, moderate to well		increase in sand	GROUNDY	<u>VATER</u>
1750							indurated, dark layering			DEPTH:	
17 <u>50</u>							DOLOSTONE, Pale Brown to Brown (10 YR 6/3 to 5/3),			TIME:	
							moderate porosity, crystalline to sucrosic texture,			DATE:	
							well indurated			REMARKS:	
										DRILLI	NG
1760										RIG TYPE:	
17 <u>60</u>							DOLOSTONE, Light Brownish Gray to Pale Brown			CREW:	FDD
							(10 YR 6/2 to 6/3), porous, dark layering,			SUPERVISOR:	Adrian
							crystalline (sucrosic texture), 0.25 - 2 cm fragments,			PIEZ/W	<u>ELL</u>
										CASING DIAM:	
1770										CASING TYPE:	
17 <u>70</u>			L				DOLOSTONE, Light Brownish Gray to Grayish Brown			CASING DEPTH:	_
							(10 YR 6/2 to 5/2), moderately porous to porous,			SCREEN DEPTH:	_
							crystalline (sucrosic texture), minor dark layering,			SCREEN LENGTH:	_
			E				well indurated, 0.5 - 1.0 cm fragments			FILTER PACK:	
1780			F							RISER HEIGHT ALS:	
17 <u>80</u>			E				DOLOSTONE, Pale Brown to Brown (10 YR 6/3 to 5/3),			T.O.C. ELEV:	
			E				very porous to moderately porous, crystalline,			REMAR	<u>rks</u>
			E				well indurated, minor dark layering			Munsell Color (	Chart Used
				$\exists$							
1790			F	-							



	FIELD BORING LOG 11 of 20												
	SAMI	ol E	- 7	9		ניז	I ILLD DOMING LOG	٧	VELI	L		PROJE	
Œ	Т		- 1	BLOWS PER 6	ш	BORING LOG	MATERIAL DESCRIPTION				REMARKS	200-08466-0	
ОЕРТН (FT)	NO/TYPE	SYMBOL	% KEC.	SMS	N-VALUE	RING	CLASSIFICATION	TP	W-A	41		NAME:	
DEF	ÓΝ	ט ל	8 6	BLC	> <u>-</u> Z	BOI						AWS Wellfield Exp	. Test Wells
17 <u>90</u>			F				DOLOSTONE, Brown (10 YR 5/3) to limestone, pale					CLIENT:	TWA
							yellow (2.5 Y 8/2.5), moderately porous to porous,					LOCATION:	Site A
							moderate to well indurated, crystalline to grainstone					BORIN	<u>IG</u>
							texture					GR. ELEV:	~70' NGVD
1800												DIA-TYPE:	12.25"
18 <u>00</u>			F				DOLOSTONE and Chert, Pale Yellow to Gray					DEPTH:	2360'
							(10 YR 7/3 to 5/1), low porosity, well indurated,				Very hard drilling	DATE STARTED:	11/23/09
_			F				crystalline to cryptocrystalline texture				interval	DATE ENDED:	01/07/10
							_					GROUNDY	<u>/ATER</u>
1810												DEPTH:	
18 <u>10</u>							DOLOSTONE, Pale Brown to Pale Yellow					TIME:	
							(10 YR 6/3 to 2.5 Y 7/3); Limestone, chalky pale					DATE:	
							yellow (2.5Y 7/3), with chert, very dark gray					REMARKS:	
l _			F				(10RY 3/1), low porosity, well indurated					<u>DRILLI</u>	N <u>G</u>
1820												RIG TYPE:	
18 <u>20</u>			F				DOLOSTONE, Light Yellowish Brown (2.5Y 6/3),				Calcite	CREW:	FDD
_			F				dense, low porosity, very well indurated				crystals 0.25 -	SUPERVISOR:	Adrian
			F				_				1.5 cm	PIEZ/WI	<u>ELL</u>
							_					CASING DIAM:	_
1830			_									CASING TYPE:	
18 <u>30</u>							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3),					CASING DEPTH:	_
_			F				dense, low porosity, very well indurated				Calcite crystals	SCREEN DEPTH:	
							_				0.25 - 1.5 cm	SCREEN LENGTH:	
												FILTER PACK:	
1840												RISER HEIGHT ALS:	
18 <u>40</u>							DOLOSTONE, Light Yellowish Brown (2.5Y 6/3),					T.O.C. ELEV:	
l			E				dense, low porosity, very well indurated	Calcite crystal: 0.25 - 1.5 cm		Calcita arretala	REMAR	KS	
<b> </b>			F				_			0.25 - 1.5 cm	Munsell Color C	hart Used	
			E										
1850													



							FIELD BORING LOG				12 of 20
	SAM	/IPLE		PER 6'		90		WELL		PROJE	CT
БЕРТН (FT)	PE	٦		3 PE	픠	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-0	08014
:PTH	NO/TYPE	SYMBOL	% REC.	BLOWS	N-VALUE	ORIN	CLASSIFICATION	TPW-A1		NAME:	
DE	ž	Ś	%	В	ż	BC				AWS Wellfield Exp	. Test Wells
18 <u>50</u>			Ī				LIMESTONE & DOLOMITE (clay in sample),			CLIENT:	TWA
			ļ				Light Yellowish Brown (2.5Y 6/3),			LOCATION:	Site A
			ŀ				dense, low porosity, very well indurated, clay is			BORIN	<u>IG</u>
			ŀ				Light Greenish Gray (Gley I 8/1)			GR. ELEV:	~70' NGVD
1860										DIA-TYPE:	12.25"
18 <u>60</u>			I				LIMESTONE, Pale Yellow (2.5Y 8/3), fossiliferous,			DEPTH:	2360'
							casts and molds to chalky LIMESTONE with small			DATE STARTED:	11/23/09
			ŀ				amount of CLAY, White (5Y 8/1) to Light Green Gray			DATE ENDED:	01/07/10
			ŀ				(Gley I 8/1), chert fragments			GROUNDY	<u>VATER</u>
1870										DEPTH:	
18 <u>70</u>			ŀ				DOLOSTONE, Gray (10YR 6/1), moderate to low			TIME:	
·			-				porosity, well indurated, crystalline to sucrosic			DATE:	
			ŀ				texture, chert fragments			REMARKS:	
										DRILLI	NG
1880										RIG TYPE:	
1880							LIMESTONE, Very Pale Brown (10YR 8/2), moderate			CREW:	FDD
			ŀ				to low porosity, well indurated, fossileferous, chert		Hard drilling	SUPERVISOR:	Adrian
			ŀ				fragments, calcite crystals		to 1885'	PIEZ/W	<u>ELL</u>
										CASING DIAM:	
1890										CASING TYPE:	
1890							LIMESTONE & DOLOMITE, Very Pale Brown			CASING DEPTH:	
							(10YR 8/2) and Gray (Gley I 6/N), low porosity, well			SCREEN DEPTH:	
							indurated			SCREEN LENGTH:	
			Ī							FILTER PACK:	
1900			ı							RISER HEIGHT ALS:	
1900							DOLOMITE & LIMESTONE, Light Bluish Gray			T.O.C. ELEV:	
- <u> </u>			ļ				(Gley II 7/10B), low porosity, to Very Pale Brown	7		REMAR	KS
			ļ				(10YR 8/2), well indurated, gypsum crystals	7		Munsell Color C	
			ļ				deposited on DOLOMITE	7			
1910			ļ				deposited of DOLOMITE	$\dashv$			
1910									<u> </u>		



							FIELD BORING LOG				13 of 20
_	SAM	/IPLE		PER 6'		ပ္ခ		WELL		PROJE	
БЕРТН (FT)	Ж	٦		S PEF	E	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-0	8014
РТН	NO/TYPE	SYMBOL	% REC.	BLOWS	N-VALUE	RIN	CLASSIFICATION	TPW-A1		NAME:	
DE	N	SΥ	%	BL	ź	BC				AWS Wellfield Exp	. Test Wells
19 <u>10</u>			ŀ				LIMESTONE & DOLOSTONE, Bluish Gray	_		CLIENT:	TWA
_							(Gley II 6/5PB), low porosity, well indurated, crystalline,	_		LOCATION:	Site A
			ŀ				minor gypsum crystals on DOLOSTONE			BORIN	<u>IG</u>
										GR. ELEV:	~70' NGVD
1920		Ш								DIA-TYPE:	12.25"
19 <u>20</u>							DOLOSTONE & LIMESTONE, Bluish Gray			DEPTH:	2360'
							(Gley II 5/10B) and Pale Brown (10YR 6/3), moderate			DATE STARTED:	11/23/09
			ŀ				to low porosity, well indurated, gypsum crystals			DATE ENDED:	01/07/10
			ŀ							GROUNDW	/ATER
1930										DEPTH:	
19 <u>30</u>							LIMESTONE, Light Gray (10YR 7/2), moderate to low			TIME:	
l <u></u>							porosity, well indurated, low density, crystal			DATE:	
							intergrowth texture			REMARKS:	
										DRILLI	NG
1940										RIG TYPE:	
19 <u>40</u>							DOLOSTONE, Pale Brown (10YR 6/3), moderate			CREW:	FDD
							porosity (intercrystal), well indurated, crystalline to			SUPERVISOR:	Adrian
							sucrosic texture, low density, minor gypsum crystals			PIEZ/WI	<u>ELL</u>
										CASING DIAM:	
1950										CASING TYPE:	
1950							LIMESTONE, Light Gray to Very Pale Brown			CASING DEPTH:	
							(10YR 7/2.5), moderate intercrystal porosity,		Similar lithology	SCREEN DEPTH:	
			Ī				moderate to well indurated, fossiliferous (shell casts),		from 1950' to	SCREEN LENGTH:	
			ŀ				low density, dolomite and gypsum fragments		1964'	FILTER PACK:	
1960										RISER HEIGHT ALS:	
1960			1				DOLOMITE (SUCROSIC), Pale Brown (10YR 6/3)			T.O.C. ELEV:	
			ļ				unconsolidated dolomite rhombohedrons, fine to very	7	Cimilar litte et e	REMAR	KS
							fine grain size	7	Similar lithology from 1964' to	Munsell Color C	
							grain dez	7	1970'		
1970							<u> </u>				
1310		<u> </u>								l .	



	FIELD BORING LOG 14 of 20												
	SAMP	LE	9 2		G		١	NEL	L		PROJE		
ОЕРТН (FT)	ш_		, PER 6'	Ш	BORING LOG	MATERIAL DESCRIPTION				REMARKS	200-08466-0		
PTH	NO/TYPE	% REC.	BLOWS	N-VALUE	RIN	CLASSIFICATION	ТІ	PW-	A1		NAME:		
DE	S S	8	BL	ź	BO						AWS Wellfield Exp	. Test Wells	
19 <u>70</u>						DOLOMITE (SUCROSIC), Grayish Brown to Brown					CLIENT:	TWA	
						(10YR 5/2 to 5/3), porous chert fragments ~1 cm					LOCATION:	Site A	
						diameter, moderate to well indurated					BORIN	<u>IG</u>	
						_					GR. ELEV:	~70' NGVD	
1980		-									DIA-TYPE:	12.25"	
19 <u>80</u>						-					DEPTH:	2360'	
										No Sample	DATE STARTED:	11/23/09	
										Recovery	DATE ENDED:	01/07/10	
											GROUNDY	<u>VATER</u>	
1990											DEPTH:		
19 <u>90</u>						CHERT & DOLOMITE, Gray to Brown (10YR 6/1 to 5/3)					TIME:		
						crystalline, low porosity, well indurated, very minor					DATE:		
						fine sand					REMARKS:		
											<u>DRILLI</u>	N <u>G</u>	
2000											RIG TYPE:		
20 <u>00</u>						CHERT & DOLOMITE, Very Dark Gray to Gray to					CREW:	FDD	
						Brownish Yellow (10YR 3/1 to 5/1 to 6/6), crystalline					SUPERVISOR:	Adrian	
						to minor sucrosic texture, low porosity, well					PIEZ/W	<u>ELL</u>	
						indurated					CASING DIAM:		
2010											CASING TYPE:		
20 <u>10</u>						DOLOMITE, Light Yellowish Brown (10YR 6/4),					CASING DEPTH:		
						sucrosic texture, low to moderate porosity,					SCREEN DEPTH:		
						moderately indurated, very minor chert (>1 cm)					SCREEN LENGTH:		
											FILTER PACK:		
2020											RISER HEIGHT ALS:		
20 <u>20</u>						CHERT & DOLOMITE, Grayish Brown (10YR 5/2),					T.O.C. ELEV:		
						fine sand size grains, crystalline to very minor	_				REMAR	KS	
						sucrosic texture, moderate to well indurated, low	_				Munsell Color C	Chart Used	
						porosity						_	
2030													



							FIELD BORING LOG						15 of 20
	SAMI	PLE	Π	,9 >								PROJECT	
ОЕРТН (FT)	щ.	_		PER 6'	Ш	BORING LOG	MATERIAL DESCRIPTION				REMARKS	200-08466-0	
PT	NO/TYPE	NB NB	% REC.	BLOWS I	N-VALUE	RINC	CLASSIFICATION	Т	PW-A	۸1		NAME:	
DE	9 Z	ر م	У.	BL(	Ź	BO						AWS Wellfield Exp	o. Test Wells
20 <u>30</u>							DOLOSTONE, Brown (10YR 4/3), sucrosic texture,					CLIENT:	TWA
							low porosity, very well indurated				Void encountered at 2039' to 2041'	LOCATION:	Site A
											(drill pipe	BORIN	<u>IG</u>
			ŀ								dropped)	GR. ELEV:	~70' NGVD
2040												DIA-TYPE:	12.25"
20 <u>40</u>			ŀ				DOLOSTONE, Brown (10YR 4/3), sucrosic texture,					DEPTH:	2360'
							low porosity, very well indurated					DATE STARTED:	11/23/09
												DATE ENDED:	01/07/10
												GROUNDY	<u>VATER</u>
2050												DEPTH:	
20 <u>50</u>							DOLOSTONE, Brown (10YR 4/3), sucrosic texture,					TIME:	
			ŀ				low porosity, very well indurated					DATE:	
			ŀ				very minor chert fragments (>1 cm), very minor					REMARKS:	
			ŀ				fine grained sand					DRILLI	N <u>G</u>
2060												RIG TYPE:	
20 <u>60</u>							DOLOSTONE, Brown to Gray (10YR 4/3 to 6/1),					CREW:	FDD
							LIMESTONE fragments (>1 cm), low porosity,					SUPERVISOR:	Adrian
			ŀ				well indurated, sucrosic texture					PIEZ/W	ELL_
			ŀ									CASING DIAM:	
2070			_									CASING TYPE:	
20 <u>70</u>			ŀ				DOLOSTONE, Brown (10YR 4/3), low porosity,					CASING DEPTH:	
							sucrosic texture, very minor LIMESTONE					SCREEN DEPTH:	
							fragments (>1 cm), well indurated					SCREEN LENGTH:	
			ŀ									FILTER PACK:	
2080			_									RISER HEIGHT ALS:	
20 <u>80</u>							DOLOSTONE, Brown (10YR 4/3), low porosity,	_				T.O.C. ELEV:	
							sucrosic texture, very minor LIMESTONE					REMAR	KS
			-				fragments (>1 cm), well indurated					Munsell Color C	Chart Used
			-										
2090													



							FIELD BODING LOC				40 ( 00
				9		ı	FIELD BORING LOG	WELL		DD0 15	16 of 20
Ē.	SAM		$\vdash$	BLOWS PER 6'		BORING LOG	MATERIAL DESCRIPTION	WELL	DEMARKO	PROJE	
TH (F	NO/TYPE	BOL	ပ္ပဲ	WS F	LUE	ING	MATERIAL DESCRIPTION  CLASSIFICATION	TPW-A1	REMARKS	200-08466- NAME:	08014
БЕРТН (FT)	NO/	SYMBOL	% REC.	BLO	N-VALUE	BOR				AWS Wellfield Exp	o. Test Wells
2090							DOLOSTONE, Brown (10YR 4/3), low porosity,			CLIENT:	TWA
							sucrosic texture, very minor LIMESTONE	7		LOCATION:	Site A
							fragments (>1 cm), well indurated	7		BORIN	
							magnitude (* 1 diny) non magnated	7		GR. ELEV:	~70' NGVD
2100								7		DIA-TYPE:	12.25"
2100		Ħ	Ī				DOLOSTONE (75%)/LIMESTONE (25%), Brown to			DEPTH:	2360'
							Light Gray (10YR 4/3 to 7/2),low porosity,	_		DATE STARTED:	11/23/09
							sucrosic texture, moderate to well indurated			DATE ENDED:	01/07/10
							<del>_</del>			GROUNDY	VATER_
2110										DEPTH:	
21 <u>10</u>							DOLOSTONE, Brown to Light Gray (10YR 4/3 to 7/2),			TIME:	
							LIMESTONE fragments (>0.5 cm), low porosity			DATE:	
							sucrosic texture, grainstone, moderate to			REMARKS:	
							well indurated			<u>DRILLI</u>	<u>NG</u>
2120										RIG TYPE:	
21 <u>20</u>							DOLOSTONE, Brown to Light Gray (10YR 4/3 to 7/2),			CREW:	FDD
			ŀ				LIMESTONE fragments (>0.5 cm), low porosity	_		SUPERVISOR:	Adrian
_			ŀ				porous, sucrosic texture, moderate to well indurated	4		PIEZ/W	<u>ELL</u>
							<u> </u>	_		CASING DIAM:	
2130										CASING TYPE:	
21 <u>30</u>							DOLSTONE, Brown (10YR 4/3), moderate porosity,	_		CASING DEPTH:	
							sucrosic texture, moderate to well indurated	_		SCREEN DEPTH:	
_							<u> </u>	_		SCREEN LENGTH:	
_							<u> </u>	4		FILTER PACK:	
2140										RISER HEIGHT ALS:	
21 <u>40</u>			ļ				DOLSTONE, Brown (10YR 4/3), moderate porosity,	4		T.O.C. ELEV:	
_							sucrosic texture, moderate to well indurated	_		REMAR	<u>RKS</u>
			ŀ					_		Munsell Color (	Chart Used
_			ŀ				<u> </u>	_			
2150							L				



							FIELD BORING LOG				17 of 20
	SAM	1PLE		8 6'		ტ		WELL		PROJE	
БЕРТН (FT)	ᆺ	7	_	3 PER 6'	JΕ	BORING LOG	MATERIAL DESCRIPTION		REMARKS	200-08466-0	
PTH	NO/TYPE	SYMBOL	У Ц	BLOWS	N-VALUE	RIN	CLASSIFICATION	TPW-A1		NAME:	
DE	S	S	8	BĽ	ż	BC				AWS Wellfield Exp	. Test Wells
21 <u>50</u>							DOLSTONE, Brown (10YR 3/2), microcrystalline	_		CLIENT:	TWA
							low porosity, sachchoroidal texture, moderate to well			LOCATION:	Site A
			F				indurated			BORIN	<u>G</u>
			L							GR. ELEV:	~70' NGVD
2160										DIA-TYPE:	12.25"
21 <u>60</u>							DOLSTONE, Brown (10YR 3/2), microcrystalline			DEPTH:	2360'
							sachchoroidal texture, low porosity, moderate to well			DATE STARTED:	11/23/09
							indurated			DATE ENDED:	01/07/10
										GROUNDW	/ATER
2170										DEPTH:	
21 <u>70</u>							DOLSTONE, Brown to Dark Brown (10YR 5/2 to 3/3),			TIME:	
							slow porosity, crystalline to minor sucrosic texture,			DATE:	
							moderate to well indurated, minor CHERT fragments			REMARKS:	
							(approximately 1 cm)			DRILLII	NG
2180										RIG TYPE:	
21 <u>80</u>							DOLSTONE, Dark Grayish Brown to Very Dark Gray			CREW:	FDD
							(10YR 4/2 to 3/1), low porosity, crystalline to minor			SUPERVISOR:	Adrian
							sucrosic texture, moderate to well indurated			PIEZ/WE	<u>ELL</u>
							_			CASING DIAM:	
2190										CASING TYPE:	
21 <u>90</u>							DOLSTONE, Dark Grayish Brown (10YR 4/2), low	_		CASING DEPTH:	
							porosity, crystalline to minor sucrosic texture,			SCREEN DEPTH:	
							moderate to well indurated			SCREEN LENGTH:	
										FILTER PACK:	
2200										RISER HEIGHT ALS:	
2200			I				DOLSTONE, Grayish Brown (10YR 5/2), low			T.O.C. ELEV:	
			F				porosity, crystalline texture, moderate to			REMAR	KS
							well indurated, very minor dark layering			Munsell Color C	hart Used
2210								$\exists \mid \mid \mid \mid$			



F.	T	DIF	70							18 of
(F) L		SAMPLE		WELL  WELL  WELL  MATERIAL DESCRIPTION  REMARKS						CT
T 1:	삤 ,	٠ اـ	) PEI	当	ЭГС	MATERIAL DESCRIPTION		REMARKS	200-08466-0	8014
Ė į	NO/TYPE	SYMBOL % REC.	BLOWS	N-VALUE	BORING LOG	CLASSIFICATION	TPW-A1		NAME:	
	ž	s %	BL	ź	BC				AWS Wellfield Exp	. Test Wells
22 <u>10</u>						DOLSTONE, Very Dark Grayish Brown (10YR 3/2),	_		CLIENT:	TWA
						low porosity, crystalline texture, moderately		White veins in	LOCATION:	Site A
						indurated, minor CHERT fragments (>1 cm), Black and		sample (calcite)	BORIN	<u> G</u>
						very dark brown			GR. ELEV:	~70' NGVD
2220									DIA-TYPE:	12.25"
22 <u>20</u>						DOLSTONE, Very Dark Grayish Brown (10YR 3/2),			DEPTH:	2360'
						low porosity, crystalline texture, moderately			DATE STARTED:	11/23/09
						indurated, minor CHERT fragments (>1 cm), Black and		White veins in sample (calcite)	DATE ENDED:	01/07/10
						Very Dark Brown			GROUNDW	/ATER
2230									DEPTH:	
2230						DOLSTONE, Grayish Brown (10YR 5/2), low			TIME:	
						porosity, crystalline texture, moderate to			DATE:	
						well indurated, very minor CHERT fragments (>1 cm)		White veins in sample (calcite)	REMARKS:	
									DRILLII	NG
2240									RIG TYPE:	
2240						DOLSTONE, Brown (10YR 5/3), low to moderate			CREW:	FDD
						porosity, crystalline texture, moderate to well		White veins in sample (calcite)	SUPERVISOR:	Adrian
						indurated, very minor dark layering		Sample (calcite)	PIEZ/WI	<u>ELL</u>
						_			CASING DIAM:	
2250									CASING TYPE:	
2250						DOLSTONE, Light Brownish Gray (10YR 6/2),			CASING DEPTH:	
						low to moderate porosity, crystalline texture,			SCREEN DEPTH:	
						moderate to well indurated, very minor dark layering		White veins in sample (calcite)	SCREEN LENGTH:	
									FILTER PACK:	
2260									RISER HEIGHT ALS:	
2260						DOLSTONE, Light Brownish Gray to Grayish Brown			T.O.C. ELEV:	
						(10YR 6/2 to 5/2), low porosity, well indurated			REMAR	KS
							7		Munsell Color C	
							7			
2270						-	1			



						FIFT D DODING LCC	
			1 7-	1		FIELD BORING LOG	19 of 20
<del>[.</del>	SAMP	LE T	BLOWS PER 6'		-0G	WELL	<u>PROJECT</u>
H.	YPE	ر.	VS P	LUE	NGI	MATERIAL DESCRIPTION REMARKS	
ОЕРТН (FT)	NO/TYPE	% REC.	3LOV	N-VALUE	BORING LOG	CLASSIFICATION TPW-A1	NAME:  AWS Wellfield Exp. Test Wells
2270	2 0			_	Ш	DOLSTONE Light Cray (40VP 7/4) Jour parasity, wall	CLIENT: TWA
2210						DOLSTONE, Light Gray (10YR 7/1), low porosity, well	
						indurated, mincrocrystalline texture, fossiliferous	LOCATION: Site A
-						<del>-</del>	<u>BORING</u>
							GR. ELEV: ~70' NGVD
2280		-					DIA-TYPE: 12.25"
22 <u>80</u>						DOLSTONE, Light Gray (10YR 7/1), low porosity, well	DEPTH: 2360'
						indurated, mincrocrystalline texture, fossiliferous	DATE STARTED: 11/23/09
							DATE ENDED: 01/07/10
							<u>GROUNDWATER</u>
2290							DEPTH:
22 <u>90</u>						DOLSTONE, Gray to Grayish Brown	TIME:
						(10YR 6/2 to 5/2), low porosity, well indurated,	DATE:
						microcrystalline texture Small samp	le REMARKS:
							DRILLING
2300							RIG TYPE:
2300						DOLSTONE, Gray to Grayish Brown	CREW: FDD
						(10YR 6/2 to 5/2), low porosity, well indurated,	SUPERVISOR: Adrian
						microcrystalline texture, 3 - 6 mm fragments	PIEZ/WELL
-						3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	CASING DIAM:
2310							CASING TYPE:
2310						DOLSTONE, Brown and Gray (10YR 7/2 to 6/2),	CASING DEPTH:
2010						<del>-</del>	
_						low porosity, well indurated, microcrystalline texture,	SCREEN DEPTH:
-						<del>-</del>	SCREEN LENGTH:
_						<del>-</del>	FILTER PACK:
2320							RISER HEIGHT ALS:
23 <u>20</u>						DOLSTONE, Gray (10YR 4/2), low porosity,	T.O.C. ELEV:
						well indurated, microcrystalline texture	<u>REMARKS</u>
							Munsell Color Chart Used
2330							



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							FIELD BORING LOG					20 of 20
(FT)	SAM ய			BLOWS PER 6'	Е	BORING LOG	MATERIAL DESCRIPTION	WELL	-	REMARKS	PROJE 200-08466-	
ОЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	OWS	N-VALUE	RING	CLASSIFICATION	TPW-A	۸1		NAME:	
DEI	9 N	SYI	%	BL(	Ż	ВО					AWS Wellfield Ex	o. Test Wells
23 <u>30</u>			L				DOLSTONE, Gray to Dark Gray (10YR 4/2 to 6/1),				CLIENT:	TWA
							low porosity, well indurated, microcrystalline texture	1			LOCATION:	Site A
											BORI	<u>NG</u>
											GR. ELEV:	~70' NGVD
2340											DIA-TYPE:	12.25"
2340							DOLSTONE, Dark Gray (10YR 5/1), low porosity,				DEPTH:	2360'
							well indurated, microcrystalline texture				DATE STARTED:	11/23/09
											DATE ENDED:	01/07/10
											GROUNDY	<u>VATER</u>
2350											DEPTH:	
23 <u>50</u>							DOLSTONE, Dark Gray (10YR 5/1), low porosity,				TIME:	
							well indurated, microcrystalline texture				DATE:	
											REMARKS:	
											DRILLI	NG
2360											RIG TYPE:	
2360											CREW:	FDD
<u></u>							_				SUPERVISOR:	Adrian
			L								PIEZ/W	<u>ELL</u>
			E								CASING DIAM:	
2370											CASING TYPE:	
2370											CASING DEPTH:	
											SCREEN DEPTH:	
											SCREEN LENGTH:	
			F					]			FILTER PACK:	
2380											RISER HEIGHT ALS:	
23 <u>80</u>			F								T.O.C. ELEV:	
			ŀ					]			REMAR	<u>RKS</u>
			F					]			Munsell Color (	Chart Used
			F									
2390			F									



											1	
							FIELD BORING LOG					21 of
(FT)	SAM ய			BLOWS PER 6'	Е	BORING LOG	MATERIAL DESCRIPTION	W	ELL	REMARKS	PROJE 200-08466-	
БЕРТН (FT)	NO/TYPE	SYMBOL	% REC.	OWS	N-VALUE	RING	CLASSIFICATION	TP	W-A1		NAME:	
DE	N	SΥ	%	BL	ź	BC					AWS Wellfield Exp	o. Test Wells
23 <u>90</u>			F								CLIENT:	TWA
											LOCATION:	Site A
											BORI	<u>IG</u>
								_			GR. ELEV:	~70' NGVD
2400			_								DIA-TYPE:	12.25"
24 <u>00</u>								_			DEPTH:	2360'
								_			DATE STARTED:	11/23/09
								_			DATE ENDED:	01/07/10
								_			GROUNDY	<u>VATER</u>
2410											DEPTH:	
24 <u>10</u>							_	_			TIME:	
							_	_			DATE:	
							_	_			REMARKS:	
											DRILLI	<u>NG</u>
2420											RIG TYPE:	
24 <u>20</u>											CREW:	FDD
								_			SUPERVISOR:	Adrian
							_	_			PIEZ/W	<u>ELL</u>
								_			CASING DIAM:	
2430											CASING TYPE:	
24 <u>30</u>							_				CASING DEPTH:	
							_	_			SCREEN DEPTH:	
											SCREEN LENGTH:	
											FILTER PACK:	
2440		$\perp$	_								RISER HEIGHT ALS:	
24 <u>40</u>											T.O.C. ELEV:	
							_				REMAR	<u>RKS</u>
								_			Munsell Color (	Chart Used
2450												