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NAS PENSACOLA
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FEBRUARY 1998 MONTHLY OPERATION AND MAINTENANCE REPORT ON THE
DOMESTIC WASTEWATER TREATMENT PLANT GROUNDWATER REMEDIATION
PROJECT FOR NAS PENSACOLA FL
2/25/1998
HRP SPECTRUM INC

HRP/Spectrum

February 25, 1998

Southern Division
NAVFACENGCOM
Attention: Maxie Keisler, Code 18213
2155 Eagle Drive
P.O. Box 190010
Charleston, SC 29419-9010

RE: FEBRUARY 1998 MONTHLY OPERATION AND MAINTENANCE REPORT ON THE DOMESTIC WASTEWATER TREATMENT PLANT (DWTP) GROUND-WATER REMEDIATION; NAVAL AIR STATION (NAS) PENSACOLA, FLORIDA, (JOB # NAV0303.FE)

Dear Sir:

HRP/Spectrum is pleased to submit the February 1998 monthly report for the operation and maintenance activities conducted on the DWTP Ground Water Treatment System for the above referenced project. The attached Table 1 contains a summary of the recovery well pumping data for the month of February 1998 and Attachment "A" contains time series graphs of the calculated bi-weekly pump flow rates and measured well water levels to facilitate evaluation of the performance and maintenance requirements of the recovery wells and pumps. In addition, four (4) copies of the report have been sent to Mr. Tom Kelley, Naval Public Works Center and two (2) copies to Commander, Naval Air Station, Environmental Division, Attention: Mr. Bill Taylor. *HRP/Spectrum* has the following comments for the month of February:

RECOVERY WELL SYSTEM OPERATION STATUS

RW 1,2&3

- On February 3, 1998 Pump B for RW's 1, 2, & 3 was in operation. The pumps and wells appeared to be in good condition producing normal pressure and flow. No leaks were observed.
- After performing RW rehabilitation during the second week of January on RW 1, 2, and 3, there was a ten percent (10%) decrease in flow during the month of February. The reason for this decreased flow for RW 1, 2, and 3 was because of the increased flow on RW-5A.
- On February 17, 1998 Pump B for RW's 1, 2, & 3 was in operation. The pumps and well appeared to be in good condition producing normal pressure and flow. No leaks were observed or detected.

RW 4&6

- On February 3, 1998 Pump A for RW's 4 & 6 was operating sufficiently with normal pressure and flow. No leaks were detected at either of the recovery wells or pumps.
- After performing RW rehabilitation during the second week of January on RW 4 & 6, there was a twenty-five percent (25%) increase in flow for the month of February.

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- On February 17, 1998 Pump A for RW's 4 & 6 was operating sufficiently with normal pressure and flow. Upon departure, no leaks were detected at either of the recovery wells or pumps.

RW 5A

- On February 3, 1998 Pump B of RW 5A was operating sufficiently with normal pressure and flow. No leaks were detected at either the recovery well or pumps.
- After performing RW rehabilitation during the second week of January on RW 5A, there was a seventy percent (70%) increase in flow for the month of February.
- On February 17, 1998, Pump B of RW 5A was operating sufficiently with normal pressure and flow. Upon departure, no leaks were detected at either the recovery well or pumps.

RW 7

- On February 3, 1998 Pump A for RW 7 appeared to be working properly producing normal pressure and flow. No leaks were detected in either the pumps or well.
- After performing RW rehabilitation during the second week of January on RW 7, there was a five percent (5%) increase in flow for the month of February.
- On February 17, 1998 Pump A for RW 7 appeared to be working properly producing normal pressure and flow. No leaks were detected in either the pumps or well.

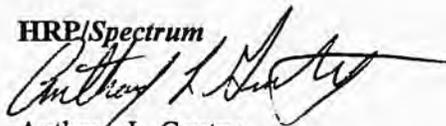
PRE-TREATMENT AIR STRIPPER

- On February 3, 1998 the Air Stripper was operating properly. No leaks were detected.
- On February 17, 1998 the Air Stripper was operating properly. No leaks were detected.

If you have any questions regarding this report or other matters pertaining to this project, please contact me at (864) 289-0311.

Sincerely,

HRP/Spectrum



Anthony L. Gentry
Project Engineer

ALG/cmc

Enclosure

cc: Tom Kelley-Naval Public Work Center- Code 480 (4 copies)
Bill Taylor - NAS Pensacola - Code 00500 (2 copies)

**TABLE 1
NAS PENSACOLA
RECOVERY WELL PUMPING DATA**

PUMP STATION	DATE INSPECTED	TIME (MILITARY)	FLOW METER READING (GALLONS)	DISCHARGE PRESSURE (psig)	SUCTION VACUUM ("Hg)	INSTANTANEOUS PUMPING FLOW RATE (GPM)	CALCULATED BI-WEEKLY FLOW RATE (GPM)	PUMP IN USE (A or B)	ELAPSED TIME (HOURS)	TOTAL BI-WEEKLY FLOW (GALLONS)	WATER LEVEL BELOW TOP OF CASING (Ft) (RESPECTIVELY)
RW 1,2 & 3	2/3/98	9:58	14,256,160	12	15	7.2	6.42	B	528	203,280	N/A, N/A, 3.01
RW 4&6	2/3/98	10:15	5,087,590	9	8	4.8	4.27	A	528	135,340	2.89, *N/A
RW 5A	2/3/98	10:16	8,704,220	50	20	14.8	18.23	B	528	577,670	3.46
RW 7	2/3/98	10:26	6,994,850	10	22	2.4	2.74	A	528	86,880	22.56
RW 1,2 & 3	2/17/98	13:30	14,391,700	10	16	6.8	6.72	B	336	135,540	N/A, N/A, 3.57
RW 4&6	2/17/98	13:40	5,178,010	9	9.5	4.8	4.49	A	336	90,420	3.39, 2.98
RW 5A	2/17/98	13:45	9,069,800	46	12.5	10.06	18.13	B	336	365,580	3.98
RW 7	2/17/98	14:04	7,050,630	10	21.5	2.9	2.77	A	336	55,780	22.78

* Well casing was underwater due to rain.

NOTES:

RW 1,2 3 - Recovery station for recovery wells RW 1, RW 2, and RW 3.

RW 4 6 - Recovery well for wells RW 4 and RW 6.

INSPECTOR'S NAME	ANTHONY L. GENTRY
DATE	2/3/98
AMBIENT TEMPERATURE	56
WEATHER CONDITIONS	RAINY / WINDY

ITEM	INSPECTION CHECK	INSPECTION FREQUENCY	DATA/ COMMENTS
INFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	15,520,310
	SAMPLE COLLECTION	MONTHLY	N/A
AIR STRIPPER	PRESSURE GAUGE READING	BI-WEEKLY	21.0" WATER
	CLEAN / CHECK TRAYS	BI-WEEKLY	CHECKED
BLOWER	PIPING CONNECTIONS	MONTHLY	OK
EFFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	N/A
	SAMPLE COLLECTION	MONTHLY	N/A
SYSTEM COMPONENTS	EXPOSED PIPING CONNECTIONS	MONTHLY	OK

SYSTEM DESCRIPTION:

ACTIVITIES PERFORMED:

INSPECTOR'S NAME	ANTHONY L. GENTRY
DATE	2/17/98
AMBIENT TEMPERATURE	70
WEATHER CONDITIONS	SUNNY / WINDY

ITEM	INSPECTION CHECK	INSPECTION FREQUENCY	DATA/ COMMENTS
INFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	15,986,650
	SAMPLE COLLECTION	MONTHLY	N/A
AIR STRIPPER	PRESSURE GAUGE READING	BI-WEEKLY	22.0" WATER
	CLEAN / CHECK TRAYS	BI-WEEKLY	CHECKED
BLOWER	PIPING CONNECTIONS	MONTHLY	OK
EFFLUENT PIPING	OPERATION OF BALL CHECK VALVE	MONTHLY	OK
	SAMPLE PORT OPERATION	MONTHLY	OK
	FLOW METER READING	BI-WEEKLY	N/A
	SAMPLE COLLECTION	MONTHLY	N/A
SYSTEM COMPONENTS	EXPOSED PIPING CONNECTIONS	MONTHLY	OK

SYSTEM DESCRIPTION:

ACTIVITIES PERFORMED:

Attachment #1

Time Series Graph

ATTACHMENT 1
GROUNDWATER FLOW READINGS

DATE	RW 1,2,&3	RW 4&6	RW 5A	RW 7	TOTAL
1/3/95	124,006	141,588	2,629	36,814	305,037
1/17/95	121,155	141,168	103,562	37,668	403,553
1/31/95	20,528	143,045	160,533	7,741	331,847
2/14/95	118,171	139,268	33,440	39,172	330,051
2/28/95	112,145	124,628	195,889	37,053	469,715
3/14/95	123,141	194,925	190,593	45,607	554,266
3/28/95	125,571	152,781	147,296	46,200	471,848
4/11/95	121,568	184,651	2,015	45,893	354,127
4/25/95	126,623	147,850	224,282	47,128	545,883
5/9/95	94,185	167,684	220,647	46,206	528,722
5/23/95	80,867	135,931	100,613	46,105	363,516
6/6/95	136,660	157,320	332,514	44,446	670,940
6/20/95	94,863	132,718	78,605	42,396	348,582
7/4/95	122,115	150,562	1,577	40,923	315,177
7/18/95	128,917	131,634	148,926	41,204	450,681
8/1/95	134,318	152,703	132,928	41,322	461,271
8/10/95	94,856	88,538	87,222	29,445	300,061
8/22/95	122,086	134,403	123,028	37,154	416,671
9/5/95	131,628	133,923	120,794	43,401	429,746
9/19/95	137,823	155,558	93,131	43,165	429,677
10/3/95	129,645	132,519	50,273	40,028	352,465
10/25/95	12,024	136,159	69,476	3,701	221,360
11/8/95	22,566	82,653	78,603	0	183,822
11/21/95	15,068	20,731	13,571	45,233	94,603
5/31/96	9,722	10,033	2,577	4,760	27,092
6/6/96	59,060	42,822	439	22,325	124,646
6/12/96	56,952	49,788	460	21,626	128,826
6/19/96	59,513	80,468	1,555	26,465	168,001
6/26/96	56,512	86,242	0	28,001	170,755
7/11/96	6,264	123,432	-3,289	59,241	185,648
8/8/96	80,000	120,000	0	60,000	260,000
8/21/96	153,290	90,540	0	55,670	299,500
9/4/96	0	154,470	49,184	60,980	264,634
9/23/96	192,330	0	220,336	82,000	494,666
10/9/96	0	188,940	164,420	57,760	411,120
10/28/96	191,710	220,050	0	79,580	491,340
11/19/96		266,730	10,080	70,950	347,760
12/3/96	0	184,490	262,710	47,130	494,330
12/16/96	125,560	158,840	242,580	44,410	571,390
1/6/97	211,440	225,360	391,290	69,570	897,660
1/28/97	203,820	286,830	130,110	72,700	693,460
2/11/97	140,470	194,330	95,910	49,490	480,200
3/14/97	313,290	437,710	191,710	101,070	1,043,780
3/25/97	110,100	147,810	65,650	34,540	358,100
4/16/97	169,240	215,640	102,140	55,370	542,390
4/29/97	109,650	98,960	32,710	38,680	280,000
5/16/97	161,300	105,890	204,190	56,590	527,970
5/29/97	129,190	83,640	156,490	43,120	412,440
6/10/97	192,010	123,890	209,690	83,390	416,970

**ATTACHMENT 1
GROUNDWATER FLOW READINGS**

DATE	RW 1,2,&3	RW 4&6	RW 5A	RW 7	TOTAL
6/26/97	65,640	41,840	56,390	0	163,870
7/14/97	167,630	109,340	109,800	0	386,770
8/5/97	290	123,010	0	72,580	195,880
8/19/97	141,650	86,850	28,060	54,660	311,220
9/3/97	150,690	92,500	176	56,910	300,276
9/17/97	140,450	85,610	0	51,390	277,450
10/6/97	193,180	118,120	0	68,230	379,530
10/27/97	210,410	127,460	275,934	70,980	684,784
11/10/97	122,530	75,330	240,020	42,840	480,720
11/24/97	143,590	69,310	195,400	49,930	458,230
12/9/97	153,410	95,070	136,140	54,790	439,410
12/18/97	92,110	57,360	71,100	33,470	254,040
1/12/98	254,880	160,220	193,520	94,190	702,810
2/3/98	203,280	135,340	577,670	86,880	1,003,170
2/17/98	135,540	90,420	365,580	55,780	647,320

NOTE: Large peak on 3/14/97 is due to no second site visit during the month of February.

NAS PENSACOLA GROUNDWATER RECOVERY WELL FLOW RATES

