

NELHA Water Quality Laboratory

Well 9A 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 (ppm)	Turbidity (NTU)	ORP (mV)
W9A	-16.76	1/23/09	1130	-9.88	0.09 Low	2.46 76	67.1 940	0.21 3.0	405 11371	20.4	7.90	19.26	10,661	6.17	1.03	
W9A	-16.76	2/23/09	1340	-9.15	0.09 Ebb	2.16 67	65.9 923	0.15 2.1	408 11468	20.0	7.74	20.03	11,087	6.50	8.11	
W9A	-16.76	3/13/09	1338	-9.36	0.09 Flood	1.75 54	41.4 580	0.13 1.8	331 9286	21.0	7.82	19.52	10,805	6.63	1.08	
W9A	-16.76	4/20/09	1120	-9.24	0.21 Flood	3.43 106	61.9 867	0.42 5.9	368 10333	19.9	7.67	19.11	10,578	6.48	19.1	
W9A	-16.76	5/21/09	1057	-9.36	0.55 Flood	2.42 75	62.1 869	0.19 2.6	534 14987	21.7	7.89	19.57	10,833	5.95	1.26	
W9A	-16.76	6/16/09	1013	-9.07	0.40 Flood	2.46 76	54.0 756	0.42 5.9	242 6803	18.4	7.79	18.82		6.21	0.97	
W9A	-16.76	7/13/09	1322	-9.15	0.21 Low	2.13 66	58.8 823	0.29 4.0	147 4116	18.4	7.78	19.64	10,871	6.40	1.80	
W9A	-16.76	8/18/09	1315	-8.90	0.61 Flood	2.58 80	64.6 906	0.92 12.9	351 9866	18.6	7.84	19.66	10,882	6.86	0.48	
W9A	-16.76	9/21/09	1133	-9.10	0.15 Low	2.45 76	56.3 789	0.69 9.6	173 4862	18.8	8.38	19.76	10,938	6.23	0.38	
W9A	-16.76	10/19/09	1411	-9.18	0.21 Flood	2.36 73	56.5 791	0.46 6.5	206 5786	18.8	8.16	19.88	11,004	6.32	0.81	
W9A	-16.76	11/16/09	1140	-9.21	0.09 Low	2.71 84	59.7 836	0.79 11.0	414 11633	20.4	7.92	19.61	10,855	5.05	0.14	
W9A	-16.76	12/7/09	1142	-8.97	0.46 Ebb	2.87 89	62.0 869	0.79 11.0	434 12181	19.6	7.85	20.10	11,126	6.64	0.70	
W9A	-16.76	1/5/10	851	-8.91	0.49 High	2.39 74	58.1 814	1.71 24.0	429 12052	19.0	7.91	19.62	10,860	6.22	2.26	
W9A	-16.76	2/1/10	1035	-9.07	0.12 Ebb	2.62 81	69.4 972	0.57 8.0	405 11386	19.0	7.93	19.46	10,772	6.26	1.66	
W9A	-16.76	3/9/10	1008	-9.28	0.12 Flood	2.62 81	64.4 902	0.29 4.0	444 12477	19.4	7.90	19.72	10,916	6.32	0.62	
W9A	-16.76	4/6/10	936	-9.26	0.12 Flood	3.07 95	66.8 935	1.21 17.0	428 12015	20.3	7.87	19.22	10,639	6.36	3.21	
W9A	-16.76	5/11/10	1001	-9.32	0.00 Flood	2.42 75	57.5 806	2.36 33.0	453 12718	20.3	7.98	19.39	10,733	6.84	2.03	
W9A	-16.76	6/15/10	1043	-9.28	0.06 Ebb	2.45 76	64.2 899	0.36 5.0	456 12815	18.5	7.94	19.05	10,545	6.65	0.26	
W9A	-16.76	7/13/10	1002	-9.23	0.03 Ebb	2.45 76	63.1 884	0.86 12.0	479 13462	20.2	7.90	19.00	10,517	6.43	3.01	
W9A	-16.76	8/3/10	955	-8.94	0.49 Flood	2.58 80	61.8 865	0.96 13.4	457 12847	20.2	7.92	19.71	10,910	6.58	3.61	
W9A	-16.76	9/14/10	949	-8.87	0.58 High	2.62 81	66.5 932	0.46 6.5	488 13709	18.8	7.88	18.88	10,451	6.34	0.35	
W9A	-16.76	10/12/10	958	-8.16	0.58 Ebb	2.87 89	64.3 900	0.26 3.6	486 13641	18.4	7.89	19.35	10,711	6.52	0.13	
W9A	-16.76	11/16/10	919	-8.99	0.24 Flood	2.62 81	68.4 958	0.22 3.1	485 13622	18.5	7.88	18.58	10,285	6.40	0.08	
W9A	-16.76	12/14/10	948	-8.93	0.34 High	2.65 82	67.3 942	0.21 2.9	483 13558	18.3	7.87	18.77	10,390	6.47	0.21	
W9A	-16.76	1/4/11	946	-9.02	0.12 Ebb	2.71 84	65.5 918	0.34 4.7	468 13153	18.5	7.80	18.16	10,052	6.28	0.12	
W9A	-16.76	4/5/11	1023	-9.21	-0.06 Low	2.58 80	60.5 847	0.24 3.4	443 12436	18.6	7.82	18.22	10,085	5.47	0.12	
W9A	-16.76	7/12/11	941	-9.39	0.37 Flood	2.65 82	62.9 881	0.10 1.4	467 13107	18.3	7.86	18.96	10,495	6.37	0.08	
W9A	-16.76	10/11/11	1007	-9.10	0.12 Low	2.55 79	58.8 824	0.26 3.6	435 12220	18.2	7.81	19.59	10,844	6.65	0.12	
W9A	-16.76	1/10/12	956	-9.04	0.15 Ebb	2.32 72	56.3 789	0.44 6.1	420 11795	18.5	7.84	19.49	10,788	6.19	0.09	
W9A	-16.76	5/1/12	1014	-9.14	0.18 Flood	2.84 88	60.3 844	0.36 5.1	472 13252	17.9	7.89	19.46	10,772	6.56	0.06	
W9A	-16.76	7/18/12	931	-9.25	0.00 Low	2.65 82	61.5 861	0.50 7.0	443 12431	18.2	7.95	20.11	11,131	6.83	0.57	
W9A	-16.76	10/16/12	1008	-9.07	0.18 Ebb	2.58 80	62.1 870	0.21 2.9	441 12389	18.6	7.85	20.03	11,087	6.41	0.55	
W9A	-16.76	1/8/13	1029	-9.13	0.12 Flood	2.78 86	66.7 934	0.88 12.3	507 14246	18.3	7.81	19.39	10,733	6.49	0.13	
W9A	-16.76	4/9/13	1010	-9.30	-0.09 Low	2.81 87	59.4 832	2.65 37.1	434 12177	18.4	7.86	20.08	11,115	7.09	0.66	
W9A	-16.76	7/17/13	1043	-9.09	0.49 Flood	2.52 78	56.3 789	0.41 5.8	441 12398	18.8	7.80	20.20	11,181	6.33	0.18	

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W9A	-16.76	10/15/13	952	-9.15	0.27 Flood	2.58 80	63.0 882	0.29 4.1	424 11914	18.4	7.84	20.28	11,226	7.11	0.05	
W9A	-16.76	1/15/14	929	-9.08	0.15 Ebb	2.94 91	68.2 955	0.46 6.4	411 11533	18.2	7.86	20.21	11,187	7.14	0.11	
W9A	-16.76	4/29/14	1045	-9.36	0.00 Flood	2.65 82	67.3 942	0.46 6.5	408 11467	18.6	7.82	20.04	11,093	7.21	0.13	
W9A	-16.76	7/29/14	1031	-9.17	0.12 Ebb	2.74 85	68.4 958	0.21 3.0	408 11457	18.6	7.75	20.36	11,270	7.58	0.31	
W9A	-16.76	11/5/14	1023	-9.07	0.12 Low	3.00 93	74.5 1044	0.36 5.0	403 11319	18.5	7.83	20.28	11,226	7.81	0.24	
W9A	-16.76	2/11/15	926	-9.00	0.24 Low	4.22 131	101.2 1418	0.40 5.6	560 15741	17.9	7.81	20.49	11,342	7.50	0.54	
W9A	-16.76	5/19/15	1427	-9.11	0.48 Flood	2.83 88	75.5 1057	0.39 5.5	376 10571	17.7	7.91	20.11	11,131	7.87	0.22	
W9A	-16.76	7/21/15	1111	-9.27	0.24 Ebb	3.03 94	71.1 996	0.02 0.3	386 10836	19.2	7.81	21.11	11,685	7.32	0.12	
W9A	-16.76	11/9/15	922	-9.02	0.12 Low	3.50 108	82.8 1160	0.21 2.9	417 11700	17.5	7.76	19.64	10,871	8.14	0.14	
W9A	-16.76	1/26/16	1534	-9.24	0.35 Flood	3.27 101	92.6 1297	0.00 0.0	401 11264	17.6	7.79	19.99	11,065	7.52	0.05	
W9A	-16.76	4/21/16	957	-9.22	0.00 Flood	3.35 104	79.0 1107	0.65 9.1	383 10745	18.2	7.71	19.69	10,899	7.85	0.14	
W9A	-16.76	7/20/16	1457	-9.26	0.35 Flood	3.10 96	77.0 1078	0.39 5.4	332 9320	17.4	7.78	20.17	11,165	7.52	0.09	
W9A	-16.76	11/7/16	1327	-8.85	0.30 Ebb	3.04 94	78.2 1095	0.44 6.2	357 10034	17.2	7.71	20.14	11,148	8.29	0.14	
W9A	-16.76	3/21/17	1349	-9.03	0.15 Ebb	3.21 99	77.8 1090	0.19 2.7	430 12087	17.2	7.72	19.83	10,976	7.79	0.18	
W9A	-16.76	4/13/17	958	-9.10	-0.05 Low	3.13 97	78.9 1105	0.36 5.1	427 12001	17.1	7.81	19.89	11,010	6.25	0.13	
W9A	-16.76	8/4/17	936	-9.10	0.10 Flood	2.94 91	62.7 879	0.07 1.0	425 11925	17.3	7.83	20.16	11,159	7.93	0.32	
W9A	-16.76	10/18/17	1542	-8.83	0.50 Ebb	3.05 95	78.7 1103	0.63 8.8	397 11157	17.1	7.82	19.99	11,065	7.39	0.16	
W9A	-16.76	1/17/18	1027	-9.00	0.16 Ebb	3.00 93	78.4 1098	0.21 3.0	421 11832	17.1	7.73	19.86	10,993	7.02	0.13	
W9A	-16.76	5/9/18	1112	-9.12	0.30 High	2.92 91	74.6 1045	0.34 4.8	416 11672	17.3	7.76	20.10	11,126	7.08	0.18	
W9A	-16.76	8/13/18	1653	-8.89	0.64 Flood	2.75 85	71.8 1006	0.30 4.2	433 12157	19.7	7.80	20.05	11,098	6.65	0.16	
W9A	-16.76	10/24/18	1028	-9.04	0.20 Flood	2.79 87	74.2 1039	0.11 1.6	389 10939	18.3	7.76	19.92	11,026	6.04	0.09	
W9A	-16.76	2/7/19	1210	-9.03	0.07 Low	3.08 95	98.8 1384	0.16 2.2	414 11636	17.4	7.57	20.07	11,109	7.73	0.06	
W9A	-16.76	5/15/19	1230	-9.12	0.45 Flood	3.20 99	73.0 1023	0.73 10.2	426 11969	17.0	7.64	20.17	11,165	6.92	0.07	
W9A	-16.76	8/28/19	1006	-9.16	0.15 Flood	3.10 96	64.7 906	0.19 2.7	407 11424	17.1	7.83	19.97	11,054	6.76	0.08	
W9A	-16.76	10/10/19	1436	-8.82	0.58 High	2.83 88	59.5 833	0.40 5.6	383 10750	17.4	7.87	20.09	11,120	7.36	0.16	
W9A	-16.76	1/31/20	1352	-9.13	0.07 Low	3.23 100	72.8 1019	-0.64 -8.9	409 11476	17.4	7.86	21.40	11,845	6.98	0.19	
W9A	-16.76	6/2/20	1502	-8.72	0.55 High	2.42 75	67.5 946	0.41 5.8	425 11944	18.1	7.86	20.34	11,259	6.45	0.11	
W9A	-16.76	8/18/20	1310	-9.12	0.50 Flood	2.39 74	69.3 970	-0.04 -0.6	413 11613	18.0	7.82	18.70	10,351	6.62	0.09	
W9A	-16.76	12/9/20	1110	-8.84	0.50 High	2.93 91	67.4 944	0.21 3.0	411 11530	18.2	7.81	20.06	11,104	6.58	0.45	
W9A	-16.76	2/17/21	1342	-9.10	0.02 Low	2.74 85	68.5 960	0.20 2.8	393 11040	18.1	7.79	19.88	11,004	6.57	0.10	
W9A	-16.76	4/14/21	913	-9.12	-0.02 Low	2.53 78	70.6 988	0.12 1.7	397 11162	18.2	7.73	20.09	11,120	6.73	0.10	
W9A	-16.76	7/6/21	1107	-9.17	0.35 Flood	2.82 88	69.1 968	0.08 1.1	396 11130	18.9	7.72	20.09	11,120	6.54	0.23	
W9A	-16.76	11/5/21	1243	-9.10	0.25 Flood	2.68 83	66.4 931	0.16 2.3	413 11602	19.6	7.62	19.80	10,960	6.51	0.07	
W9A	-16.76	2/4/22	1142	-9.04	0.03 Low	3.34 103	79.5 1114	0.04 0.5	472 13253	18.4	7.77	19.37	10,722	6.51	0.08	
W9A	-16.76	4/20/22	919	-9.23	0.02 Low	2.17 67	63.4 888	0.01 0.1	414 11636	18.3	7.75	19.55	10,821	6.50	0.05	

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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 (ppm)	Turbidity (NTU)	ORP (mV)
W9A	-16.76	7/12/22	928	-9.37	-0.10 Low	2.73 85	66.2 927	-0.31 -4.3	446 12534	18.4	7.78	19.24	10,650	6.40	0.11	
W9A	-16.76	11/21/22	1337	-9.08	0.47 High	2.49 77	65.1 911	0.01 0.2	377 10584	18.4	7.81	19.19	10,622	6.45	0.88	
W9A	-16.76	1/25/23	1125	-9.01	0.15 Ebb	2.77 86	69.6 975	0.11 1.6	400 11235	18.2	7.69	19.31	10,689	6.58	0.09	
W9A	-16.76	4/25/23	1111	-9.28	0.02 Low	2.89 90	69.3 971	0.04 0.5	397 11151	18.3	7.75	19.28	10,672	6.62	0.30	
W9A	-16.76	8/14/23	1128	-9.12	0.20 Flood	2.77 86	64.9 909	-0.10 -1.4	422 11843	18.3	7.79	18.96	10,495	6.40	1.72	
W9A	-16.76	11/15/23	955	-8.83	0.30 Ebb	2.54 79	66.0 925	0.08 1.1	353 9919	18.3	7.85	18.89	10,456	6.32	0.26	174.6
W9A	-16.76	1/23/24	1337	-9.03	0.87 High	1.99 62	64.5 903	0.04 0.6	412 11580	18.4	7.82	19.02	10,528	6.21	0.18	172.4
W9A	-16.76	5/3/24	927	-9.17	0.13 Flood	2.17 67	58.9 825	-0.07 -1.0	408 11454	18.8	7.79	19.34	10,705	6.03	0.52	192.9
W9A	-16.76	7/30/24	1301	-8.93	0.63 High	2.25 70	63.5 889	-0.07 -1.0	408 11461	19.4	7.90	19.28	10,672	6.16	0.12	141.7
W9A	-16.76	12/10/24	1230	-8.90	0.47 High	2.13 66	61.6 863	0.39 5.5	381 10688	20.2	7.85	19.84	10,982	6.26	0.41	220.7
W9A	-16.76	1/9/25	1030	-8.99	0.30 High	2.22 69	65.9 923	0.26 3.6	384 10787	20.2	7.88	19.63	10,866	6.19	0.38	208.5
W9A	-16.76	5/13/25	1009	-9.15	-0.08 Low	2.22 69	62.3 873	0.11 1.5	401 11257	20.6	7.83	19.36	10,716	5.86	0.41	167.4
Mean				-9.10	0.24	2.72 84	67 942	0.37 5.2	410 11523	18.6	7.83	19.67	10,892	6.69	0.81	182.6
Std. Dev.				0.20	0.21	0.38 12	9 128	0.47 6.6	64 1802	1.0	0.10	0.56	309	0.60	2.32	26.8
Maximum				-8.16	0.87	4.22 131	101 1418	2.65 37.1	560 15741	21.7	8.38	21.40	11,845	8.29	19.10	220.7
Minimum				-9.88	-0.10	1.75 54	41 580	-0.64 -8.9	147 4116	17.0	7.57	18.16	10,052	5.05	0.05	141.7
n				82	82	82 82	82 82	82 82	82 82	82	82	82	81	82	82	7