

## **ATTACHMENT 4: FIELD LOGS**

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This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-1, MW-5 through MW-10, MW-13, MW-15, and MW-16), as well as the field data sheets for the Westbay™ multiport wells (MW-3, MW-4, MW-11, MW-12, MW-14, and MW-17 through MW-26). Groundwater sample collection for the third quarter 2022 sampling event was conducted by Blaine Tech Services, Inc.

Note: During the third quarter 2022 the relatively shallow standpipe wells MW-5, MW-6, MW-7, MW-8, MW-10, MW-13, and MW-16 and the uppermost sampling ports (i.e., Screen 1) in the multiport monitoring wells MW-4, MW-12, MW-14, MW-20, MW-21, and MW-26 were dry and no samples were collected. In addition, MW-17 (Screen 1) and MW-18 (Screen 1), which are only sampled during the second and fourth quarters but are measured for water levels during the first and third quarters, were also dry.

**WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET**

WELL ID: MW-3  
 SAMPLING DATE(S): 08/03/22  
 LOCATION: SPL  
 WATER LEVEL INSIDE CASING: 180.25  
 ATM. PRESSURE (PSI): (Start) 14.04 (Finish) 14.06

PROBE TYPE: Westbay  
 SERIAL NO.: BMS2502  
 PROJECT: SPL  
 OPERATOR(S): T. Hoan  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) mg/L	ORP (mv)	Sample Time	Sample ID
4	1	✓	✓	✓	✓	✓	177.62	✓	176.25	✓	176.25	✓	177.62	20.9	616	7.48	16	6.05	82	1030	MW-3-4
	2	✓	✓	✓	✓	✓	177.03	✓	176.21	✓	176.21	✓	177.03								
3	1	✓	✓	✓	✓	✓	84.58	✓	84.51	✓	84.51	✓	84.58	22.2	478	7.81	10	7.15	92	1130	MW-3-3
2	1	✓	✓	✓	✓	✓	43.54	✓	43.81	✓	43.81	✓	43.54	23.4	463	7.70	4	7.01	127	1145	MW-3-2

Comments: EP-3-080322 @ 1200

**WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET**

WELL ID: MW-4  
 SAMPLING DATE(S): 08/08/22  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING: 160.05  
 ATM. PRESSURE (PSI): (Start) 14.83 (Finish) 14.05

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): J. H. H. Co.  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)					Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
3	1	✓	✓	✓	✓	✓	87.43	✓	82.87	✓	82.87	✓	87.43	19.9	946	753	3	8.11	130	0800	MW-4-3
2	1	✓	✓	✓	✓	✓	50.70	✓	47.73	✓	47.73	✓	50.70	18.8	823	731	2	7.95	132	0830	MW-4-2
1	1	✓	✓	✓	✓	✓	14.16	✓	14.15	✓	14.15	✓	14.10	-Port is Dry-					-No Sample-		

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 220729-HA1	Client: Tidewater
Sampler: HH	Gauging Date: 2/8/10/22
Well I.D.: MW-5	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): Ded Pump	Depth to Water (ft.): 134.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: TSI Pro D/S

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing ~~New Tubing~~ ~~Other~~

Start Purge Time: \_\_\_\_\_ Flow Rate: \_\_\_\_\_ Pump Depth: \_\_\_\_\_

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
<del>Insufficient water to Purge or Sample</del>								
<del>No Sample Taken</del>								

Did well dewater?	Yes	No	Amount actually evacuated:
Sampling Time:	Sampling Date:		
Sample I.D.:	Laboratory:		
Analyzed for:	TPH-G	BTEX	MTBE TPH-D Other:
Equipment Blank I.D.:	@	Time	Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 220729-HH1	Client: Tidewater
Sampler: HH	Gauging Date: 08/11/22
Well I.D.: MW-6	Well Diameter (in.): 2 3 (4) 6 8
Total Well Depth (ft.): 237.70	Depth to Water (ft.): DRY
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: Pro DWS

Purge Method: 2" Grundfos Pump      Peristaltic Pump      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: \_\_\_\_\_ Flow Rate: \_\_\_\_\_ Pump Depth: \_\_\_\_\_

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
— Well is Dry —								
— No Sample Taken —								

Did well dewater?    Yes    No      Amount actually evacuated: ~~5~~

Sampling Time: \_\_\_\_\_      Sampling Date: \_\_\_\_\_

Sample I.D.: \_\_\_\_\_      Laboratory: \_\_\_\_\_

Analyzed for:    TPH-G    BTEX    MTBE    TPH-D      Other: \_\_\_\_\_

Equipment Blank I.D.: \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D.: \_\_\_\_\_

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>220729-HH1</u>	Client: <u>Tickewater</u>
Sampler: <u>HH</u>	Gauging Date: <u>08/11/22</u>
Well I.D.: <u>MW-7</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8 <u>   </u>
Total Well Depth (ft.): <u>266.81</u>	Depth to Water (ft.): <u>DRY</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Pre PVC</u>

Purge Method: 2" Grundfos Pump ~~Peristaltic Pump~~ ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing ~~New Tubing~~ ~~Other~~  
 Start Purge Time:                      Flow Rate:                      Pump Depth:                     

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
<u>— Well is Dry —</u>								
<u>— No Sample Taken —</u>								

Did well dewater? Yes  No  Amount actually evacuated:                     

Sampling Time:                      Sampling Date:                     

Sample I.D.:                      Laboratory:                     

Analyzed for: TPH-G BTEX MTBE TPH-D Other:                     

Equipment Blank I.D.:                      @                      Time Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>220229-HH1</u>	Client: <u>Tidewater</u>
Sampler: <u>HH</u>	Gauging Date: <u>08/10/22</u>
Well I.D.: <u>MMW-8</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8
Total Well Depth (ft.): <u>202.04</u>	Depth to Water (ft.): <u>DRY</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>YST Pro Plus</u>

Purge Method: 2" Grundfos Pump      ~~Peristaltic Pump~~      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: \_\_\_\_\_ Flow Rate: \_\_\_\_\_ Pump Depth: \_\_\_\_\_

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
— Well is Dry —								
— No Sample Taken —								

Did well dewater?    Yes    No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other:	
Equipment Blank I.D.:    @    Time	Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 220729-AH1	Client: Tidewater
Sampler: AH	Gauging Date: 08/10/22
Well I.D.: MW-10	Well Diameter (in.): 2 3 ④ 6 8
Total Well Depth (ft.): 153.44	Depth to Water (ft.): DRY
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro D/S

Purge Method: 2" Grundfos Pump      ~~Peristaltic Pump~~      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      ~~New Tubing~~      ~~Other~~

Start Purge Time: \_\_\_\_\_ Flow Rate: \_\_\_\_\_ Pump Depth: \_\_\_\_\_

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
→ Well is Dry ←								
- No Sample Taken -								

Did well dewater?    Yes    No	Amount actually evacuated: _____
Sampling Time: _____	Sampling Date: _____
Sample I.D.: _____	Laboratory: _____
Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other: _____	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____



WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-11  
 SAMPLING DATE(S): 08/09/22  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING: 213.40  
 ATM. PRESSURE (PSI): (Start) 14.02 (Finish) 14.06

PROBE TYPE: Westbay  
 SERIAL NO.: FMS2502  
 PROJECT: JPL  
 OPERATOR(S): T. Hoang  
 WEATHER: Clear / Hot

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (to psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
4	1	✓	✓	✓	✓	✓	150.36	✓	148.80	✓	148.80	✓	150.36	20.3	433	7.35	2	5.11	-29	0740	MW-11-4
3	1	✓	✓	✓	✓	✓	110.65	✓	106.84	✓	106.84	✓	110.65	21.4	265	6.96	1	6.08	42	0810	MW-11-3
	2	✓	✓	✓	✓	✓	109.87	✓	106.73	✓	106.73	✓	109.87							0815	MS/MSD
2	1	✓	✓	✓	✓	✓	36.52	✓	38.90	✓	38.90	✓	36.52	21.9	454	7.53	2	7.10	118	0925	MW-11-2
1	1	✓	✓	✓	✓	✓	14.09	✓	31.77	✓	31.77	✓	14.09	22.2	576	7.63	2	7.35	122	1005	MW-11-1

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-12  
 SAMPLING DATE(S): 08/08/12  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING: 176.84  
 ATM. PRESSURE (PSI): (Start) 14.03 (Finish) 14.06

PROBE TYPE: Westbay  
 SERIAL NO.: EM52502  
 PROJECT: JPL  
 OPERATOR(S): T. Hagan  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar		Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) mg/L	ORP (mv)	Sample Time	Sample ID	
5	1	✓	✓	✓	✓	✓	178.16	✓	152.00	✓	152.00	✓	178.16	20.7	1500	7.13	3	7.09	74	0930	MW-12-5	
4	1	✓	✓	✓	✓	✓	130.75	✓	121.01	✓	121.01	✓	130.75	20.5	459	7.21	2	8.36	132	1005	MW-12-4 MS / MSD	
3	1	✓	✓	✓	✓	✓	81.45	✓	75.24	✓	75.24	✓	81.45	20.2	436	7.17	1	8.05	147	1045	MW-12-3	
	2	✓	✓	✓	✓	✓	81.43	✓	75.20	✓	75.20	✓	81.43							1100	DUP-5-3Q22	
2	1	✓	✓	✓	✓	✓	46.55	✓	41.62	✓	41.62	✓	46.55	21.5	548	7.68	3	7.83	139	1200	MW-12-2	
1	1	✓	✓	✓	✓	✓	14.15	✓	14.13	✓	14.13	✓	14.15	Port is Dry - No Sample Taken								

Comments: FB-6-080822 @ 1215  
SB-2-080822 @ 1230

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>220729-AH1</u>	Client: <u>Tidewater</u>
Sampler: <u>AH</u>	Gauging Date: <u>08/11/22</u>
Well I.D.: <u>MW-13</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth (ft.): <u>234.24</u>	Depth to Water (ft.): <u>DRY</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Pro Plus</u>

Purge Method: 2" Grundfos Pump      ~~Peristaltic Pump~~      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      ~~New Tubing~~      ~~Other~~ \_\_\_\_\_  
 Start Purge Time: \_\_\_\_\_      Flow Rate: \_\_\_\_\_      Pump Depth: \_\_\_\_\_

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
<u>— Well is Dry —</u>								
<u>— No Sample Taken —</u>								

Did well dewater?    Yes    No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> <u>TPH-D</u> Other:	
Equipment Blank I.D.:    @    Time	Duplicate I.D.:

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-14  
 SAMPLING DATE(S): 01/02/22  
 LOCATION: JPL Parking Lot  
 WATER LEVEL INSIDE CASING: 199.65  
 ATM. PRESSURE (PSI): (Start) 14.05 (Finish) 14.08

PROBE TYPE: Westbay  
 SERIAL NO.: FMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Hous  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)					Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	165.65	✓	144.74	✓	144.79	✓	165.65	20.7	377	7.30	2	9.63	99	0745	MW-14-5
4	1	✓	✓	✓	✓	✓	128.51	✓	108.61	✓	108.61	✓	128.51	21.1	568	6.57	1	8.55	139	0810	MW-14-4
	2	✓	✓	✓	✓	✓	128.50	✓	108.60	✓	108.60	✓	128.50								ms/m 50
3	1	✓	✓	✓	✓	✓	96.83	✓	76.52	✓	76.52	✓	96.83	21.6	967	6.84	2	8.31	142	0845	MW-14-3
2	1	✓	✓	✓	✓	✓	50.99	✓	31.00	✓	31.00	✓	50.99	22.5	1064	6.94	1	8.05	137	0915	MW-14-2
1	1	✓	✓	✓	✓	✓	20.10	✓	14.12	✓	14.12	✓	20.10		Part is Dry						<del>MW-14</del>

Comments: TB-2-08/02/22 @ mod

**WELL MONITORING DATA SHEET**

Project #: <u>220729-HA1</u>	Client: <u>Tide water</u>
Sampler: <u>HH</u>	Gauging Date: <u>08/11/22</u>
Well I.D.: <u>MW-15</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8 <u>   </u>
Total Well Depth (ft.): <u>   </u>	Depth to Water (ft.): <u>40.03</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product (feet): <u>   </u>
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>Pro DWS</u>

Purge Method: 2" Grundfos Pump  $1 \times \text{Case vol} = 18.9$  Peristaltic Pump      Bladder Pump 80% recovery  
 Sampling Method: Dedicated Tubing  $3 \times \text{Case vol} = 56.7$  New Tubing      Other 45.82  
 Start Purge Time: 0925      Flow Rate: 1.6 PM      Pump Depth: 60'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals) or mL	Depth to Water (ft.)
0935	17.3	7.05	630	1	7.32	34.4	10	40.69
0945	17.6	7.11	621	1	7.30	11.5	20	40.77
0955	17.7	7.15	617	2	6.91	5.8	30	40.80
1005	17.7	7.17	615	2	6.85	5.6	40	40.82
1015	17.6	7.18	613	2	6.83	2.7	50	40.83
1022	17.6	7.18	612	2	6.81	2.3	57	40.84

Did well dewater? Yes  No       Amount actually evacuated: 57

Sampling Time: 1025      Sampling Date: 08/11/22

Sample I.D.: MW-15      Laboratory: PACE/BC

Analyzed for:      TPH-G    BTEX    MTBE    TPH-D      Other: See G.O.C

Equipment Blank I.D.:      @      Time      Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>220729-HH1</u>	Client: <u>Tidewater</u>
Sampler: <u>HA</u>	Gauging Date: <u>08/10/22</u>
Well I.D.: <u>MW-16</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth (ft.): <u>284.43</u>	Depth to Water (ft.): <u>283.91</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Hydro PSI Pro PW</u>

Purge Method: 2" Grundfos Pump      ~~Peristaltic Pump~~      ~~Bladder Pump~~  
 Sampling Method: Dedicated Tubing      ~~New Tubing~~      ~~Other~~

Start Purge Time:                           Flow Rate:                           Pump Depth:                     

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
- Insufficient water to Purge or Sample -								
- No Sample Taken -								

Did well dewater?    Yes    No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for:    TPH-G    BTEX    MTBE    TPH-D    Other:	
Equipment Blank I.D.:    @    Time	Duplicate I.D.:

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-17  
 SAMPLING DATE(S) 09/03/22  
 LOCATION: SPL  
 WATER LEVEL INSIDE CASING: 211.88  
 ATM. PRESSURE (PSI): (Start) 14.10 (Finish) 14.09

PROBE TYPE Westbay  
 SERIAL NO. FMS2502  
 PROJECT: SPL  
 OPERATOR(S) J. Hoag  
 WEATHER Clear

Port Number	Run Number	Probe to Top Collar			Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)			Sample Collection Checks (probe at sampling port in MP casing)					Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) Mg/L	ORP (mv)	Sample Time	Sample ID
4	1	✓	✓	✓	✓	✓	176.63	✓	125.93	✓	125.93	✓	176.63	19.2	926	7.31	2	8.11	138	0830	MW-17-4
3	1	✓	✓	✓	✓	✓	127.16	✓	93.02	✓	93.02	✓	127.16	19.2	527	7.43	1	7.71	135	0905	MW-17-3
2	✓	✓	✓	✓	✓	✓	84.56	✓	54.50	✓	54.50	✓	84.56	19.9	393	7.23	2	7.55	142	0930	MW-17-2

Comments: TB-3-080322 @ 0700

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-18  
 SAMPLING DATE(S): 08/10/22  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING: 297.46  
 ATM. PRESSURE (PSI): (Start) 14.67 (Finish) 14.03

PROBE TYPE: Westbay  
 SERIAL NO.: FMS2502  
 PROJECT: JPL  
 OPERATOR(S): J. Hoay  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample			
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) mg/L	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	185.90	✓	157.59	✓	157.59	✓	185.90	21.1	994	7.52	5	8.03	70	0805	MW-18-5
[REDACTED]																					
4	1	✓	✓	✓	✓	✓	133.66	✓	110.86	✓	110.86	✓	133.66	21.0	450	7.41	2	7.33	123	0845	MW-18-4
3	1	✓	✓	✓	✓	✓	72.60	✓	62.17	✓	62.17	✓	72.60	20.6	542	7.31	2	7.65	133	0930	MW-18-3
2	1	✓	✓	✓	✓	✓	31.67	✓	24.63	✓	24.63	✓	31.67	21.8	416	7.63	3	7.78	120	1030	MW-18-2
	2	✓	✓	✓	✓	✓	31.65	✓	24.62	✓	24.62	✓	31.65								MS / MSD

Comments: TB-8-08/022 @ 0700

EB-8-08/022 @ 1045



WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-19  
 SAMPLING DATE(S) 08/01/22  
 LOCATION: Treatment Compound  
 WATER LEVEL INSIDE CASING: 144.20  
 ATM. PRESSURE (PSI): (Start) 14.10 (Finish) 14.12

PROBE TYPE Westbay  
 SERIAL NO. EMS 2654  
 PROJECT: Tidelwater @ JPL  
 OPERATOR(S) J. Hagan  
 WEATHER Clear/Hot

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters						Sample	
		Arm out/ Land Probe	Shoe Out/ Close Valve/ Check Vacuum	Open Valve/ Apply Vacuum (5 psi)	Close Valve/ Shoe In/ Arm In	Locate Port/ Arm Out/ Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve/ Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) M612	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	168.29	✓	114.85	✓	114.85	✓	168.29	24.1	785	7.55	2	7.90	111	1130	MW-19-5
4	1	✓	✓	✓	✓	✓	144.81	✓	91.69	✓	91.69	✓	144.81	24.0	811	7.43	1	7.69	119	1150	MW-19-4
3	1	✓	✓	✓	✓	✓	122.25	✓	84.15	✓	84.15	✓	122.25	24.1	965	7.10	1	7.75	76	1215	MW-19-3
2	1	✓	✓	✓	✓	✓	88.34	✓	50.80	✓	50.80	✓	88.34	26.0	1025	7.40	2	7.09	172	1300	MW-19-2
1	1	✓	✓	✓	✓	✓	57.27	✓	21.68	✓	21.68	✓	57.27	23.7	662	7.53	2	6.95	110	1315	MW-19-1

Comments: EB-1-080122 @ 1330  
SB-1-080122 @ 1345

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-20  
 SAMPLING DATE(S): 08/01/22  
 LOCATION: Church Parking Lot  
 WATER LEVEL INSIDE CASING: 249.91  
 ATM. PRESSURE (PSI): (Start) 14.11 (Finish) 14.13

PROBE TYPE: Wathout  
 SERIAL NO.: EM52502  
 PROJECT: Redwater G JPL  
 OPERATOR(S): T. Hovey  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample		
		Arm out/ Land Probe	Shoe Out/ Close Valve/ Check Vacuum	Open Valve/ Apply Vacuum (# psi)	Close Valve/ Shoe In/ Arm In	Locate Port/ Arm Out/ Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve/ Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) mg/L	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	300.77	✓	213.19	✓	293.19	✓	300.77	20.4	1884	7.34	1	7.72	-14	0820	MW-20-5
4	1	✓	✓	✓	✓	✓	213.56	✓	194.85	✓	194.85	✓	213.56	21.9	386	7.10	2	7.28	-23	0905	MW-20-4
	2	✓	✓	✓	✓	✓	213.39	✓	194.84	✓	194.84	✓	213.39							0920	DUP-1-3622
3	1	✓	✓	✓	✓	✓	153.67	✓	137.59	✓	137.59	✓	153.67	22.0	330	7.60	2	6.37	-68	1010	MW-20-3
2	1	✓	✓	✓	✓	✓	79.55	✓	69.59	✓	69.59	✓	79.55	21.0	634	7.35	1	7.09	97	1030	MW-20-2
1	1	✓	✓	✓	✓	✓	14.21	✓	14.20	✓	14.20	✓	14.21	— Port is Dry — No Sample Taken —							

Comments: TB-1-080122 @ 0700

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-21  
 SAMPLING DATE(S): 04/09/22  
 LOCATION: JPC  
 WATER LEVEL INSIDE CASING: 119.26  
 ATM. PRESSURE (PSI): (Start) 14.05 (Finish) 14.07

PROBE TYPE: Weather  
 SERIAL NO.: FMS 2562  
 PROJECT: JPC  
 OPERATOR(S): T. Hoan  
 WEATHER: clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)					Field Parameters					Sample			
		Arm out/ Land Probe	Shoe Out/ Close Valve/ Check Vacuum	Open Valve/ Apply Vacuum (5 psi)	Close Valve/ Shoe In/ Arm In	Locate Port/ Arm Out/ Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve/ Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissoled Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	128.11	✓	119.96	✓	119.96	✓	128.11	23.1	896	7.13	1	6.35	106	1110	MW-21-5
4	1	✓	✓	✓	✓	✓	101.02	✓	93.09	✓	93.09	✓	101.02	23.8	937	7.49	3	7.49	102	1145	MW-21-4
	2	✓	✓	✓	✓	✓	101.00	✓	93.06	✓	93.06	✓	101.00							1200	DUP-6-3&22
3	1	✓	✓	✓	✓	✓	70.87	✓	63.28	✓	63.28	✓	70.87	26.7	1173	6.73	2	7.55	123	1235	MW-21-3
	2	✓	✓	✓	✓	✓	70.83	✓	63.25	✓	63.25	✓	70.83								
2	1	✓	✓	✓	✓	✓	36.32	✓	29.18	✓	29.18	✓	36.32	24.4	1277	7.28	1	7.69	114	1315	MW-21-2
1	1	✓	✓	✓	✓	✓	14.12	✓	14.11	✓	14.11	✓	14.12	— Port is Dry — No Sample						MW-21-1	

Comments: EB-7-080922 @ 1330

**WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET**

WELL ID: MW-22  
 SAMPLING DATE(S): 08/07/22  
 LOCATION: SPL  
 WATER LEVEL INSIDE CASING: 245.93  
 ATM. PRESSURE (PSI): (Start) 1403 (Finish) 1407

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2002  
 PROJECT: SPL  
 OPERATOR(S): I. Hays  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample				
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm) <small>mg/L</small>	ORP (mv)	Sample Time	Sample ID	
3	1	✓	✓	✓	✓	✓	80.50	✓	75.83	✓	75.83	✓	80.50	20.8	60.3	7.22	1	8.19	140	0805	MW-22-3	
2	1	✓	✓	✓	✓	✓	59.33	✓	49.76	✓	49.76	✓	59.33	20.4	51.7	7.24	1	8.90	138	0830	MW-22-2	
1	1	✓	✓	✓	✓	✓	14.17	✓	14.14	✓	14.14	✓	14.17	- Port is Dry - No Sample					<del>MW-22-1</del>	(M)		

Comments: \_\_\_\_\_  
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WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-23  
 SAMPLING DATE(S): 08/05/22  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING: 143.25  
 ATM. PRESSURE (PSI): (Start) 14.09 (Finish) 14.07

PROBE TYPE: Westbay  
 SERIAL NO.: FMS2802  
 PROJECT: JPL  
 OPERATOR(S): L. Hoag  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)					Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample		
		Arm out/ Land Probe	Shoe Out/ Close Valve/ Check Vacuum	Open Valve/ Apply Vacuum (5 psi)	Close Valve/ Shoe In/ Arm In	Locate Port/ Arm Out/ Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve/ Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
4	1	✓	✓	✓	✓	✓	146.05	✓	121.81	✓	121.81	✓	146.05	20.8	636	7.23	2	5.99	44	0750	MW-23-4
3	1	✓	✓	✓	✓	✓	92.03	✓	73.33	✓	73.33	✓	92.03	20.7	551	6.97	1	7.35	105	0830	MW-23-3
2	1	✓	✓	✓	✓	✓	63.72	✓	45.26	✓	45.26	✓	63.72	21.2	963	6.77	1	7.59	128	0900	MW-23-2
	2	✓	✓	✓	✓	✓	63.50	✓	45.25	✓	45.25	✓	63.50								
1	1	✓	✓	✓	✓	✓	27.95	✓	14.16	✓	14.16	✓	27.95	- Port is Dry - No Sample							

Comments: FB-5-010522 @ 0700

**WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET**

WELL ID: MW-24  
 SAMPLING DATE(S): 08/04/22  
 LOCATION: JPC  
 WATER LEVEL INSIDE CASING: 252.42  
 ATM. PRESSURE (PSI): (Start) 14.04 (Finish) 14.06

PROBE TYPE: Westbay  
 SERIAL NO.: FMS 2502  
 PROJECT: JPC Tidewater  
 OPERATOR(S): J. Huang  
 WEATHER: clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample			
		Arm out/ Land Probe	Shoe Out/ Close Valve/ Check Vacuum	Open Valve/ Apply Vacuum (5 psi)	Close Valve/ Shoe In/ Arm In	Locate Port/ Arm Out/ Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve/ Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
4	1	✓	✓	✓	✓	✓	145.78	✓	127.48	✓	127.48	✓	145.78	23.3	331	7.25	2	6.07	-10	0950	MW-24-4
3	1	✓	✓	✓	✓	✓	99.75	✓	92.62	✓	92.62	✓	94.75	23.1	566	7.08	1	7.59	124	1028	MW-24-3
2	1	✓	✓	✓	✓	✓	67.77	✓	56.37	✓	56.37	✓	67.77	23.6	567	7.27	2	8.09	131	1050	MW-24-2
	2	✓	✓	✓	✓	✓	67.70	✓	56.34	✓	56.34	✓	67.70							1105	DUP-3-3622
1	1	✓	✓	✓	✓	✓	20.91	✓	18.74	✓	18.74	✓	26.91	23.4	530	7.20	1	7.39	115	1200	MW-24-1

Comments: FB-4-080422 @ 1215

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: 1416-14 MW-25  
 SAMPLING DATE(S): 08/02/02  
 LOCATION: Mont. Yard  
 WATER LEVEL INSIDE CASING: 249.68  
 ATM. PRESSURE (PSI): (Start) 1412 (Finish) 1409

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): T. Hoay  
 WEATHER: Clear/Hot

Port Number	Run Number	Probe to Top Collar		Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample		
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID
5	1	✓	✓	✓	✓	✓	218.98	✓	211.15	✓	211.15	✓	218.98	23.1	375	7.69	2	6.84	5.5	1075	MW-25-5
4	1	✓	✓	✓	✓	✓	184.41	✓	177.75	✓	177.75	✓	184.41	22.9	843	7.15	1	8.55	6.7	1120	MW-25-4
3	1	✓	✓	✓	✓	✓	168.05	✓	123.16	✓	123.16	✓	168.05	23.0	631	7.32	1	7.81	11.2	1145	MW-25-3
2	1	✓	✓	✓	✓	✓	93.24	✓	89.82	✓	89.82	✓	93.24	25.3	697	7.33	1	7.39	12.7	1300	MW-25-2
	2	✓	✓	✓	✓	✓	92.79	✓	89.80	✓	89.80	✓	92.79							1315	DUP-2-3Q22
1	1	✓	✓	✓	✓	✓	64.94	✓	62.33	✓	62.33	✓	64.94	25.2	756	7.52	15	8.39	12.3	1345	MW-25-1

Comments: EB-2 - 080222 @ 1400

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-26  
 SAMPLING DATE(S): 08/05/22  
 LOCATION: JPC  
 WATER LEVEL INSIDE CASING: 60.24  
 ATM. PRESSURE (PSI): (Start) 14.05 (Finish) 14.08

PROBE TYPE: Westbay  
 SERIAL NO.: Ems 2502  
 PROJECT: JPC  
 OPERATOR(S): T. Haas  
 WEATHER: Clear

Port Number	Run Number	Probe to Top Collar	Surface Function Tests / Position Sampler (probe in top of collar) / (lower probe to port)				Sample Collection Checks (probe at sampling port in MP casing)						Field Parameters					Sample				
		Arm out / Land Probe	Shoe Out / Close Valve / Check Vacuum	Open Valve / Apply Vacuum (5 psi)	Close Valve / Shoe In / Arm In	Locate Port / Arm Out / Land Probe	Pressure in MP Casing (psi)	Shoe Out	Port Pressure (psi)	Open Valve	Port Pressure (psi)	Close Valve / Shoe In	Pressure in MP Casing (psi)	Sample Temp (°C)	SC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (ppm)	ORP (mv)	Sample Time	Sample ID	
2	1	✓	✓	✓	✓	✓	83.97	✓	44.49	✓	44.49	✓	83.97	22.8	684	7.44	2	7.95	106	1045	MW-26-2	
	2	✓	✓	✓	✓	✓	83.96	✓	44.46	✓	44.46	✓	83.96							1100	DOP-4-3022	
1	1	✓	✓	✓	✓	✓	46.35	✓	14.118	✓	14.118	✓	46.35	- Port is Dry - No Sample -								

Comments: FB-5-090522 @ 11:30