

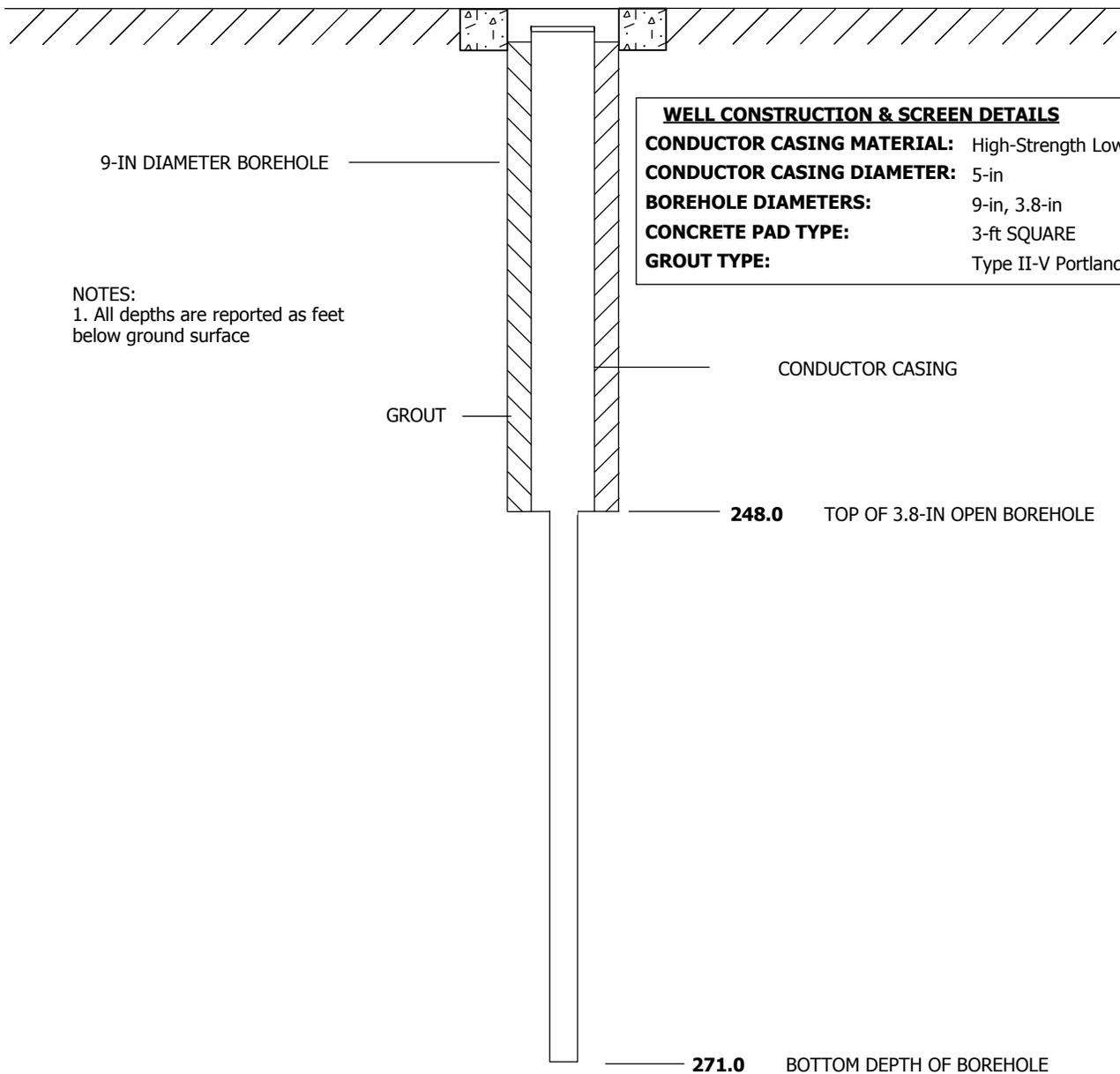
WELL COMPLETION DIAGRAM

PROJECT NO: 417981.ER.02.FW	PROJECT: ER-TCS Groundwater Investigation	WELL NO: <i>MW-66BR-270</i>
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LOCATION: Site 6

DRILLING CONTRACTOR: Boart Longyear (R. Sawrey)	DRILLING START: 8/30/2011
DRILLING METHOD: Rotosonic/Wireline Rotary Core	DRILLING END: 9/11/2011
LOGGER: A. Brewster (Northstar)	WELL COMPLETION DATE: 9/11/2011
GROUND SURFACE ELEVATION (NAVD 88): 586.5 ft AMSL	GENERAL REMARKS: Open 3.8" diameter borehole from 248 to 271 feet bgs. Centralizers at 50, 100, 150, 200, and 248 ft bgs.
NORTHING (CCS NAD 83 Z 5): 2100950.25	

SQUARE WELL VAULT (FLUSH WITH GRADE)



WELL DIAGRAM IS NOT TO SCALE



PROJECT NUMBER: 417981.ER.02.FW	BORING NUMBER: BH-66	SHEET 14 OF 15
ROCK CORE LOG		

PROJECT : PG&E Topock, ER-TCS Investigation LOCATION : Site 6 (TCS) (2100957.7 N, 7615153.8 E)
 ELEVATION : 586.6 ft DRILLING CONTRACTOR : Boart Longyear (R. Sawrey)
 CORING EQUIPMENT AND METHOD : HQ Wire-Line Rotary ORIENTATION : Vertical
 WATER LEVELS : Approx. 130 ft BGS START : 4/12/2011 END : 9/11/2011 LOGGER : A. Brewster (Northstar)

DEPTH BELOW SURFACE (ft)	CORE RUN LENGTH AND RECOVERY (%)	DISCONTINUITIES		SYMBOLIC LOG	LITHOLOGY	COMMENTS		
		R Q D (%)	FRACTURES PER FOOT				DESCRIPTION	
							DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS	
248.0	R1 3 ft 100%	90	0		Conglomerate 248.0-271.0' - dark reddish brown, (10YR 3/4), no dominant mineralogy, highly cemented, moderate (), angular to subangular, massive (no bedding planes), matrix-supported. Presence of foliation at approximately 30 degree dip.	R1=0.43 FPM		
250			1					
251.0			0					
			0					
			0					
255	R2 5 ft 100%	100	0					R2=0.53 FPM
			0					
			0					
			0					
260	R3 5 ft 100%	100	0					R3=0.49 FPM
			0					
			0					
			0					
265	R4 5 ft 100%	100	1					R4=0.54 FPM
			0					
			0					
			0					
266.0			0					R5=0.74 FPM
			0					
			0					



PROJECT NUMBER: 417981.ER.02.FW	BORING NUMBER: BH-66	SHEET 15 OF 15
ROCK CORE LOG		

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DEPTH BELOW SURFACE (ft)	CORE RUN LENGTH AND RECOVERY (%)	DISCONTINUITIES		SYMBOLIC LOG	LITHOLOGY	COMMENTS	
		R Q D (%)	FRACTURES PER FOOT				DESCRIPTION
							DEPTH, TYPE, ORIENTATION, ROUGHNESS, PLANARITY, INFILLING MATERIAL AND THICKNESS, SURFACE STAINING, AND TIGHTNESS
270	R5 5 ft 100%	100	0		Conglomerate 248.0-271.0' - dark reddish brown, (10YR 3/4), no dominant mineralogy, highly cemented, moderate (), angular to subangular, massive (no bedding planes), matrix-supported.		
			0				
271.0			0				
275					End Drilling on 9/11/2011 Total Borehole Depth: 271.0 ft bgs	This borehole was converted into the following monitoring well(s): MW-66-165, MW-66-230, and MW-66BR-270	
280							
285							