

## **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-9, 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 2021 sampling event was conducted by Blaine Tech Services, Inc.

Note: During the fourth quarter 2021 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 multi-port monitoring wells MW-3, MW-4, MW-12, MW-14, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23, and MW-26 were dry and no samples were collected.

## WELL MONITORING DATA SHEET

Project #: <u>241022-1751</u>	Site: <u>JPL</u>
Sampler: <u>50</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>    </u>
Total Well Depth (TD): <u>90.00</u>	Depth to Water (DTW): <u>44.50</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(KVC)</u> Grade	Flow Cell Type: <u>YSI 556</u>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>54.22</u>	

Purge Method:                      Bailer    Waterra    Sampling Method:                      Bailer  
    Disposable Bailer    2" Rediflo pump    Disposable Bailer  
    Positive Air Displacement    Extraction Pump    Extraction Port  
    Electric Submersible    Other: RF2    Other: (Dedicated Tubing + wcu)

Start @ 1407

<u>29.5</u> (Gals.) X	<u>3</u>	<u>=</u>	<u>89</u> Gals.
I Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	DTW Observations
1415	18.7	7.62	576	5	2.82	79.8	20	45.15
1423	18.0	7.64	575	4	2.43	75.4	40	45.71
1431	18.5	7.39	545	4	1.82	89.6	60	45.78
1439	17.9	7.34	539	3	1.78	98.6	80	45.80
1443	17.9	7.29	530	3	1.76	99.7	90	45.80

Did well dewater?                      Yes                      (No)                      Gallons actually evacuated: 90

Sampling Date: 11-4-21                      Sampling Time: 1445                      Depth to Water:     

Sample I.D.: MW-1                      Laboratory:     

Analyzed for:                           Other: See L.O.C

EB I.D. (if applicable): @ Time                      Duplicate I.D. (if applicable):     

FB I.D. (if applicable): @ Time                      Analyzed for:     

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-3  
 SAMPLING DATE(S) 10/28/21  
 LOCATION: JPL Pasadena  
 WATER LEVEL INSIDE CASING: 197.23  
 ATM. PRESSURE (PSI): (Start) 14.16 (Finish) 14.17  
23.35 20.14

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L Henderson  
 WEATHER: Clear, Sunny

Port Number	Run Number	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	✓	✓	✓	✓	✓	216.02	✓	215.28	✓	215.18	✓	216.00	21.6	576	6.47	23	6.13	194	0855	MW-3-5
4	1	✓	✓	✓	✓	✓	174.64	✓	174.22	✓	174.23	✓	174.64	19.8	522	6.82	55	7.22	119	0925	MW-3-4
3	1	✓	✓	✓	✓	✓	82.69	✓	82.45	✓	82.44	✓	82.63	20.1	521	7.38	00	7.35	115	0955	MW-3-3
2	1	✓	✓	✓	✓	✓	41.93	✓	41.82	✓	41.66	✓	41.90	20.3	519	7.47	17	5.35	117	1025	MW-3-2
2	2	✓	✓	✓	✓	✓	42.00	✓	41.83	✓	41.59	✓	41.94	-	-	-	-	-	-	1040	DJP-1-4021
1	1	✓	✓	✓	✓	✓	14.19	✓	14.24	✓	14.14	✓	14.16	-	-	-	-	-	-	1125	MW-3-1

Comments: TB-3-102821 @ 0800

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-4  
 SAMPLING DATE(S): 11/1/21  
 LOCATION: SPL Pasadena  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.07 (Finish) 18.76

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2802  
 PROJECT: SPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	168.07	✓	164.70	✓	164.68	✓	167.31	18.6	1189	8.80	5	5.29	126	0935	<del>MW</del> MW-4-5
4	1	✓	✓	✓	✓	✓	114.73	✓	112.12	✓	112.11	✓	114.43	19.4	493	9.13	4	5.78	88	0900	MW-4-4
3	1	✓	✓	✓	✓	✓	83.76	✓	81.76	✓	81.71	✓	83.74	17.9	522	8.81	3	6.50	101	0935	MW-4-3
2	1	✓	✓	✓	✓	✓	47.85	✓	46.18	✓	45.83	✓	47.87	17.3	784	8.20	2	6.88	88	1000	MW-4-2
2	2	✓	✓	✓	✓	✓	47.82	✓	46.17	✓	46.10	✓	47.82	-	-	-	-	-	-	1020	DVP-3-4021
1	1	✓	✓	✓	✓	✓	14.21	✓	14.17	✓	14.16	✓	14.17	- PORT IS DRY - NO SAMPLE -						MW-4-1	

Comments: TB-5-11/1/21 @ 0800

# WELL MONITORING DATA SHEET

Project #: <u>211022HS-1</u>	Site: <u>JPL</u>
Sampler: <u>HS</u>	Date: <u>11/5/21</u>
Well I.D.: <u>MW-5</u>	Well Diameter: 2 3 <u>4</u> 6 8 ___
Total Well Depth (TD): <u>Ded. pump</u>	Depth to Water (DTW): <u>133.56</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:	<input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	<input type="checkbox"/> Waterra <input type="checkbox"/> 2" Rediflo pump <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">(Gals.) X _____</td> <td style="text-align: center;">=</td> <td style="text-align: left;">_____ Gals.</td> </tr> <tr> <td style="text-align: right;">1 Case Volume</td> <td style="text-align: center;">Specified Volumes</td> <td style="text-align: left;">Calculated Volume</td> </tr> </table>		(Gals.) X _____	=	_____ Gals.	1 Case Volume	Specified Volumes	Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </table>		Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
(Gals.) X _____	=	_____ Gals.																							
1 Case Volume	Specified Volumes	Calculated Volume																							
Well Diameter	Multiplier	Well Diameter	Multiplier																						
1"	0.04	4"	0.65																						
2"	0.16	6"	1.47																						
3"	0.37	Other	radius <sup>2</sup> * 0.163																						

Time	Temp (°F or °C)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
								<u>Insufficient water to sample</u>
								<u>NO SAMPLE TAKEN</u>

Did well dewater?	Yes	No	Gallons actually evacuated:
Sampling Date:	Sampling Time:	Depth to Water:	
Sample I.D.:	Laboratory:		
Analyzed for:	Other:		
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):	
FB I.D. (if applicable):	@ Time	Analyzed for:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

## WELL MONITORING DATA SHEET

Project #: 211022-1151	Site: JPL
Sampler: 50	Date: 11-4-21
Well I.D.: MW-6	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 238.26	Depth to Water (DTW): Dry
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:	Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra 2" Rediflo pump Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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I Case Volume	(Gals.) X	=	Gals.
Specified Volumes	Calculated Volume		

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
		Well is dry						
		No sample taken						

Did well dewater?	Yes	No	Gallons actually evacuated:
Sampling Date:	Sampling Time:	Depth to Water:	
Sample I.D.:	Laboratory:		
Analyzed for:	Other:		
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):	
FB I.D. (if applicable):	@ Time	Analyzed for:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

## WELL MONITORING DATA SHEET

Project #: <b>211022-HSI</b>	Site: <b>JPL</b>
Sampler: <b>SO</b>	Date: <b>11-4-21</b>
Well I.D.: <b>MW-7</b>	Well Diameter: 2 3 <b>4</b> 6 8
Total Well Depth (TD): <b>Ded Pump</b>	Depth to Water (DTW): <b>Dry</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>PVC</b> Grade	Flow Cell Type <span style="float: right;">YSI 556</span>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Watterra Sampling Method: Bailer  
Disposable Bailer 2" Rediflo pump Disposable Bailer  
Positive Air Displacement Extraction Pump Extraction Port  
Electric Submersible Other \_\_\_\_\_ Dedicated Tubing

Other:

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

	(Gals.) X		=		Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Time	Temp (°F or °C)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
<del>_____</del>		<b>well is Dry</b>						
<del>_____</del>		<b>NO Sample Taken</b>						

Did well dewater?	Yes	No	Gallons actually evacuated:
Sampling Date:	Sampling Time:	Depth to Water:	
Sample I.D.:	Laboratory:		
Analyzed for:	Other:		
EB I.D. (if applicable):	@ Time	Duplicate I.D. (if applicable):	
FB I.D. (if applicable):	@ Time	Analyzed for:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

## WELL MONITORING DATA SHEET

Project #: <u>211022-HS1</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-8</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u>   </u>
Total Well Depth (TD): <u>202.14</u>	Depth to Water (DTW): <u>Dry</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Positive Air Displacement~~ ~~Electric Submersible~~ ~~Waterra~~ ~~2" Rediflo pump~~ ~~Extraction Pump~~ ~~Other~~      Sampling Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Extraction Port~~ ~~Dedicated Tubing~~ ~~Other:~~

           (Gals.) X            =            Gals.  
 I Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

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

Did well dewater?      Yes      No      Gallons actually evacuated:

Sampling Date:      Sampling Time:      Depth to Water:

Sample I.D.:      Laboratory:

Analyzed for:      Other:

EB I.D. (if applicable):      @ Time      Duplicate I.D. (if applicable):

FB I.D. (if applicable):      @ Time      Analyzed for:

D.O. (if req'd):	Pre-purge:	<u>          </u> mg/L	Post-purge:	<u>          </u> mg/L
O.R.P. (if req'd):	Pre-purge:	<u>          </u> mV	Post-purge:	<u>          </u> mV



## WELL MONITORING DATA SHEET

Project #: <u>211022-#51</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-9</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth (TD): <u>60.00</u>	Depth to Water (DTW): <u>39.30</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 556</u>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>54.22</u>	

Purge Method:                      Bailer                                      Waterra                                      Sampling Method:                      Bailer  
    Disposable Bailer                                      2" Rediflo pump                                      Disposable Bailer  
    Positive Air Displacement                                      Extraction Pump                                      Extraction Port  
    Electric Submersible                                      Other: RFL                                      Dedicated Taping  
    Other: \_\_\_\_\_

1508

<u>13.5</u> (Gals.) X <u>3</u> = <u>40.5</u> Gals.
<small>1 Case Volume                      Specified Volumes                      Calculated Volume</small>

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	DTW Observations
<u>1512</u>	<u>19.4</u>	<u>7.10</u>	<u>657</u>	<u>23</u>	<u>1.24</u>	<u>110.3</u>	<u>8</u>	<u>42.20</u>
<u>1516</u>	<u>19.1</u>	<u>6.97</u>	<u>649</u>	<u>21</u>	<u>0.97</u>	<u>106.9</u>	<u>16</u>	<u>43.14</u>
<u>1520</u>	<u>19.0</u>	<u>6.90</u>	<u>638</u>	<u>11</u>	<u>0.91</u>	<u>108.2</u>	<u>24</u>	<u>43.14</u>
<u>1524</u>	<u>19.3</u>	<u>6.90</u>	<u>636</u>	<u>11</u>	<u>0.95</u>	<u>109.7</u>	<u>32</u>	<u>43.14</u>
<u>1529</u>	<u>19.3</u>	<u>6.90</u>	<u>635</u>	<u>10</u>	<u>0.93</u>	<u>109.9</u>	<u>42</u>	<u>43.14</u>

Did well dewater?                      Yes                      No                      Gallons actually evacuated: 42

Sampling Date: 11-4-21                      Sampling Time: 1530                      Depth to Water: 43.14

Sample I.D.: MW-9                      Laboratory: BL

Analyzed for: \_\_\_\_\_                      Other: see C.O.C

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time                      Duplicate I.D. (if applicable): \_\_\_\_\_

FB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time                      Analyzed for: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL MONITORING DATA SHEET

Project #: <u>211022-HS1</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-10</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth (TD): <u>Ded.</u>	Depth to Water (DTW): <u>Dry</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer      Waterra      Sampling Method: Bailer  
 Disposable Bailer      2" Rediflo pump      Disposable Bailer  
 Positive Air Displacement      Extraction Pump      Extraction Port  
 Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing  
 Other: \_\_\_\_\_

(Gals.) X \_\_\_\_\_ = \_\_\_\_\_ Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
<u>Well is Dry</u>								
<u>No Sample Taken</u>								

Did well dewater?      Yes      No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: \_\_\_\_\_      Sampling Time: \_\_\_\_\_      Depth to Water: \_\_\_\_\_

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

Analyzed for: \_\_\_\_\_      Other: \_\_\_\_\_

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D. (if applicable): \_\_\_\_\_

FB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time      Analyzed for: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	_____ mg/L	Post-purge:	_____ mg/L
O.R.P. (if req'd):	Pre-purge:	_____ mV	Post-purge:	_____ mV

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-11  
 SAMPLING DATE(S): 11/3/21  
 LOCATION: SPL Pasadena  
 WATER LEVEL INSIDE CASING: 214.00  
 ATM. PRESSURE (PSI): (Start) 14.06 (Finish) 14.10

PROBE TYPE: Westbay  
 SERIAL NO.: GMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	199.68	✓	181.38	✓	181.14	✓	199.70	22.6	525	7.53	9	5.33	-59	1050	MW-11-5	
5	2	✓	✓	✓	✓	✓	199.84	✓	181.35	✓	180.90	✓	199.70	-	-	-	-	-	-	-	-	-
9	1	✓	✓	✓	✓	✓	151.58	✓	149.69	✓	149.53	✓	151.56	21.6	187	7.44	4	5.01	-174	1020	MW-11-4	
3	1	✓	✓	✓	✓	✓	111.11	✓	106.44	✓	106.45	✓	111.08	22.5	362	8.32	2	5.98	-19	1215	MW-11-3	
2	1	✓	✓	✓	✓	✓	37.22	✓	36.54	✓	36.27	✓	37.25	24.1	453	8.25	1	5.12	-59	1245	MW-11-2	
2	2	✓	✓	✓	✓	✓	37.02	✓	36.53	✓	36.44	✓	36.84	-	-	-	-	-	-	1300	DUP-7-4021	
1	1	✓	✓	✓	✓	✓	14.10	✓	17.63	✓	17.70	✓	14.17	23.1	614	7.77	2	4.83	44	1130	MW-11-1	
1	2	✓	✓	✓	✓	✓	14.10	✓	17.67	✓	17.63	✓	14.10	-	-	-	-	-	-	-	-	-

Comments: TB-7-110321 @ 0830

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MU-12  
 SAMPLING DATE(S): 11/1/21  
 LOCATION: 44 H/1121 JPL Pasadena  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.13 (Finish) 14.07

PROBE TYPE Westbay  
 SERIAL NO. EM 2502  
 PROJECT: JPL  
 OPERATOR(S) L. Henderson  
 WEATHER clear, sunny

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	✓	✓	✓	✓	✓	177.42	✓	158.64	✓	158.56	✓	177.42	16.9	494	8.63	9	7.37	129	1130	MU-12-5	
4	1	✓	✓	✓	✓	✓	129.17	✓	121.52	✓	121.39	✓	129.14	17.1	490	8.79	3	6.90	131	1210	MU-12-4	
3	1	✓	✓	✓	✓	✓	79.87	✓	73.80	✓	73.75	✓	79.82	17.0	450	8.88	1	6.58	125	1240	MU-12-3	
3	2	✓	✓	✓	✓	✓	79.79	✓	73.80	✓	73.82	✓	79.87	-	-	-	-	-	-	-	-	
2	1	✓	✓	✓	✓	✓	44.99	✓	39.51	✓	39.49	✓	44.93	17.2	621	8.74	4	6.31	142	1330	MU-12-2	
2	2	✓	✓	✓	✓	✓	44.92	✓	39.51	✓	39.51	✓	44.94	-	-	-	-	-	-	1350	DWP-4-4621	
1	1	✓	✓	✓	✓	✓	14.13	✓	14.15	✓	14.12	✓	14.11	-	-	-	-	-	-	-	-	PORT IS DRY- NO SAMPLE - MU-12-1

Comments: EB-S-110121@1410

## WELL MONITORING DATA SHEET

Project #: <u>211022-ASI</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-13</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>Dedu</u>	Depth to Water (DTW): <u>Dry</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer      Water      Sampling Method: Bailer  
 Disposable Bailer      2" Rediflo pump      Disposable Bailer  
 Positive Air Displacement      Extraction Pump      Extraction Port  
 Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

\_\_\_\_\_ (Gals.) X \_\_\_\_\_ = \_\_\_\_\_ Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
—								<u>well is Dry</u>
—								<u>No Sample Taken</u>

Did well dewater?      Yes      No      Gallons actually evacuated: \_\_\_\_\_

Sampling Date: \_\_\_\_\_      Sampling Time: \_\_\_\_\_      Depth to Water: \_\_\_\_\_

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

Analyzed for: \_\_\_\_\_      Other: \_\_\_\_\_

EB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time      Duplicate I.D. (if applicable): \_\_\_\_\_

FB I.D. (if applicable): \_\_\_\_\_ @ \_\_\_\_\_ Time      Analyzed for: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MD-14  
 SAMPLING DATE(S) 10/26/21  
 LOCATION: JPL  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.05 (Finish) 19.05

PROBE TYPE Westbay  
 SERIAL NO. EMS 2502  
 PROJECT: JPL  
 OPERATOR(S) L. Henderson  
 WEATHER clear, sunny

Temp: 26.33 20.81

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	✓	✓	✓	✓	✓	167.77	✓	143.55	✓	143.57	✓	167.81	22.6	473	8.14	9	6.49	115	1325	MD-14-5
4	1	✓	✓	✓	✓	✓	131.72	✓	107.23	✓	107.26	✓	131.62	22.3	678	7.91	3	7.02	143	1400	MD-14-4
3	1	✓	✓	✓	✓	✓	99.36	✓	75.10	✓	75.08	✓	99.36	27.7	1152	8.07	5	5.91	144	1430	MD-14-3
3	2	✓	✓	✓	✓	✓	99.11	✓	75.09	✓	75.10	✓	98.84	-	-	-	-	-	-	-	-
2	1	✓	✓	✓	✓	✓	53.53	✓	29.37	✓	29.17	✓	53.54	27.5		8.04	8	<del>5.07</del> 5.07		1530	MD-14-2
1	1	✓	✓	✓	✓	✓	19.07	✓	14.19	✓	14.18	✓	19.04	-PORT	IS	DRY	-	-	-	-	MD-14-1

Comments: EB-1-102621@ 1455

## WELL MONITORING DATA SHEET

Project #: <u>211022-HSI</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-15</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>   </u>
Total Well Depth (TD): <u>Ded. (60.00)</u>	Depth to Water (DTW): <u>52.79</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSI 556</u>
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>52.63</u>	

Purge Method:      Bailer      Waterra      Sampling Method:      Bailer  
                          Disposable Bailer      2" Rediflo pump      Disposable Bailer  
                          Positive Air Displacement      Extraction Pump      Extraction Port  
                          Electric Submersible      Other: RFZ      Dedicated (Circled) Tubing

Other:

Start @ 0915

<u>6.0</u>	(Gals.) X	<u>3</u>	=	<u>18.0</u>	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or <u>(C)</u> )	pH	Cond. (mS/cm or <u>(µS/cm)</u> )	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	DTW: Observations
0918	16.9	6.45	792	6	2.41	164.5	3	51.99
0921	16.8	6.50	678	3	2.25	149.9	6	52.05
0924	16.7	6.55	657	2	2.23	146.0	9	52.08
0927	16.7	6.61	660	2	2.09	135.4	12	52.08
0930	16.8	6.65	654	2	2.00	129.8	15	52.08
0933	16.8	6.69	656	2	1.99	125.9	18	52.08

Did well dewater?      Yes      (No)      Gallons actually evacuated: 18

Sampling Date: 11-4-21      Sampling Time: 0934      Depth to Water: 52.08

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

Analyzed for:      Other: See C.O.C

EB I.D. (if applicable):      @ Time      Duplicate I.D. (if applicable):

FB I.D. (if applicable):      @ Time      Analyzed for:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

*MS/MSD*

## WELL MONITORING DATA SHEET

Project #: <u>211D22-HS1</u>	Site: <u>JPL</u>
Sampler: <u>SO</u>	Date: <u>11-4-21</u>
Well I.D.: <u>MW-16</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>285.40</u>	Depth to Water (DTW): <u>Dry</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: YSI 556
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~  
~~Disposable Bailer~~  
~~Positive Air Displacement~~  
~~Electric Submersible~~  
 Waterra  
 2" Rediflo pump  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: ~~Bailer~~  
~~Disposable Bailer~~  
~~Extraction Port~~  
~~Dedicated Tubing~~  
 Other: \_\_\_\_\_

$$\frac{\text{I Case Volume (Gals.)} \times \text{Specified Volumes}}{\text{Calculated Volume}} = \text{Gals.}$$

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP(mV)	Gals. Removed	Observations
								<u>well is dry</u>
								<u>No sample taken</u>

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Date: \_\_\_\_\_ Sampling Time: \_\_\_\_\_ Depth to Water: \_\_\_\_\_

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

Analyzed for: \_\_\_\_\_ Other: \_\_\_\_\_

EB I.D. (if applicable): \_\_\_\_\_ @ Time Duplicate I.D. (if applicable): \_\_\_\_\_

FB I.D. (if applicable): \_\_\_\_\_ @ Time Analyzed for: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-17  
 SAMPLING DATE(S): 10/29/21  
 LOCATION: Pasadena  
 WATER LEVEL INSIDE CASING: 209.63  
 ATM. PRESSURE (PSI): (Start) 14.04 (Finish) 14.06

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

Port Number	Run Number	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	✓	✓	✓	✓	✓	239.74	✓	189.56	✓	189.24	✓	239.74	26.8	674	8.36	7	6.33	167	1315	MW-17-5	
4	1	✓	✓	✓	✓	✓	177.37	✓	131.47	✓	131.49	✓	177.34	25.7	733	8.27	1	5.99	140	1345	MW-17-4	
3	1	✓	✓	✓	✓	✓	128.08	✓	92.16	✓	92.16	✓	128.06	26.7	674	8.50	≤	5.86	168	1415	MW-17-3	
3	2	✓	✓	✓	✓	✓	127.76	✓	92.17	✓	92.17	✓	127.89	-	-	-	-	-	-	1430	DUP-2-4&21	
2	1	✓	✓	✓	✓	✓	85.71	✓	52.42	✓	52.44	✓	85.60	25.6	467	8.10	12	6.01	151	1515	MW-17-2	
1	1	✓	✓	✓	✓	✓	33.43	✓	14.23	✓	14.19	✓	33.42	-	-	-	-	-	-	-	-	MW-17-1

Comments: EB-3-102821@ 1445

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-18  
 SAMPLING DATE(S): 1/12/21  
 LOCATION: Altadena Dr and Florence Dr.  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) M.01 (Finish)

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2802  
 PROJECT: SPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear/sunny

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	✓	✓	✓	✓	✓	187.35	✓	162.63	✓	162.57	✓	187.14	21.3	284	10.09	2	7.66	-91	1230	MW-18-5
4	1	✓	✓	✓	✓	✓	135.55	✓	114.08	✓	114.06	✓	135.57	20.3	420	8.97	2	7.18	68	1310	MW-18-4
4	2	✓	✓	✓	✓	✓	135.05	✓	114.07	✓	114.09	✓	135.00	-	-	-	-	-	-	1330	DUP-6-4021
3	1	✓	✓	✓	✓	✓	74.61	✓	60.57	✓	60.57	✓	74.64	19.3	557	8.72	2	7.80	95	1415	MW-18-3
2	1	✓	✓	✓	✓	✓	33.57	✓	20.97	✓	20.97	✓	33.60	21.2	449	8.88	4	7.44	113	1445	MW-18-2
2	2	✓	✓	✓	✓	✓	30.52	✓	20.99	✓	20.99	✓	30.59	-	-	-	-	-	-	-	-
1	1	✓	✓	✓	✓	✓	14.19	✓	14.18	✓	14.15	✓	14.18	- PORT IS DRY - NO SAMPLE					-	MW-18-1	

Comments: EB 6-110221 @ 1500

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MO-19  
 SAMPLING DATE(S): 11/4/21  
 LOCATION: Pasadena Water Plant  
 WATER LEVEL INSIDE CASING: 142.48  
 ATM. PRESSURE (PSI): (Start) 14.05 (Finish) 14.06

PROBE TYPE: Westb  
 SERIAL NO.: GMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	119.94	✓	121.40	✓	121.42	✓	119.95	19.3	847	7.45	2	4.88	127	1020	MW-19-5
4	1	✓	✓	✓	✓	✓	146.66	✓	98.19	✓	98.16	✓	146.68	18.6	902	7.75	1	5.11	123	1050	MW-19-4
3	1	✓	✓	✓	✓	✓	124.17	✓	83.33	✓	83.32	✓	124.11	18.8	905	7.75	2	5.25	76	1120	MW-19-3
3	2	✓	✓	✓	✓	✓	124.13	✓	83.30	✓	83.33	✓	124.17	-	-	-	-	-	-	-	-
2	1	✓	✓	✓	✓	✓	90.34	✓	49.53	✓	49.45	✓	90.31	22.1	1215	7.89	15	5.34	88	1200	MW-19-2
2	2	✓	✓	✓	✓	✓	90.33	✓	49.50	✓	49.51	✓	90.29	-	-	-	-	-	-	1220	DUP-8-4021
1	1	✓	✓	✓	✓	✓	59.04	✓	19.02	✓	19.00	✓	59.01	18.8	629	7.00	2	5.41	139	0945	MW-19-1
1	2	✓	✓	✓	✓	✓	57.83	✓	<del>19.00</del> 19.00	✓	19.01	✓	<del>57.83</del> 57.83	-	-	-	-	-	-	-	-

Comments: TB-8-110421 @ 0930  
EB-8-110421 @ 1245

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-20  
 SAMPLING DATE(S): 11/2/21  
 LOCATION: JPL Pasadena (Lincoln Ave & Mountain View)  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.11 (Finish)

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

Port Number	Run Number	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	✓	✓	✓	✓	✓	303.79	✓292.16	✓292.15	✓303.81	25.2	345	7.41	3	6.85	-117	0950	MW-20-5	
4	1	✓	✓	✓	✓	✓	217.06	✓196.99	✓196.92	✓217.25	22.1	354	8.72	1	6.21	-146	1030	MW-20-4	
3	1	✓	✓	✓	✓	✓	157.17	✓141.67	✓141.54	✓157.16	25.9	352	9.80	2	5.97	-197	1100	MW-20-3	
3	2	✓	✓	✓	✓	✓	156.41	✓141.68	✓141.68	✓156.46	-	-	-	-	-	-	1120	DUP-S-4021	
2	1	✓	✓	✓	✓	✓	83.21	✓70.16	✓70.15	✓83.08	23.4	666	8.69	1	5.40	40	1145	MW-20-2	
1	1	✓	✓	✓	✓	✓	14.29	✓14.22	✓14.18	✓14.27	-	-	-	-	-	-	-	-	-

Comments: TB-6-110221 @ 0930

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MU-21  
 SAMPLING DATE(S): 11/3/21  
 LOCATION: Park  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.16 (Finish) 14.07

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2002  
 PROJECT: SPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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
9	1	✓	✓	✓	✓	✓	129.21	✓	118.50	✓	118.53	✓	129.19	25.7	860	8.20	1	5.62	79	1350	MU-21-5
9	1	✓	✓	✓	✓	✓	102.92	✓	91.64	✓	91.64	✓	102.62	22.7	944	7.94	2	5.89	89	1415	MU-21-4
3	1	✓	✓	✓	✓	✓	72.57	✓	61.74	✓	61.76	✓	72.57	22.3	1255	7.65	2	6.18	96	1430	MU-21-3
2	1	✓	✓	✓	✓	✓	38.05	✓	27.49	✓	27.50	✓	38.04	21.8	1420	7.90	2	5.78	107	1450	MU-21-2
1	1	✓	✓	✓	✓	✓	14.08	✓	14.12	✓	14.10	✓	14.08	-	-	-	-	-	-	-	<del>MU-21-1</del> MU-21-1

Comments: ED-7-110321 @ ISIS

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MU-22  
 SAMPLING DATE(S): 10/27/21  
 LOCATION: 5PL Pasadena  
 WATER LEVEL INSIDE CASING: 245.12  
 ATM. PRESSURE (PSI): (Start) 14.13 (Finish) 14.14  
 Temp: 19.67 19.63

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: 5PL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

Port Number	Run Number	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	✓	✓	✓	✓	✓	116.18	✓	154.77	✓	154.78	✓	116.11	15.6	384	8.67	2	6.83	-110	0950	MU-22-5
4	1	✓	✓	✓	✓	✓	116.04	✓	104.69	✓	104.67	✓	116.02	17.1	402	8.06	2	5.27	37	1025	MU-22-4
3	1	✓	✓	✓	✓	✓	82.10	✓	74.41	✓	74.40	✓	82.06	16.9	586	8.33	3	5.49	69	1055	MU-22-3
2	1	✓	✓	✓	✓	✓	55.92	✓	48.27	✓	48.17	✓	55.86	17.7	602	8.52	2	6.21	84	1125	MU-22-2
2	2	✓	✓	✓	✓	✓	55.89	✓	48.25	✓	48.25	✓	55.87	-	-	-	-	-	-	-	-
1	1	✓	✓	✓	✓	✓	18.70	✓	14.27	✓	14.15	✓	18.74	- PORT IS DRY -						MU-22-1	

Comments: TB-2-102721 @ 0900

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MU-23  
 SAMPLING DATE(S): 10/29/21  
 LOCATION: JPL Pasadena  
 WATER LEVEL INSIDE CASING: 142.15  
 ATM. PRESSURE (PSI): (Start) 14.01 (Finish) 14.05

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	189.28	✓	164.54	✓	164.39	✓	189.28	17.4	402	8.24	3	6.08	-136	0836	MU-23-5
4	1	✓	✓	✓	✓	✓	147.54	✓	122.64	✓	122.64	✓	147.42	18.8	440	7.72	1	6.68	40	0900	MU-23-4
3	1	✓	✓	✓	✓	✓	92.96	✓	71.98	✓	71.97	✓	92.88	20.5	599	7.83	1	7.09	64	0940	MU-23-3
2	1	✓	✓	✓	✓	✓	64.69	✓	43.74	✓	43.73	✓	64.64	23.7	1139	7.74	1	5.10	82	1015	MU-23-2
1	1	✓	✓	✓	✓	✓	26.34	✓	14.17	✓	14.14	✓	28.37	-PORT IS DRY - NO SAMPLE							MU-23-1

Comments: TB-4-102921 @ 0800

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MU-24  
 SAMPLING DATE(S): 10/27/21  
 LOCATION: JPL Pasadena  
 WATER LEVEL INSIDE CASING: 250.41  
 ATM. PRESSURE (PSI): (Start) 14.07 (Finish) 14.05  
22.37 24.6

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	201.04	✓	177.82	✓	177.81	✓	201.06	24.2	434	8.72	2	7.07	103	1345	MU-24-5
4	1	✓	✓	✓	✓	✓	147.51	✓	128.52	✓	128.51	✓	147.50	24.2	209	9.85	2	8.11	-146	1415	MU-24-4
3	1	✓	✓	✓	✓	✓	95.96	✓	81.25	✓	81.22	✓	95.91	25.2	563	9.15	1	8.23	-103	1445	MU-24-3
2	1	✓	✓	✓	✓	✓	69.06	✓	54.53	✓	54.55	✓	68.95	25.4	631	9.10	1	7.56	58	1515	MU-24-2
2	2	✓	✓	✓	✓	✓	69.03	✓	54.57	✓	54.49	✓	68.93	-	-	-	-	-	-	-	-
1	1	✓	✓	✓	✓	✓	28.14	✓	14.49	✓	14.03	✓	28.18	15.9	730	9.15 7.96	4	5.88	109	1620	MU-24-1
1	2	✓	✓	✓	✓	✓	27.70	✓	14.51	✓	14.01	✓	27.72	-	-	-	-	-	-	-	-

Comments: EB-2-102721@ISSO



WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MW-25  
 SAMPLING DATE(S): 10/26/21  
 LOCATION: Pasadena city yard  
 WATER LEVEL INSIDE CASING: 248.56  
 ATM. PRESSURE (PSI): (Start) 14.15 (Finish) 17.21  
 Temp: 19.36 20.60

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: SPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	219.93	✓	216.36	✓	216.36	✓	219.97	19.5	491	5.99	7	6.18	-113	0950	MW-25-5
4	1	✓	✓	✓	✓	✓	185.85	✓	182.35	✓	182.33	✓	185.83	18.7	866	6.12	10	7.20	85	1025	MW-25-4
3	1	✓	✓	✓	✓	✓	129.51	✓	126.62	✓	126.62	✓	129.49	19.0	798	6.94	4	6.93	100	1100	MW-25-3
2	1	✓	✓	✓	✓	✓	94.77	✓	92.00	✓	92.01	✓	94.82	19.3	788	7.19	3	5.04	108	1140	MW-25-2
1	1	✓	✓	✓	✓	✓	66.42	✓	63.65	✓	63.62	✓	66.49	19.7	909	7.18	15	3.88	87	1200	MW-25-1

Comments: TB-1-102621 @ 0900

WESTBAY™ GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET

WELL ID: MB-26  
 SAMPLING DATE(S): 10/29/21  
 LOCATION: SPL Pasadena  
 WATER LEVEL INSIDE CASING:  
 ATM. PRESSURE (PSI): (Start) 14.08 (Finish) 14.11

PROBE TYPE: Westbay  
 SERIAL NO.: EMS 2502  
 PROJECT: SPL  
 OPERATOR(S): L. Henderson  
 WEATHER: clear, sunny

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	✓	✓	✓	✓	✓	84.22	✓	43.23	✓	43.22	✓	84.25	23.8	761	8.70	4	6.29	75	1145	MB-26-2	
2	2	✓	✓	✓	✓	✓	82.70	✓	43.22	✓	43.23	✓	82.73	-	-	-	-	-	-	-	-	
1	1	✓	✓	✓	✓	✓	46.92	✓	14.19	✓	14.15	✓	46.84	- PART	IS	DRY-NO	NO	SAMPLE	E-		MB-26-1	

Comments: EB-4-10/29/21 @ 12:15