

NELHA Water Quality Laboratory

Well 13 Data Table

1/23/2009 - 6/30/2025

Site	Pump Depth (m)	Date M/D/Y	Time (2400)	Depth to H ₂ O (m)	Tide (m) (cycle)	PO ₄ ³⁻ (µM) (µg P/L)	NO ₃ ⁻ & NO ₂ ⁻ (µM) (µg N/L)	NH ₄ ⁺ & NH ₃ (µM) (µg N/L)	Si (µM) (µg Si/L)	Temp. (°C)	pH (unit)	Salinity (PSU)	Chloride (mg/L)	DO (mg/L)	Turbidity NTU	ORP (mV)
W13	-42.67	01/23/09	945	-39.2	0.12 Ebb	3.69 114	142.1 1990	0.61 8.5	651 18279	23.8	8.03	4.18	2314	7.95	6.62	
W13	-42.67	02/23/09	1110	-39.2	0.06 Low	3.44 107	131.3 1839	0.15 2.1	718 20169	23.2	7.86	5.20	2878	7.95	0.25	
W13	-42.67	03/13/09	1052	-39.3	-0.03 Ebb	2.77 86	78.9 1105	0.18 2.5	609 17106	22.6	7.86	4.45	2463	8.17	0.88	
W13	-42.67	04/20/09	942	-39.2	0.06 Flood	4.00 124	119.0 1666	0.19 2.6	570 16007	23.4	7.83	4.29	2375	8.07	3.51	
W13	-42.67	05/21/09	914	-39.3	0.00 Flood	3.98 123	132.9 1861	0.23 3.2	871 24466	25.6	8.07	4.27	2364	7.53	0.80	
W13	-42.67	06/16/09	847	-39.2	0.21 Flood	1.56 48	37.4 524	0.16 2.3	426 11973	25.8	7.90	4.36	2413	7.51	0.39	
W13	-42.67	07/13/09	1033	-39.0	0.37 Ebb	1.66 51	45.5 637	0.41 5.8	223 6252	24.0	8.00	4.54	2513	7.65	0.21	
W13	-42.67	08/18/09	829	-39.2	0.00 Low	2.50 77	81.1 1136	0.30 4.2	518 14537	23.2	7.99	4.40	2436	8.01	7.35	
W13	-42.67	09/21/09	938	-39.0	0.37 Ebb	3.40 105	133.1 1865	0.23 3.2	294 8256	25.7	8.01	4.17	2308	7.78	0.81	
W13	-42.67	10/19/09	931	-39.1	0.34 Ebb	3.68 114	133.0 1863	2.33 32.7	341 9568	22.5	8.25	4.14	2292	8.35	0.11	
W13	-42.67	11/16/09	907	-39.1	0.21 Ebb	3.54 110	116.2 1627	0.74 10.4	565 15882	22.8	8.07	4.09	2264	8.10	0.16	
W13	-42.67	12/07/09	1013	-39.0	0.52 Ebb	3.78 117	134.3 1881	0.36 5.1	683 19180	22.1	7.93	4.35	2408	7.48	0.10	
W13	-42.67	01/05/10	956	-39.0	0.40 Ebb	3.55 110	118.2 1656	0.36 5.0	615 17286	22.4	8.01	4.40	2436	7.87	0.16	
W13	-42.67	02/01/10	950	-38.9	0.15 Ebb	3.97 123	143.5 2010	0.36 5.0	646 18148	22.2	8.03	4.27	2364	8.19	0.18	
W13	-42.67	03/09/10	901	-39.2	0.09 Low	4.04 125	123.1 1724	0.14 2.0	642 18041	22.1	7.96	4.49	2485	7.84	0.17	
W13	-42.67	04/06/10	839	-39.2	0.24 Low	3.94 122	122.5 1716	0.50 7.0	635 17837	23.2	7.95	4.55	2519	8.17	0.09	
W13	-42.67	05/11/10	856	-39.3	-0.03 Low	3.87 120	106.1 1486	2.28 32.0	586 16471	22.2	8.07	4.44	2458	8.30	0.12	
W13	-42.67	06/15/10	940	-39.2	0.12 Ebb	3.39 105	102.8 1440	0.79 11.0	676 18994	22.9	8.04	4.64	2568	7.94	0.06	
W13	-42.67	7/13/10	910	-39.1	0.06 Ebb	4.00 124	137.1 1920	1.29 18.0	794 22312	23.3	8.06	4.20	2325	8.06	0.16	
W13	-42.67	8/3/10	907	-39.0	0.40 Flood	4.23 131	119.2 1670	0.40 5.6	806 22636	23.2	8.02	4.52	2502	8.01	0.28	
W13	-42.67	9/14/10	901	-39.0	0.55 Flood	3.91 121	113.0 1583	1.41 19.8	801 22503	23.3	7.98	4.56	2524	7.74	0.16	
W13	-42.67	10/12/10	908	-38.9	0.64 Ebb	4.07 126	127.2 1781	0.34 4.7	837 23508	23.3	8.02	4.32	2391	8.22	0.12	
W13	-42.67	11/16/10	841	-39.0	0.24 Flood	3.97 123	126.9 1778	0.33 4.6	816 22912	23.0	7.96	4.45	2463	7.63	0.11	
W13	-42.67	12/14/10	903	-39.0	0.34 Flood	4.07 126	126.9 1777	0.44 6.2	837 23495	22.9	7.97	4.45	2463	8.01	0.09	
W13	-42.67	1/4/11	905	-39.0	0.24 Ebb	4.04 125	128.3 1797	0.38 5.3	770 21635	22.9	7.93	4.19	2319	8.32	0.08	
W13	-42.67	4/5/11	945	-39.2	-0.03 Ebb	4.26 132	142.7 1999	0.48 6.7	719 20182	23.1	7.99	4.17	2308	7.19	0.06	
W13	-42.67	7/12/11	855	-39.4	0.00 Flood	4.07 126	122.7 1718	0.28 3.9	741 20821	22.7	7.98	4.51	2496	7.72	0.04	
W13	-42.67	10/11/11	917	-39.0	0.12 Low	4.00 124	126.2 1767	0.40 5.6	736 20674	22.9	7.97	4.25	2352	8.27	0.09	
W13	-42.67	1/10/12	916	-39.0	0.30 Ebb	4.00 124	127.5 1786	0.54 7.6	717 20126	22.9	7.96	4.25	2352	8.25	0.14	
W13	-42.67	5/1/12	926	-39.2	0.09 Flood	4.42 137	127.8 1790	0.56 7.9	810 22753	23.0	7.95	4.63	2563	7.92	0.16	
W13	-42.67	7/18/12	852	-39.3	0.00 Ebb	4.20 130	127.1 1780	0.83 11.6	698 19594	22.2	7.95	4.69	2596	8.38	0.18	
W13	-42.67	10/16/12	922	-39.0	0.24 Ebb	4.13 128	132.1 1850	0.77 10.8	730 20500	22.3	7.99	4.27	2364	8.35	0.07	
W13	-42.67	1/8/13	951	-38.9	0.09 Low	4.42 137	133.7 1873	1.89 26.5	801 22493	22.3	7.90	4.33	2397	8.30	0.10	
W13	-42.67	4/9/13	922	-39.2	-0.09 Low	4.16 129	120.1 1682	0.51 7.2	759 21327	22.5	7.96	4.66	2579	8.36	0.07	
W13	-42.67	7/17/13	943	-39.2	0.37 Flood	4.33 134	128.1 1794	0.50 7.0	732 20569	21.8	7.86	4.68	2591	7.76	0.13	

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Site	Pump Depth (m)	Date M/D/Y	Time (2400)	Depth to H ₂ O (m)	Tide (m) (cycle)	PO ₄ ³⁻ (µM) (µg P/L)	NO ₃ ⁻ & NO ₂ ⁻ (µM) (µg N/L)	NH ₄ ⁺ & NH ₃ (µM) (µg N/L)	Si (µM) (µg Si/L)	Temp. (°C)	pH (unit)	Salinity (PSU)	Chloride (mg/L)	DO (mg/L)	Turbidity NTU	ORP (mV)
W13	-42.67	10/15/13	920	-38.9	0.21 Flood	3.91 121	129.1 1808	0.71 9.9	748 21010	22.2	7.82	4.61	2552	7.48	0.04	
W13	-42.67	1/15/14	854	-39.0	0.18 Ebb	4.42 137	122.1 1710	1.11 15.5	685 19225	21.7	8.00	4.33	2397	8.49	0.02	
W13	-42.67	4/29/14	1007	-39.3	-0.06 Low	3.94 122	119.1 1668	0.93 13.0	727 20407	21.7	7.88	4.69	2596	8.25	0.05	
W13	-42.67	7/29/14	946	-39.1	0.15 Ebb	4.16 129	130.9 1834	0.36 5.0	737 20690	22.2	7.93	4.31	2386	8.42	0.06	
W13	-42.67	11/5/14	939	-39.0	0.13 Low	4.52 140	138.7 1943	0.49 6.9	742 20828	22.2	8.05	4.22	2336	8.75	0.09	
W13	-42.67	2/9/15	1407	-39.1	0.03 Low	4.46 138	149.7 2097	0.37 5.2	553 15542	21.8	8.00	4.27	2364	8.86	0.16	
W13	-42.67	5/27/15	1119	-38.5	0.37 Flood	4.18 129	172.1 2411	2.11 29.6	693 19473	22.6	7.95	4.62	2557	7.22	0.46	
W13	-42.67	9/15/15	No Sample, equipment malfunction and construction on highway started													
W13	-42.67	10/1/15	No Sample, highway construction													
W13	-42.67	1/26/16	No Sample, highway construction													
W13	-42.67	4/22/16	No Sample, highway construction													
W13	-42.67	7/26/16	No Sample, highway construction													
W13	-42.67	10/1/16	No Sample, highway construction													
W13	-42.67	3/22/17	No Sample, highway construction													
W13	-42.67	4/19/17	No Sample, highway construction													
W13	-42.67	9/19/17	No Sample, highway construction													
W13	-42.67	10/1/17	No Sample, highway construction													
W13	-42.67	3/23/18	1433	-39.2	0.01 Low	4.62 143	160.8 2252	0.08 1.1	731 20524	21.7	7.93	4.42	2447	8.01	1.89	
W13	-42.67	6/20/18	1302	-39.0	0.3 Ebb	4.56 141	140.0 1961	0.38 5.3	738 20731	21.8	7.82	4.43	2452	7.06	0.05	
W13	-42.67	8/29/18	1338	-39.1	0.2 Flood	4.49 139	153.3 2147	0.29 4.1	765 21483	21.7	7.95	4.64	2568	7.92	0.05	
W13	-42.67	10/24/18	1349	-39.0	0.4 Flood	4.03 125	150.0 2101	0.02 0.3	716 20096	21.6	7.80	4.66	2579	7.08	0.08	
W13	-42.67	2/8/19	1601	-39.2	0.3 Flood	4.56 141	207.8 2910	0.11 1.6	752 21119	22.1	7.85	4.78	2646	8.51	0.07	
W13	-42.67	5/10/19	1525	-39.2	0.1 Flood	4.67 145	165.6 2320	0.14 2.0	712 19991	22.2	7.74	4.86	2690	7.96	0.05	
W13	-42.67	8/29/19	1241	-39.1	0.4 Flood	5.03 156	168.4 2359	1.12 15.7	731 20528	27.4	7.96	5.09	2817	7.14	1.82	
W13	-42.67	10/16/19	1024	-38.9	0.2 Low	4.21 130	139.1 1948	0.04 0.6	660 18524	21.9	7.99	4.82	2668	8.65	0.10	
W13	-42.67	1/31/20	1001	-39.0	0.4 Ebb	5.07 157	189.8 2658	-0.25 -3.5	735 20656	22.1	8.02	5.00	2768	7.64	0.03	
W13	-42.67	6/3/20	No Sample - equipment malfunction													
W13	-42.67	8/18/20	No Sample - equipment malfunction													
W13	-42.67	12/22/20	No Sample - new equipment not working; need to purchase better quality, dedicated pump.													
W13	-42.67	2/17/21	No Sample - new equipment not working; need to purchase better quality, dedicated pump.													
W13	-42.67	4/14/21	No Sample - new equipment not working; need to purchase better quality, dedicated pump.													
W13	-42.67	7/7/21	No Sample - new equipment not working; need to purchase better quality, dedicated pump.													
W13	-42.67	11/5/21	1008	-39.1	0.1 Low	4.15 128	176.6 2474	0.27 3.8	721 20246	21.8	7.87	4.21	2330	8.55	0.34	
W13	-42.67	2/8/22	1416	-39.1	0.0 Low	3.24 100	214.1 2998	0.24 3.4	779 21891	21.8	7.83	4.35	2408	8.48	2.63	
W13	-42.67	4/21/22	1352	-39.3	0.2 Flood	2.82 88	173.9 2435	0.01 0.2	742 20832	21.8	7.60	4.55	2519	8.26	3.38	

NELHA Water Quality Laboratory

Well 13 Data Table

1/23/2009 - 6/30/2025

Site	Pump Depth (m)	Date M/D/Y	Time (2400)	Depth to H ₂ O (m)	Tide (m) (cycle)	PO ₄ ³⁻ (µM) (µg P/L)	NO ₃ ⁻ & NO ₂ ⁻ (µM) (µg N/L)	NH ₄ ⁺ & NH ₃ (µM) (µg N/L)	Si (µM) (µg Si/L)	Temp. (°C)	pH (unit)	Salinity (PSU)	Chloride (mg/L)	DO (mg/L)	Turbidity NTU	ORP (mV)
W13	-42.67	7/13/22	1147	-39.4	0.3 Flood	4.25 132	188.5 2641	-0.42 -5.9	759 21306	24.0	7.78	4.56	2524	8.30	7.61	
W13	-42.67	11/25/22	No Sample - equipment malfunction													
W13	-42.67	2/22/23	1524	-39.0	0.3 Flood	4.41 137	195.9 2744	0.11 1.6	675 18967	21.7	7.81	4.53	2507	8.32	0.15	
W13	-42.67	4/26/23	1214	-39.2	0.1 Low	4.44 138	206.3 2890	0.19 2.7	673 18897	21.8	7.85	4.29	2375	8.40	0.16	
W13	-42.67	8/23/23	1535	-38.9	0.3 Low	3.96 123	176.5 2472	0.10 1.4	644 18098	21.9	7.72	4.15	2297	8.50	1.33	
W13	-42.67	11/16/23	1050	-38.8	0.3 Ebb	3.69 114	205.5 2879	0.16 2.3	659 18503	21.7	7.88	4.03	2231	8.64	0.63	161.2
W13	-42.67	1/24/24	1115	-38.7	0.5 Flood	3.96 123	200.6 2809	0.15 2.1	703 19752	21.8	7.89	4.04	2236	8.65	0.48	226.5
W13	-42.67	5/8/24	1326	-39.1	0.4 Flood	3.63 112	173.7 2433	0.07 1.0	651 18296	21.7	7.79	4.30	2380	8.30	0.79	244.7
W13	-42.67	7/31/24	1602	-38.6	0.6 Ebb	3.73 116	193.9 2716	0.08 1.1	704 19758	21.7	7.95	4.08	2258	8.48	1.09	106.3
W13	-42.67	10/11/24	1507	-38.8	0.4 Ebb	3.94 122	197.9 2772	0.31 4.4	700 19654	21.9	8.00	3.96	2192	8.53	0.69	199.9
W13	-42.67	1/10/25	1110	-39.0	0.2 High	4.03 125	199.8 2799	0.11 1.6	667 18738	21.9	7.92	4.05	2242	8.61	0.51	232.3
W13	-42.67	5/14/25	1441	-39.1	0.5 Flood	4.02 124	187.7 2630	0.16 2.3	690 19382	21.9	7.93	4.28	2369	8.26	1.69	220.1
Mean				-39.07	0.22	3.94 122	143 2003	0.48 6.7	686 19256	22.6	7.94	4.42	2448	8.08	0.78	198.7
Std. Dev.				0.17	0.17	0.62 19	37 514	0.54 7.6	119 3338	1.1	0.10	0.26	142	0.43	1.61	49.0
Maximum				-38.48	0.64	5.07 157	214 2998	2.33 32.7	871 24466	27.4	8.25	5.20	2878	8.86	7.61	244.7
Minimum				-39.40	-0.09	1.56 48	37 524	-0.42 -5.9	223 6252	21.6	7.60	3.96	2192	7.06	0.02	106.3
n				65	65	65 65	65 65	65 65	65 65	65	65	65	65	65	65	7