Appendix F

Groundwater Sampling Field Data Sheets

RFI Groundwater Sampling
August 1996 - January 1997

Summary of Groundwater Field Parameter Measurements
PRSOC RFI

Refinery Area	Well #	Date Sampled	pH	Specific Conductivity (uS/cm)	Temperature (°C)
Final Retention Basin (SWMU 14)	FRB-1	8/23/96	6.22	1470	25.0
	FRB-2	8/23/96	6.29	2350	25.0
	FRB-2	1/29/97	5.90	2380	25.0
North Aeration Basin (SWMU 17)	AB-1	8/23/96	7.02	2420	25.0
	AB-1	1/29/97	6.11	2320	25.0
South Aeration Basin (SWMU 18)	AB-2	8/26/96	6.22	2180	25.0
	AB-2	1/29/97	5.92	2050	25.0
Dewatering Chamber (SWMU 38)	38-02	8/23/96	7.17	1470	25.0
Disposal Area (SWMU 40)	40-08	8/26/96	5.62	2640	25.0
	40-08	1/29/97	5.92	2080	25.0
	40-12	9/19/96	- -	1090	- -
	40-14	9/19/96	- -	770	- -
	40-15	9/19/96	- -	1200	- -
	40-16	9/19/96	- -	1100	- -
	40-17	9/20/96	- -	1370	- -
	40-18	9/19/96	- -	1200	- -
	40-19	9/19/96	- -	1470	- -
	40-20	9/18/96	6.04	790	27.5
Upgradient Well	RA-8	8/22/96	6.80	970	25.0
Tank Farm Area					
East API Separator (SWMU 3)	03-07	1/30/97	5.86	410	25.7
	03-10	8/26/96	6.81	1730	25.0
Watery Oil Separator (SWMU 43)	WOS-1	9/18/96	- -	1840	- -
	WOS-3	9/18/96	- -	3010	- -
Ballast Basin (SWMU 44)	BB-2	8/26/96	6.28	1800	25.0
East Aisle Ditch (SWMU 45)	45-01	1/31/97	6.09	870	25.0
	45-02	1/31/97	5.90	500	25.0
	45-09	1/31/97	5.21	530	25.0
	45-10	1/31/97	5.81	530	27.0

Summary of Groundwater Field Parameter Measurements
PRSOC RFI

	Well #	Date Sampled	pH	Specific Conductivity (uS/cm)	Temperature (°C)
Dock Area					
Main Dock Sump (SWMU 33)	MDS-3	- -	- -	- -	- -
	MDS-4	9/17/96	6.86	2980	25.0
	MDS-4	1/29/97	6.06	1780	25.0
	MDS-8	9/17/96	7.00	920	25.0
Barge Dock Sump (SWMU 34)	BDS-1	8/13/96	6.64	950	28.7
	BDS-2	8/23/96	6.86	1090	25.0
	BDS-2	1/30/97	6.43	1030	25.0
	BDS-4	9/17/96	6.98	940	25.0
	BDS-4	1/30/97	6.60	870	25.0
	BDS-5	9/17/96	6.97	1190	25.0
	BDS-5	1/30/97	6.54	1080	25.0
	BDS-6	9/16/96	6.71	1370	25.0
	BDS-7	9/16/96	6.61	1060	25.0
	MW-1	9/16/96	6.27	1260	25.0
Upgradient Well	DA-1	8/23/96	7.21	1140	25.0

Refinery Area

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #: FRB-1

Project #:
Well ID FRB-1

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 6.31 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 3.29 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Well Sealed
Lock

Purge Data

Date: 8/23/96
Initial water level (ft): 12.84 (1126)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: DIN - NR | Purged water developed sheen.
depth 19.15
purged ~ 4 gal
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 12.87 (1149)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1129	0	6.40	25	1.39	0.70
1131	1	6.20	25	1.48	0.74
1137	2	6.26	25	1.47	0.74
1139	3	6.21	25	1.47	0.73
1142	4	6.22	25	1.47	0.74

Sample Data

Date: 8/23/96 Time: 1211 Sampler: [illegible]
Approx. sample depth: 19.3 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy

	Container	Quantity	Preservative
VOA		3, 40ml	HCL, cool
BNA		2, 1L AG	cool
MSL Metals		1, 1L P	HNO3, cool
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

	pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #: FRB-2

Project #:
Well ID FRB-2

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 7.14 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 3.73 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/23/94
Initial water level (ft): 13.16 (1702)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: depth 20.34) purged ~~[illegible]~~ 5 g
purged thru has sheen
PTD-3
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 15.83 (1838)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1717	0	6.31	25	2.11	1.06
1720	1	6.32	25	2.17	1.09
1723	2	6.31	25	2.31	1.15
1726	3	6.30	25	2.31	1.16
1728	4	6.26	25	2.31	1.16
1731	5	6.29	25	2.35	1.18
	Time				
	1736	1583			
	1802	1402			
	1816	13.72			
	1841	13.53			

Sample Data

Date: 8/23/94 Time: 1900 Sampler: NMC
Approx. sample depth: _____ (ft) Weather: clouds
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear

Container	Quantity	Preservative
VOA	3	HCl
BNA	2	
MSL Metals	1	HNO3
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

	pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Sample #:

Project #: RFI wells
Well ID FRB - 2 (SWMU 14)

Elevation Data

Date: 4/29/97 Time: 1424 Well Diameter (inches): 2"

Depth to water(ft)	13.27
Bottom of well(ft)	20.27

Water Column Height: 7.00 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 3.65 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD WLM
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb: Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 4/29/97 Start Time: 1445
Total Time Purged: _____ Stop Time: 1456
Pump Rate: _____ (lpm / gpm)
Volume Purged: 4 (gallons)
cloudy, sulfur developed 13.76 80%

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Well Yield: High / Moderate / Low / Dry

Sample Data

Date: 4/29/97 Time: 1547 Sampler: NER
Approx. sample depth: 16 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N

Container	Quantity	Preservative
Antimony	1 LP	HNO3 / Cool

Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

~~total~~ dissolved

T	σ
1500	1.57
1515	1.61
1520	1.39
1538	1.36

Field Parameters

Instrument ID # Hach
Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

Vol	Time	pH	Temp	Spec. Cond.
0	1445	5.94	25	2.37
2	1449	5.89	25	2.37
4	1456	5.90	25	2.58

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #: AB-1 | AB-1 (DJ)

Project #:
Well ID AB-1

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 2.95 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 1.54 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/23/96
Initial water level (ft): 12.35
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal / Dmp
Comments: Depth 15.3 | purged ~ PID - NL | purge water disposed of here
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 13.39 (1925)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1122	0	6.91	25	2.05	1.13
1127	1	6.86	25	2.21	1.11
1131	2	7.02	25	2.42	1.21
1925	13.39				
1942	13.18				

Sample Data

Date: 8/23/96 Time: 2014 - AB-1 Sampler: [illegible]
Approx. sample depth: ~13-15 (ft) 2013 - AB-11(D) Weather: Dark
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3	HCl
BNA	2	Cool
MSL Metals	1	HNO3
	Lock Sampl	
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Sample #:

Project #: RFI wells
Well ID AB-1 (SWMU 17)

Elevation Data

Date: 11/29/97 Time: 1400 Well Diameter (inches): 2"

Depth to water(ft)	12.51
Bottom of well(ft)	15.32

Water Column Height: 2.81 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 1.46 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD WLM
Comments:

Sampler: NLL
Rain previous or current day: Y / N.
PID (ppm) N/A

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 11/29/97 Start Time: 1416
Total Time Purged: _____ Stop Time: 1422
Pump Rate. _____ (lpm / gpm)
Volume Purged: 2 (gallons)
Clearly 12.92 (80%)

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: non detect dry
Well Yield: High / Moderate / Low / Dry

T	Q
1422	14.
1523	15
1556	12

Sample Data

1600

Date: 11/29/97 Time: 1609 Dup Sampler: NLL
Approx. sample depth: 215 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
Lead ~~Antimony~~ + Dup ~~total~~ dissolved	1 L	HNO_3 / ice

Field Parameters

Instrument ID # Hach Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

Min	Time	pH	Temp	Spec. Cond.
5	1416	6.10	25	2.30
1	1420	6.09	25	2.32
2	1422	6.11	25	2.32

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID AB-2

Elevation Data AB-2

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 6.63 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 3.46 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/26/96
Initial water level (ft): 13.66 (7:52)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: PID -3 Depth -(20.29) | purged ~ 6 g No green
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 13.76 (8.22)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
803	0	6.25	25	1.89	0.95
807	1	6.24	25	2.07	1.04
809	2	6.28	25	2.05	1.03
812	3	6.23	25	2.13	1.07
815	4	6.20	25	2.18	1.09
818	5	6.23	25	2.19	1.10
822	6	6.22	25	2.18	1.09

Sample Data

Date: 8/26/96 Time: 925 - Sample Sampler: Nall
Approx. sample depth: 21 (ft) 932 - Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	7 (3, 4)	HCl
BNA	4 (2, 4)	
MSL Metals	3 (1, 3)	
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

pH Calibrated pH 4.01, 7.00

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Project #: RFI wells
Well ID AB-2 (SWMU 18)
Sample #:

Elevation Data

Date: 1/29/97 Time: 1240 Well Diameter (inches): 2"

Depth to water(ft)	13.33
Bottom of well(ft)	20.30

Water Column Height: 6.97 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 3.64 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: DLD WLM
Comments:

Sampler: NMR
Rain previous or current day (Y) / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/29/97 Start Time: 1249
Total Time Purged: _____ Stop Time: 1350
Pump Rate: _____ (lpm / gpm)
Volume Purged: _____ (gallons)
Purged by hand 13.45 (80%)

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: cloudy
Well Yield: High / Moderate / Low / Dry

T	G
1302	15.5
1316	13.[illegible]

Sample Data

1333 sample

Date: 1/29/97 Time: 1335 DUP Sampler: NMR
Approx. sample depth: 15 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: MUDDY.

Container	Quantity	Preservative
Antimony total dissolved	1 LP	HNO3 1 ml

Field Parameters

Instrument ID # Hach Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

Vol	Time	pH	Temp (°C)	Spec. Cond. (mS)	
0	1249	5.85	25	1.73	clear
1	1253	5.89	25	2.06	cloudy
2	1255	5.90	25	2.05	
3	1258	13.08 5.89	25	1.97	

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID 38-02

Elevation Data

Dechlorinating chamber

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 6.09 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 3.18 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

1 Liq 2n
1 Sol D

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Pb cal
4.01
9.00

Purge Data

Date: 8/23/96
Initial water level (ft): 8.16 (9.24)
Pump Rate: _____ (lpm / gpm) depth 25
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
PID - 1
pumped ~ 5g
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 8.21 (9.55)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS (g)
934	0	7.23	25	1.47	0.73
936	1	7.25	25	1.51	0.75
939	2	7.24	25	1.56	0.78
942	3	7.17	25	1.50	0.75
945	4	7.18	25	1.48	0.74
947	5	7.17	25	1.42	0.71

Sample Data

Date: 8/23/96 Time: 1017 Sampler: NAR
Approx. sample depth: 9 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: cloudy, muddy

	Container	Quantity	Preservative
VOA		3, 40ml	HCL
BNA		2, 1L	cool
MSL Metals		1, 1L	cool, HNO3
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #: 40-08

Project #:
Well ID 40-08

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 10.36 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.41 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/26/96 (14:58 IP)
Initial water level (ft): 14.61 (10.12) mca
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: PID - NV
ppm 29.97
purged - 6
WATER HAS SHEEN
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 14.91 (1046)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1022	0	5.69	25	2.31	1.16
1027	1	5.62	25	2.52	1.26
1030	2	5.55	25	2.55	1.27
1033	3	5.62	25	2.58	1.29
1035	4	5.61	25	2.58	1.29
1037	5	5.58	25	2.56	1.28
1038	6	5.62	25	2.64	1.32

Sample Data

Date: 8/26/96 Time: 1111 Sampler: NMP
Approx. sample depth: 2.5 (ft) Weather: Rainy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy

Bailer not left in well

	Container	Quantity	Preservative
VOA	3		HCL
BNA	2		Cool
MSL Metals	1		HNO3
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Sample #: 40-08

Project #: RFI wells
Well ID 40-08 (SWMU 40)

Elevation Data

Date: 1/29/97 Time: 1116 Well Diameter (inches): 2"

Depth to water(ft)	14.02
Bottom of well(ft)	24.97

Water Column Height: 10.95 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 5.72 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: old wind
Comments:

Sampler: NAR
Rain previous or current day: Y N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/29/97 Start Time: 1124
Total Time Purged: _____ Stop Time: 1134
Pump Rate: _____ (lpm / gpm)
Volume Purged: 6 (gallons) 80% 14.15
Purged by hand

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: ~~muddy~~ cloudy (sandy)
Well Yield: High / Moderate / Low / Dry

T	S
1136	14.6
1147	142
1152	142.3
1217	141

Sample Data

Date: 1/29/97 Time: 1227 Sampler: NAR
Approx. sample depth: 21.7 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N

Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

	Container	Quantity	Preservative
Antimony	1 L P		HNO_3 / ice
~~total~~ dissolved			

Field Parameters

Instrument ID # Hach
Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

Vol	Time	pH	Temp	Spec. Cond. (uS)
0	1124	5.51	25	1.86
2	1127	5.76	25	1.92
4	1130	5.81	25	2.07
6	1134	5.92	25	2.08

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	***Well ID*** 40-12
Sample #:	

Elevation Data

Date: 9/19/96 Time: 1601 Well Diameter (inches): 2

Depth to water(ft)	7.45
Bottom of well(ft)	17.02

Water Column Height: ~~10.57~~ (ft) 10.57
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.52 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) NA (944)

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/19/96
Initial water level (ft): 7.45 (1601)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: 7.56 (1721) 7.58 (1813) 7.65 (1956) · steam (mod) ~6 y mudday
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 7.82 (1742)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1724	0			0.97	0.48
1725	1			1.07	0.54
1726	2			1.07	0.54
1730	3			0.98	0.49
1732	4			1.00	0.50
1735	5			1.08	0.54
1737	6			1.09	0.55

Sample Data

Date: 9/19/96 Time: 1732 Sampler: NMR
Approx. sample depth: -8 (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: cloudy w/ orb specs

	Container	Quantity	Preservative
VOA	3, 40ml	HCL/cool	
BNA			
MSL Metals			
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID 4014

Elevation Data

Date: _____ Time: 1607 Well Diameter (inches): 2

Depth to water(ft)	8.97
Bottom of well(ft)	20.28

Water Column Height: 11.31 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.90 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: no wm
Comments:

Sampler: NWM
Rain previous or current day: Y / N
PID (ppm) NK 942

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/15
Initial water level (ft): 8.97 (1607)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
NC
8.98 (1745)
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 9.29 (1715)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	
1657	0	/	5	0.58	0.29
1701	1			0.60	0.30
1705	2			0.61	0.31
1709	3			0.79	0.39
1707	4			0.80	0.40
1710	5			0.86	0.43
1712	6			0.77	0.39

Sample Data

Date: 9/14/96 Time: 1753 Sampler: NWM
Approx. sample depth: _____ (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75 Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

	Container	Quantity	Preservative
VOA		3 40ml	HCl / cool
BNA			
MSL Metals			
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	**Well ID** 40-15
Sample #:	

Elevation Data

Date: 9/19/96 Time: 13:14 Well Diameter (inches): 2

Depth to water(ft)	9.27
Bottom of well(ft)	20.57

Water Column Height:		11.30 (ft)
gal/foot x 3 factor:	x	0.522
Volume to be purged:		5.90 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NR (9.33)

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb: Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/19/96
Initial water level (ft): 9.27 (1314)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: sheen & free product observed in bailer
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 12.85 (1501)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC
1448	0			1.10
1450	1			1.08
1452	2			1.27
1453	3			1.31
1455	4			1.22
1456	5			1.27
1458	6			1.20

0.55	
0.59	
0.64	
0.66	
0.61	
0.64	
0.60	
Time	T
1501	12.85
1608	10.42
1638	10.33

Sample Data

Date: 9/19/96 Time: 1646 Sampler: [illegible]
Approx. sample depth: ~11 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear w/ sheen

	Container	Quantity	Preservative
	VOA	3	[illegible]
	BNA		
	MSL Metals		
	total		
	dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	**Well ID** 40-16
Sample #:	

Elevation Data

Date: 9/19/96 Time: 1519 Well Diameter (inches): 2

Depth to water(ft)	6.44
Bottom of well(ft)	18.07

Water Column Height: 11.63 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 6.07 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler: MM
Rain previous or current day: Y / N
PID (ppm) NL (9240)

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well? Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/19/96
Initial water level (ft): 6.44 (1512)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: sheen

Time	Vol. (gal)	pH	temp (C)	SC	
1529	0			0.81	0.41
1532	1			1.15	0.58
1534	2			1.07	0.54
1539	3			1.08	0.54
1539	4			1.07	0.53
1541	5			1.09	0.55
1542	6			1.11	0.56

6.78 (1515)

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 10.06 (1549)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Sample Data

Date: 9/19/96 Time: 1632 Sampler: MM
Approx. sample depth: -7 (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear w/ sheen

Container	Quantity	Preservative
VOA	3 vom	HCL / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	***Well ID*** 40-17
Sample #:	

Elevation Data

Date: 9/12/14 Time: 959 Well Diameter (inches): 2

Depth to water(ft)	6.05
Bottom of well(ft)	17.75

Water Column Height: 11.70 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 6.11 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NL ~1.5

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/12
Initial water level (ft): 6.05
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: Muddy
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 6.06 (1025)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	
1002	0			1.22	0.61
1008	1			0.43	0.22
1010	2			1.36	0.68
1012	3			1.33	0.67
1013	4			1.33	0.67
1015	5			1.34	0.67
1018	6			1.35	0.68
1020	7			1.37	0.69

Sample Data

Date: 9/12/21 Time: 1034 Sampler: NMA
Approx. sample depth: ~6 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 total	HCl / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	***Well ID*** 40-18
Sample #:	

Elevation Data

Date: 9/19/96 Time: 1140 Well Diameter (inches): 2

Depth to water(ft)	7.68
Bottom of well(ft)	17.31

Water Column Height:		9.63 (ft)
gal/foot x 3 factor:	x	0.522
Volume to be purged:		5.03 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NR (9.31)

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None (Repaired)
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/19/96
Initial water level (ft): 7.68 (1148)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
purged ~5 g
purged water acts stain black
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 7.28 (1226)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1154	0			0.83	0.42
1202	1			1.01	0.50 Rem
1214	2			1.11	0.56
1215	3			1.13	0.57
1217	4			1.16	0.58
1220	5			1.20	0.60

Sample Data

Date: 9/19/96 Time: 1233 Sampler: Mark
Approx. sample depth: ~ 8 (ft) Weather: Cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear w/ sum

Container	Quantity	Preservative
VOA	3, 40 ml	HCL, Cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	***Well ID*** 40-19
Sample #:	

Elevation Data

Date: 9/19/96 Time: 1058 Well Diameter (inches): 2

Depth to water(ft)	7.99
Bottom of well(ft)	16.70

Water Column Height: 8.73 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 4.56 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD NLM
Comments:
silt in well

Sampler:
Rain previous or current day: Y / N
PID (ppm) 2 (9:29)

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb: Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/19/96
Initial water level (ft): 7.97
Pump Rate: — (lpm / gpm)
Purge device: ~~Dedicated~~ / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
purgedry 5g
muddy

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 8.01 (11.18)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1107	0	—	—	1.43	0.72
1108	1	—	—	1.37	0.69
1110	2	—	—	1.36	0.68
1111	3	—	—	1.33	0.67
1113	4	—	—	1.44	0.72
1115	5	—	—	1.47	0.74

Time	S
1118	8.01
1126	8.0

Sample Data

Date: 9/19/96 Time: 1131 Sampler: NLM
Approx. sample depth: ~8 (ft) Weather: cloudy, hyz
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 40 ml	HCL / Cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID 40-20

Elevation Data

Date: 9/10/15 Time: _____ Well Diameter (inches): 2

Depth to water(ft)	9.05
Bottom of well(ft)	19.95

Water Column Height: 9.8 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.11 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NA

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/14/96
Initial water level (ft): 9.05
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: muddy ~L8

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 9.07
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
955	0	6.02	26.2	0.81	0.41
958	1	5.99	26	0.81	0.41
959	2	6.02	26.9	0.83	0.42
1003	3	6.07	26.9	0.80	0.40
1005	4	6.03	26.8	0.79	0.40
1007	5	5.98	26.9	0.79	0.40
1009	6	6.04	27.0	0.79	0.39

Sample Data

1016 S

Date: 9/14/96 Time: 1018 Sampler:
Approx. sample depth: ~9 (ft) Weather: Rainy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy

Container	Quantity	Preservative
VOA	3, 40ml	HCl / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID RA-8

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 9.27 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 4.84 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/22/96 1104 (0-p.m)
Initial water level (ft): 8.79 (0-p.m)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated (Tube)
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
PID - NR
Purged 5 g
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 8.86 (17:31)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1708	0	6.89	25	0.90	0.46
1715	1	6.90	25	0.98	0.49
1718	2	6.91	25	0.94	0.47
1719	3	6.82	25	0.97	0.48
1722	4	6.82	25	0.94	0.47
1724	5	6.80	25	0.97	0.48

Sample Data

Date: 8/22/96 Time: 1747 Sampler: NLR
Approx. sample depth: ~9 (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy

Container	Quantity	Preservative
VOA	3 (good)	HCL (ok)
BNA	—	
MSL Metals	—	
total	—	
dissolved	—	

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Tank Farm Area

Groundwater Sampling Field Data Sheet

Client/Project Name: PRSOC Equalization Basin
Project Location: Yabucoa, Puerto Rico
Sample #:
Project #:
Well ID 03-07 EAPI-7

Elevation Data

Date: 11/31/97 Time: 8:45 Well Diameter (inches): 1 1/4

Depth to water(ft)	5.51
Bottom of well(ft)	7.41

Water Column Height: 1.9 (ft) = 0.016 x 120.48
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 0.48 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD WLM
Comments:

Sampler: NWC
Rain previous or current day Y / N
PID (ppm) 5.1

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 11/30/97
Initial water level (ft): 5.51
Pump Rate: _____ (lpm / gpm) 85E-06
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: purged < 1/2 g. muddy
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): _____
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC (ms)
858	0	5.26	25.7	0.4
Ran				
909	dry			
909		7.0		
924		—		
1107		7.28		
1400		7.01		

Sample Data

Date: 11/31/97 Time: 1421
Approx. sample depth: 7.5 (ft)
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: sandy / cloudy, sight odor

Water level prior to sampling 7.01 (ft)
Weather: sunny Sampler NWC

well run dry!

Container	Quantity	Preservative
VOA (TCL)	2 x 40 ml	HCl < 2
BNA (TCL)	2 x 1 liter	ice
Priority Pollutant metals		
(dissolved)	1 x 1 liter	HNO_3 < 2
(total)	1 x 1 liter	HNO_3 < 2

Field Parameters

Instrument ID #	pH	Temp	Instrument ID # Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #: 3 - 10

Project #:
Well ID 3-10

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 2.8 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 1.46 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/26/96
Initial water level (ft): 7.51 (1229)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: PID-1 depth - 10.31 No sheen

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 8.83 (1245)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1234	0	6.88	25	1.99	0.75
1239	1	6.81	25	1.73	0.87
.	2	—	—	—	
1245	8.83				
1256	7.87				
1262	7.75	-ox			

207
7.78

Sample Data

Date: 8/26/96 Time: 1320 Sampler: NMR
Approx. sample depth: ~5 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear with rust DMy

Container	Quantity	Preservative
VOA	3	HCl
BNA	2	
MSL Metals	1	HNO3
total / dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

PID 147
WOS-2
DTP. 37L
DTW. 3K
TME 164

Client/Project Name:	Project #:
Project Location:	*Well ID* WOS
Sample #:	WOS_ 1

Elevation Data

Date: 9/18/96 Time: 1755 Well Diameter (inches): ___

Depth to water(ft)	4.28
Bottom of well(ft)	9.46

Water Column Height: 5.18 (ft)
gal/foot x 3 factor: x 0.522 0.0471
Volume to be purged: 0.24 (gal) ~ 950 ml.

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) 11

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/18
Initial water level (ft): 4.28
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: Dumped 2 gal

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1759	0			1.90	0.95
1758	250			1.81	0.90
1759	500			1.81	0.90
1759	750			1.83	0.92
1800	1000			1.84	0.92
1802	1250			1.85	0.93

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 4.28 (1805)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Sample Data

Date: 9/18 Time: 1808 Sampler: Nelle
Approx. sample depth: ~5 (ft) Weather: Cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 3/4" 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

	Container	Quantity	Preservative
VOA	3,40 ~	1	
BNA			
MSL Metals			
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:

Project #:
Well ID W03
5

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ____

Depth to water(ft)	6.7
Bottom of well(ft)	13.59

Water Column Height: 6.89 (ft) 0.0971
gal/foot x 3 factor: x 0.522 ~~0.0159~~
Volume to be purged: 0.33 (gal) x3

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) 10.5
AMB AT ~24

.10
1
V= ½ πr²
½ 3.14 (.05)²
½ (3.14) (.10)
~0.100
= 0.111 g

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/10
Initial water level (ft): 6.7 (17.00)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: clear ~1500 ml pH meter RI cal

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1714	0	3.52	25	2.56	1.26
1717	250	3.69	25	2.71	1.36
1720	500	—	—	2.90	1.90
1730	750	—	—	2.88	1.44
1731	1000	—	—	2.96	1.48
1733	1250	—	—	2.98	1.49
1735	1500	—	—	3.01	1.51

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 6.74
(Sample after 80% well recovery or prior to 2 hrs after purging)

Sample Data

Date: 9/10 Time: 1750 Sampler: [illegible]
Approx. sample depth: ~7 (ft) Weather: Cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra Rain
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable / N
3/4
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear, lx bubbles

	Container	Quantity	Preservative
VOA	3, clear		HCl / cool
BNA			
MSL Metals			
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project #:
Project Location:
Well ID BB-2
Sample #:

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 9.58 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.00 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:
METAL LID Broken, No well cap

Riser type: SST / PVC (?)
Riser: Good / Damaged / None
Is well plumb? Y / N (?)
Lock: Good / Broken / None
Rust around Cap: Y / N (N/A)
Concrete collar: OK / Cracked / Leaking / None (?)
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/28/92
Initial water level (ft): 12.3 (1645)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
PID - NR
Depth @ 1.88 | purged ~ 8 g. sediment from purged water has distinct odor
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 12.33 (1740)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	Turb
1656	0	6.36	25	1.79	0.89
1701	1	6.38	25	1.84	0.92
1704	2	6.27	25	1.94	0.97
1704	3	6.50	25	1.98	0.99
1710	4	6.48	25	2.00	1.00
1713	5	6.41	25	1.99	0.99
1718	6	6.32	25	1.89	0.94
1726	8	6.28	25	1.80	0.90

Sample Data

Date: 8/26/92 Time: 1810 Sampler: NMR
Approx. sample depth: 12.3 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: cloudy

	Container	Quantity	Preservative
VOA	3		4°C
BNA	2		
MSL Metals	1		HNO3
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Sediment creates sheen & has hydrocarbon odor

Groundwater Sampling Field Data Sheet

Client/Project Name: PRSOC Equalization Basin
Project #:
roject Location: Yabucoa, Puerto Rico
Well ID 45 01
Sample #:

Elevation Data

Date: 1/31/97 Time: 1240
Well Diameter (inches): 1.25

Depth to water(ft)	2.38
Bottom of well(ft)	6.73

Water Column Height: 2.35 (ft) 0.02 x 3
purge factor (0.522 for 2" well; 1.98 for 4" well) 0.06
Volume to be purged: _____ (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) NL

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/31/97
Initial water level (ft): _____
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal

Comments: Cloudy

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft) 2.41 (17.02)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC
1642	0	6.1	25	1.21
1649	500 ml	6.09	25	1.13
1653	1000 ml	6.09	25	0.99
1656	1500 ml	6.07	25	0.93
1700	2000 ml	6.09	25	0.87

Sample Data

Date: 1/31/97 Time: 1721
Water level prior to sampling 2.41 (ft)
Approx. sample depth: 4 (ft) Weather: Sunny Sampler: [illegible]
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: Cloudy

NO Sample

Container	Quantity	Preservative
VOA (TCL)	3 x 40 ml	HCl < 2
BNA (TCL)	2 x 1 liter	ice
Priority Pollutant metals		
(dissolved)	1 x 1 liter	HNO_3 < 2
(total)	1 x 1 liter	HNO_3 < 2

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Groundwater Sampling Field Data Sheet

Client/Project Name: PRSOC Equalization Basin
Project Location: Yabucoa, Puerto Rico
Sample #:
Project #:
Well ID 45-02

Elevation Data

Date: 1/31/97 Time: 1500 Well Diameter (inches): 1.25

Depth to water(ft)	4.77
Bottom of well(ft)	210

Water Column Height: 2.33 (ft) ÷ 0.820 × 3 = 8.06
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: _____ (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: 025 WLM
Comments:

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/31/97
Initial water level (ft): 4.77
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: sheen, free product droplets. gray f sand.
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 4.81 (1533)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC
1509	0	5.23	25	0.57
1513	500 ml	5.74	25	0.52
1527	1000	5.90	25	0.50
	1500			
	2000			

Sample Data

Date: 1/31/97 Time: 1611 Water level prior to sampling 4.81 (ft)
Approx. sample depth: 5 (ft) Weather: sunny Sampler NMR
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter: SST / PVC / Teflon / 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: cloudy/dark, product droplets

	Container	Quantity	Preservative
VOA (TCL)	3 x 40 ml		HCl < 2
BNA (TCL)	2 x 1 liter		ice
Priority Pollutant metals (dissolved)	1 x 1 liter		HNO_3 < 2
~~(total)~~	~~1 x 1 liter~~		~~HNO_3 < 2~~

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Groundwater Sampling Field Data Sheet

Client/Project Name: PRSOC Equalization Basin
Project Location: Yabucoa, Puerto Rico
Project #:
Well ID 45-09
Sample #:

Elevation Data

Date: 11/31/97 Time: 1157 Well Diameter (inches): 1.25

Depth to water(ft)	6.71
Bottom of well(ft)	7.76

Water Column Height: 1.05 (ft) ≈ 0.0894 x 3 = 0.027
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 5 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) 51

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 11/31/97
Initial water level (ft): 6.71
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal

Comments:
Silty

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 5.91 (1219)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC (mS)
1205	0	5.17	25	0.60
1210	(500 ml)	5.14	25	0.57
1212	(1000 ml)	5.23	25	0.55
1215	(1500 ml)	5.21	25	0.53
1217	(2000 ml)	5.21	25	0.53

Sample Data

1310 MS/MSD
1315 - 4505

Date: 11/31/97 Time: 1331 Water level prior to sampling 5.91 (ft)
Approx. sample depth: 7 (ft) Weather: Sunny Sampler MM
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: clear - cloudy (May Stock), silty

Container	Quantity	Preservative
VOA (TCL)	3 x 40 ml	HCl < 2
BNA (TCL)	2 x 1 liter	ice
Priority Pollutant metals (dissolved)	1 x 1 liter	HNO_3 < 2
(total)	1 x 1 liter	HNO_3 < 2

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Groundwater Sampling Field Data Sheet

Client/Project Name: PRSOC Equalization Basin
Project Location: Yabucoa, Puerto Rico
Sample #:

Project #:
Well ID 45
~~EQD~~.10

Elevation Data

Date: 1/31/97 Time: 9:39

Well Diameter (inches): 1.4

Depth to water(ft)	4.14
Bottom of well(ft)	~~6.60~~ 6.60

Water Column Height: 2.46 (ft) = 0.621 = 0.623
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: _____ (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD meter
Comments:

Sampler: New
Rain previous or current day: Y / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/30/97
Initial water level (ft): 4.14
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: Cloudy (gray sand) Purge water has sheen.
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 4.40 (9:55)
(Sample after 80% well recovery or prior to 2 hrs after purging)

80% 4.19 (ft)

Time	Vol. (gal)	pH	temp (C)	SC (mS)
947	0	5.67	27.3	0.54
950	~½	5.77	27.8	0.54
954	~1	5.81	27	0.53

T	D
9:55	4.40
1009	4.17
1013	4.16

per b cond.

Sample Data

Date: 1/31/97 Time: 1045
Water level prior to sampling 4.16 (ft)
Approx. sample depth: 4 (ft) Weather: Sunny Sampler Nelson
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter: SST / PVC / Teflon / 1.25" 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: Sheen, Cloudy, Smelly

Container	Quantity	Preservative
VOA (TCL)	3 x 40 ml	HCl < 2
BNA (TCL)	2 x 1 liter	ice
Priority Pollutant metals (dissolved)	1 x 1 liter	HNO_3 < 2
~~(total)~~	~~1 x 1 liter~~	~~HNO_3 < 2~~

Field Parameters

Instrument ID # _____ Instrument ID #

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Dock Area

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID MDS-4

Elevation Data

Date: 9/17/96 Time: 1416 Well Diameter (inches): 2

Depth to water(ft)	10.38
Bottom of well(ft)	15.06

Water Column Height: 4.68 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 2.44 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: OLD KLIM
Comments: Gasoline odor in the air.

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) 65

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Comments: Soil removed around well (~8-12")

Purge Data

Date: 9/17/96
Initial water level (ft): 10.38 (14:19)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: muddy all the time purge
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 10.41 (17DL)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS (51 c
1653	0	6.67	25	2.72	1.36
1656	1	6.84	25	3.66	1.83
1657	2	6.83	25	3.01	1.51
1659	3	6.85	25	2.98	1.49
1701	4	6.85	25	3.09	1.54
1703	5	6.86	25	2.98	1.49

Sample Data

1639 - FB 9/17/96

Date: 9/17/96 Time: 1726 Sampler: NMR
Approx. sample depth: ~11 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 40ml	HCL / cool
BNA	2, 1L AG	cool
MSL Metals	1, 1L P.	HNO3 / cool
total / dissolved	+ FB 9/17/96 - 1639 VOA / BNA / MSL metals	

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Sample #:

Project #: RFI wells
Well ID MDS-4 (SWMU 33)

Elevation Data

Date: 1/29/97 Time: 1711 Well Diameter (inches): 2"

Depth to water(ft)	11.10
Bottom of well(ft)	14.88

Water Column Height: 3.78 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 1.97 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: 1
Comments:

Sampler: NAR
Rain previous or current day: Y / N
PID (ppm) 30

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Comments: strong hydrocarbon odor in air ~(>10 ppm)

Purge Data

Date: 1/29/97 Start Time: 1723
Total Time Purged: _____ Stop Time: 1727
Pump Rate: _____ (lpm / gpm)
Volume Purged: _____ (gallons)

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Well Yield: High / Moderate / Low / Dry

T | 0
1722 | 1103

Sample Data

Date: 1/29/97 Time: 1746 (1743) Sampler: NAR
Approx. sample depth: -19.5 (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N

Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

	Container	Quantity	Preservative
BTEX		3 40ml	HCl/cool
Antimony			
Dissolved		3, 40ml	HCl/cool
Total / dissolved			

Field Parameters

Instrument ID # Hach
Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

SC	time	pH	Temp	Spec. Cond.
0	1723	5.79	25	1.79
1	1725	5.85	25	1.78
2	1727	6.06	25	1.78

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID MDS-8

Elevation Data

Date: 9/17/96 Time: 1323 Well Diameter (inches): 2

Depth to water(ft)	12.61
Bottom of well(ft)	1996

Water Column Height: 7.35 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 3.84 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: New NLM
Comments:

Sampler: NAK
Rain previous or current day: Y / N
PID (ppm) NA

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/17/96
Initial water level (ft): 12.61 (1335)
Pump Rate: — (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: muddy (at first only) all the time
purged ~ 4 g. NO SHEEN.
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 12.62 (1350)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1337	0	7.04	25	0.94	0.47
1339	1	7.10	25	0.95	0.47
1341	2	7.02	25	0.94	0.47
1343	3	7.00	25	0.92	0.46
1345	4	7.00	25	0.92	0.46
—	5	—	—	—	—

Sample Data

Date: 9/17/96 Time: 1359 Sampler: NAK
Approx. sample depth: -13 (ft) Weather: sunny / hot
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other
Sample Appearance: muddy (light brown)

	Container	Quantity	Preservative
VOA	3, 40 ml	HCl / cool	
BNA			
MSL Metals			
total			
dissolved			

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:

Project #:
Well ID BDS-1

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	5.17
Bottom of well(ft)	12.00

Water Column Height: 6.83 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: _____(gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/13/96
Initial water level (ft): _____
Pump Rate: _____(lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): _____
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1815	1	6.78	28.3	0.81	0.50
1817	2	6.73	28.7	0.97	0.49
1820	3	6.72	28.7	0.98	0.49
1824	4	6.64	28.7	0.95	0.48

Sample Data

Date: 8/13/96 Time: 1830 Sampler: GF
Approx. sample depth: _____(ft) Weather: _____
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA		
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

	pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID BD3-2

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height: 4.95 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 2.58 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 8/23/96
Initial water level (ft): 10.35
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal

Comments: Depth (1123) purged ~ 3.5 g SWEGP PID-3

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 10.35 (1556)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1535	0	6.89	25	1.09	0.54
1538	1	6.86	25	1.08	0.54
1540	2	6.82	25	1.09	0.55
1543	3	6.86	25	1.09	0.54

Sample Data

Date: 1616 Time: 1616 Sampler: NDK
Approx. sample depth: -11 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy

Container	Quantity	Preservative
VOA	3 40ml	HCl.
BNA	2 dk. GA	cool
MSL Metals	1, 1L, P	HNO3 cool
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Project #: RFI wells
Well ID BDS-2 (SWMU 34)
Sample #:

Elevation Data

Date: 1/30/97 Time: 1037 Well Diameter (inches): 2"

	DTP	DTW
Depth to water(ft)	10:43	1046
Bottom of well(ft)	15.5	

Water Column Height: 5.06 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 2.64 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: Probe
Sampler: Dra
Rain previous or current day: Y/N
PID (ppm) 946
Comments: Removed free phase with bailer

Removal free phase DTP DTW 1047 - 1045 - 1044

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/30/97 Start Time: 1110
Total Time Purged: _____ Stop Time: 1117
Pump Rate: _____ (lpm / gpm)
Volume Purged: 3 (gallons)

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Well Yield: High / Moderate / Low / Dry

10.44 ft (11.19) No Free prod 1126

Sample Data

Date: 1/30/97 Time: 1125 Sampler: DMR
Approx. sample depth: _____ (ft) Weather: Raining
Sampling method: Bailer / Peristaltic / Bladder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

	Container	Quantity	Preservative
BTEX	—	NOT TO BE COLLECTED DUE TO FREE PHASE	
Antimony	Plastic (1)		free
total / dissolved	X		

Field Parameters

Instrument ID # Hach Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

VOL	TIME	pH	Temp	Spec. Cond.
~~1100~~ 0	1110	6.20	25	1.01
1	1113	6.29	25	1.05
2	1114	6.49	25	0.95
3	~~1117~~ 1117	6.43	25	1.03

SHEEN

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID BDS-4

Elevation Data

Date: 9/17/96 Time: 1222 Well Diameter (inches): 2

Depth to water(ft)	6.81
Bottom of well(ft)	15.45

Water Column Height: 8.64 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 4.51 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: NAW WLM
Comments:

Sampler: NAW
Rain previous or current day: Y / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/17/96
Initial water level (ft): 6.81 (12.27)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal

Comments: No Sheen Purged ~ 5 8 muddy smo.

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 6.81 (1250)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	
1234	0	7.08	25	0.90	0.45
1236	1	7.12	25	0.94	0.47
1239	2	7.00	25	0.92	0.46
1242	3	6.99	25	0.93	0.47
1244	4	7.04	25	0.94	0.47
1246	5	6.98	25	0.94	0.47

Sample Data

Date: 9/17/96 Time: 1303 Sampler: NAW
Approx. sample depth: ~7 (ft) Weather: Sunny / HOT
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy / Rising bubbles

Container	Quantity	Preservative
VOA	3, 40mm	HCL / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Project #: RFI wells
Well ID BDS-4 (SWMU 34)
Sample #:

Elevation Data

Date: 1/30/97 Time: 9:50 Well Diameter (inches): 2"

Depth to water(ft)	8.31
Bottom of well(ft)	15.17

Water Column Height: 6.86 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 3.58 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: 100 wlm
Comments:

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) n.a.

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 1/30/97 Start Time: 917
Total Time Purged: _____ Stop Time: 928
Pump Rate: _____ (lpm / gpm)
Volume Purged: 5 (gallons)
cloudy

T-8.31 (930

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Well Yield: High / Moderate / Low / Dry

Sample Data

Date: 1/30/97 Time: 942 Sampler: NMR
Approx. sample depth: 15 (ft) Weather: cloudy/rainy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N

Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: cloudy

Container	Quantity	Preservative
8.Fx	40 ml	HCl/ice
Antimony		
total / dissolved		

Field Parameters

Instrument ID # Hach Instrument ID # Hach

Note: pH and SC measurements are automatically temperature compensated by the instruments

vol	time	pH	Temp	Spec. Cond.
0	917	5.88	25	0.83
2	922	6.42	25	0.85
4	925	6.57	25	0.86
5	~~[illegible]~~ 9.28	~~[illegible]~~ 6.60	~~25~~ 25	~~0.87~~ 0.87

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID BDS-5

Elevation Data

Date: 9/17/96 Time: 1120 Well Diameter (inches): 2"

Depth to water(ft)	5.34
Bottom of well(ft)	15.26

Water Column Height: 9.92 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.18 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) 3

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/17/96
Initial water level (ft): 5.34
Pump Rate: - (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
- strong hydrocarbon odor in water
- some sand in well
- sheen droplets.

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 5.33
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1136	0	7.04	26	1.34	0.67
1138	1	7.12	25 (-)	1.49	0.75
1140	2	7.09	25	1.33	0.66
1142	3	7.01	25	1.25	0.63
1144	4	6.99	25	1.19	0.60
1148	5	6.98	25	1.20	0.60
1152	6	6.97	25	1.19	0.60

Sample Data

Date: 9/17/96 Time: 1205 Sampler: NMR
Approx. sample depth: ~6 (ft) Weather: cloudy
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 40ml	HCl / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Co.
Project Location: Yabucoa, Puerto Rico
Project #: RFI wells
Well ID BDS-5 (SWMU 34)
Sample #:

Elevation Data

Date: 11/30/97 Time: 1000
Well Diameter (inches): 2"

Depth to water(ft)	6.32
Bottom of well(ft)	15.19

Water Column Height: 8.87 (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well)
Volume to be purged: 4.63 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: DTD NLR
Comments:
Sampler: NLR
Rain previous or current day: Y / N
PID (ppm) 10

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None
Ants

Purge Data

Date: 11/30/97
Total Time Purged:
Pump Rate: (lpm / gpm)
Volume Purged: 5 (gallons)
Start Time: 1006
Stop Time: 1013
6.32 (10:14)
V. cloudy. (Stand) → gas sheen specs.

Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Well Yield: High / Moderate / Low / Dry

Sample Data

Date: 11/30/97 Time: 1023
Approx. sample depth: -9 (ft)
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon : 1.25" / 1.75" Disposable Y / N
Sampler: NLR
Weather: Cloudy/Sunny

Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other
Sample Appearance:

	Container	Quantity	Preservative
BTEX	3 40ml	HCl/cool	
~~Antimony~~			
total			
dissolved			

Field Parameters

Instrument ID # Hach

		pH	Temp	Spec. Cond.
vol	TIME	Note: pH and SC measurements are automatically temperature compensated by the instruments		
0	1006	6.56	25	1.18
2	1009	6.49	25	1.08
4	1012	6.53	25	1.09
5	1013	6.54	25	1.08

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:
Project #:
Well ID BDS-6

Elevation Data

Date: 9/16/96 Time: 1627 Well Diameter (inches): 2

Depth to water(ft)	4.76
Bottom of well(ft)	15.15

Water Column Height: 10.39 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 5.31 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: ~~TOC~~ NLW OVCM
Comments:

Sampler: NAL
Rain previous or current day: Y / N
PID (ppm) NL

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/16/96
Initial water level (ft): 4.76
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: purged w bg
some sand
N. sheen
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): _____
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1634	0	6.82	25	1.40	0.70
1637	1	6.82	25	1.55	0.78
1639	2	6.75	25	1.48	0.74
1642	3	6.76	25	1.38	0.69
1644	4	6.69	25	1.36	0.68
1646	5	6.73	25	1.32	0.66
1652	6	6.71	25	1.37	0.69

Sample Data

Date: 9/16/96 Time: 1702 Sampler: NAL
Approx. sample depth: ~5 (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 40 ml	HCl / cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:
Project Location:
Sample #:

Project #:
Well ID BDS-7

Elevation Data

Date: 9/16/96 Time: 1533 Well Diameter (inches): 2

Depth to water(ft)	7.46
Bottom of well(ft)	15.44

Water Column Height: 7.98 (ft)
gal/foot x 3 factor: x 0.522
Volume to be purged: 4.16 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: 19695
Comments:

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) NA

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 9/16/96
Initial water level (ft): 7.46 (1543)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:
Since Sand
purged ~ 58
no sheen
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 7.47
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1544	0	5.92	25	1.12	0.56
1545	1	6.23	25	1.27	0.64
1548	2	6.25	25	~~[illegible]~~	~~0.54~~
1550	3	6.65	25	1.08	0.54
1555	4	6.62	25	1.06	0.53
1558	5	6.61	25	1.06	0.53

Sample Data

Date: 9/16/96 Time: 1612 Sampler: NMR
Approx. sample depth: 7.96 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
VOA	3 ml	HCl/cool
BNA		
MSL Metals		
total		
dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	92 B2 000 1642	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	*Well ID* MW-1 (BDJ)
Sample #:	

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): 2

Depth to water(ft)	9.10
Bottom of well(ft)	16.72

Water Column Height:		7.62 (ft)
gal/foot x 3 factor:	x	0.522
Volume to be purged:		3.98 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#: 19695 (NEW W.M)
Comments: 16.72 − 9.10 = 7.62

Sampler: NMR
Rain previous or current day: Y / N
PID (ppm) NR

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible? Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N NA
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: _____
Initial water level (ft): 9.10 (14.37)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: purged ≈ 4 g. NO SHEEN some fine sand
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 9.10 (15.02)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1443	0	5.33	25	1.16	0.58
1444	1	6.50	25	1.23	0.62
1453	2	5.56	25	1.24	0.62
1455	3	5.67	25	1.33	0.67
1459	4	6.27	25	1.26	0.63

Sample Data

Date: 9/14/96 Time: 1517 Sampler: NMR
Approx. sample depth: ~9 (ft) Weather: Sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe NA
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: w/ black matter (in suspension) fine sand

	Container	Quantity	Preservative
	VOA	3 40 ml	HCl/cool
	BNA		
	MSL Metals		
	total		
	dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

Gasoline odor comes & goes from BDS

RCRA Groundwater Sampling Field Data Sheet

Client/Project Name:	Project #:
Project Location:	***Well ID*** DA-1
Sample #: DA-1	

Elevation Data

Date: _____ Time: _____ Well Diameter (inches): ___

Depth to water(ft)	
Bottom of well(ft)	

Water Column Height:		7.15 (ft)
gal/foot x 3 factor:	x	0.522
Volume to be purged:		3.73 (gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None
ants

Purge Data

Date: 8/23/96
Initial water level (ft): 12.91 (1414)
Pump Rate: _____ (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments: PID-NA
depth 20.06
purged ~ 4 g, muddy
no smell
Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): 13.40 (1440)
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC	TDS
1429	0	7.22	25	1.02	0.51
1436	1	7.17	25	1.11	0.55
1429	2	7.18	25	1.12	0.56
1435	3	7.17	25	1.11	0.56
1440	4	7.21	25	1.14	0.57

Sample Data

Date: 8/23/96 Time: 1458 Sampler: NMC
Approx. sample depth: ~ _____ (ft) Weather: sunny
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance: muddy w/ clear.

	Container	Quantity	Preservative
	VOA	3, 40ml	HCl, cool
	BNA		
	MSL Metals		
	total		
	dissolved		

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

QA/QC

Equipment Blank Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Company

Project #: RFI Wells

Project Location: Yabucoa, Puerto Rico

Well ID

Equipment Blank

Sample #: IB - 1/29/97

Container	*Quantity*	*Preservative*
1 L P	1	HNO3 / unf
40 ml	3	HCl / oxid

Sample Data

Date: 1/29/97 Time: 1100

Sampler Nnn Weather: Sunny

Blank Water Supplied By: Lab / AMAI / Other _____

Equipment Used: Bailer / Filter / Pump / Other _____

Filtered in Field?: No / @Vehicle

Method of Filtration: Pressure / Vacuum / Syringe

Pump ID # — Filter ID # —

Field Decon: Filter / Tubing / Other —

Appearance: Clear

Comments:

Comments:

Equipment Blank Field Data Sheet

RFI wells

Client/Project Name: Puerto Rico Sun Oil Company	Project #: ~~Equalization Basin~~
Project Location: Yabucoa, Puerto Rico	***Well ID*** **Equipment Blank**
Sample #: FB - 1/31/97	

Sample Data

Date: 1/31/97 Time: 1145

Sampler Nunn Weather: Sunny

Blank Water Supplied By: Lab / AMAI / Other _____

Equipment Used: Bailer / Filter / Pump / Other TEFLON HOSE + VALVE LSSS

Filtered in Field?: No / @Vehicle (✓)

Method of Filtration: Pressure / Vacuum / Syringe

Pump ID # _____ Filter ID # _____

Field Decon: Filter / Tubing / Other _____

Appearance:

Comments:

Container	*Quantity*	*Preservative*
40 ml	3	HCl / cool
1 L AG	2	cool
1 L P	1	HNO3 / cool

Comments:

Trip Blank Field Data Sheet

Client/Project Name: Puerto Rico Sun Oil Company

Project #: RFI wells

Project Location: Yabucoa, Puerto Rico

Well ID

Trip Blank

Sample #: TB - 1/29/97

Sample Data

Date: 1/29/97 Time: 1046 (in cooler)

Sampler NAM Weather: sunny

Blank Water Supplied By: Lab / AMAI / Other _____

clear

Container	*Quantity*	*Preservative*
40 ml	3	HCl / cool

Comments:

Trip Blank Field Data Sheet

RFE wells

Client/Project Name: Puerto Rico Sun Oil Company	Project #: Equalization Basin
Project Location: Yabucoa, Puerto Rico	***Well ID*** **Trip Blank**
Sample #: TB 1/31/97	

Sample Data

Date: 1/31/97 Time: —

Sampler NMK Weather: Sunny

Blank Water Supplied By: Lab / AMAI / Other _____

Container	*Quantity*	*Preservative*
40ml	2	HCl/cool

Comments:

Supplemental RFI Groundwater Sampling
April - June 2003 and February 2005

Well Purging Physiochemical Parameters
(April-June 2003, August 2005)
SCYI RFI

Well	2-09	3-10A	3-10B	3-11	40-08	40-14A	40-14B	40-11	40-12	40-21
Sample Date	4-Apr-03	16-Apr-03	7-Apr-03	4-Apr-03	8-Apr-03	9-Apr-03	9-Apr-03	4-Jun-03	4-Jun-03	2-Feb-05
Temperature (C)	28.77	29.8	28.79	29.03	30.65	26.17	26.3	27.02	28.01	27.2
Dissolved Oxygen (mg/l)	0.44	NA	1.81	1.42	6.63	1.27	2.63	9.29	9.31	NA
ORP (mv)	17.5	NA	-28.2	-103.5	38.3	-59.7	-59.7	-41.2	-27	NA
Specific Conductivity (u&cm)	675	900	7347	718	1882	698	692	1045	1020	960
pH	6.98	6.69	7.57	7.07	6.25	6.85	7.06	6.62	6.55	6.62

Note: Measurements were taken during purging about every five minutes.
The measurements shown in this table are at the end of purging.
NA = Not Analyzed

Well Purging Physiochemical Parameters
(April-June 2003, August 2005)
SCYI RFI

Well	AB-1	AB-2	BDS-2	BDS-4	BDS-5	FRB-2	MDS-4	MDS-9R	MDS-10R
Sample Date	8-Apr-03	8-Apr-03	9-Apr-03	9-Apr-03	8-Apr-03	8-Apr-03	3-Jun-03	5-Jun-03	5-Jun-03
Temperature (C)	29.84	30.37	30.03	28.37	29.36	29.45	29.94	31.6	31.6
Dissolved Oxygen (mg/l)	3.69	2.90	8.11	3.18	1.65	2.94	10.86	NA	NA
ORP (mv)	133.4	86.4	36.8	-28.9	-25.4	53.5	-241.2	NA	NA
Specific Conductivity (u&cm)	1665	1514	1076	1256	1535	1560	5003	>10000	>10000
pH	6.66	6.33	7.37	7.15	6.87	6.15	6.90	7.08	7.08

Note: Measurements were taken during purging about every five minutes.
The measurements shown in this table are at the end of purging.
NA = Not Analyzed

Well Purging Physiochemical Parameters
(April-June 2003, August 2005)
SCYI RFI

Well	WOS-4A	WOS-4B	WOS-5
Sample Date	7-Apr-03	4-Apr-03	4-Apr-03
Temperature (C)	29.4	29.13	29.3
Dissolved Oxygen (mg/l)	8.71	0.76	0.51
ORP (mv)	-49.4	-93.7	-155.1
Specific Conductivity (u&cm)	1036	1351	814
pH	7.19	7.13	7.18

Note: Measurements were taken during purging about every five minutes.
The measurements shown in this table are at the end of purging.
NA = Not Analyzed

TOTAL/Dissolved Antimony

AMAI Well Purging/Sampling Form

Well Number: FRB-2

Site Name, Location: SCYI, Yabucoa

Equipment Used: Peristaltic pump

Personnel: C. Torres / N. Rivera

Date: 4/8/03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC): 20.5

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 14.31

Measured DTB (ft from TOC): 20.45

Headspace Reading (ppm): 0.0

Time @ Start Purge: 9.10

Time @ Stop Purge:

Purge Volume (gallons): 1 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
910	1429	after setting tubing		start			
9.14	1450	29.65	6.12	4.11	1860	36.5	150
9.19	1471	29.45	6.10	3.67	1559	50.7	150
9.24	1492	29.42	6.11	3.15	1498	58.0	150
9.29	1511	29.39	6.12	3.13	1518	58.0	150
9.35	1503	29.45	6.15	2.94	1560	53.5	150
			Ready to sample				

Post-it™ Fax Note 7671

Date	# of pages ▶
To Joe Lysonski	From Nestor
Co./Dept.	Co.
Phone #	Phone #
Fax #	Fax #

Comments:

Pump Installation Level: 17 ft

Water Quality:

Additional Comments: used peristaltic pump

Sample Time: 938

Sample Analysis: TM DM (antimony)

0.3 ft

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

Total / Diss Pb

AMAI Well Purging/Sampling Form

Well Number: AB-1

Site Name, Location: SCYE, Yabucoa

Personnel: C. Torres / N. Rivera

Equipment Used: Peristaltic Pump

Date: 4-8-03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC):

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 13.78

Measured DTB (ft from TOC): 15.48

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1030

Time @ Stop Purge:

Purge Volume (gallons): 1.5 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1005	13.78						
1030	13.81	start					
1035	14.12	29.92	6.65	4.66	1676	131.7	125
1040	14.32	29.89	6.66	3.90	1672	134.7	125
1045	14.63	29.83	6.66	3.77	1669	136.2	125
1050	15.04	29.84	6.66	3.69	1665	133.4	125
			Ready to sample				

Comments:

Pump Installation Level: 15'

Sample Time: 1055

Water Quality:

Sample Analysis: TM, DM

Additional Comments: Well turned dry during sampling

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

Total & Diss Antimony

Well Number: AB-2

Site Name, Location: SCYL Yabucoa

Equipment Used: Peristaltic Pump.

Personnel: C. Torres N. Rivera

Date: 4-8-03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC):

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 14.42 @ 1010

Measured DTB (ft from TOC): 19.42

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1115

Time @ Stop Purge:

Purge Volume (gallons): 1.5

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1115	14.38	START					
1120	14.58	30.58	6.40	4.17	1531	9.9	200
1125	14.59	30.42	6.39	3.84	1531	30.3	200
1130	14.59	30.30	6.34	3.43	1523	54.5	200
1135	14.59	30.30	6.34	3.24	1528	64.8	200
1140	14.59	30.32	6.34	2.95	1520	77.7	200
1145	14.59	30.38	6.33	2.91	1518	80.8	200
1150	14.59	30.37	6.33	2.90	1514	86.4	200

Comments:

Pump Installation Level: 17.5'

Water Quality:

Additional Comments:

Sample Time: 1152

Sample Analysis: TM, DM

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

Well Number: TW 40-08

Site Name. Location: SCYI, Yabucoa

Equipment Used: Peristaltic pump

Personnel: [redacted] C. Torres N. Riv

Date: 4-8-03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC):

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 15.71

Measured DTB (ft from TOC): 25.15

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1411

Time @ Stop Purge:

Purge Volume (gallons): 1 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1411	15.71	START					
1420	15.78	30.91	6.13	6.79	1885	59.9	125
1425	15.78	30.69	6.19	6.79	1868	55.7	125
1430	15.78	30.55	6.21	6.69	1898	46.1	125
1435	15.78	30.63	6.24	6.68	1880	40.5	125
1440	15.78	30.65	6.25	6.63	1882	38.3	128
		Ready to sample					

Comments:

Pump Installation Level: 20'

Water Quality:

Additional Comments:

Sample Time: 1445

Sample Analysis: TM, DM

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV; Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.**

AMAI Well Purging/Sampling Form

Well Number: 40 - ~~10~~ 11

Site Name. Location: Sun/Shell - NE Refinery
Equipment Used: QED/YSI

Personnel: CRL - R.
Date: 06/04/03

Monitoring Well Information:

Diameter: 2"
Depth to Bottom (ft from TOC): 20.02
Top of Screen (ft from TOC):
Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 8.58
Measured DTB (ft from TOC): 20.02
Headspace Reading (ppm): —
Time @ Start Purge:
Time @ Stop Purge:
Purge Volume (gallons):

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
8:15	8.58						160
8:20	8.62	27.35	6.60	10.25	1037	-19.8	160
8:25	8.67	27.19	6.60	9.91	1039	-27.9	220
8:30	8.67	27.03	6.61	9.94	1039	-37.4	220
8:35	8.68	26.98	6.62	9.74	1043	-39.5	220
8:40	8.68	27.05	6.62	9.55	1043	-41.5	220
8:45	8.71	27.02	6.62	9.29	1045	-41.2	220
	Prep	for sampling					

Comments:
Pump Installation Level:
Water Quality:
Additional Comments: sheen/

Sample Time: 8:55
Sample Analysis: VOC, BNA, Met tot'l, Met diss
3 2 2 2
40 ml 1L Am 500 ml HNO3 500 ml.
→ AFTER TAKING 3rd sample

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

DO ± 10% or 0.2 mg/L whichever greater, ORP ± 20 mV, Temp ± 3%; pH ± 0.2
Spec Cond ± 3%, Drawdown min 0.3 ft or 25% distance from top of screen to pump
[illegible] pumping rate [illegible] 500 ml/m.

AMAI Well Purging/Sampling Form

Well Number: 40-12

Site Name, Location: Sun/Shell NE Refinery

Equipment Used: QED / YSI

Personnel: CRL-C.

Date: 06/04/03

Monitoring Well Information:

Diameter: _____

Depth to Bottom (ft from TOC): _____

Top of Screen (ft from TOC): _____

Bottom of Screen (ft from TOC): _____

Well Purging Information:

Measured DTW (ft from TOC): 9.99

Measured DTB (ft from TOC): _____

Headspace Reading (ppm): _____

Time @ Start Purge: _____

Time @ Stop Purge: _____

Purge Volume (gallons): _____

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
9:45	9.96	Start	Pump	9.04	1065	-29.4	80
9:55	10.38	27.98	6.57	8.19	1010	-25.6	~80
10:00	10.49	28.03	6.56	8.53	1013	-21.9	60
10:05	10.59	28.02	6.55	8.62	1017	-26.2	60
10:10	10.59	28.06	6.55	9.03	1019	-28.0	60.
10:15	10.70	28.01	6.55	9.31	1020	-27.0	60
		Sampling @ 10:30					

Comments:

Pump Installation Level: 12 btoc well.

Water Quality: _____

Additional Comments: Screen to 0.02 blk NAPL removed @ 10 sick.

Sample Time: 10:30.

Sample Analysis: VOC, BNA, Met Tot/Met Filt.

AFTER TAKING 3rd sample

Well Stabilization: is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

DO ± 10% or 0.2 mg/L, whichever greater, ORP ± 20 mv; Temp ± 3%; pH ± 0.2

Spec. Cond ± 3%; Drawdown [illegible] 25% distance from top of screen to pump

[illegible] Pumping [illegible] L/min

AMAI Well Purging/Sampling Form

VOC

Well Number: 40-14A

Site Name, Location: SCYI, N.E.R.A

Equipment Used: No [illegible]

Personnel: N. Rivera & C. Torres

Date: April 9, 03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC): 20.1

Top of Screen (ft from TOC): 10.1

Bottom of Screen (ft from TOC): 20.1

Well Purging Information:

Measured DTW (ft from TOC): 11.67 @ 8:43

Measured DTB (ft from TOC): ~~20.10~~ 20.16

Headspace Reading (ppm): 0.0

Time @ Start Purge: ~~858~~ 937

Time @ Stop Purge: 1013

Purge Volume (gallons): 3 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
~~858~~	~~11.42~~	After setting pump		START			
~~900~~	~~11.45~~	~~26.40~~	~~7.10~~	~~5.22~~	~~699~~	~~26.3~~	~~325~~
~~905~~	~~11.45~~	~~26.36~~	~~7.09~~	~~2.62~~	~~700~~	~~52.6~~	
937	11.67	- START	- After	setting pump			
940	12.12	26.31	6.88	3.40	655	0.0	550
945	12.51	26.21	6.83	2.10	717	-29.1	500
950	12.55	26.19	6.85	1.82	739	-36.0	500
955	12.58	26.16	6.83	1.57	709	-42.4	500
1000	12.55	26.17	6.88	1.41	696	-52.0	500
1005	12.56	26.18	6.87	1.37	697	-54.2	500
1010	12.56	26.17	6.85	1.27	698	-59.7	500
			Ready to Stop				

Comments:

Pump Installation Level: -16 ft

Water Quality: clear

Additional Comments:

Sample Time: 1012

Sample Analysis: VOC

Well Stabilization : is considered to be achieved when three consecutive readings. taken at 5 minute intervals

pozo cerrado !!

AMAI Well Purging/Sampling Form

VOC

COTTA 4016
L MIDE PEDACIO

Well Number: 40-14B

Site Name, Location: NERA SCI

Equipment Used: "6545" Acuna

Personnel: N. Rivera / C Torres

Date: April 9, 03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC): 38.25

Top of Screen (ft from TOC): 29.5

Bottom of Screen (ft from TOC): 37.75

SW. ~ 2'

Well Purging Information:

Measured DTW (ft from TOC): 1142 @ 840

Measured DTB (ft from TOC): ~~40.5~~ 40.10

Headspace Reading (ppm): 0.0

Time @ Start Purge: 8.58

Time @ Stop Purge: 920

Purge Volume (gallons): 2 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
8.58	1142	START After setting pump					
900	1145	26.40	7.10	5.22	699	26.3	325
905	1145	26.36	7.09	2.62	700	-52.6	325
910	1145	26.35	7.09	2.28	695	-61.0	325
915	1145	26.33	7.06	2.63	692	-59.7	325
			Ready to sample				

Comments:

Pump Installation Level: ~35 ft

Water Quality: clear

Sample Time: 9.18

Sample Analysis: VOC

Additional Comments:

Well Stabilization : is considered to be achieved when three consecutive readings taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

Version 2.0

WELL DEVELOPMENT TABLE

Site: SCYR | Project #: | Well #: 40-21 | Date: Feb 2, 2005

Static Water Level (ft): Before Development 1041 ft btc; at Time 1610 (btc-below top of casing)

Depth from Top Well Casing to Bottom of Well: 16.97 ft @ 10:17 1040 - p.L

Water Column 6.56 ft.

Quantity of Water in Well and Annulus Before Development: 1.145 Gal. (2" well —— 0.174 gal/ft; 4" well —— 0.661 gal/ft)

x10 = 11.45

Screen Length: 10 ft.

Depth to Top of Sediment: Before Development 16.97 ft; After Development 17.05 ft @ 1218

Type and Size of Well Development Equipment hose w/ footvalve, covered with absorbent pad slug at tip.

Description of Surge Technique, if used

Height of Well Casing Above Ground Surface: 3 ft.

Quantity of Water Removed: 12 Gal; Time for Removal: 10:50 - Hr./Min.

Time	Water level (btc)	Volume (gal)	S. Cond (uS/cm)	PH	Temp (°C)	Turbidity (NTU)	Comments
1050	1041						Start surging
1054	—	0	840	6.63	26.3	Err 3	sandy sediment w/ stream
1106	1055	2	880	6.59	26.6	Err 3	"
1120	1073	4	896	6.64	26.7		"
1126	1082	6	920	6.61	26.8		" but less than initial
1137	1083	8	900	6.59	26.7		
1148	1083	10	910	6.68	26.6		
1159	1084	12	960	6.62	27.2	Err 3	" but less than initially
1218							
							water has sediment

Calibrate PH

S.C. 1400

pH - 5.8 pH/mV

Turb. 0, 49.7 NTU

Notes:
1. Measure water level and well depth before starting and after completing the development activities.
2. Measure the water level every 5 minutes after starting the test and after collecting pumping rate reading.
3. Do not allow the well to run completely dry. Use the in-line valve for controlling outfall.
4. Make notes on the variation of the appearance of the water being pumped. Stop development activities after the water becomes clearer and there are no major changes between two surging events.
5. After every 30 minutes of pumping, turn off the system and surge the well in the screen zone for 10 minutes using the slug. Also do it sporadically, while pumping, using the hose in the well.
6. After using the equipment in a well, pump clean water through the system before using it in another well.
7. Development Conditions: 1. Turbidity of Well Water is less than 5 NTU. 2. Removal of 10 Well Volumes.

PID - Reading - 0.00 @ 9:50

AMAI Well Purging/Sampling Form

Well Number: 2-09

Site Name, Location: SCYI - Tank Farm

Personnel: N. Rivera / C. Torres

Equipment Used: No ~~10 pm~~ pump on casing

Date: 4/14/03

Monitoring Well Information:

Diameter: 2", PVC

Depth to Bottom (ft from TOC): 19.57

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 15.18

Measured DTB (ft from TOC): 19.57

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1700

Time @ Stop Purge: 1715

Purge Volume (gallons): .3 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (~~Lpm~~ ml)
16:42	15.18						
1700	~~15.49~~	29 START			6.82		
1702	15.47	29.41	7.11	1.62	~~6.82~~	24.4	400
1705	15.47	28.95	7.08	.72	6.80	23.7	400
1710	15.47	28.81	6.99	.52	680	22.8	400
1715	15.47	28.77	6.98	.44	675	17.5	400
		Ready to sample					

Comments:

Pump Installation Level: ~17 ft

Water Quality: cloudy (brown)

Additional Comments:

Sample Time: 1720 ; MS - 1725 ; MSD - 1730

Sample Analysis: VOC, BNA, TM, DM

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO ~~10~~%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

± 0.5%

AMAI Well Purging/Sampling Form

Well Number: 3-10A

Personnel: N. Rivera / C Torres

Site Name. Location: SCYI - East APL

Date: ~~4/17/03~~ 4/16/03

Equipment Used: peristaltic

Monitoring Well Information:

Diameter: _____

Depth to Bottom (ft from TOC): 14.2

Top of Screen (ft from TOC): 9.2

Bottom of Screen (ft from TOC): 14.2

S.W. 3.2 ft

Well Purging Information:

Measured DTW (ft from TOC): 9.98 @ 1543

Measured DTB (ft from TOC): ~~14.2~~ (1051)

Headspace Reading (ppm): 0.0

Time @ Start Purge: _____

Time @ Stop Purge: _____

Purge Volume (gallons): <1/4 gal

	Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
	16:14	9.98	After setting tubi			START		
	16:17	- Well ran dry		STOPPED for today				
4/8/03	~800	still dry						
	1720	still dry						
4/9/03	1103	dry						
	1750	dry						
4/10/03	858	dry						
	1302	dry						
	1747	dry						
4/15/03	1115	~~8.25~~ 8.35	10.51	PID		3-10B →	PID	WL
4/16/03	1230	8.47		0.0 - FOR BOTH			0.0	11.82
	1235	8.47	After inserting HOSE in well			START		
	1236	9.02	30.7	6.46		@970		
	1238	9.12	30.1	6.60		@950		
	1239	9.45	30.0	6.64		910		
	1241	9.62	30.0	6.63		860		
	1244	9.71	30.0	6.63		890		
	1246	10.04	29.8	6.69		950		

Comments:

Pump Installation Level: HOSE AT BOTT. 10.51

Sample Time: 1249 @ WL 10.15

Water Quality: clear

Sample Analysis: VOC

Additional Comments:

used peristaltic pump

1.0.3 mV

Well Stabilization: is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

VOC

AMAI Well Purging/Sampling Form

Well Number: 3-10B

Site Name, Location: SCYI, East API

Equipment Used: pump 10607 → after dev

Personnel: C. Torres / N. Rivera

Date: 4/7/03

Monitoring Well Information:

Diameter: 2", PVC

Depth to Bottom (ft from TOC): 37.99

Top of Screen (ft from TOC): ~27.99

Bottom of Screen (ft from TOC): 37.99

Well Purging Information:

Measured DTW (ft from TOC): 12.05 @ 1544

Measured DTB (ft from TOC): 37.99 (37.85)

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1700

Time @ Stop Purge: 1722

Purge Volume (gallons): 1.5

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1700	1205	start, after setting hose					
1703	1223	29.15	7.46	2.60	6703	102.7	250
1705	1224	28.94	7.50	1.95	7494	9.2	300
1710	1226	28.84	7.55	1.97	7337	-23.7	300
1715	1225	28.80	7.49	1.94	7347	-29.9	300
1720	1226	28.79	7.57	1.81	7347	-28.2	300
		Ready to sample					

Comments:

Pump Installation Level: 34 ft

Water Quality: clear

Additional Comments:

Sample Time: 1721

Sample Analysis: VOC

Well Stabilization: is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO ±0.3 ~~10%~~; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

VOC, BNA, TM, DM.

Well Number: 3-11

Site Name, Location: SCYT, East API

Personnel: C Torres, N Rivera

Equipment Used: S/N 10049 Pump

Date: 4/9/03

Monitoring Well Information:

Diameter: 1.25 in; PVC

Depth to Bottom (ft from TOC): 13.45

Top of Screen (ft from TOC): 3.45

Bottom of Screen (ft from TOC): 13.45

S.W. 1.92

Well Purging Information:

Measured DTW (ft from TOC): 10.42

Measured DTB (ft from TOC): 13.45

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1458

Time @ Stop Purge: 15

Purge Volume (gallons):

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (~~L~~ml/pm)
1458	10.42	- START	Pumping				
1503	10.48	29.22	7.07	1.94	422	-89.5	-
1505	10.48	29.21	7.06	1.50	732	-99.4	60
1510	10.49	29.21	7.10	1.32	727	-101.8	60
1515	10.49	29.08	7.08	1.42	718	-103.5	60
		Ready to sample.					

Comments:

Pump Installation Level: 13.00

Water Quality: clear

Additional Comments:

Sample Time: 1520

Sample Analysis: VOC, BNA TM DM

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

0.03

EB040303 - 1345
TB040303 - 1310
L 3/28/03, 16^ by RK

AMAI Well Purging/Sampling Form

Well Number: WOS-4A

Site Name, Location: SCVI- WOS- Yabucoa
Equipment Used: Pleu 10567

Personnel: N. Rivera / J Valle
Date: 4/3/03

Monitoring Well Information:

Diameter: 2
Depth to Bottom (ft from TOC): 17.9
Top of Screen (ft from TOC): 7.9
Bottom of Screen (ft from TOC): 17.9

Well Purging Information:

Measured DTW (ft from TOC): 1315
Measured DTB (ft from TOC): 1'
Headspace Reading (ppm): 0.0
Time @ Start Purge: 15:30
Time @ Stop Purge:
Purge Volume (gallons): 3.5

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (mL/pm)
1320	1315						
1530	1315	28.73	6.12	1.05	1013	-133.2	270
1535	1315	29.06	5.92	0.85	1014	-154.0	280
1540	1318	29.18	5.74	0.59	1025	-192.7	300
1545	1317	29.27	5.61	0.48	1023	-215.4	270
1550	1318	29.29	5.29	0.40	1018	-226.5	260
1555	1318	29.29	5.19	0.39	1006	-230.0	250
1600	1318	29.27	5.15	0.35	1010	-233.5	250
1605	1318	29.29	5.11	0.41	1006	-235.4	250
1610	1318	29.32	5.11	0.42	1008	-236.7	260
1615	1318	29.32	5.08	0.40	1005	-236.4	270
		Ready to sample					

Comments:
Pump Installation Level: ~15.5' btc
Water Quality: clear, odor
Additional Comments:

Sample Time: 1622
Sample Analysis: VOC, BNA, TOTAL & Dissolved metals

Well Stabilization: is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

0.3 ± 0.3

AMAI Well Purging/Sampling Form

Well Number: WOS-4A

Site Name, Location: SCYI Yabucoa

Equipment Used: Pump 10424

Personnel: C Torres / N Rivera

Date: 4/7/03

Monitoring Well Information:

Diameter: 2, PVC

Depth to Bottom (ft from TOC): 17.9

Top of Screen (ft from TOC): 7.9

Bottom of Screen (ft from TOC): 17.9

Well Purging Information:

Measured DTW (ft from TOC): 13.05

Measured DTB (ft from TOC): 17.9

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1428

Time @ Stop Purge: 1530

Purge Volume (gallons): 3 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
14:25	1305	START					
1428	1306	29.69	7.13	8.14	1043	-48.3	400
1430	1308	29.59	7.15	8.38	1047	-48.2	400
1435	1307	29.46	7.15	8.34	1043	-48.0	400
1440	1308	29.42	7.19	8.71	1036	-49.4	400
		READY TO SAMPLE					

Comments:

Pump Installation Level: ~15.00

Water Quality: Clear

Additional Comments:

Sample Time: 1450 Dup 1454

Sample Analysis: VOC, DRA, TM, DS

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV; 0.3

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

VOC, BNA, TM, DM

AMAI Well Purging/Sampling Form

Well Number: WOS-5

Site Name, Location: SCYI Waterly Oil Separator

Personnel: N. Rivera

Equipment Used: pump 6545 (Label pump)

Date: 4/4/03

Monitoring Well Information:

Diameter: 2, PVC

Depth to Bottom (ft from TOC): 18.6

Top of Screen (ft from TOC): 5' 7.75"

Bottom of Screen (ft from TOC): ~~15.0~~ 15.0

S.U. 3.05'

Well Purging Information:

Measured DTW (ft from TOC): 13.98

Measured DTB (ft from TOC): 18.6

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1221

Time @ Stop Purge: 1245

Purge Volume (gallons): 2

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow ~~(Lpm)~~ mL
1207	13.98						
1221	14.01	29.45	7.46	1.37	940	-134.3	400
1225	14.01	29.32	7.30	0.66	804	-150.40	400
1230	14.01	29.30	7.19	0.54	816	-152.5	400
1235	14.01	29.30	7.18	0.51	814	-155.1	400
		Ready to sample					

Comments:

Pump Installation Level: -16 ft TOC

Water Quality: clear

Additional Comments:

Sample Time: 1240

Sample Analysis: VOC, BNA, METALS (T, D)

Well Stabilization: is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO ~~10%~~ ±3 mg/L; Spec. Cond ±3%; Temp. ±3%; pH +/- 0.1 unit; ORP +/-10 mV;

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

VOC

Well Number: WOS-4B

Site Name, Location: SCYI Watery Oil Separator

Personnel: N Rivera

Equipment Used: Pump S/N 10607

Date: 4/4/03

Monitoring Well Information:

Diameter:

Depth to Bottom (ft from TOC):

Top of Screen (ft from TOC): 29.5

Bottom of Screen (ft from TOC): 39.5

Well Purging Information:

Measured DTW (ft from TOC):

Measured DTB (ft from TOC): 39.5

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1119

Time @ Stop Purge: 1151

Purge Volume (gallons): 1 gal

	Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
4/3/03	1325	13.38						
	1050	1366						
	1119	– START PUMPING		5 1366				
	1129	1368	29.14	7.06	1.80	13.35	-63.5	125
	1135	1372	29.13	7.10	1.33	1361	-71.1	125
	1140	1375	29.14	7.09	0.99	1358	-83.9	175
	1145	1374	29.15	7.14	0.95	1353	-87.8	175
	1150	1373	29.13	7.13	0.76	1351	-93.7	180
			Ready to		Sample			

Comments:

Pump Installation Level: 34

Water Quality: clear

Sample Time: 11.57

Sample Analysis: VOCs

Additional Comments:

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

≥ 0.3

AMAI Well Purging/Sampling Form

Well Number: BDS-2

Personnel: C. Torres / N. Rivera

Site Name, Location: SCNF BDS

Date: 4/9/03

Equipment Used: 10047 (3/4) - decontaminated

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC): 11.90

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 10.62 @ 1147

Measured DTB (ft from TOC): 11.90

Headspace Reading (ppm): 102

Time @ Start Purge: 1207

Time @ Stop Purge:

Purge Volume (gallons): ~ 1/4-1/2 gal

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (L/pm)
1147	10.62	HAS SHEEN . Hand		absorbent pad			
1207	10.62	- START pumping					
1232	10.64	30.10	7.25	8.21	1073	30.1	25.
1237	10.64	30.09	7.34	8.19	1078	31.3	25
1242	10.64	30.03	7.37	8.11	1076	36.8	25
		Ready to sample					
		scan 1245 - BS2					

Comments:

Pump Installation Level: ~ 4'

Water Quality: clear

Additional Comments: FILLED up METAL containers ½ full.

Sample Time: 13:35

Sample Analysis: VOC TMHA DMHA

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

Well Number: BDS-4

Site Name, Location: SCYI- BDS

Equipment Used: 10049

Personnel: C Torres / N. Rivera

Date: 4/9/03

Monitoring Well Information:

Diameter: 2" PVC

Depth to Bottom (ft from TOC): 15.23

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 7.92 @ 1315

Measured DTB (ft from TOC): 15.23

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1708

Time @ Stop Purge:

Purge Volume (gallons):

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1631	7.93						
1633	START pumping						
1705	STOP OESI. Chamber does not						
1708	START PES						
1714	7.96	28.70	7.15	3.69	1228	32.0	50
1719	7.96	28.61	7.15	3.42	1244	-3.2	50
1724	7.96	28.46	7.15	3.25	1254	-22.9	50
1729	7.96	28.39	7.15	3.16	1252	-26.3	50
1733	7.96	28.37	7.15	3.18	1256	-28.9	50
			Ready	to sample			

Comments:

Pump Installation Level: 11

Water Quality: clear

Additional Comments: WELL Bent at TOP, in line w/ ground surface

Sample Time: 1735

Sample Analysis: VOC

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: DO ~~10%~~ 0.3; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

Well Number: BDS-5

Site Name, Location: BDS- SCVI

Personnel: N. Rivera/ C Torres

Equipment Used: pump 10567, decontaminated

Date: 4/8/03

Monitoring Well Information:

Diameter: 2, PVC

Depth to Bottom (ft from TOC): 15.14

Top of Screen (ft from TOC):

Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 6.57

Measured DTB (ft from TOC): 15.14

Headspace Reading (ppm): 0.0

Time @ Start Purge: 1633

Time @ Stop Purge: 1701

Purge Volume (gallons): 0.5

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (~~L~~ml/pm)
1633	6.57	Start	Pumping				
1637	6.62	29.88	6.77	2.88	1698	75.5	400
1642	6.62	29.47	6.81	1.92	1615	-2.2	400
1647	6.62	29.39	6.83	1.72	1564	-18.3	400
1652	6.62	29.35	6.86	1.65	1547	-21.2	400
1657	6.62	29.36	6.87	1.65	1535	-25.4	400
		Ready to sample					

Comments:

Pump Installation Level: ~11 ft

Sample Time: 1701

Water Quality: Dark gray AT THE Beginning

Sample Analysis: VOC's

Additional Comments:

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%; Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**

Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

AMAI Well Purging/Sampling Form

Well Number: MDS-4

Site Name. Location: Main Dock Sump
Equipment Used: YSI - QED

Personnel: CRL, NR.
Date: 06/03/03

Monitoring Well Information:

Diameter: 2"
Depth to Bottom (ft from TOC): 11.98
Top of Screen (ft from TOC):
Bottom of Screen (ft from TOC):

Well Purging Information:

Measured DTW (ft from TOC): 8.23 (8.22)
Measured DTB (ft from TOC): 11.98
Headspace Reading (ppm): —
Time @ Start Purge: 1633
Time @ Stop Purge:
Purge Volume (gallons):

Time	DTW (ft TOC)	Temp (C)	pH	DO (mg/l)	S.Cond (uS/cm)	ORP (mV)	Flow (Lpm)
1633	~~Start~~ 8.25	Start pumping after setting system					
1639	8.27	30.24	6.89	8.01	3964	-206.0	340
1644	8.27	30.02	6.90	8.26	4580	-229.4	340
1649	8.27	29.99	6.91	8.87	4762	-244.7	340
1654	8.27	29.99	6.91	9.54	4838	-240.5	340
1659	8.27	29.98	6.90	9.98	4886	-241.5	340
1704	8.27	29.95	6.90	10.40	4921	-239.6	340
1709	8.27	29.94	6.90	10.53	4950	-239.2	340
1714	8.27	29.94	6.90	10.86	5003	-241.2	340
			READY TO SAMPLE				

S 1720 D 1720 MS/MSD 1720

Comments:
Pump Installation Level:
Water Quality: Dark
Additional Comments: 0.01 ~~PSHL~~ removed with sock.

Sample Time: VOC, BNA, TM, DM
Sample Analysis:

AFTER TAKING 3rd sample

Well Stabilization : is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO 10%: Spec. Cond. 3%; Temp. 3%; pH +/- 0.1 unit; ORP +/-10 mV;**
Add'l Guidelines: Drawdown <= 0.3 feet; Pumping rates = 0.1 to 0.4 L/min.

DO ± 10% or 0.2 mg/L, whichever greater, ORP ± 10 mV, Temp ± 3%; pH ± 0.2
Spec Cond ± 3%, Drawdown [illegible] = 25% distance from top of screen to pump
[illegible] Lpm.
ml/min

pozos de 2; 5 volumenes
1/2; 10 volumenes

0.5 = 0.002
2" = 0.218 x h = ml x 7.48 = gal
4" = 0.087
ft.

Groundwater Sampling Field Data Sheet

Client/Project Name: ~~Bristol Myers Squibb~~ SHELL CHEMICAL
Project Location: ~~Humacao~~, Puerto Rico Yabucoa Inc.
Sample #: MDS 9R

Project #:
Well ID MDS 9R

Elevation Data

Date: 6-5-03 Time: 1057

Well Diameter (inches): 10

Water Column Height: _____ (ft)
purge factor (0.522 for 2" well; 1.98 for 4" well) — for 1/2
Volume to be purged: _____ (gal)

Depth to water(ft)	9.56
Bottom of well(ft)	

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y (N)
PID (ppm) _____
PID headspace reading above background

Post-it" Fax Note 7671

To	Joe Lysonski	Date	# of pages ▶
Co./Dept.		From	Nestor
Phone #		Co.	
Fax #		Phone #	
		Fax #	

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
N Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 6-5-03
Initial water level (ft): 9.56
Pump Rate: 7.5 (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal

Comments:

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): _____
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC
1057	0	7.09	30.5	+10,000
1102	75	7.06	30.9	+10,000
1520	1422.5	7.02	31.4	+10,000
1530	1997.5	7.08	31.6	+10,000

Sample Data

Date: _____ Time: _____ Water level prior to sampling _____ (ft)
Approx. sample depth: _____ (ft) Weather: _____ Sampler _____
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter : SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
TCL VOA's	3 x 40 ml	HCL < 2
Metals dissolved	1, 1L, P	HNO3

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments

pozos de 2; 5 volúmenes
1/2; 10 volúmenes

0.5 : 0.007
2" = 0.218 x 4 = vol x 7.48 = gal
4" = 0.087
ft.

Groundwater Sampling Field Data Sheet

Client/Project Name: ~~Bristol Myers Squibb~~ SHELL CHEMICAL
Project Location: ~~Humacao~~, Puerto Rico Yabucoa Inc
Project #:
Well ID 10R
Sample #:

Elevation Data

Date: 6-5-03 Time: 1050 Well Diameter (inches): 10

Depth to water(ft)	8.65
Bottom of well(ft)	26.45

Water Column Height: _____(ft)
purge factor (0.522 for 2" well; 1.98 for 4" well); — for 1/2
Volume to be purged: _____(gal)

Measuring Point: TPS / PVC / SST
Measuring Device ID#:
Comments:

Sampler:
Rain previous or current day: Y / N
PID (ppm) _____
PID headspace reading above background

Well Condition Checklist

General Condition: Good / Needs Repair
Protective Steel: OK / Cracked / Leaking / Bent / Loose / None
Well number visible?: Y / N
Well Cap: Good / Broken / None
Evidence of rain water between security casing and riser?: Y / N
Evidence of ponding around well?: Y / N
Gopher type holes around collar?: Y / N
Comments:

Riser type: SST / PVC
Riser: Good / Damaged / None
Is well plumb? Y / N
Lock: Good / Broken / None
Rust around Cap: Y / N
Concrete collar: OK / Cracked / Leaking / None
Other Evidence of: Rodents / Insects / None

Purge Data

Date: 6-5-03
Initial water level (ft): 8.65
Pump Rate: 15 (lpm / gpm)
Purge device: Dedicated / Nondedicated
Device type: Bailer / Peristaltic / Submersible / Bladder / Waterra / Surface Centrifugal
Comments:

Well Yield: High / Moderate / Low / Dry
Depth to water at end of purge (ft): _____
(Sample after 80% well recovery or prior to 2 hrs after purging)

Time	Vol. (gal)	pH	temp (C)	SC
1050	0	6.77	31.0	+10,000
1100	150	7.10	30.6	+10,000
	(3300)	nm		
1430	3300	7.02	31.1	+10,000
1440	3450	7.08	31.6	+10,000

Sample Data

Date: _____ Time: _____ Water level prior to sampling _____(ft)
Approx. sample depth: _____(ft) Weather: _____ Sampler _____
Sampling method: Bailer / Peristaltic / Badder / Waterra
Bailer type/diameter: SST / PVC / Teflon 1.25" / 1.75" Disposable Y / N
Bailer cord: Dedicated / Nondedicated
Filtered in Field?: No / @Well / @Vehicle
Method of Filtration: Pressure / Vacuum / Syringe
Field Decon: Bailer / Filter / Tubing / Other _____
Sample Appearance:

Container	Quantity	Preservative
TCL VOA's	3 x 40 ml	HCL < 2
Metals, dissolved	1, 1L, P	HNO3

Field Parameters

Instrument ID # _____ Instrument ID # _____

pH	Temp	Spec. Cond.

Note: pH and SC measurements are automatically temperature compensated by the instruments