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NSB KINGS BAY
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LETTER REGARDING THE RECENTLY CONSTRUCTED WELLS AT SITE 11 NSB KINGS
BAY GA
3/28/1994
U S DEPARTMENT OF THE INTERIOR



United States Department of the Interior



GEOLOGICAL SURVEY
Water Resources Division
Peachtree Business Center, Suite 130
3039 Amwiler Road
Atlanta, Georgia 30360-2824

March 28, 1994

31547.000
16.01.00.0021

Mr. David Driggers
Southern Division Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 190010
North Charleston, South Carolina 29419-9010

Dear David;

Elevation levels were run by the USGS on March 21, 22, and 23, 1994 to the recently constructed wells at site 11. The work was done in order to verify elevation data obtained by an ABB Environmental Services (ABB) subcontractor, which were transmitted in a letter from ABB to the USGS on January 6, 1994.

The USGS elevation data are given in the enclosure (table 1), and are referenced to mean low water as given at the Navy reference mark PCM 11. Levels run from PCM 11 to site 11 during an earlier survey, completed in June 1993, had closure of less than 0.02 foot (as stated in a USGS letter to Ed Lohr dated June 21, 1993) and the USGS value for the top of the casing at well 11-1 for that earlier survey matched the ABB value. The top of the casing at well 11-1 was therefore used as the reference mark for all four traverses made during the present survey. Closure was less than 0.02 foot for three of the traverses, and less than 0.04 foot for the fourth traverse. The value at well 11-21 was obtained as a side shot from the fourth traverse, so no closure was obtained at that well.

The elevations obtained by the recent ABB subcontractor differed from those obtained by the previous ABB subcontractor by as much as 0.13 foot at the older wells (table 1). USGS values differed from those of the present subcontractor by less than 0.1 foot at most wells. Larger differences ranged from 0.15 to -0.37 foot at three of the "recovery wells" RW01, RW02, and RW03. The larger differences at the three recovery wells were verified by releveling.

The USGS hopes this information is useful to you. A duplicate of this letter is enclosed, in case you want to transmit it to ABB. If you have any questions about the data, please feel free to call.

Sincerely,

A handwritten signature in cursive script that reads "Bud Zehner".

Bud Zehner
Hydrologist

Enclosures

cc: Lieutenant Commander M. J. Patterson
Assistant Facilities and Environmental Officer
Naval Submarine Base
1063 Tennessee Avenue
Kings Bay, Georgia 31547-2606

Table 1. Elevations of wells at Kings Bay submarine base site 11.

All elevations are in feet, measured at tops of well casings, and are referenced to mean low water. Left blank if no value. USGS measurements originated from Navy marker PCM 11.

Well	ABB, previous	ABB, recent	USGS, recent	ABB minus USGS, recent	USGS closure, begin minus end
11-01	36.60	36.66	36.60		0.02*
11-02	35.94	36.02			
11-03A	34.59	34.63			
11-03B		33.49	33.49	0.00	0.00
11-03C		33.88	33.92	-0.04	0.00
11-04	35.12	35.15			
11-05	36.01	36.03			
11-06	37.39	37.43			
11-07	37.25	37.38			
11-08A	38.16	38.20			
11-08B		37.91	37.90	0.01	0.02
11-08C		37.48	37.48	0.00	0.02
11-09	34.59	34.66			
11-10A		35.42	35.33	0.09	0.00
11-10B		38.03	37.94	0.09	0.00
11-10C		38.28	38.17	0.11	0.00
11-11A		35.85	35.85	0.00	0.02
11-11B		35.94	35.92	0.02	0.02
11-11C		36.00	35.99	0.01	0.02
11-12		35.72	35.67	0.05	0.02
11-13A		34.20	34.34	-0.14	0.00
11-13B		34.86	34.80	0.06	0.00
11-14		34.54	34.56	-0.02	0.00
11-15		28.49	28.40	0.09	0.02
11-16		28.66	28.63	0.03	0.04
11-17A		25.71	25.72	-0.01	0.04
11-17B		25.41	25.41	0.00	0.04
11-17C		24.86	24.85	0.01	0.04
11-18		22.81	22.77	0.04	0.04
11-19A		25.95	25.88	0.07	0.04
11-19B		26.15	26.09	0.06	0.04
11-20		23.07	23.03	0.04	0.04
11-21		23.56	23.50	0.06	
11-22A		36.18	36.16	0.02	0.00
11-22B		36.13	36.09	0.04	0.00
PS-01		33.02	32.95	0.07	0.00
PS-02		33.59	33.51	0.08	0.00
PS-03		34.49	34.42	0.07	0.00
PS-04		36.91	36.80	0.11	0.00
PS-05		33.37	33.36	0.01	0.00
PD-06		33.35	33.29	0.06	0.00
PS-07		28.20	28.10	0.10	0.02
PD-08		28.53	28.46	0.07	0.02
PS-09		28.72	28.65	0.07	0.02
PS-10		30.54	30.48	0.06	0.02
RW-01		32.60	32.45	0.15	0.00
RW-02		30.11	30.48	-0.37	0.00
RW-03		27.93	27.66	0.27	0.02
RW-04		28.92	28.87	0.05	0.02
RW-05		30.25	30.25	0.00	0.00

*Closure from Navy marker PCM 11, as obtained from survey in June 1993.