



**DOCUMENTATION OF TECHNICAL REVIEW
SUBCONTRACTOR WORK PRODUCT**

Project Name: Turkey Point COL Project

Project Number: 6468-07-1950

Project Manager: Scott Auger

Project Principal: Tom McDaniel

The report described below has been prepared by the named subcontractor retained in accordance with the MACTEC QAPD. The work and report have been reviewed by a MACTEC technically qualified person. Comments on the work or report, if any, have been satisfactorily addressed by the subcontractor. The attached report is approved in accordance with section QS-7 of MACTEC's QAPD.

The information and data contained in the attached report are hereby released by MACTEC for project use.

REPORT : Analytical Report Lot #: F8E280143_rev1

SUBCONTRACTOR: TestAmerica, Earth City, MO

DATE OF ACCEPTANCE : 7/25/2008

TECHNICAL REVIEWER: William S. Grimes

William S. Grimes

SENIOR PROJECT PRINCIPAL: J. Allan Tice

J. Allan Tice



3301 Atlantic Avenue, Raleigh, NC 27604

**LABORATORY DATA REVIEW CHECKLIST**

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
1. Laboratory analytical data report appears complete (all data results present for all samples submitted for analysis) and there are no apparent transcription errors:	_____	<u>✓¹</u>	_____
2. Samples analyzed within applicable holding times (based on date of sample collection):*	_____	<u>✓²</u>	_____
3. Trip blanks, field blanks or laboratory method blanks are free of blank contamination:	_____	<u>✓³</u>	_____
4. If field duplicate samples collected, calculated results meet Relative Percent Difference guidelines: **	_____	_____	<u>✓</u>
5. Surrogate recoveries (organic analyses only) within laboratory reported recovery acceptance ranges:	_____	_____	<u>✓</u>
6. If Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples required to meet project objectives, Percent Recoveries (%R) and Relative Percent Difference (RPD) within laboratory reported acceptance ranges:	_____	<u>✓⁴</u>	_____
7. Reported detection limits meet project objectives (e.g., are capable of achieving applicable site standards):	<u>✓</u>	_____	_____
8. Completed Chain-Of-Custody received noting sample/custody seal condition (with airbill, if appropriate):	<u>✓</u>	_____	_____
9. Analytical costs within authorized budget for these services:	_____	_____	<u>✓</u>

COMMENTS: ¹ Iron results should be flagged indicating method blank contamination. ² Samples OW-735U and OW-809U for TDS were tested out of hold. B/c the samples were stored under refrigeration, biological degradation should not have been an issue. ³ An estimated concentration of iron was detected in the method blank, at a concentration between the PQL and MDL. Iron concentrations in site samples were considerably higher, and likely reflect ambient aquifer conditions. ⁴ MS/MSD recoveries were outside QC limits for several analytes possibly due to matrix interference. QC established based on acceptable LCS recoveries and results for analytes with acceptable recoveries.

Notes: 1. This checklist is intended for use with the laboratory reporting formats typical of most projects. If "no" is answered to one or more of the above checklist questions 1 through 7, a more detailed Data Validation may be required, and a person knowledgeable in Data Validation protocols should be consulted. This checklist should not be used if the project scope requires Data Validation from the onset.

2. * = Based upon EPA Guidance and the applicable analytical method references. See reverse side of checklist for details.

3. ** = Based upon EPA Guidance. Use these criteria on duplicate and sample results which exceed five times the reported detection limit. See reverse side of checklist for details.

Checked by: William A. Z... Date: 7-25-08



ANALYTICAL REPORT

REVISED

PROJECT NO. 6468071950

FPL Turkey Point COL

Lot #: F8E280143

Al Tice

MACTEC Engineering and Cons.
3301 Atlantic Ave.
Raleigh, NC 27604

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is positioned above the printed name and title.

Ivan Vania
Project Manager

June 27, 2008

Case Narrative

LOT NUMBER: F8E280143 – Revision 1

This report contains the analytical results for the two samples received under chain of custody by TestAmerica St. Louis on May 28, 2008. These samples are associated with your FPL Turkey Point COL project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

This revision contains corrections to the TDS mass listed in the case narrative.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-MS (SW846-6020)

Batch 8155134:

The MS (MSD) recoveries for calcium, potassium, magnesium, and sodium are outside the established QC limits. The analyte concentrations in the original samples are greater than four times the amount spiked, making percent recovery information ineffective. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Batch 8155134:

The MS (MSD) recovery for iron is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. No further action is required.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Batch 8155134:

The MS (MSD) recovery for silicon is outside the established QC limits. Matrix interference is physically evident in the sample. The samples are high in salts. Method performance is demonstrated by acceptable LCS recovery

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Batch 8155134:

The Measured Intensity Mean for lead, as measured during the daily performance check, was low. However, the calibration and the second source checks were all within acceptable QC limits. The samples were reported with this narrative.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Batch 8155134:

The samples were analyzed at a dilution due to high concentrations of salts. The reporting limits were adjusted for the dilution.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Total Dissolved Solids (MCAWW 160.1)

Batch 8156338:

Initial results exceeded the SOP limit of 200mg. The samples were re-analyzed at a 100X dilution out of hold.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

Anions (MCAWW 300.0A)

Poor matrix spike recovery for Chloride in batch 8165334, Nitrite in batch 8165337, and Ortho Phos in batch 8165338 is attributed to matrix interference. The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

The MS recoveries for Bromide in batch 8165345, Chloride in batch 8165346, Fluoride in batch 8165347, Sulfate in batch 8165348, Nitrite in batch 8165349, and Nitrate in batch 8165350 are outside the established QC limits. Matrix interference is evident in the sample. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E280143 (1): 0W-735U

F8E280143 (2): 0W-809U

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F8E280143

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH Aqueous	SW846 9040	SW846 9040
Alkalinity, Total	SM18 2320 B	SM18 2320 B
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Ion Balance % Difference	SM18 1030F & AP	SM18 1030F & AP
ICP-MS (6020)	SW846 6020	
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Sulfate	MCAWW 300.0A	MCAWW 300.0A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and
Wastewater", 18th Edition, 1992.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F8E280143

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KNX8D	001	OW-735U	05/27/08	11:35
KNX8K	002	OW-809U	05/27/08	14:55

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-735U

TOTAL Metals

Lot-Sample #...: F8E280143-001

Matrix.....: WATER

Date Sampled...: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8155134						
Calcium	749000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KNX8D1AN
		Dilution Factor: 1000		Analysis Time...: 15:45		
Iron	133 N	100	ug/L	SW846 6020	06/11-06/17/08	KNX8D1AP
		Dilution Factor: 2		Analysis Time...: 02:09		
Potassium	655000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KNX8D1AQ
		Dilution Factor: 1000		Analysis Time...: 22:10		
Magnesium	2140000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KNX8D1AR
		Dilution Factor: 1000		Analysis Time...: 22:10		
Manganese	32.7	4	ug/L	SW846 6020	06/11-06/17/08	KNX8D1AT
		Dilution Factor: 2		Analysis Time...: 02:09		
Sodium	17700000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KNX8D1AU
		Dilution Factor: 1000		Analysis Time...: 22:10		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KNX8D1AV
		Dilution Factor: 1000		Analysis Time...: 22:10		
Prep Batch #...: 8175113						
Silica	ND	250	ug/L	SW846 6020	06/11-06/21/08	KNX8D1AW
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-735U

General Chemistry

Lot-Sample #...: F8E280143-001 Work Order #...: KNX8D Matrix.....: WATER
 Date Sampled...: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.0	0.10	No Units	SW846 9040	05/28/08	8149223
				Dilution Factor: 1 Analysis Time...: 00:00		
Bicarbonate Alkalinity	179	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1 Analysis Time...: 00:00		
Bromide	262	250	mg/L	MCAWW 300.0A	05/29/08	8165345
				Dilution Factor: 1000 Analysis Time...: 11:27		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1 Analysis Time...: 00:00		
Chloride	37500	2000	mg/L	MCAWW 300.0A	05/29/08	8165346
				Dilution Factor: 10000 Analysis Time...: 11:39		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	05/29/08	8165347
				Dilution Factor: 200 Analysis Time...: 11:14		
Ion Balance Difference	6.7	0.10	%	SM18 1030F & API	06/23/08	8175543
				Dilution Factor: 1 Analysis Time...: 00:00		
Nitrate	ND	4.0	mg/L	MCAWW 300.0A	05/29/08	8165350
				Dilution Factor: 200 Analysis Time...: 11:14		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/29/08	8165349
				Dilution Factor: 10000 Analysis Time...: 11:39		
Nitrogen, as Ammonia	2150	200	ug/L	MCAWW 350.1	05/30/08	8150453
				Dilution Factor: 4 Analysis Time...: 00:00		
Sulfate	4090	500	mg/L	MCAWW 300.0A	05/29/08	8165348
				Dilution Factor: 1000 Analysis Time...: 11:27		
Total Alkalinity	179	5.0	mg/L	SM18 2320 B	06/02/08	8154059
				Dilution Factor: 1 Analysis Time...: 00:00		
Total Dissolved Solids	40200	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
				Dilution Factor: 100 Analysis Time...: 00:00		

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-809U

TOTAL Metals

Lot-Sample #...: F8E280143-002

Matrix.....: WATER

Date Sampled...: 05/27/08 14:55 Date Received...: 05/28/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8155134						
Calcium	704000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KNX8K1AN
		Dilution Factor: 1000		Analysis Time...: 15:59		
Iron	158 N	100	ug/L	SW846 6020	06/11-06/17/08	KNX8K1AP
		Dilution Factor: 2		Analysis Time...: 02:24		
Potassium	607000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KNX8K1AQ
		Dilution Factor: 1000		Analysis Time...: 22:26		
Magnesium	2040000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KNX8K1AR
		Dilution Factor: 1000		Analysis Time...: 22:26		
Manganese	28.1	4	ug/L	SW846 6020	06/11-06/17/08	KNX8K1AT
		Dilution Factor: 2		Analysis Time...: 02:24		
Sodium	16700000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KNX8K1AU
		Dilution Factor: 1000		Analysis Time...: 22:26		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KNX8K1AV
		Dilution Factor: 1000		Analysis Time...: 22:26		
Prep Batch #...: 8175113						
Silica	ND	250	ug/L	SW846 6020	06/11-06/21/08	KNX8K1AW
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-809U

General Chemistry

Lot-Sample #....: F8E280143-002 Work Order #....: KNX8K Matrix.....: WATER
 Date Sampled....: 05/27/08 14:55 Date Received...: 05/28/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.1	0.10	No Units	SW846 9040	05/28/08	8149223
		Dilution Factor: 1		Analysis Time...: 00:00		
Bicarbonate Alkalinity	177	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1		Analysis Time...: 00:00		
Bromide	241 B	250	mg/L	MCAWW 300.0A	05/29/08	8165345
		Dilution Factor: 1000		Analysis Time...: 12:42		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1		Analysis Time...: 00:00		
Chloride	35900	2000	mg/L	MCAWW 300.0A	05/29/08	8165346
		Dilution Factor: 10000		Analysis Time...: 12:55		
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	05/29/08	8165347
		Dilution Factor: 10		Analysis Time...: 12:16		
Ion Balance Difference	7.4	0.10	%	SML8 1030F & API	06/23/08	8175543
		Dilution Factor: 1		Analysis Time...: 00:00		
Nitrate	ND	4.0	mg/L	MCAWW 300.0A	05/29/08	8165350
		Dilution Factor: 200		Analysis Time...: 12:29		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/29/08	8165349
		Dilution Factor: 10000		Analysis Time...: 12:55		
Nitrogen, as Ammonia	2210	200	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 4		Analysis Time...: 00:00		
Sulfate	4050	500	mg/L	MCAWW 300.0A	05/29/08	8165348
		Dilution Factor: 1000		Analysis Time...: 12:42		
Total Alkalinity	177	5.0	mg/L	SML8 2320 B	06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00		
Total Dissolved Solids	34800	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 100		Analysis Time...: 00:00		

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F8E280143

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F8F030000-134 Prep Batch #...: 8155134						
Calcium	ND	100	ug/L	SW846 6020	06/11-06/24/08	KN8W91AA
		Dilution Factor: 1				
		Analysis Time...: 15:38				
Iron	26.0 B	50	ug/L	SW846 6020	06/11-06/17/08	KN8W91AC
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Magnesium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AE
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Manganese	ND	2	ug/L	SW846 6020	06/11-06/17/08	KN8W91AF
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Potassium	ND	100	ug/L	SW846 6020	06/11-06/21/08	KN8W91AD
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Silicon	ND	250	ug/L	SW846 6020	06/11-06/21/08	KN8W91AH
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Sodium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AG
		Dilution Factor: 1				
		Analysis Time...: 21:52				
MB Lot-Sample #: F8F230000-113 Prep Batch #...: 8175113						
Silica	ND	250	ug/L	SW846 6020	06/11-06/21/08	KQEK81AA
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8E280143

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Bromide	ND	0.25	mg/L	MCAWW 300.0A	05/29/08	8165345
		Dilution Factor: 1				
		Analysis Time...: 09:32				
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Chloride	ND	0.20	mg/L	MCAWW 300.0A	05/29/08	8165346
		Dilution Factor: 1				
		Analysis Time...: 09:32				
Fluoride	ND	0.10	mg/L	MCAWW 300.0A	05/29/08	8165347
		Dilution Factor: 1				
		Analysis Time...: 09:32				
Nitrate	ND	0.020	mg/L	MCAWW 300.0A	05/29/08	8165350
		Dilution Factor: 1				
		Analysis Time...: 09:32				
	ND	0.020	mg/L	MCAWW 300.0A	05/29/08	8165349
		Dilution Factor: 1				
		Analysis Time...: 09:32				
Nitrogen, as Ammonia	ND	50.0	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Sulfate	ND	0.50	mg/L	MCAWW 300.0A	05/29/08	8165348
		Dilution Factor: 1				
		Analysis Time...: 09:32				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8E280143

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	ND	Work Order #: KN7RG1AA 5.0	mg/L	MB Lot-Sample #: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Total Dissolved Solids	ND	Work Order #: KPC5L1AA 5.0	mg/L	MB Lot-Sample #: F8F040000-338 MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8E280143

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F8F030000-134 Prep Batch #...: 8155134					
Calcium	105	(85 - 115)	SW846 6020	06/11-06/24/08	KN8W91AJ
		Dilution Factor: 1		Analysis Time...: 15:42	
Iron	111	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AK
		Dilution Factor: 1		Analysis Time...: 02:05	
Potassium	102	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AL
		Dilution Factor: 1		Analysis Time...: 21:57	
Magnesium	100	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AM
		Dilution Factor: 1		Analysis Time...: 21:57	
Manganese	108	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AN
		Dilution Factor: 1		Analysis Time...: 02:05	
Sodium	98	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AP
		Dilution Factor: 1		Analysis Time...: 21:57	
Silicon	105	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AQ
		Dilution Factor: 1		Analysis Time...: 21:57	
LCS Lot-Sample#: F8F230000-113 Prep Batch #...: 8175113					
Silica	105 N	(0.0- 0.0)	SW846 6020	06/11-06/21/08	KQEK81AC
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: F8E280143

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia						
	100	(90 - 110)		MCAWW 350.1	05/30/08	8150453
	99	(90 - 110)	0.77 (0-20)	MCAWW 350.1	05/30/08	8150453
			Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E280143

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	100	Work Order #: KN5GJ1AA (99 - 101)	LCS Lot-Sample#: F8E280000-223 SW846 9040	05/28/08	8149223
		Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	100	Work Order #: KN7R51AC (90 - 110)	LCS Lot-Sample#: F8F020000-062 MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	104	Work Order #: KP1JC1AC (90 - 110)	LCS Lot-Sample#: F8F130000-345 MCAWW 300.0A	05/29/08	8165345
		Dilution Factor: 1	Analysis Time...: 09:20		
Carbonate Alkalinity	100	Work Order #: KN7RT1AC (90 - 110)	LCS Lot-Sample#: F8F020000-061 MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	97	Work Order #: KP1JD1AC (90 - 110)	LCS Lot-Sample#: F8F130000-346 MCAWW 300.0A	05/29/08	8165346
		Dilution Factor: 1	Analysis Time...: 09:20		
Fluoride	96	Work Order #: KP1JE1AC (90 - 110)	LCS Lot-Sample#: F8F130000-347 MCAWW 300.0A	05/29/08	8165347
		Dilution Factor: 1	Analysis Time...: 09:20		
Nitrate	104	Work Order #: KP1JU1AC (90 - 110)	LCS Lot-Sample#: F8F130000-350 MCAWW 300.0A	05/29/08	8165350
		Dilution Factor: 1	Analysis Time...: 09:20		
Nitrite	98	Work Order #: KP1JH1AC (90 - 110)	LCS Lot-Sample#: F8F130000-349 MCAWW 300.0A	05/29/08	8165349
		Dilution Factor: 1	Analysis Time...: 09:20		
Sulfate	94	Work Order #: KP1JF1AC (90 - 110)	LCS Lot-Sample#: F8F130000-348 MCAWW 300.0A	05/29/08	8165348
		Dilution Factor: 1	Analysis Time...: 09:20		
Total Alkalinity	100	Work Order #: KN7RG1AC (90 - 110)	LCS Lot-Sample#: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1	Analysis Time...: 00:00		

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E280143

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Total Dissolved Solids	100	(86 - 115)	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 1		Analysis Time...: 00:00	

Work Order #: KPC5L1AC LCS Lot-Sample#: F8F040000-338

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: F8E280143

Matrix.....: WATER

Date Sampled....: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F8E280143-001 Prep Batch #....: 8155134						
Calcium	0 N	(75 - 125)		SW846 6020	06/11-06/24/08	KNX8D1A0
	136 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/24/08	KNX8D1A1
				Dilution Factor: 1000		
				Analysis Time...: 15:52		
Iron	62 N	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A2
	68 N	(75 - 125)	6.1 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A3
				Dilution Factor: 2		
				Analysis Time...: 02:16		
Magnesium	358 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A6
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A7
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Manganese	79	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A8
	83	(75 - 125)	4.5 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A9
				Dilution Factor: 2		
				Analysis Time...: 02:16		
Potassium	122 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A4
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A5
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Silicon	182 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CD
	138 N,*	(75 - 125)	27 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CE
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Sodium	3360 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CA
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CC
				Dilution Factor: 1000		
				Analysis Time...: 22:18		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E280143

Matrix.....: WATER

Date Sampled...: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	122 N	Work Order #...: KNX8D1CF (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165345
		Dilution Factor: 1000		Analysis Time...: 11:27	
Chloride	89 N	Work Order #...: KNX8D1CH (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165346
		Dilution Factor: 10000		Analysis Time...: 11:39	
Fluoride	87 N	Work Order #...: KNX8D1CK (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165347
		Dilution Factor: 200		Analysis Time...: 11:14	
Nitrate	40 N	Work Order #...: KNX8D1CR (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165350
		Dilution Factor: 200		Analysis Time...: 11:14	
Nitrite	149 N	Work Order #...: KNX8D1CP (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165349
		Dilution Factor: 10000		Analysis Time...: 11:39	
Nitrogen, as Ammonia	104	Work Order #...: KNW831AP (90 - 110)	MCAWW 350.1	MS Lot-Sample #: F8E270173-001 05/30/08	8150453
		Dilution Factor: 1		Analysis Time...: 00:00	
Sulfate	88 N	Work Order #...: KNX8D1CM (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E280143-001 05/29/08	8165348
		Dilution Factor: 1000		Analysis Time...: 11:27	
Total Alkalinity	90	Work Order #...: KN5J21A2 (80 - 120)	SM18 2320 B	MS Lot-Sample #: F8E300223-003 06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E280143

Work Order #....: KNX8K-SMP
KNX8K-DUP

Matrix.....: WATER

Date Sampled...: 05/27/08 14:55 Date Received...: 05/28/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
pH (liquid)	7.1	7.1	No Units	0.14	(0-0.0)	SW846 9040	SD Lot-Sample #: F8E280143-002 05/28/08	8149223
				Dilution Factor: 1	Analysis Time...: 00:00			

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E280143 Work Order #....: KN2NJ-SMP Matrix.....: WATER
KN2NJ-DUP
Date Sampled....: 05/28/08 08:10 Date Received...: 05/29/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E290185-001		
Alkalinity	51.0	50.0	mg/L	2.0	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290185-001		
ND	ND		mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E280143

Work Order #...: KN46M-SMP

Matrix.....: WATER

KN46M-DUP

Date Sampled...: 05/29/08 09:45

Date Received..: 05/30/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #:	F8E300179-001	
Alkalinity	76.0	78.0	mg/L	2.6	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor:	1		Analysis Time...	00:00	
Carbonate Alkalinity						SD Lot-Sample #:	F8E300179-001	
ND	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor:	1		Analysis Time...	00:00	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E280143

Work Order #...: KN6XH-SMP

Matrix.....: WATER

KN6XH-DUP

Date Sampled...: 05/30/08 09:45

Date Received...: 05/31/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E310160-003		
Alkalinity	121	120	mg/L	0.83	(0-15)	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1		Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E310160-003		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1		Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E280143 Work Order #...: KN5GT-SMP Matrix.....: WATER
KN5GT-DUP
Date Sampled...: 05/28/08 10:02 Date Received...: 05/30/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids	431	420	mg/L	2.6	(0-15)	MCAWW 160.1	06/04-06/05/08	8156338
Dilution Factor: 1						Analysis Time...: 00:00		

SD Lot-Sample #: F8E300212-001

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E280143

Work Order #....: KN5RL-SMP

Matrix.....: WATER

KN5RL-DUP

Date Sampled....: 05/28/08 10:17 Date Received...: 05/30/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved						SD Lot-Sample #: F8E300262-001		
Solids	1690	1870	mg/L	9.9	(0-15)	MCAWW 160.1	06/04-06/05/08	8156338
			Dilution Factor: 1			Analysis Time...: 00:00		

F8E280143

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-72

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-28

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-16

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-18

Client: 63036 MACTEC Engineering & Consulting Inc

Report Type: W

#SMPS in LOT: 2

EDD Code: 00

Inform PM of any receiving issues.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	1
1	OW-735U			2008-05-27 / 1135	KNX8D	WATER
SAMPLE COMMENTS:						
FE MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	OX	CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX C9	MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX CB	MCAW 310.1 W		WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX CX	MCAW 300.0A W		WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX CY	MCAW 300.0A W		WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX FJ	SW846 9040		WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX GM	MCAW 300.0A W		WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX GO	MCAW 300.0A W		WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX LV	SM18 2320 B		WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX UX	MCAW 310.1 W		WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX VM	MCAW 350.1 W		WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	1
2	OW-809U			2008-05-27 / 1455	KNX8K	WATER
SAMPLE COMMENTS:						
FE MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	OX	CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX C9	MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06

TestAmerica - St. Louis

Logged in by: WILSONS

2008-05-28

9:51:54

printed on: Wednesday, May 28, 2008 11:16 A

Page 1 of 2

F8E280143

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-72

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-28

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-16

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-18

Client: 63036 MACTEC Engineering & Consulting Inc

#SMPS in LOT: 2

Report Type: W

EDD Code: 00

Inform PM of any receiving issues.

XX	CB	MCAW 310.1 W	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CX	MCAW 300.0A W	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CY	MCAW 300.0A W	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	FJ	SW846 9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GM	MCAW 300.0A W	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GO	MCAW 300.0A W	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	LV	SM18 2320 B	WATER, 2320 B, Alkalinity Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	UX	MCAW 310.1 W	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	VM	MCAW 350.1 W	WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06

CUL 3535

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client MACTEC	Project Manager Scott Arger	Date 05-27-08	Chain of Custody Number 062464
Address 3301 Atlantic Avenue	Telephone Number (Area Code)/Fax Number 919-876-0416	Lab Number	Page 1 of 1

City Raleigh	State NC	Zip Code 27604	Site Contact Matt Cooke	Lab Contact Ivan Vania	Analysis (Attach list if more space is needed)
Project Name and Location (State) Turkey Point COL			Carrier/Waybill Number FE 86562820 8233		

Contract/Purchase Order/Quote No. 6468-07-1950	Matrix	Containers & Preservatives	Special Instructions/Conditions of Receipt
--	--------	----------------------------	--

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Soil	Unpres.	Pres.	NaOH	ZnAc	NaOH	Analysis	Special Instructions/Conditions of Receipt
OW-735U	05/27/08	1135	X			1	2				1	Cations: calcium
OW-809U	05/27/08	1455	X			1	2				1	Iron, Magnesium
											2	Manganese
												Potassium, Silica
												Sodium 9045(D)
												PH-EPA SW846 9045(D)
												TDS-EPA 160.1
												Cations-EPA 200.7
												Iron-EPA 200.7
												Alkalinity-EPA 310.1
												Ammonia-EPA 350.1
												Nitrate-EPA 353.1

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown	☐ Return To Client ☒ Disposal By Lab : ☐ Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other Standard	

1. Relinquished By Kevin Chip Smith	Date 05/27/08	Time 1625	1. Received By B-JC	Date 5/29/08	Time 0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: CATIONS EPA 200.7 nitrate/nitrite EPA 350.1
 CATIONS and nitrate/nitrite Analysis methods may change pending approval of SDPE, please wait
 DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy
 For instruction from MACTEC on these two analyses.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F8E280143
- 3535 -

Client: Nadco COC/RFA No: 662964 Date: 5/28/08
Quote No: 79192 Initiated By: bn Time: 0900

Shipping Information

Shipper Name: FE Multiple Packages Y (N)
Shipping # (s):* 8656 2820 8233 Sample Temperature (s):**
1. 2 6. 2
2. 2 7. 2
3. 2 8. 2
4. 2 9. 2
5. 2 10. 2

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. Y <u>(N)</u>	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y N <u>(N/A)</u>	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>(Y)</u> N N/A	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. Y N	If N/A- Was pH taken by original TestAmerica lab?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. Y <u>(N)</u>	Was sample received broken?	13. Y N <u>(N/A)</u>	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. Y N	Was Internal COC/Workshare received?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is" _____
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: [Signature] Date: 5-29-08

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07\NLS\01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

LOT# F8e280143 - Rev 1

33 of 33



**DOCUMENTATION OF TECHNICAL REVIEW
SUBCONTRACTOR WORK PRODUCT**

Project Name: Turkey Point COL Project

Project Number: 6468-07-1950

Project Manager: Scott Auger

Project Principal: Tom McDaniel

The report described below has been prepared by the named subcontractor retained in accordance with the MACTEC QAPD. The work and report have been reviewed by a MACTEC technically qualified person. Comments on the work or report, if any, have been satisfactorily addressed by the subcontractor. The attached report is approved in accordance with section QS-7 of MACTEC's QAPD.

The information and data contained in the attached report are hereby released by MACTEC for project use.

REPORT : Analytical Report Lot #: F8F060153

SUBCONTRACTOR: TestAmerica, Earth City, MO

DATE OF ACCEPTANCE : 7/23/2008

TECHNICAL REVIEWER: William S. Grimes

William S. Grimes

PROJECT PRINCIPAL: Tom McDaniel

Tom McDaniel



3301 Atlantic Avenue, Raleigh, NC 27604

**LABORATORY DATA REVIEW CHECKLIST**

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
1. Laboratory analytical data report appears complete (all data results present for all samples submitted for analysis) and there are no apparent transcription errors:	_____	<u>✓¹</u>	_____
2. Samples analyzed within applicable holding times (based on date of sample collection):*	<u>✓</u>	_____	_____
3. Trip blanks, field blanks or laboratory method blanks are free of blank contamination:	_____	<u>✓²</u>	_____
4. If field duplicate samples collected, calculated results meet Relative Percent Difference guidelines: **	_____	_____	<u>✓</u>
5. Surrogate recoveries (organic analyses only) within laboratory reported recovery acceptance ranges:	_____	_____	<u>✓</u>
6. If Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples required to meet project objectives, Percent Recoveries (%R) and Relative Percent Difference (RPD) within laboratory reported acceptance ranges:	_____	<u>✓³</u>	_____
7. Reported detection limits meet project objectives (e.g., are capable of achieving applicable site standards):	<u>✓</u>	_____	_____
8. Completed Chain-Of-Custody received noting sample/custody seal condition (with airbill, if appropriate):	<u>✓</u>	_____	_____
9. Analytical costs within authorized budget for these services:	_____	_____	<u>✓</u>

COMMENTS: ¹ Ion balance difference results erroneously flagged with a "B" data qualifier. Results should not be flagged, and can be used. ² An estimated concentration of chloride was detected in the method blank, at a concentration between the PQL and MDL. Chloride concentrations in site samples were considerably higher, and likely reflect ambient aquifer conditions. ³ MS/MSD recoveries were outside QC limits for several analytes possibly due to matrix interference. QC established based on acceptable LCS recoveries and results for analytes with acceptable recoveries.

Notes: 1. This checklist is intended for use with the laboratory reporting formats typical of most projects. If "no" is answered to one or more of the above checklist questions 1 through 7, a more detailed Data Validation may be required, and a person knowledgeable in Data Validation protocols should be consulted. This checklist should not be used if the project scope requires Data Validation from the onset.

2. * = Based upon EPA Guidance and the applicable analytical method references. See reverse side of checklist for details.

3. ** = Based upon EPA Guidance. Use these criteria on duplicate and sample results which exceed five times the reported detection limit. See reverse side of checklist for details.

Checked by: William A. Lin Date: 7-24-08



ANALYTICAL REPORT

PROJECT NO. 6468071950

FPL Turkey Point COL

Lot #: F8F060153

Al Tice

MACTEC Engineering and Cons.
3301 Atlantic Ave.
Raleigh, NC 27604

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is positioned above the printed name and title.

Ivan Vania
Project Manager

July 1, 2008

Case Narrative
LOT NUMBER: F8F060153

This report contains the analytical results for the two samples received under chain of custody by TestAmerica St. Louis on June 6, 2008. These samples are associated with your FPL Turkey Point COL project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-MS (SW846-6020)

The MS (MSD) recoveries for batch 8164260 - calcium, potassium, magnesium, sodium, silicon are outside the established QC limits. The analyte concentrations in the original samples are greater than four times the amount spiked, making percent recovery information ineffective. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8F060153 (1): OW-802U

F8F060153 (2): OW-805U

The MS (MSD) recoveries for batch 8164260 - iron are outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8F060153 (1): OW-802U

F8F060153 (2): OW-805U

The MS (MSD) recoveries for batch 8164260 - manganese are outside the established QC limits due to matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8F060153 (1): OW-802U

F8F060153 (2): OW-805U

Batch 8164260:

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limits were adjusted for the dilution since no analysis at a lesser dilution was performed.

Affected Samples:

F8F060153 (1): OW-802U

F8F060153 (2): OW-805U

Chloride (MCAWW 300.0A)

Poor matrix spike recovery for Nitrite in batch 8158478 is attributed to matrix interference.

The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries.

Affected Samples:

F8F060153 (1): OW-802U

F8F060153 (2): OW-805U

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F8F060153

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
pH Aqueous	SW846 9040	SW846 9040
Alkalinity, Total	SM18 2320 B	SM18 2320 B
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Ion Balance (%Difference)	SM18 1030F & AP	SM18 1030F & AP
ICP-MS (6020)	SW846 6020	
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Sulfate	MCAWW 300.0A	MCAWW 300.0A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and
Wastewater", 18th Edition, 1992.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F8F060153

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KPHA3	001	OW-802U	06/05/08	12:35
KPHCH	002	OW-805U	06/05/08	15:00

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-802U

TOTAL Metals

Lot-Sample #...: F8F060153-001

Matrix.....: WATER

Date Sampled...: 06/05/08 12:35 Date Received...: 06/06/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8164260						
Calcium	579000 N	100000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AN
		Dilution Factor: 1000		Analysis Time...: 17:02		
Iron	ND N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AP
		Dilution Factor: 1000		Analysis Time...: 17:02		
Potassium	586000 N	100000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AQ
		Dilution Factor: 1000		Analysis Time...: 17:02		
Magnesium	1980000 N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AR
		Dilution Factor: 1000		Analysis Time...: 17:02		
Manganese	ND N	2000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AT
		Dilution Factor: 1000		Analysis Time...: 17:02		
Sodium	16400000 N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AU
		Dilution Factor: 1000		Analysis Time...: 17:02		
Silicon	66700 BN	250000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AV
		Dilution Factor: 1000		Analysis Time...: 17:02		
Prep Batch #...: 8175114						
Silica	143000 J	250000	ug/L	SW846 6020	06/12-06/25/08	KPHA31AW
		Dilution Factor: 1000		Analysis Time...: 17:02		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

J Estimated result. Result is less than RL.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-802U

General Chemistry

Lot-Sample #...: F8F060153-001 Work Order #...: KPHA3 Matrix.....: WATER
 Date Sampled...: 06/05/08 12:35 Date Received...: 06/06/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	06/06/08	8161156
			Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	178	5.0	mg/L	MCAWW 310.1	06/10/08	8161269
			Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	65.1	50.0	mg/L	MCAWW 300.0A	06/06/08	8158474
			Dilution Factor: 200	Analysis Time...: 08:16		
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	06/10/08	8161267
			Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	31600 J	2000	mg/L	MCAWW 300.0A	06/06/08	8158475
			Dilution Factor: 10000	Analysis Time...: 08:40		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	06/06/08	8158476
			Dilution Factor: 200	Analysis Time...: 08:16		
Ion Balance Difference	3.0 B	0.10	%	SM18 1030F & API	07/01/08	8183319
			Dilution Factor: 1	Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	06/06/08	8158479
			Dilution Factor: 10	Analysis Time...: 08:04		
Nitrite	ND	200	mg/L	MCAWW 300.0A	06/06/08	8158478
			Dilution Factor: 10000	Analysis Time...: 08:40		
Nitrogen, as Ammonia 1400		200	ug/L	MCAWW 350.1	06/11/08	8163468
			Dilution Factor: 4	Analysis Time...: 00:00		
Sulfate	3720	500	mg/L	MCAWW 300.0A	06/06/08	8158477
			Dilution Factor: 1000	Analysis Time...: 08:28		
Total Alkalinity	178	5.0	mg/L	SM18 2320 B	06/10/08	8161265
			Dilution Factor: 1	Analysis Time...: 00:00		
Total Dissolved Solids	53900	500	mg/L	MCAWW 160.1	06/11-06/12/08	8163486
			Dilution Factor: 100	Analysis Time...: 00:00		

NOTE(S):

RL Reporting Limit

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-805U

TOTAL Metals

Lot-Sample #...: F8F060153-002

Matrix.....: WATER

Date Sampled...: 06/05/08 15:00 Date Received...: 06/06/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8164260						
Calcium	447000 N	100000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AN
		Dilution Factor: 1000		Analysis Time...: 17:26		
Iron	ND N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AP
		Dilution Factor: 1000		Analysis Time...: 17:26		
Potassium	493000 N	100000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AQ
		Dilution Factor: 1000		Analysis Time...: 17:26		
Magnesium	1570000 N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AR
		Dilution Factor: 1000		Analysis Time...: 17:26		
Manganese	ND N	2000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AT
		Dilution Factor: 1000		Analysis Time...: 17:26		
Sodium	13200000 N	50000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AU
		Dilution Factor: 1000		Analysis Time...: 17:26		
Silicon	49900 BN	250000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AV
		Dilution Factor: 1000		Analysis Time...: 17:26		
Prep Batch #...: 8175114						
Silica	107000 J	250000	ug/L	SW846 6020	06/12-06/25/08	KPHCH1AW
		Dilution Factor: 1000		Analysis Time...: 17:26		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

J Estimated result. Result is less than RL.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-805U

General Chemistry

Lot-Sample #...: F8F060153-002 Work Order #...: KPHCH Matrix.....: WATER
 Date Sampled...: 06/05/08 15:00 Date Received...: 06/06/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.4	0.10	No Units	SW846 9040	06/06/08	8161156
			Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	177	5.0	mg/L	MCAWW 310.1	06/10/08	8161269
			Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	53.6	50.0	mg/L	MCAWW 300.0A	06/06/08	8158474
			Dilution Factor: 200	Analysis Time...: 11:03		
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	06/10/08	8161267
			Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	27600 J	2000	mg/L	MCAWW 300.0A	06/06/08	8158475
			Dilution Factor: 10000	Analysis Time...: 11:27		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	06/06/08	8158476
			Dilution Factor: 200	Analysis Time...: 11:03		
Ion Balance Difference	6.9 B	0.10	%	SM18 1030F & API	07/01/08	8183319
			Dilution Factor: 1	Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	06/06/08	8158479
			Dilution Factor: 10	Analysis Time...: 10:51		
Nitrite	ND	200	mg/L	MCAWW 300.0A	06/06/08	8158478
			Dilution Factor: 10000	Analysis Time...: 11:27		
Nitrogen, as Ammonia 548		50.0	ug/L	MCAWW 350.1	06/11/08	8163468
			Dilution Factor: 1	Analysis Time...: 00:00		
Sulfate	3070	500	mg/L	MCAWW 300.0A	06/06/08	8158477
			Dilution Factor: 1000	Analysis Time...: 11:15		
Total Alkalinity	177	5.0	mg/L	SM18 2320 B	06/10/08	8161265
			Dilution Factor: 1	Analysis Time...: 00:00		
Total Dissolved Solids	45700	500	mg/L	MCAWW 160.1	06/11-06/12/08	8163486
			Dilution Factor: 100	Analysis Time...: 00:00		

NOTE (S) :

RL Reporting Limit

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F8F060153

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F8F120000-260 Prep Batch #...: 8164260						
Calcium	ND B	100	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AA
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Iron	ND	50	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AC
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Magnesium	ND	50	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AE
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Manganese	ND	2	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AF
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Potassium	ND	100	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AD
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Silicon	ND	250	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AH
		Dilution Factor: 1				
		Analysis Time...: 16:54				
Sodium	ND	50	ug/L	SW846 6020	06/12-06/25/08	KPRWF1AG
		Dilution Factor: 1				
		Analysis Time...: 16:54				
MB Lot-Sample #: F8F230000-114 Prep Batch #...: 8175114						
Silica	ND	250	ug/L	SW846 6020	06/12-06/25/08	KQL7E1AA
		Dilution Factor: 1				
		Analysis Time...: 17:26				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #....: F8F060153

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/10/08	8161269
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Bromide	ND	0.25	mg/L	MCAWW 300.0A	06/06/08	8158474
		Dilution Factor: 1				
		Analysis Time...: 06:34				
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/10/08	8161267
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Chloride	0.041 B	0.20	mg/L	MCAWW 300.0A	06/06/08	8158475
		Dilution Factor: 1				
		Analysis Time...: 06:34				
Fluoride	ND	0.10	mg/L	MCAWW 300.0A	06/06/08	8158476
		Dilution Factor: 1				
		Analysis Time...: 06:34				
Nitrate	ND	0.020	mg/L	MCAWW 300.0A	06/06/08	8158479
		Dilution Factor: 1				
		Analysis Time...: 06:34				
Nitrite	ND	0.020	mg/L	MCAWW 300.0A	06/06/08	8158478
		Dilution Factor: 1				
		Analysis Time...: 06:34				
Nitrogen, as Ammonia	ND	50.0	ug/L	MCAWW 350.1	06/11/08	8163468
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Sulfate	ND	0.50	mg/L	MCAWW 300.0A	06/06/08	8158477
		Dilution Factor: 1				
		Analysis Time...: 06:34				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #....: F8F060153

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	ND	Work Order #: KPLCP1AA 5.0	mg/L	MB Lot-Sample #: F8F090000-265 SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Total Dissolved Solids	ND	Work Order #: KPQXJ1AA 5.0	mg/L	MB Lot-Sample #: F8F110000-486 MCAWW 160.1	06/11-06/12/08	8163486
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8F060153

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F8F120000-260 Prep Batch #...: 8164260					
Calcium	107	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AJ
		Dilution Factor: 1		Analysis Time...: 16:58	
Iron	105	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AK
		Dilution Factor: 1		Analysis Time...: 16:58	
Potassium	106	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AL
		Dilution Factor: 1		Analysis Time...: 16:58	
Magnesium	105	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AM
		Dilution Factor: 1		Analysis Time...: 16:58	
Manganese	111	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AN
		Dilution Factor: 1		Analysis Time...: 16:58	
Sodium	103	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AP
		Dilution Factor: 1		Analysis Time...: 16:58	
Silicon	111	(85 - 115)	SW846 6020	06/12-06/25/08	KPRWF1AQ
		Dilution Factor: 1		Analysis Time...: 16:58	
LCS Lot-Sample#: F8F230000-114 Prep Batch #...: 8175114					
Silica	111 N	(0.0- 0.0)	SW846 6020	06/12-06/25/08	KQL7E1AC
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #....: F8F060153

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia		WO#:KPQWMLAC-LCS/KPQWMLAD-LCSD			LCS Lot-Sample#: F8F110000-468		
	103	(90 - 110)			MCAWW 350.1	06/11/08	8163468
	96	(90 - 110)	6.1	(0-20)	MCAWW 350.1	06/11/08	8163468

Dilution Factor: 1 Analysis Time...: 00:00

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F060153

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	100	Work Order #: KPK3K1AA (99 - 101)	LCS Lot-Sample#: F8F090000-156 SW846 9040	06/06/08	8161156
		Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	101	Work Order #: KPLC11AC (90 - 110)	LCS Lot-Sample#: F8F090000-269 MCAWW 310.1	06/10/08	8161269
		Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	101	Work Order #: KPMF61AC (90 - 110)	LCS Lot-Sample#: F8F060000-474 MCAWW 300.0A	06/06/08	8158474
		Dilution Factor: 1	Analysis Time...: 06:22		
Carbonate Alkalinity	101	Work Order #: KPLCR1AC (90 - 110)	LCS Lot-Sample#: F8F090000-267 MCAWW 310.1	06/10/08	8161267
		Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	99	Work Order #: KPMF81AC (90 - 110)	LCS Lot-Sample#: F8F060000-475 MCAWW 300.0A	06/06/08	8158475
		Dilution Factor: 1	Analysis Time...: 06:22		
Fluoride	96	Work Order #: KPMGD1AC (90 - 110)	LCS Lot-Sample#: F8F060000-476 MCAWW 300.0A	06/06/08	8158476
		Dilution Factor: 1	Analysis Time...: 06:22		
Nitrate	102	Work Order #: KPMGH1AC (90 - 110)	LCS Lot-Sample#: F8F060000-479 MCAWW 300.0A	06/06/08	8158479
		Dilution Factor: 1	Analysis Time...: 06:22		
Nitrite	100	Work Order #: KPMGG1AC (90 - 110)	LCS Lot-Sample#: F8F060000-478 MCAWW 300.0A	06/06/08	8158478
		Dilution Factor: 1	Analysis Time...: 06:22		
Sulfate	96	Work Order #: KPMGF1AC (90 - 110)	LCS Lot-Sample#: F8F060000-477 MCAWW 300.0A	06/06/08	8158477
		Dilution Factor: 1	Analysis Time...: 06:22		
Total Alkalinity	101	Work Order #: KPLCP1AC (90 - 110)	LCS Lot-Sample#: F8F090000-265 SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1	Analysis Time...: 00:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: F8F060153

Matrix.....: WATER

Date Sampled....: 06/05/08 12:35 Date Received...: 06/06/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F8F060153-001 Prep Batch #....: 8164260						
Calcium	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CF
	122	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CG
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Iron	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CH
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CJ
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Magnesium	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CM
	9.5 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CN
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Manganese	146 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CP
	155 N	(75 - 125)	6.1 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CQ
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Potassium	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CK
	66 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CL
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Silicon	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CU
	0 N,B	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CV
		Dilution Factor: 1000				
		Analysis Time...: 17:10				
Sodium	0 N	(75 - 125)		SW846 6020	06/12-06/25/08	KPHA31CR
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/12-06/25/08	KPHA31CT
		Dilution Factor: 1000				
		Analysis Time...: 17:10				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F060153

Matrix.....: WATER

Date Sampled...: 06/05/08 12:35 Date Received...: 06/06/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	94	Work Order #...: KPHA31A2 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158474
		Dilution Factor: 200		Analysis Time...: 08:16	
Chloride	101	Work Order #...: KPHA31A4 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158475
		Dilution Factor: 10000		Analysis Time...: 08:40	
Fluoride	90	Work Order #...: KPHA31A6 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158476
		Dilution Factor: 200		Analysis Time...: 08:16	
Nitrate	100	Work Order #...: KPHA31CD (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158479
		Dilution Factor: 10		Analysis Time...: 08:04	
Nitrite	143 N	Work Order #...: KPHA31CA (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158478
		Dilution Factor: 10000		Analysis Time...: 08:40	
Nitrogen, as Ammonia	106	Work Order #...: KPHCH1A1 (90 - 110)	MCAWW 350.1	MS Lot-Sample #: F8F060153-002 06/11/08	8163468
		Dilution Factor: 2		Analysis Time...: 00:00	
Sulfate	95	Work Order #...: KPHA31A8 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8F060153-001 06/06/08	8158477
		Dilution Factor: 1000		Analysis Time...: 08:28	
Total Alkalinity	92	Work Order #...: KPF631A0 (80 - 120)	SM18 2320 B	MS Lot-Sample #: F8F050344-001 06/10/08	8161265
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8F060153

Work Order #....: KPF63-SMP
KPF63-DUP

Matrix.....: WATER

Date Sampled....: 06/04/08 14:20 Date Received...: 06/05/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	181	183	mg/L	1.1	(0-20)	SM18 2320 B	SD Lot-Sample #: F8F050344-001 06/10/08	8161265
				Dilution Factor: 1	Analysis Time... 00:00			

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F060153

Work Order #...: KPHCH-SMP

Matrix.....: WATER

KPHCH-DUP

Date Sampled...: 06/05/08 15:00 Date Received...: 06/06/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u> <u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Nitrogen, as Ammonia						SD Lot-Sample #:	F8F060153-002	
548		578	ug/L	5.4	(0-20)	MCAWW 350.1	06/11/08	8163468
			Dilution Factor: 1			Analysis Time...: 00:00		

F8F060153

CLIENT ANALYSIS SUMMARY

Storage Loc: 1-134,METS

Project Manager: IV

Quote #: 79192

SDG:

Date Received: 2008-06-06

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date: 2008-06-20

PO#: 200807151

Report to: Al Tice

Report Due Date: 2008-06-26

Client: 63036

MACTEC Engineering & Consulting Inc

Report Type: W

#SMPS in LOT: 2

EDD Code: 00

Inform PM of any receiving issues.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	OW-802U			2008-06-05 / 1235	KPHA3	WATER
SAMPLE COMMENTS:						
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	DX CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD	PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C9	MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CB	MCAW 310.1 W		WATER, 310.1, Alkalinity, Carbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CX	MCAW 300.0A W		WATER, 300.0A, Chloride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CY	MCAW 300.0A W		WATER, 300.0A, Sulfate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX FJ	SW846 9040		WATER, 9040C, pH	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GM	MCAW 300.0A W		WATER, 300.0A, Bromide	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GO	MCAW 300.0A W		WATER, 300.0A, Nitrite as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX LV	SM18 2320 B		WATER, 2320 B, Alkalinity, Total	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX SL	SM18 1030F & API		WATER, 1030F & API, Ion Balance	0X CALCULATION ONLY	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX UX	MCAW 310.1 W		WATER, 310.1, Alkalinity, Bicarbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX VM	MCAW 350.1 W		WATER, 350.1, Nitrogen, Ammonia	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	OW-805U			2008-06-05 / 1500	KPHCH	WATER
SAMPLE COMMENTS:						
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	0X CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD	PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL -2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

TestAmerica - St. Louis

Logged in by: DANIELSB

2008-06-07

8:38:04

printed on: Saturday, June 07, 2008 09:45 AM

Page 1 of 2

LOT# F8F060153

22 of 25

F8F060153

CLIENT ANALYSIS SUMMARY

Storage Loc: 1-134,METS

Project Manager: IV

Quote #: 79192

SDG:

Date Received: 2008-06-06

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date: 2008-06-20

PO#: 200807151

Report to: Al Tice

Report Due Date: 2008-06-23

Client: 63036 MACTEC Engineering & Consulting Inc

#SMPS in LOT: 2

Report Type: W

EDD Code: 00

Inform PM of any receiving issues.

XX	C9	MCAW	300.0A	W	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CB	MCAW	310.1	W	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CX	MCAW	300.0A	W	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CY	MCAW	300.0A	W	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	FJ	SW846	9040		WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GM	MCAW	300.0A	W	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GO	MCAW	300.0A	W	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	LV	SM18	2320	B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	SL	SM18	1030F & API		WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	UX	MCAW	310.1	W	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	VM	MCAW	350.1	W	WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F8F060153
- 3244 -Client: Maclec COC/RFA No: 062467 Condition Upon Receipt Form
Quote No: 79192 Initiated By: W Date: 04-06-08
Time: 0930

Shipping Information

Shipper Name: FedEx

Shipping # (s):*

8636 2694 66421. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____Multiple Packages Y (N)

Sample Temperature (s):**

1. 2° 6. _____

2. _____ 7. _____

3. _____ 8. _____

4. _____ 9. _____

5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. <u>(Y)</u> <u>(N)</u>	Are there custody seals present on bottles?
2. <u>(Y)</u> <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. <u>(Y)</u> <u>(N)</u> <u>(N/A)</u>	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>(Y)</u> N N/A	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. <u>(Y)</u> N	If N/A- Was pH taken by original TestAmerica lab?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. <u>(Y)</u> <u>(N)</u>	Was sample received broken?	13. <u>(Y)</u> N <u>(N/A)</u>	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. <u>(Y)</u> N	Was Internal COC/Workshare received?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____

Informed by: _____

☐ Sample(s) processed "as is"☐ Sample(s) on hold until: _____

If released, notify: _____

Project Management Review: _____

Date: 6-8-8

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07\SIsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

LOT# F8F060153

25 of 25



**DOCUMENTATION OF TECHNICAL REVIEW
SUBCONTRACTOR WORK PRODUCT**

Project Name: Turkey Point COL Project

Project Number: 6468-07-1950

Project Manager: Scott Auger

Project Principal: Tom McDaniel

The report described below has been prepared by the named subcontractor retained in accordance with the MACTEC QAPD. The work and report have been reviewed by a MACTEC technically qualified person. Comments on the work or report, if any, have been satisfactorily addressed by the subcontractor. The attached report is approved in accordance with section QS-7 of MACTEC's QAPD.

The information and data contained in the attached report are hereby released by MACTEC for project use.

REPORT : Analytical Report Lot #: F8E300223

SUBCONTRACTOR: TestAmerica, Earth City, MO

DATE OF ACCEPTANCE : 7/23/2008

TECHNICAL REVIEWER: William S. Grimes

PROJECT PRINCIPAL: Tom McDaniel

William S. Grimes
TM



3301 Atlantic Avenue, Raleigh, NC 27604

**LABORATORY DATA REVIEW CHECKLIST**

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
1. Laboratory analytical data report appears complete (all data results present for all samples submitted for analysis) and there are no apparent transcription errors:	___	<u>✓¹</u>	___
2. Samples analyzed within applicable holding times (based on date of sample collection):*	<u>✓</u>	___	___
3. Trip blanks, field blanks or laboratory method blanks are free of blank contamination:	___	<u>✓²</u>	___
4. If field duplicate samples collected, calculated results meet Relative Percent Difference guidelines: **	___	___	<u>✓</u>
5. Surrogate recoveries (organic analyses only) within laboratory reported recovery acceptance ranges:	___	___	<u>✓</u>
6. If Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples required to meet project objectives, Percent Recoveries (%R) and Relative Percent Difference (RPD) within laboratory reported acceptance ranges:	___	<u>✓³</u>	___
7. Reported detection limits meet project objectives (e.g., are capable of achieving applicable site standards):	<u>✓</u>	___	___
8. Completed Chain-Of-Custody received noting sample/custody seal condition (with airbill, if appropriate):	<u>✓</u>	___	___
9. Analytical costs within authorized budget for these services:	___	___	<u>✓</u>

COMMENTS: ¹ Iron results should be flagged indicating method blank contamination. ² An estimated concentration of iron was detected in the method blank, at a concentration between the PQL and MDL. Iron concentrations in site samples were considerably higher, and likely reflect ambient aquifer conditions. ³ MS/MSD recoveries were outside QC limits for several analytes possibly due to matrix interference. QC established based on acceptable LCS recoveries and results for analytes with acceptable recoveries.

- Notes: 1. This checklist is intended for use with the laboratory reporting formats typical of most projects. If "no" is answered to one or more of the above checklist questions 1 through 7, a more detailed Data Validation may be required, and a person knowledgeable in Data Validation protocols should be consulted. This checklist should not be used if the project scope requires Data Validation from the onset.
2. * = Based upon EPA Guidance and the applicable analytical method references. See reverse side of checklist for details.
3. ** = Based upon EPA Guidance. Use these criteria on duplicate and sample results which exceed five times the reported detection limit. See reverse side of checklist for details.

Checked by: Walter J. Lin Date: 7-14-08



ANALYTICAL REPORT

PROJECT NO. 6468071950

FPL Turkey Point COL

Lot #: F8E300223

Al Tice

MACTEC Engineering and Cons.

3301 Atlantic Ave.

Raleigh, NC 27604

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written over a horizontal line.

Ivan Vania
Project Manager

June 27, 2008

Case Narrative
LOT NUMBER: F8E300223

This report contains the analytical results for the three samples received under chain of custody by TestAmerica St. Louis on May 30, 2008. These samples are associated with your FPL Turkey Point COL project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-MS (SW846-6020)

Batch 8155134:

The MS (MSD) recoveries for calcium, potassium, magnesium, and sodium are outside the established QC limits. The analyte concentrations in the original samples are greater than four times the amount spiked, making percent recovery information ineffective. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Batch 8155134:

The MS (MSD) recovery for iron is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Batch 8155134:

The MS (MSD) recovery for silicon is outside the established QC limits. Matrix interference is physically evident in the sample. The samples are high in salts. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Batch 8155134:

The Measured Intensity Mean for lead, as measured during the daily performance check, was low. However, the calibration and the second source checks were all within acceptable QC limits. The samples were reported with this narrative.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Batch 8155134:

The samples were analyzed at a dilution due to high concentrations of salts. The reporting limits were adjusted for the dilution.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Total Dissolved Solids (MCAWW 160.1)

Batch 8157081:

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limits were adjusted for the dilution since no analysis at a lesser dilution was performed.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

Anions (MCAWW 300.0A)

Poor matrix spike recovery for Nitrite in batch 8152136, Ortho Phosphate in batch 8152143, Bromide in batch 8152147, Fluoride in batch 8152149, and Nitrite in batch 8152151 is attributed to matrix interference. The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries.

Affected Samples:

F8E300223 (1): OW-706U

F8E300223 (2): OW-706L

F8E300223 (3): OW-621U

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F8E300223

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH Aqueous	SW846 9040	SW846 9040
Alkalinity, Total	SM18 2320 B	SM18 2320 B
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Ion Balance (%Difference)	SM18 1030F & AP	SM18 1030F & AP
ICP-MS (6020)	SW846 6020	
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Sulfate	MCAWW 300.0A	MCAWW 300.0A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY**F8E300223**

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KN5JV	001	OW-706U	05/29/08	11:00
KN5J1	002	OW-706L	05/29/08	12:35
KN5J2	003	OW-621U	05/29/08	16:10

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-706U

TOTAL Metals

Lot-Sample #...: F8E300223-001

Matrix.....: WATER

Date Sampled...: 05/29/08 11:00 Date Received...: 05/30/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	8155134					
Calcium	725000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN5JV1AP
		Dilution Factor: 1000		Analysis Time...: 16:25		
Iron	178 N	100	ug/L	SW846 6020	06/11-06/17/08	KN5JV1AQ
		Dilution Factor: 2		Analysis Time...: 02:53		
Potassium	658000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN5JV1AR
		Dilution Factor: 1000		Analysis Time...: 22:46		
Magnesium	2150000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5JV1AT
		Dilution Factor: 1000		Analysis Time...: 22:46		
Manganese	43.5	4	ug/L	SW846 6020	06/11-06/17/08	KN5JV1AU
		Dilution Factor: 2		Analysis Time...: 02:53		
Sodium	17500000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5JV1AV
		Dilution Factor: 1000		Analysis Time...: 22:46		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN5JV1AW
		Dilution Factor: 1000		Analysis Time...: 22:46		
Prep Batch #...	8175113					
Silica	1840	250	ug/L	SW846 6020	06/11-06/21/08	KN5JV1AX
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-706U

General Chemistry

Lot-Sample #...: F8E300223-001 Work Order #...: KN5JV Matrix.....: WATER
 Date Sampled...: 05/29/08 11:00 Date Received...: 05/30/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.2	0.10	No Units	SW846 9040	05/30/08	8154272
				Dilution Factor: 1 Analysis Time...: 00:00		
Bicarbonate Alkalinity	10.2	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1 Analysis Time...: 00:00		
Bromide	70.5	50.0	mg/L	MCAWW 300.0A	05/30/08	8152147
				Dilution Factor: 200 Analysis Time...: 11:22		
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1 Analysis Time...: 00:00		
Chloride	33300	2000	mg/L	MCAWW 300.0A	05/30/08	8152148
				Dilution Factor: 10000 Analysis Time...: 11:46		
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	05/30/08	8152149
				Dilution Factor: 10 Analysis Time...: 11:09		
Ion Balance Difference	1.1	0.10	%	SM18 1030F & API	06/24/08	8176456
				Dilution Factor: 1 Analysis Time...: 00:00		
Nitrate	ND	4.0	mg/L	MCAWW 300.0A	05/30/08	8152152
				Dilution Factor: 200 Analysis Time...: 11:22		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/30/08	8152151
				Dilution Factor: 10000 Analysis Time...: 11:46		
Nitrogen, as Ammonia 2090		200	ug/L	MCAWW 350.1	06/02/08	8154238
				Dilution Factor: 4 Analysis Time...: 00:00		
Sulfate	3850	500	mg/L	MCAWW 300.0A	05/30/08	8152150
				Dilution Factor: 1000 Analysis Time...: 11:34		
Total Alkalinity	204	5.0	mg/L	SM18 2320 B	06/02/08	8154059
				Dilution Factor: 1 Analysis Time...: 00:00		
Total Dissolved Solids	40500	500	mg/L	MCAWW 160.1	06/05-06/06/08	8157081
				Dilution Factor: 100 Analysis Time...: 00:00		

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-706L

TOTAL Metals

Lot-Sample #...: F8E300223-002

Matrix.....: WATER

Date Sampled...: 05/29/08 12:35 Date Received...: 05/30/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	8155134					
Calcium	413000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN5J11AR
		Dilution Factor: 1000		Analysis Time...: 16:28		
Iron	531 N	100	ug/L	SW846 6020	06/11-06/17/08	KN5J11AT
		Dilution Factor: 2		Analysis Time...: 02:57		
Potassium	327000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN5J11AU
		Dilution Factor: 1000		Analysis Time...: 22:59		
Magnesium	1170000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5J11AV
		Dilution Factor: 1000		Analysis Time...: 22:59		
Manganese	8.3	4	ug/L	SW846 6020	06/11-06/17/08	KN5J11AW
		Dilution Factor: 2		Analysis Time...: 02:57		
Sodium	9440000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5J11AX
		Dilution Factor: 1000		Analysis Time...: 22:59		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN5J11AO
		Dilution Factor: 1000		Analysis Time...: 22:59		
Prep Batch #...	8175113					
Silica	7560	250	ug/L	SW846 6020	06/11-06/21/08	KN5J11A1
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-706L

General Chemistry

Lot-Sample #....: F8E300223-002 Work Order #....: KN5J1 Matrix.....: WATER
 Date Sampled....: 05/29/08 12:35 Date Received...: 05/30/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	05/30/08	8154272
			Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	9.6	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	37.7 B	50.0	mg/L	MCAWW 300.0A	05/31/08	8152147
			Dilution Factor: 200	Analysis Time...: 02:12		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	19100	2000	mg/L	MCAWW 300.0A	05/31/08	8152148
			Dilution Factor: 10000	Analysis Time...: 02:36		
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	05/31/08	8152149
			Dilution Factor: 10	Analysis Time...: 02:00		
Ion Balance Difference	4.0	0.10	%	SM18 1030F & API	06/24/08	8176456
			Dilution Factor: 1	Analysis Time...: 00:00		
Nitrate	ND	4.0	mg/L	MCAWW 300.0A	05/31/08	8152152
			Dilution Factor: 200	Analysis Time...: 02:12		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/31/08	8152151
			Dilution Factor: 10000	Analysis Time...: 02:36		
Nitrogen, as Ammonia	611	50.0	ug/L	MCAWW 350.1	06/02/08	8154238
			Dilution Factor: 1	Analysis Time...: 00:00		
Sulfate	2280	100	mg/L	MCAWW 300.0A	05/31/08	8152150
			Dilution Factor: 200	Analysis Time...: 02:12		
Total Alkalinity	191	5.0	mg/L	SM18 2320 B	06/02/08	8154059
			Dilution Factor: 1	Analysis Time...: 00:00		
Total Dissolved Solids	17400	500	mg/L	MCAWW 160.1	06/05-06/06/08	8157081
			Dilution Factor: 100	Analysis Time...: 00:00		

NOTE(S) :

RL Reporting Limit

B Estimated result. Result is less than RL.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-621U

TOTAL Metals

Lot-Sample #....: F8E300223-003

Matrix.....: WATER

Date Sampled....: 05/29/08 16:10 Date Received...: 05/30/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 8155134						
Calcium	492000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN5J21AR
		Dilution Factor: 1000		Analysis Time...: 16:32		
Iron	453 N	100	ug/L	SW846 6020	06/11-06/17/08	KN5J21AT
		Dilution Factor: 2		Analysis Time...: 03:01		
Potassium	476000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN5J21AU
		Dilution Factor: 1000		Analysis Time...: 23:03		
Magnesium	1600000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5J21AV
		Dilution Factor: 1000		Analysis Time...: 23:03		
Manganese	36.8	4	ug/L	SW846 6020	06/11-06/17/08	KN5J21AW
		Dilution Factor: 2		Analysis Time...: 03:01		
Sodium	13100000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN5J21AX
		Dilution Factor: 1000		Analysis Time...: 23:03		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN5J21A0
		Dilution Factor: 1000		Analysis Time...: 23:03		
Prep Batch #....: 8175113						
Silica	637	250	ug/L	SW846 6020	06/11-06/21/08	KN5J21A1
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-621U

General Chemistry

Lot-Sample #...: F8E300223-003 Work Order #...: KN5J2 Matrix.....: WATER
 Date Sampled...: 05/29/08 16:10 Date Received...: 05/30/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	05/30/08	8154272
				Dilution Factor: 1 Analysis Time...: 00:00		
Bicarbonate Alkalinity	9.4	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1 Analysis Time...: 00:00		
Bromide	50.6	50.0	mg/L	MCAWW 300.0A	05/31/08	8152147
				Dilution Factor: 200 Analysis Time...: 03:25		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1 Analysis Time...: 00:00		
Chloride	25500	2000	mg/L	MCAWW 300.0A	05/31/08	8152148
				Dilution Factor: 10000 Analysis Time...: 03:49		
Fluoride	ND	1.0	mg/L	MCAWW 300.0A	05/31/08	8152149
				Dilution Factor: 10 Analysis Time...: 03:13		
Ion Balance Difference	2.7	0.10	%	SM18 1030F & API	06/24/08	8176456
				Dilution Factor: 1 Analysis Time...: 00:00		
Nitrate	ND	4.0	mg/L	MCAWW 300.0A	05/31/08	8152152
				Dilution Factor: 200 Analysis Time...: 03:25		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/31/08	8152151
				Dilution Factor: 10000 Analysis Time...: 03:49		
Nitrogen, as Ammonia	588	50.0	ug/L	MCAWW 350.1	06/02/08	8154238
				Dilution Factor: 1 Analysis Time...: 00:00		
Sulfate	3210	100	mg/L	MCAWW 300.0A	05/31/08	8152150
				Dilution Factor: 200 Analysis Time...: 03:25		
Total Alkalinity	189	5.0	mg/L	SM18 2320 B	06/02/08	8154059
				Dilution Factor: 1 Analysis Time...: 00:00		
Total Dissolved Solids	19400	500	mg/L	MCAWW 160.1	06/05-06/06/08	8157081
				Dilution Factor: 100 Analysis Time...: 00:00		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: F8E300223

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F8F030000-134 Prep Batch #....: 8155134						
Calcium	ND	100	ug/L	SW846 6020	06/11-06/24/08	KN8W91AA
		Dilution Factor: 1				
		Analysis Time...: 15:38				
Iron	26.0 B	50	ug/L	SW846 6020	06/11-06/17/08	KN8W91AC
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Magnesium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AE
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Manganese	ND	2	ug/L	SW846 6020	06/11-06/17/08	KN8W91AF
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Potassium	ND	100	ug/L	SW846 6020	06/11-06/21/08	KN8W91AD
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Silicon	ND	250	ug/L	SW846 6020	06/11-06/21/08	KN8W91AH
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Sodium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AG
		Dilution Factor: 1				
		Analysis Time...: 21:52				
MB Lot-Sample #: F8F230000-113 Prep Batch #....: 8175113						
Silica	ND	250	ug/L	SW846 6020	06/11-06/21/08	KQEK81AA
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8E300223

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Work Order #: KN7R51AA MB Lot-Sample #: F8F020000-062				
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Bromide	ND	0.25	mg/L	MCAWW 300.0A	05/30/08	8152147
		Work Order #: KPRDH1AA MB Lot-Sample #: F8E310000-147				
		Dilution Factor: 1				
		Analysis Time...: 02:51				
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Work Order #: KN7RT1AA MB Lot-Sample #: F8F020000-061				
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Chloride	ND	0.20	mg/L	MCAWW 300.0A	05/30/08	8152148
		Work Order #: KPRDJ1AA MB Lot-Sample #: F8E310000-148				
		Dilution Factor: 1				
		Analysis Time...: 02:51				
Fluoride	ND	0.10	mg/L	MCAWW 300.0A	05/30/08	8152149
		Work Order #: KPRDK1AA MB Lot-Sample #: F8E310000-149				
		Dilution Factor: 1				
		Analysis Time...: 02:51				
Nitrate	ND	0.020	mg/L	MCAWW 300.0A	05/30/08	8152152
		Work Order #: KPRDN1AA MB Lot-Sample #: F8E310000-152				
		Dilution Factor: 1				
		Analysis Time...: 02:51				
Nitrite	ND	0.020	mg/L	MCAWW 300.0A	05/30/08	8152151
		Work Order #: KPRDM1AA MB Lot-Sample #: F8E310000-151				
		Dilution Factor: 1				
		Analysis Time...: 02:51				
Nitrogen, as Ammonia	ND	50.0	ug/L	MCAWW 350.1	06/02/08	8154238
		Work Order #: KN7Q91AA MB Lot-Sample #: F8F020000-238				
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Sulfate	ND	0.50	mg/L	MCAWW 300.0A	05/30/08	8152150
		Work Order #: KPRDL1AA MB Lot-Sample #: F8E310000-150				
		Dilution Factor: 1				
		Analysis Time...: 02:51				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8E300223

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	ND	Work Order #: KN7RG1AA 5.0	mg/L	MB Lot-Sample #: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1 Analysis Time...: 00:00				
Total Dissolved Solids	ND	Work Order #: KPEAR1AA 5.0	mg/L	MB Lot-Sample #: F8F050000-081 MCAWW 160.1	06/05-06/06/08	8157081
		Dilution Factor: 1 Analysis Time...: 00:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: F8E300223

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F8F030000-134 Prep Batch #....: 8155134					
Calcium	105	(85 - 115)	SW846 6020	06/11-06/24/08	KN8W91AJ
		Dilution Factor: 1		Analysis Time...: 15:42	
Iron	111	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AK
		Dilution Factor: 1		Analysis Time...: 02:05	
Potassium	102	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AL
		Dilution Factor: 1		Analysis Time...: 21:57	
Magnesium	100	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AM
		Dilution Factor: 1		Analysis Time...: 21:57	
Manganese	108	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AN
		Dilution Factor: 1		Analysis Time...: 02:05	
Sodium	98	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AP
		Dilution Factor: 1		Analysis Time...: 21:57	
Silicon	105	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AQ
		Dilution Factor: 1		Analysis Time...: 21:57	
LCS Lot-Sample#: F8F230000-113 Prep Batch #....: 8175113					
Silica	105 N	(0.0- 0.0)	SW846 6020	06/11-06/21/08	KQEK81AC
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: F8E300223

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia		WO#:KN7Q91AC-LCS/KN7Q91AD-LCSD	LCS	Lot-Sample#: F8F020000-238		
	105	(90 - 110)		MCAWW 350.1	06/02/08	8154238
	108	(90 - 110)	2.1 (0-20)	MCAWW 350.1	06/02/08	8154238
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	100	Work Order #: KN7VC1AA (99 - 101)	LCS Lot-Sample#: F8F020000-272 SW846 9040	05/30/08	8154272
		Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	100	Work Order #: KN7R51AC (90 - 110)	LCS Lot-Sample#: F8F020000-062 MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	102	Work Order #: KPRDH1AC (90 - 110)	LCS Lot-Sample#: F8E310000-147 MCAWW 300.0A	05/30/08	8152147
		Dilution Factor: 1	Analysis Time...: 02:38		
Carbonate Alkalinity	100	Work Order #: KN7RT1AC (90 - 110)	LCS Lot-Sample#: F8F020000-061 MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	94	Work Order #: KPRDJ1AC (90 - 110)	LCS Lot-Sample#: F8E310000-148 MCAWW 300.0A	05/30/08	8152148
		Dilution Factor: 1	Analysis Time...: 02:38		
Fluoride	91	Work Order #: KPRDK1AC (90 - 110)	LCS Lot-Sample#: F8E310000-149 MCAWW 300.0A	05/30/08	8152149
		Dilution Factor: 1	Analysis Time...: 02:38		
Nitrate	103	Work Order #: KPRDN1AC (90 - 110)	LCS Lot-Sample#: F8E310000-152 MCAWW 300.0A	05/30/08	8152152
		Dilution Factor: 1	Analysis Time...: 02:38		
Nitrite	100	Work Order #: KPRDM1AC (90 - 110)	LCS Lot-Sample#: F8E310000-151 MCAWW 300.0A	05/30/08	8152151
		Dilution Factor: 1	Analysis Time...: 02:38		
Sulfate	91	Work Order #: KPRDL1AC (90 - 110)	LCS Lot-Sample#: F8E310000-150 MCAWW 300.0A	05/30/08	8152150
		Dilution Factor: 1	Analysis Time...: 02:38		
Total Alkalinity	100	Work Order #: KN7RG1AC (90 - 110)	LCS Lot-Sample#: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1	Analysis Time...: 00:00		

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Total Dissolved Solids	99	(86 - 115)	MCAWW 160.1	06/05-06/06/08	8157081
		Dilution Factor: 1	Analysis Time...: 00:00		

Work Order #: KPEAR1AC LCS Lot-Sample#: F8F050000-081

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8E300223

Matrix.....: WATER

Date Sampled...: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F8E280143-001 Prep Batch #...: 8155134						
Calcium	0 N	(75 - 125)		SW846 6020	06/11-06/24/08	KNX8D1A0
	136 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/24/08	KNX8D1A1
				Dilution Factor: 1000		
				Analysis Time...: 15:52		
Iron	62 N	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A2
	68 N	(75 - 125)	6.1 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A3
				Dilution Factor: 2		
				Analysis Time...: 02:16		
Magnesium	358 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A6
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A7
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Manganese	79	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A8
	83	(75 - 125)	4.5 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A9
				Dilution Factor: 2		
				Analysis Time...: 02:16		
Potassium	122 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A4
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A5
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Silicon	182 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CD
	138 N,*	(75 - 125)	27 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CE
				Dilution Factor: 1000		
				Analysis Time...: 22:18		
Sodium	3360 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CA
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CC
				Dilution Factor: 1000		
				Analysis Time...: 22:18		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223

Matrix.....: WATER

Date Sampled...: 05/29/08 11:00 Date Received...: 05/30/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	88 N	Work Order #...: KN5JV1A3 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152147
		Dilution Factor: 200		Analysis Time...: 11:22	
Chloride	96	Work Order #...: KN5JV1A5 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152148
		Dilution Factor: 10000		Analysis Time...: 11:46	
Fluoride	0.0	Work Order #...: KN5JV1A7 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152149
		Dilution Factor: 10		Analysis Time...: 11:09	
Nitrate	109	Work Order #...: KN5JV1CE (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152152
		Dilution Factor: 200		Analysis Time...: 11:22	
Nitrite	131 N	Work Order #...: KN5JV1CC (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152151
		Dilution Factor: 10000		Analysis Time...: 11:46	
Nitrogen, as Ammonia	95	Work Order #...: KN46M1HW (90 - 110)	MCAWW 350.1	MS Lot-Sample #: F8E300179-001 06/02/08	8154238
		Dilution Factor: 1		Analysis Time...: 00:00	
Nitrogen, as Ammonia	102	Work Order #...: KN6XH1DT (90 - 110)	MCAWW 350.1	MS Lot-Sample #: F8E310160-003 06/02/08	8154238
		Dilution Factor: 1		Analysis Time...: 00:00	
Sulfate	92	Work Order #...: KN5JV1A9 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E300223-001 05/31/08	8152150
		Dilution Factor: 1000		Analysis Time...: 11:34	
Total Alkalinity	90	Work Order #...: KN5J21A2 (80 - 120)	SM18 2320 B	MS Lot-Sample #: F8E300223-003 06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223 Work Order #...: KN2LJ-SMP Matrix.....: WATER
KN2LJ-DUP
Date Sampled....: 05/27/08 09:00 Date Received...: 05/28/08

PARAM RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E290176-002	
Alkalinity							
71.0	73.0	mg/L	2.8	(0-15)	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290176-002	
ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223

Work Order #...: KN2LW-SMP

Matrix.....: WATER

KN2LW-DUP

Date Sampled...: 05/27/08 09:35

Date Received...: 05/28/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E290176-003		
Alkalinity	55.0	52.0	mg/L	5.6	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290176-003		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E300223

Work Order #....: KN2NJ-SMP
KN2NJ-DUP

Matrix.....: WATER

Date Sampled....: 05/28/08 08:10 Date Received...: 05/29/08

PARAM RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate							
Alkalinity							
51.0	50.0	mg/L	2.0	(0-15)	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity							
ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1			Analysis Time...: 00:00		

SD Lot-Sample #: F8E290185-001

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E300223

Work Order #...: KN46M-SMP
KN46M-DUP

Matrix.....: WATER

Date Sampled...: 05/29/08 09:45 Date Received...: 05/30/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids	900	770	mg/L	16	(0-15)	MCAWW 160.1	06/05-06/06/08	8157081
			Dilution Factor: 10			Analysis Time... 00:00		
Bicarbonate Alkalinity	76.0	78.0	mg/L	2.6	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time... 00:00		
Carbonate Alkalinity	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time... 00:00		
Nitrogen, as Ammonia	ND	ND	ug/L	0	(0-20)	MCAWW 350.1	06/02/08	8154238
			Dilution Factor: 1			Analysis Time... 00:00		
pH (liquid)	7.8	7.9	No Units	0.25	(0-0.0)	SW846 9040	05/30/08	8154272
			Dilution Factor: 1			Analysis Time... 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E300223

Work Order #....: KN6XH-SMP
KN6XH-DUP

Matrix.....: WATER

Date Sampled....: 05/30/08 09:45

Date Received...: 05/31/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved Solids						SD Lot-Sample #: F8E310160-003		
	4780	5240	mg/L	9.2	(0-15)	MCAWW 160.1	06/05-06/06/08	8157081
				Dilution Factor: 10		Analysis Time...: 00:00		
Bicarbonate Alkalinity						SD Lot-Sample #: F8E310160-003		
	121	120	mg/L	0.83	(0-15)	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1		Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E310160-003		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1		Analysis Time...: 00:00		
Nitrogen, as Ammonia						SD Lot-Sample #: F8E310160-003		
	ND	ND	ug/L	0	(0-20)	MCAWW 350.1	06/02/08	8154238
				Dilution Factor: 1		Analysis Time...: 00:00		

F8E300223

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-100

Project Manager: IV

Quote #: 79192

SDG:

Date Received: 2008-05-30

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date: 2008-06-20

PO#: 200807151

Report to: AI Tice

Report Due Date: 2008-06-20

Client: 63036 MACTEC Engineering & Consulting Inc

#SMPS in LOT: 0

Report Type: W

EDD Code: 00

Inform PM of any receiving issues.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	OW-706U			2008-05-29 / 1100	KN5JV	WATER
SAMPLE COMMENTS:						
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	0X CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZZ	NONE NONE		WATER, ZZ Code for Invoicing	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C9	MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CB	MCAW 310.1 W		WATER, 310.1, Alkalinity, Carbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CX	MCAW 300.0A W		WATER, 300.0A, Chloride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CY	MCAW 300.0A W		WATER, 300.0A, Sulfate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX FJ	SW846 9040		WATER, 9040C, pH	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GM	MCAW 300.0A W		WATER, 300.0A, Bromide	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GO	MCAW 300.0A W		WATER, 300.0A, Nitrite as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX LV	SM18 2320 B		WATER, 2320 B, Alkalinity, Total	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX SL	SM18 1030F & API		WATER, 1030F & API, Ion Balance	0X CALCULATION ONLY	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX UX	MCAW 310.1 W		WATER, 310.1, Alkalinity, Bicarbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX VM	MCAW 350.1 W		WATER, 350.1, Nitrogen, Ammonia	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	OW-706L			2008-05-29 / 1235	KN5J1	WATER
SAMPLE COMMENTS:						
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	0X CALCULATION ONLY	9Q ORG FLAGS FOR INORG; STANDARD	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX ZZ	NONE NONE		WATER, ZZ Code for Invoicing	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

TestAmerica - St. Louis

Logged in by: WILSONS

2008-05-30

12:22:38

printed on: Friday, May 30, 2008 01:30 PM

Page 1 of 3

LOT# F8E300223

28 of 32

F8E300223

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-100

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-30

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-20

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-20

Client: 63036 MACTEC Engineering & Consulting Inc

#SMPS in LOT: 0

Report Type: W

EDD Code: 00

Inform PM of any receiving issues.

XX AK	MCAW 160.1 W	WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CB	MCAW 300.0A W	WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX C9	MCAW 300.0A W	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CB	MCAW 310.1 W	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CX	MCAW 300.0A W	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CY	MCAW 300.0A W	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX FJ	SW846 9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX GM	MCAW 300.0A W	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX GO	MCAW 300.0A W	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX LV	SM18 2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX SL	SM18 1030F & API	WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX UX	MCAW 310.1 W	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX VM	MCAW 350.1 W	WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I			
3	OW-621U			2008-05-29 / 1610	KN5J2	WATER			
SAMPLE COMMENTS:									
MN MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SI MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
NA MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
KX MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
FE MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CA MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SA MH	SW846 6020	WATER, Silica by calculation	0X	CALCULATION ONLY	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: A	WRK LOC	06
MG MH	SW846 6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX ZZ	NONE NONE	WATER, ZZ Code for Invoicing	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX AK	MCAW 160.1 W	WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX C8	MCAW 300.0A W	WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX C9	MCAW 300.0A W	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CB	MCAW 310.1 W	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CX	MCAW 300.0A W	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX CY	MCAW 300.0A W	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX FJ	SW846 9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX GM	MCAW 300.0A W	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX GO	MCAW 300.0A W	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX LV	SM18 2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX SL	SM18 1030F & API	WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX UX	MCAW 310.1 W	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06

TestAmerica - St. Louis

Logged in by: WILSONS

2008-05-30

12:22:38

printed on: Friday, May 30, 2008 01:30 PM

Page 2 of 3

LOT# F8E300223

29 of 32

F8E300223

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-100

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-30

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-20

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-20

Client: 63036 MACTEC Engineering & Consulting Inc

#SMPS in LOT: 0

Report Type: W

EDD Code: 00

Inform PM of any receiving issues.

XX VM

MCAW 350.1
WWATER, 350.1, Nitrogen,
Ammonia

88

NO SAMPLE PREPARATION
PERFORMED / DIRECT

01

STANDARD TEST SET

PROT: A

WRK 06
LOC

Chain of Custody Record

CLP
3475

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client MACTEC		Project Manager Scott Anger		Date 05-29-08	Chain of Custody Number 062465
Address 3301 Atlantic Avenue		Telephone Number (Area Code)/Fax Number 919-876-0416		Lab Number	Page 1 of 1

City Raleigh	State NC	Zip Code 27604	Site Contact Matt Cooke	Lab Contact Ivan Vonia	Analysis (Attach list if more space is needed)
Project Name and Location (State) Turkey Point COL			Carrier/Waybill Number FE 8656 2820 8277		

Contract/Purchase Order/Quote No. 6468-07-1950	Matrix	Containers & Preservatives	Special Instructions/Conditions of Receipt
--	--------	----------------------------	--

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Alt	Agencies	Sec	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	Other	Analysis	Special Instructions/Conditions of Receipt
OW-706U	05/29/08	1100		X				1	2	1					1 1 2	Cations: Calcium, Iron, Magnesium, manganese, potassium, silica, sodium
OW-706L	05/29/08	1235		X				1	2	1					1 1 2	PH: EPA SW846 9045(b)
OW-621U	05/29/08	1610		X				1	2	1					1 1 2	TDS-EPA 160.1
																Cations - EPA 6020 C
																Inorganic ions
																MCANW 300.0A
																Alkalinity - EPA 310.1
																Ammonia - EPA 350.1
																nitrate, nitrite - EPA 300.0

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other Standard	

1. Relinquished By Kenneth Clark Sweet	Date 05/29/08	Time 1800	1. Received By Angela Brown	Date 5-30-08	Time 9:30
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F8E 300223
- 3475 -

Client: Martel COC/RFA No: 062465 Condition Upon Receipt Form
Quote No: 79192 Initiated By: MS Date: 5-30-08
Time: 9:30

Shipper Name: FE
Shipping # (s):*

1. 8656 2820 8277 6.
2. 7.
3. 8.
4. 9.
5. 10.

Shipping Information

Multiple Packages Y ☒
Sample Temperature (s):**

1. 2 6.
2. 7.
3. 8.
4. 9.
5. 10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. ☒ Y ☐ N	Are there custody seals present on the cooler?	8. ☐ Y ☒ N	Are there custody seals present on bottles?
2. ☐ Y ☒ N ☐ N/A	Do custody seals on cooler appear to be tampered with?	9. ☐ Y ☐ N ☒ N/A	Do custody seals on bottles appear to be tampered with?
3. ☒ Y ☐ N	Were contents of cooler frisked after opening, but before unpacking?	10. ☒ Y ☐ N ☐ N/A	Was sample received with proper pH? (If not, make note below)
4. ☒ Y ☐ N	Sample received with Chain of Custody?	11. ☐ Y ☐ N	If N/A- Was pH taken by original TestAmerica lab?
5. ☒ Y ☐ N ☐ N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. ☒ Y ☐ N	Sample received in proper containers?
6. ☐ Y ☒ N	Was sample received broken?	13. ☐ Y ☐ N ☒ N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. ☒ Y ☐ N	Is sample volume sufficient for analysis?	14. ☐ Y ☐ N	Was Internal COC/Workshare received?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: _____ Date: 6-3-08

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07\SL\svr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

LOT# F8E300223

32 of 32



**DOCUMENTATION OF TECHNICAL REVIEW
SUBCONTRACTOR WORK PRODUCT**

Project Name: Turkey Point COL Project

Project Number: 6468-07-1950

Project Manager: Scott Auger

Project Principal: Tom McDaniel

The report described below has been prepared by the named subcontractor retained in accordance with the MACTEC QAPD. The work and report have been reviewed by a MACTEC technically qualified person. Comments on the work or report, if any, have been satisfactorily addressed by the subcontractor. The attached report is approved in accordance with section QS-7 of MACTEC's QAPD.

The information and data contained in the attached report are hereby released by MACTEC for project use with the exception of the iron result for sample OW-606L. Iron was detected at a similar concentration in the associated method blank, both concentrations between the method detection limit and quantitation limit. Based on guidance from the US EPA (EPA 540-R-04-004), this result should be considered nondetect at the quantitation limit of 50 µg/L. The iron concentrations reported for the remaining samples in this sample delivery group were significantly greater and likely reflect aquifer conditions. These data should be used with caution.

REPORT : Analytical Report Lot #: F8E290268

SUBCONTRACTOR: TestAmerica, Earth City, MO

DATE OF ACCEPTANCE : 7/23/2008

TECHNICAL REVIEWER: William S. Grimes

William S. Grimes

PROJECT PRINCIPAL: Tom McDaniel

Tom McDaniel



3301 Atlantic Avenue, Raleigh, NC 27604

**LABORATORY DATA REVIEW CHECKLIST**

	<u>YES</u>	<u>NO</u>	<u>NOT APPLICABLE</u>
1. Laboratory analytical data report appears complete (all data results present for all samples submitted for analysis) and there are no apparent transcription errors:	_____	<u>✓¹</u>	_____
2. Samples analyzed within applicable holding times (based on date of sample collection):*	<u>✓</u>	_____	_____
3. Trip blanks, field blanks or laboratory method blanks are free of blank contamination:	_____	<u>✓²</u>	_____
4. If field duplicate samples collected, calculated results meet Relative Percent Difference guidelines: **	_____	_____	<u>✓</u>
5. Surrogate recoveries (organic analyses only) within laboratory reported recovery acceptance ranges:	_____	_____	<u>✓</u>
6. If Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples required to meet project objectives, Percent Recoveries (%R) and Relative Percent Difference (RPD) within laboratory reported acceptance ranges:	_____	<u>✓³</u>	_____
7. Reported detection limits meet project objectives (e.g., are capable of achieving applicable site standards):	<u>✓</u>	_____	_____
8. Completed Chain-Of-Custody received noting sample/custody seal condition (with airbill, if appropriate):	<u>✓</u>	_____	_____
9. Analytical costs within authorized budget for these services:	_____	_____	<u>✓</u>

COMMENTS: ¹ Iron results should be flagged indicating method blank contamination. ² An estimated concentration of iron was detected in the method blank, at a concentration between the PQL and MDL. Iron concentrations in site samples were considerably higher, and likely reflect ambient aquifer conditions with the exception of OW-606L. This result should be qualified as nondetect at the quantitation limit of 50 µg/L. ³ MS/MSD recoveries were outside QC limits for several analytes possibly due to matrix interference. QC established based on acceptable LCS recoveries and results for analytes with acceptable recoveries.

- Notes: 1. This checklist is intended for use with the laboratory reporting formats typical of most projects. If "no" is answered to one or more of the above checklist questions 1 through 7, a more detailed Data Validation may be required, and a person knowledgeable in Data Validation protocols should be consulted. This checklist should not be used if the project scope requires Data Validation from the onset.
2. * = Based upon EPA Guidance and the applicable analytical method references. See reverse side of checklist for details.
3. ** = Based upon EPA Guidance. Use these criteria on duplicate and sample results which exceed five times the reported detection limit. See reverse side of checklist for details.

Checked by: William A. L. Date: 7-14-08

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 6468071950

FPL Turkey Point COL

Lot #: F8E290268

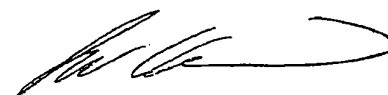
Al Tice

MACTEC Engineering and Cons.

3301 Atlantic Ave.

Raleigh, NC 27604

TESTAMERICA LABORATORIES, INC.



Ivan Vania
Project Manager

June 27, 2008

Case Narrative
LOT NUMBER: F8E290268

This report contains the analytical results for the four samples received under chain of custody by TestAmerica St. Louis on May 29, 2008. These samples are associated with your FPL Turkey Point COL project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-MS (SW846-6020)

Batch 8155134:

The MS (MSD) recoveries for calcium, potassium, magnesium, and sodium are outside the established QC limits. The analyte concentrations in the original samples are greater than four times the amount spiked, making percent recovery information ineffective. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E290268 (1): OW-721U

F8E290268 (2): OW-721L

F8E290268 (3): OW-606U

F8E290268 (4): OW-606L

Batch 8155134:

The MS (MSD) recovery for iron is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E290268 (1): OW-721U

F8E290268 (2): OW-721L

F8E290268 (3): OW-606U

F8E290268 (4): OW-606L

Batch 8155134:

The MS (MSD) recovery for silicon is outside the established QC limits. Matrix interference is physically evident in the sample. The samples are high in salts. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F8E290268 (1): OW-721U

F8E290268 (2): OW-721L

F8E290268 (3): OW-606U

F8E290268 (4): OW-606L

Batch 8155134:

The Measured Intensity Mean for lead, as measured during the daily performance check, was low. However, the calibration and the second source checks were all within acceptable QC limits. The samples were reported with this narrative.

Affected Samples:

F8E290268 (1): OW-721U
F8E290268 (2): OW-721L
F8E290268 (3): OW-606U
F8E290268 (4): OW-606L

Batch 8155134:

The samples were analyzed at a dilution due to high concentrations of salts. The reporting limits were adjusted for the dilution.

Affected Samples:

F8E290268 (1): OW-721U
F8E290268 (2): OW-721L
F8E290268 (3): OW-606U
F8E290268 (4): OW-606L

Total Dissolved Solids (MCAWW 160.1)**Batch 8156338:**

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limits were adjusted for the dilution since no analysis at a lesser dilution was performed.

Affected Samples:

F8E290268 (1): OW-721U
F8E290268 (2): OW-721L
F8E290268 (3): OW-606U
F8E290268 (4): OW-606L

Anions (MCAWW 300.0A)

Poor matrix spike recovery for Sulfate in batch 8151365 and Nitrite in batch 8151366 is attributed to matrix interference. The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries.

Affected Samples:

F8E290268 (1): OW-721U
F8E290268 (2): OW-721L
F8E290268 (3): OW-606U
F8E290268 (4): OW-606L

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F8E290268

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
pH Aqueous	SW846 9040	SW846 9040
Alkalinity, Total	SM18 2320 B	SM18 2320 B
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Ion Balance (%Difference)	SM18 1030F & AP	SM18 1030F & AP
ICP-MS (6020)	SW846 6020	
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Sulfate	MCAWW 300.0A	MCAWW 300.0A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and
Wastewater", 18th Edition, 1992.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F8E290268

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KN3HJ	001	OW-721U	05/28/08	11:00
KN3JD	002	OW-721L	05/28/08	13:25
KN3JR	003	OW-606U	05/28/08	16:10
KN3JT	004	OW-606L	05/28/08	15:40

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-721U

TOTAL Metals

Lot-Sample #...: F8E290268-001

Matrix.....: WATER

Date Sampled...: 05/28/08 11:00 Date Received...: 05/29/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	8155134					
Calcium	603000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN3HJIAN
		Dilution Factor: 1000		Analysis Time...: 16:03		
Iron	329 N	100	ug/L	SW846 6020	06/11-06/17/08	KN3HJIAP
		Dilution Factor: 2		Analysis Time...: 02:28		
Potassium	569000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN3HJIAQ
		Dilution Factor: 1000		Analysis Time...: 22:30		
Magnesium	1890000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3HJIAR
		Dilution Factor: 1000		Analysis Time...: 22:30		
Manganese	58.1	4	ug/L	SW846 6020	06/11-06/17/08	KN3HJIAT
		Dilution Factor: 2		Analysis Time...: 02:28		
Sodium	15400000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3HJIAU
		Dilution Factor: 1000		Analysis Time...: 22:30		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN3HJIAV
		Dilution Factor: 1000		Analysis Time...: 22:30		
Prep Batch #...	8175113					
Silica	848	250	ug/L	SW846 6020	06/11-06/21/08	KN3HJIAO
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-721U

General Chemistry

Lot-Sample #...: F8E290268-001 Work Order #...: KN3HJ Matrix.....: WATER
 Date Sampled...: 05/28/08 11:00 Date Received...: 05/29/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	05/29/08	8151296
		Dilution Factor: 1		Analysis Time...: 00:00		
Bicarbonate Alkalinity	8.2	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1		Analysis Time...: 00:00		
Bromide	60.1	50.0	mg/L	MCAWW 300.0A	05/30/08	8151362
		Dilution Factor: 200		Analysis Time...: 12:27		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1		Analysis Time...: 00:00		
Chloride	29900	2000	mg/L	MCAWW 300.0A	05/30/08	8151363
		Dilution Factor: 10000		Analysis Time...: 12:51		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	05/30/08	8151364
		Dilution Factor: 200		Analysis Time...: 12:27		
Ion Balance Difference	2.8	0.10	%	SM18 1030F & API	06/24/08	8176456
		Dilution Factor: 1		Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	05/30/08	8151367
		Dilution Factor: 10		Analysis Time...: 12:14		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/30/08	8151366
		Dilution Factor: 10000		Analysis Time...: 12:51		
Nitrogen, as Ammonia	1680	200	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 4		Analysis Time...: 00:00		
Sulfate	3860	100	mg/L	MCAWW 300.0A	05/30/08	8151365
		Dilution Factor: 200		Analysis Time...: 12:27		
Total Alkalinity	164	5.0	mg/L	SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00		
Total Dissolved Solids	45400	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 100		Analysis Time...: 00:00		

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-721L

TOTAL Metals

Lot-Sample #...: F8E290268-002

Matrix.....: WATER

Date Sampled...: 05/28/08 13:25 Date Received...: 05/29/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	8155134					
Calcium	667000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN3JD1AN
		Dilution Factor: 1000		Analysis Time...: 16:06		
Iron	362 N	100	ug/L	SW846 6020	06/11-06/17/08	KN3JD1AP
		Dilution Factor: 2		Analysis Time...: 02:32		
Potassium	587000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN3JD1AQ
		Dilution Factor: 1000		Analysis Time...: 22:34		
Magnesium	2020000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JD1AR
		Dilution Factor: 1000		Analysis Time...: 22:34		
Manganese	46.2	4	ug/L	SW846 6020	06/11-06/17/08	KN3JD1AT
		Dilution Factor: 2		Analysis Time...: 02:32		
Sodium	16300000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JD1AU
		Dilution Factor: 1000		Analysis Time...: 22:34		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN3JD1AV
		Dilution Factor: 1000		Analysis Time...: 22:34		
Prep Batch #...	8175113					
Silica	3170	250	ug/L	SW846 6020	06/11-06/21/08	KN3JD1AO
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S) :

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-721L

General Chemistry

Lot-Sample #....: F8E290268-002 Work Order #....: KN3JD Matrix.....: WATER
 Date Sampled....: 05/28/08 13:25 Date Received...: 05/29/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	05/29/08	8151296
		Dilution Factor: 1		Analysis Time...: 00:00		
Bicarbonate Alkalinity	9.0	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1		Analysis Time...: 00:00		
Bromide	64.9	50.0	mg/L	MCAWW 300.0A	05/30/08	8151362
		Dilution Factor: 200		Analysis Time...: 04:30		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1		Analysis Time...: 00:00		
Chloride	31100	2000	mg/L	MCAWW 300.0A	05/30/08	8151363
		Dilution Factor: 10000		Analysis Time...: 04:54		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	05/30/08	8151364
		Dilution Factor: 200		Analysis Time...: 04:30		
Ion Balance Difference	1.7	0.10	%	SM18 1030F & API	06/24/08	8176456
		Dilution Factor: 1		Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	05/30/08	8151367
		Dilution Factor: 10		Analysis Time...: 04:18		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/30/08	8151366
		Dilution Factor: 10000		Analysis Time...: 04:54		
Nitrogen, as Ammonia	1820	200	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 4		Analysis Time...: 00:00		
Sulfate	3990	100	mg/L	MCAWW 300.0A	05/30/08	8151365
		Dilution Factor: 200		Analysis Time...: 04:30		
Total Alkalinity	180	5.0	mg/L	SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00		
Total Dissolved Solids	54600	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 100		Analysis Time...: 00:00		

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-606U

TOTAL Metals

Lot-Sample #...: F8E290268-003

Matrix.....: WATER

Date Sampled...: 05/28/08 16:10 Date Received...: 05/29/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8155134						
Calcium	535000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN3JR1AN
		Dilution Factor: 1000		Analysis Time...: 16:10		
Iron	318 N	100	ug/L	SW846 6020	06/11-06/17/08	KN3JR1AP
		Dilution Factor: 2		Analysis Time...: 02:36		
Potassium	525000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN3JR1AQ
		Dilution Factor: 1000		Analysis Time...: 22:38		
Magnesium	1730000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JR1AR
		Dilution Factor: 1000		Analysis Time...: 22:38		
Manganese	35.4	4	ug/L	SW846 6020	06/11-06/17/08	KN3JR1AT
		Dilution Factor: 2		Analysis Time...: 02:36		
Sodium	14400000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JR1AU
		Dilution Factor: 1000		Analysis Time...: 22:38		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN3JR1AV
		Dilution Factor: 1000		Analysis Time...: 22:38		
Prep Batch #...: 8175113						
Silica	729	250	ug/L	SW846 6020	06/11-06/21/08	KN3JR1A0
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-606U

General Chemistry

Lot-Sample #....: F8E290268-003 Work Order #....: KN3JR Matrix.....: WATER
 Date Sampled....: 05/28/08 16:10 Date Received...: 05/29/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.4	0.10	No Units	SW846 9040	05/29/08	8151296
		Dilution Factor: 1		Analysis Time...: 00:00		
Bicarbonate Alkalinity	7.8	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1		Analysis Time...: 00:00		
Bromide	56.6	50.0	mg/L	MCAWW 300.0A	05/30/08	8151362
		Dilution Factor: 200		Analysis Time...: 03:41		
Carbonate Alkalinity ND		5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1		Analysis Time...: 00:00		
Chloride	27900	2000	mg/L	MCAWW 300.0A	05/30/08	8151363
		Dilution Factor: 10000		Analysis Time...: 04:06		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	05/30/08	8151364
		Dilution Factor: 200		Analysis Time...: 03:41		
Ion Balance Difference	2.7	0.10	%	SM18 1030F & API	06/24/08	8176456
		Dilution Factor: 1		Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	05/30/08	8151367
		Dilution Factor: 10		Analysis Time...: 03:29		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/30/08	8151366
		Dilution Factor: 10000		Analysis Time...: 04:06		
Nitrogen, as Ammonia 844		50.0	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 1		Analysis Time...: 00:00		
Sulfate	3470	100	mg/L	MCAWW 300.0A	05/30/08	8151365
		Dilution Factor: 200		Analysis Time...: 03:41		
Total Alkalinity	155	5.0	mg/L	SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00		
Total Dissolved Solids	43100	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 100		Analysis Time...: 00:00		

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-606L

TOTAL Metals

Lot-Sample #...: F8E290268-004

Matrix.....: WATER

Date Sampled...: 05/28/08 15:40 Date Received...: 05/29/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8155134						
Calcium	632000 N	100000	ug/L	SW846 6020	06/11-06/24/08	KN3JT1AN
		Dilution Factor: 1000		Analysis Time...: 16:21		
Iron	88.2 BN	100	ug/L	SW846 6020	06/11-06/17/08	KN3JT1AP
		Dilution Factor: 2		Analysis Time...: 02:49		
Potassium	549000 N	100000	ug/L	SW846 6020	06/11-06/21/08	KN3JT1AQ
		Dilution Factor: 1000		Analysis Time...: 22:42		
Magnesium	1880000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JT1AR
		Dilution Factor: 1000		Analysis Time...: 22:42		
Manganese	39.1	4	ug/L	SW846 6020	06/11-06/17/08	KN3JT1AT
		Dilution Factor: 2		Analysis Time...: 02:49		
Sodium	15100000 N	50000	ug/L	SW846 6020	06/11-06/21/08	KN3JT1AU
		Dilution Factor: 1000		Analysis Time...: 22:42		
Silicon	ND N	250000	ug/L	SW846 6020	06/11-06/21/08	KN3JT1AV
		Dilution Factor: 1000		Analysis Time...: 22:42		
Prep Batch #...: 8175113						
Silica	2630	250	ug/L	SW846 6020	06/11-06/21/08	KN3JT1A0
		Dilution Factor: 1		Analysis Time...: 00:00		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-606L

General Chemistry

Lot-Sample #...: F8E290268-004 Work Order #...: KN3JT Matrix.....: WATER
 Date Sampled...: 05/28/08 15:40 Date Received...: 05/29/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.3	0.10	No Units	SW846 9040	05/29/08	8151296
				Dilution Factor: 1 Analysis Time...: 00:00		
Bicarbonate Alkalinity	8.2	5.0	mg/L	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1 Analysis Time...: 00:00		
Bromide	62.5	50.0	mg/L	MCAWW 300.0A	05/30/08	8151362
				Dilution Factor: 200 Analysis Time...: 05:43		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1 Analysis Time...: 00:00		
Chloride	29600	2000	mg/L	MCAWW 300.0A	05/30/08	8151363
				Dilution Factor: 10000 Analysis Time...: 06:07		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	05/30/08	8151364
				Dilution Factor: 200 Analysis Time...: 05:43		
Ion Balance Difference	3.2	0.10	%	SM18 1030F & API	06/24/08	8176456
				Dilution Factor: 1 Analysis Time...: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	05/30/08	8151367
				Dilution Factor: 10 Analysis Time...: 05:31		
Nitrite	ND	200	mg/L	MCAWW 300.0A	05/30/08	8151366
				Dilution Factor: 10000 Analysis Time...: 06:07		
Nitrogen, as Ammonia	1580	200	ug/L	MCAWW 350.1	05/30/08	8150453
				Dilution Factor: 4 Analysis Time...: 00:00		
Sulfate	3860	100	mg/L	MCAWW 300.0A	05/30/08	8151365
				Dilution Factor: 200 Analysis Time...: 05:43		
Total Alkalinity	165	5.0	mg/L	SM18 2320 B	06/02/08	8154059
				Dilution Factor: 1 Analysis Time...: 00:00		
Total Dissolved Solids	49100	500	mg/L	MCAWW 160.1	06/04-06/05/08	8156338
				Dilution Factor: 100 Analysis Time...: 00:00		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F8E290268

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F8F030000-134 Prep Batch #...: 8155134						
Calcium	ND	100	ug/L	SW846 6020	06/11-06/24/08	KN8W91AA
		Dilution Factor: 1				
		Analysis Time...: 15:38				
Iron	26.0 B	50	ug/L	SW846 6020	06/11-06/17/08	KN8W91AC
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Magnesium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AE
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Manganese	ND	2	ug/L	SW846 6020	06/11-06/17/08	KN8W91AF
		Dilution Factor: 1				
		Analysis Time...: 02:01				
Potassium	ND	100	ug/L	SW846 6020	06/11-06/21/08	KN8W91AD
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Silicon	ND	250	ug/L	SW846 6020	06/11-06/21/08	KN8W91AH
		Dilution Factor: 1				
		Analysis Time...: 21:52				
Sodium	ND	50	ug/L	SW846 6020	06/11-06/21/08	KN8W91AG
		Dilution Factor: 1				
		Analysis Time...: 21:52				
MB Lot-Sample #: F8F230000-113 Prep Batch #...: 8175113						
Silica	ND	250	ug/L	SW846 6020	06/11-06/21/08	KQEK81AA
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8E290268

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity	ND	Work Order #: KN7R51AA		MB Lot-Sample #: F8F020000-062		
		5.0	mg/L	MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Bromide	ND	Work Order #: KPR011AA		MB Lot-Sample #: F8E300000-362		
		0.25	mg/L	MCAWW 300.0A	05/29/08	8151362
		Dilution Factor: 1				
		Analysis Time...: 06:46				
Carbonate Alkalinity	ND	Work Order #: KN7RT1AA		MB Lot-Sample #: F8F020000-061		
		5.0	mg/L	MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Chloride	ND	Work Order #: KPR071AA		MB Lot-Sample #: F8E300000-363		
		0.20	mg/L	MCAWW 300.0A	05/29/08	8151363
		Dilution Factor: 1				
		Analysis Time...: 06:46				
Fluoride	ND	Work Order #: KPR091AA		MB Lot-Sample #: F8E300000-364		
		0.10	mg/L	MCAWW 300.0A	05/29/08	8151364
		Dilution Factor: 1				
		Analysis Time...: 06:46				
Nitrate	ND	Work Order #: KPR1J1AA		MB Lot-Sample #: F8E300000-367		
		0.020	mg/L	MCAWW 300.0A	05/29/08	8151367
		Dilution Factor: 1				
		Analysis Time...: 06:46				
Nitrite	ND	Work Order #: KPR1F1AA		MB Lot-Sample #: F8E300000-366		
		0.020	mg/L	MCAWW 300.0A	05/29/08	8151366
		Dilution Factor: 1				
		Analysis Time...: 06:46				
Nitrogen, as Ammonia	ND	Work Order #: KN3VT1AA		MB Lot-Sample #: F8E290000-453		
		50.0	ug/L	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Sulfate	ND	Work Order #: KPR1D1AA		MB Lot-Sample #: F8E300000-365		
		0.50	mg/L	MCAWW 300.0A	05/29/08	8151365
		Dilution Factor: 1				
		Analysis Time...: 06:46				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #....: F8E290268

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Alkalinity	ND	Work Order #: KN7RG1AA 5.0	mg/L	MB Lot-Sample #: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1				
		Analysis Time...: 00:00				
Total Dissolved Solids	ND	Work Order #: KPC5L1AA 5.0	mg/L	MB Lot-Sample #: F8F040000-338 MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 1				
		Analysis Time...: 00:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8E290268

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F8F030000-134 Prep Batch #...: 8155134					
Calcium	105	(85 - 115)	SW846 6020	06/11-06/24/08	KN8W91AJ
		Dilution Factor: 1		Analysis Time...: 15:42	
Iron	111	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AK
		Dilution Factor: 1		Analysis Time...: 02:05	
Potassium	102	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AL
		Dilution Factor: 1		Analysis Time...: 21:57	
Magnesium	100	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AM
		Dilution Factor: 1		Analysis Time...: 21:57	
Manganese	108	(85 - 115)	SW846 6020	06/11-06/17/08	KN8W91AN
		Dilution Factor: 1		Analysis Time...: 02:05	
Sodium	98	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AP
		Dilution Factor: 1		Analysis Time...: 21:57	
Silicon	105	(85 - 115)	SW846 6020	06/11-06/21/08	KN8W91AQ
		Dilution Factor: 1		Analysis Time...: 21:57	
LCS Lot-Sample#: F8F230000-113 Prep Batch #...: 8175113					
Silica	105 N	(0.0- 0.0)	SW846 6020	06/11-06/21/08	KQEK81AC
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: F8E290268

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia		WO#:KN3VT1AC-LCS/KN3VT1AD-LCSD			LCS Lot-Sample#:	F8E290000-453	
	100	(90 - 110)			MCAWW 350.1	05/30/08	8150453
	99	(90 - 110)	0.77	(0-20)	MCAWW 350.1	05/30/08	8150453
		Dilution Factor: 1			Analysis Time...: 00:00		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	100	Work Order #: KN5JA1AA (99 - 101)	LCS Lot-Sample#: F8E300000-296 SW846 9040	05/29/08	8151296
		Dilution Factor: 1	Analysis Time...: 00:00		
Bicarbonate Alkalinity	100	Work Order #: KN7R51AC (90 - 110)	LCS Lot-Sample#: F8F020000-062 MCAWW 310.1	06/02/08	8154062
		Dilution Factor: 1	Analysis Time...: 00:00		
Bromide	97	Work Order #: KPR011AC (90 - 110)	LCS Lot-Sample#: F8E300000-362 MCAWW 300.0A	05/29/08	8151362
		Dilution Factor: 1	Analysis Time...: 06:34		
Carbonate Alkalinity	100	Work Order #: KN7RT1AC (90 - 110)	LCS Lot-Sample#: F8F020000-061 MCAWW 310.1	06/02/08	8154061
		Dilution Factor: 1	Analysis Time...: 00:00		
Chloride	95	Work Order #: KPR071AC (90 - 110)	LCS Lot-Sample#: F8E300000-363 MCAWW 300.0A	05/29/08	8151363
		Dilution Factor: 1	Analysis Time...: 06:34		
Fluoride	91	Work Order #: KPR091AC (90 - 110)	LCS Lot-Sample#: F8E300000-364 MCAWW 300.0A	05/29/08	8151364
		Dilution Factor: 1	Analysis Time...: 06:34		
Nitrate	99	Work Order #: KPR1J1AC (90 - 110)	LCS Lot-Sample#: F8E300000-367 MCAWW 300.0A	05/29/08	8151367
		Dilution Factor: 1	Analysis Time...: 06:34		
Nitrite	100	Work Order #: KPR1F1AC (90 - 110)	LCS Lot-Sample#: F8E300000-366 MCAWW 300.0A	05/29/08	8151366
		Dilution Factor: 1	Analysis Time...: 06:34		
Sulfate	91	Work Order #: KPR1D1AC (90 - 110)	LCS Lot-Sample#: F8E300000-365 MCAWW 300.0A	05/29/08	8151365
		Dilution Factor: 1	Analysis Time...: 06:34		
Total Alkalinity	100	Work Order #: KN7RG1AC (90 - 110)	LCS Lot-Sample#: F8F020000-059 SM18 2320 B	06/02/08	8154059
		Dilution Factor: 1	Analysis Time...: 00:00		

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Total Dissolved Solids	100	(86 - 115)	MCAWW 160.1	06/04-06/05/08	8156338
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: F8E290268

Matrix.....: WATER

Date Sampled....: 05/27/08 11:35 Date Received...: 05/28/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F8E280143-001 Prep Batch #...: 8155134						
Calcium	0 N	(75 - 125)		SW846 6020	06/11-06/24/08	KNX8D1A0
	136 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/24/08	KNX8D1A1
		Dilution Factor: 1000				
		Analysis Time...: 15:52				
Iron	62 N	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A2
	68 N	(75 - 125)	6.1 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A3
		Dilution Factor: 2				
		Analysis Time...: 02:16				
Magnesium	358 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A6
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A7
		Dilution Factor: 1000				
		Analysis Time...: 22:18				
Manganese	79	(75 - 125)		SW846 6020	06/11-06/17/08	KNX8D1A8
	83	(75 - 125)	4.5 (0-20)	SW846 6020	06/11-06/17/08	KNX8D1A9
		Dilution Factor: 2				
		Analysis Time...: 02:16				
Potassium	122 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1A4
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1A5
		Dilution Factor: 1000				
		Analysis Time...: 22:18				
Silicon	182 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CD
	138 N,*	(75 - 125)	27 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CE
		Dilution Factor: 1000				
		Analysis Time...: 22:18				
Sodium	3360 N	(75 - 125)		SW846 6020	06/11-06/21/08	KNX8D1CA
	0 N	(75 - 125)	0.0 (0-20)	SW846 6020	06/11-06/21/08	KNX8D1CC
		Dilution Factor: 1000				
		Analysis Time...: 22:18				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Matrix.....: WATER

Date Sampled...: 05/28/08 11:00 Date Received...: 05/29/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	90	Work Order #...: KN3HJ1A1 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151362
		Dilution Factor: 200		Analysis Time...: 12:27	
Chloride	98	Work Order #...: KN3HJ1A3 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151363
		Dilution Factor: 10000		Analysis Time...: 12:51	
Fluoride	95	Work Order #...: KN3HJ1A5 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151364
		Dilution Factor: 200		Analysis Time...: 12:27	
Nitrate	99	Work Order #...: KN3HJ1CC (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151367
		Dilution Factor: 10		Analysis Time...: 12:14	
Nitrite	120 N	Work Order #...: KN3HJ1A9 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151366
		Dilution Factor: 10000		Analysis Time...: 12:51	
Nitrogen, as Ammonia	104	Work Order #...: KNW831AP (90 - 110)	MCAWW 350.1	MS Lot-Sample #: F8E270173-001 05/30/08	8150453
		Dilution Factor: 1		Analysis Time...: 00:00	
Sulfate	78 N	Work Order #...: KN3HJ1A7 (90 - 110)	MCAWW 300.0A	MS Lot-Sample #: F8E290268-001 05/30/08	8151365
		Dilution Factor: 200		Analysis Time...: 12:27	
Total Alkalinity	90	Work Order #...: KN5J21A2 (80 - 120)	SM18 2320 B	MS Lot-Sample #: F8E300223-003 06/02/08	8154059
		Dilution Factor: 1		Analysis Time...: 00:00	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268 Work Order #...: KNW83-SMP Matrix.....: WATER
KNW83-DUP
Date Sampled...: 05/22/08 09:19 Date Received...: 05/24/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia	120	140 B	ug/L	19	(0-20)	SD Lot-Sample #: F8E270173-001 MCAWW 350.1	05/30/08	8150453
				Dilution Factor: 1	Analysis Time...: 00:00			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Work Order #...: KN3JD-SMP

Matrix.....: WATER

KN3JD-DUP

Date Sampled...: 05/28/08 13:25

Date Received...: 05/29/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
pH (liquid)						SD Lot-Sample #:	F8E290268-002	
7.3		7.3	No Units	0.14	(0-0.0)	SW846 9040	05/29/08	8151296
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Work Order #...: KN3HJ-SMP
KN3HJ-DUP

Matrix.....: WATER

Date Sampled...: 05/28/08 11:00 Date Received...: 05/29/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bromide	60.1	62.5	mg/L	3.9	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151362
						Dilution Factor: 200	Analysis Time...: 12:27	
Chloride	29900	29700	mg/L	0.65	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151363
						Dilution Factor: 10000	Analysis Time...: 12:51	
Fluoride	ND	ND	mg/L	0	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151364
						Dilution Factor: 200	Analysis Time...: 12:27	
Sulfate	3860	3860	mg/L	0.013	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151365
						Dilution Factor: 200	Analysis Time...: 12:27	
Nitrite	ND	ND	mg/L	0	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151366
						Dilution Factor: 10000	Analysis Time...: 12:51	
Nitrate	ND	ND	mg/L	0	(0-20)	SD Lot-Sample #: F8E290268-001 MCAWW 300.0A	05/30/08	8151367
						Dilution Factor: 10	Analysis Time...: 12:14	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268 Work Order #...: KN2LJ-SMP Matrix.....: WATER
KN2LJ-DUP
Date Sampled...: 05/27/08 09:00 Date Received...: 05/28/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Bicarbonate						SD Lot-Sample #: F8E290176-002		
Alkalinity	71.0	73.0	mg/L	2.8	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290176-002		
ND	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E290268

Work Order #....: KN2LW-SMP
KN2LW-DUP

Matrix.....: WATER

Date Sampled....: 05/27/08 09:35 Date Received...: 05/28/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E290176-003		
Alkalinity	55.0	52.0	mg/L	5.6	(0-15)	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1		Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290176-003		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1		Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Work Order #...: KN2NJ-SMP

Matrix.....: WATER

KN2NJ-DUP

Date Sampled...: 05/28/08 08:10 Date Received...: 05/29/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E290185-001		
Alkalinity	51.0	50.0	mg/L	2.0	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E290185-001		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time...: 00:00		
pH (liquid)						SD Lot-Sample #: F8E290185-001		
	7.6	7.6	No Units	0.53	(0-0.0)	SW846 9040	05/29/08	8151296
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268 Work Order #...: KN46M-SMP Matrix.....: WATER
KN46M-DUP
Date Sampled...: 05/29/08 09:45 Date Received...: 05/30/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Bicarbonate						SD Lot-Sample #: F8E300179-001		
Alkalinity	76.0	78.0	mg/L	2.6	(0-15)	MCAWW 310.1	06/02/08	8154062
			Dilution Factor: 1			Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E300179-001		
ND	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268

Work Order #...: KN6XH-SMP
KN6XH-DUP

Matrix.....: WATER

Date Sampled...: 05/30/08 09:45 Date Received...: 05/31/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Bicarbonate						SD Lot-Sample #: F8E310160-003		
Alkalinity	121	120	mg/L	0.83	(0-15)	MCAWW 310.1	06/02/08	8154062
				Dilution Factor: 1		Analysis Time...: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8E310160-003		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/02/08	8154061
				Dilution Factor: 1		Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: F8E290268

Work Order #....: KN5GT-SMP
KN5GT-DUP

Matrix.....: WATER

Date Sampled....: 05/28/08 10:02 Date Received...: 05/30/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Dissolved						SD Lot-Sample #:	F8E300212-001	
Solids	431	420	mg/L	2.6	(0-15)	MCAWW 160.1	06/04-06/05/08	8156338
			Dilution Factor: 1			Analysis Time...: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8E290268 Work Order #...: KN5RL-SMP Matrix.....: WATER
KN5RL-DUP
Date Sampled...: 05/28/08 10:17 Date Received...: 05/30/08

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Total Dissolved						SD Lot-Sample #: F8E300262-001		
Solids	1690	1870	mg/L	9.9	(0-15)	MCAWW 160.1	06/04-06/05/08	8156338
			Dilution Factor: 1			Analysis Time...: 00:00		

F8E290268

CLIENT ANALYSIS SUMMARY

Storage Loc: 1-90,METS

Project Manager: IV Quote #: 79192 SDG:
 Project: 6468071950 FPL Turkey Point COL
 PO#: 200807151 Report to: Al Tice
 Client: 63036 MACTEC Engineering & Consulting Inc

Date Received: 2008-05-29
 Analytical Due Date: 2008-06-19
 Report Due Date: 2008-06-19

Report Type: W
 EDD Code: 00

#SMPS in LOT: 4

Inform PM of any receiving issues.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	OW-721U			2008-05-28 / 1100	KN3HJ	WATER
<u>SAMPLE COMMENTS:</u>						
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	0X CALCULATION ONLY	9Q ORG FLAGS FOR INORG: STANDARD	PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C9	MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CB	MCAW 310.1 W		WATER, 310.1, Alkalinity, Carbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CX	MCAW 300.0A W		WATER, 300.0A, Chloride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX CY	MCAW 300.0A W		WATER, 300.0A, Sulfate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX FJ	SW846 9040		WATER, 9040C, pH	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GM	MCAW 300.0A W		WATER, 300.0A, Bromide	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX GO	MCAW 300.0A W		WATER, 300.0A, Nitrite as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX LV	SM18 2320 B		WATER, 2320 B, Alkalinity, Total	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX SL	SM18 1030F & API		WATER, 1030F & API, Ion Balance	0X CALCULATION ONLY	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX UX	MCAW 310.1 W		WATER, 310.1, Alkalinity, Bicarbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX VM	MCAW 350.1 W		WATER, 350.1, Nitrogen, Ammonia	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	OW-721L			2008-05-28 / 1325	KN3JD	WATER
<u>SAMPLE COMMENTS:</u>						
MN MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SI MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
SA MH	SW846 6020		WATER, Silica by calculation	0X CALCULATION ONLY	9Q ORG FLAGS FOR INORG: STANDARD	PROT: A WRK LOC 06
NA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
KX MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
FE MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
CA MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
MG MH	SW846 6020		WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX AK	MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06
XX C8	MCAW 300.0A W		WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A WRK LOC 06

TestAmerica - St. Louis

Logged In by:

BRUNSONA

2008-05-29

14:54:12

printed on: Thursday, May 29, 2008 09:57 PM

Page 1 of 3

LOT# F8E290268

34 of 38

F8E290268

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-90,METS

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-29

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-19

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-19

Client: 63036 MACTEC Engineering & Consulting Inc

Report Type: W

#SMPS in LOT: 4

EDD Code: 00

Inform PM of any receiving issues.

XX	C9	MCAW 300.0A W	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CB	MCAW 310.1 W	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CX	MCAW 300.0A W	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	CY	MCAW 300.0A W	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	FJ	SW846 9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GM	MCAW 300.0A W	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	GO	MCAW 300.0A W	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	LV	SM18 2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	SL	SM18 1030F & API	WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	UX	MCAW 310.1 W	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	VM	MCAW 350.1 W	WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
3	OW-606U			2008-05-28 / 1610	KN3JR	WATER
SAMPLE COMMENTS:						
FE	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
KX	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MG	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
MN	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
NA	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
SA	MH SW846 6020		WATER, Silica by calculation	0X	CALCULATION ONLY	9Q ORG FLAGS FOR INORG: STANDARD PROT: A WRK LOC 06
SI	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
CA	MH SW846 6020		WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	AK MCAW 160.1 W		WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	C8 MCAW 300.0A W		WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	C9 MCAW 300.0A W		WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CB MCAW 310.1 W		WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CX MCAW 300.0A W		WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CY MCAW 300.0A W		WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	FJ SW846 9040		WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	GM MCAW 300.0A W		WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	GO MCAW 300.0A W		WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	LV SM18 2320 B		WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	SL SM18 1030F & API		WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	UX MCAW 310.1 W		WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	VM MCAW 350.1 W		WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
----------	------------------	---------	---------------	-------------------	-----------	---

TestAmerica - St. Louis

Logged in by: BRUNSONA 2008-05-29 14:54:12

printed on: Thursday, May 29, 2008 03:57 PM

Page 2 of 3

LOT# F8E290268

35 of 38

F8E290268

CLIENT ANALYSIS SUMMARY

Storage Loc:

1-90,METS

Project Manager: IV

Quote #: 79192

SDG:

Date Received:

2008-05-29

Project: 6468071950

FPL Turkey Point COL

Analytical Due Date:

2008-06-19

PO#: 200807151

Report to: Al Tice

Report Due Date:

2008-06-19

Client: 63036 MACTEC Engineering & Consulting Inc

Report Type: W

#SMPS In LOT: 4

EDD Code: 00

Inform PIM of any receiving issues.

4	OW-606L	2008-05-28 / 1540	KN3JT	WATER
SAMPLE COMMENTS:				
MN	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
SI	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
SA	MH	SW846 6020	WATER, Silica by calculation	0X CALCULATION ONLY 9Q ORG FLAGS FOR INORG; STANDARD PROT: A WRK LOC 06
NA	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
KX	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
CA	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
FE	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
MG	MH	SW846 6020	WATER, 6020, Metals	GJ METALS, TOTAL - 2% HCL 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	AK	MCAW 160.1 W	WATER, 160.1, Solids, Filterable "TDS"	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	C8	MCAW 300.0A W	WATER, 300.0A, Fluoride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	C9	MCAW 300.0A W	WATER, 300.0A, Nitrate as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CB	MCAW 310.1 W	WATER, 310.1, Alkalinity, Carbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CX	MCAW 300.0A W	WATER, 300.0A, Chloride	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	CY	MCAW 300.0A W	WATER, 300.0A, Sulfate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	FJ	SW846 9040	WATER, 9040C, pH	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	GM	MCAW 300.0A W	WATER, 300.0A, Bromide	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	GO	MCAW 300.0A W	WATER, 300.0A, Nitrite as N	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	LV	SM18 2320 B	WATER, 2320 B, Alkalinity, Total	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	SL	SM18 1030F & API	WATER, 1030F & API, Ion Balance	0X CALCULATION ONLY 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	UX	MCAW 310.1 W	WATER, 310.1, Alkalinity, Bicarbonate	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06
XX	VM	MCAW 350.1 W	WATER, 350.1, Nitrogen, Ammonia	88 NO SAMPLE PREPARATION PERFORMED / DIRECT 01 STANDARD TEST SET PROT: A WRK LOC 06

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

Chain of Custody Record

TAL-4124 (1007)

Client

MACREC

Address

3301 Atlantic Avenue

City

Raleigh

State

NC

Zip Code

27604

Project Name and Location (State)

Turkey Point COL

Contract/Purchase Order/Quote No.

6468-07-1950

Project Manager

Scott Ayger

Telephone Number (Area Code/Fax Number)

919-876-0416

Site Contact

Matt Cooke

Carrier/Waybill Number

FE

Date

05-28-08

Lab Number

9

Chain of Custody Number

062463

Page

1 of 1

Analysis (Attach list if more space is needed)

Special Instructions/
Conditions of Receipt

Cationic: Calcium
Iron, Magnesium
Manganese
Potassium Nitrate
Sodium
PH-EPA 8046 9045(b)
TDS-EPA 160.1
Cationic-EPA 8046 9045(b)
Anionic-EPA 8046 9045(b)
Nitrate-EPA 300.0
Ammonia-EPA 350.1
Nitrite-EPA 353.1
Nitrate-EPA 300.0
Cationic EPA 602.0C

Containers & Preservatives

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc

HOAc

Matrix

Air

Aqueous

Soil

Sed.

Time

Date

Sample I.D. No. and Description
(Containers for each sample may be combined on one line)

0W-721U

0W-721L

0W-606U

0W-606L

05/28/08

05/28/08

05/28/08

05/28/08

1100

1325

1610

1540

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

112

Possible Hazard Identification

☐ Non-Hazard

☐ Flammable

☐ Skin Irritant

☐ Poison B

☒ Unknown

☐ Return to Client

☒ Disposed By Lab

☐ Archive For

Months

(A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)

Turn Around Time Required

☐ 24 Hours

☐ 48 Hours

☐ 7 Days

☐ 14 Days

☒ 21 Days

☐ Other

Relinquished By

Relinquished By

Relinquished By

Relinquished By

Relinquished By

Relinquished By

Relinquished By

Relinquished By

1. Received By

2. Received By

3. Received By

Date

Time

25-29-08

09:00

Date

Time

Date

Time

Date

Time

Date

Time

Date

Time

Comments: Cationic and anionic methods they charge. Pending approval of SDRK, please wait for instructions from MACREC. Cationic EPA 602.0C. Nitrate EPA 300.0. K15-28-08

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s):
- 3468 -

F8E290268

Client: Mack COC/RFA No: 062463 Condition Upon Receipt Form
 Quote No: 79192 Initiated By: [Signature] Date: 05-29-08
 Time: 0900

Shipper Name: FedEx Shipping Information
 Shipping # (s):* 8686 2820 8260 Multiple Packages Y (N)
 Sample Temperature (s):**
 1. 3 6. _____
 2. _____ 7. _____
 3. _____ 8. _____
 4. _____ 9. _____
 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. <u>(Y)</u> <u>(N)</u>	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y N <u>(N/A)</u>	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. <u>(Y)</u> N N/A	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. Y N	If N/A- Was pH taken by original TestAmerica lab?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <u>(Y)</u> N	Sample received in proper containers?
6. Y <u>(N)</u>	Was sample received broken?	13. Y N <u>(N/A)</u>	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. Y N	Was Internal COC/Workshare received?

For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: [Signature] Date: 6-3-08

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07\SL\svr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

LOT# F8E290268

38 of 38

Slug Test Data Forms

Appendix G
Summary Table of Input Values for Hydraulic Conductivity Test Analyses
Turkey Point COL Project
MACTEC Project No. 6488-07-1950

		Test Date			Borehole Depth (ft bgs ¹)	Static H2O (ft TOC ²)	Riser (ft ags)	Static H2O (ft bgs)	Water Column Height (feet)	Formation Depth	Borehole Length vs Formation Extent	Saturated Thickness ³ (feet, bgs)	Maximum Displacement (feet)		Top of Well Screen ⁴ (feet bgs)	Well Screen Length ⁴ (feet)	Radius of Well Casing (feet)	Radius of Screen (feet)	Radius of Probe (feet)	Probe Serial Number	Notes
WELL ID	Background	Falling Head	Rising Head	Test Method									Falling Head	Rising Head							
OW-606 U	5/20/2008		5/20/2008	pneumatic	30.17	3.48	3.2	0.28	29.89	24.00	6.17	29.89		2.792	15	15.17	0.083	0.30	0.03	118478	
			5/20/2008	pneumatic	30.17	3.48	3.2	0.28	29.89	24.00	6.17	29.89		3.394						118478	Test 2
OW-606 L	5/18/2008	5/18/2008	5/18/2008	manual slug	109.00	3.24	2.8	0.44	108.56	116.00	-7.00	92	1.013	1.817	92.8	17.2	0.083	0.29	0.03	118478	
	5/20/2008		5/20/2008	pneumatic	109.00	3.07	2.8	0.27	108.73	116.00	-7.00	92		4.388						118478	
OW-621 U	5/20/2008		5/20/2008	pneumatic	30.00	5.74	3.3	2.44	27.56	26.00	4.00	27.56		10.561	14.4	15.6	0.083	0.30	0.03	118478	
OW-621 L	5/17/2008	5/17/2008	5/17/2008	manual slug	110.00	4.13	3.0	1.13	108.87	114.50	-4.50	88.5	19.286	3.011	95	15	0.083	0.30	0.03	103345	
			5/17/2008	manual slug	110.00	4.13	3.0	1.13	108.87	114.50	-4.50	88.5		2.103						103345	Test 2
	5/20/2008		5/20/2008	pneumatic	110.00	4.71	3.0	1.71	108.29	114.50	-4.50	88.5		12.053						118478	
OW-636 U	5/21/2008		5/21/2008	pneumatic	29.80	4.35	3.4	0.95	28.85	26.00	3.80	28.85		9.553	12.8	17	0.083	0.25	0.03	118478	
			5/21/2008	pneumatic	29.80	4.35	3.4	0.95	28.85	26.00	3.80	28.85		7.909						118478	
OW-636 L	5/21/2008		5/21/2008	pneumatic	111.00	2.74	3.4	-0.66	111.66	114.00	-3.00	88		8.321	93.5	17.5	0.083	0.25	0.03	118478	
			5/21/2008	pneumatic	111.00	2.74	3.4	-0.66	111.66	114.00	-3.00	88		5.913						118478	Test 2
OW-706 U	5/16/2008	5/16/2008	5/16/2008	manual slug	29.00	3.74	3.2	0.54	28.46	31.20	-2.20	30.66	0.941	0.96	13.4	15.6	0.083	0.25	0.03	103345	
	5/20/2008		5/20/2008	pneumatic	29.00	3.74	3.2	0.54	28.46	31.20	-2.20	30.66		4.189						118478	Test 2
OW-706 L	5/16/2008	5/16/2008	5/16/2008	manual slug	112.00	1.50	3.2	-1.70	113.70	114.00	-2.00	82.8	1.19	2.893	96.9	15.1	0.083	0.25	0.03	103345	
OW-721 U	5/15/2008	5/15/2008	5/15/2008	manual slug	26.00	4.35	3.1	1.25	24.75	24.00	2.00	24.75	3.338	1.444	9.9	16.1	0.083	0.25	0.03	103345	
	5/20/2008		5/20/2008	pneumatic	26.00	4.73	3.1	1.63	24.37	24.00	2.00	24.37		10.884						118478	
OW-721 L	5/15/2008	5/15/2008	5/15/2008	manual slug	109.00	2.17	3.2	-1.03	110.03	114.00	-5.00	90	2.451	5.904	92	17	0.083	0.25	0.03	103345	
	5/20/2008		5/20/2008	pneumatic	109.00	1.97	3.2	-1.23	110.23	114.00	-5.00	90		9.341						118478	
OW-735 U	5/15/2008	5/15/2008	5/15/2008	manual slug	28.00	4.85	3.3	1.55	26.45	26.00	2.00	26.45	0.553	1.519	12	16	0.083	0.25	0.03	103345	
	5/20/2008		5/20/2008	pneumatic	28.00	4.95	3.3	1.65	26.35	26.00	2.00	26.35		10.051						118478	
OW-735 L	5/15/2008	5/15/2008	5/15/2008	manual slug	110.00	2.97	3.4	-0.43	110.43	113.00	-3.00	87	3.004	5.779	92.3	17.7	0.083	0.25	0.03	103345	
OW-802 U	5/20/2008	6/6/2008	5/20/2008	pneumatic	27.00	4.60	3.4	1.20	25.80	27.00	0.00	25.80		7.799	10	17	0.083	0.25	0.03	118478	
OW-802 L	5/20/2008	6/6/2008	5/20/2008	pneumatic	110.00	3.06	3.3	-0.24	110.24	115.00	-5.00	88		12.796	93	17	0.083	0.21	0.03	118478	
OW-805 U	6/6/2008	6/6/2008	6/6/2008	pneumatic	30.00	3.00	2.8	0.20	29.80	32.50	-2.50	32.30		3.886	13	17	0.083	0.25	0.03	118478	
OW-805 L	6/6/2008	6/6/2008	6/6/2008	pneumatic	97.00	3.19	3.7	-0.51	97.51	100.00	-3.00	67.5		10.511	80	17	0.083	0.21	0.03	118478	
OW-809 U	5/15/2008	5/15/2008	5/15/2008	manual slug	27.00	4.68	3.2	1.48	25.52	25.00	2.00	25.52	6.358	3.175	12.6	14.4	0.083	0.25	0.03	118478	
	5/20/2008	5/20/2008	5/20/2008	pneumatic	27.00	4.72	3.2	1.52	25.48	25.00	2.00	25.48		11.016						118478	
OW-809 L	5/15/2008	5/15/2008	5/15/2008	manual slug	110.00	3.26	3.3	-0.04	110.04	113.00	-3.00	88	11.287	2.64	91	19	0.083	0.25	0.03	103345	
OW-812 U	5/20/2008		5/20/2008	pneumatic	27.00	4.55	3.0	1.55	25.45	27.00	0.00	25.45		11.684	11	16	0.083	0.25	0.03	118478	
OW-812 L	5/20/2008		5/20/2008	pneumatic	109.00	3.01	3.3	-0.29	109.29	113.00	-4.00	86		10.477	94	15	0.083	0.25	0.03	118478	

Note: Anisotropy ratio (Kv/Kh) is assumed to be 1

¹ Measured in feet below ground surface (bgs).

² Measured in feet below the top of the well casing (TOC).

³ Saturated thickness values determined as:

- 1) water column height for all U wells that fully penetrate the Miami Formation
- 2) Water column height plus the depth from the bottom of the borehole to the base of the Miami Formation for all U wells that do not fully penetrate the Miami Formation
- 3) Thickness of Thompson Formation for all L wells

⁴ Well screen dimensions based on direction from Bechtel to use borehole annulus

Prepared by: AKG Date: 6-20-08

Checked by: hsl Date: 6-20-08

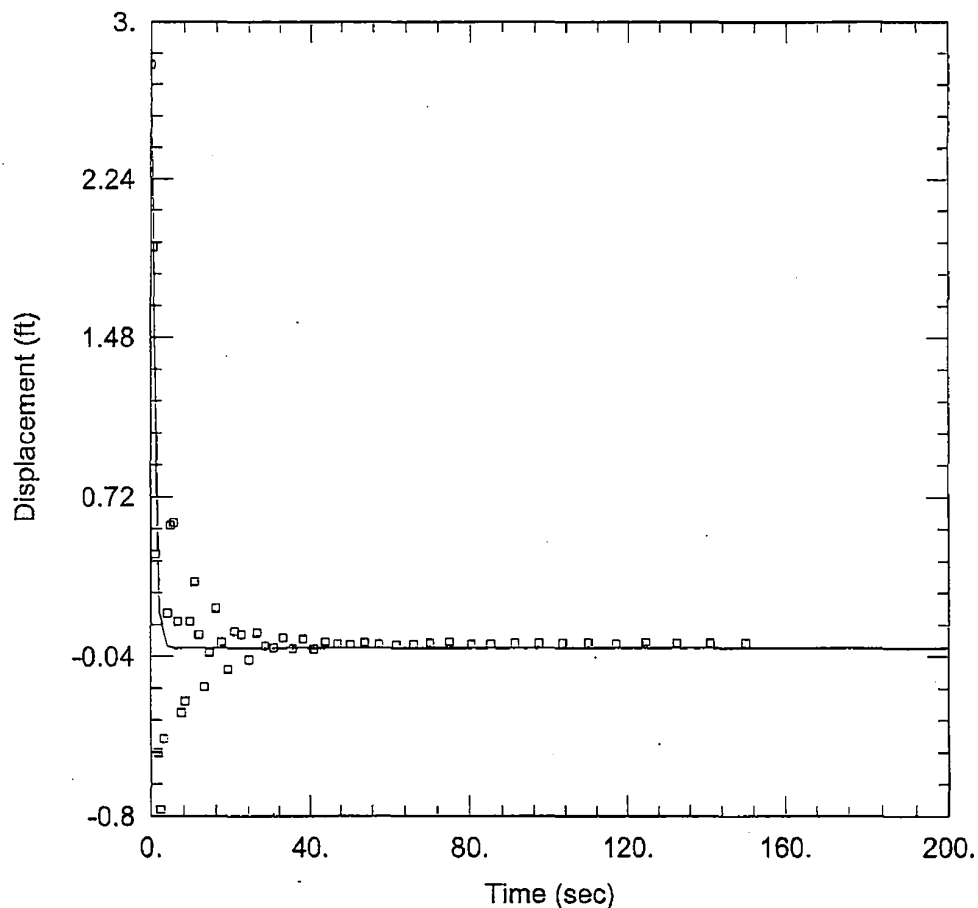
MACTEC Engineering and Consulting, Inc.
Raleigh, NC

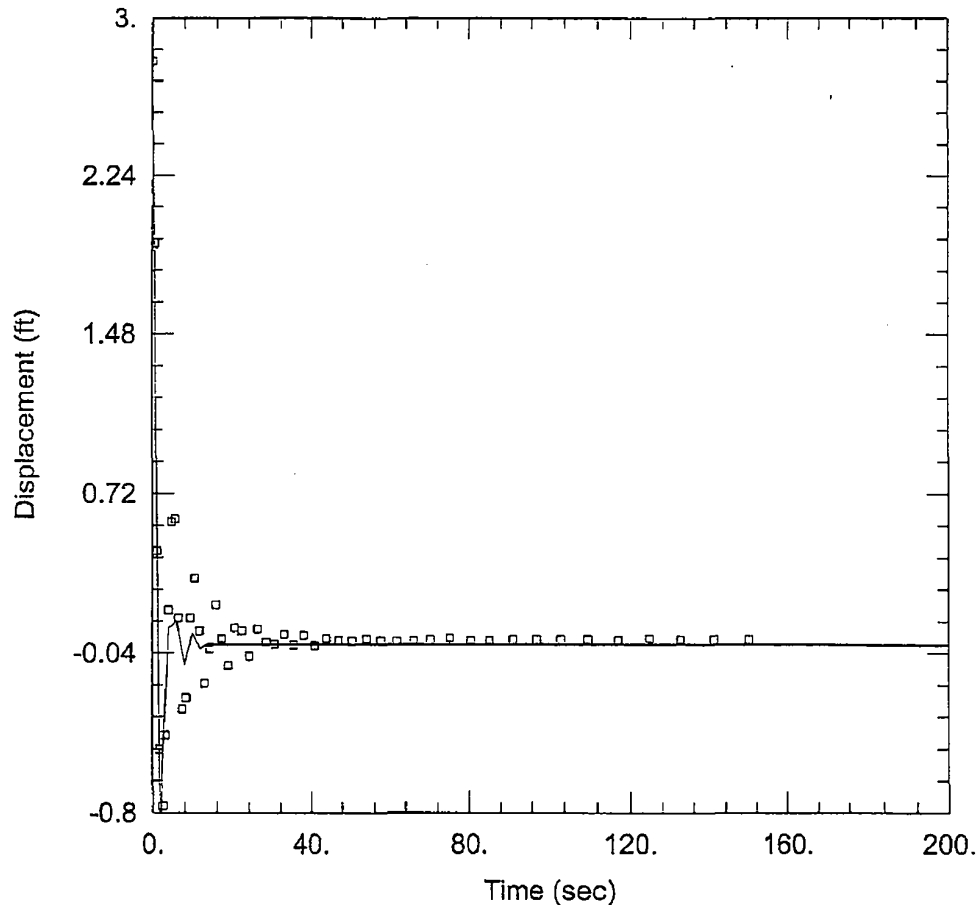


SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Beechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-606U</u>	MACTEC Rep: <u>Kim Charles-Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final Static = 2.97' Frmsgs.		
Static Water Level	3.48' feet From Top		
Total Well Depth	31.91' feet From Top		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (K _v /K _h)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini Troll Transducer probe calibrated 4/29/08, exp 4/29/09 SN: 118478 level Troll @ 700 winsate		
Slug Data			
Length	used pneumatic slug to perform test.		
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	OW-606UBG	NA	OW-606UR
Start Time	11:49:55		12:01:33
End Time	11:54:59		12:04:17
Notes	OW-606UR 12:06:45 12:07:47		

Rev 0

OW-606 U RISING HEAD 5/20/08PROJECT INFORMATIONCompany: Turkey PointClient: BECHTELProject: 6468-07-1950Location: Turkey PointTest Well: OW-606 UTest Date: 5-20-08AQUIFER DATASaturated Thickness: 29.89 ftWELL DATA (OW-606 U)Initial Displacement: 2.792 ftStatic Water Column Height: 29.89 ftTotal Well Penetration Depth: 30.17 ftScreen Length: 15.17 ftCasing Radius: 0.083 ftWell Radius: 0.3 ftSOLUTIONAquifer Model: UnconfinedSolution Method: KGS ModelKr = 97.98 ft/daySs = 4.167E-12 ft⁻¹Kz/Kr = 1.



OW-606 U RISING HEAD 5/20/08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 U
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 29.89 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-606 U)

Initial Displacement: 2.792 ft
 Total Well Penetration Depth: 30.17 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 29.89 ft
 Screen Length: 15.17 ft
 Well Radius: 0.3 ft

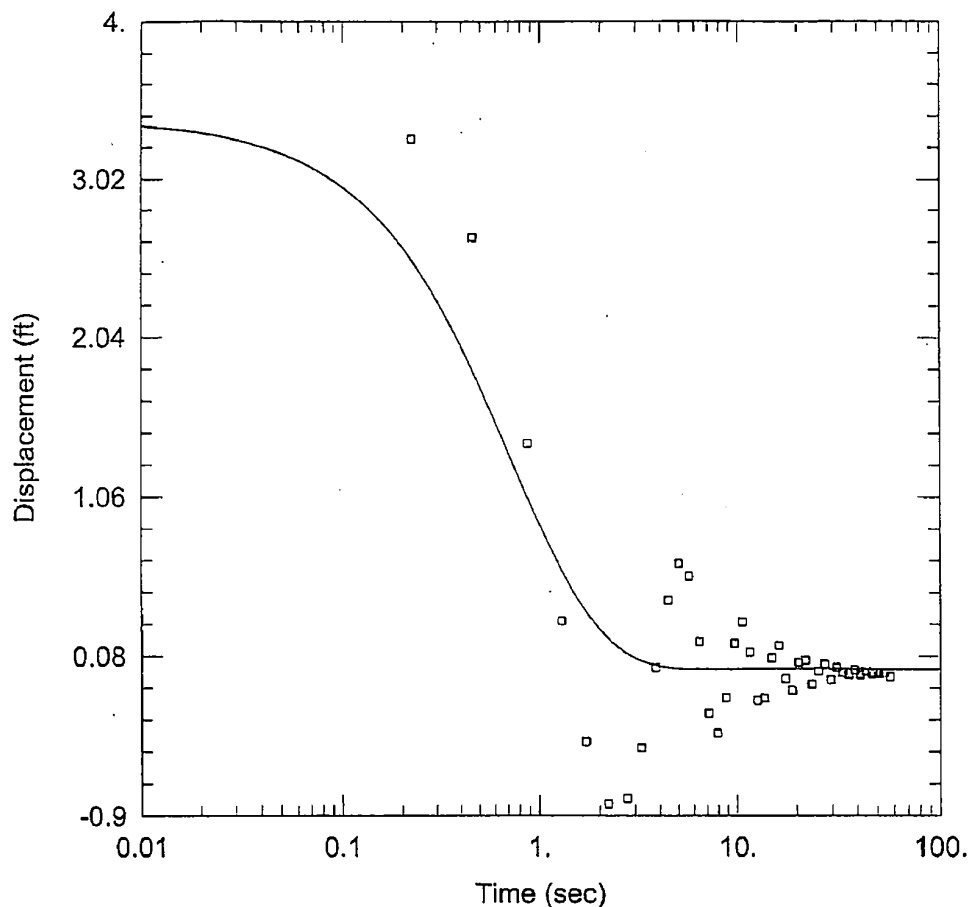
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

$K = 134.8$ ft/day

$Le = 17.69$ ft



OW-606 U RISING HEAD 5/20/08 TEST 2

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 U
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 29.89 ft

WELL DATA (OW-606 U)

Initial Displacement: 3.394 ft
 Total Well Penetration Depth: 30.17 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 29.89 ft
 Screen Length: 15.17 ft
 Well Radius: 0.3 ft

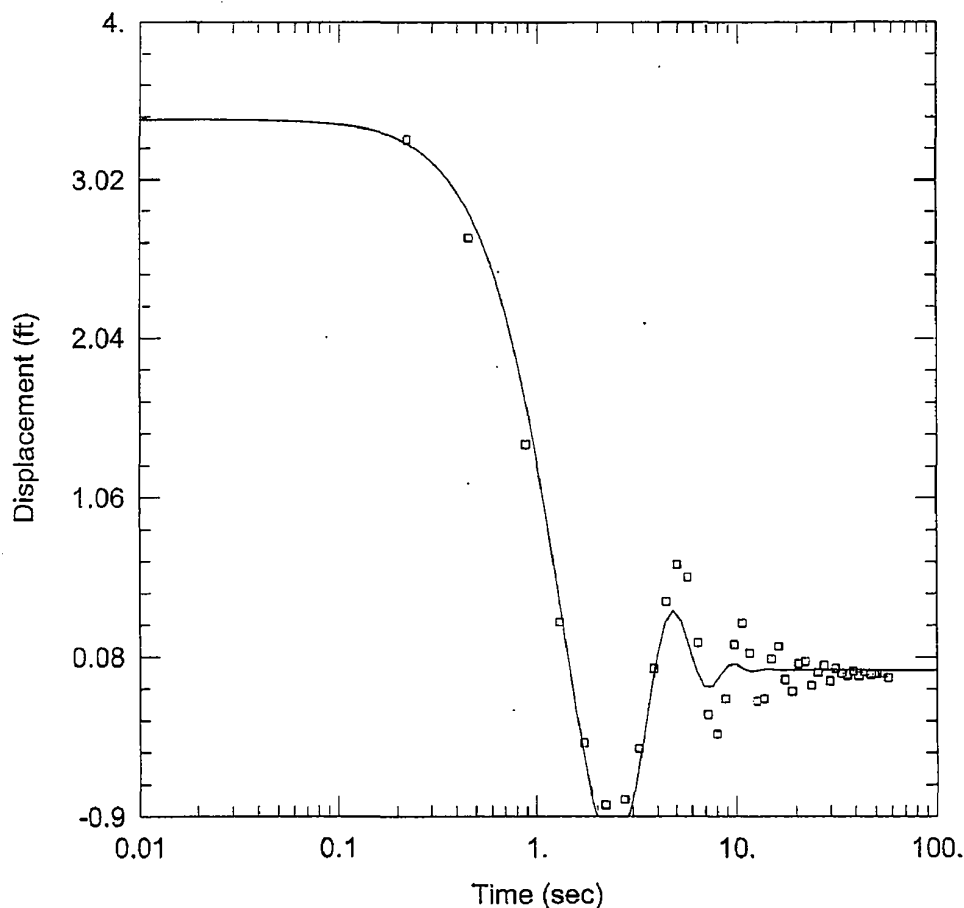
SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 92.02 ft/day
 Kz/Kr = 1.

Ss = 4.167E-12 ft⁻¹



OW-606 U RISING HEAD 5/20/08 TEST 2

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 U
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 29.89 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-606 U)

Initial Displacement: 3.394 ft

Static Water Column Height: 29.89 ft

Total Well Penetration Depth: 30.17 ft

Screen Length: 15.17 ft

Casing Radius: 0.083 ft

Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

$K = 123.1$ ft/day

$Le = 16.66$ ft

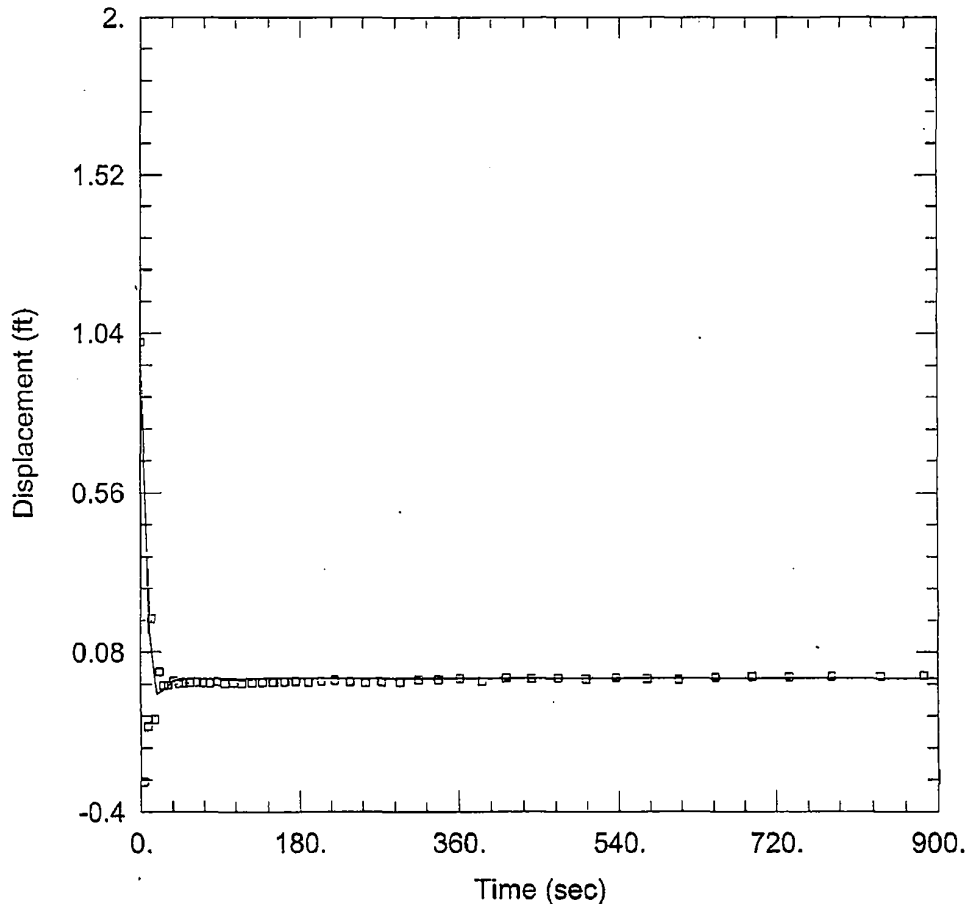


SLUG TEST REPORT

Project Name: <u>TPCA</u>	Project Number:		Page	of
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>			
Location: <u>OW-606L</u>	MACTEC Rep: <u>Kim Chels-Smith</u>		Date: <u>05/18/08</u>	
UNITS				
Length	Feet			
Time	Minutes			
Well Data	Final Setup = 3.14' <u>plugging above g.S.</u> <u>by 5-18-08</u>			
Static Water Level	3.24' feet <u>From TOC</u>			
Total Well Depth	111.31' feet <u>From TOC</u>			
Static Water Column Height (H)	108.27' feet			
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head	
	NA			
Saturated Thickness (b)	feet			
Conductivity Anisotropy (K _v /K _h)	Assume 1 to 1			
Depth to Top of Well Screen (d)				
Length of Well Screen (L)	10' feet			
Radius of Well Casing (rc)	0.088 feet			
Radius of Screen (rw)	0.083 feet			
Radius of Probe (req)				
Radius of Boring (rb) Skin Effect	0.083 feet			
Probe Serial Number	mini toll Transducer calibrated 4/29/08, Exp. 4/29/09.			
Slug Data	Slug #2			
Length	65.438 inches			
Weight	8.811 lbs.			
Diameter	1.622 inches			
Slug Test File	Background	Falling	Rising	
File Name	OW-606LBG	OW-606LF	OW-606LR	
Start Time	08:13:29	08:31:14	08:48:16	
End Time	08:21:54	08:45:20	09:06:04	
Notes	Extended top of casing to 5.16' above g.S. to PM tests.			
Rev D				

Prepared by: CHS Date: 6-20-08

Checked by: Wtr Date: 6-20-08



OW-606 L FALLING HEAD TEST 5-18-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 L
 Test Date: 5-18-08

AQUIFER DATA

Saturated Thickness: 92 ft

Anisotropy Ratio (Kz/Kr): 1

WELL DATA (OW-606 L)

Initial Displacement: 1.013 ft

Static Water Column Height: 108.6 ft

Total Well Penetration Depth: 109 ft

Screen Length: 16.2 ft

Casing Radius: 0.083 ft

Well Radius: 0.29 ft

SOLUTION

Aquifer Model: Confined

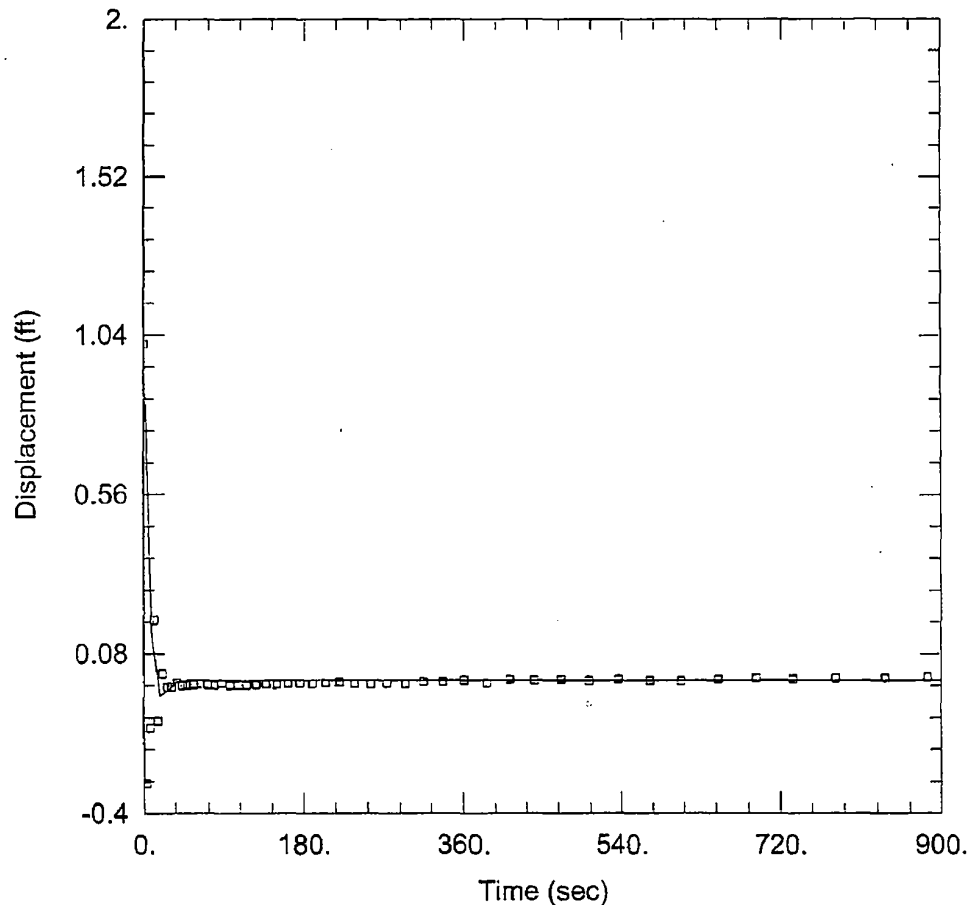
Solution Method: Butler

K = 119.9 ft/day

Le = 86.28 ft

Prepared by: CHS Date: 6-20-08

Checked by: WBL Date: 6-24-08



OW-606 L FALLING HEAD TEST 5-18-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 L
 Test Date: 5-18-08

AQUIFER DATA

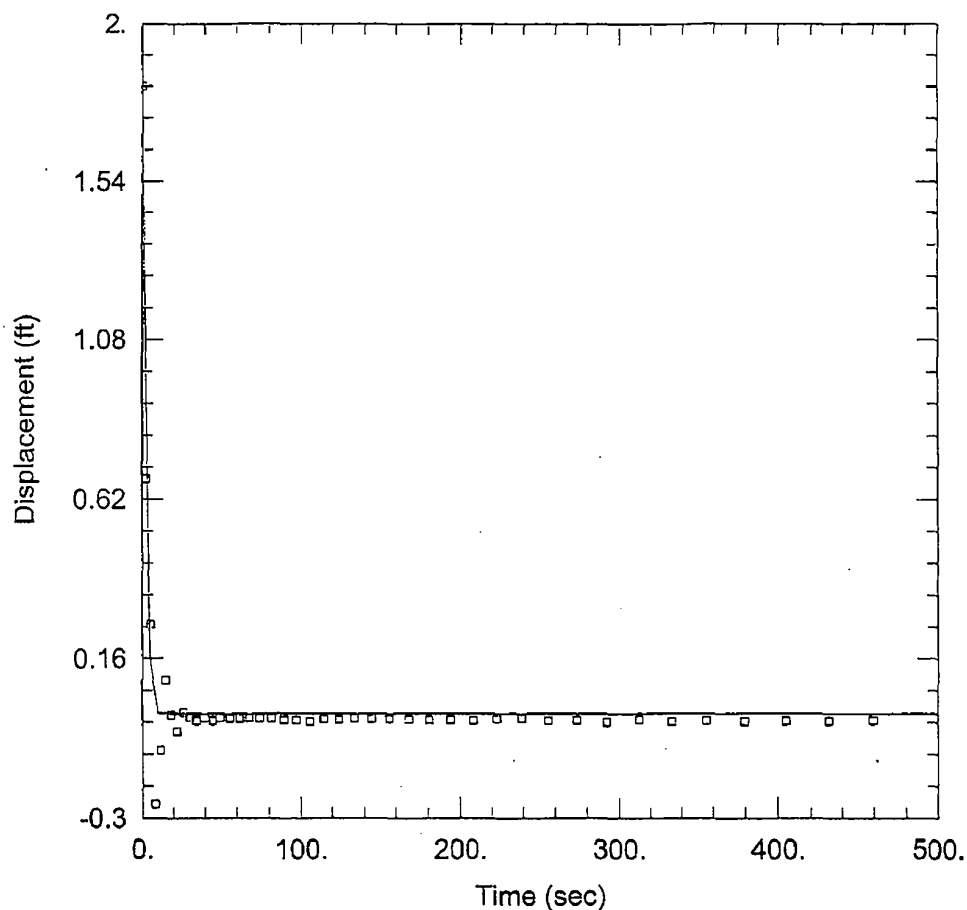
Saturated Thickness: 92. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-606 L)

Initial Displacement: 1.013 ft Static Water Column Height: 108.6 ft
 Total Well Penetration Depth: 109. ft Screen Length: 16.2 ft
 Casing Radius: 0.083 ft Well Radius: 0.29 ft

SOLUTION

Aquifer Model: Confined Solution Method: McElwee-Zenner
 $K = 117.8 \text{ ft/day}$ $\beta = -22.15 \text{ ft}$
 $A = 0.$ $v(0) = 0. \text{ ft/day}$

OW-606 L RISING HEAD TEST 5-18-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-606 L
Test Date: 5-18-08

AQUIFER DATASaturated Thickness: 92. ftAnisotropy Ratio (K_z/K_r): 1.WELL DATA (OW-606 L)

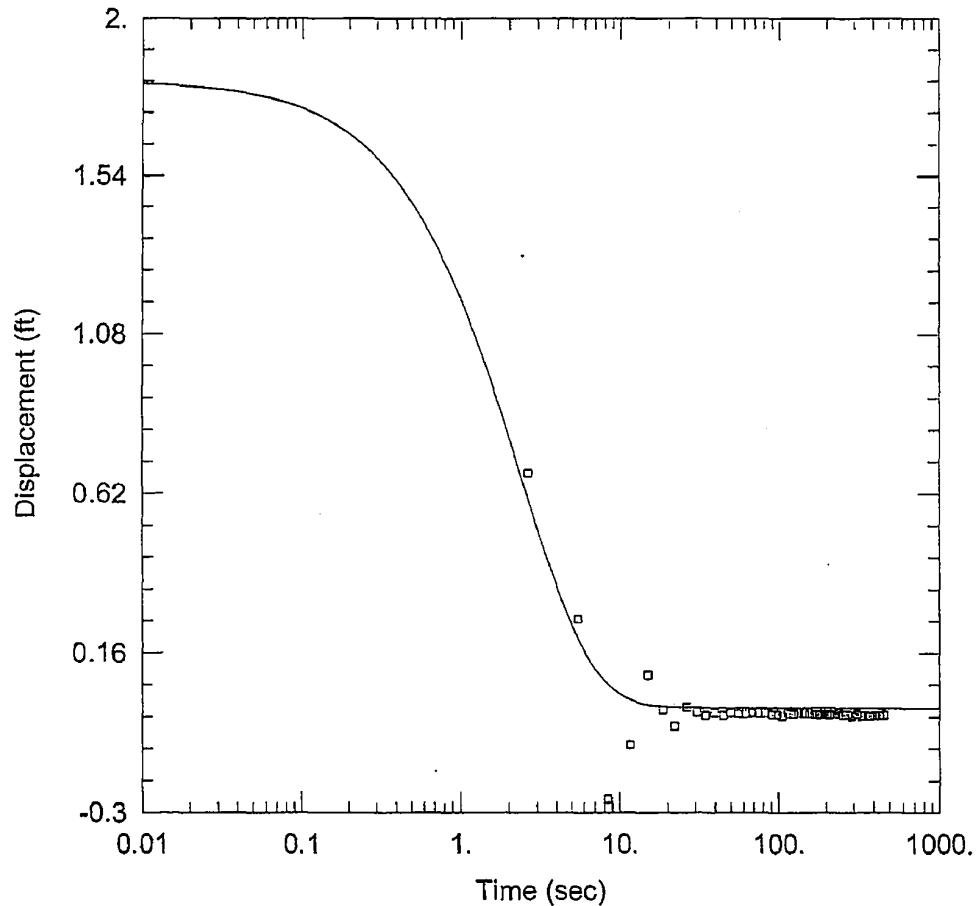
Initial Displacement: 1.817 ft
Total Well Penetration Depth: 109. ft
Casing Radius: 0.083 ft

Static Water Column Height: 108.6 ft
Screen Length: 16.2 ft
Well Radius: 0.29 ft

SOLUTIONAquifer Model: ConfinedSolution Method: Butler $K = 30.16$ ft/day $L_e = 58.94$ ft

Prepared by: CMB Date: 6-22-08

Checked by: LSR Date: 6-26-08



OW-606 L RISING HEAD TEST 5-18-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 L
 Test Date: 5-18-08

AQUIFER DATA

Saturated Thickness: 92 ft

WELL DATA (OW-606 L)

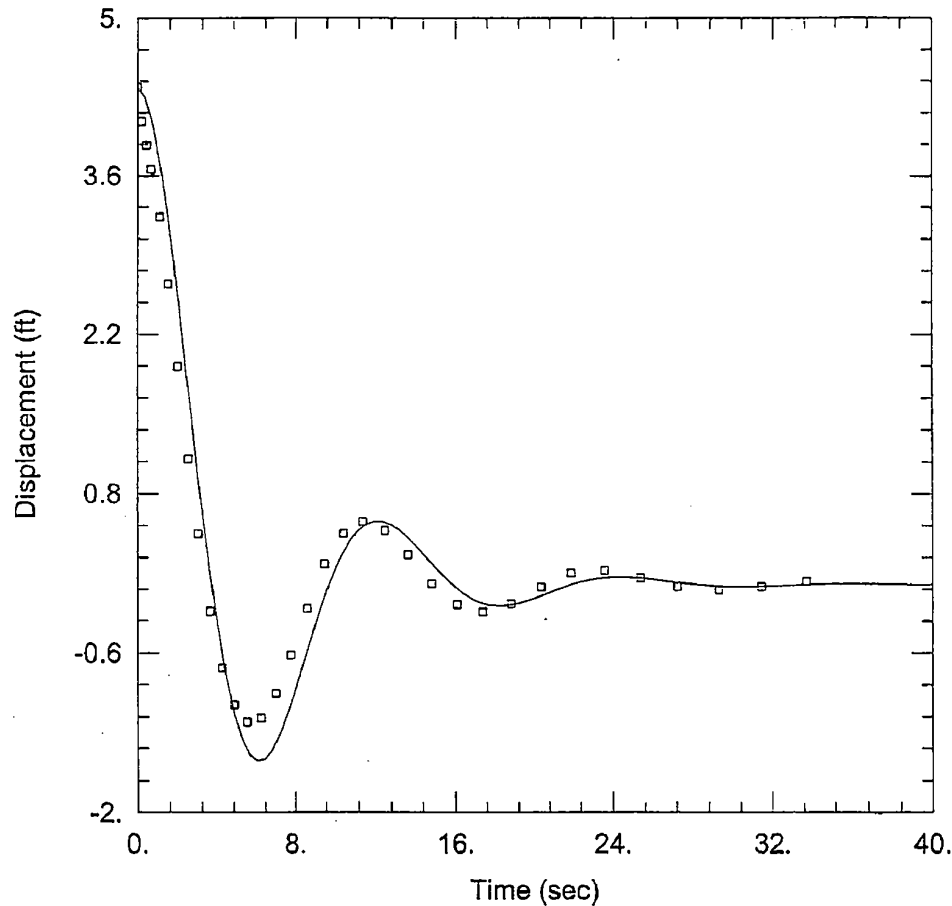
Initial Displacement: 1.817 ft Static Water Column Height: 108.6 ft
 Total Well Penetration Depth: 109 ft Screen Length: 16.2 ft
 Casing Radius: 0.083 ft Well Radius: 0.29 ft

SOLUTION

Aquifer Model: Confined Solution Method: KGS Model
 $K_r = 35.04$ ft/day $S_s = 1.087E-12$ ft⁻¹
 $K_z/K_r = 1$

Prepared by: CHS Date: 6-20-08

Checked by: WSE Date: 6-20-08



OW-606 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 L
 Test Date: 5-18-08

AQUIFER DATA

Saturated Thickness: 92. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-606 L)

Initial Displacement: 4.388 ft
 Total Well Penetration Depth: 109. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 108.7 ft
 Screen Length: 16.2 ft
 Well Radius: 0.29 ft

SOLUTION

Aquifer Model: Confined

Solution Method: McElwee-Zenner

$K = 66.13$ ft/day

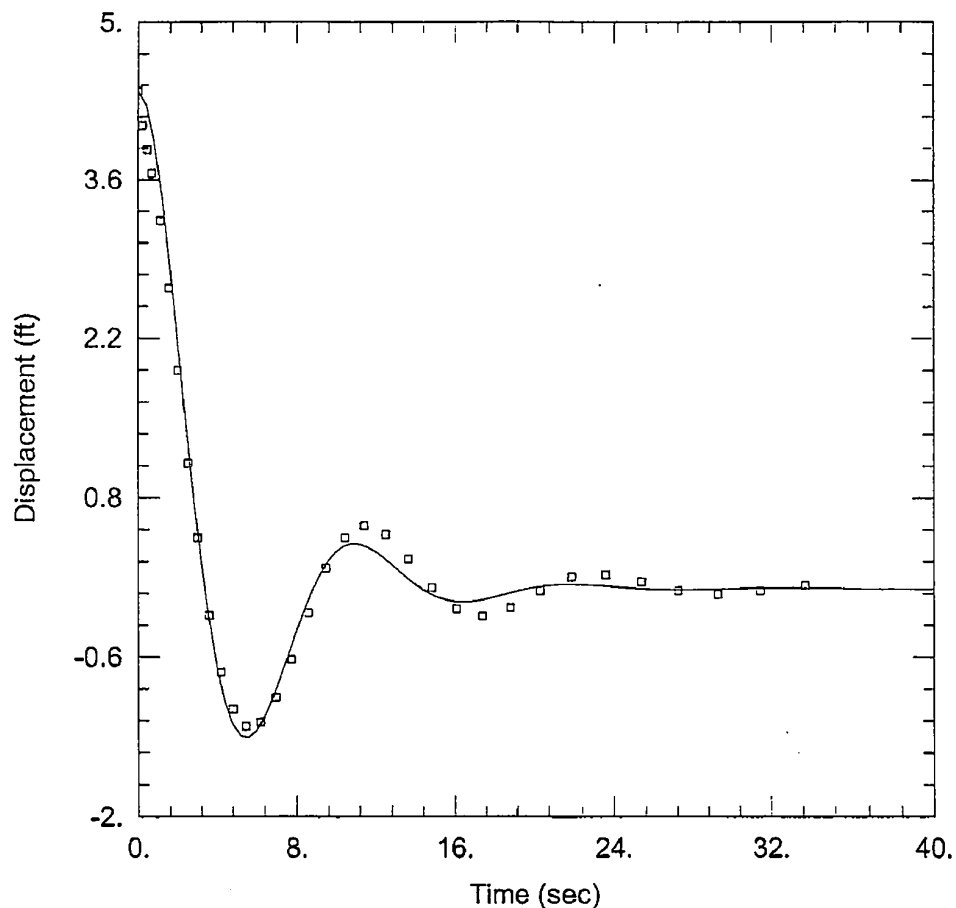
$\beta = 2.736E-317$ ft

$A = 0.$

$v(0) = 0.$ ft/day

Prepared by: LHB Date: 6-20-08

Checked by: LHB Date: 6-20-08



OW-606 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-606 L
 Test Date: 5-18-08

AQUIFER DATA

Saturated Thickness: 92 ft

Anisotropy Ratio (Kz/Kr): 1

WELL DATA (OW-606 L)

Initial Displacement: 4.388 ft

Static Water Column Height: 108.7 ft

Total Well Penetration Depth: 109 ft

Screen Length: 16.2 ft

Casing Radius: 0.083 ft

Well Radius: 0.29 ft

SOLUTION

Aquifer Model: Confined

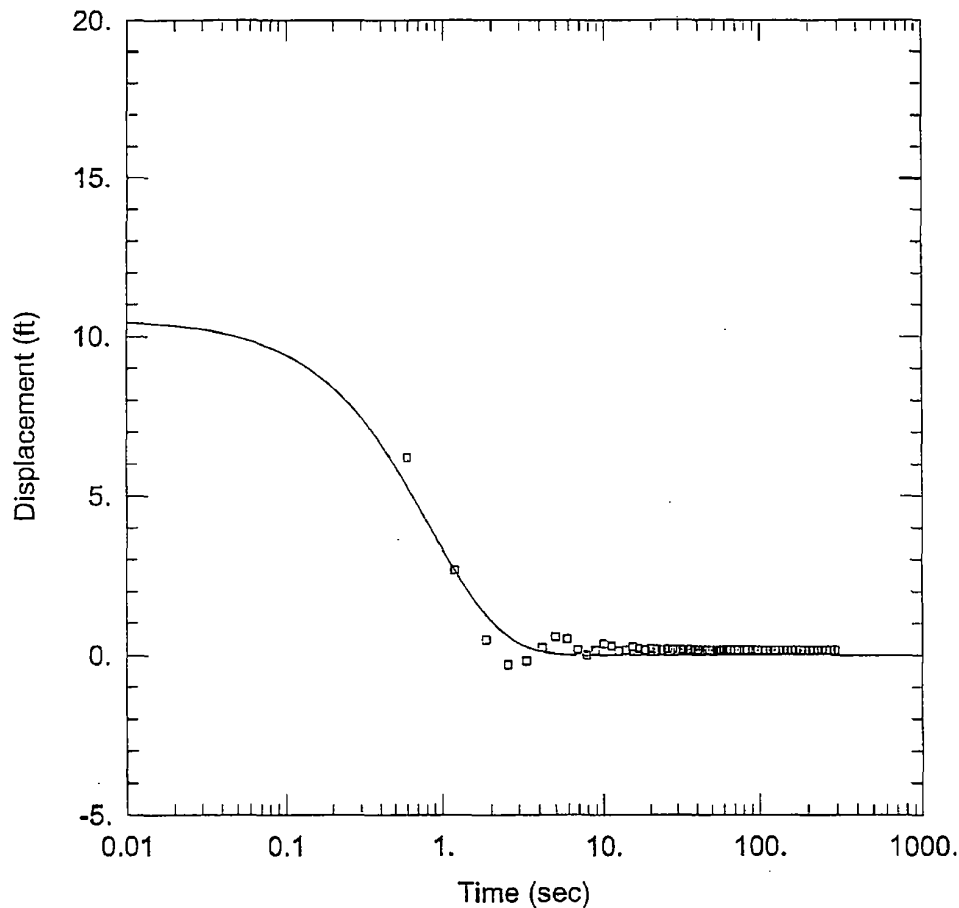
Solution Method: Butler

K = 67.4 ft/day

Le = 85.16 ft

Prepared by: CBB Date: 6-20-08

Checked by: WSB Date: 6-20-08



OW-621 U RISING HEAD TEST

PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-621 U
Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 27.56 ft

WELL DATA (OW-621 U)

Initial Displacement: 10.56 ft
Total Well Penetration Depth: 30. ft
Casing Radius: 0.083 ft

Static Water Column Height: 27.56 ft
Screen Length: 15.6 ft
Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

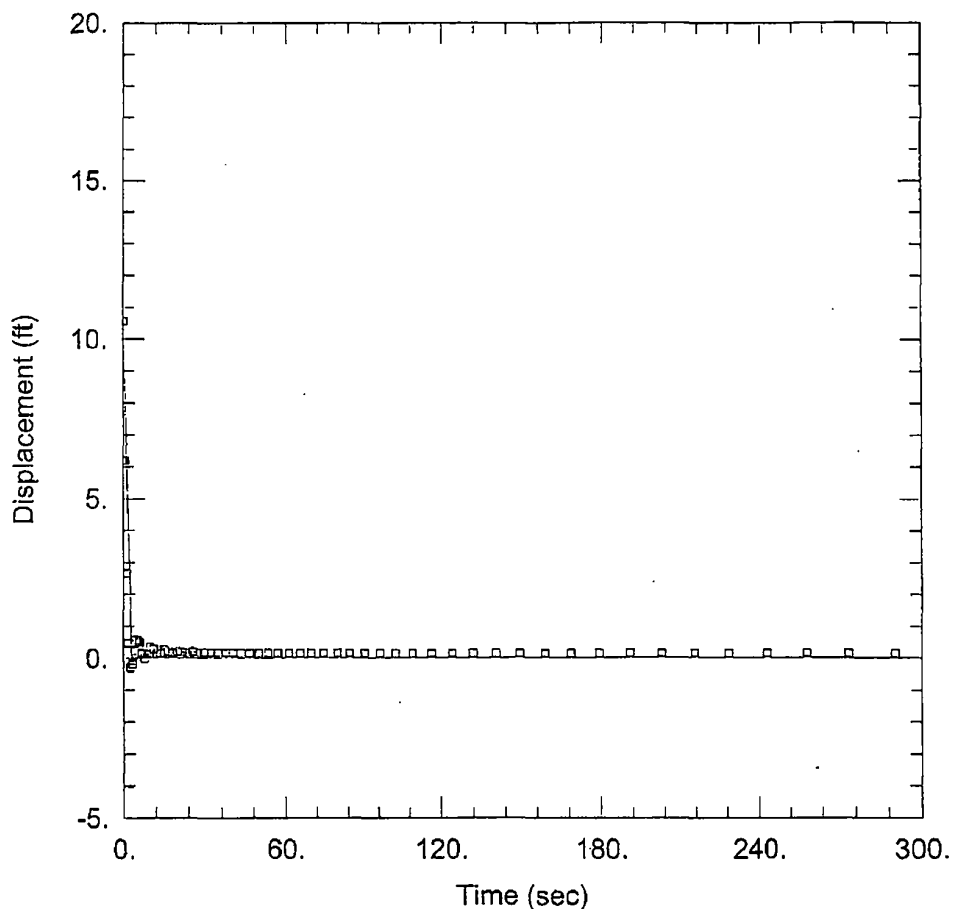
Kr = 94.35 ft/day

Ss = 3.846E-12 ft⁻¹

Kz/Kr = 1.

Prepared by: CMB Date: 6-20-08

Checked by: WJ Date: 6-20-08



OW-621 U RISING HEAD TEST

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 U
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 27.56 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-621 U)

Initial Displacement: 10.56 ft
 Total Well Penetration Depth: 30. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 27.56 ft
 Screen Length: 15.6 ft
 Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Unconfined
 K = 68.89 ft/day

Solution Method: Springer-Gelhar
 Le = 7.075 ft



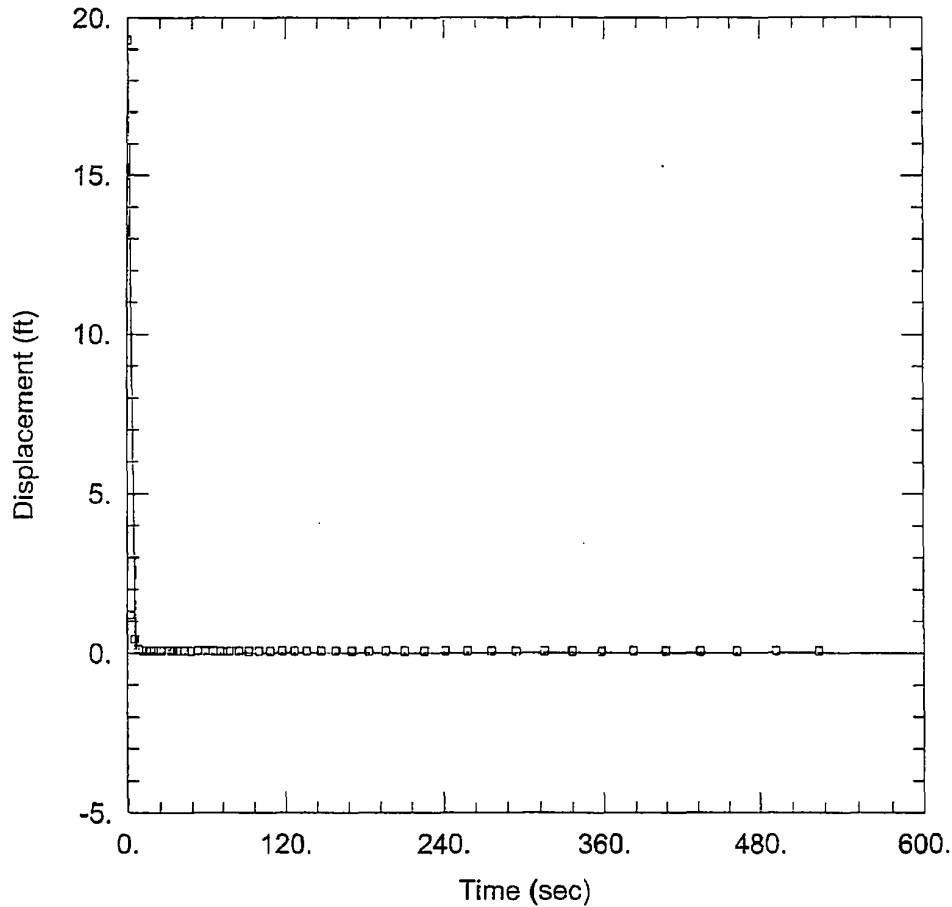
SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number:	Page <u>1</u> of <u>1</u>
Client: <u>Bachtel</u>	Contractor: <u>MACTEC</u>	
Location: <u>OW-621L</u>	MACTEC Rep: <u>Kim Chels Smith</u>	Date: <u>05/17/08</u>
UNITS		
Length	Feet	
Time	Minutes	
Well Data	Final Stackup = 3.27' from g.s.	
Static Water Level	4.13' feet From TOC	
Total Well Depth	111.55' feet From TOC	
Static Water Column Height (H)	107.42' feet	
Observed Initial Displacement (H ₀)	Background	Falling Head
	NA	
Saturated Thickness (b)	feet	
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1	
Depth to Top of Well Screen (d)		
Length of Well Screen (L)	10' feet	
Radius of Well Casing (rc)	0.083 feet	
Radius of Screen (rw)	0.083 feet	
Radius of Probe (req)		
Radius of Boring (rsk) Skin Effect	0.083 feet	
Probe Serial Number	Mini Trail Transducer calibrated 4/29/08 exp. 4/29/09 SN: 103345	
Slug Data <u>Slug #2</u>		
Length	65.438 inches	
Weight	8.811 lbs.	
Diameter	1.662 inches	
Slug Test File	Background	Falling
File Name	OW-621L BG	OW-621L F
Start Time	13:08:51	13:19:05
End Time	13:15:32	13:31:41
Notes	Rising OW-621L R 13:34:46 13:43:41 K/S-17-08 Pot Slug in well and re-test OW-621L R BG OW-621L BG 13:49:25 OW-621L R (re-test) 14:03:14 13:59:51 14:20:02	

Rev 0

Prepared by: CKB Date: 6-20-08

Checked by: WJ Date: 6-20-08



OW-621 L FALLING HEAD TEST 5-17-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

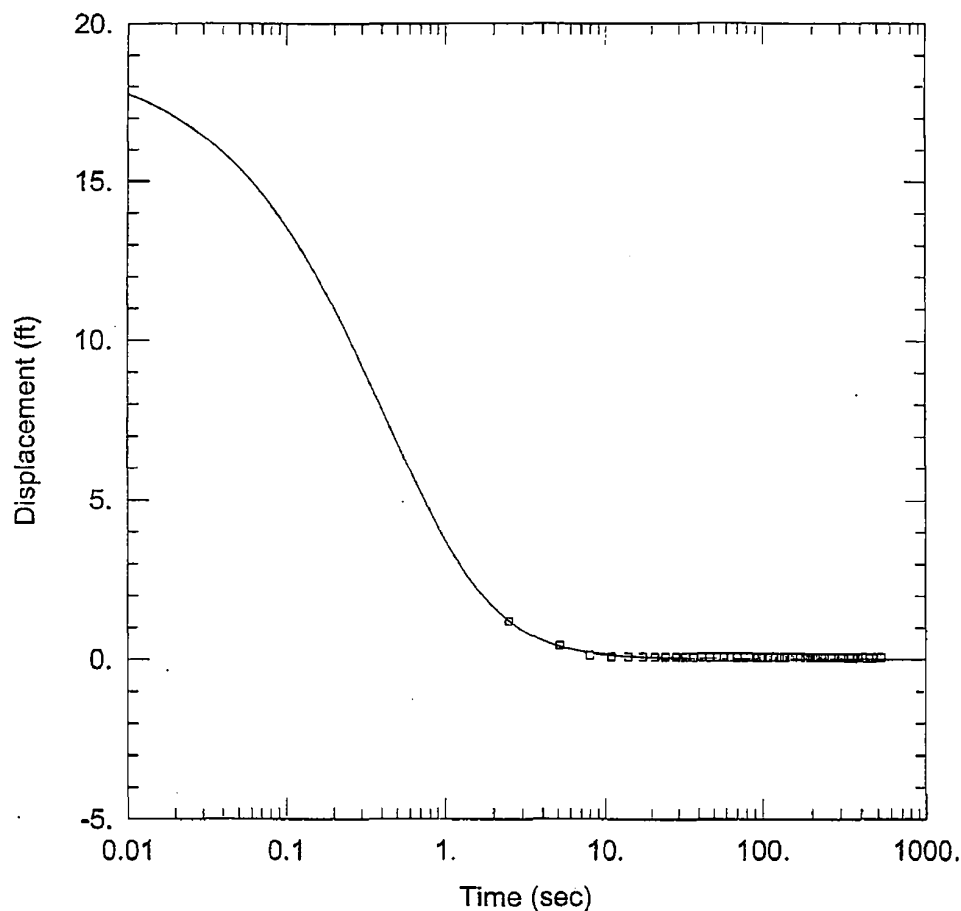
Saturated Thickness: 88.5 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-621 L)

Initial Displacement: 19.29 ft Static Water Column Height: 108.9 ft
 Total Well Penetration Depth: 110. ft Screen Length: 15. ft
 Casing Radius: 0.083 ft Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 91.59 ft/day Le = 0.1 ft



OW-621 L FALLING HEAD TEST 5-17-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

Saturated Thickness: 88.5 ft

WELL DATA (OW-621 L)

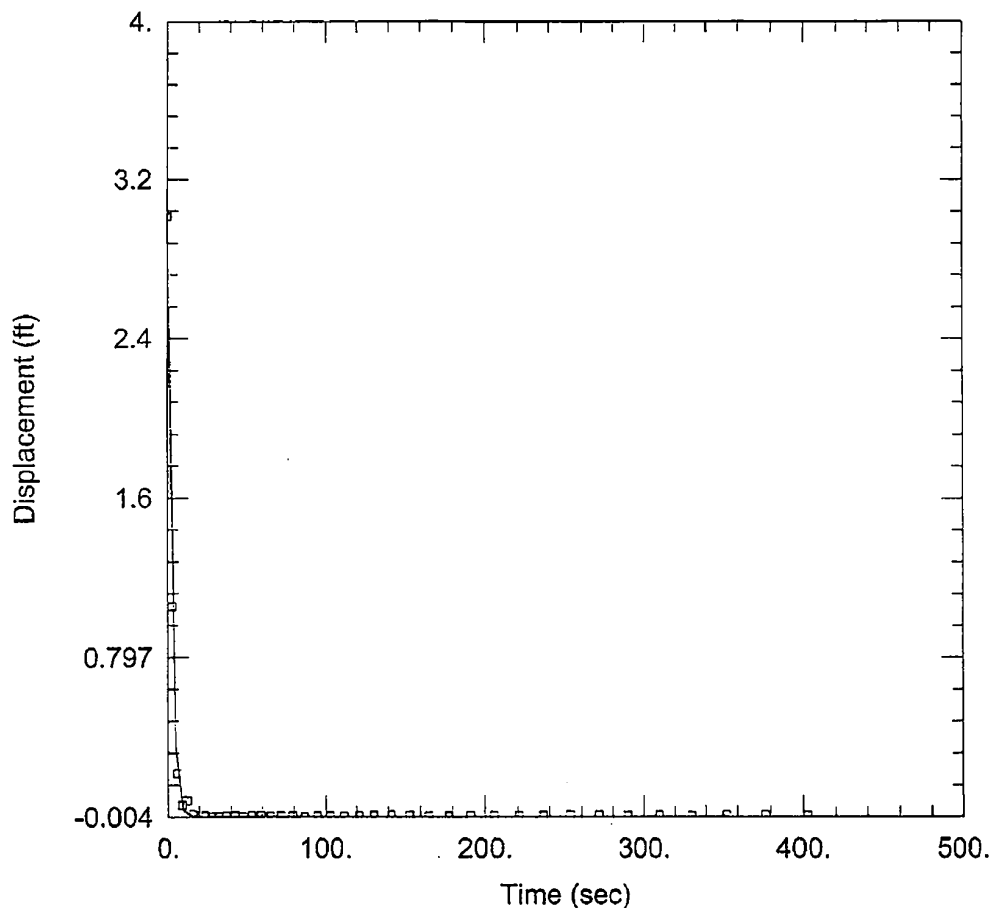
Initial Displacement: 19.29 ft Static Water Column Height: 108.9 ft
 Total Well Penetration Depth: 110. ft Screen Length: 15. ft
 Casing Radius: 0.083 ft Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined Solution Method: KGS Model
 $K_r = 71.28 \text{ ft/day}$ $S_s = 0.0001716 \text{ ft}^{-1}$
 $K_z/K_r = 1.$

Prepared by: CAB Date: 6-20-08

Checked by: WV Date: 6-20-08



OW-621 L RISING HEAD TEST 5-17-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

Saturated Thickness: 88.5 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-621 L)

Initial Displacement: 3.011 ft

Static Water Column Height: 108.9 ft

Total Well Penetration Depth: 110. ft

Screen Length: 15. ft

Casing Radius: 0.083 ft

Well Radius: 0.3 ft

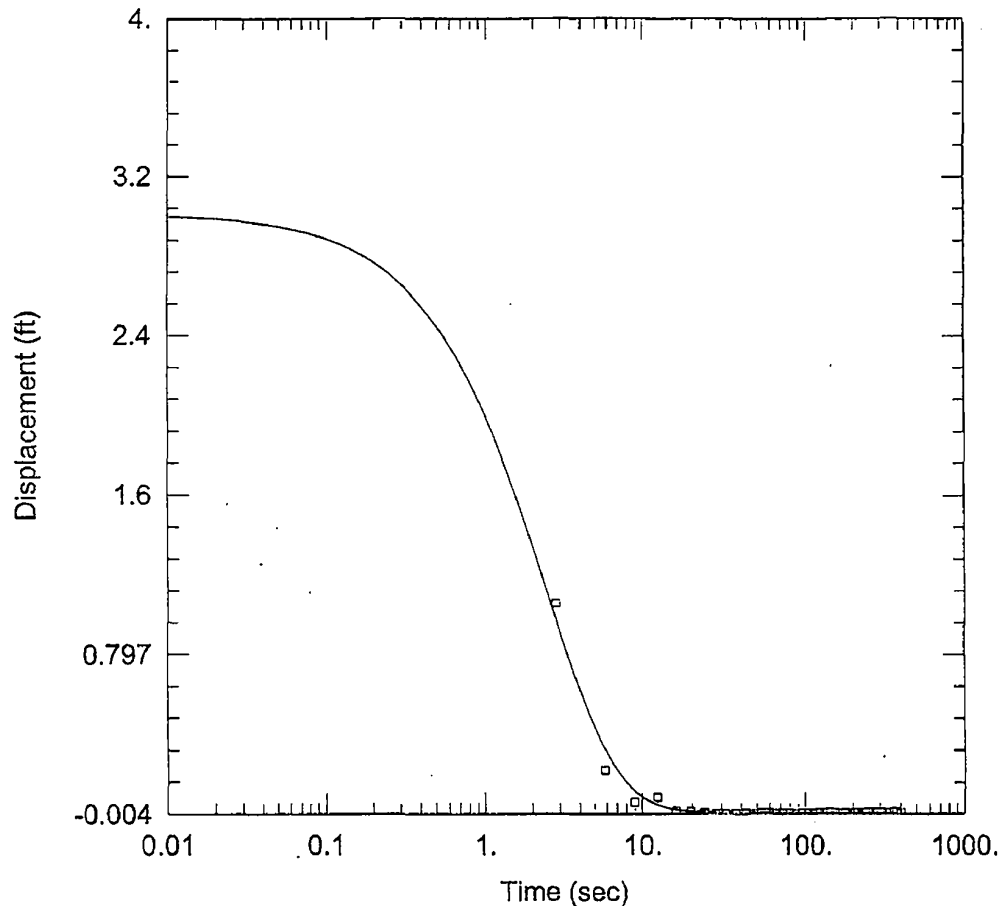
SOLUTION

Aquifer Model: Confined

Solution Method: Butler

K = 31.07 ft/day

Le = 41.67 ft



OW-621 L RISING HEAD TEST 5-17-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

Saturated Thickness: 88.5 ft

WELL DATA (OW-621 L)

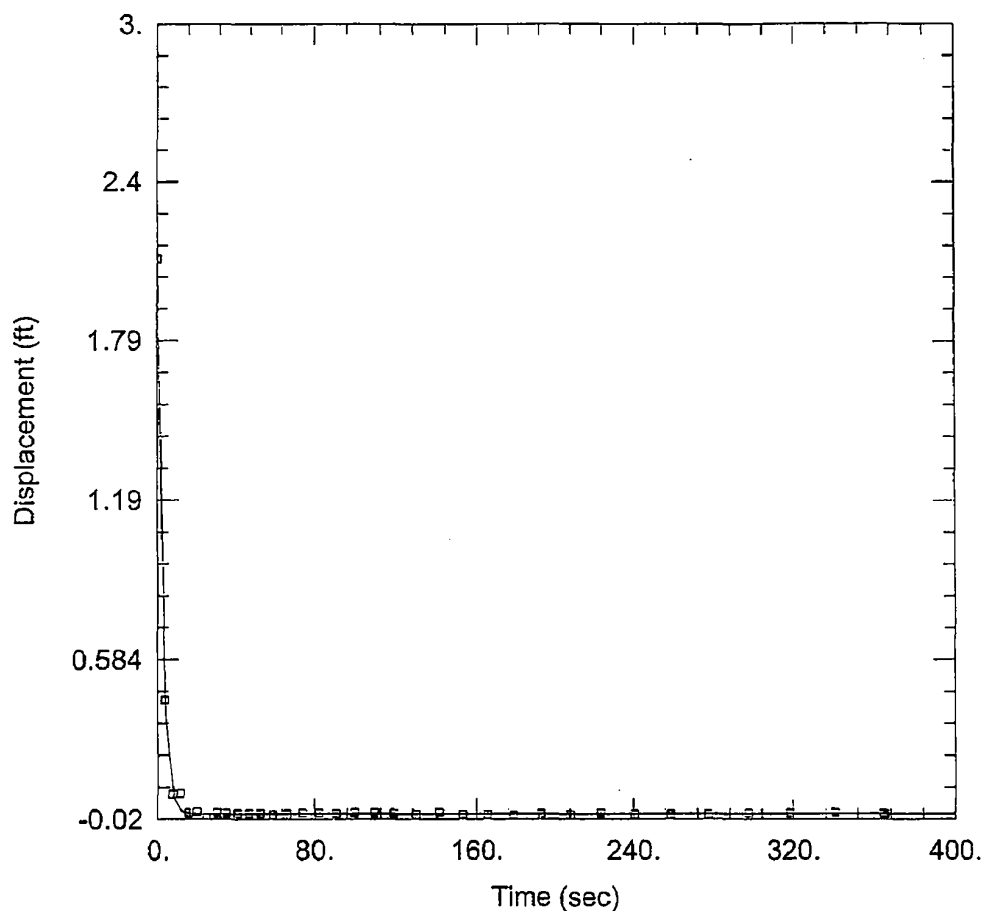
Initial Displacement: 3.011 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 108.9 ft
 Screen Length: 15. ft
 Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined
 $K_r = \underline{33.31 \text{ ft/day}}$
 $K_z/K_r = \underline{1.}$

Solution Method: KGS Model
 $S_s = \underline{1.13E-12 \text{ ft}^{-1}}$

OW-621 L RISING HEAD TEST # 2 5-17-08PROJECT INFORMATION

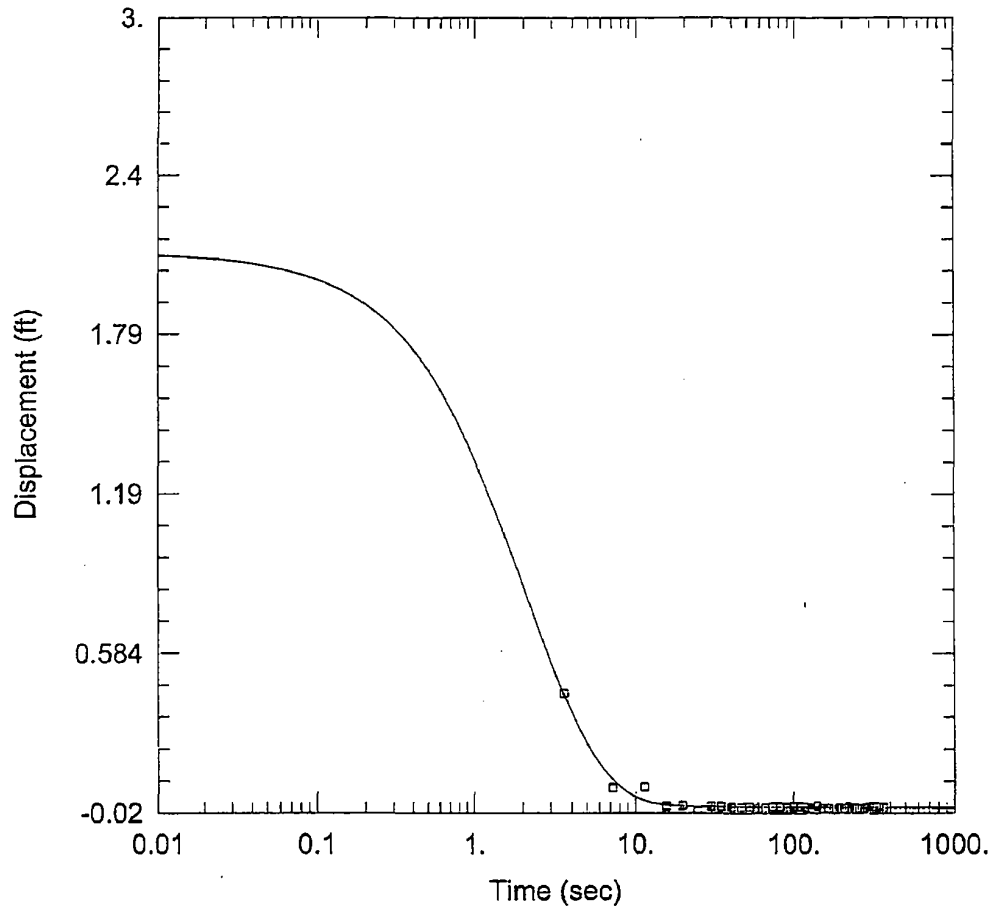
Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-621 L
Test Date: 5-17-08

AQUIFER DATASaturated Thickness: 88.5 ftAnisotropy Ratio (K_z/K_r): 1WELL DATA (OW-621 L)

Initial Displacement: 2.103 ft
Total Well Penetration Depth: 110 ft
Casing Radius: 0.083 ft

Static Water Column Height: 108.9 ft
Screen Length: 15 ft
Well Radius: 0.3 ft

SOLUTIONAquifer Model: ConfinedSolution Method: Butler $K = 35.72$ ft/day $L_e = 0.1$ ft



OW-621 L RISING HEAD TEST # 2 5-17-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

Saturated Thickness: 88.5 ft

WELL DATA (OW-621 L)

Initial Displacement: 2.103 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 108.9 ft
 Screen Length: 15. ft
 Well Radius: 0.3 ft

SOLUTION

Aquifer Model: Confined

Solution Method: KGS Model

Kr = 30.4 ft/day

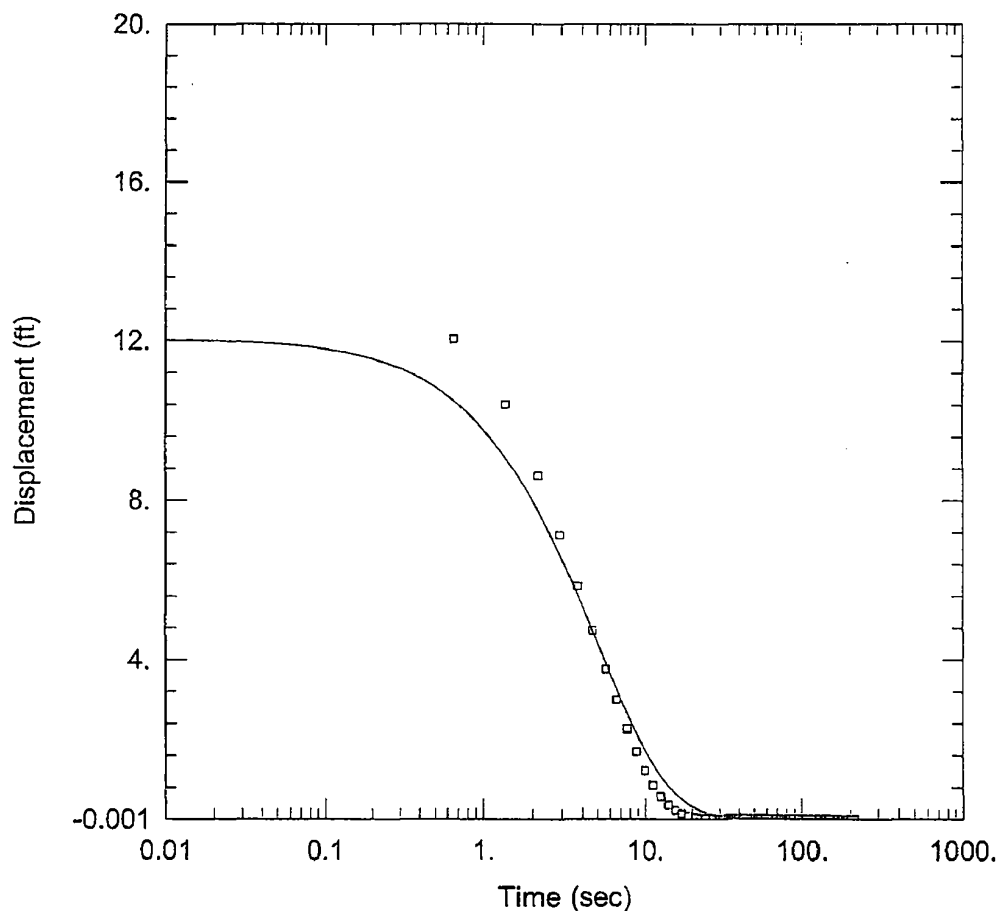
Ss = 5.781E-8 ft⁻¹

Kz/Kr = 1.



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-621L</u>	MACTEC Rep: <u>Kim Chads-Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final Stickup = <u>3.27'</u>		
Static Water Level	<u>4.71'</u> feet From TOC		
Total Well Depth	<u>111.55'</u> feet From TOC		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	<u>10'</u> feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini troll Transducer probe calibrated 4/29/08, Exp 4/29/09. SN: <u>118478</u> Level Troll @ <u>700</u> winsitu		
Slug Data	used pneumatic slug to perform test.		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	<u>OW-621L BG</u>	<u>NA</u>	<u>OW-621L R</u>
Start Time	<u>15:14:40</u>		<u>15:22:48</u>
End Time	<u>15:17:33</u>		<u>15:26:44</u>
Notes			
Rev D			



OW-621 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-621 L
 Test Date: 5-17-08

AQUIFER DATA

Saturated Thickness: 88.5 ft

WELL DATA (OW-621 L)

Initial Displacement: 12.05 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 108.3 ft
 Screen Length: 15. ft
 Well Radius: 0.3 ft

SOLUTION

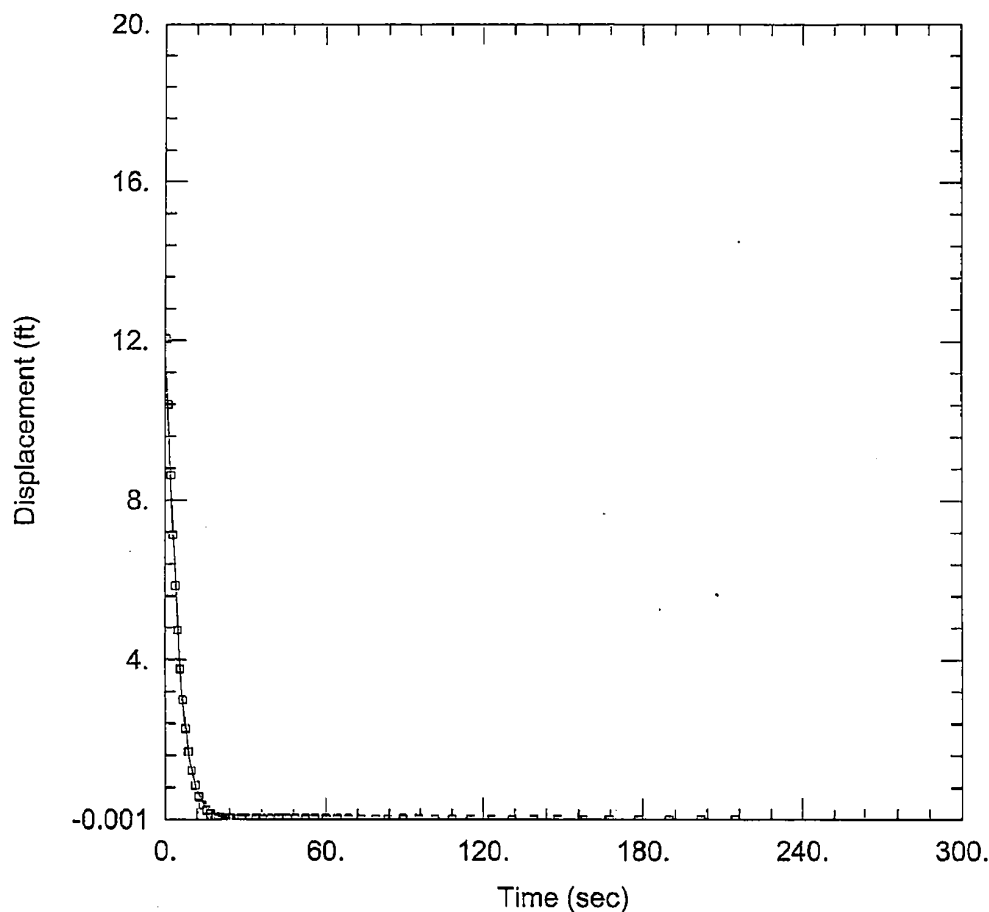
Aquifer Model: Confined

Solution Method: KGS Model

Kr = 16.66 ft/day

Ss = 1.13E-12 ft⁻¹

Kz/Kr = 1.

OW-621 L RISING HEAD TEST 5-20-08PROJECT INFORMATION

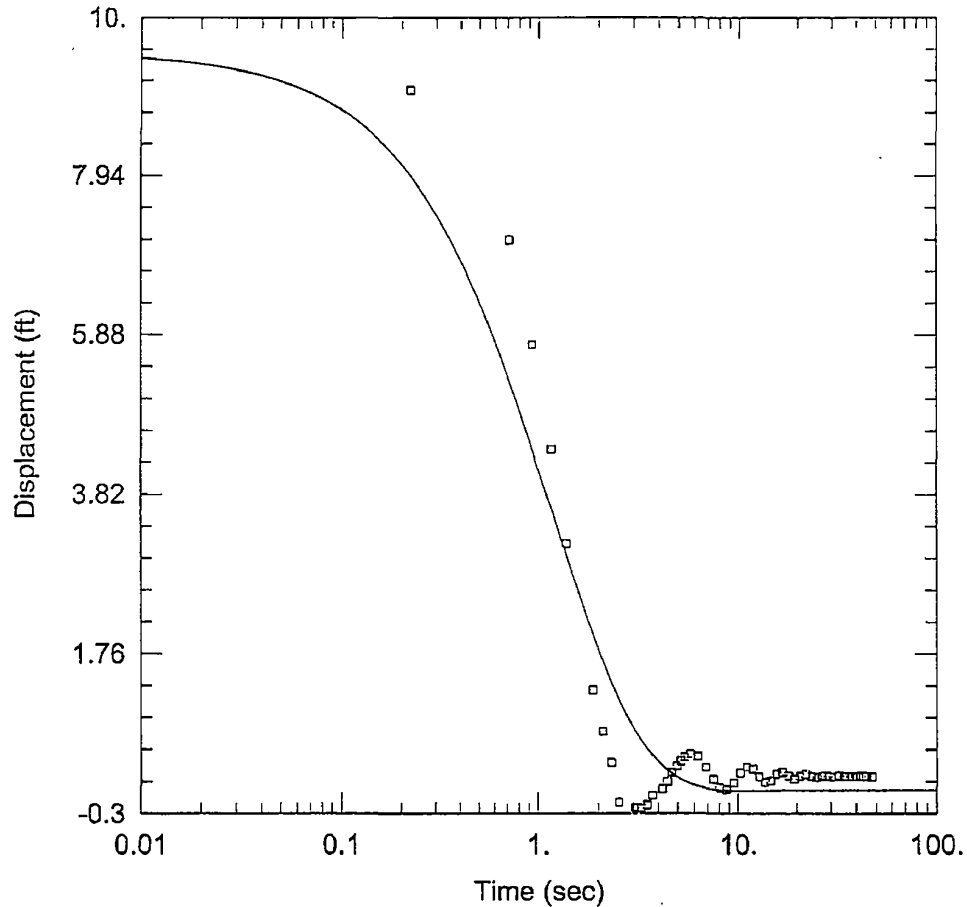
Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-621 L
Test Date: 5-17-08

AQUIFER DATASaturated Thickness: 88.5 ftAnisotropy Ratio (Kz/Kr): 1.WELL DATA (OW-621 L)Initial Displacement: 12.05 ftStatic Water Column Height: 108.3 ftTotal Well Penetration Depth: 110. ftScreen Length: 15. ftCasing Radius: 0.083 ftWell Radius: 0.3 ftSOLUTIONAquifer Model: ConfinedSolution Method: ButlerK = 16.65 ft/dayLe = 117.9 ft



SLUG TEST REPORT

Project Name: <u>TPCOL</u>		Project Number: <u>8468-07-1857</u> Page <u>1</u> of <u>1</u>	
Client: <u>Bechtel</u>		Contractor: <u>MACTEC</u>	
Location: <u>OW-636U</u>		MACTEC Rep: <u>CHB</u>	Date: <u>5/21/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data			
Static Water Level	<u>4.35</u> feet		
Total Well Depth	<u>31.35</u> feet		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	<u>NA</u>	<u>NA</u>	
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kw/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	<u>10'</u> feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)	<u>0.75</u> inch		
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	<u>SN: 118478</u> <u>Winstar</u> <u>Level 101 @ 700 calibrated 4/29/08, Exp 4/29/09</u>		
Slug Data			
Length	<u>pneumatic slug</u>		
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	<u>OW-636UB6</u>	<u>NA</u>	<u>OW-636UR</u>
Start Time			<u>OW-636UR Test 2</u>
End Time			
Notes	<u>OW-636UR</u> <u>OW-636UR Test</u> <u>12:05:37</u> <u>12:10:35</u> <u>12:06:27</u> <u>12:11:13</u>		
Rev 0			



OW-636 U RISING HEAD TEST 5-21-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 U
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 28.85 ft

WELL DATA (OW-636 U)

Initial Displacement: 9.553 ft
 Total Well Penetration Depth: 29.8 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.85 ft
 Screen Length: 17. ft
 Well Radius: 0.25 ft

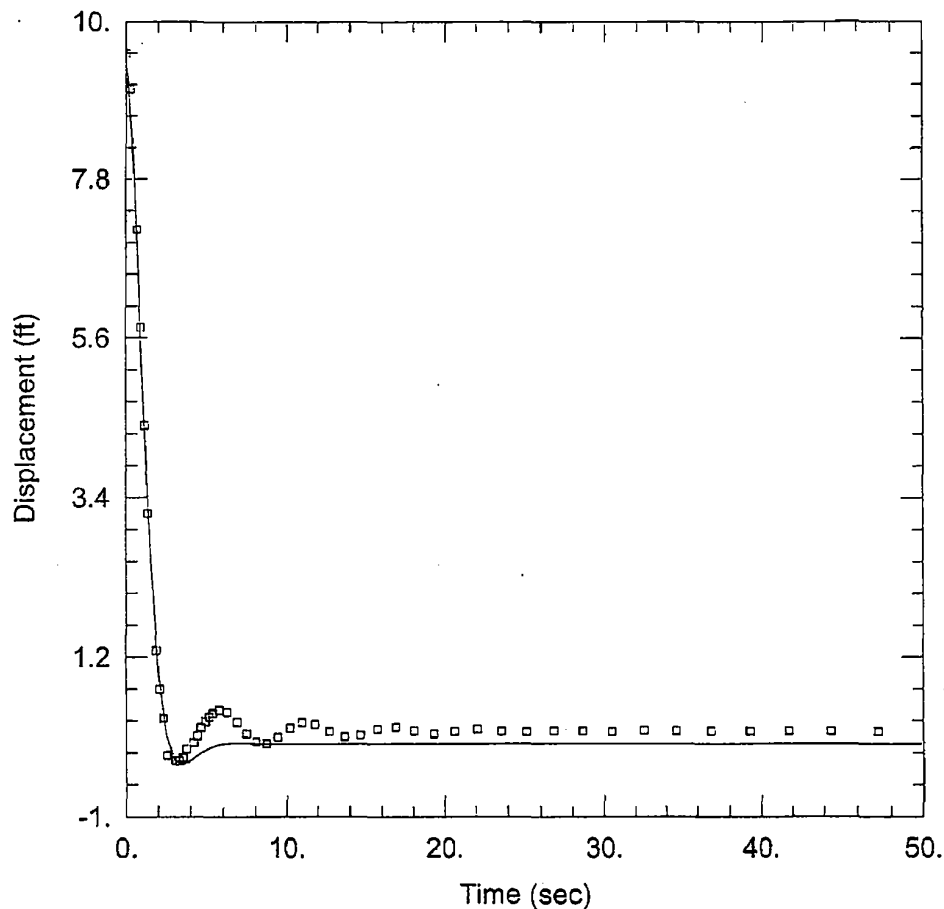
SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 57.27 ft/day
 Kz/Kr = 1.

Ss = 3.846E-12 ft⁻¹



OW-636 U RISING HEAD TEST 5-21-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 U
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 28.85 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-636 U)

Initial Displacement: 9.553 ft

Static Water Column Height: 28.85 ft

Total Well Penetration Depth: 29.8 ft

Screen Length: 17. ft

Casing Radius: 0.083 ft

Well Radius: 0.25 ft

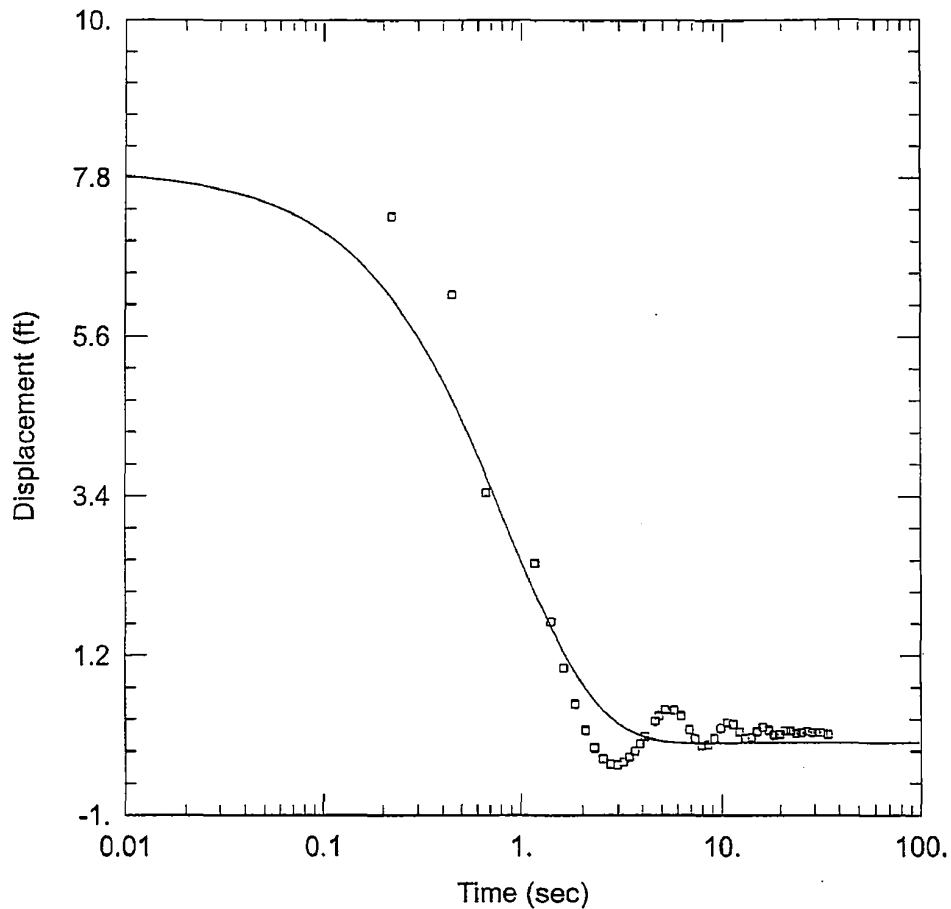
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

$K = 50.64$ ft/day

$Le = 17.14$ ft



OW-636 U RISING HEAD TEST # 2 5-21-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 U
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 28.85 ft

WELL DATA (OW-636 U)

Initial Displacement: 7.909 ft
 Total Well Penetration Depth: 29.8 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.85 ft
 Screen Length: 17 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

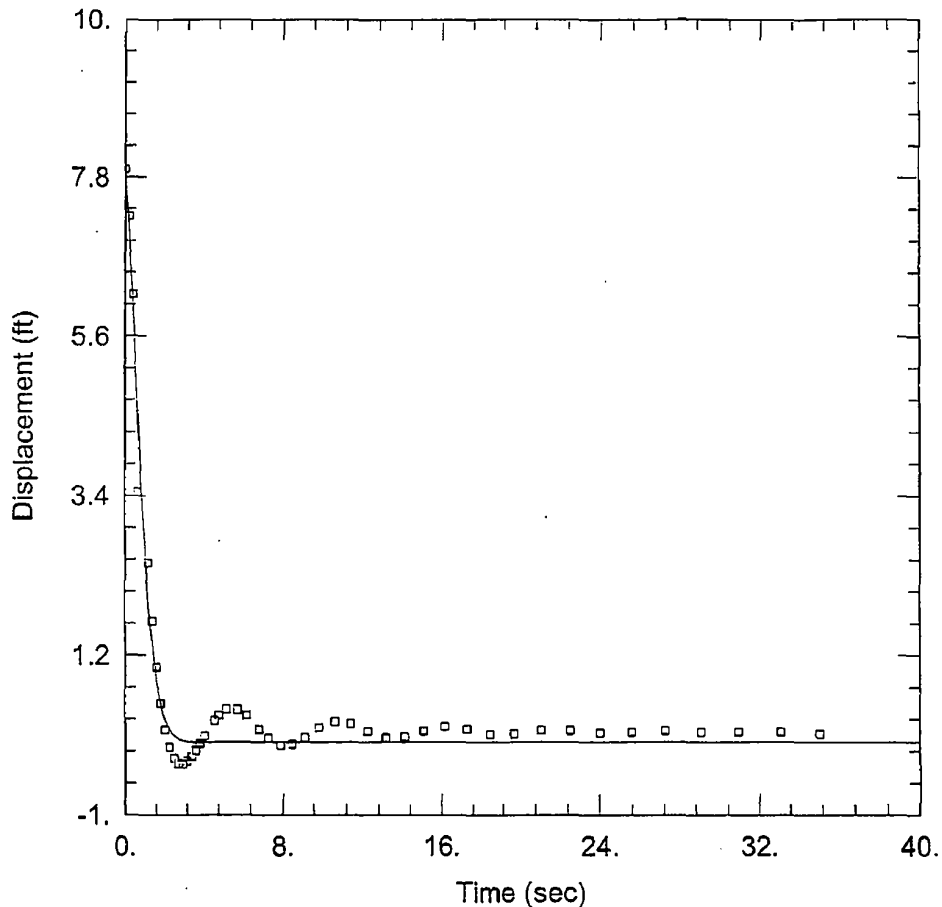
Kr = 79.27 ft/day

Ss = 3.846E-12 ft⁻¹

Kz/Kr = 1

Prepared by: CLB Date: 6-22-08

Checked by: LSL Date: 6-22-08



OW-636 U RISING HEAD TEST # 2 5-21-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 U
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 28.85 ft

Anisotropy Ratio (K_z/K_r): 1

WELL DATA (OW-636 U)

Initial Displacement: 7.909 ft
 Total Well Penetration Depth: 29.8 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.85 ft
 Screen Length: 17 ft
 Well Radius: 0.25 ft

SOLUTION

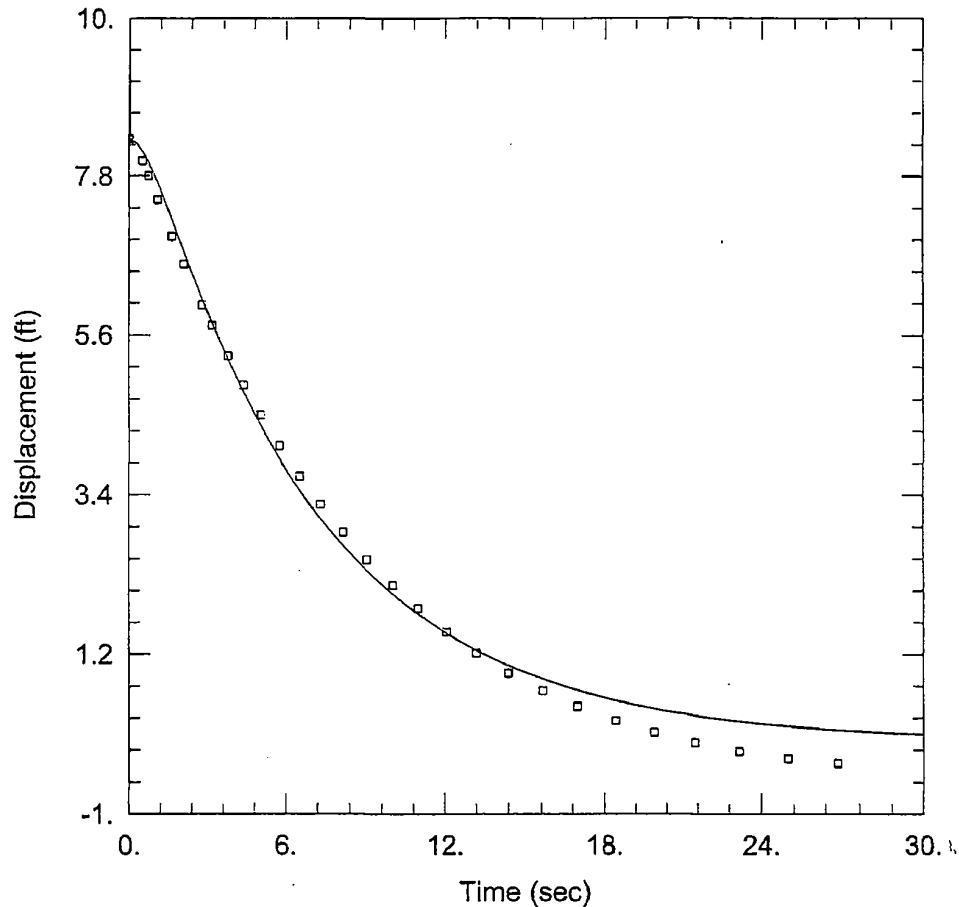
Aquifer Model: Unconfined
 $K = 64.33$ ft/day

Solution Method: Springer-Gelhar
 $Le = 6.95$ ft



SLUG TEST REPORT

Project Name: <u>TR COL</u>		Project Number: <u>6468-07-1800</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bachlor</u>		Contractor: MACTEC		
Location: <u>OW-636L</u>		MACTEC Rep: <u>CHB</u>		Date: <u>5/21/08</u>
UNITS				
Length	Feet			
Time	Minutes			
Well Data				
Static Water Level	<u>2.74</u> feet			
Total Well Depth	<u>111.75</u> feet			
Static Water Column Height (H)	feet			
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head	
	NA	NA		
Saturated Thickness (b)	feet			
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1			
Depth to Top of Well Screen (d)				
Length of Well Screen (L)	feet			
Radius of Well Casing (rc)	<u>10'</u> 0.083 feet			
Radius of Screen (rw)	0.083 feet			
Radius of Probe (req)				
Radius of Boring (rsk) Skin Effect	0.083 feet			
Probe Serial Number	<u>min. ^{1st} trial @ 700 calibrated 4/29/08, exp 4/29/09</u> <u>Sn: 118478 winsite</u>			
Slug Data	<u>pneumatic slug</u>			
Length				
weight				
Diameter				
Slug Test File	Background	Falling	Rising	
File Name	<u>OW-636L BG</u>	<u>NA</u>	<u>OW-636L R</u>	
Start Time	<u>12:23:14</u>		<u>OW-636L R Test 2</u>	
End Time	<u>12:29:22</u>			
Notes	<u>OW-636L R</u> <u>OW-636L R Test</u> <u>12:32:42</u> <u>12:38:53</u> <u>12:33:15</u> <u>12:42:14</u>			
Rev 0				



OW-636 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 L
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 88 ft Anisotropy Ratio (Kz/Kr): 1

WELL DATA (OW-621 L)

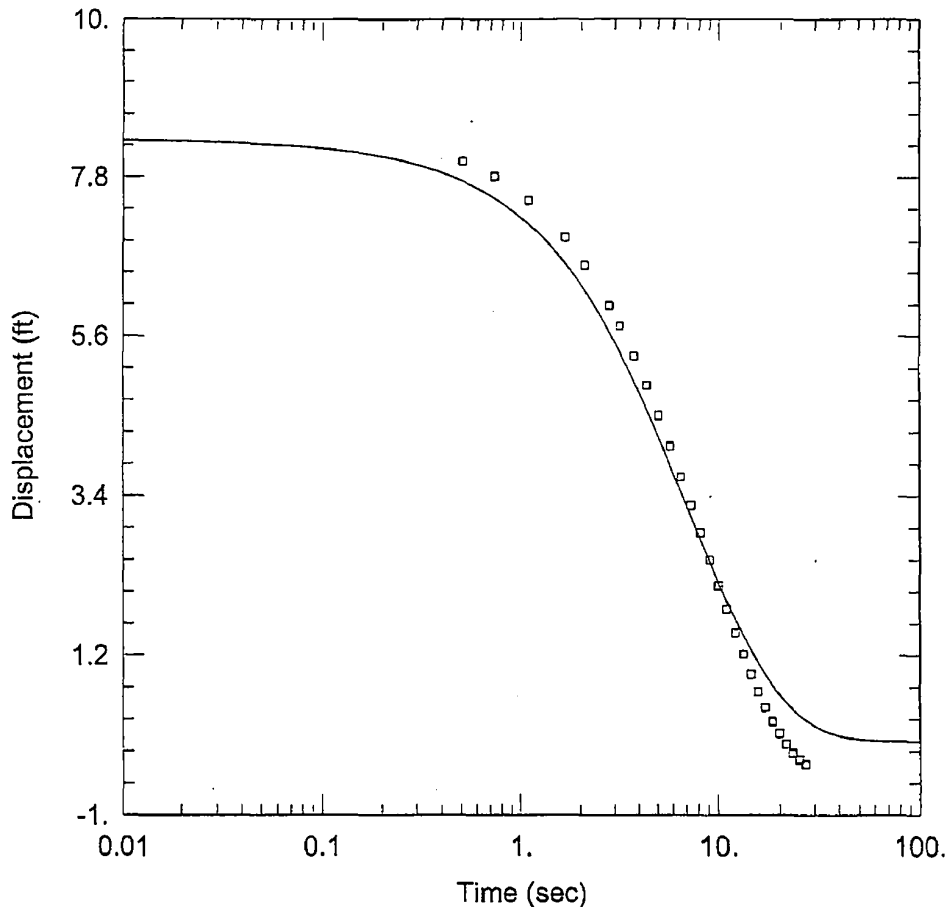
Initial Displacement: 8.321 ft Static Water Column Height: 111.7 ft
 Total Well Penetration Depth: 111 ft Screen Length: 17.5 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 10.08 ft/day Le = 158.1 ft

Prepared by: CAB Date: 6-20-08

Checked by: WV Date: 6-20-08



OW-636 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-636 L
Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 88 ft

WELL DATA (OW-636 L)

Initial Displacement: 8.321 ft
Total Well Penetration Depth: 111 ft
Casing Radius: 0.083 ft

Static Water Column Height: 111.7 ft
Screen Length: 17.5 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

Solution Method: KGS Model

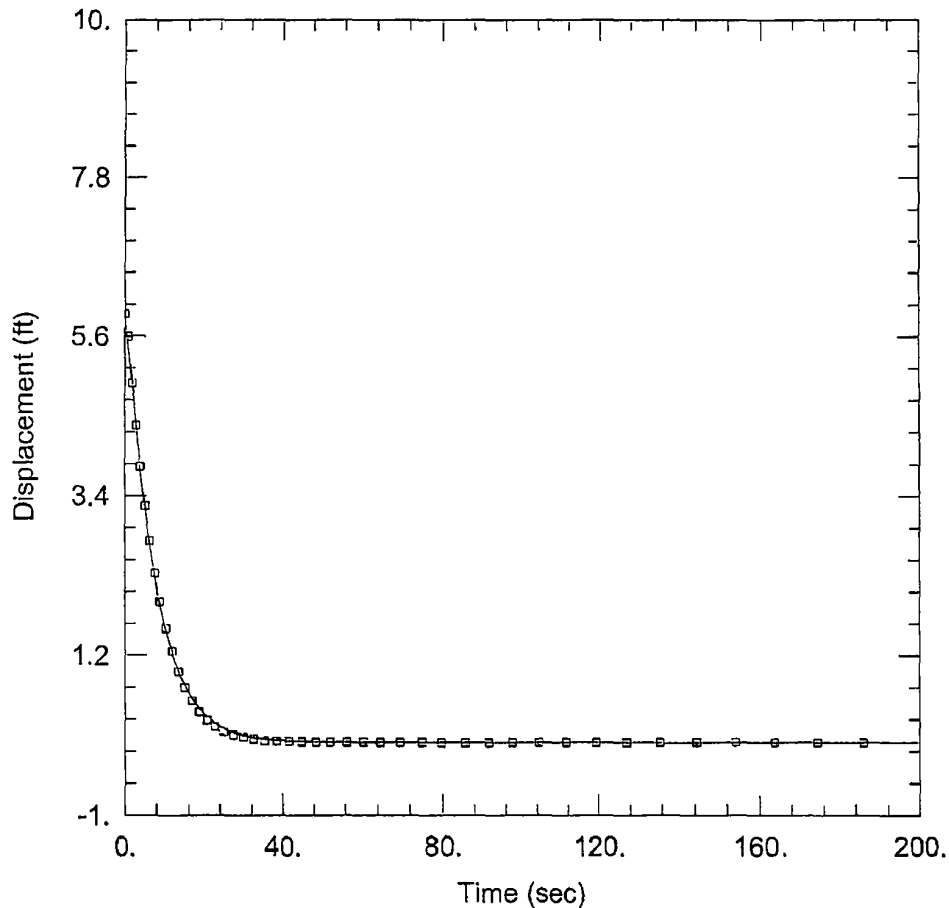
Kr = 10.58 ft/day

Ss = 1.13E-12 ft⁻¹

Kz/Kr = 1

Prepared by: LHB Date: 6-20-08

Checked by: WLR Date: 6-20-08



OW-636 L RISING HEAD TEST # 2 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-636 L
 Test Date: 5-21-08

AQUIFER DATA

Saturated Thickness: 88. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-621 L)

Initial Displacement: 5.913 ft
 Total Well Penetration Depth: 111. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 111.7 ft
 Screen Length: 17.5 ft
 Well Radius: 0.25 ft

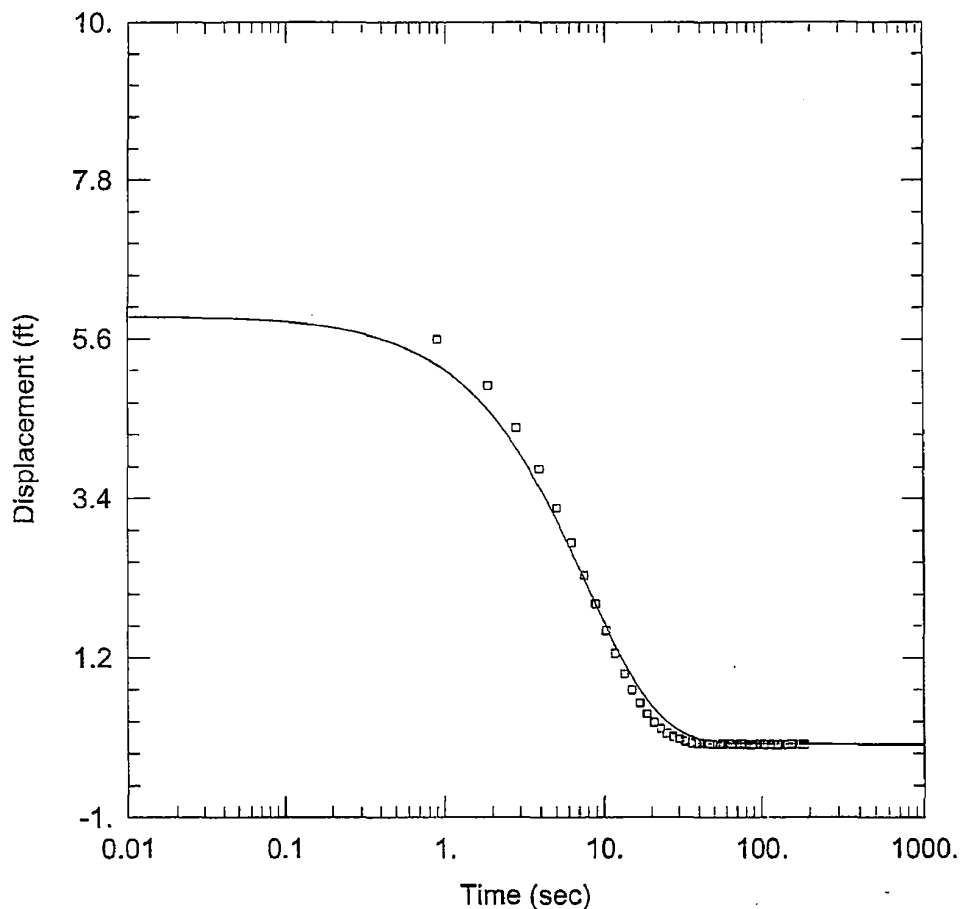
SOLUTION

Aquifer Model: Confined

Solution Method: Butler

$K = 9.425$ ft/day

$L_e = 166.7$ ft

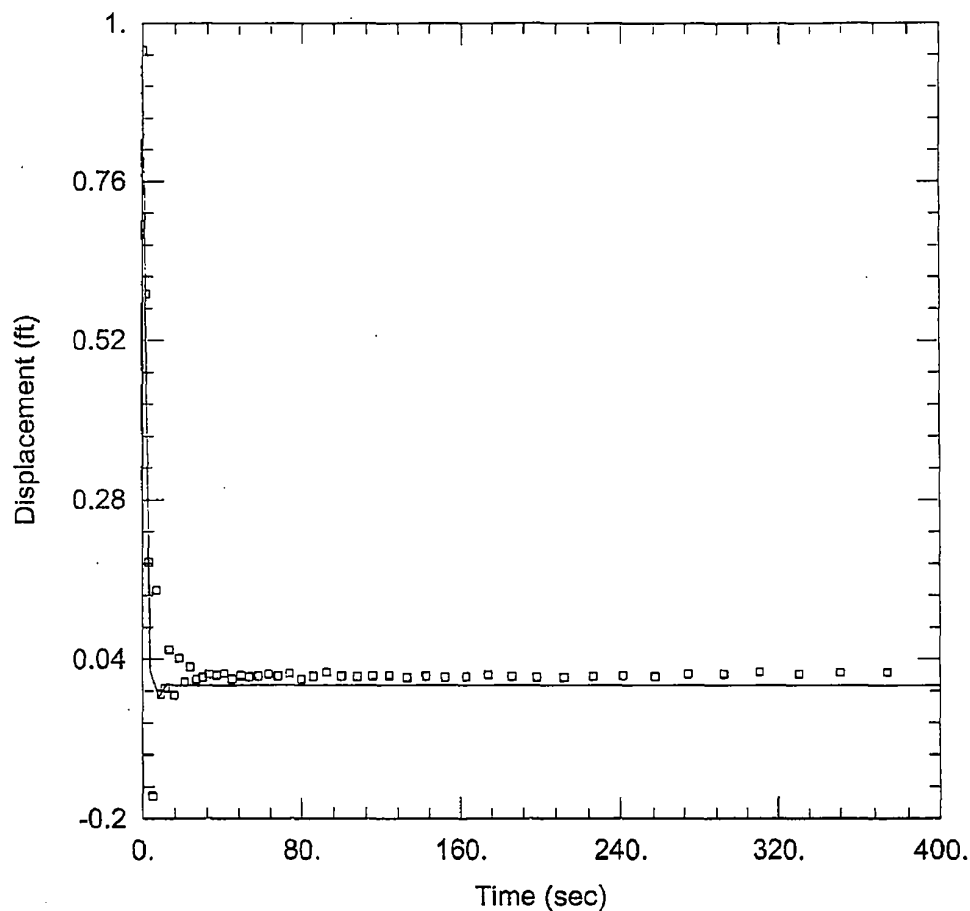
OW-636 L RISING HEAD TEST # 2 5-20-08PROJECT INFORMATIONCompany: Turkey PointClient: BECHTELProject: 6468-07-1950Location: Turkey PointTest Well: OW-636 LTest Date: 5-21-08AQUIFER DATASaturated Thickness: 88 ftWELL DATA (OW-636 L)Initial Displacement: 5.913 ftTotal Well Penetration Depth: 111 ftCasing Radius: 0.083 ftStatic Water Column Height: 111.7 ftScreen Length: 17.5 ftWell Radius: 0.25 ftSOLUTIONAquifer Model: ConfinedSolution Method: KGS Model $K_r = 10.01$ ft/day $S_s = 1.13E-12$ ft⁻¹ $K_z/K_r = 1$



Checked by: CHB Date: 6-20-08

SLUG TEST REPORT

Project Name: <u>TPC01</u>		Project Number:		Page <u>1</u> of <u>1</u>
Client: <u>Bectel</u>		Contractor: <u>MACTEC</u>		
Location: <u>OW-706U</u>		MACTEC Rep: <u>Kim Chab Smith</u>		Date: <u>05/16/08</u>
UNITS				
Length	Feet			
Time	Minutes			
Well Data		<u>Sticker 3.61' from 25. Final</u>		
Static Water Level	<u>3.74'</u> feet <u>From TOC</u>			
Total Well Depth	<u>31.72'</u> feet <u>From TOC</u>			
Static Water Column Height (H)	<u>27.97'</u> feet			
Observed Initial Displacement (H ₀)	Background	Falling Head		Rising Head
	NA			
Saturated Thickness (b)	feet			
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1			
Depth to Top of Well Screen (d)				
Length of Well Screen (L)	<u>10'</u> feet			
Radius of Well Casing (rc)	0.083 feet			
Radius of Screen (rw)	0.083 feet			
Radius of Probe (req)				
Radius of Boring (rsk) Skin Effect	0.083 feet			
Probe Serial Number	<u>mini trail Transducer probe calibrated 4/29/08</u> <u>EXP. 4/29/09.</u>			
SN: <u>103345</u>				
Slug Data <u>SLUG #2</u>				
Length	<u>65.438 inches</u>			
weight	<u>8.811 lbs.</u>			
Diameter	<u>1.662 inches</u>			
Slug Test File	Background	<u>05/16/08</u> Falling	Rising	
File Name	<u>OW-706UBG</u>	<u>OW-706UF</u>	<u>OW-706UR</u>	
Start Time	<u>15:21:06</u>	<u>15:41:27</u>	<u>15:45:39</u>	
End Time	<u>15:27:24</u>	<u>15:42:57</u>	<u>15:59:11</u>	
Notes <u>Run 1st test</u> <u>Water came out</u> <u>of TOC, run</u> <u>second flats set</u> <u>with extension</u> <u>on TOC.</u>	<u>Extended casing to 5.58' above g.s. to</u> <u>run OW-706UBG 15:15:16-08 to 16:33:34</u> <u>Data Set</u>			
	<u>OW-706UBG</u>	<u>OW-706UF</u>	<u>OW-706UR</u>	
	<u>16:33:34</u>	<u>16:41:27</u>	<u>16:57:23</u>	
	<u>16:39:31</u>	<u>16:53:55</u>	<u>17:02:05</u>	
Rev 0:				



OW-706 U RISING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

Anisotropy Ratio (K_z/K_r): 1

WELL DATA (OW-706 U)

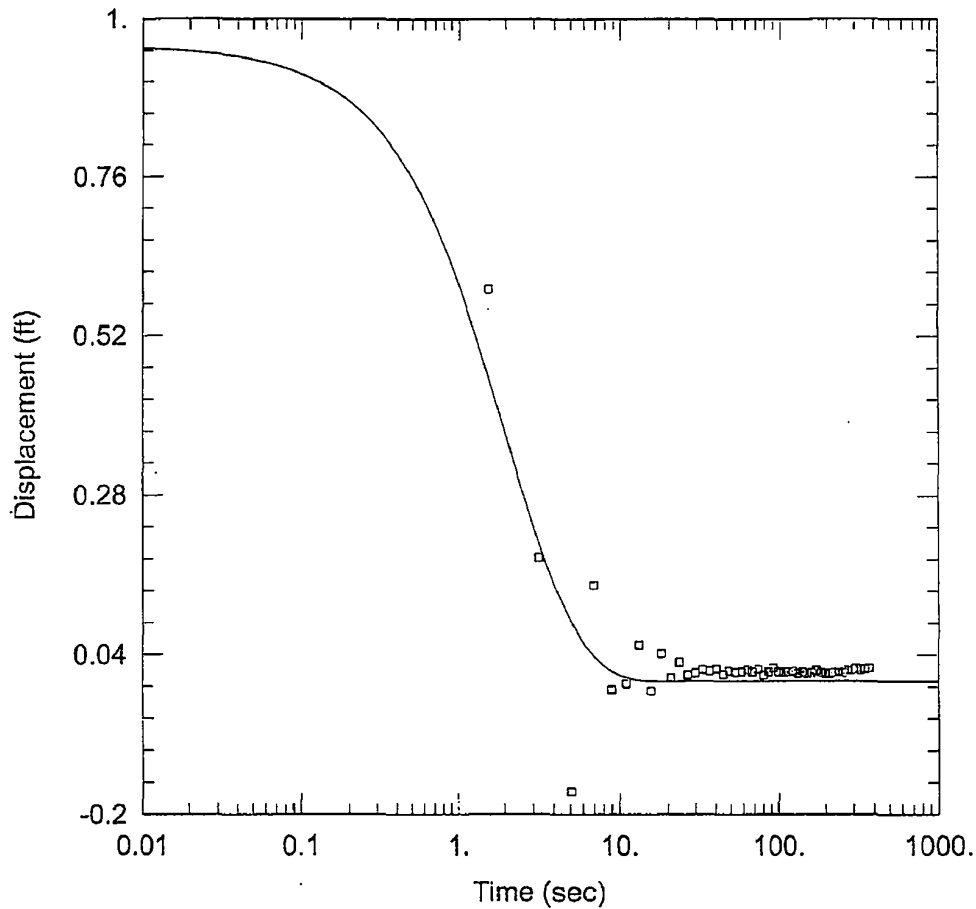
Initial Displacement: 0.96 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K = 30.27$ ft/day

Solution Method: Springer-Gelhar
 $Le = 56.23$ ft



OW-706 U RISING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

WELL DATA (OW-706 U)

Initial Displacement: 0.96 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

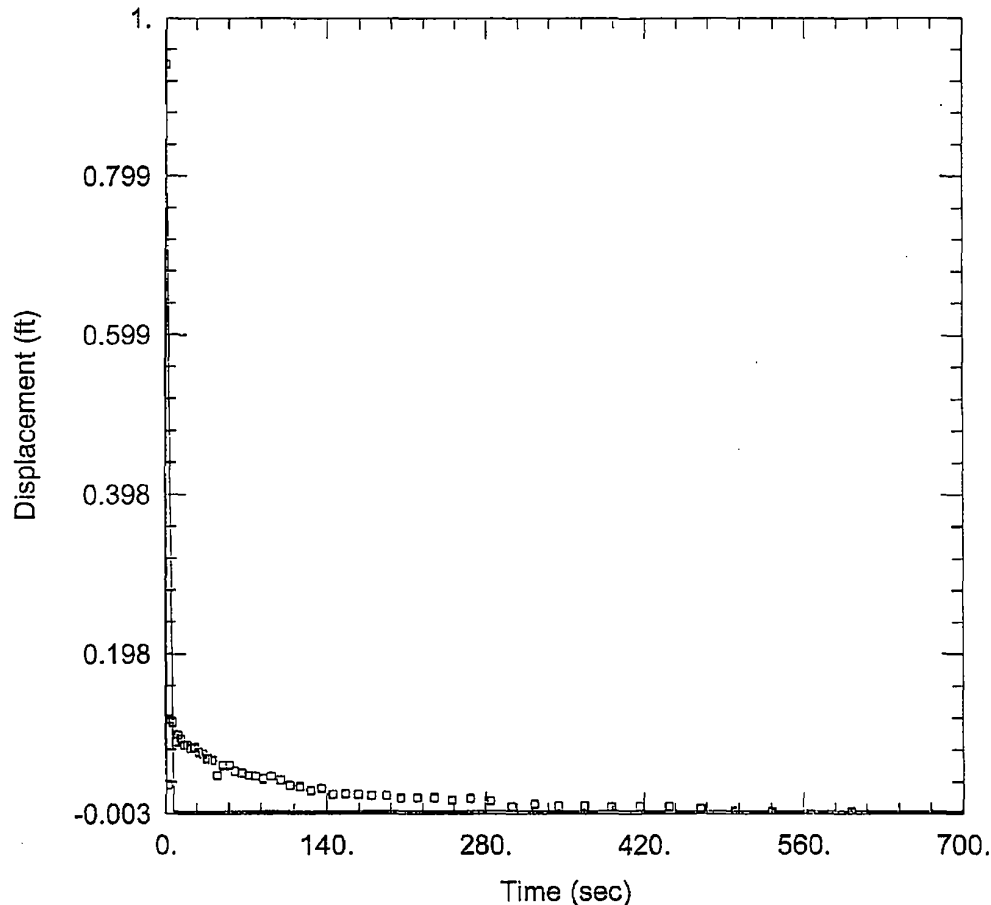
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 31.19 ft/day

Ss = 3.205E-12 ft⁻¹

Kz/Kr = 1.



OW-706 U FALLING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-706 U)

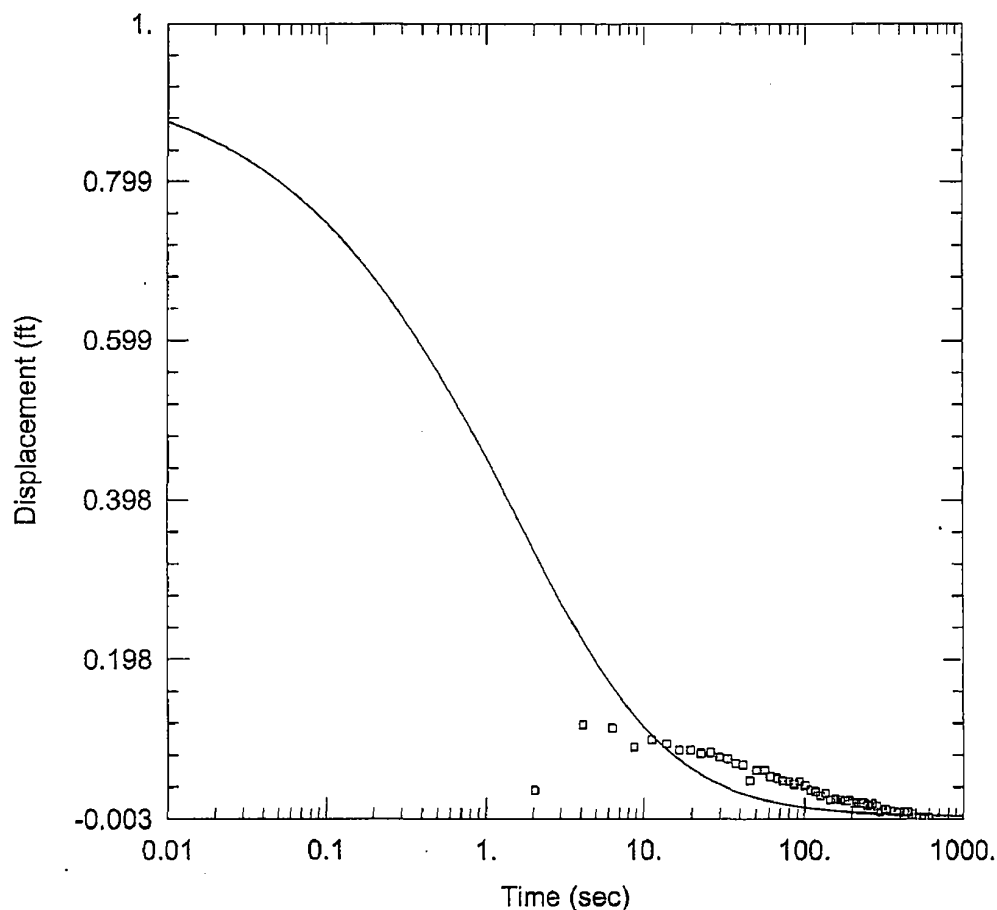
Initial Displacement: 0.941 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K =$ 83.78 ft/day

Solution Method: Springer-Gelhar
 $Le =$ 0.1 ft



OW-706 U FALLING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

WELL DATA (OW-706 U)

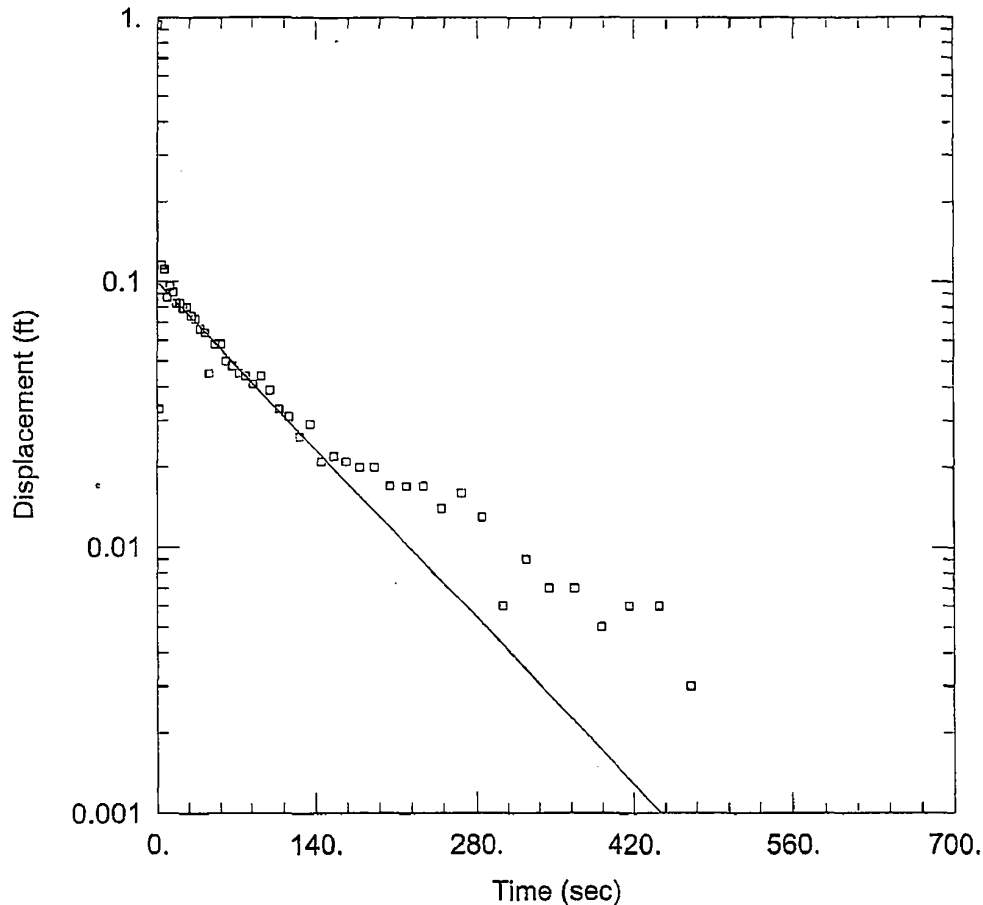
Initial Displacement: 0.941 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K_r = 6.423 \text{ ft/day}$
 $K_z/K_r = 1$

Solution Method: KGS Model
 $S_s = 0.003205 \text{ ft}^{-1}$

OW-706 U FALLING HEAD TEST 5-16-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-706 U
Test Date: 5-16-08

AQUIFER DATASaturated Thickness: 30.66 ftAnisotropy Ratio (K_z/K_r): 1.WELL DATA (OW-706 U)

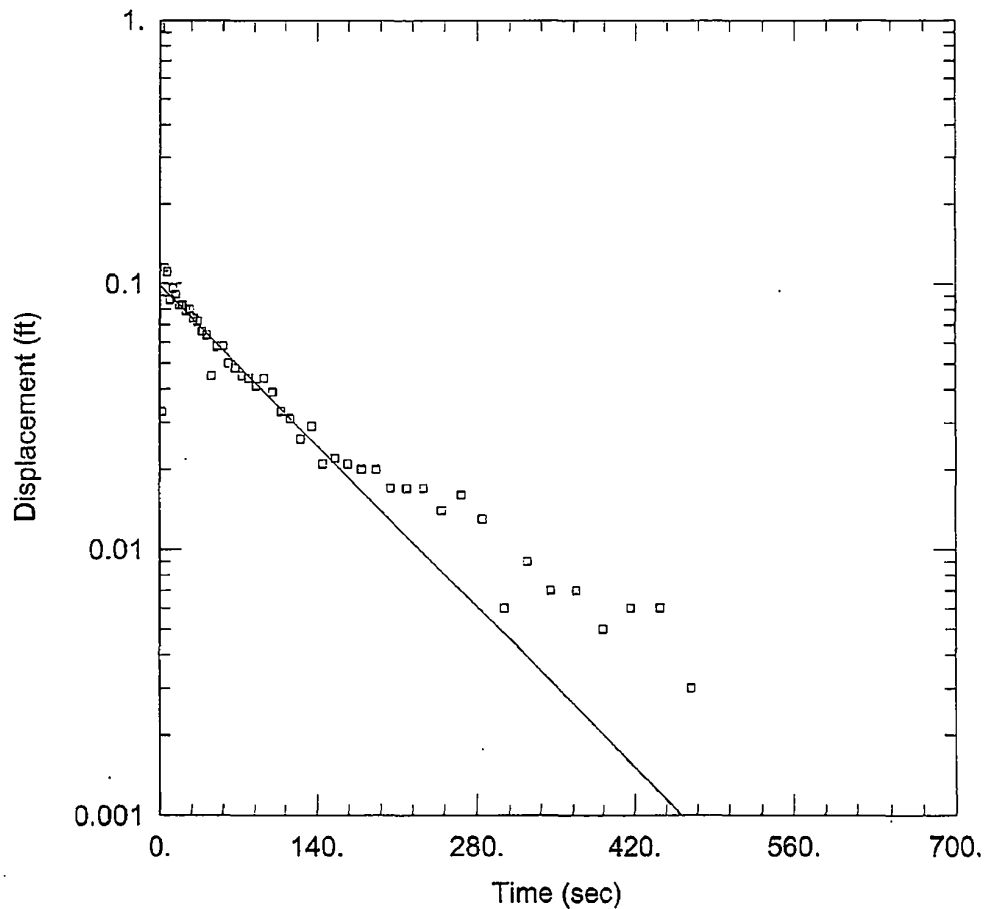
Initial Displacement: 0.941 ft
Total Well Penetration Depth: 28.9 ft
Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
Screen Length: 15.5 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K = 0.7146$ ft/day

Solution Method: Hvorslev
 $y_0 = 0.09968$ ft



OW-706 U FALLING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-706 U)

Initial Displacement: 0.941 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K = 0.5455$ ft/day

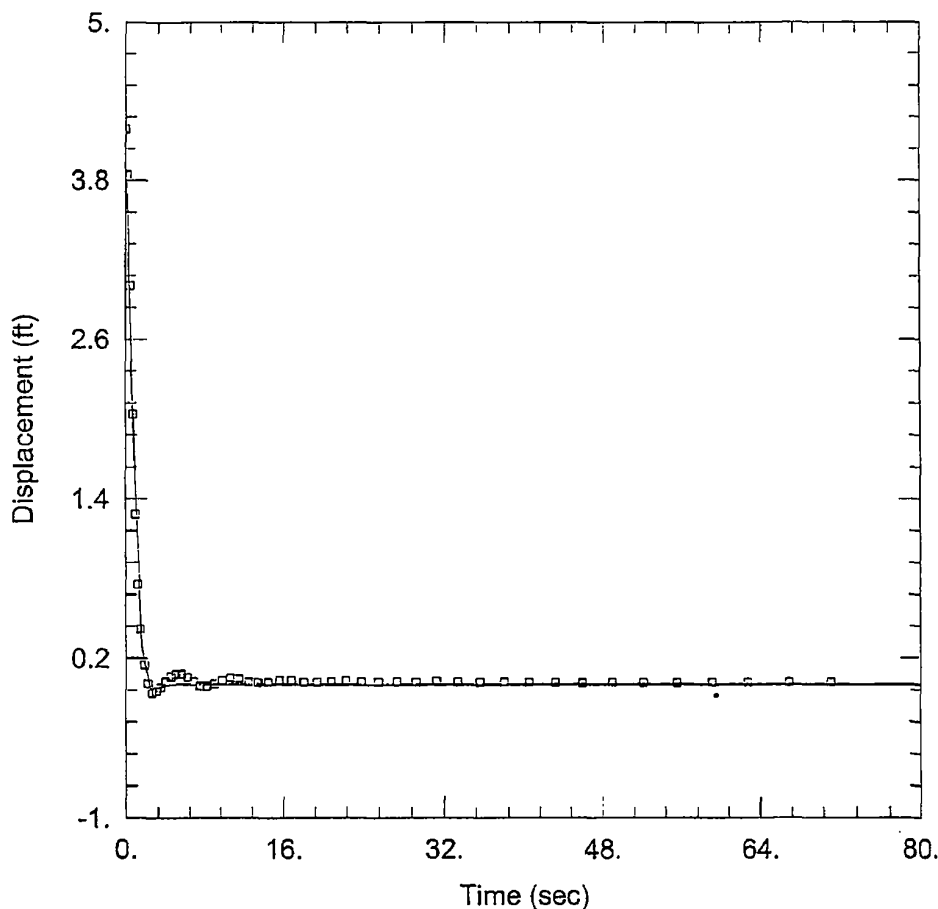
Solution Method: Bouwer-Rice
 $y_0 = 0.09865$ ft



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-P50</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-706U</u>	MACTEC Rep: <u>Kimi Charles-Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final Pickup = 3.61' From g.s.		
Static Water Level	3.74' feet From TOC		
Total Well Depth	31.72' feet From TOC		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini Troll Transverse probe calibrated 4/29/08, Exp. 4/29/09 Sn: 118478 level troll @ 700 win situ		
Slug Data	used pneumatic slug to perform test		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	<u>OW-706UBG</u>	<u>NA</u>	<u>OW-706UR</u>
Start Time	<u>09:55:26</u>		<u>10:00:13</u>
End Time	<u>09:56:33</u>		<u>10:01:29</u>
Notes	<u>OW-706UR</u> <u>10:03:40</u> <u>10:04:36</u>		

Rev 0

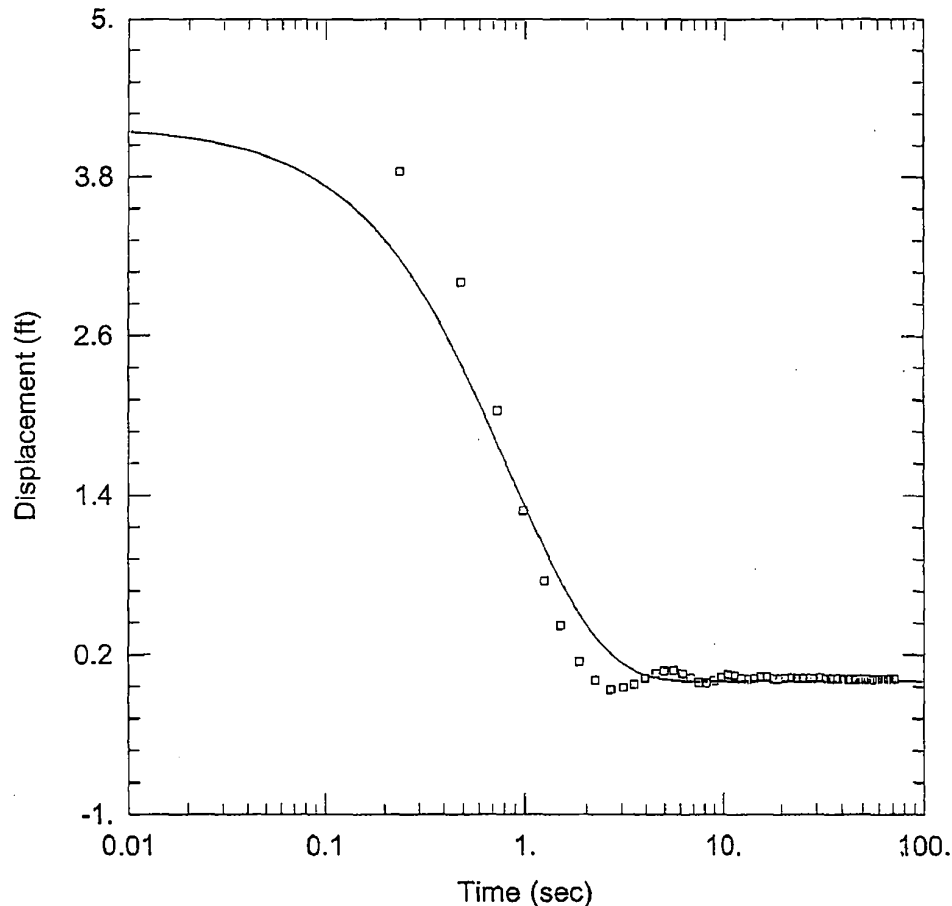
OW-706 U RISING HEAD TEST 5-20-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-706 U
Test Date: 5-16-08

AQUIFER DATASaturated Thickness: 30.66 ftAnisotropy Ratio (K_z/K_r): 1WELL DATA (OW-706 U)Initial Displacement: 4.189 ftStatic Water Column Height: 28.46 ftTotal Well Penetration Depth: 28.9 ftScreen Length: 15.5 ftCasing Radius: 0.083 ftWell Radius: 0.25 ftSOLUTIONAquifer Model: UnconfinedSolution Method: Springer-Gelhar $K = 70.18$ ft/day $Le = 7.303$ ft

Prepared by: CHB Date: 6-20-08

Checked by: WSE Date: 6-20-08



OW-706 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 U
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 30.66 ft

WELL DATA (OW-706 U)

Initial Displacement: 4.189 ft
 Total Well Penetration Depth: 28.9 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 28.46 ft
 Screen Length: 15.5 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

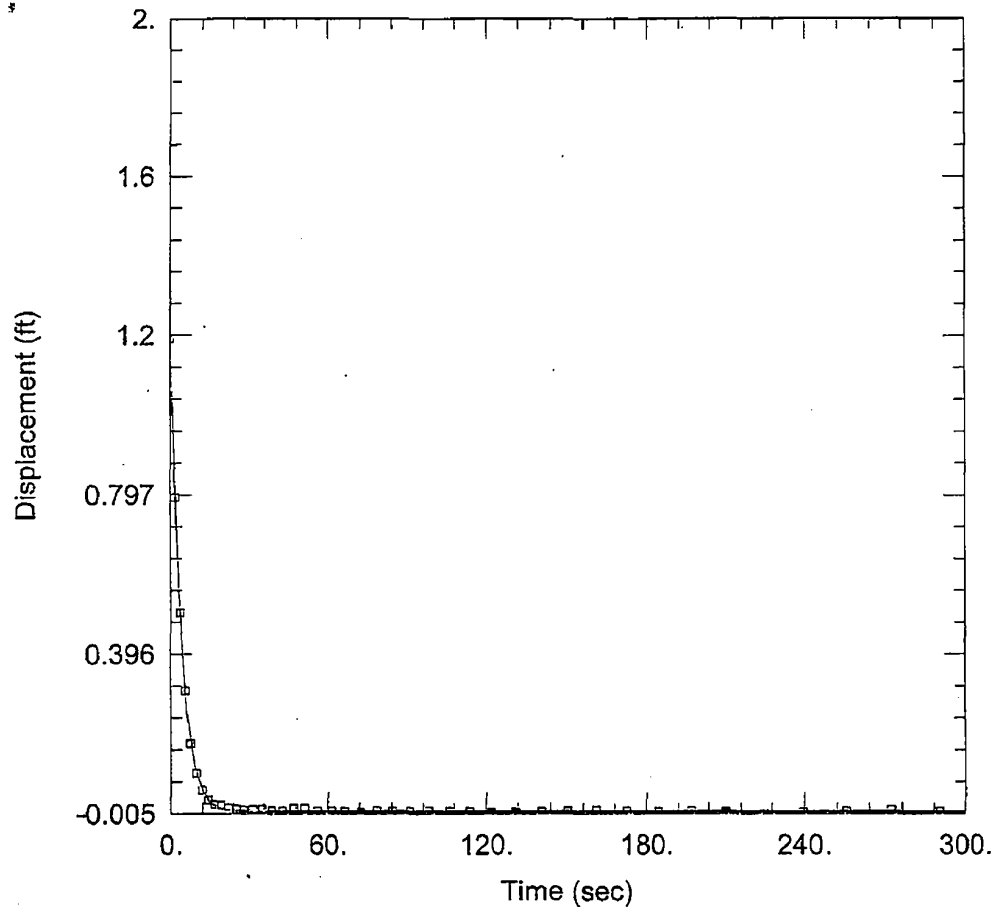
Solution Method: KGS Model

Kr = 76.09 ft/day
 Kz/Kr = 1.

Ss = 3.205E-12 ft⁻¹

Prepared by: CHB Date: 6-22-08

Checked by: WJ Date: 6-22-08



OW-706 L FALLING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 L
 Test Date: 5-16-08

AQUIFER DATA

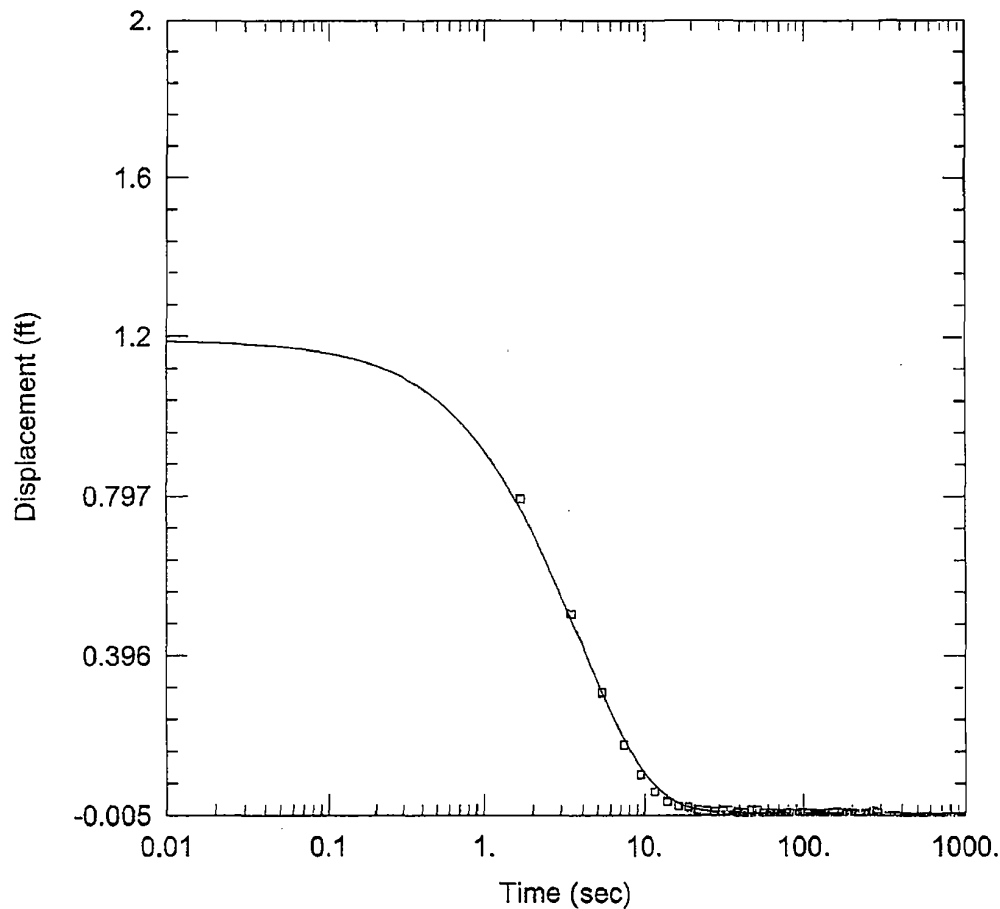
Saturated Thickness: 82.8 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-706 L)

Initial Displacement: 1.19 ft Static Water Column Height: 113.7 ft
 Total Well Penetration Depth: 112. ft Screen Length: 15.1 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 21.2 ft/day Le = 17.46 ft

OW-706 L FALLING HEAD TEST 5-16-08PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 L
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 82.8 ft

WELL DATA (OW-706 L)

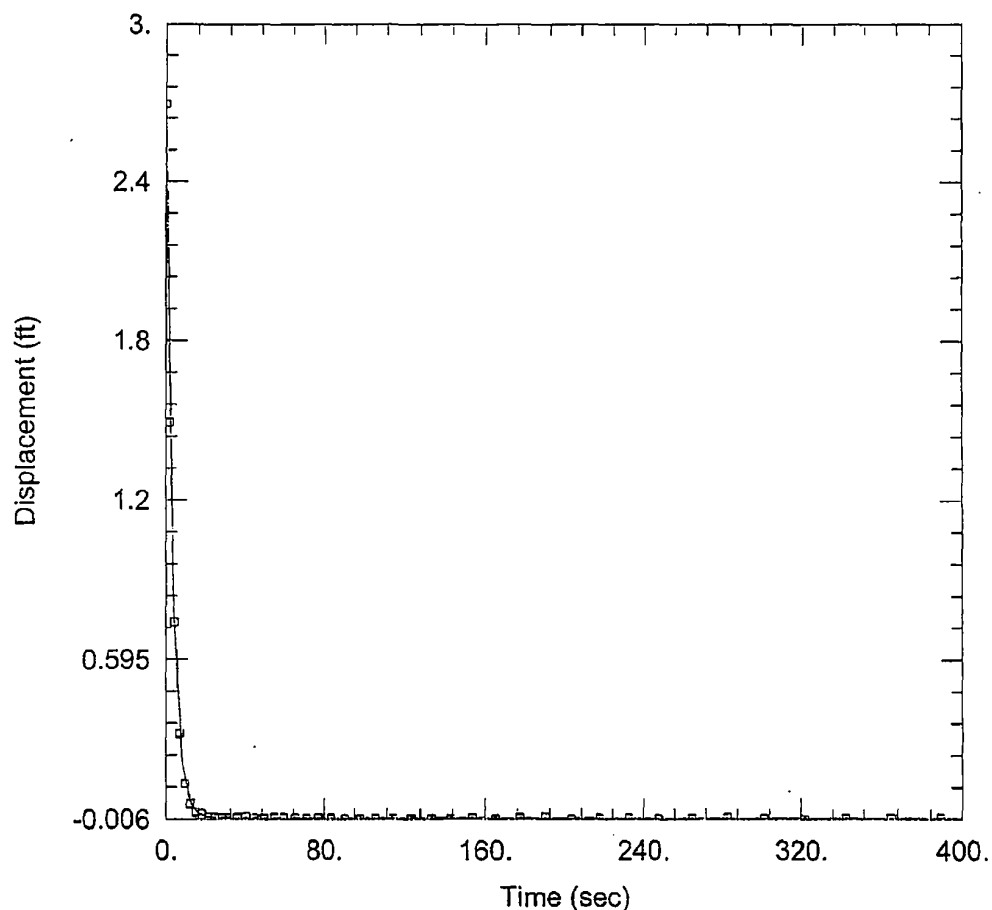
Initial Displacement: 1.19 ft
 Total Well Penetration Depth: 112. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 113.7 ft
 Screen Length: 15.1 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined
 $K_r = 21.97 \text{ ft/day}$
 $K_z/K_r = 1.$

Solution Method: KGS Model
 $S_s = 1.208\text{E-}12 \text{ ft}^{-1}$

OW-706 L RISING HEAD TEST 5-16-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-706 L
Test Date: 5-16-08

AQUIFER DATASaturated Thickness: 82.8 ftAnisotropy Ratio (Kz/Kr): 1.WELL DATA (OW-706 L)

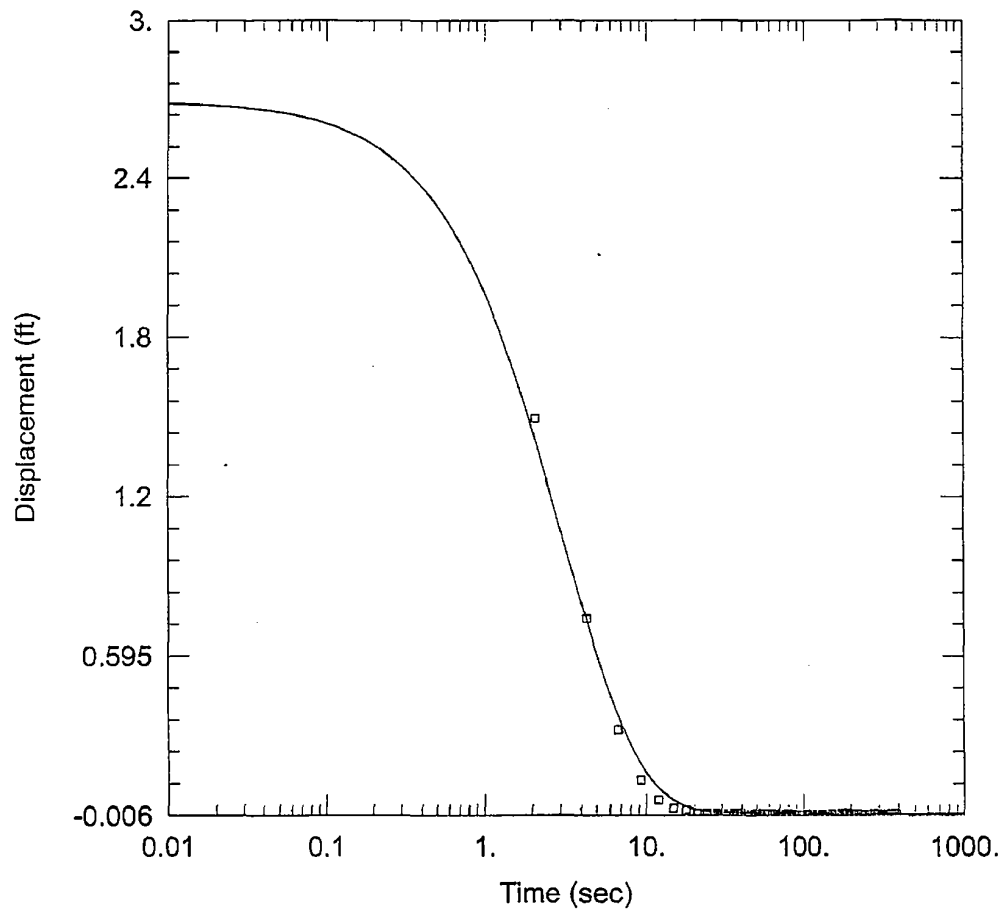
Initial Displacement: 2.693 ft
Total Well Penetration Depth: 112. ft
Casing Radius: 0.083 ft

Static Water Column Height: 113.7 ft
Screen Length: 15.1 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined
K = 25.09 ft/day

Solution Method: Butler
Le = 29.71 ft



OW-706 L RISING HEAD TEST 5-16-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-706 L
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 82.8 ft

WELL DATA (OW-706 L)

Initial Displacement: <u>2.693</u> ft	Static Water Column Height: <u>113.7</u> ft
Total Well Penetration Depth: <u>112.</u> ft	Screen Length: <u>15.1</u> ft
Casing Radius: <u>0.083</u> ft	Well Radius: <u>0.25</u> ft

SOLUTION

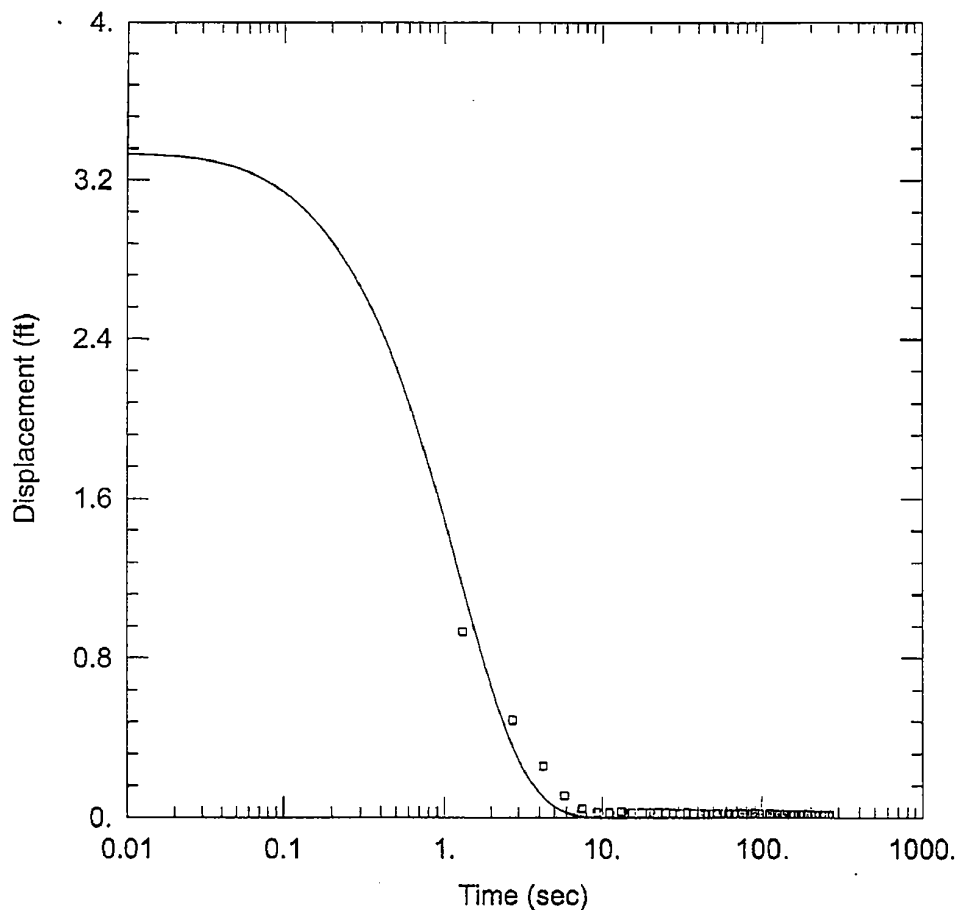
Aquifer Model: <u>Confined</u>	Solution Method: <u>KGS Model</u>
Kr = <u>26.07</u> ft/day	Ss = <u>1.208E-12</u> ft ⁻¹
Kz/Kr = <u>1.</u>	



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number:	Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>	
Location: <u>OW-721U</u>	MACTEC Rep: <u>Kim Chado Smith</u>	Date: <u>05/15/08</u>
UNITS		
Length	Feet	
Time	Minutes	
Well Data	<u>Stickup = 3.65' from g.s.</u>	
Static Water Level	<u>4.35' feet from toe</u>	
Total Well Depth	<u>28.0' feet from toe</u>	
Static Water Column Height (H)	<u>23.65' feet 5-15-08</u>	
Observed Initial Displacement (H ₀)	Background	Falling Head
	NA	
Saturated Thickness (b)	feet	
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1	
Depth to Top of Well Screen (d)		
Length of Well Screen (L)	<u>10.0' feet</u>	
Radius of Well Casing (rc)	0.083 feet	
Radius of Screen (rw)	0.083 feet	
Radius of Probe (req)		
Radius of Boring (rsk) Skin Effect	0.083 feet	
	<u>Transducer mini well calibrated 9/29/08, Exp. 9/29/09</u>	
Probe Serial Number		
<u>Sn: 103345</u>		
Slug Data <u>Slug # 2</u>		
Length	<u>65.438 inches</u>	
Weight	<u>8.811 lbs.</u>	
Diameter	<u>1.662 inches</u>	
Slug Test File	Background	Falling
File Name	<u>OW-721UBG</u>	<u>OW-721UF</u>
Start Time	<u>17:00:35</u>	<u>17:11:11</u>
End Time	<u>17:07:40</u>	<u>17:15:55</u>
		<u>07:17:00 (5/16/08)</u>
Notes	<u>Extended toe to 5.65' above g.s.</u> <u>Ran Background and Falling head test for 1st</u> <u>in well overnight per Chris Bruce on rising</u> <u>head test. Stopped OW-721UR on 05/16/08</u> <u>and 5/16/08 07:18:00.</u>	

Rev 0



OW-721 U FALLING HEAD 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 U
 Test Date: 5-15-08

AQUIFER DATA

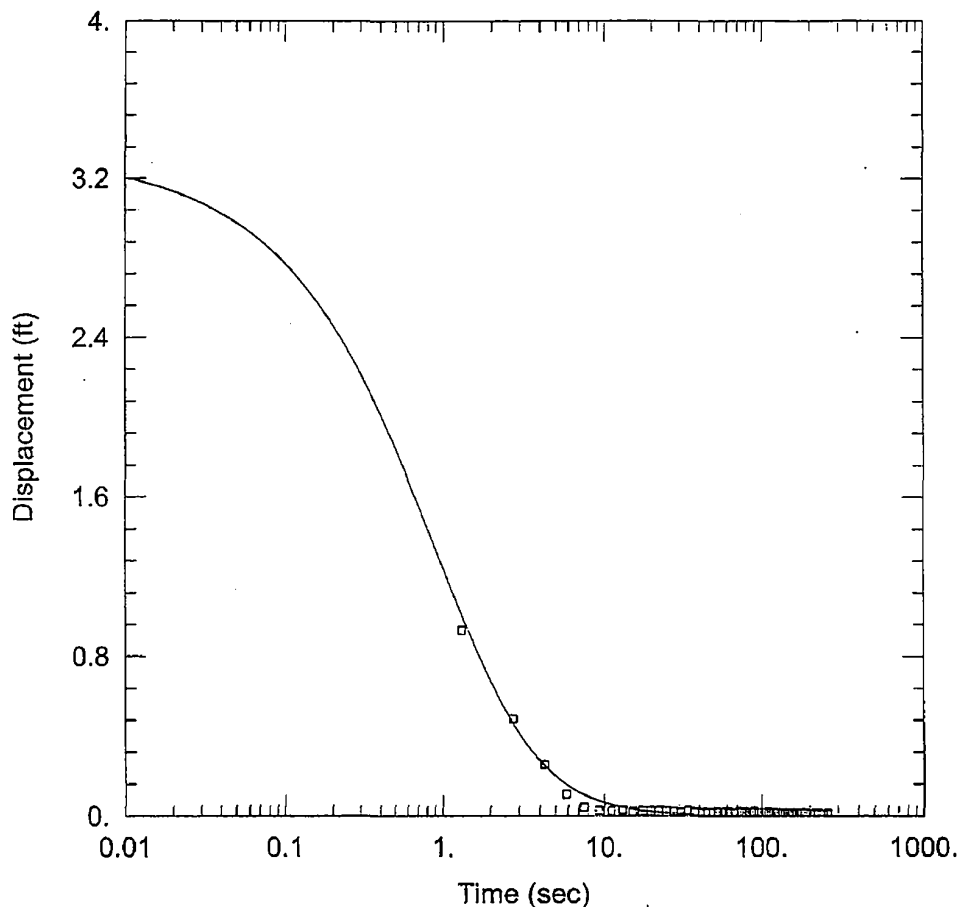
Saturated Thickness: 24.75 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-721 U)

Initial Displacement: 3.338 ft Static Water Column Height: 24.75 ft
 Total Well Penetration Depth: 26. ft Screen Length: 16.1 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 45.5 ft/day Le = 1. ft



OW-721 U FALLING HEAD 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 U
 Test Date: 5-15-08

AQUIFER DATA

Saturated Thickness: 24.75 ft

WELL DATA (OW-721 U)

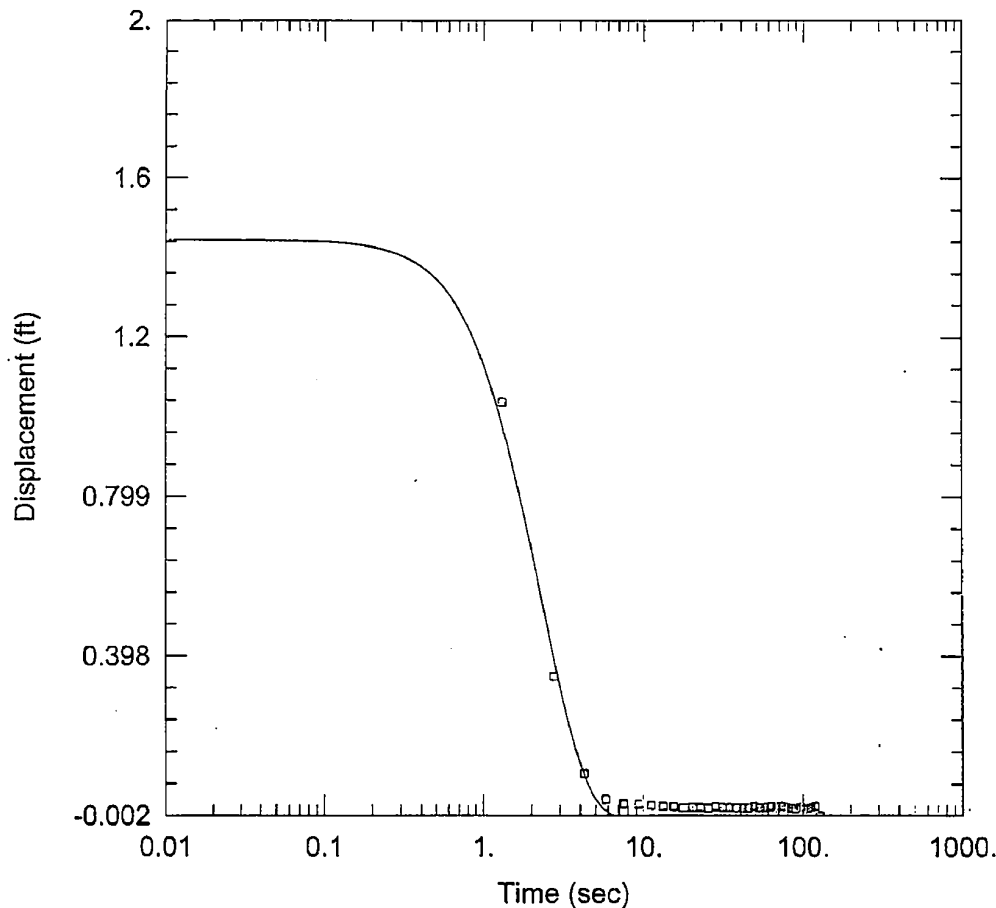
Initial Displacement: 3.338 ft
 Total Well Penetration Depth: 26 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 24.75 ft
 Screen Length: 16.1 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K_r = 45.5 \text{ ft/day}$
 $K_z/K_r = 1$

Solution Method: KGS Model
 $S_s = 9.486E-5 \text{ ft}^{-1}$

OW-721 U RISING HEAD 5-15-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-721 U
Test Date: 5-15-08

AQUIFER DATASaturated Thickness: 24.75 ftAnisotropy Ratio (Kz/Kr): 1.WELL DATA (OW-721 U)

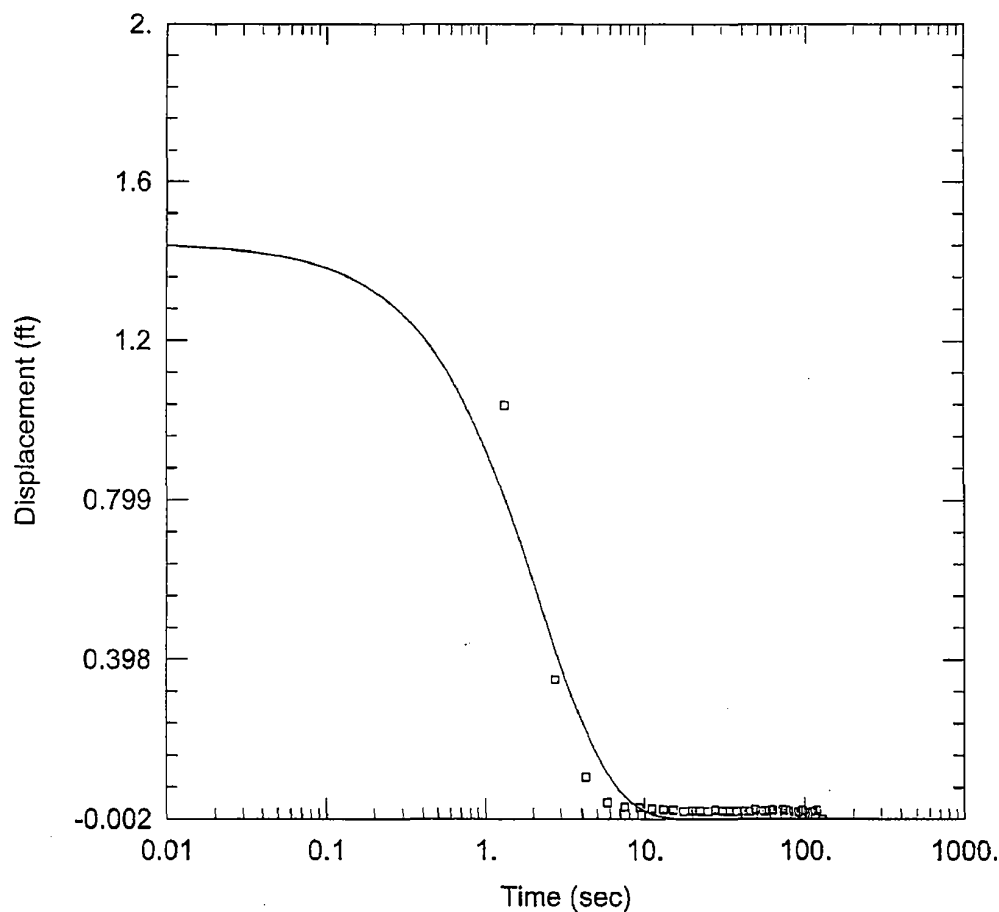
Initial Displacement: 1.444 ft
Total Well Penetration Depth: 26. ft
Casing Radius: 0.083 ft

Static Water Column Height: 24.75 ft
Screen Length: 16.1 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
K = 27.03 ft/day

Solution Method: Springer-Gelhar
Le = 46.33 ft



OW-721 U RISING HEAD 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 U
 Test Date: 5-15-08

AQUIFER DATA

Saturated Thickness: 24.75 ft

WELL DATA (OW-721 U)

Initial Displacement: 1.444 ft
 Total Well Penetration Depth: 26. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 24.75 ft
 Screen Length: 16.1 ft
 Well Radius: 0.25 ft

SOLUTION

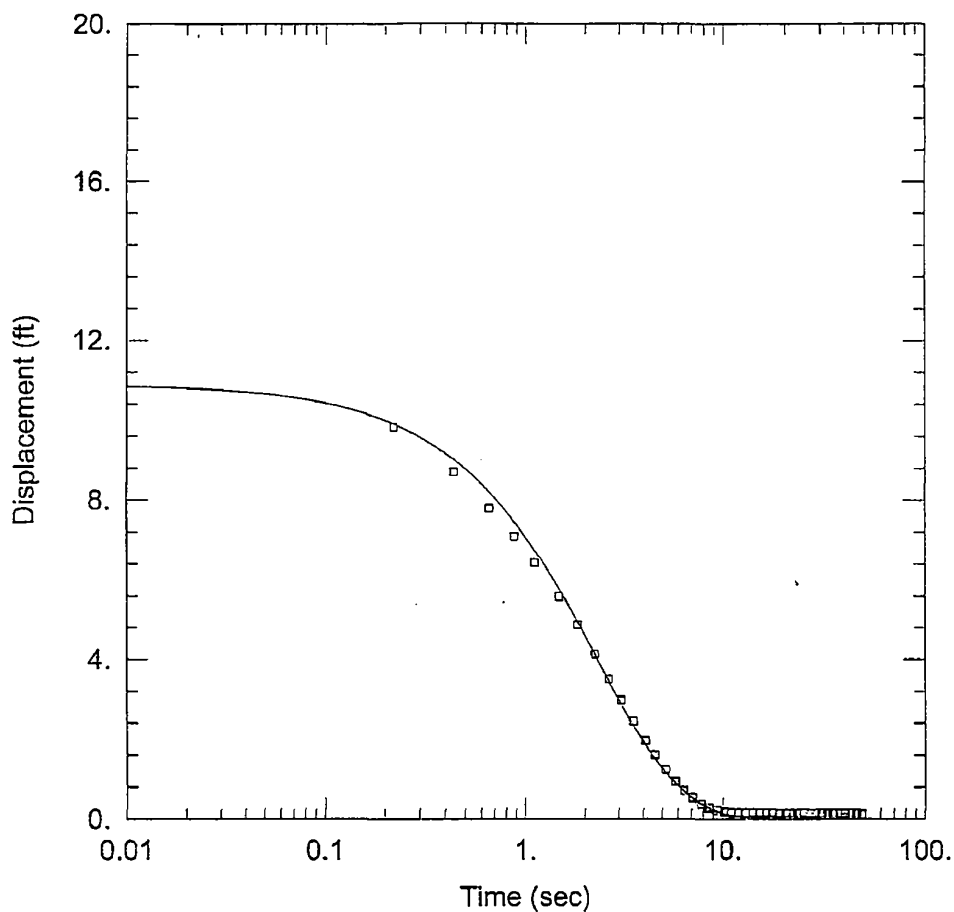
Aquifer Model: Unconfined
 $K_r = 32.46 \text{ ft/day}$
 $K_z/K_r = 1.$

Solution Method: KGS Model
 $S_s = 4.167\text{E-}12 \text{ ft}^{-1}$

SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-P50</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-7214</u>	MACTEC Rep: <u>Kim Chels Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final Stickup = 3.65' From G.S.		
Static Water Level	4.73' feet From TOC		
Total Well Depth	28.0' feet From TOC		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	Mini Troll Transducer probe calibrated 4/29/08 exp 4/29/09 SN: 118478 level Troll © 700 winsitu		
Slug Data	used pneumatic slug to perform test.		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	OW-7214BG	NA	OW-7214R
Start Time	10:33:19		10:42:03
End Time	10:34:46		10:42:56
Notes			

Rev 0



OW-721 U RISING HEAD 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 U
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 24.37 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-721 U)

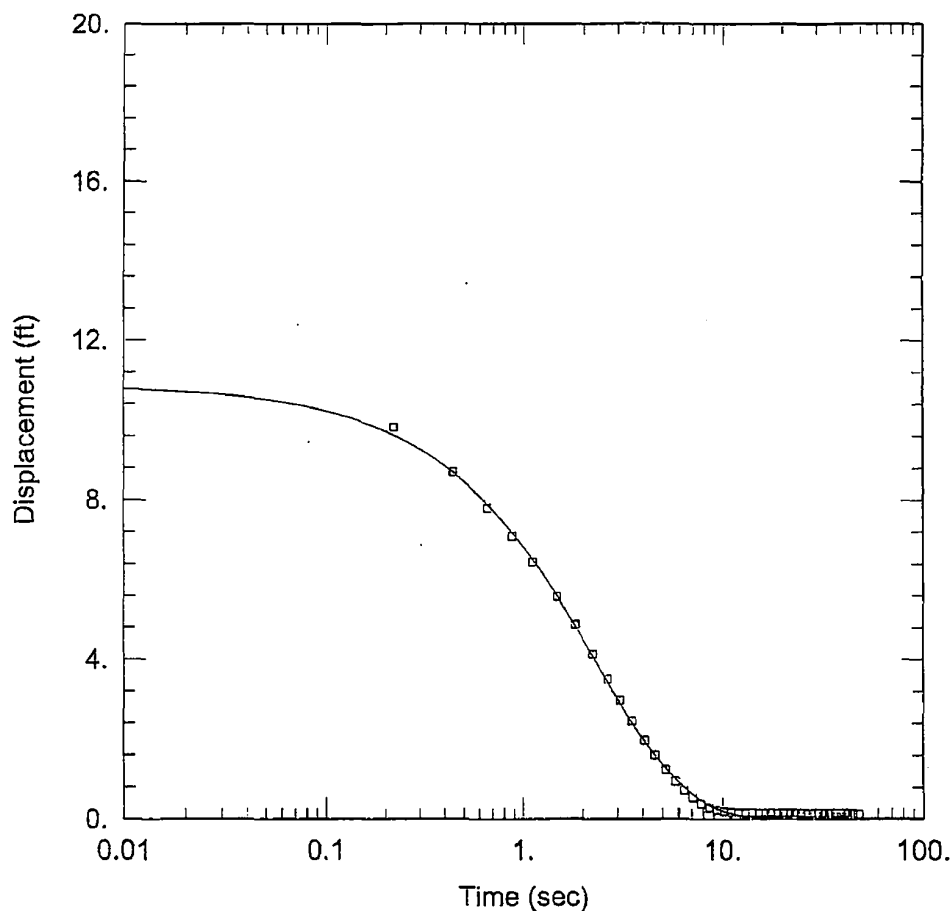
Initial Displacement: 10.88 ft
 Total Well Penetration Depth: 26. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 24.37 ft
 Screen Length: 16.1 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 K = 24.39 ft/day

Solution Method: Springer-Gelhar
 Le = 0.1 ft

OW-721 U RISING HEAD 5-20-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-721 U
Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 24.37 ft

WELL DATA (OW-721 U)

Initial Displacement: 10.88 ft
Total Well Penetration Depth: 26. ft
Casing Radius: 0.083 ft

Static Water Column Height: 24.37 ft
Screen Length: 16.1 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K_r = 32.47 \text{ ft/day}$
 $K_z/K_r = 1.$

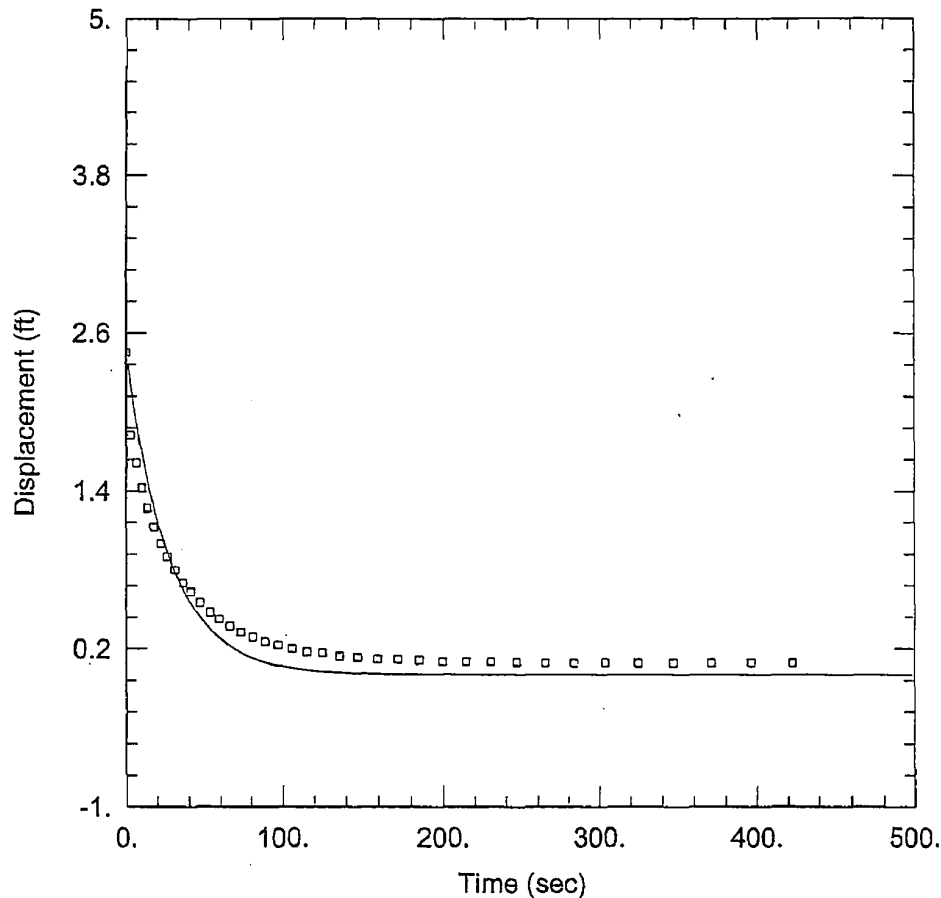
Solution Method: KGS Model
 $S_s = 2.056E-6 \text{ ft}^{-1}$

SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: _____		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-721L</u>	MACTEC Rep: <u>Kim Chab Smith</u>		Date: <u>05/15/08</u>
UNITS			
Length _____	Feet _____		
Time _____	Minutes _____		
Well Data	Final stickup = 3.68' from g.s.		
Static Water Level _____	2.17' feet from TOC		
Total Well Depth _____	107.62' feet from TOC		
Static Water Column Height (H) _____	102.43' feet		
Observed Initial Displacement (H ₀) _____	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b) _____	feet _____		
Conductivity Anisotropy (Kv/Kh) _____	Assume 1 to 1		
Depth to Top of Well Screen (d) _____			
Length of Well Screen (L) _____	10.0' feet		
Radius of Well Casing (rc) _____	0.083 feet		
Radius of Screen (rw) _____	0.083 feet		
Radius of Probe (req) _____			
Radius of Boring (rsk) Skin Effect _____	0.083 feet		
	Mini Trill Transducer Calibrated 4/29/08, EQ. 4/29/09		
Probe Serial Number _____			
<u>Sn. 103345</u>			
Slug Data <u>Slug #2</u>			
Length _____	65.438 inches		
Weight _____	8.811 lbs.		
Diameter _____	1.662 inches		
Slug Test File	Background	Falling	Rising
File Name	<u>OW-721L BG</u>	<u>OW-721L F</u>	<u>OW-721L R</u>
Start Time	<u>15:48:53.52</u>	<u>16:02:43</u>	<u>16:21:32</u>
End Time	<u>16:00:33</u>	<u>16:18:56</u>	<u>16:37:20</u>
Notes	<u>Extended TOC to 5' above g.s.</u> <u>5.63' by 5/15/08.</u> <u>to run slug test.</u>		
Rev 0			

Prepared by: C. HB Date: 6-20-08

Checked by: WSE Date: 6-20-08



OW-721 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 L
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 90. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-721 L)

Initial Displacement: 2.451 ft
 Total Well Penetration Depth: 109. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110. ft
 Screen Length: 17. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

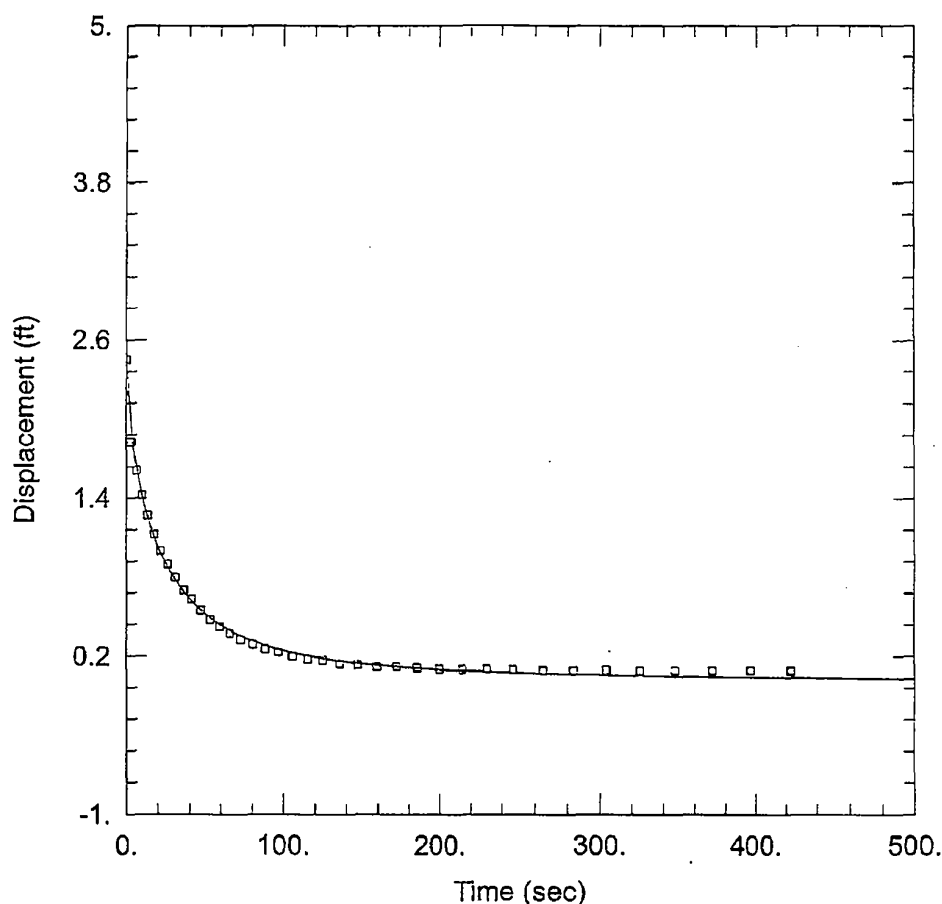
Solution Method: Butler

K = 2.726 ft/day

Le = 0.1 ft

Prepared by: CKB Date: 6-20-08

Checked by: WSE Date: 6-20-08



OW-721 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-721 L
Test Date: 5-16-08

AQUIFER DATA

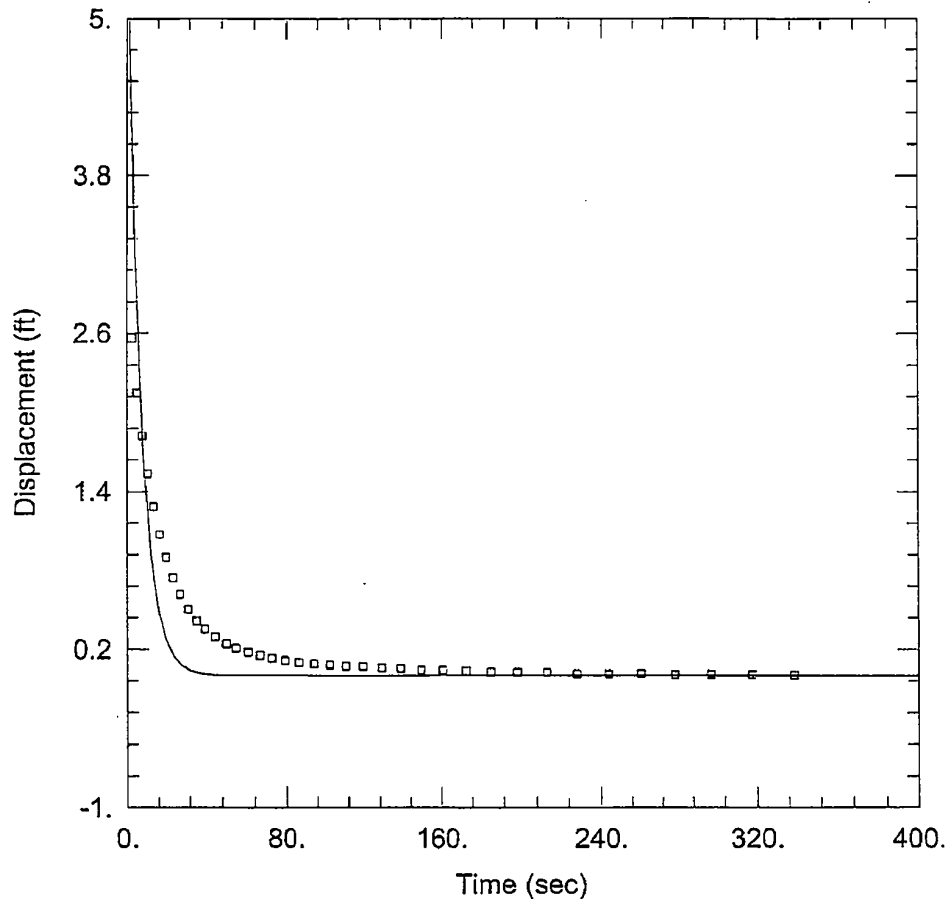
Saturated Thickness: 90. ft

WELL DATA (OW-721 L)

Initial Displacement: <u>2.451 ft</u>	Static Water Column Height: <u>110. ft</u>
Total Well Penetration Depth: <u>109. ft</u>	Screen Length: <u>17. ft</u>
Casing Radius: <u>0.083 ft</u>	Well Radius: <u>0.25 ft</u>

SOLUTION

Aquifer Model: <u>Confined</u>	Solution Method: <u>KGS Model</u>
Kr = <u>1.13 ft/day</u>	Ss = <u>0.0002728 ft⁻¹</u>
Kz/Kr = <u>1.</u>	



OW-721 L RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 L
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 90. ft Anisotropy Ratio (K_z/K_r): 1.

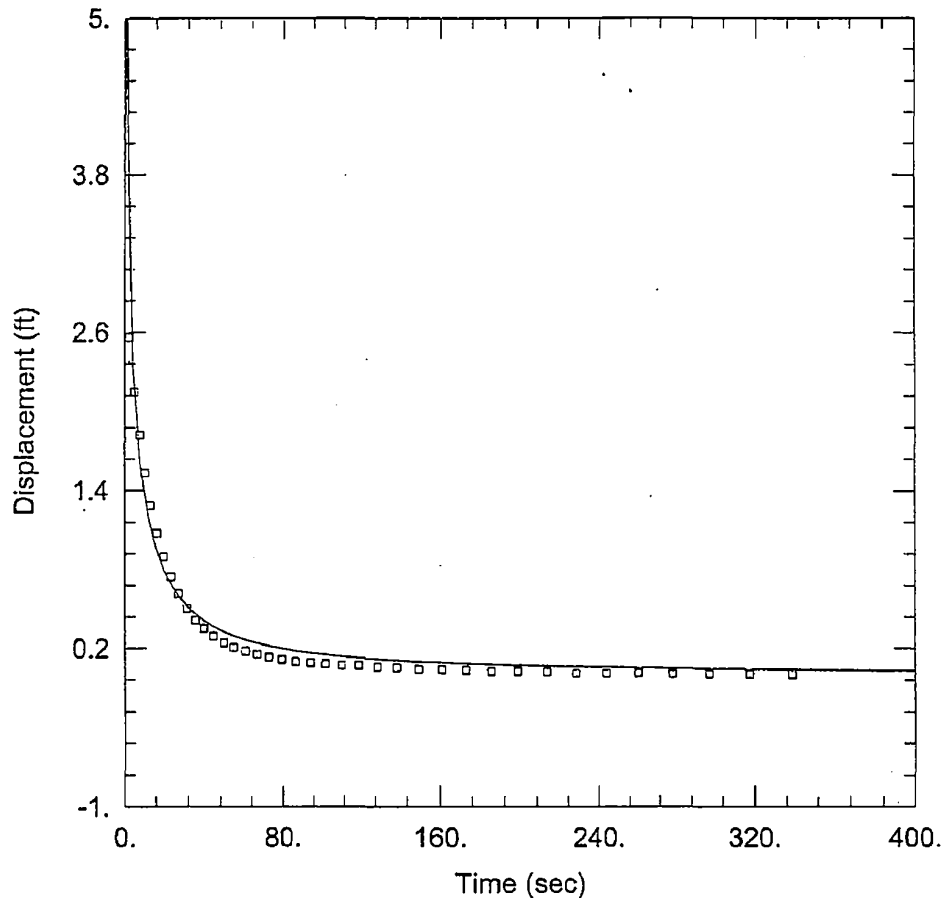
WELL DATA (OW-721 L)

Initial Displacement: 5.904 ft Static Water Column Height: 110. ft
 Total Well Penetration Depth: 109. ft Screen Length: 17. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 $K = 11.59$ ft/day $L_e = 0.1$ ft

Prepared by: CMS Date: 6-20-08
 Checked by: WSR Date: 6-20-08



OW-721 L RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 L
 Test Date: 5-16-08

AQUIFER DATA

Saturated Thickness: 90 ft

WELL DATA (OW-721 L)

Initial Displacement: 5.904 ft
 Total Well Penetration Depth: 109 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110 ft
 Screen Length: 17 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined
 Kr = 2.91 ft/day
 Kz/Kr = 1

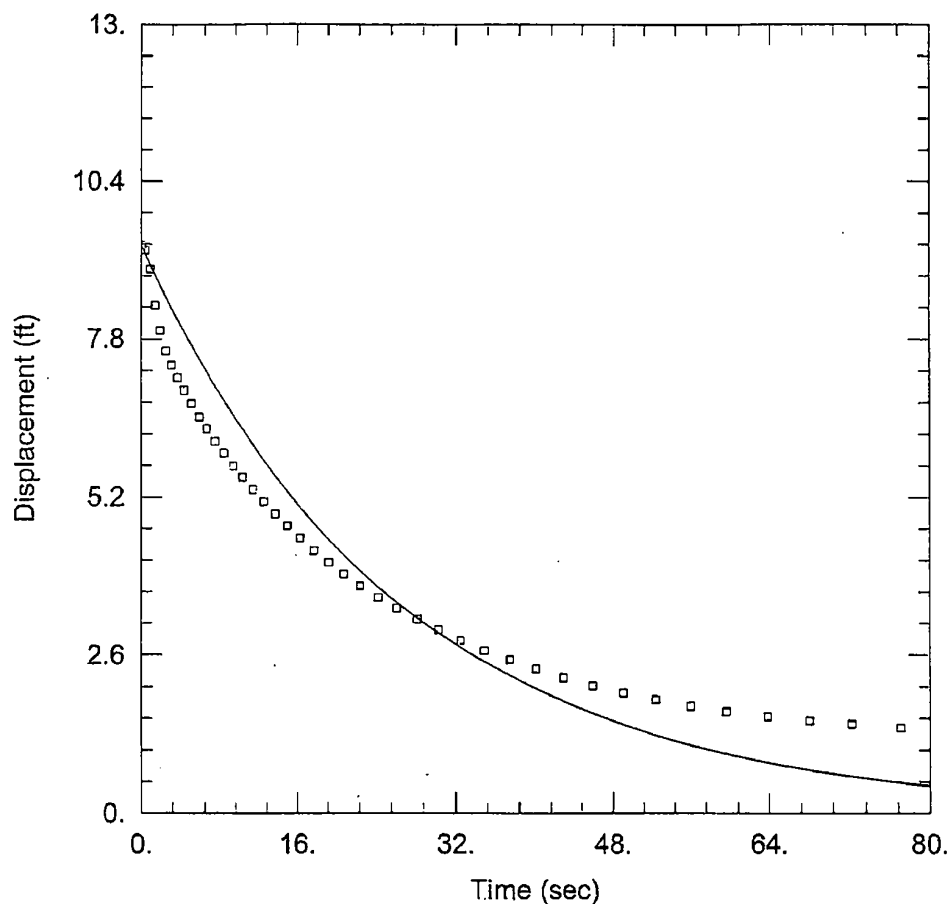
Solution Method: KGS Model
 Ss = 0.001921 ft⁻¹



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6408-07-R50</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bichtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-721L</u>	MACTEC Rep: <u>Kim Chels Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final Static = 3.68' from g.s.		
Static Water Level	1.97' feet From TOC		
Total Well Depth	107.62' feet From TOC		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini troll Transducer probe calibrated 4/29/08/exp 4/29/09 SN: 118478 level troll @ 700 winsitu		
Slug Data	used pneumatic slug to perform test		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	OW-721L BG	NA	OW-721LR
Start Time	10:56:02		11:08:52
End Time	11:04:43		11:10:18
Notes			

Rev 0



OW-721 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-721 L
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 90 ft

Anisotropy Ratio (K_z/K_r): 1

WELL DATA (OW-721 L)

Initial Displacement: 9.341 ft

Static Water Column Height: 110.2 ft

Total Well Penetration Depth: 109 ft

Screen Length: 17 ft

Casing Radius: 0.083 ft

Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

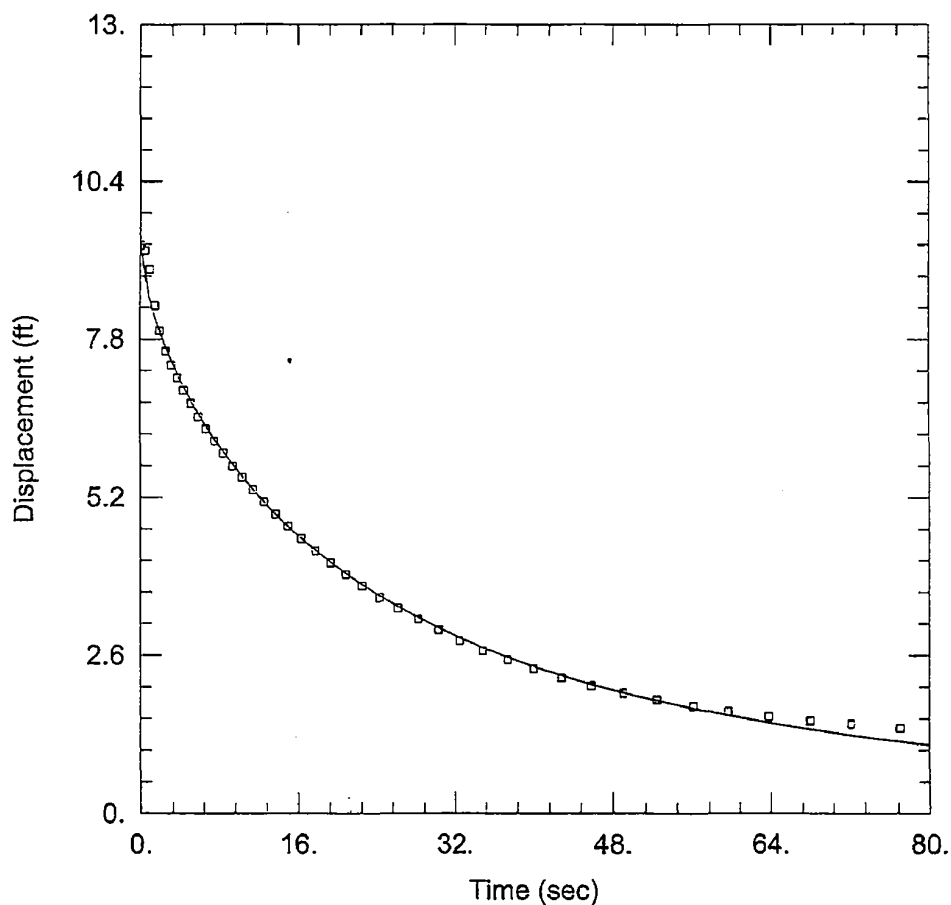
Solution Method: Butler

$K = 2.839$ ft/day

$L_e = 0.1$ ft

Prepared by: CHS Date: 6-20-08

Checked by: WSE Date: 6-20-08



OW-721 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-721 L
Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 90 ft

WELL DATA (OW-721 L)

Initial Displacement: 9.341 ft
Total Well Penetration Depth: 109 ft
Casing Radius: 0.083 ft

Static Water Column Height: 110.2 ft
Screen Length: 17 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

Solution Method: KGS Model

Kr = 1.325 ft/day

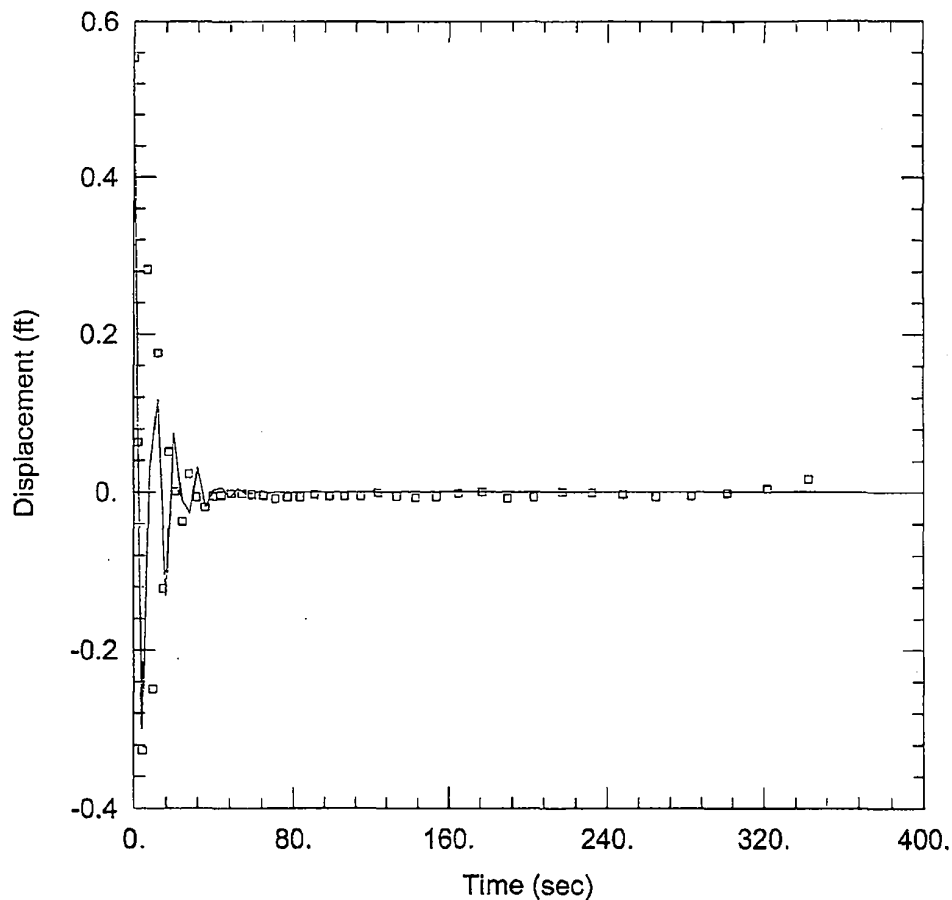
Ss = 0.0001285 ft⁻¹

Kz/Kr = 1



SLUG TEST REPORT

Project Name: <u>TPCOL</u>		Project Number:		Page	of
Client: <u>Bechtel</u>		Contractor: <u>MACTEC</u>			
Location: <u>OW-73SUB</u> <u>K85-15-08</u>		MACTEC Rep: <u>Kim Charles Smith</u>		Date: <u>5/15/08</u>	
UNITS					
Length		Feet			
Time		Minutes			
Well Data		<u>Stickup = 3.27'</u>			
Static Water Level		<u>4.85'</u> feet <u>From TC</u>			
Total Well Depth		<u>30.19'</u> feet <u>From TC</u>			
Static Water Column Height (H)		<u>28.34'</u> <u>25.34'</u> feet <u>5/15/08</u>			
		Background	Falling Head	Rising Head	
Observed Initial Displacement (H ₀)		NA			
Saturated Thickness (b)		feet			
Conductivity Anisotropy (Kv/Kh)		Assume 1 to 1			
Depth to Top of Well Screen (d)					
Length of Well Screen (L)		<u>10'</u> feet			
Radius of Well Casing (rc)		0.083 feet			
Radius of Screen (rw)		0.083 feet			
Radius of Probe (req)					
Radius of Boring (rsk) Skin Effect		0.083 feet			
		<u>Mini Trail Transducer probe calibrated 4/29/08. 4/29/09.</u>			
Probe Serial Number:					
<u>SN: 103345</u>					
Slug Data <u>#2</u>					
Length		<u>65.438 inch</u>			
Weight		<u>8.811 lbs.</u>			
Diameter		<u>1.662 inch</u>			
Slug Test File		Background	Falling	Rising	
File Name		<u>ow-73SUB.G</u>	<u>ow-73SUB.F</u>	<u>ow-73SUB.B</u>	
Start Time		<u>10:16:12</u>	<u>09:16:41</u>	<u>09:26:56</u>	
End Time		<u>10:25:07</u>	<u>10:29:28</u>	<u>10:51:30</u>	
Notes		<u>Adjusted bottom to top of casing head</u> <u>Stickup = 5.28'</u>			
Rev 0					



Prepared by: CLB Date: 6-20-08

Checked by: LSL Date: 6-20-08

OW-735 U FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 26.45 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-735 U)

Initial Displacement: 0.553 ft
 Total Well Penetration Depth: 28. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 26.45 ft
 Screen Length: 16. ft
 Well Radius: 0.25 ft

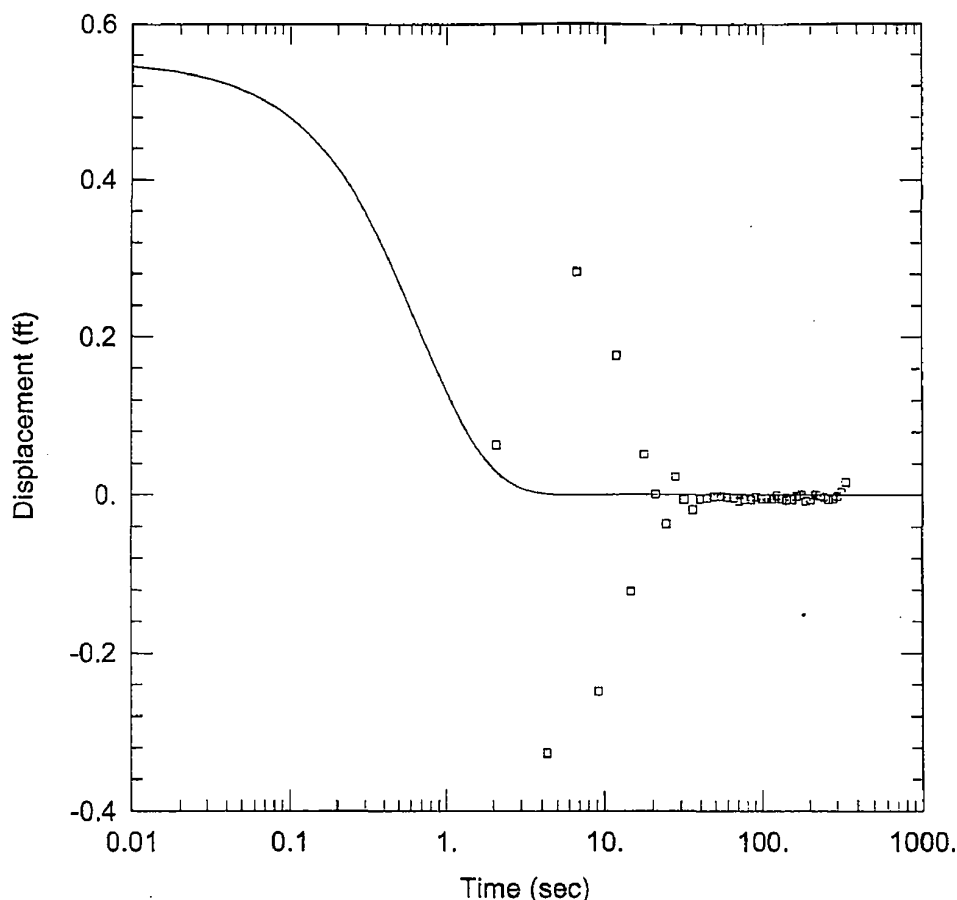
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

$K = 319.2$ ft/day

$L_e = 33.28$ ft



Prepared by: CHP Date: 6-20-08

Checked by: WSE Date: 6-20-08

OW-735 U FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 26.45 ft

WELL DATA (OW-735 U)

Initial Displacement: 0.553 ft
 Total Well Penetration Depth: 28. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 26.45 ft
 Screen Length: 16. ft
 Well Radius: 0.25 ft

SOLUTION

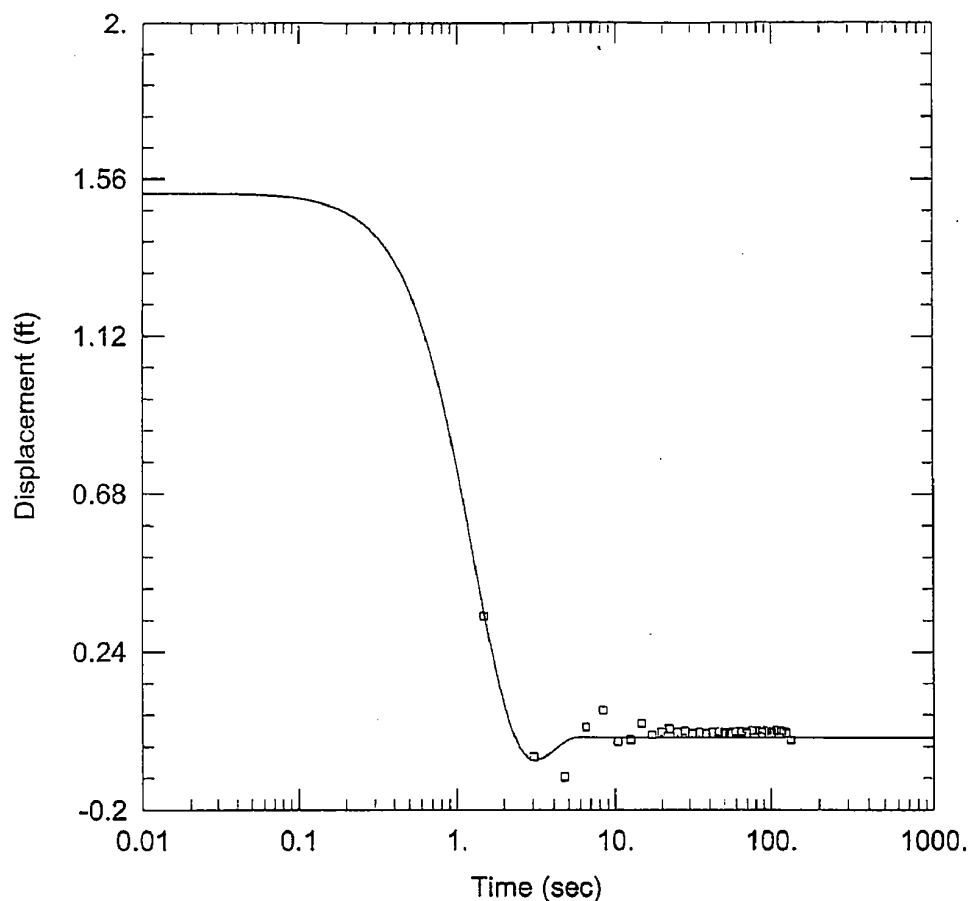
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 109.5 ft/day

Ss = 3.846E-12 ft⁻¹

Kz/Kr = 1.



Prepared by: CLB Date: 6-20-08

Checked by: WSE Date: 6-20-08

OW-735 U RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 26.45 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-735 U)

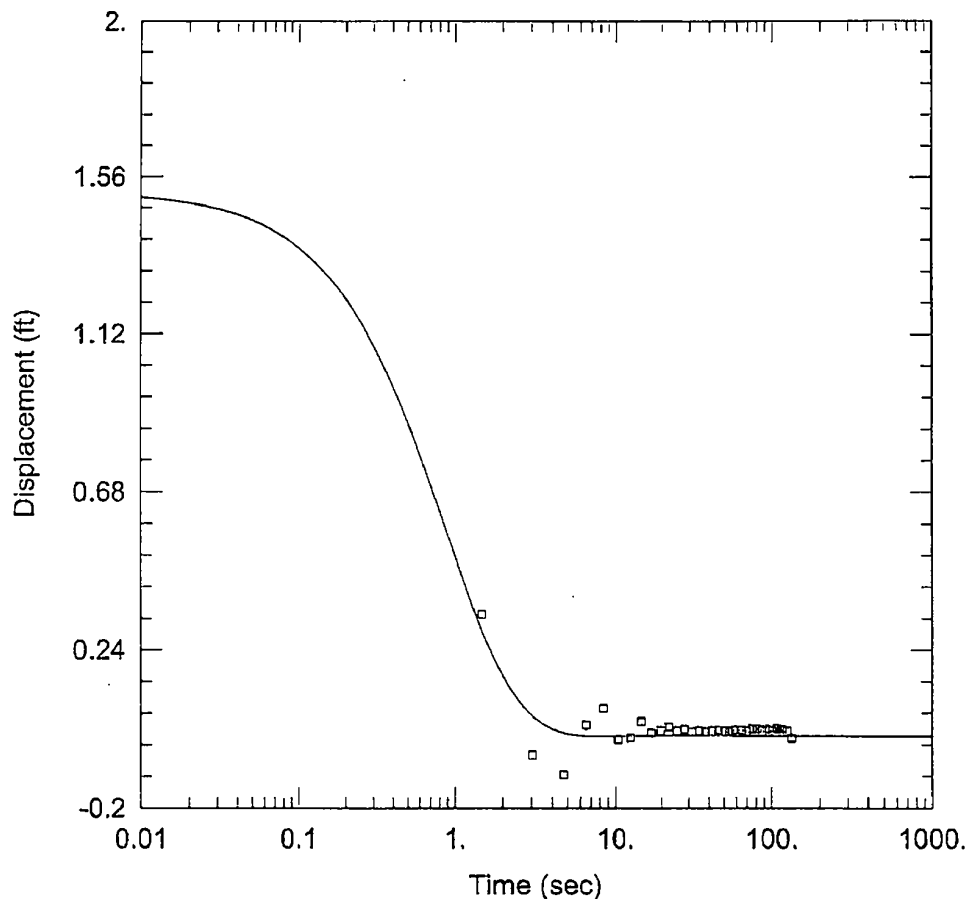
Initial Displacement: 1.519 ft
 Total Well Penetration Depth: 28. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 26.45 ft
 Screen Length: 16. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined
 $K =$ 58.21 ft/day

Solution Method: Springer-Gelhar
 $L_e =$ 15.64 ft



Prepared by: CHK Date: 6-20-08

Checked by: WSL Date: 6-20-08

OW-735 U RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 26.45 ft

WELL DATA (OW-735 U)

Initial Displacement: 1.519 ft
 Total Well Penetration Depth: 28. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 26.45 ft
 Screen Length: 16. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 84.68 ft/day

Ss = 3.846E-12 ft⁻¹

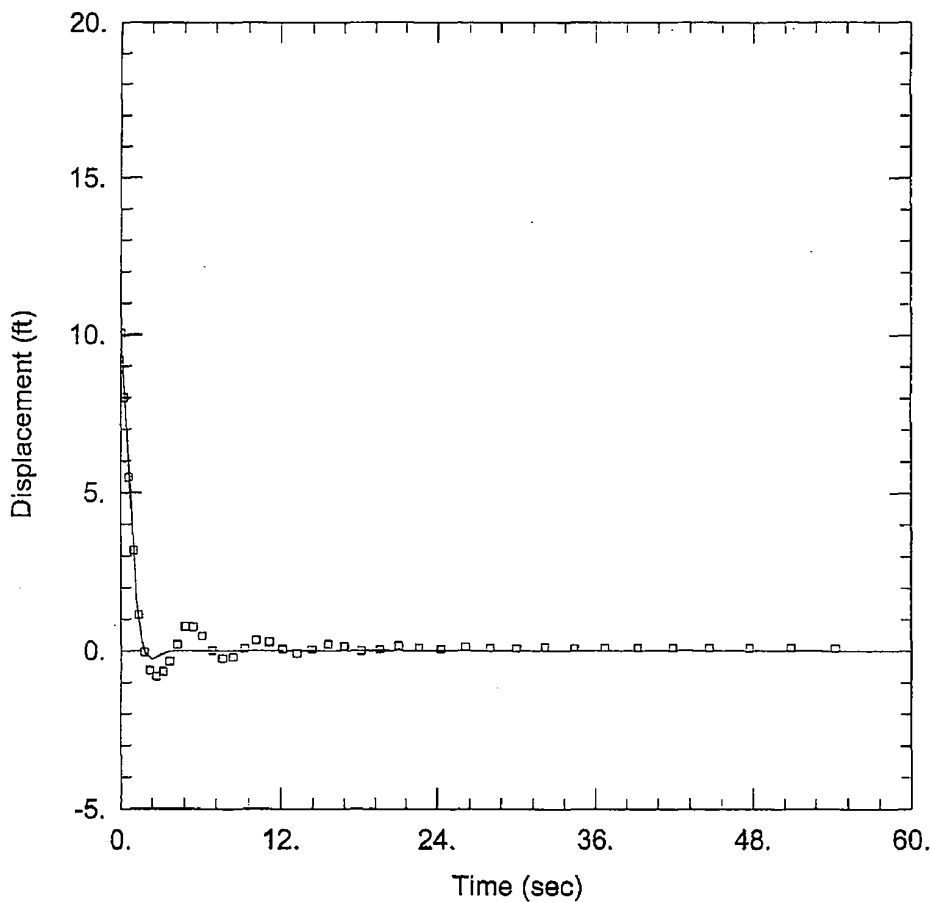
Kz/Kr = 1.



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>5-20-08</u> <u>TPCOL OW-F3SU</u>	MACTEC Rep: <u>Kim Charles-Smith</u>	Date: <u>05/20/08</u>	
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final stickup = 3.27'		
Static Water Level	4.95' feet From Toe		
Total Well Depth	30.19' feet From Toe		
Static Water Column Height (H)	feet		
	Background	Falling Head	Rising Head
Observed Initial Displacement (H ₀)	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini Troll Transducer probe calibrated 4/29/08 EXP 4/29/09 SN: 118478 level toll @ 700 Win Situ		
Slug Data	Used pneumatic slug to perform test.		
Length	SN: 118478 kg 05-20-08		
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	OW-F3SUBG	NA	OW-F3SUR
Start Time	08:32:51		08:44:59
End Time	08:37:09		08:49:27
Notes	OW-F3SUR OW-F3SUR OW-F3SUR 08:53:57 08:59:20 09:03:23 08:57:33 09:00:15 09:04:20		

Rev 0



Prepared by: CLKB Date: 5-20-08
 Checked by: ltf Date: 6-20-08

OW-735 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

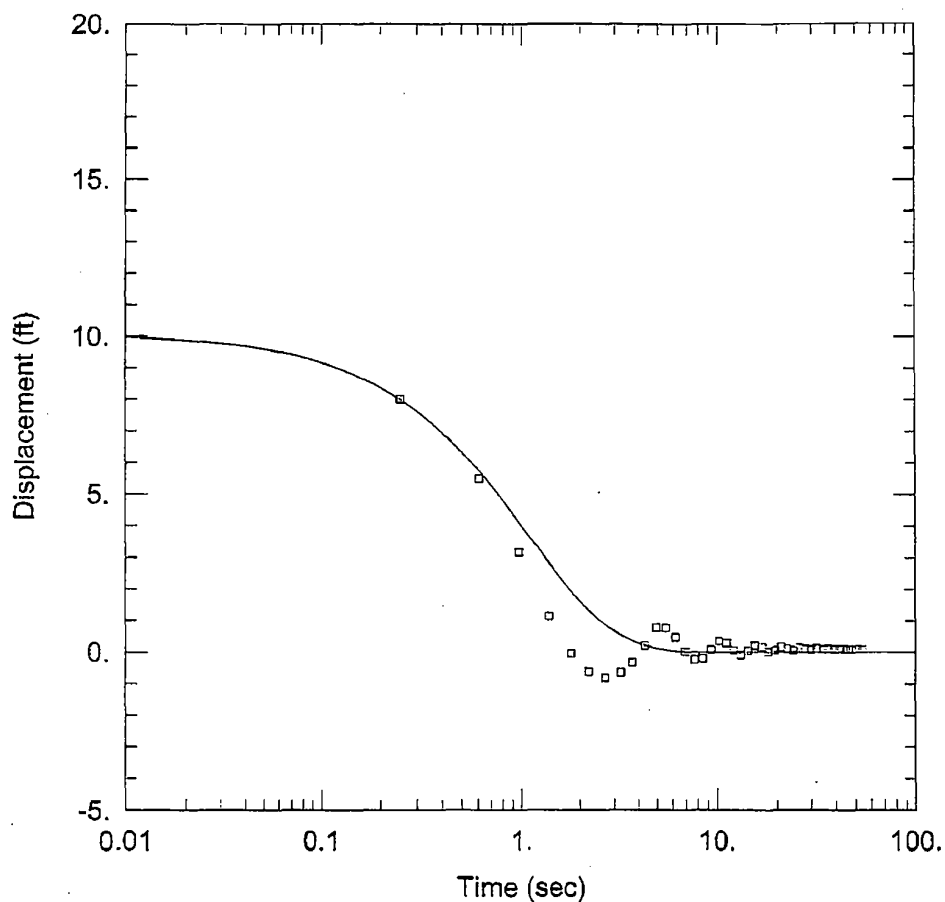
Saturated Thickness: 26.35 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-735 U)

Initial Displacement: 10.05 ft Static Water Column Height: 26.35 ft
 Total Well Penetration Depth: 28. ft Screen Length: 16. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 80.18 ft/day Le = 7.402 ft



Prepared by: CLB Date: 6-20-08
 Checked by: WJL Date: 6-20-08

OW-735 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-735 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 26.35 ft

WELL DATA (OW-735 U)

Initial Displacement: 10.05 ft
 Total Well Penetration Depth: 28 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 26.35 ft
 Screen Length: 16 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 70.7 ft/day

Ss = 2.291E-10 ft⁻¹

Kz/Kr = 1



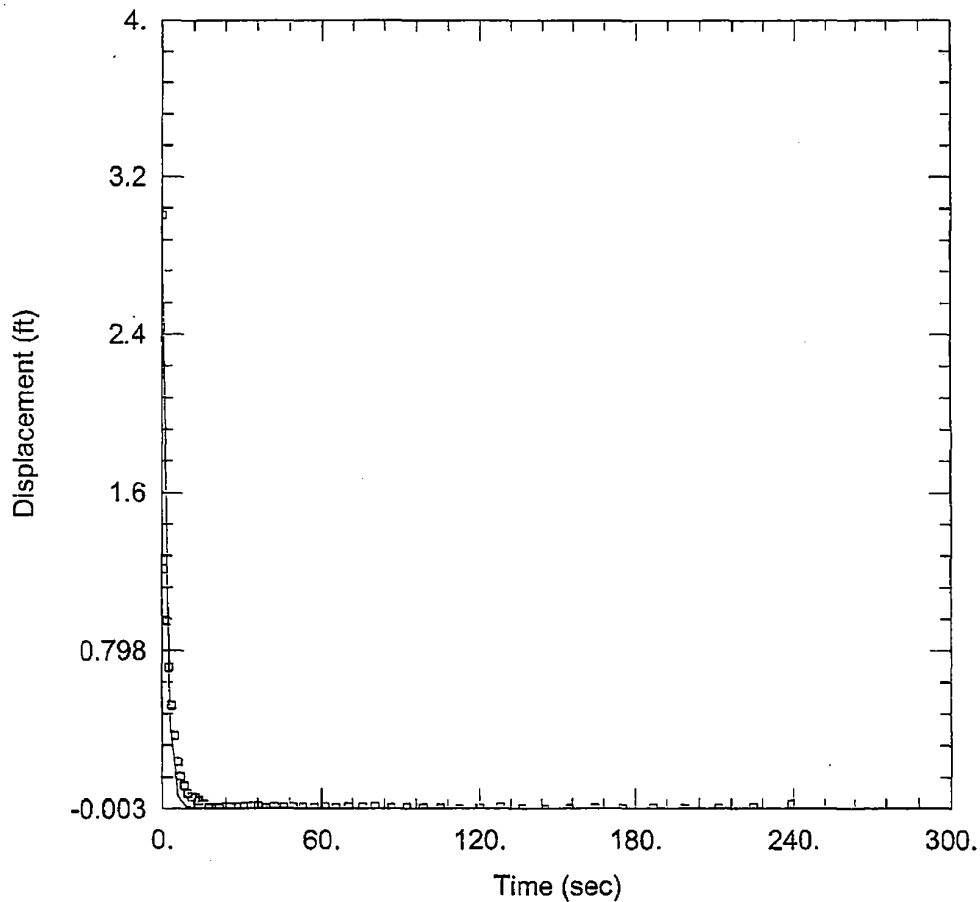
SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number:	Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>	
Location: <u>OW-735L</u>	MACTEC Rep: <u>Kim Choko Smith</u>	Date: <u>05/13/08</u>
UNITS		
Length	Feet	
Time	Minutes	
Well Data	Final Stickup = 3.58'	
Static Water Level	2.97' feet From TGC	
Total Well Depth	111.68' 108.15' feet From G.S. TGC	
Static Water Column Height (H)	108.71' 105.13' feet K/S 5-13-08	
	Background	Falling Head
Observed Initial Displacement (H ₀)	NA	Rising Head
Saturated Thickness (b)	feet	
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1	
Depth to Top of Well Screen (d)	96.9'	
Length of Well Screen (L)	10' feet	
Radius of Well Casing (rc)	0.083 feet	
Radius of Screen (rw)	0.083 feet	
Radius of Probe (req)		
Radius of Boring (rsk)-Skin Effect	0.083 feet	
Probe Serial Number	Sn: 103345 mini Troll Transducer	
Slug Data #2		
Length	65.438 inches	
Weight	8.811 lbs.	
Diameter	1.662 inches	
Slug Test File	Background	Falling
File Name	OW-735LBG	OW-735LF
Start Time	16:48:56	17:02:43
End Time	16:58:22	17:06:57
Notes	Extended casing to 5.58' above G.S. to Run on TGC 15' K/S 5/13/08.	

Rev 0

Prepared by: CHB Date: 5-20-08

Checked by: LSL Date: 5-10-08



OW-735 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-735 L
 Test Date: 5-15-08

AQUIFER DATA

Saturated Thickness: 87. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-735 L)

Initial Displacement: 3.004 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110.4 ft
 Screen Length: 17.7 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

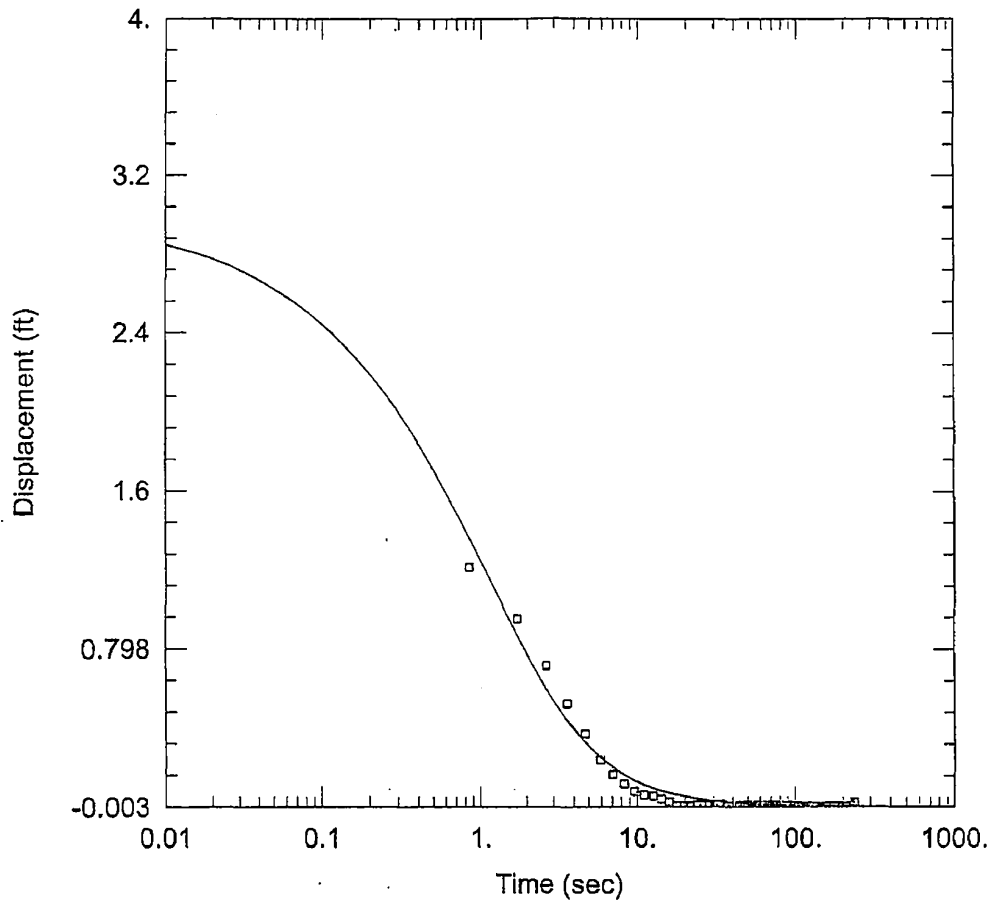
Solution Method: Butler

K = 49.09 ft/day

Le = 0.1 ft

Prepared by: CAB Date: 6-20-08

Checked by: LWS Date: 6-10-08



OW-735 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-735 L
 Test Date: 5-15-08

AQUIFER DATA

Saturated Thickness: 87. ft

WELL DATA (OW-735 L)

Initial Displacement: 3.004 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110.4 ft
 Screen Length: 17.7 ft
 Well Radius: 0.25 ft

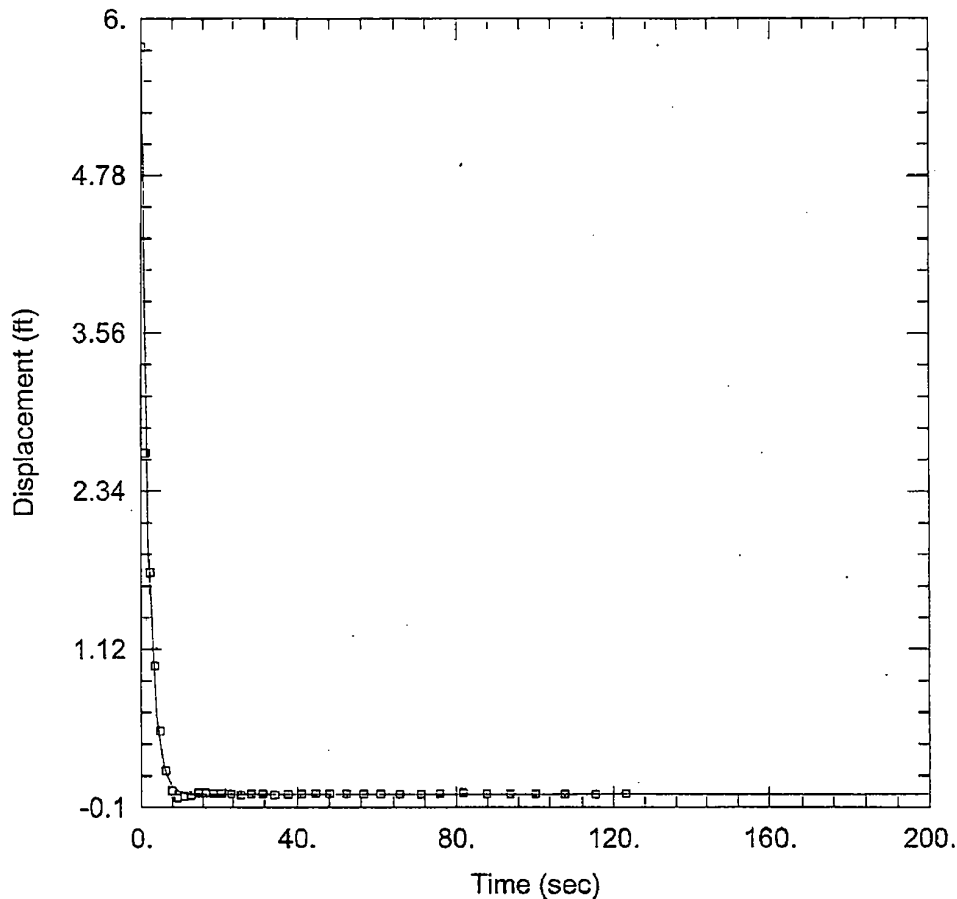
SOLUTION

Aquifer Model: Confined
 $K_r = 20.57 \text{ ft/day}$
 $K_z/K_r = 1.$

Solution Method: KGS Model
 $S_s = 0.0003506 \text{ ft}^{-1}$

Prepared by: CHB Date: 6-20-08

Checked by: WV Date: 6-20-08



OW-735 L RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Well: OW-735 L
 Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 87. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-735 L)

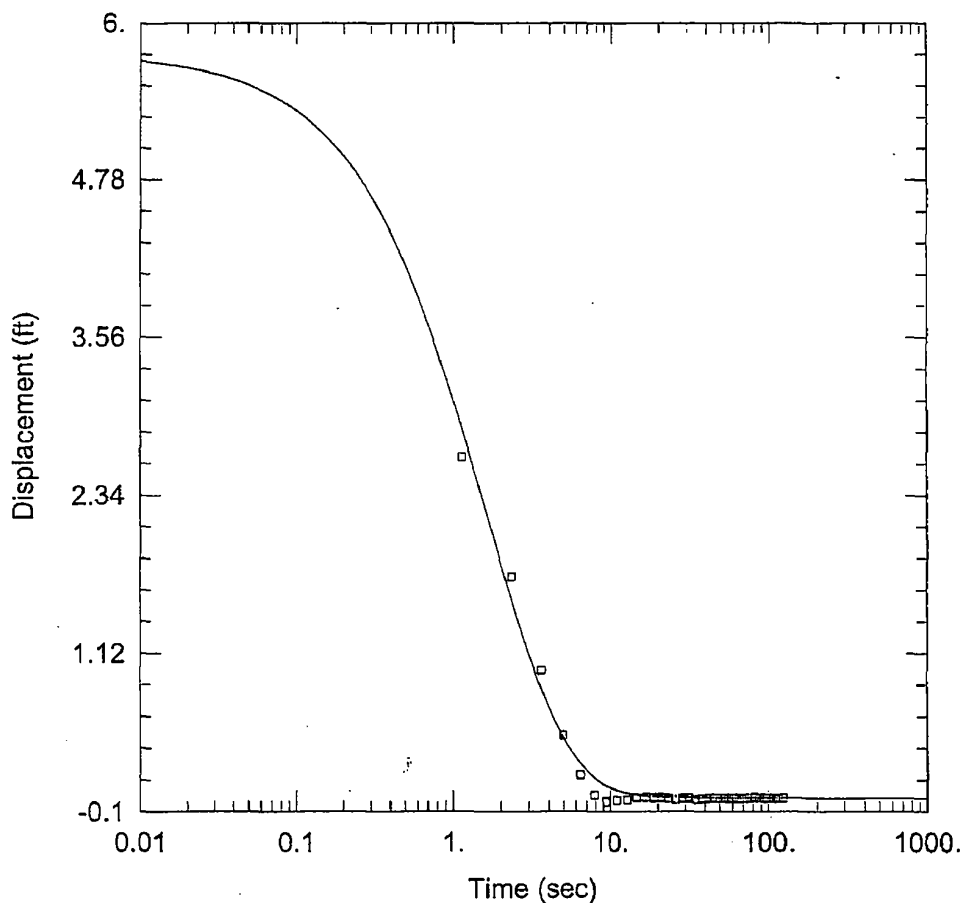
Initial Displacement: 5.779 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110.4 ft
 Screen Length: 17.7 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined
 K = 42.01 ft/day

Solution Method: Butler
 Le = 0.1 ft

OW-735 L RISING HEAD TEST 5-15-08PROJECT INFORMATION

Company: Turkey Point
Client: BECHTEL
Project: 6468-07-1950
Location: Turkey Point
Test Well: OW-735 L
Test Date: 5-20-08

AQUIFER DATA

Saturated Thickness: 87. ft

WELL DATA (OW-735 L)

Initial Displacement: 5.779 ft
Total Well Penetration Depth: 110. ft
Casing Radius: 0.083 ft

Static Water Column Height: 110.4 ft
Screen Length: 17.7 ft
Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined

Solution Method: KGS Model

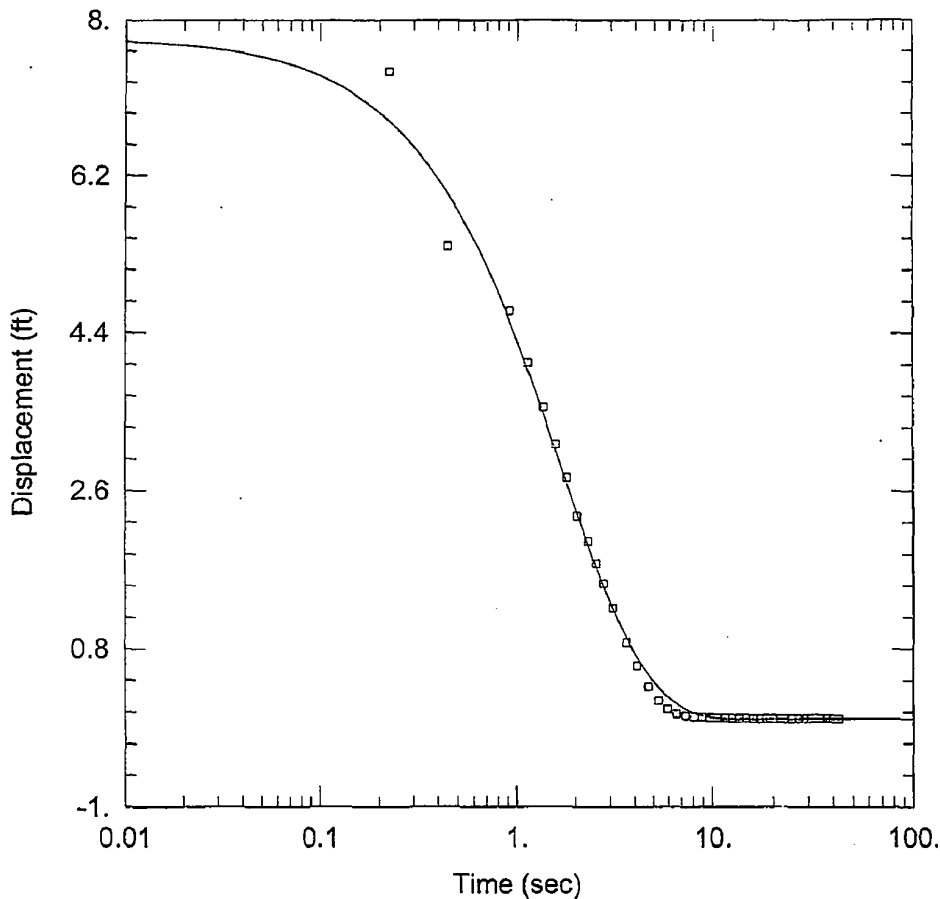
Kr = 32.05 ft/day
Kz/Kr = 1.

Ss = 2.446E-6 ft⁻¹



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Beeh Tel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-802U</u>	MACTEC Rep: <u>Kim Chels - Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	Final stickup from g.s. = 3.53'		
Static Water Level	4.60' feet From TOC		
Total Well Depth	29.11' feet From TOC		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	10' feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	mini troll transducer probe calibrated 4/29/08 Expires 4/29/09. Level troll @ 700 SN: 112478 winsite:		
Slug Data	Used pneumatic slug to perform test.		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	OW-802UBG	NA	OW-802UR
Start Time	16:31:44		16:36:39
End Time	16:33:16.18		16:37:26
Notes	Key 5-20-08		



Prepared by: 048 Date: 6-20-08
 Checked by: LSH Date: 6-20-08

OW-802 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-802 U
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 25.8 ft

WELL DATA (OW-802 U)

Initial Displacement: 7.799 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.8 ft
 Screen Length: 17. ft
 Well Radius: 0.25 ft

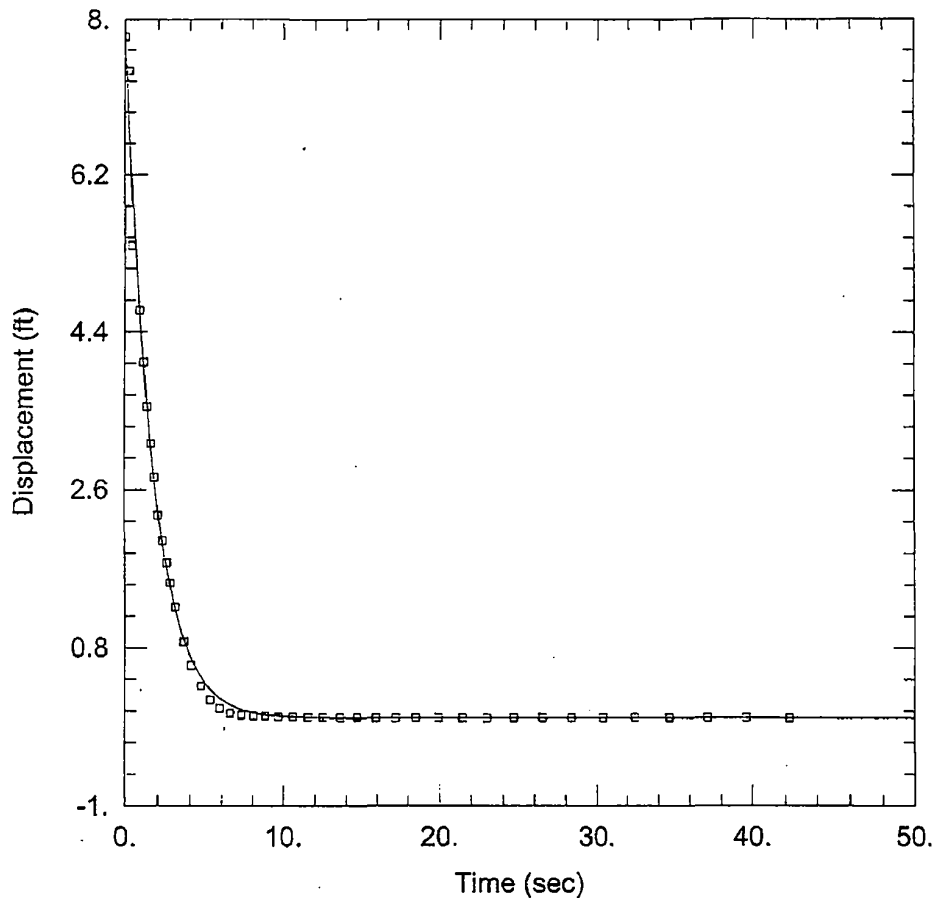
SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 41.06 ft/day
 Kz/Kr = 1.

Ss = 3.704E-12 ft⁻¹



Prepared by: CHB Date: 6-20-08
 Checked by: WJ Date: 6-10-08

OW-802 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-802 U
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 25.8 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-802 U)

Initial Displacement: 7.799 ft Static Water Column Height: 25.8 ft
 Total Well Penetration Depth: 27. ft Screen Length: 17. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

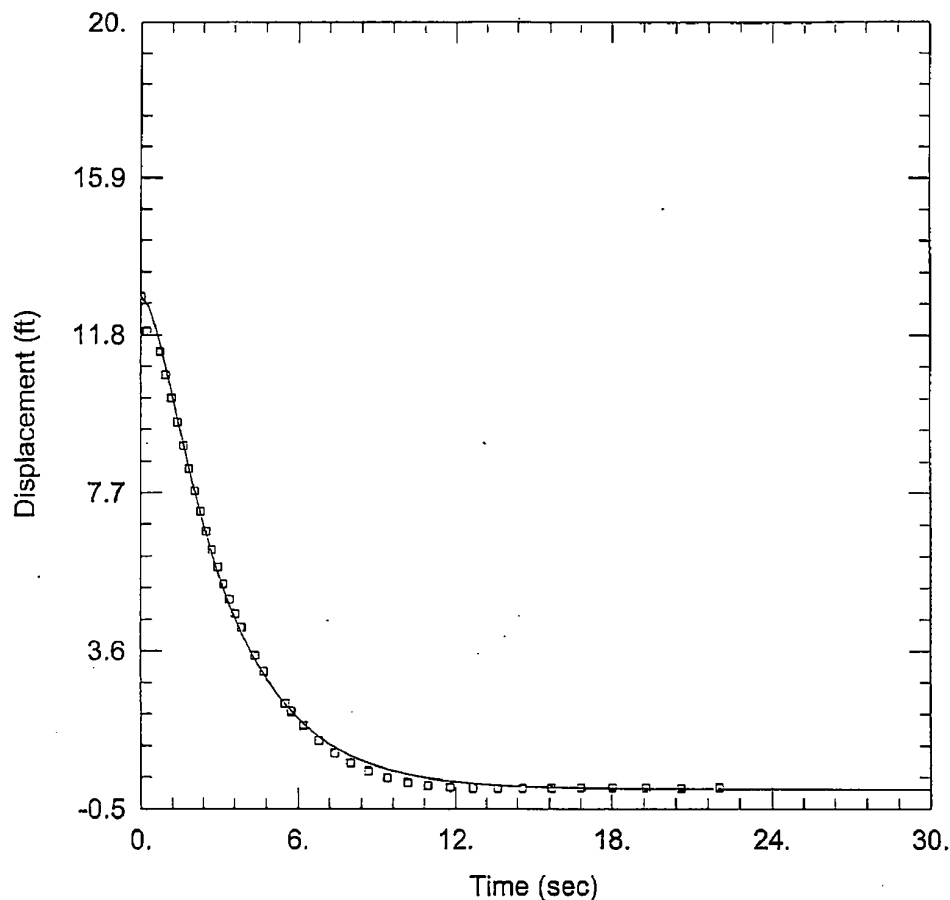
SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 31.9 ft/day Le = 1.8 ft



SLUG TEST REPORT

Project Name: <u>TPCd</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-802L</u>	MACTEC Rep: <u>Kim Charles Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	<u>Final stickup = 3.45'</u>		
Static Water Level	<u>3.06'</u> feet <u>From TOC</u>		
Total Well Depth	<u>112.35'</u> feet <u>From TOC</u>		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	<u>10'</u> feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	<u>mini trail transducer calibrated 4/29/08, Exp. 4/29/09</u> <u>SN: 118478 level trail @ 700</u> <u>Winsitu</u>		
Slug Data	<u>Used pneumatic slug to perform test.</u>		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	<u>OW-802L BG</u>	<u>NA</u>	<u>OW-802LR</u>
Start Time	<u>17:15:19</u>		
End Time			<u>17:15:45</u>
Notes			



Prepared by: CHB Date: 6-20-08

Checked by: hbr Date: 6-30-08

OW-802 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-802 L
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 88. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-802 L)

Initial Displacement: 12.8 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110.2 ft
 Screen Length: 17. ft
 Well Radius: 0.21 ft

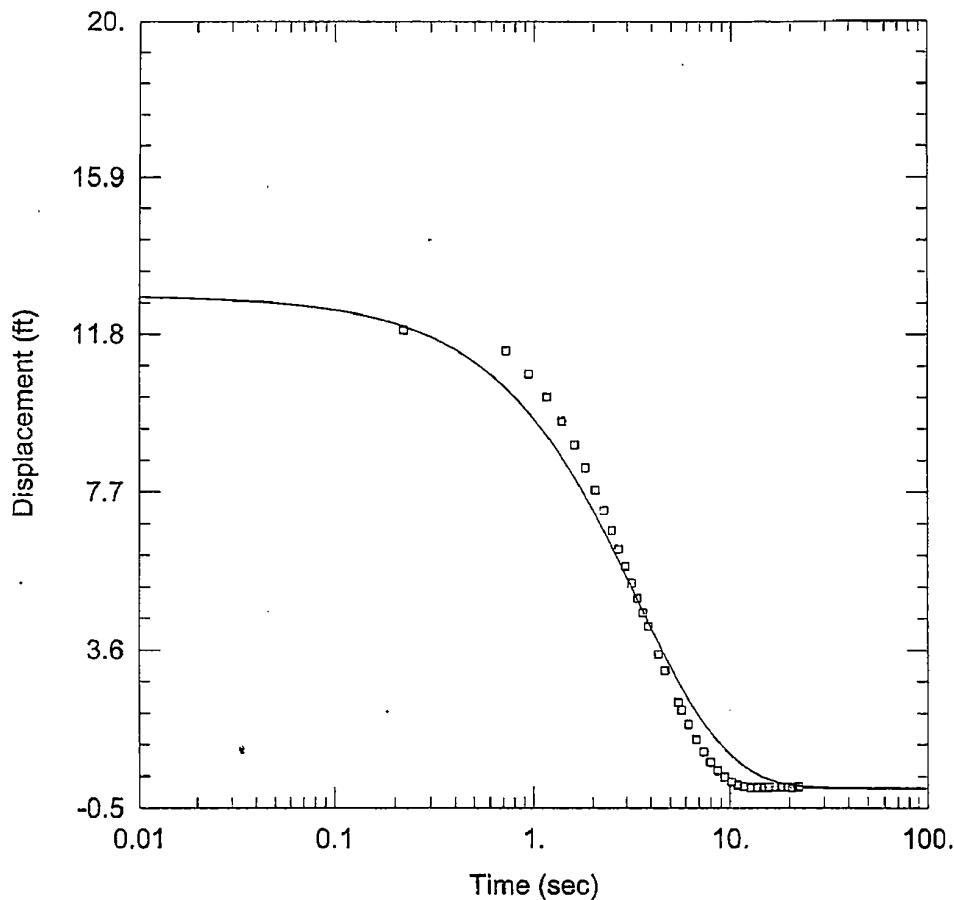
SOLUTION

Aquifer Model: Confined

Solution Method: Butler

K = 23.28 ft/day

Le = 58.98 ft



Prepared by: LLB Date: 6-20-08

Checked by: WGL Date: 6-20-08

OW-802 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-802 L
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 88 ft

WELL DATA (OW-802 L)

Initial Displacement: 12.8 ft Static Water Column Height: 110.2 ft
 Total Well Penetration Depth: 110 ft Screen Length: 17 ft
 Casing Radius: 0.083 ft Well Radius: 0.21 ft

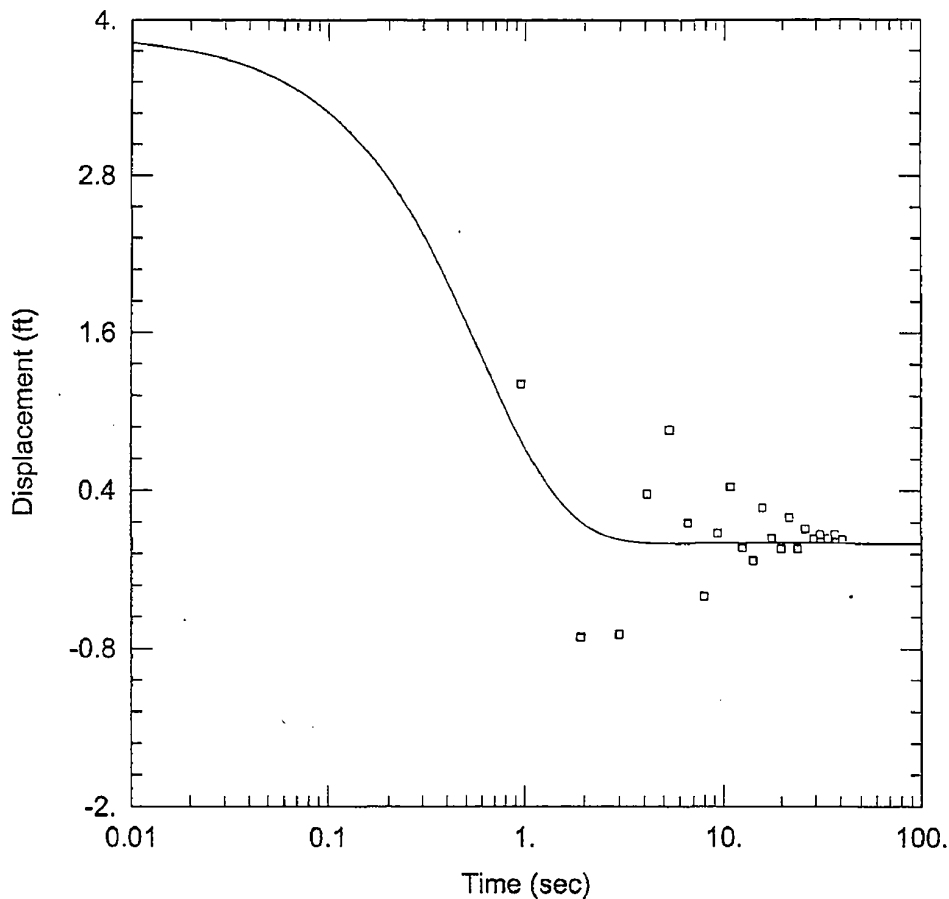
SOLUTION

Aquifer Model: Confined Solution Method: KGS Model
 $K_r = 30.99$ ft/day $S_s = 1.26E-20$ ft⁻¹
 $K_z/K_r = 1$



SLUG TEST REPORT

Project Name: Tukey Point COL	6468071950	Page 1 of 1
Client: Bechtel	Contractor: MACTEC	OW-805U
Location: Homestead, FL	MACTEC Rep: <u>Kim Chaff-Smith</u>	Date: <u>06.06.08</u>
UNITS		
Length	Feet	
Time	Minutes	
Well Data	Stickup = 3.1' From g.s.	
Static Water Level	3.00' feet From TOC	
Total Well Depth	33.85' feet From TOC	
Static Water Column Height (H)	feet	
Observed Initial Displacement (H ₀)	Background	Falling Head
	NA	
Saturated Thickness (b)	feet 15-28 screen	
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1 13 Top screen	
Depth to Top of Well Screen (d)		
Length of Well Screen (L)	10 feet	
Radius of Well Casing (rc)	0.083 feet	
Radius of Screen (rw)	0.083 feet	
Radius of Probe (req)		
Radius of Boring (rsk) Skin Effect	0.083 feet	
Probe Serial Number	mini Troll Transducer probe calibrated 4/29/08 Expires 4/29/09 level troll 700 Sn: 118478 winsitu	
Slug Data	Used pneumatic slug to perform test	
Length		
Weight		
Diameter		
Slug Test File	Background	Falling
File Name	OW-805UBG	NA
Start Time	03:35:15	03:40:34
End Time	03:37:21	03:50:05
Notes	2nd Rising test OW-805UR 03:54:32 03:55:29 6-6-08	
Rev 0		



Prepared by: CHP Date: 6-20-08
 Checked by: WJ Date: 6-20-08

OW-805 U RISING HEAD TEST 6-06-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-805 U
 Test Date: 6/06/2008

AQUIFER DATA

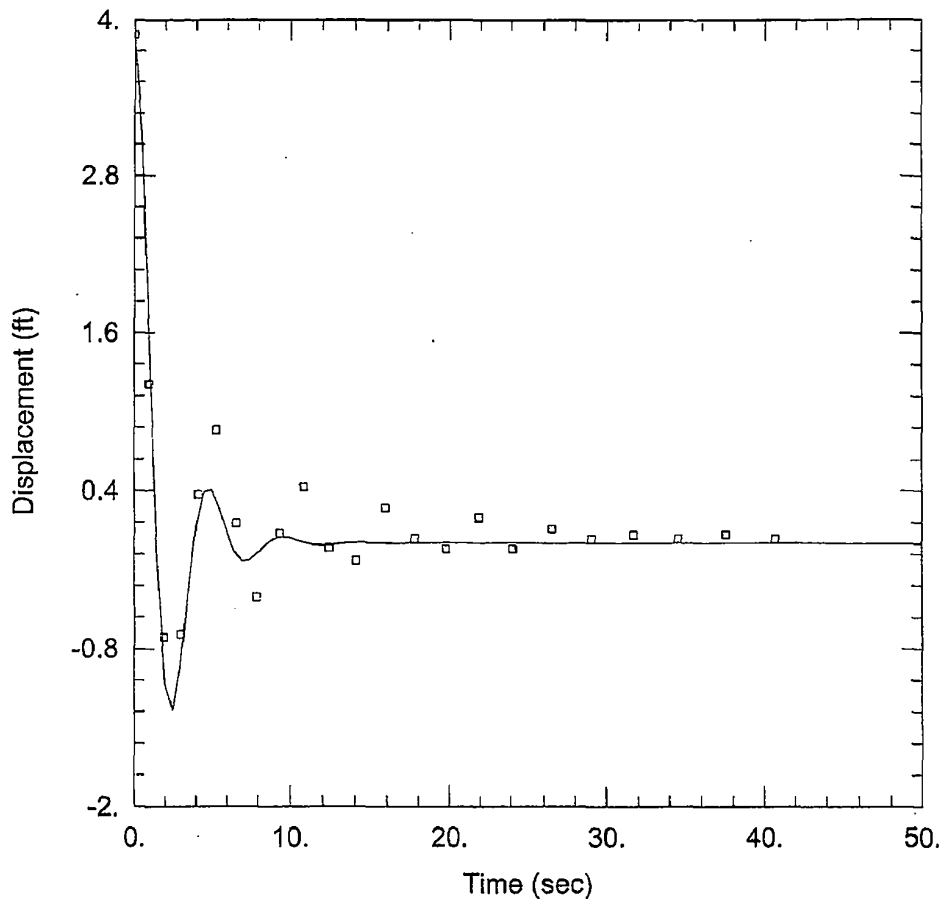
Saturated Thickness: 32.3 ft

WELL DATA (OW-805 U)

Initial Displacement: <u>3.886 ft</u>	Static Water Column Height: <u>29.8 ft</u>
Total Well Penetration Depth: <u>30. ft</u>	Screen Length: <u>17. ft</u>
Casing Radius: <u>0.083 ft</u>	Well Radius: <u>0.25 ft</u>

SOLUTION

Aquifer Model: <u>Unconfined</u>	Solution Method: <u>KGS Model</u>
Kr = <u>101.7 ft/day</u>	Ss = <u>3.077E-12 ft⁻¹</u>
Kz/Kr = <u>1.</u>	



Prepared by: CH Date: 6-20-08
 Checked by: LS Date: 6-20-08

OW-805 U RISING HEAD TEST 6-06-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-805 U
 Test Date: 6/06/2008

AQUIFER DATA

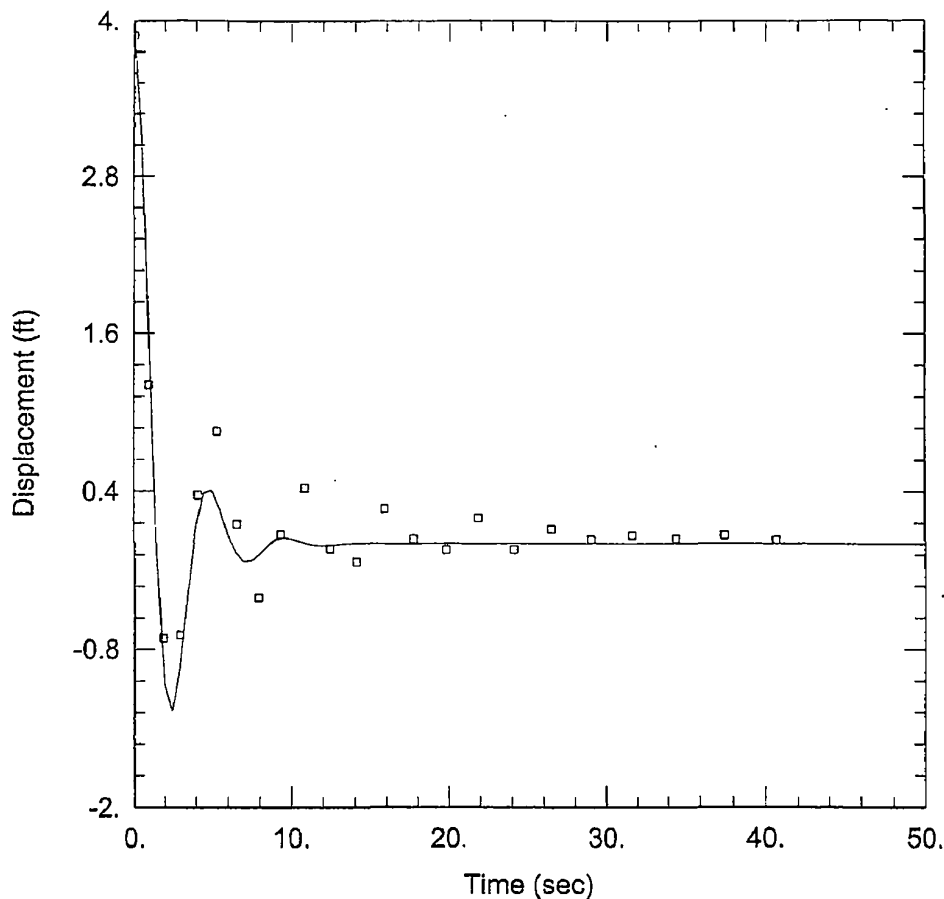
Saturated Thickness: 32.3 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-805 U)

Initial Displacement: 3.886 ft Static Water Column Height: 29.8 ft
 Total Well Penetration Depth: 30. ft Screen Length: 17. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 136.4 ft/day Le = 16.61 ft



Prepared by: CLK Date: 6-20-08

Checked by: WSE Date: 6-20-08

OW-805 U RISING HEAD TEST 6-06-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-805 U
 Test Date: 6/06/2008

AQUIFER DATA

Saturated Thickness: 32.3 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-805 U)

Initial Displacement: 3.886 ft
 Total Well Penetration Depth: 30. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 29.8 ft
 Screen Length: 17. ft
 Well Radius: 0.25 ft

SOLUTION

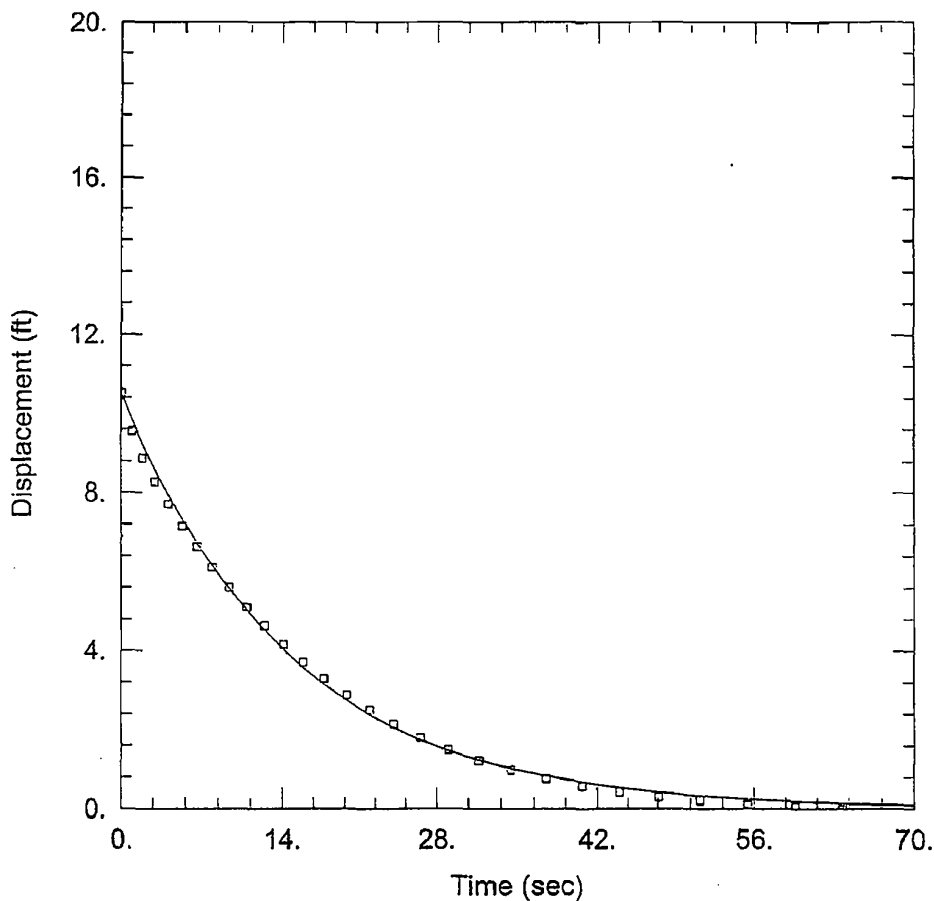
Aquifer Model: Unconfined
 $K =$ 107.1 ft/day

Solution Method: Springer-Gelhar
 $Le =$ 16.61 ft



SLUG TEST REPORT

Project Name: Tukey Point COL		8468071950		Page 1 of 1	
Client: Bechtel		Contractor: MACTEC		OW-805L	
Location: Homestead, FL		MACTEC Rep: Kim Chalks Smith		Date: 06/06/08	
UNITS					
Length		Feet			
Time		Minutes			
Well Data		Stick = 2.9' From G.S.			
Static Water Level		3.19' feet From TOC			
Total Well Depth		97.9' feet From TOC			
Static Water Column Height (H)		feet			
Observed Initial Displacement (H ₀)		Background		Falling Head	
		NA			
Saturated Thickness (b)		feet Sand 80 - 92.9			
Conductivity Anisotropy (Kv/Kh)		Assume 1 to 1 8.5 - 9.5			
Depth to Top of Well Screen (d)					
Length of Well Screen (L)		10 feet			
Radius of Well Casing (rc)		0.083 feet			
Radius of Screen (rw)		0.083 feet			
Radius of Probe (req)					
Radius of Boring (rsk) Skin Effect		0.083 feet			
Probe Serial Number		mini Troll Transducer probe Calibrated 4/29/08. Expires 4/29/09. Level troll @ 700 SN: 118478 Winsitu			
Slug Data		Used pneumatic Slug to perform test			
Length					
Weight					
Diameter					
Slug Test File		Background		Falling	
File Name		OW-805L-6-6-08		NA	
Start Time		03:35:15		04:16:39	
End Time		03:37:21		04:17:43	
Notes		04:09:39 04:10:42 2nd OW-805L-R 04:24:09 04:25:29			
Rev 0					



Prepared by: CHB Date: 6-20-08

Checked by: laser Date: 6-20-08

OW-805 L RISING HEAD TEST 6-06-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-805 L
 Test Date: 6/06/2008

AQUIFER DATA

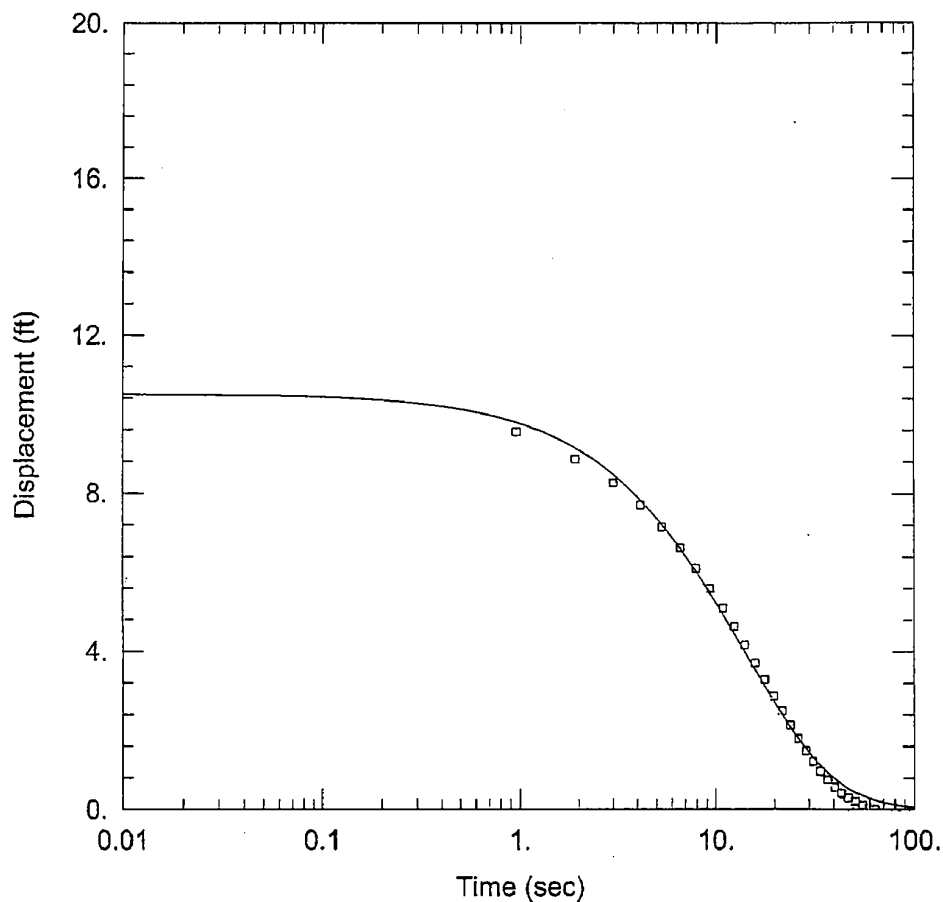
Saturated Thickness: 67.5 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-805 L)

Initial Displacement: 10.51 ft Static Water Column Height: 97.51 ft
 Total Well Penetration Depth: 97. ft Screen Length: 17. ft
 Casing Radius: 0.083 ft Well Radius: 0.21 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 5.269 ft/day Le = 0.1 ft



Prepared by: CKB Date: 6-20-08
 Checked by: WSE Date: 6-20-08

OW-805 L RISING HEAD TEST 6-06-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-805 L
 Test Date: 6/06/2008

AQUIFER DATA

Saturated Thickness: 67.5 ft

WELL DATA (OW-805 L)

Initial Displacement: 10.51 ft
 Total Well Penetration Depth: 97. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 97.51 ft
 Screen Length: 17. ft
 Well Radius: 0.21 ft

SOLUTION

Aquifer Model: Confined

Solution Method: KGS Model

Kr = 5.936 ft/day

Ss = 1.481E-12 ft⁻¹

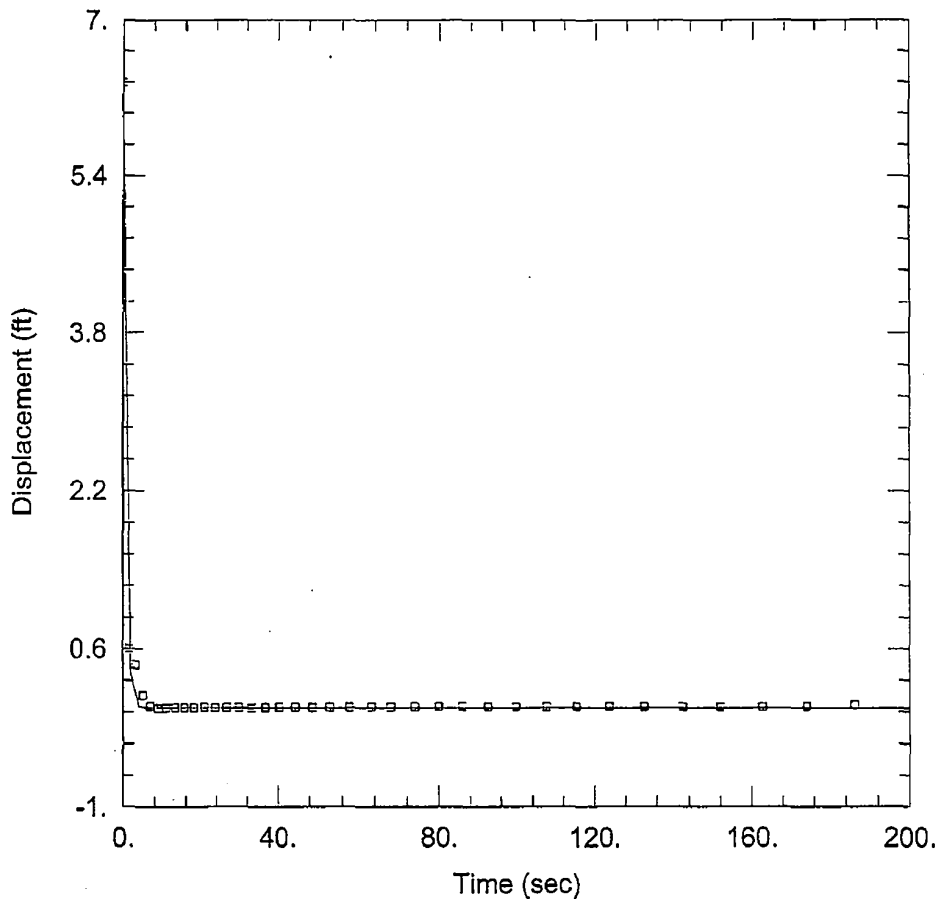
Kz/Kr = 1.



SLUG TEST REPORT

Project Name: <u>TP COL</u>		Project Number:		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>		Contractor: <u>MACTEC</u>		
Location: <u>OW-809U</u>		MACTEC Rep: <u>Kim Charles Smith</u>		Date: <u>05/15/08</u>
UNITS				
Length		Feet		
Time		Minutes		
Well Data		Final Stickup = 3.83'		
Static Water Level		4.68' feet From TOC		
Total Well Depth		29.71' feet From TOC		
Static Water Column Height (H)		25.03' feet From G.S.		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head	
	NA			
Saturated Thickness (b)		feet		
Conductivity Anisotropy (Kv/Kh)		Assume 1 to 1		
Depth to Top of Well Screen (d)				
Length of Well Screen (L)		10' feet		
Radius of Well Casing (rc)		0.083 feet		
Radius of Screen (rw)		0.083 feet		
Radius of Probe (req)				
Radius of Boring (rsk) Skin Effect		0.083 feet		
		Mini Trill transducer calibrated 4/29/08, Exp 4/29/09.		
Probe Serial Number				
Sn: <u>103345</u>				
Slug Data <u>Slug #2</u>				
Length		65.438 inches		
Weight		8.811 lbs.		
Diameter		1.662 inches		
Slug Test File	Background	Falling	Rising	
File Name	<u>OW-809UBG</u>	<u>OW-809UF</u>	<u>OW-809UR</u>	
Start Time	<u>13:22:17</u>	<u>13:38:04</u>	<u>13:54:56</u>	
End Time	<u>13:34:53</u>	<u>13:48:40</u>	<u>14:10:44</u>	
Notes	<u>no extra used on TOC</u> <u>Regr. OW-809UF @ 14:13:16 hrs.</u>			

Rev 0



Prepared by: CHB Date: 6-20-08
 Checked by: WSE Date: 6-20-08

OW-809 U FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 25.52 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-809 U)

Initial Displacement: 6.358 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.52 ft
 Screen Length: 14.4 ft
 Well Radius: 0.25 ft

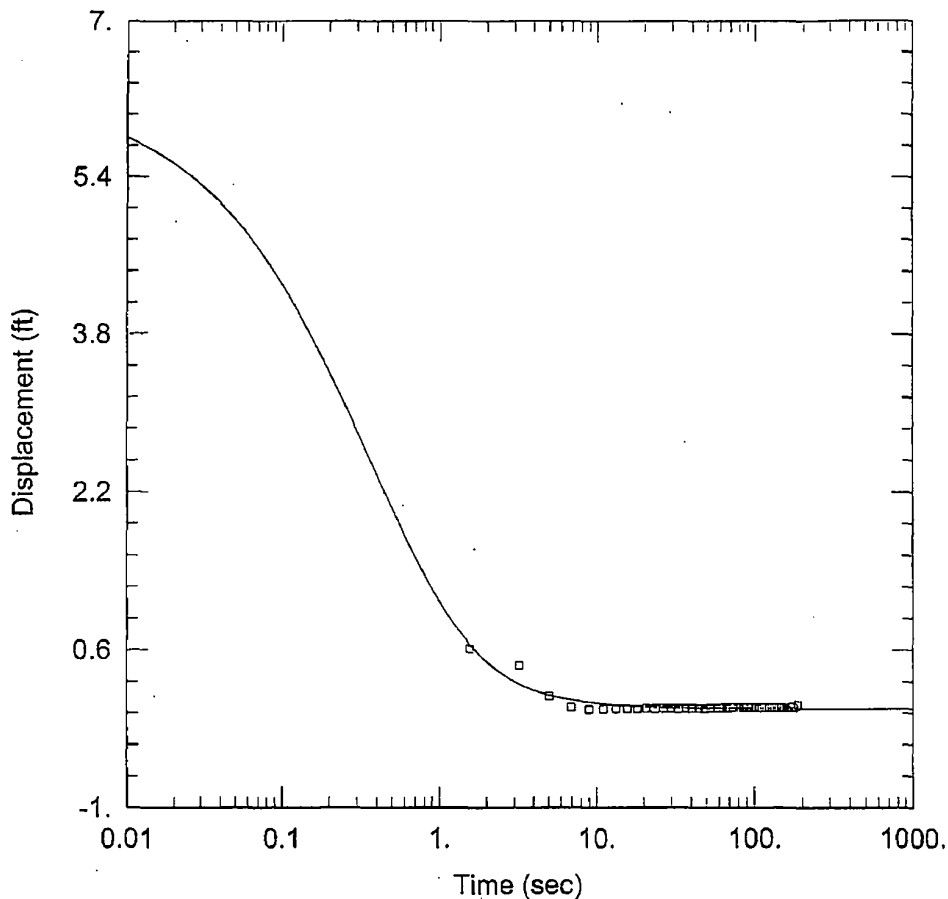
SOLUTION

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

K = 91.2 ft/day

Le = 0.1 ft



Prepared by: CHK Date: 6-20-08

Checked by: WV Date: 6-20-08

OW-809 U FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 25.52 ft

WELL DATA (OW-809 U)

Initial Displacement: 6.358 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.52 ft
 Screen Length: 14.4 ft
 Well Radius: 0.25 ft

SOLUTION

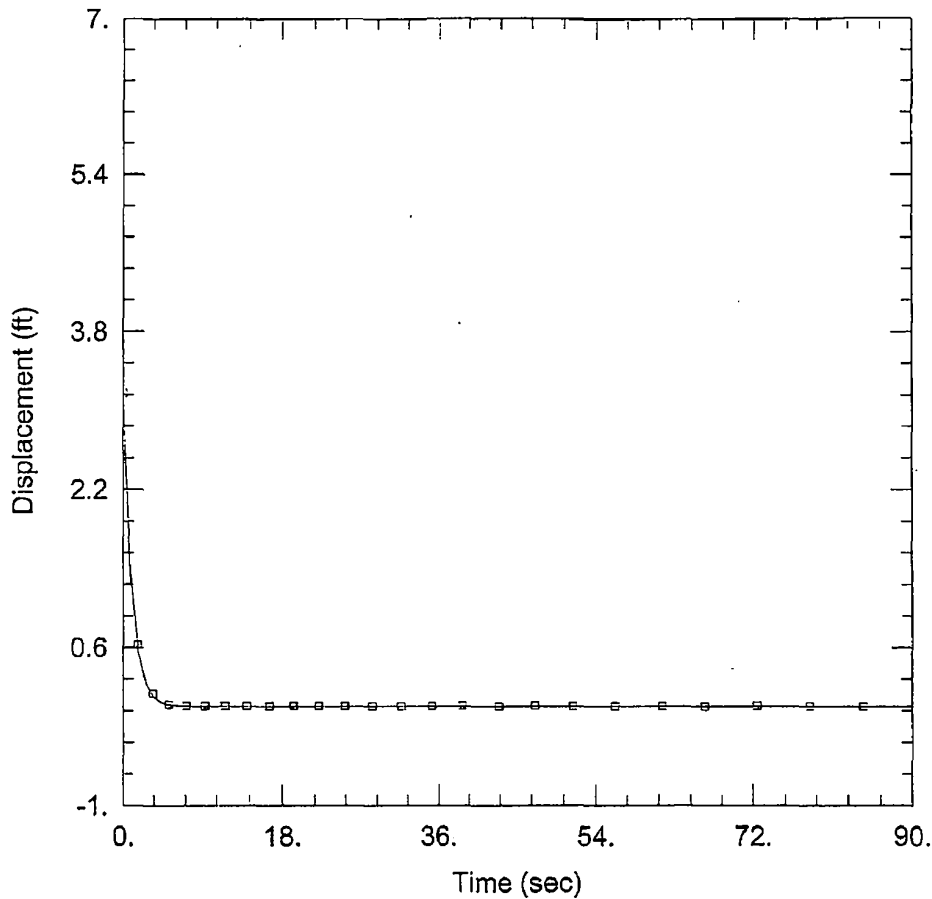
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 102.9 ft/day

Ss = 0.0003374 ft⁻¹

Kz/Kr = 1.



Prepared by: CHB Date: 6-20-08
 Checked by: us Date: 6-20-08

OW-809 U RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/15/2008

AQUIFER DATA

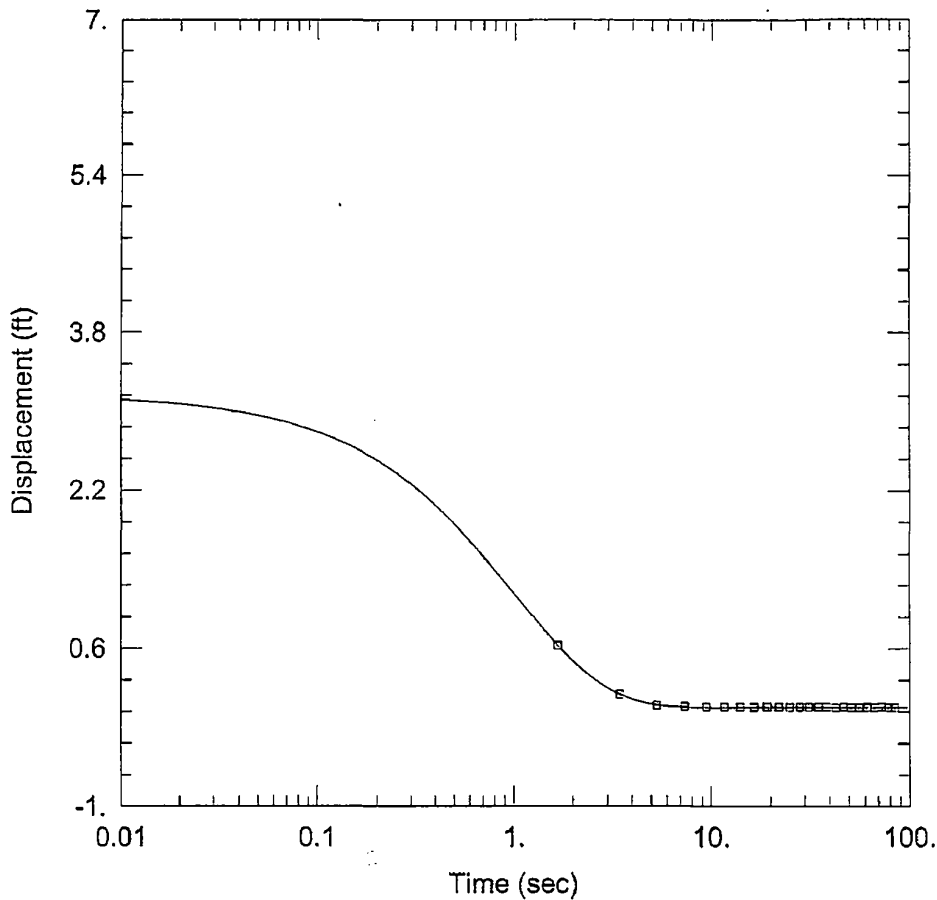
Saturated Thickness: 25.52 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-809 U)

Initial Displacement: 3.175 ft Static Water Column Height: 25.52 ft
 Total Well Penetration Depth: 27. ft Screen Length: 14.4 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 60.67 ft/day Le = 0.1 ft



Prepared by: CH Date: 6-20-08
 Checked by: JS Date: 6-20-08

OW-809 U RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 25.52 ft

WELL DATA (OW-809 U)

Initial Displacement: 3.175 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.52 ft
 Screen Length: 14.4 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

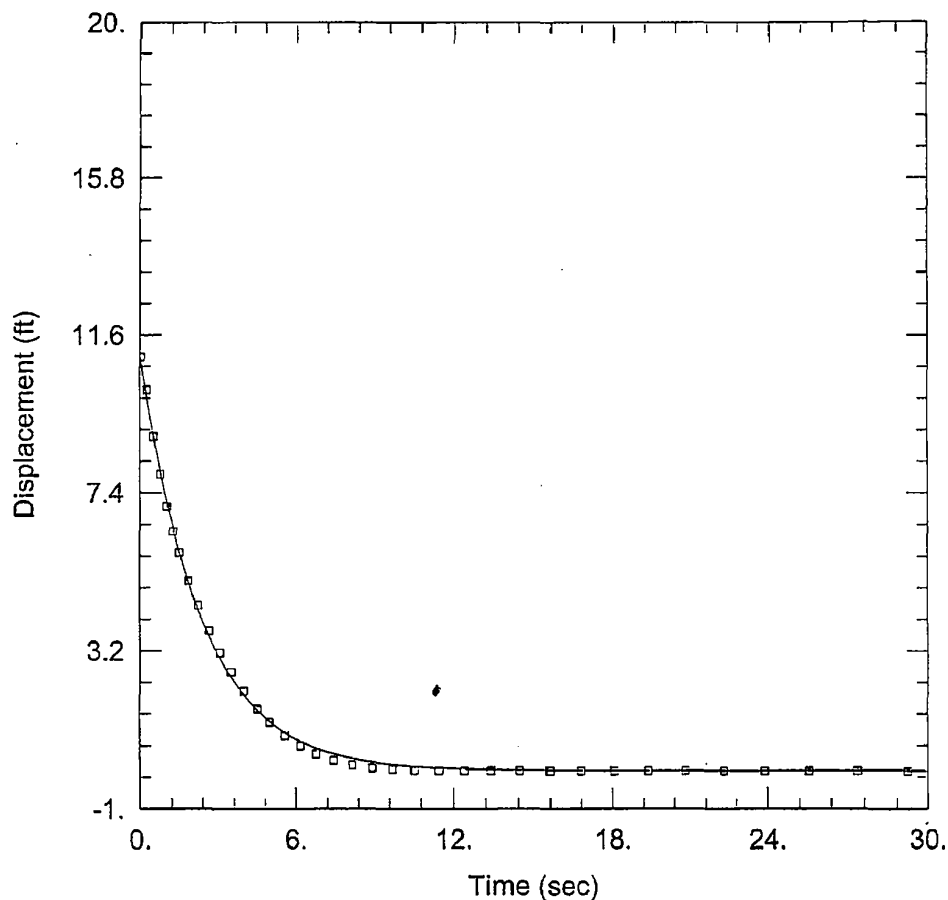
Kr = 82.32 ft/day
 Kz/Kr = 1.

Ss = 2.789E-6 ft⁻¹



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>WAB-01-P80</u>	Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>	
Location: <u>OW-8094</u>	MACTEC Rep: <u>Kim Charles-Smith</u>	Date: <u>05/20/08</u>
UNITS		
Length	Feet	
Time	Minutes	
Well Data	Final Stickup = 3.83'	
Static Water Level	4.72' feet From TOC	
Total Well Depth	29.71' feet From TOC	
Static Water Column Height (H)	feet	
	Background	Falling Head
Observed Initial Displacement (H ₀)	NA	Rising Head
Saturated Thickness (b)	feet	
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1	
Depth to Top of Well Screen (d)		
Length of Well Screen (L)	10' feet	
Radius of Well Casing (rc)	0.083 feet	
Radius of Screen (rw)	0.083 feet	
Radius of Probe (req)		
Radius of Boring (rsk) Skin Effect	0.083 feet	
	mini Troll Transducer probe calibrated 4/29/08, EXP 4/29/09	
Probe Serial Number	SN 118478 level Troll® For Winsco	
Slug Data	used pneumatic slug to perform test	
Length		
Weight		
Diameter		
	Background	Falling
Slug Test File		Rising
File Name	OW-8094BG	NA
Start Time	09:24:23	09:33:23
End Time	09:27:32	09:33:54
Notes		



Prepared by: CHB Date: 6-20-08
 Checked by: WY Date: 6-20-08

OW-809 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/20/2008

AQUIFER DATA

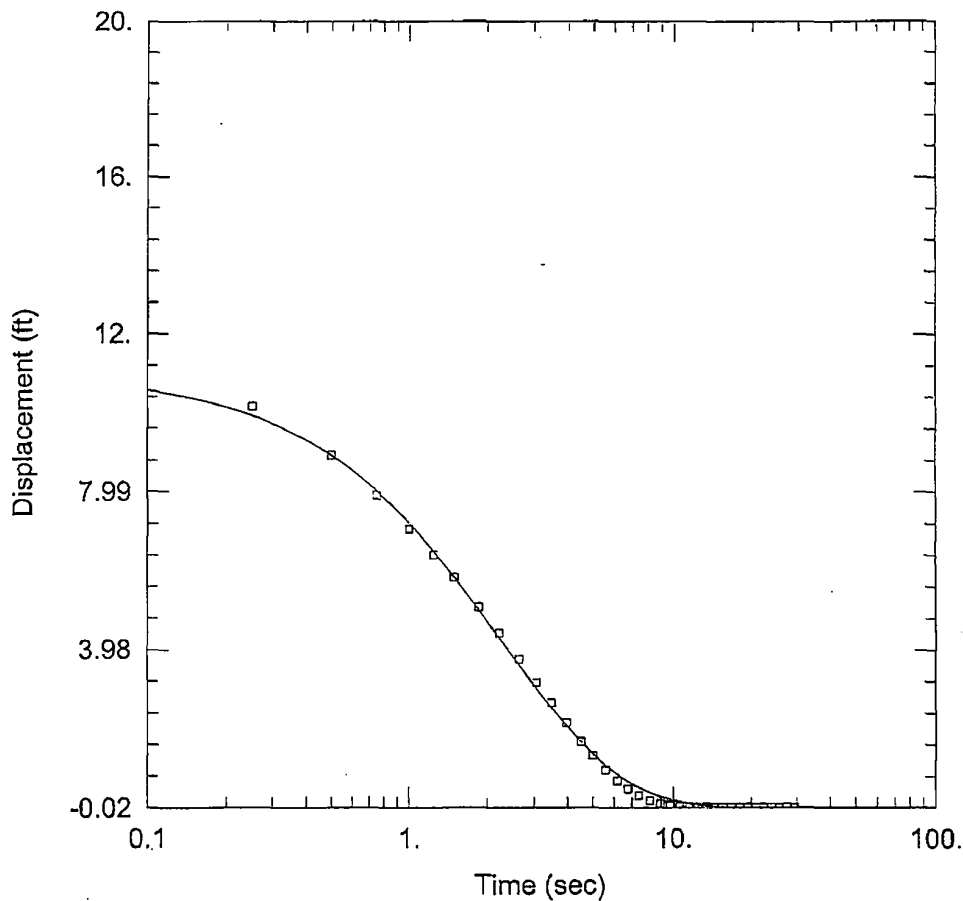
Saturated Thickness: 25.48 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-809 U)

Initial Displacement: 11.02 ft Static Water Column Height: 25.48 ft
 Total Well Penetration Depth: 27. ft Screen Length: 14.4 ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 26.86 ft/day Le = 1.028 ft



Prepared by: C.H.S. Date: 6-20-08
 Checked by: W.S. Date: 6-16-08

OW-809 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 U
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 25.48 ft

WELL DATA (OW-809 U)

Initial Displacement: 11.02 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.48 ft
 Screen Length: 14.4 ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 35.94 ft/day

Ss = 4.032E-19 ft⁻¹

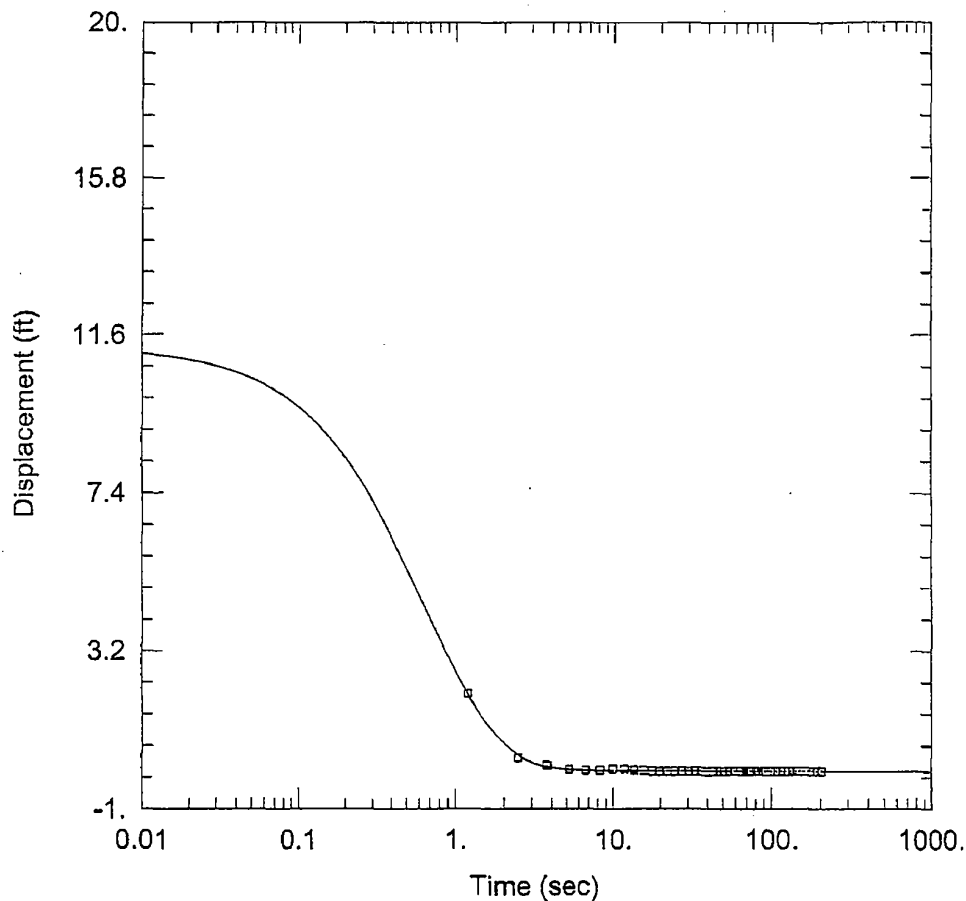
Kz/Kr = 1.



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number:		Page	of	
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>				
Location: <u>OW-809L</u>	MACTEC Rep: <u>Kim Chels Smith</u>		Date: <u>05/15/08</u>		
UNITS					
Length	Feet				
Time	Minutes				
Well Data:	Final Static = 3.75'				
Static Water Level	3.26 feet From TOC				
Total Well Depth	109.92 feet From TOC				
Static Water Column Height (H)	106.66 105.68 feet From G.S.				
	Background	Falling Head	Rising Head		
Observed Initial Displacement (H ₀)	NA				
Saturated Thickness (b)	feet				
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1				
Depth to Top of Well Screen (d)					
Length of Well Screen (L)	10' feet				
Radius of Well Casing (rc)	0.083 feet				
Radius of Screen (rw)	0.083 feet				
Radius of Probe (req)					
Radius of Boring (rsk) Skin Effect	0.083 feet				
Probe Serial Number	Mini Toll Probe Calibrated 4/29/08. Exp. 4/29/09 Transducer				
Slug Data	Slug #2				
Length	65.438 inches				
Weight	8.811 lbs.				
Diameter	1.662 inches				
Slug Test File	Background	Falling	Rising		
File Name	OW-809LBG	OW-809LF	OW-809LR		
Start Time	12:36:37	12:46:05	12:59:45		
End Time	12:42:56	12:56:41	13:13:03		
Notes	Extended TO TO 5.81' above G.S.				

Rev 0



Prepared by: CHS Date: 6-20-08

Checked by: LS Date: 6-20-08

OW-809 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 L
 Test Date: 5/15/2008

AQUIFER DATA

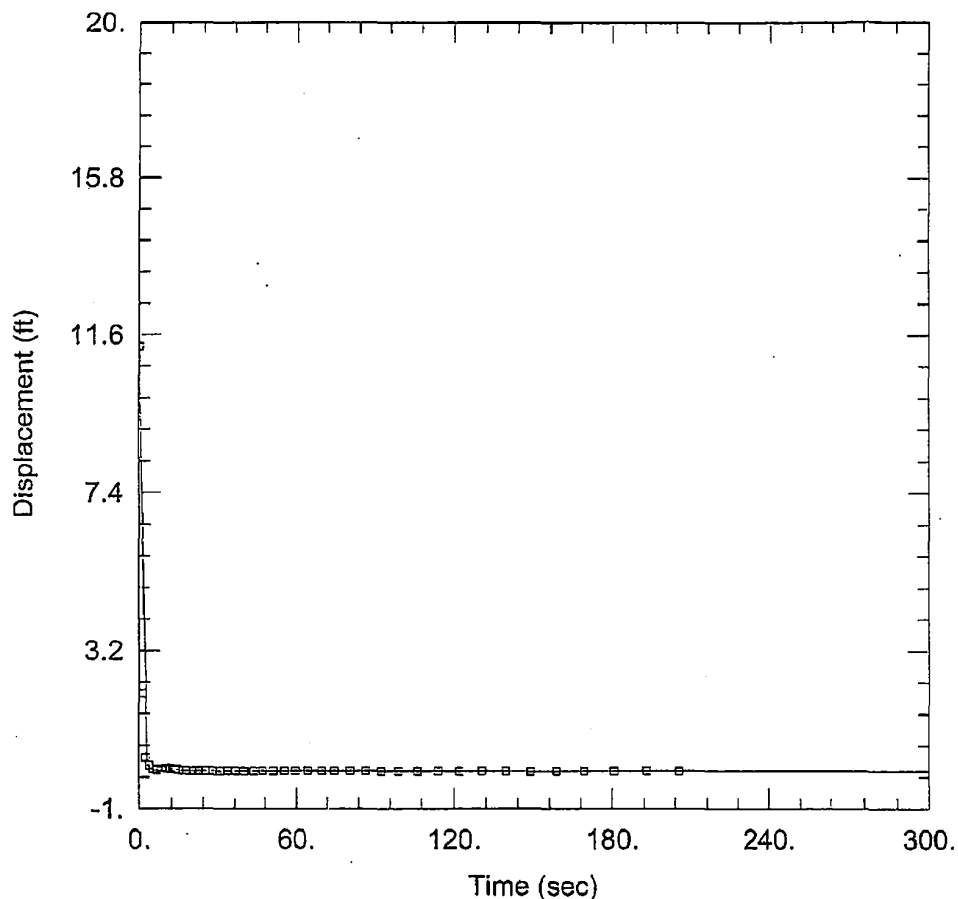
Saturated Thickness: 88. ft

WELL DATA (OW-809 L)

Initial Displacement: 11.29 ft Static Water Column Height: 110. ft
 Total Well Penetration Depth: 110. ft Screen Length: 19. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: KGS Model
 $K_r = 108.6 \text{ ft/day}$ $S_s = 4.263\text{E-}12 \text{ ft}^{-1}$
 $K_z/K_r = 1.$



Prepared by: C HB Date: 6-20-08

Checked by: WXB Date: 6-20-08

OW-809 L FALLING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 L
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 88. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-809 L)

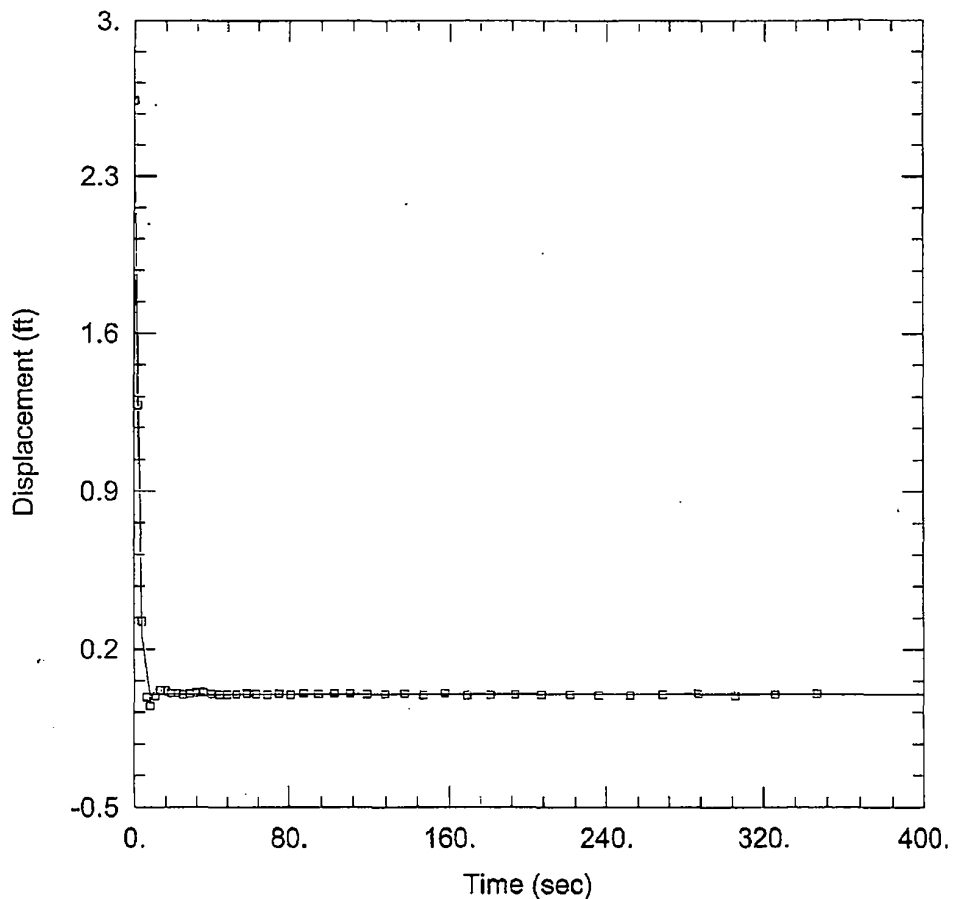
Initial Displacement: 11.29 ft
 Total Well Penetration Depth: 110. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 110. ft
 Screen Length: 19. ft
 Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined
 $K = 103.7$ ft/day

Solution Method: Butler
 $L_e = 0.1$ ft



Prepared by: CHT Date: 6-20-08

Checked by: WJR Date: 6-20-08

OW-809 L RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 L
 Test Date: 5/15/2008

AQUIFER DATA

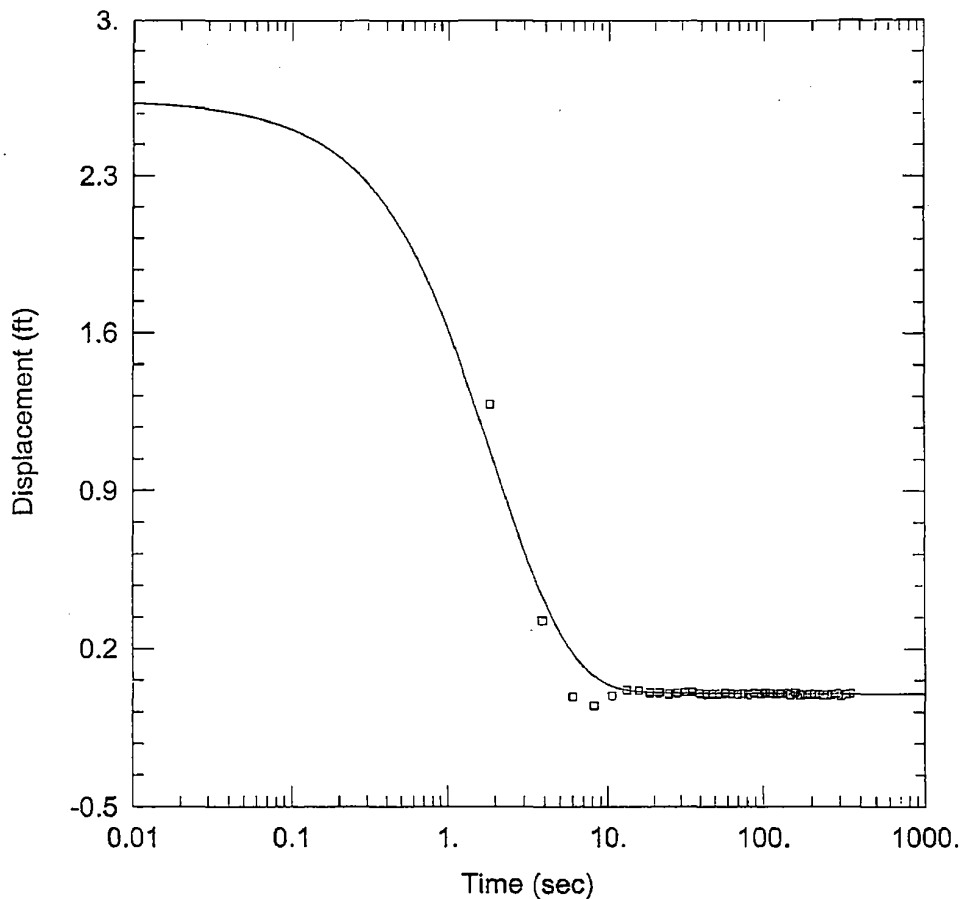
Saturated Thickness: 88. ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (OW-809 L)

Initial Displacement: 2.64 ft Static Water Column Height: 110. ft
 Total Well Penetration Depth: 110. ft Screen Length: 19. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 $K = 33.43$ ft/day $L_e = 42.49$ ft



Prepared by: CLB Date: 6-20-08

Checked by: WSL Date: 6-20-08

OW-809 L RISING HEAD TEST 5-15-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-809 L
 Test Date: 5/15/2008

AQUIFER DATA

Saturated Thickness: 88. ft

WELL DATA (OW-809 L)

Initial Displacement: 2.64 ft Static Water Column Height: 110. ft
 Total Well Penetration Depth: 110. ft Screen Length: 19. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

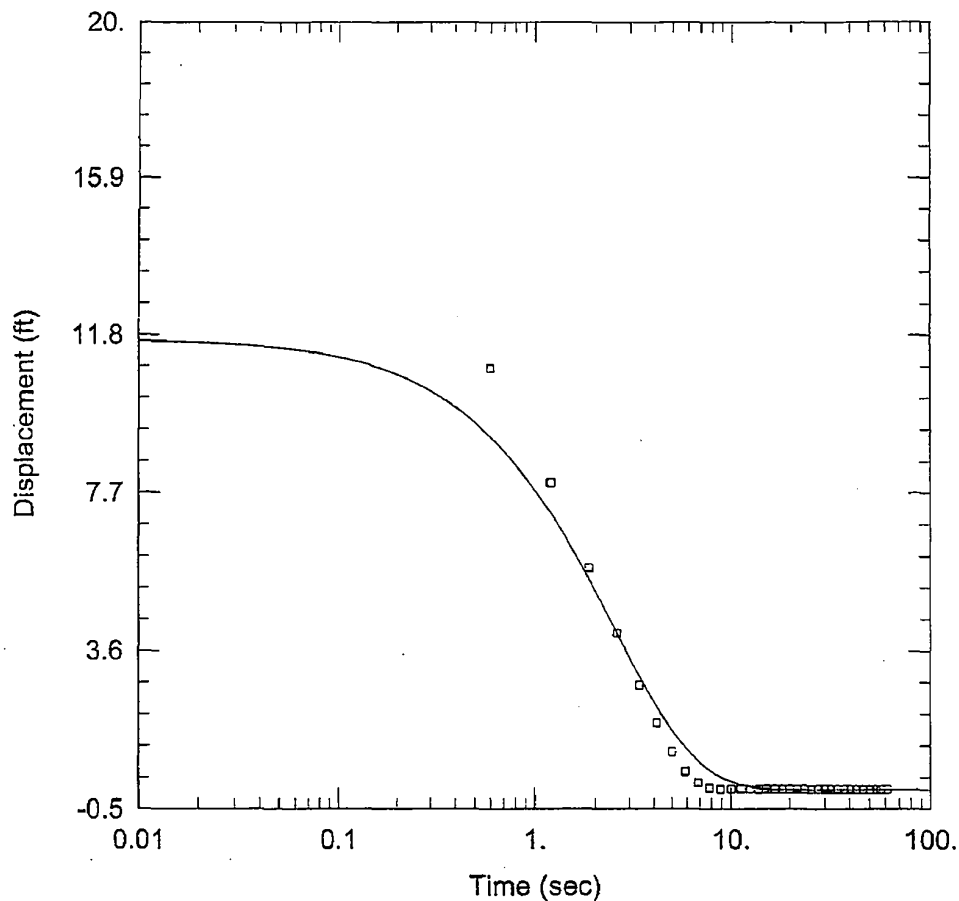
SOLUTION

Aquifer Model: Confined Solution Method: KGS Model
 $K_r = 36.57 \text{ ft/day}$ $S_s = 1.136\text{E-}12 \text{ ft}^{-1}$
 $K_z/K_r = 1.$



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6408-07-1150</u>		Page	of
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>			
Location: <u>OW-812U</u>	MACTEC Rep: <u>Kim Chabo-Smith</u>		Date: <u>05/20/08</u>	
UNITS				
Length	Feet			
Time	Minutes			
Well Data	Final Static = 3.15' From S.S.			
Static Water Level	4.55' feet From TOC			
Total Well Depth	30.30' feet From TOC			
Static Water Column Height (H)	feet			
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head	
	NA			
Saturated Thickness (b)	feet			
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1			
Depth to Top of Well Screen (d)				
Length of Well Screen (L)	10' feet			
Radius of Well Casing (rc)	0.083 feet			
Radius of Screen (rw)	0.083 feet			
Radius of Probe (req)				
Radius of Boring (rsk) Skin Effect	0.083 feet			
Probe Serial Number	Mini-toll transducer probe calibrated 4/29/08, 4/29/08 SN: 118478 level trail @ 700 Winsitu			
Slug Data	Used pneumatic slug to perform test.			
Length				
Weight				
Diameter				
Slug Test File	Background	Falling	Rising	
File Name	OW-812UBG	NA	OW-812UR	
Start Time	16:05:53		16:13:19	
End Time	16:08:21		16:14:31	
Notes				



Prepared by: CAB Date: 6-20-08

Checked by: WV Date: 6-26-08

OW-812 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-812 U
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 25.45 ft

WELL DATA (OW-812 U)

Initial Displacement: 11.68 ft
 Total Well Penetration Depth: 27. ft
 Casing Radius: 0.083 ft

Static Water Column Height: 25.45 ft
 Screen Length: 16. ft
 Well Radius: 0.25 ft

SOLUTION

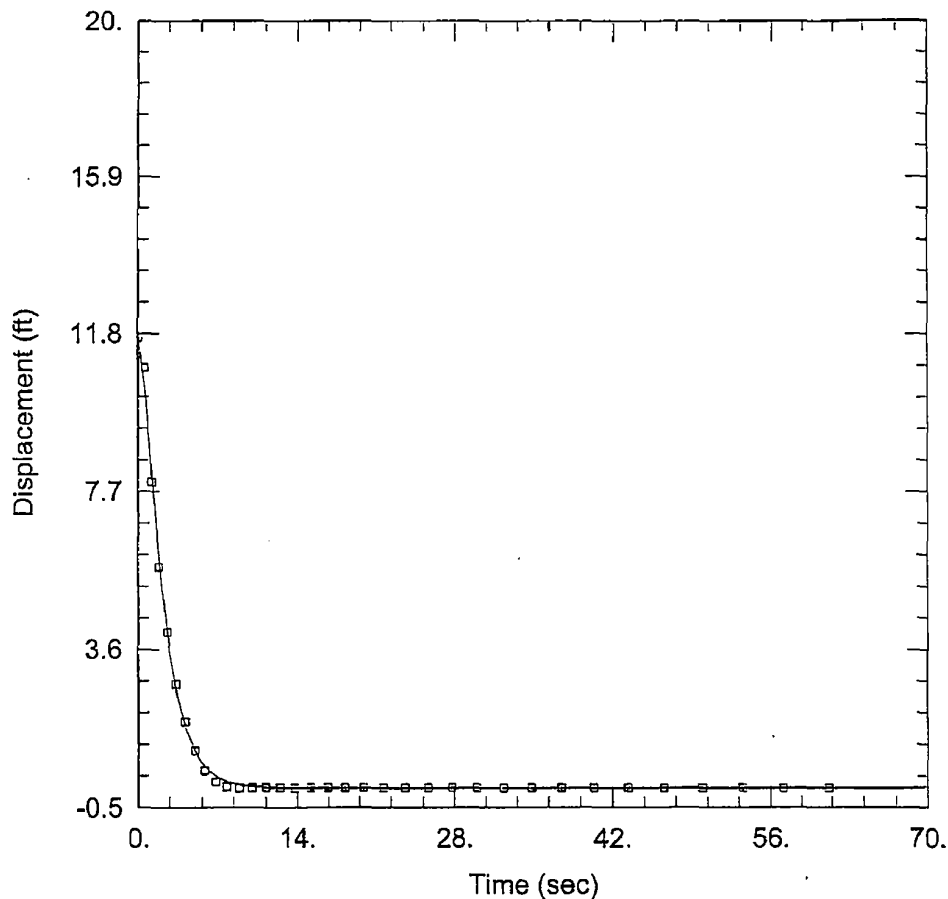
Aquifer Model: Unconfined

Solution Method: KGS Model

Kr = 31.24 ft/day

Ss = 3.704E-20 ft⁻¹

Kz/Kr = 1.



Prepared by: CHB Date: 6-20-08
 Checked by: WSE Date: 6-10-08

OW-812 U RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-812 U
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 25.45 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-812 U)

Initial Displacement: 11.68 ft Static Water Column Height: 25.45 ft
 Total Well Penetration Depth: 27. ft Screen Length: 16. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

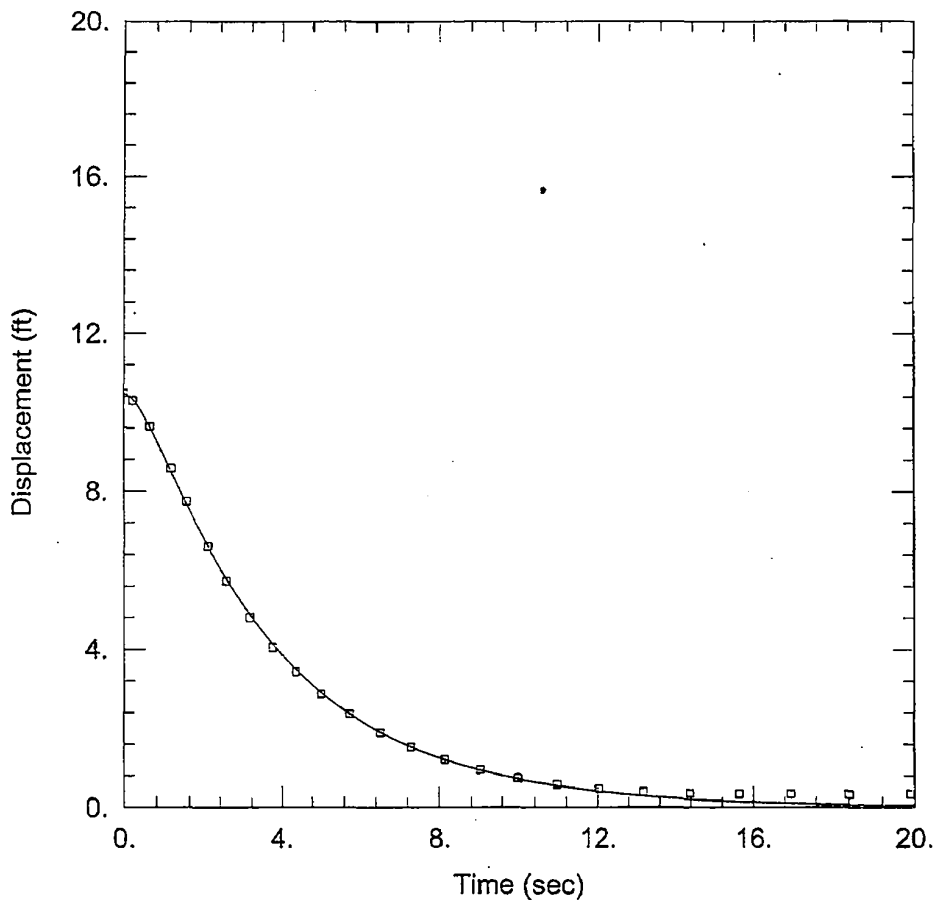
SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar
 K = 24.49 ft/day Le = 36.28 ft



SLUG TEST REPORT

Project Name: <u>TPCOL</u>	Project Number: <u>6468-07-1950</u>		Page <u>1</u> of <u>1</u>
Client: <u>Bechtel</u>	Contractor: <u>MACTEC</u>		
Location: <u>OW-812L</u>	MACTEC Rep: <u>Kim Charles Smith</u>		Date: <u>05/20/08</u>
UNITS			
Length	Feet		
Time	Minutes		
Well Data	<u>Kim Stickup from GS = 3.33'</u>		
Static Water Level	<u>3.01'</u> feet		
Total Well Depth	<u>111.75'</u> feet		
Static Water Column Height (H)	feet		
Observed Initial Displacement (H ₀)	Background	Falling Head	Rising Head
	NA		
Saturated Thickness (b)	feet		
Conductivity Anisotropy (Kv/Kh)	Assume 1 to 1		
Depth to Top of Well Screen (d)			
Length of Well Screen (L)	<u>10</u> feet		
Radius of Well Casing (rc)	0.083 feet		
Radius of Screen (rw)	0.083 feet		
Radius of Probe (req)			
Radius of Boring (rsk) Skin Effect	0.083 feet		
Probe Serial Number	<u>Transducer Mini-trail probe calibrated 4/29/08, 24/4/09</u> <u>Sn: 110478 level Trail 700</u> <u>Winsite</u>		
Slug Data	<u>USED pneumatic slug to perform test</u>		
Length			
Weight			
Diameter			
Slug Test File	Background	Falling	Rising
File Name	<u>OW-812L BG</u>	<u>NA</u>	<u>OW-812LR</u>
Start Time	<u>15:52:14</u>		<u>15:58:28</u>
End Time	<u>15:55:13</u>		<u>15:58:52</u>
Notes			



Prepared by: CHB Date: 6-20-08
 Checked by: lsc Date: 6-20-08

OW-812 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-812 L
 Test Date: 5/20/2008

AQUIFER DATA

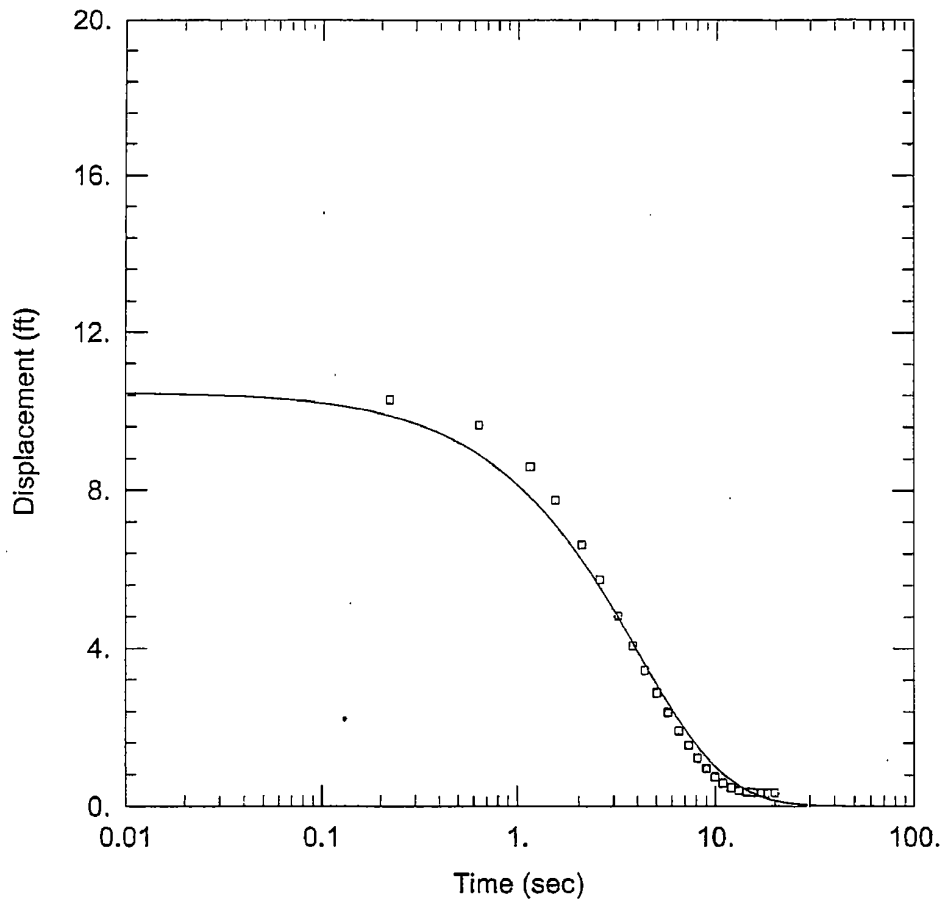
Saturated Thickness: 86. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW-812 L)

Initial Displacement: 10.48 ft Static Water Column Height: 109.3 ft
 Total Well Penetration Depth: 109. ft Screen Length: 15. ft
 Casing Radius: 0.083 ft Well Radius: 0.25 ft

SOLUTION

Aquifer Model: Confined Solution Method: Butler
 K = 21.01 ft/day Le = 47.1 ft



Prepared by: CHB Date: 6-20-08
 Checked by: LSB Date: 6-26-08

OW-812 L RISING HEAD TEST 5-20-08

PROJECT INFORMATION

Company: MACTEC
 Client: Bechtel
 Project: 6468-07-1950
 Location: Turkey Point COL
 Test Well: OW-812 L
 Test Date: 5/20/2008

AQUIFER DATA

Saturated Thickness: 86. ft

WELL DATA (OW-812 L)

Initial Displacement: <u>10.48 ft</u>	Static Water Column Height: <u>109.3 ft</u>
Total Well Penetration Depth: <u>109. ft</u>	Screen Length: <u>15. ft</u>
Casing Radius: <u>0.083 ft</u>	Well Radius: <u>0.25 ft</u>

SOLUTION

Aquifer Model: <u>Confined</u>	Solution Method: <u>KGS Model</u>
Kr = <u>21.2 ft/day</u>	Ss = <u>1.163E-12 ft⁻¹</u>
Kz/Kr = <u>1.</u>	