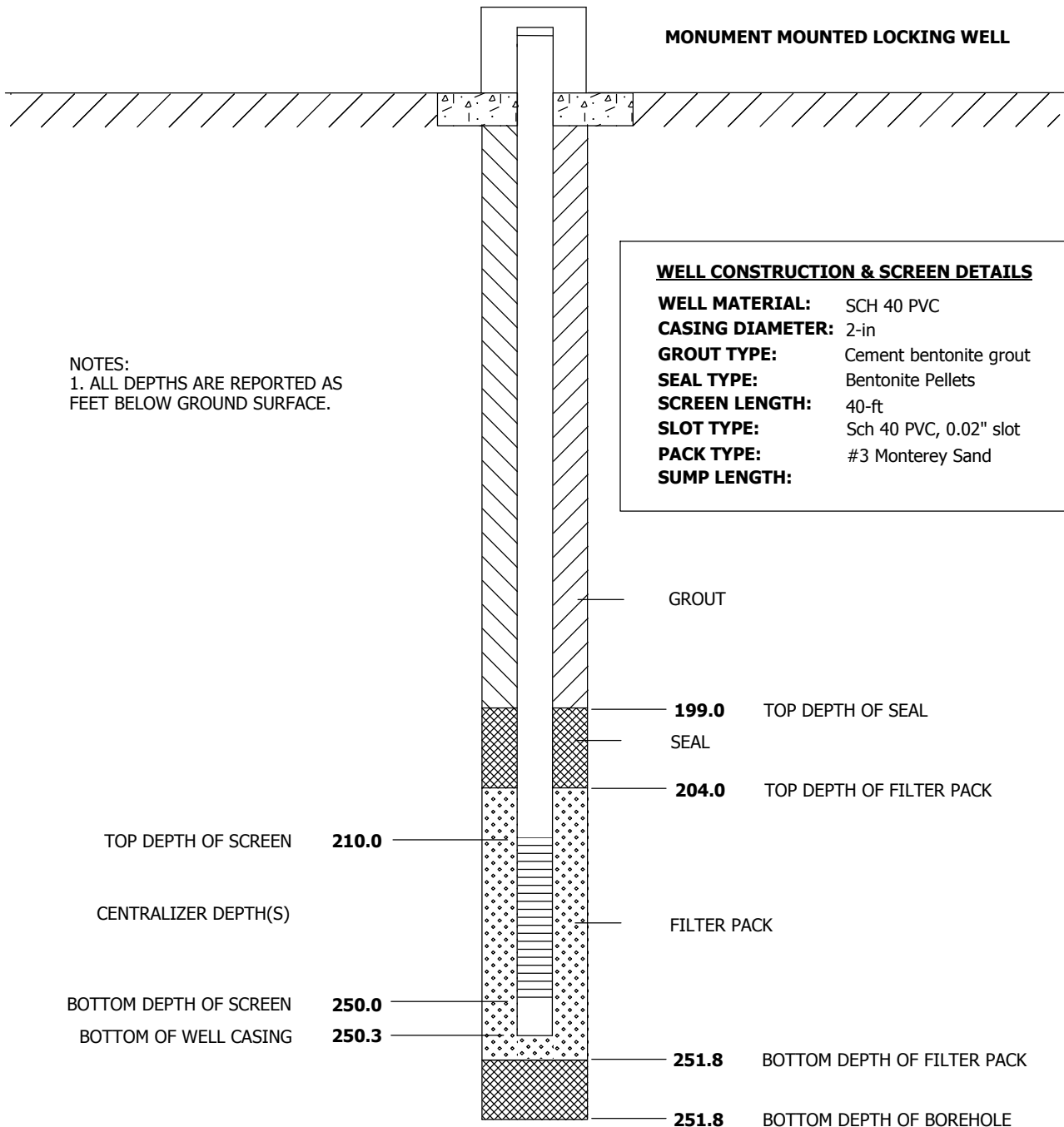


WELL COMPLETION DIAGRAM

PROJECT NO: 326128.01.07.AR	PROJECT: IM-3 Hydrogeologic Investigation, PG&E Topock	WELL NO: OW-5M
LOCATION: East Mesa, Parcel No. 650-151-06		
DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA		DRILLING START DATE: 11/19/2004
DRILLING METHOD: Rotosonic		DRILLING END DATE: 11/20/2004
LOGGER: M. Godwin		WELL COMPLETION DATE: 11/20/2004
TOP OF WELL CASING (NGVD 29): 551.75		NORTHING COORDINATE (CCS DAND 27, ZONE 5): 2103008.06
GROUND SURFACE ELEVATION (NGVD 29): 549.01		EASTING COORDINATE (CCS NAD 27 ZONE 5): 7613185.86



WELL DIAGRAM IS NOT TO SCALE

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
5			0	SP	GRAVELLY SAND (SP) - lt brnsh gray (10YR6/2) 30% f sand, 30% m sand, 25% gravel up to 1", 10% c sand, 5% fines, subang, dry. - coarser grained sand from 16' to 17'	0-8' logged from conductor pipe
10						
15		CC-1	5			
20				SM	SILTY SAND (SM) - dk gray (10YR4/1) 30% m sand, 20% fines, 20% c sand, 15% f sand, 15% gravel up to 1/2", subang, dense, damp. POORLY GRADED SAND (SP) - pale brn (10YR 6/3) 70% f-c sand, 20% gravel up to 2" in layers, 10% fines, subang, dry.	broke drill pipe tapered fishing tool (1 hr downtime)
25		CC-2	6			
30				SP		
35		CC-3	0			



SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotosonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
40		CC-3	10	SP	<p>POORLY GRADED SAND (SP) - pale brn (10YR 6/3) 70% f-c sand, 20% gravel up to 2" in layers, 10% fines, subang, dry.</p> <p>- lt brnish gray (10YR 6/2) 50% sand, 40% gravel, subang, damp</p> <p>- layer of silty cemented sand</p> <p>- decreased fines to 20%</p>	<p>potential boulder</p> <p>driller notes hard drilling</p> <p>layer of increased times @56'</p>
45		CC-4	9	GP	<p>SANDY GRAVEL (GP) - grayish brn (10YR5/2) 55% subang gravel up to 2", 30% m c sand, 10% f sand, 5% fines, damp.</p>	
50				SW	<p>WELL GRADED SAND (SW) - grayish brn (10YR 5/2) 30% m sand, 20% f sand, 20% c sand, 20% gravel up to 1/2", 10% fines.</p>	
55		CC-5	10	SW	<p>SILTY SAND (SM) - dk gray (10YR4/1) 40% f-m sand, 30% fines, 20% subang gravel up to 1/2", 10% c sand, damp.</p> <p>GRAVELLY SAND (SW) - 50% f-c sand, 40% subang to ang gravel up to 2", 10% fines, gneiss, damp.</p>	
60				SM	<p>SILTY SAND (SM) - dk yellowish brn (10YR4/8) 50% f-c sand, 30% fines, 20% subrnd gravel up to 1/2", moist.</p>	
65		CC-6	5	SG	<p>GRAVELLY SAND (SG) - dk gray (10YR4/1) 50% f-c sand, 30% subrnd gravel up to 1.5", 20% fines, dense, damp.</p>	
70				SW	<p>WELL GRADED SAND (SW) - grayish brn (10YR5/2) 60% f-c sand, 20% fines, 20% subang gravel up to 1/2", mm, dry.</p>	



SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
75		CC-7	15	SP	POORLY GRADED SAND (SP) - brn (10YR4/3) 70% f-m sand, 20% fines, 10% subang gravel up to 1/2", silty cemented, dry. - dry crushed boulder	
80	+			SW	WELL GRADED SAND (SW) - brn (10YR4/3) 70% f-c sand, 15% fines, 15% ang to subang gravel, silty cemented, dry .	
85				SM	SILTY SAND (SM) - grayish brn (10YR 5/2) 65% f-c sand, 25% silt, 10% ang to subang gravel, feldspar, wet. - becoming moderately indurated	hit water @ 80'
90		CC-8	0	GW	SANDY GRAVEL (SW) - lt gray (10YR 7/2) 60% subrnd-subang gravel, 30% f-c sand, 10% fines, dry.	potential confining layer @ 86 Driller notes hard drilling
95				SW	WELL GRADED SAND (SW) - dk yellowish brn (10YR4/4) 75% m-c sand, 15% subang gravel up to 1/2", 10% fines, silty cemented, moist.	layer of silt @ 92 dry light gray (10YR 7/2)
100				SM	SILTY SAND (SM) - brn (7.5YR5/2) 60% f-c sand, 30% fines, 10% gravel, subang to ang, wet.	broken drill pipe/wash down casing to 100' to remove it lost 95-100' core
105	+	CC-9	10		- moderately cemented	groundwater grab sample collected from 100-120 ft bgs

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
110				SM	SILTY SAND (SM) - brn (7.5YR5/2) 60% f-c sand, 30% fines, 10% gravel, subang to ang, wet. WELL GRADED SAND (SW) - dk yellowish brn (10YR4/4) 75% m-c sand, 15% fines, 10% subang gravel up to 1/2", silty cemented, moist to damp. - increasing subang gravel	Grain size sample collected 11:00 11/10/04
			SW			
115		CC-10	10		SILTY SAND (SM) - brn (7.5YR4/3) 60% c sand, 30 fines, 10% m ang gravel up to 1/2", dense, wet. - increase in grain size of sand	
120						
125				SM	- grayish brn (10YR 5/2) 60% m-c sand, 20% fines, 20% ang gravel up to 1/2", m dense, wet dk yellowish brn (10YR4/4), wet	
130		CC-11	0			
135				SG	GRAVELLY SAND (SG) - brn (7.5YR4/4) 65% f-c sand, 30% ang gravel up to 6", 5% fines, damp.	
140				SW	WELL GRADED SAND (SW) - brn (7.5YR4/4) 75% m c sand, 15% fines, 10% m ang loose gravel up to 1/2", wet.	

SOIL BORING LOG

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SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)			
145				SM	SILTY SAND (SM) - dk gray (10YR4/1) 65% m c sand, 30% fines, 5% subang gravel up to 1/4", m dense, wet. - layer of subrnd gravel - denser	
150		CC-12	20	SG	GRAVELLY SAND (SG) - grayish brn (10YR5/2) 50% f-c sand, 35% subang gravel up to 3/4", 25% fines, damp. - cobble	groundwater grab sample collected from 150-170 ft bgs
155				SM	SILTY SAND (SM) - dk grayish brn (10YR5/2) 60% f-m sand, 25% fines, 15% subang to ang gravel up to 1/2", m dense, wet. - lt grayish brn 10YR6/2 70% f-m sand, 20% fines, 10% subang subrnd gravel up to 3/4", damp to dry	potentially a cobble pulverized drilling
160						
165		CC-13	10	SW	WELL GRADED SAND (SW) dk grayish brn (10YR5/2) 50% c sand, 25-30% m sand, 5-10% f sand 10% gravel from 1/2" to 2 1/2", 5% silt, subang mm, wet.	
170				SM	SILTY SAND (SM) - dk grayish brn (10YR4/2) 25% c sand, 25% mm gravel, 20% f sand, 15% m sand, 15% silt, subang from 1/4" to 2 1/2", moist.	grain size sample collected 11/11/04 11:00
175		CC-14	10	GM	SILTY GRAVEL (GM) - gray (7.5YR5/11), 65% ang gravel up to 2 1/2", 30% silt, 15% f-m sand, v dense, damp.	
				SM	SILTY SAND (SM) - brn (10YR4/4) 70% f-m sand, 20% fines, 10% subang gravel up to 1/2", dense, moist.	
				SW	WELL GRADED SAND (SW) W/GRAVEL - brn (10YR5/3) 60% m-c sand, 20% fines, 20% subang gravel, loose, wet.	



SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
180		CC-14	0	SW	<p>WELL GRADED SAND (SW) W/GRAVEL - brn (10YR5/3) 60% m-c sand, 20% fines, 20% subang gravel, loose, wet.</p> <p>- subtle color change</p>	
185						
190		CC-15	18	SM	<p>SILTY SAND (SM) - brn (7.5YR4/3) 60% f-m sand, 30% silt, 10% subang gravel up to 1/2", sand fining, mm, dense, wet.</p> <p>- cored through ~1' of gneissic cobbles</p> <p>brn (7.5YR4/3) 50% f-c sand, 30% silt, 20% subang gravel, trace caliche, dense, mm, moist</p>	
195						
200						
205		CC-16	20			
210						

SOIL BORING LOG

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SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotosonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.	
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)				
215	+	CC-16	20	ML	SILTY SAND (SM) - brn (7.5YR4/3) 60% f-m sand, 30% silt, 10% subang gravel up to 1/2", sand fining, mm, dense, wet. - dk grayish brn (10YR4/2) 60% f-c grained sand, 20% silt 15-20% subang gravel, dry		
							SANDY SILT WITH GRAVEL (ML) - 15% gravel 30% f c sand 55% silt .
							SILTY SAND (SM) - brn (7.5YR4/3) 50% f-c sand, 30% silt, 20% subang gravel, trace caliche, dense, mm, moist. - gray SG/S2 grayish green 10R4/8 red weathered mms
220					WELL GRADED SAND No loggable core, USCS type determined from washed grab sample.	refusal due to cobbles	
225							
230				SW			
235							
240							
245	+	CC-17	10		WELL GRADED SAND brn 50% m sand, 20% c sand, 10-15% silt, 10-15% gravel, 5% f sand, traces of caliche, mm, dry. - brn 50% m sand, 20% c sand, 10-15% silt, 10-15% gravel, 5% f sand, traces of caliche, mm, dry	1225: grab sample for grain size analysis at 245'	

SOIL BORING LOG

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DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
250		CC-17	10	SW	WELL GRADED SAND brn 50% m sand, 20% c sand, 10-15% silt, 10-15% gravel, 5% f sand, traces of caliche, mm, dry.	
255		CC-18	6	SM	SILTY SAND (SM) WITH GRAVEL - grayish brn (10YR5/2) 40% m sand, 15% gravel avg 3/4", 15% f sand, 15% c sand, 15% silt, subang, mm, moist. - brn (7.5YR4/2) 50% m sand, 20% c sand, 10-20% f sand, 10-20% silt, wet	very hard drilling, cobbles or boulders shut down due to lightning
260				SP	POORLY GRADED SAND (SP) - brn (7.5YR4/2) gradually coarsening subang sand, 5% silt, mm, moist. No recovery - quartzite cobble / broken boulder.	
265				SW	POORLY GRADED SAND (SP) - brn (7.5YR5/2) 50% m sand, 45% c sand, 5% silt, subang to ang, mm, wet. WELL GRADED SAND (SW) - brn (7.5YR 5/2) 65% c sand, 20% m sand, 5% f sand, 5% silt, 5% gravel, subang, mm, wet. - metamorphic cobble	
270		CC-19	19	GW-GM	WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM) - brn (7.5YR5/2) 50% gravel from 1/2" to 2", 20% m sand, 20% c sand, 5% silt, 5% f sand, subang to ang, wet.	grab sample for grain size analysis @ 253 ft fining upwards sequence 11/13/04: began drilling at 0640 0712: collected core
275				SW	WELL GRADED SAND (SW) - brn (7.5YR 5/2) 65% c sand, 20% m sand, 5% f sand, 5% silt, 5% gravel, subang, mm, wet.	
280				SW-SM	WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM) - brn (7.5YR4/3) 330% m sand, 25% c sand, 20% f sand, 10-15% gravel, 10-15% silt, subang-ang, weathered mm (gray 5F4/2, red 2.5YR4/8), dry. - caliche development	

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotosonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
285				SW	WELL GRADED SAND (SW) - brn (7.5YR4/3) 40% m sand, 20% c sand, 20% f gravel, 10% f sand, 10% silt ang to subang, weathered mm, wet .	collecting core, drill bit melted
290		CC-20	20			
295				SC	- caliche development and increasing silt CLAYEY SAND (SC) - brn (7.5YR 4/3) 65% f c sand, 30% clay, 5% gravel, subang to ang, wet. - cemented unit burned by drilling	weathered red fanglomerate
300						
305				SW	WELL GRADED SAND (SW) dark reddish brn (2.5YR3/4) 40% m sand, 30% c sand, 10% gravel, 10% f sand, 5% silt, subang to ang, mm, wet.	strong color change to dark red-brown
310		CC-21	20			
315						

SOIL BORING LOG

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SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotasonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	COMMENTS DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
	INTERVAL	TYPE/NUMBER	RECOVERY (ft)			
320				SW	WELL GRADED SAND (SW) dark reddish brn (2.5YR3/4) 40% m sand, 30% c sand, 10% gravel, 10% f sand, 5% silt, subang to ang, mm, wet.	becoming SM > 315
325		CC-22	20	SW SC ML SC	WELL GRADED SAND (SW) - reddish brn (2.5YR4/4) 30% m sand, 30% c sand, 20% f sand, 10% fines, 10% gravel. CLAYEY SAND (SC) - brn (7.5 YR 7/2) 30% m sand, 30% c sand, 15% clay, 15% f gravel, 10% f sand, mm, wet. SILT (ML) greenish gray (GGCY5G5/1) stiff. CLAYEY SAND (SC) -brn, (7.5 YR 4/4), 15% gravel, 15% fines, 70% fine-coarse sand, 326-328 as logged 324-326, brn (7.5 YR 4/4), traces of 2.5 YR 3/4, dark reddish brn, 327-328 indurated. - brn (7.5YR7/2) traces of (2.5YR3/4) - indurated	Sand with gravel
330				SC	CLAYEY SAND WITH GRAVEL(SC) with gravel, (7.5 YR 4/4), 25% gravel, 15% clays, 60% fine to coarse sand, subangular, metamorphic, wet, avg grain size gravel: 2cm, stiff.	groundwater grab sample collected from 330-150 ft bgs
335		CC-23	10	SW / SC SC	WELL GRADED SAND WITH CLAY AND GRAVEL (SW-SC) brn (7.5 YR 4/4), 10% fines, 20% gravel, 70% fine to coarse sand, subangular, metamorphic, wet, grayish green, weathered metamorphics. CLAYEY SAND (SC) dark reddish brn (2.5 YR 3/3), 15% clay, 60% m sand, 20% fine gravel.	
340				SW	WELL GRADED SAND WITH SILT AND GRAVEL (SW) dark reddish brn (2.5 YR 3/3), 20% gravel, 10% silt, 65-70% fine to coarse sand, subangular, metamorphic.	reworked fanglomerate deeply weathered mm clasts (photo)
345		CC-24	10	SC	CLAYEY SAND WITH GRAVEL (SC) dark reddish brn (7.5 YR 4/3), 15% gravel, 15% clay, 70% fine to coarse sand, subangular, metamorphic gravel 1-6 cm dry.	collected grab sample for grain size analysis @ 344 ft
350				BR	CONGLOMERATE (BR) - dk reddish brn (1.5YR3/3) 35% m sand, 25% gravel, 20% f sand, 10% fines, subang, weathered metamorphic clasts, indurated, dry.	Miocene conglomerate bedrock at 346', hard drilling noted

SOIL BORING LOG

PROJECT NAME: IM-3 Hydrogeologic Investigation, PG&E Topock		HOLE DEPTH (ft): 350.0	DRILLING CONTRACTOR: WDC Exploration & Wells, Montclair, CA	
SURFACE ELEVATION: 549.5 ft. MSL	NORTHING (CCS NAD 27 Z 5): 2,102,998.32	EASTING (CCS NAD 27 Z 5): 7,613,185.55	DATE STARTED: 11/09/2004	DATE COMPLETED: 11/14/2004
DRILLING METHOD: Rotosonic		WATER LEVEL (ft): ---	DRILLING EQUIPMENT: Gefco SS-15K-HL	
LOCATION: East Mesa, Parcel No. 650-151-06			LOGGED BY: B. Shearer	

DEPTH BGS (feet)	SAMPLE			USCS CODE	SOIL DESCRIPTION	COMMENTS
	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)		SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.	DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.
					<p style="text-align: center;">Boring Terminated at 350 ft</p> <p>ABBREVIATIONS</p> <ul style="list-style-type: none"> cc = continuous core run brn = brown lt = light dk = dark vf = very fine-grained f = fine-grained m = medium-grained c = coarse-grained vc = very coarse-grained ang = angular subang = subangular subrnd = subrounded rnd = rounded br = bedrock formation ss = sandstone conglom = conglomerate comptd = compacted qtz = quartz 	