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National Priorities List

32212-000

22.01.00.0001

Superfund hazardous waste site listed under the
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended in 1986

JACKSONVILLE NAVAL AIR STATION
Jacksonville, Florida

The Jacksonville Naval Air Station (NAS) is in southwestern Duval County, in Jacksonville, Florida. NAS occupies approximately 6 square miles on the shore of the St. Johns River near the headwaters of the Ortega River. The area around the station is commercial and residential. Since 1940, NAS's primary mission has been to provide services and materials to support aviation activities.

NAS is participating in the Installation Restoration Program (IRP). Under this program, established in 1978, the Department of Defense seeks to identify, investigate, and clean up contamination from hazardous materials. As part of IRP, the Navy used historical records, aerial photographs, field inspections, and personnel interviews to identify at least 40 potentially contaminated areas within the facility boundaries, including landfills, storage areas, lagoons, and spills. Wastes handled include waste solvents, oil and fuel, paint wastes, aqueous wastes containing heavy metals, acids, caustics, cyanide, paint stripper wastes containing chlorinated solvents and phenolics, radium paint wastes, and waste from medical radiological programs.

In August and September 1983, a Navy contractor sampled soils and shallow ground water. Contaminants identified included trichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, tetrachloroethylene, PCBs, cadmium, chromium, lead, copper, and mercury. The potential exists for contaminated ground water to migrate off-site and endanger local water supplies. Private wells into shallow ground water within 3 miles of hazardous substances at the site provide drinking water to an estimated 300 people.

Hazardous waste was deposited directly into the St. Johns River on NAS. A 1986 IRP report indicates that lead, chromium, and cadmium were found in the river, which is used for recreational activities within 3 miles downstream of NAS. Fresh water wetlands and critical habitats for the Florida manatee and the bald eagle, both designated as endangered species by the U.S. Fish and Wildlife Service, are on NAS.

The Navy has taken interim measures to control runoff of oil and solvents from the old main dump into St. Johns River. The Navy also plans further investigation of releases of hazardous substances and their migration under a permit issued under Subtitle C of the Resource Conservation and Recovery Act and incorporating corrective action.

QA Review Data: Third Version
Jacksonville Naval Air Station

Author: Julie G. Knapp
Date: January 12, 1988

Facility name: Jacksonville Naval Air Station

Location: Jacksonville, Duval County, Florida

EPA Region: IV

Person(s) in charge of the facility: William Roche
Environmental Coordinator Public Works - NAS
(904) 772-2717

Name of Reviewer: Julie G. Knapp

Date: January 12, 1988

General description of the facility:

Jacksonville NAS is a federal facility located on the St. Johns River in Jacksonville, Duval County, Florida. The facility operations resulted in 23 disposal areas consisting of landfills, surface impoundments, piles, and spills which received a variety of hazardous substances including heavy metals, volatile organics, PCB's, and radioactive materials. Contamination of groundwater in the shallow aquifer is the major concern.

Scores: $S_M = 32.08$ ($S_{gw} = 51.02$ $S_{sw} = 21.82$ $S_a = \text{Not Scored}$)
 $S_{pg} = \text{Not Scored}$
 $S_{pe} = \text{Not Scored}$

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Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4 . If observed release is given a score of 0, proceed to line 2 .					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
Total Waste Characteristics Score			26	26	
5 Targets					3.5
Ground Water Use	0 1 2 3	3	9	9	
Distance to Nearest Well/Population Served	0 6 8 10 12 16 18 20 24 30 32 35 40	1	16	40	
Total Targets Score			25	49	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			29,250	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S _{gw} = 51.02		

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Surface Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4 . If observed release is given a value of 0, proceed to line 2 .					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	8	8	
Total Waste Characteristics Score			26	28	
5 Targets					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	6	6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 18 18 20 10 24 30 32 35 40	1	0	40	
Total Targets Score			12	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			14,040	64,350	
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = 21.82$		

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Not scored

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1		45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the $S_g = 0$. Enter on line 5					
If line 1 is 45, then proceed to line 2					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
4 Multiply 1 x 2 x 3				35.100	
5 Divide line 4 by 35.100 and multiply by 100					$S_g =$

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Direct Contact Work Sheet

N.E

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1		45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1		3	8.2
3 Containment	0 15	1		15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5		15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
Distance to a Critical Habitat	0 1 2 3	4		12	
Total Targets Score					32
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5					21,600
7 Divide line 6 by 21,600 and multiply by 100				SOC =	

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Fire and Explosion Work Sheet

N.E

Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
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1 Containment	1	3	1		3	7.1
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2 Waste Characteristics						7.2					
Direct Evidence	0	3	1		3						
Ignitability	0	1	2	3	1	3					
Reactivity	0	1	2	3	1	3					
Incompatibility	0	1	2	3	1	3					
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1	8

Total Waste Characteristics Score					20	
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3 Targets											7.3
Distance to Nearest Population	0	1	2	3	4	5	1				5
Distance to Nearest Building	0	1	2	3			1				3
Distance to Sensitive Environment	0	1	2	3			1				3
Land Use	0	1	2	3			1				3
Population Within 2-Mile Radius	0	1	2	3	4	5	1				5
Buildings Within 2-Mile Radius	0	1	2	3	4	5	1				5

Total Targets Score					24	
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4 Multiply 1 x 2 x 3			1,440	
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5 Divide line 4 by 1,440 and multiply by 100	S P E =	
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	s	s ²
Groundwater Route Score (S _{gw})	51.02	2603.04
Surface Water Route Score (S _{sw})	21.82	476.11
Air Route Score (S _a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3079.15
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		55.49
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		32.08

WORKSHEET FOR COMPUTING S_M

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**DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM**

INSTRUCTION: As briefly as possible, summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: Jacksonville Naval Air Station

LOCATION: Jacksonville, Florida

DATE SCORED: January 12, 1988

PERSON SCORING: Julie G. Knapp

PRIMARY SOURCE(S) OF INFORMATION (e.g., EPA region, state, FT, etc.):

NAS Jacksonville Initial Assessment Study; NAS Jacksonville Verification Study; EPA Files

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

The air route was not scored due to a lack of air sampling data.

COMMENTS OR QUALIFICATIONS:

This is a Federal Facilities HRS for Jacksonville Naval Air Station, Jacksonville, FL. There are 23 disposal areas which have been aggregated into one site for this scoring. Policy outlined under 52FR 17991, May 13, 1987, indicates that Federal facilities which possess sites that meet the requirements under CERCLA for listing on the National Priorities List (NPL), are eligible for NPL listing even though the facility may possess sites to which RCRA Subtitle C corrective actions may apply.

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GROUND WATER ROUTE

1 OBSERVED RELEASE Value - 45

Contaminants detected (5 maximum):

The contaminants which were detected are as follows:

- trichloroethene
- 1,1-dichloroethene
- 1,1,1-trichloroethane
- tetrachloroethene.

Rationale for attributing the contaminants to the facility:

Refer to Page 2-A

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

Refer to Page 2-C

Depth(s) from the ground surface to the highest seasonal level of the saturated zone (water table(s) of the aquifer(s) of concern:

Not applicable

Depth from the ground surface to the lowest point of waste disposal/storage:

Not applicable

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Rationale for attributing the contaminants to the facility:

The observed release to groundwater at the facility is based on the documented disposal of solvents and paint sludges into open pits at the Solvent and Paint Sludge Disposal Area, referred to as Site No. 15 (Ref. 1, pp. 6-31, 6-33, 6-35, Ref. 16). NAS records state that the paint strippers and solvents used in this area include trichloroethane, 1,1,1-trichloroethane, tetrachloroethylene and many other chlorinated solvents (Ref. 1, pp. 6-10 through 6-16).

Analytical sampling data gathered by Geraghty and Miller, Inc. in September of 1983 at the direction of the Naval Facilities Engineering Command supports the presence of these organic compounds at Site No. 15. In their study (Ref. 2) shallow groundwater samples were collected from permanent monitoring wells which were completed in the aquifer of concern (Ref. 2, p. 23). Three of these wells (NARF-2, NARF-B1, NARF-4) were situated near Site No. 15 (Ref. 2, Appendix D, Figure 21 and Figure 22).

Based on groundwater levels established from monitoring wells installed in the same study (Ref. 2, Appendix D, Figure 21) NARF-2 was chosen as the upgradient (background) well sample. Samples from NARF-B1 and NARF-4, located onsite and downgradient, respectively, were used to evaluate the release of chlorinated solvents into the shallow aquifer (i.e. an observed release) (see page 2-B). Only 3.9 ug/l of trichloroethene (TCE) were detected in the upgradient (background) sample NARF-2 and no other volatile organic compounds were present. Sample NARF-B1, however, contained 40,000 times more TCE (155,300 ug/l) and extremely high levels of other volatile organics. Though downgradient sample NARF-4 contained elevated levels of volatiles, they were considerably lower than the onsite sample (Ref. 4, pp. 31, 35). A later sampling investigation during the Characterization Phase of the study revealed a similar occurrence of contaminants at this disposal area (Ref. 4, pp. 32, 36).

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OBSERVED RELEASE DOCUMENTATION
SAMPLING DATA - SITE NO. 15*
JACKSONVILLE NAS SITE

Contaminants	Background	Onsite	Downgradient
	NARF-2 (ug/l)	NARF-B1 (ug/l)	NARF-4 (ug/l)
trichloroethene	3.9	155,300	170
1,1-dichloroethene	-	53,300	12
1,1,1-trichloroethane	-	25,500	6.2
tetrachloroethene	-	480	1.8

- Analyzed for but not detected
- * Summary table of selected contaminants was derived from Site No. 15 analytical sampling data identified in Ref. 2, pp. C-5.1, C-5.2; Appendix D, Fig. 21 and Figure 22; Ref. 22; Ref. 23, p. 601-7).

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Name/description of aquifer of concern:

The shallow aquifer system is the aquifer of concern in the vicinity of the Jacksonville Naval Air Station. This shallow aquifer system is underlain by a thick confining layer of low permeability known as the Hawthorn Formation (Ref. 5, Table 3) which separates the shallow aquifer from a deeper aquifer called the Floridan.

The Shallow aquifer system is composed of highly permeable surficial sand, sandy clay lenses, and shell beds underlain by a porous, cavernous limestone (Ref. 6, p.20, Table 5). The lithology of this aquifer system varies laterally as well as vertically and any confining layers are discontinuous (Ref. 5, p.20). In western Duval County the Shallow aquifer system is essentially "one thick aquifer extending downward from the water table into the Hawthorn Formation" (Ref. 5, p.20).

The upper boundary of the aquifer is equivalent to the water table which at the Jacksonville NAS has been measured at three to eight feet below land surface (Ref. 2, p.32). The aquifer varies in thickness and is tapped by wells as deep as 200 feet (Ref. 6, abstract).

The base of the aquifer is defined by the occurrence of the Hawthorn Formation, but this contact is gradational, and not easily defined (Ref. 7, p. 18-22). The Hawthorn Formation functions as an aquiclude because it is composed of 300 to 500 feet of alternating beds and lenses of low permeability materials such as dolomite, phosphate, and clayey sands (Ref. 7, p. 20). This effectively separates the Shallow aquifer system from the Floridan aquifer system which occurs at depths greater than 400 feet below land surface (Ref. 5, Figure 5) in the site vicinity.

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Net Precipitation

Not Applicable

mean annual or seasonal precipitation (list months for seasonal):

Not Applicable

Mean annual lake or seasonal evaporation (list months for seasonal):

Not Applicable

Net precipitation (subtract the above figures):

Not Applicable

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Not Applicable

Permeability associated with soil type:

Not Applicable

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Not Applicable

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3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Not Applicable

Method with highest score:

Not Applicable

4 WASTE CHARACTERISTICS

Toxicity and Persistence Matrix Score - 18

Compound(s) evaluated:

Refer to Page 4-A

Compound with highest score:

Each of the compounds evaluated on page 4-B (eleven total) receive a toxicity/persistence value of 18.

Hazardous Waste Quantity Value - 8

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0. (Give a reasonable estimate even if quantity is above maximum):

The documentable quantity of hazardous waste that was disposed of at the facility is 20,000 tons.

Basis of estimating and/or computing waste quantity:

The total quantity of hazardous waste disposed of at the facility, from 1940 to 1981, is estimated at 29,104 tons (refer to Table 1 under Site Aggregation). Individual quantities for each site were arrived at during the Initial Assessment Phase of the study through an extensive review of facility records and interviews with station personnel and retirees (Ref. 1, pp. 2-3).

Of these 29,104 tons of hazardous waste only 23,072 tons are considered as available to the groundwater migration route (refer to page 4-C) and only 20,000 tons (Site No. 3) are fully documentable for HRS purposes, also Ref. 21, p. 6-24, typical sludge composition).

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Toxicity/Persistence

Compound (s) Evaluated

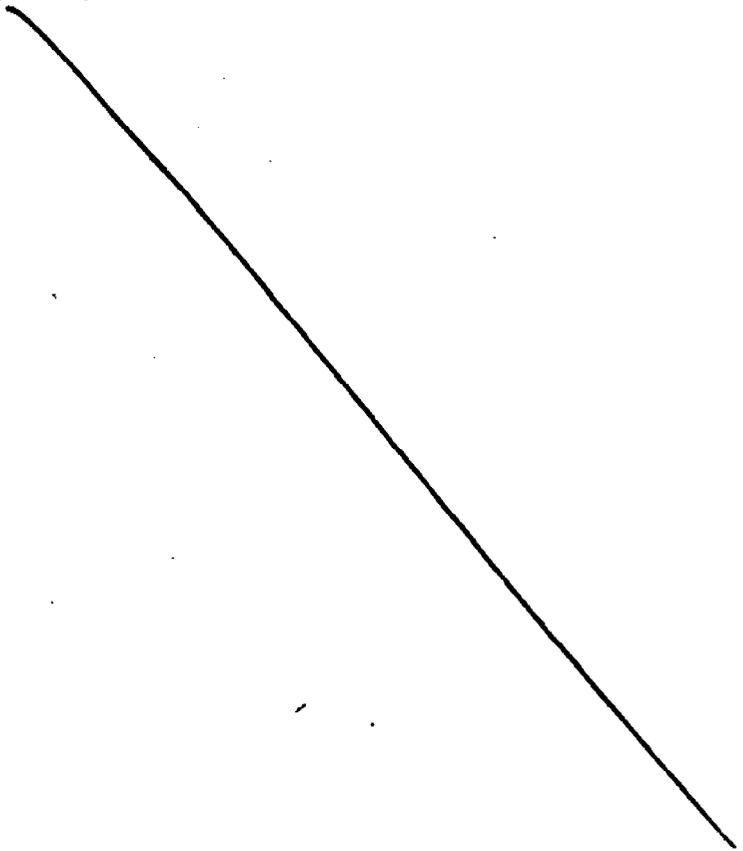
Disposal records indicate that waste solvent, waste oil, waste fuel, and waste paint, aqueous waste containing heavy metals, acids, caustics, cyanide, and paint stripper wastes containing chlorinated solvents and phenolics were disposed of and spilled at many sites throughout the NAS (Ref. 1, p. 2-3). Analytical results from shallow soil and groundwater samples collected during the sampling investigation reveal the presence of a total of twenty contaminants which were detected among the twenty-three disposal areas. Each of the contaminants detected were evaluated for toxicity/persistence. Those contaminants receiving a matrix score of 18 and present at significant levels are listed in the table on page 4-B.

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SOME CONTAMINANTS FOUND IN SAMPLING INVESTIGATION
JACKSONVILLE NAS

Site No.	Contaminants Detected	Ref. 2 Appendix C	Matrix Value •
4	barium, cadmium, chromium	Section 2	18
5	barium, radium 226, radium 228	Section 3	18
13	radium 226	Section 5	18
11	chloroform	Section 6	18
28	PCB's	Section 8	15
30	cadmium	Section 10	18

• Matrix values from Ref. 8,
Ref. 10, pp. 31219-31243



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WASTE QUANTITY CALCULATIONS
GROUNDWATER ROUTE
JACKSONVILLE NAS

Site No.	Waste Quantity	Conversion to Tons *
2	6,000 gallons	30
3	20,000 tons	20,000
11	2,000 gallons	10
12	52 drums	13
13	1500 cubic feet	55.6
14	2,300 gallons	11.5
15	72,000 gallons	360
25	300 drums	75
26	27 drums	6.8
30	10,000 drums	2,500
33	2,000 gallons	10
		23,071.9 tons

- 200 gal = 1 ton
- 1 yd³ = 1 ton

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5 TARGETS

Ground Water Use Value - 3, Score - 9

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Water from the shallow aquifer system is used primarily for domestic drinking water, particularly in areas not served by private or public utilities (Ref. 6, Abstract). Two residences (owned by Warren Abel and George Cussell) were identified by NUS personnel who have no alternative source available to them (Ref. 11).

Distance to Nearest Well Value - 3

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

The nearest private well was identified by NUS personnel on Collins Road just south of the NAS. The well inventory form (Ref. 11) indicates that the well is owned by Warren Abel and is 150 feet deep.

Distance to above well or building:

The well is located approximately 2,376 feet south of Site No. 28 where PCB's were detected (Ref. 11; Ref. 16; Ref. 2, Appendix C, Section 8).

Population Served by Ground Water Wells Within a 3-Mile Radius Value - 2, Matrix Score - 16

Identify water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Twenty-seven households which use well water from the shallow aquifer for drinking purposes were documented by NUS personnel (Ref. 11). These wells serve a total of 116 people and depths vary from 62 to an estimated 200 feet (Ref. 11). There are other reported shallow wells in the area but total population using the shallow aquifer is estimated to be fewer than 1,000 people (Ref. 12).

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

Not applicable

Total population served by ground water within a 3-mile radius:

Total population served is documented to be 116 people (Ref. 11).

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SURFACE WATER ROUTE

1 OBSERVED RELEASE Value - 45

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

Contaminants detected in surface water at the facility include lead, chromium, and cadmium (Ref. 4, pp. 42-44).

Rationale for attributing the contaminants to the facility:

Refer to Page 6-A

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Not applicable

Name/description of nearest downslope surface water:

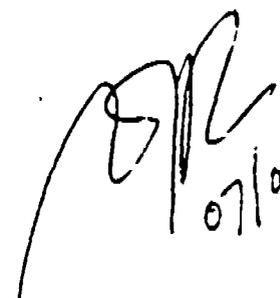
Not applicable

Average slope of terrain between facility and above-cited surface water body in percent:

Not applicable

Is the facility located either totally or partially in surface water?

Not applicable


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Rationale for attributing contaminants to the facility:

Uncontained hazardous substances, consisting of spent abrasive glass beads, were deposited directly into the St. Johns River at Site No. 17 (Ref. 1, pp. 6-35, 6-38, 6-39). A glass bead bar is visible and beads make up most of the bottom sediment at this location (Ref. 1, pp. 6-35, 6-38, 6-39). The Hazard Ranking System allows an observed release to be scored when there is documented evidence that hazardous wastes or hazardous substances have been deposited into the surface water.

Chemical analysis of the glass beads (Ref. 1, pp. 6-40, 6-41) indicates that they contain lead, chromium, cadmium, nickel, and copper. Sampling of sediments at the disposal area revealed high levels of lead and chromium (Ref. 4, pp. 42-44).

6-A

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Is the facility completely surrounded by areas of higher elevation?

Not applicable

1-Year 24-Hour Rainfall in Inches

Not applicable

Distance to Nearest Downslope Surface Water

Not applicable

Physical State of Waste

Not applicable

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3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Not applicable

Method with highest score:

Not applicable

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4 WASTE CHARACTERISTICS

Toxicity and Persistence Matrix Score - 18

Compound(s) evaluated:

Refer to Page 8-A

Compound with highest score:

Lead, chromium, cadmium, and copper all received a Matrix Value of 18 (Refs. 8, pp. 504-505 ; 9, pp. 1688-89, 347, 612; 10, pp. 31219-31243).

Hazardous Waste Quantity Value - 8

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0. (Give a reasonable estimate even if quantity is above maximum):

The documentable quantity of hazardous substances disposed of at the facility which is available to the surface water route equals 20,150 tons.

Basis of estimating and/or computing waste quantity:

Refer to Page 8-B,C.

5 TARGETS

Surface Water Use Value - 2, Score - 6

Use(s) of surface water within 3 miles downstream of the hazardous substance:

The St. Johns River is rated by the FDER as a Class III waterbody, designated for fish and wildlife propagation and body contact recreational uses (Ref. 1, p. 5-24). The Jacksonville Rudder Club is located just south of the NAS and an employee there verified that the St. Johns River is used for boating and fishing (Ref. 13).

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Toxicity/Persistence

Compounds evaluated

Chemical analysis of Site No. 17's abrasive glass beads after use (Ref. 1, pp. 6-40, and 6-41) revealed contamination with lead, chromium, nickel, cadmium and copper. Sediment samples taken from the disposal area in the St. Johns River indicate high levels of lead and copper, and trace amounts of chromium and cadmium (Ref. 4, pp. 42-44).

8-A

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Basis for estimating and/or computing waste quantity:

The total quantity of hazardous waste disposed of at the facility which is available to the surface water migration route is estimated at 28,849.1 tons. This total consists of 5,978 tons of waste from Site Nos. 16 and 17 which were released directly into the St. John's River (Ref. 1, pp. 6-10, 6-35, 6-38), and 22,871 tons from Site Nos. 3, 14, 15, and 30 (Ref. 2, pp. 12-13; Ref. 1, pp. 6-24; 6-31; 6-46; 6-47) which were disposed of in uncontained open pits and piles (refer to page 8-C).

Of this estimated total, only 20,150 tons of waste are considered fully documentable for HRS purposes. This includes 20,000 tons from Site No. 3 and 150 tons of the waste at Site No. 17 (amount generated during one year of operation).

~~Site # 3 : IWTP
Mudgy Disposal Area
by IWTP~~

~~Site 17 : 6-lane bead bar.~~

Site 16 : Black paint and ball

14 : Battery shop, IWTP

15 : Ex Paint disposal area

30 : Old Diner

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WASTE QUANTITY CALCULATIONS
SURFACE WATER ROUTE
JACKSONVILLE NAS

Site No.	Waste Quantity	Conversion to Tons *
3	20,000 tons	20,000
14	2,300 gallons	11.5
15	72,000 gallons	360
16	715,520 gallons	3,577.6
17	4,800,000 pounds	2,400
30	10,000 drums	2,500
		28,849.1 tons

* 200 gal = 1 ton
1 yd³ = 1 ton

~~22,400~~

3+17 = 22,400 TONS

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REPRODUCED AT GOVERNMENT EXPENSE

Is there tidal influence?

There is tidal influence on the St. Johns River at the NAS. This results in a high degree of mixing between fresh and saltwater and there are flow reversals of the river during tidal influxes (Ref. 1, p. 5-24). There are, however, no surface water intakes upstream of the site due to the brackish nature of the water (Ref. 14).

Distance to a Sensitive Environment Value - 3, Score - 6

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

There are no true saltwater wetlands near the NAS because the water is only brackish, but some saltwater species are present (Ref. 1, p. 5-62).

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Freshwater wetlands are present onsite at Site No. 5, (Ref. 1, pp. 5-62, 5-63, 5-65, 3-2; and Ref. 16) and at Site No. 27 (Ref. 1, pp. 5-65, 3-2; and Ref. 16)

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

The St. Johns River is a critical habitat of the Florida Manatee (Ref. 15) and they have been sighted offshore from the facility (Ref. 1, p. 5-69). In addition, there is an active bald eagle nest in Dewey Park on the facility (Ref. 1, p. 5-69). Since wastes were deposited in the St. Johns River (Ref. 1, pp. 6-35, 6-38, 6-39) the distance to the initial habitat will be considered zero.

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

There are no surface water intakes within 3-miles up or downstream of the Jacksonville NAS due to the brackish nature of the water (Ref. 14).

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499

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

Not applicable

Total population served:

Not applicable

Name/description of nearest of above-cited intake(s):

Not applicable

Distance to above-cited intake(s), measured in stream miles.

Not applicable

JK
07/01/88
500

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AIR ROUTE

1 OBSERVED RELEASE Value - 0

No data available.

Contaminants detected:

An observed release of contaminants to air at the site has not been substantiated due to a lack of sampling data.

Date and location of detection of contaminants:

Not applicable

Methods used to detect the contaminants:

Not applicable

rationale for attributing the contaminants to the site:

Not applicable

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Not applicable

Most incompatible pair of compounds:

Not applicable


07/01/88
501

Toxicity

Most toxic compound:

Not applicable

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

3 TARGETS Not applicable

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi

0 to 1 mi

0 to 1/2 mi

0 to 1/4 mi

Not applicable

Distance to a Sensitive Environment:

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not applicable

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Not applicable

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07/01/88
502

Distance to critical habitat of an endangered species, if 1 mile or less:

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

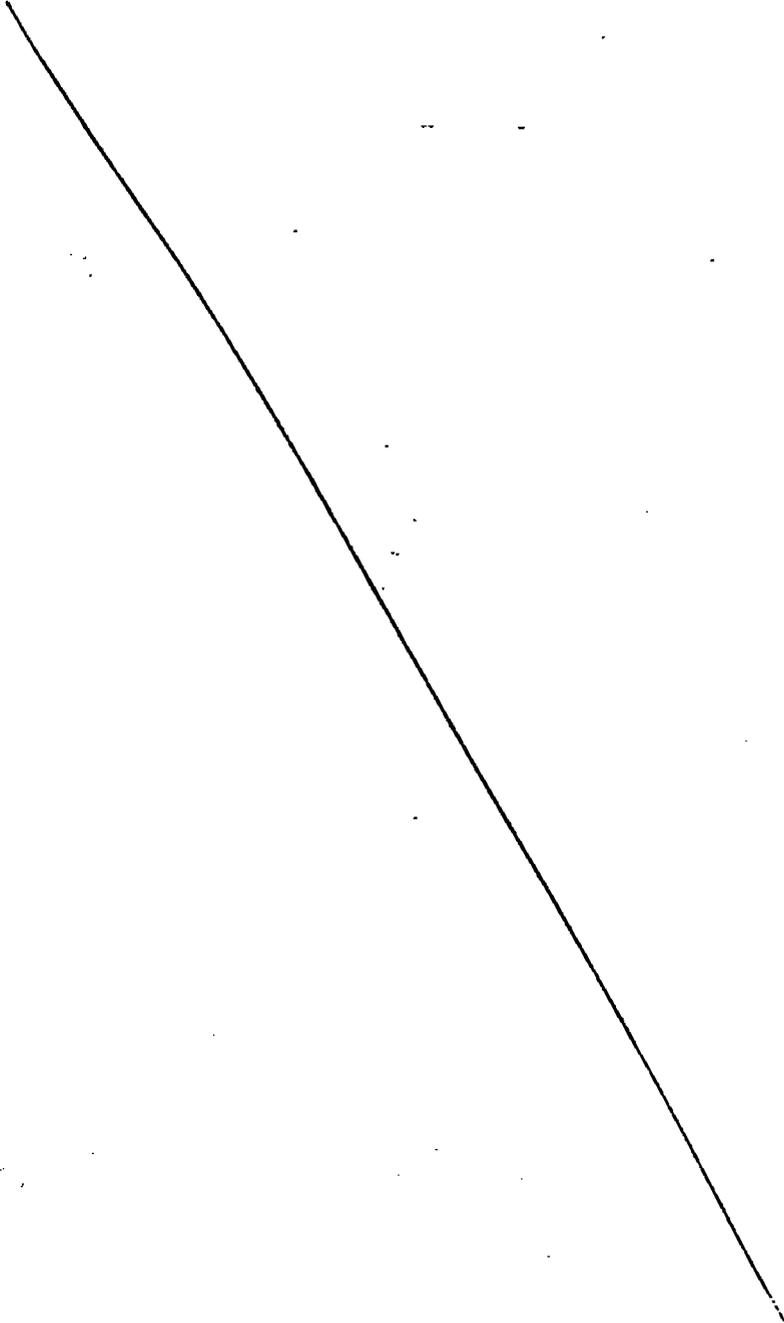
Not applicable

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07/01/88
503

FIRE AND EXPLOSION HAZARD

A review of the file material suggests that no fire and explosion hazards exist on site.



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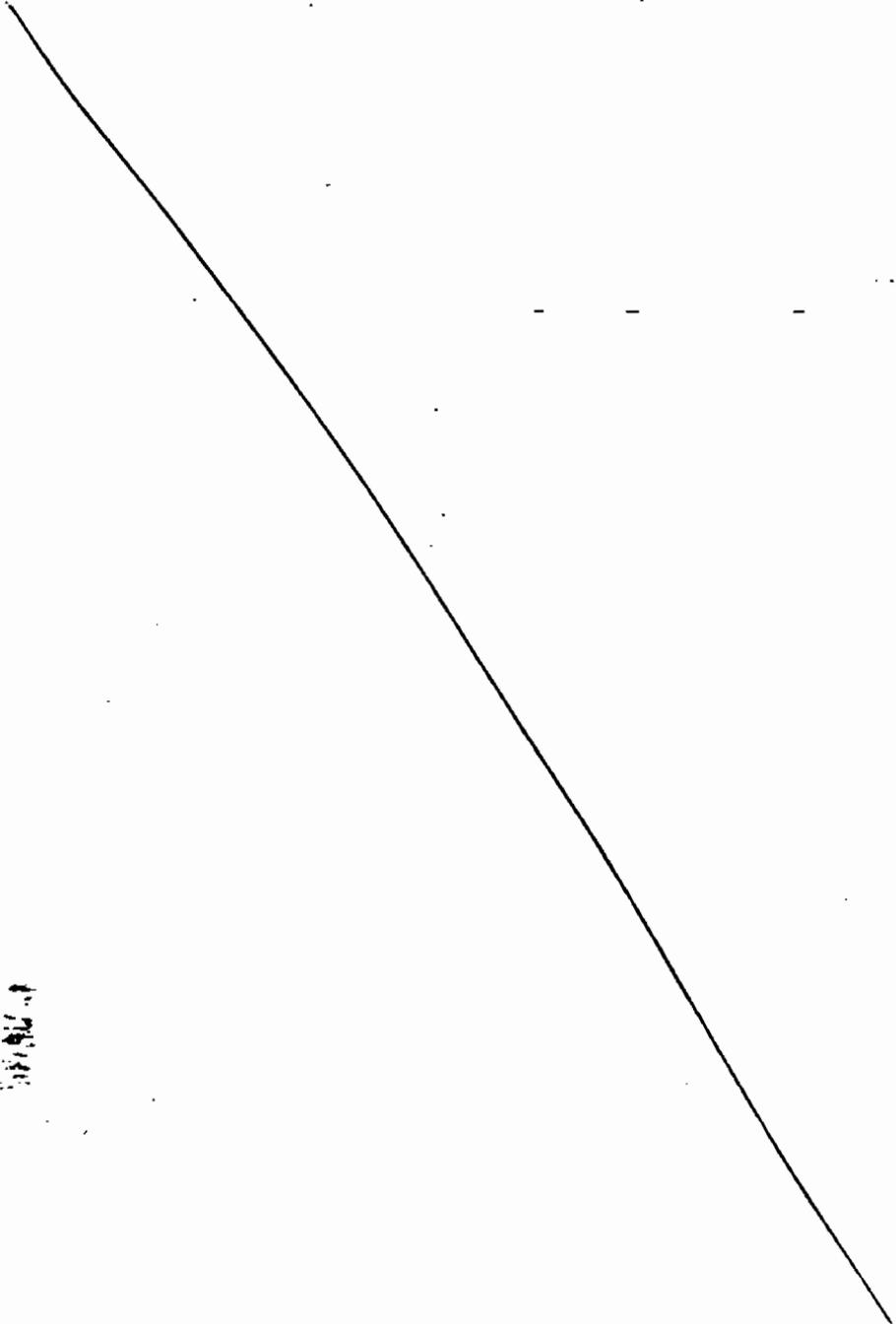
Handwritten signature
07/31/88
504

QA Review Data: Third Version
Jacksonville Naval Air Station

Author: Julie G. Knapp
Date: January 12, 1988

DIRECT CONTACT HAZARD

A review of file material suggests that no direct contact hazard exists at this site.



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29/12 505
07/01/88

REFERENCES

1. Initial Assessment Study of Naval Air Station and Naval Fuel Depot Jacksonville, Florida; NEESA #13-019, March 1983.
2. Geraghty & Miller, Inc.; Verification Study: Assessment of Potential Ground-Water Pollution at Naval Air Station Jacksonville, Florida; Tampa, FL; December 1985.
3. Jones, Edmunds & Associates, Inc. Pradesign Report Oil and Solvent Dump Site Remedial Action Plan; Gainesville, FL; May 1986.
4. Geraghty & Miller, Inc. Naval Assessment and Control of Installation Pollutants Review Workshop NAS-Jacksonville Verification Study/Characterization Study, Tampa, FL, April 29, 1986.
5. Leve, Gilbert W., Ground Water in Duval and Nassau Counties, Florida. State of Florida Department Natural Resources Report of Investigations No. 43, 1966.
6. Fairchild, Roy W. The Shallow Aquifer System in Duval County, Florida; State of Florida Department Natural Resources Report of Investigations No. 59; 1972
7. Scott, Thomas M. The Hawthorn Formation of Northeastern Florida. State of Florida Department Natural Resources Report of Investigations No. 94, 1983.
8. Sax, N. Irving and J. Lewis, Sr., Dangerous Properties of Industrial Materials, 7th edition, Van Nostrand Reinhold, New York, 1989.
9. Deleted
10. USEPA. Uncontrolled Hazardous Waste Site Ranking System. A User's Manual, Federal Register, Vol. 47, No. 137, 1982
11. Well Inventory Forms. Well Survey/House Count by NUS FIT IV on December 28, 1987.
12. Project Note from Robert Hutchison to Julie Knapp January 5, 1988.
13. Telecon with employee of Jacksonville Rudder Club, December 23, 1987.
14. Telecon with Dennis R. Dupries of the Department of Water Services, December 28, 1987.
15. U. S. fish and Wildlife Service - Region 4. Endangered and Threatened Species of the Southeastern United States, March 6, 1987 Update.
16. U. S. Geological Survey, Topographic Quadrangle Map 7.5 Minute Series, Scale - 1:24,000. Jacksonville Heights, FL Photorevised 1978, Orange Park, FL Photorevised 1970, Bayard, FL Photorevised 1970, Jacksonville, FL Photorevised 1982.

506
JGK
07/01/88

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5 TARGETS

Ground Water Use Value - 3, Score - 9

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Water from the shallow aquifer system is used primarily for domestic drinking water, particularly in areas not served by private or public utilities (Ref. 6, Atract). Two residences (owned by Warren Abel and George Cussell) were identified by NUS personnel who have no alternative source available to them (Ref. 11).

Distance to Nearest Well Value - 3

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

The nearest private well was identified by NUS personnel on Collins Road just south of the NAS. The well inventory form (Ref. 11) indicates that the well is owned by Warren Abel and is 150 feet deep.

Distance to above well or building:

The well is located approximately 2,376 feet south of Site No. 28 where PCB's were detected (Ref. 11; Ref. 16; Ref. 2, Appendix C, Section 8).

Population Served by Ground Water Wells Within a 3-Mile Radius Value - 2, Matrix Score - 16

Identify water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

Twenty-seven households which use well water from the shallow aquifer for drinking purposes were documented by NUS personnel (Ref. 11). These wells serve a total of 116 people and depths vary from 62 to an estimated 200 feet (Ref. 11). There are other reported shallow wells in the area but total population using the shallow aquifer is estimated to be fewer than 1,000 people (Ref. 12).

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

Not applicable

Total population served by ground water within a 3-mile radius:

Total population served is documented to be 116 people (Ref. 11).

Handwritten signature and date:
07/01/88

WELL INVENTORY FORM

*No alternative source
2 people on well*

OWNER

Name & Address of Resident

Warren Abel

4348 Collins Rd.

Orange Park

Telephone

264-9420

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well 150 ft.

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments

NO waterlines on this street

NUS Representative _____

Date _____

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

Robert F. Bradley
8586 Old Orange Park Rd.
Orange Park Fla.
264-2109

Telephone

*Does not know
accuracy of the depth*

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well ≈ 80 ft

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

NUS CORPORATION AND SUBSIDIARIES

TELECON NOTE

CONTROL NO:

DATE:

TIME:

December 23, 1987

1020

DISTRIBUTION:

BETWEEN:

OF:

PHONE:

Ed Liles

7545 Pinnacle
Jacksonville, Florida

(904) 781-1162

AND:

Julie Knapp, NUS Corporation

DISCUSSION:

Are you still using your well for drinking water? - Yes. Do any

of your neighbors use wells for drinking water: Yes, all of them.

How many houses are on your street? "I just don't know." "We're

all on wells." How deep is the well? "About fifty or sixty feet."

3 people on well re: Mrs. Liles 1/4/88 at Liles residence

ACTION ITEMS:

WELL INVENTORY FORM
2 people on well
OWNER

 Name & Address of Resident Glenn H. Rodden
5629 Ortega Farms Blvd
 Telephone 778-9746
WELL INFORMATION

 Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well 160 ft. Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

 Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD *E.W.* *Orange Park*

Record by *D.A. Bookley* Source *Field obs.* Date *6-24-68* *7.5 min. quad*

State *Florida* County *Duval* Section *17.6*

Latitude: *30.1443N* Longitude: *081.4244W* Sequential number: *7*

Local well number: *DS 8.5* Other number: *DS-88*

Local use: *0.35, 2.7E, 4.2* Owner or name: *Glenn H. Roddan*

Ownership: *Private* State Agency, Water Dist. *private*

Use of well: *domestic*

DATA AVAILABLE: Well data Frag. W/L meas.: *NONE* Field aquifer char.

Hyd. lab. data:

Qual. water data: Type: *Complete*

Frag. sampling: *ORIGINAL* Pumpage inventory:

Aperture cards: *8-6-65*

Log data:

WELL-DESCRIPTION CARD

WELL-DESCRIPTION CARD

Depth well: *16.5'* Accuracy: *RPTD*

Depth casing (first part): Casing type: Dim.

Finish: *concrete, (part.), (across), gallery, and, other*

Method: *air bored, cable, aug, hyd jacked, air percussion, rotary, other*

Date drilled: Pump intake setting:

Driller: Deep Shallow

Power: *Hand*

Descript. HP: ft above LSP, All. HP

Alt. LSP: *7'* Accuracy: *top map*

Water level: Accuracy:

Date meas: Method determined:

Drawdown: Accuracy: Pumping period:

QUALITY OF WATER DATA: Iron *0.4* Sulfate *4.8* Chloride *9.0* Hard *18.6*

Sp. Conduct: *395* x 10³ Temp. *8-6-65*

Taste, color, etc. *H₂S odor*

243

HYDROGEOLOGIC CARD

HYDROGEOLOGIC CARD

BASE AS ON MASTER CARD Physiographic Province: *Coastal Plain* Section: *Fla.*

Sec. *17.6* Drainage Basin: *St. Johns Riv.* Subbasin: *below Oklawaha*

Type of depression, stream channel, dunes, hilltop, sink, swamp,

Well site: *flat*

MAJOR AQUIFER: *1st, 2nd, 3rd* *A:A* *shallow*

Lithology: Origin: Aquifer thickness:

Length of well open to: ft Depth to top of: ft

SYSTEM: aquifer, formation, group

Lithology: Origin: Aquifer thickness:

Length of well open to: ft Depth to top of: ft

Intervals screened:

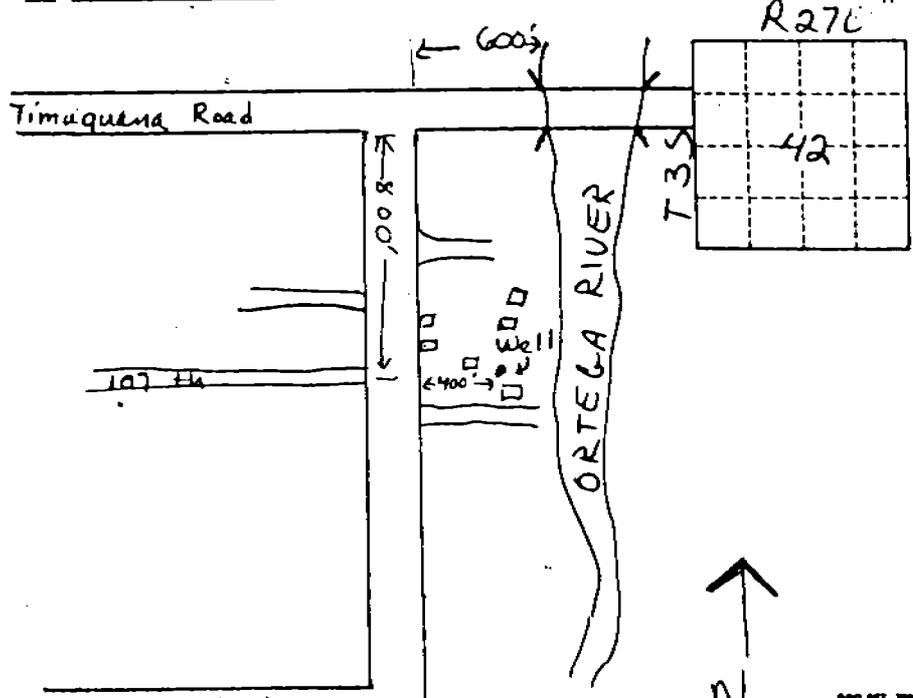
Depth to consolidated rock: ft Source of data:

Depth to basement: ft Source of data:

Surficial material: *sand* Infiltration characteristics: *good*

Coefficient of trans: sp4/ft Coefficient of storage:

Coefficient of trans: sp4/ft spm/ft; Number of geologic cards:



Well No. 301443N08142441

Well No. 301443N08142441

10-00

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident Glenn Rodden
5625 Ortega Farms Blvd
Telephone 771-2890

WELL INFORMATION

Approximate Location of Well _____
Date Well Drilled _____ Driller or Installer _____
Depth of Well 100 ft. Casing Type _____ Diameter _____
Screened Interval _____
Type of Pump _____ Pump Setting or Yield _____
Well Use _____ Number of Users _____
Any Tests Performed on Well _____
Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
Approximate Elevation _____
Estimated Static Water Level _____ Below Land Surface
Soil Type _____
Zone of Influence _____
Comments _____
NUS Representative _____
Date _____

WELL INVENTORY FORM

3 people on well

OWNER

Name & Address of Resident

Sherill Quarterman

5620

Ortega Farms Blvd

Telephone

778-1929

Does not accuracy of depth

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer

Depth of Well 80 ft.

Casing Type

Diameter

Screened Interval

Type of Pump

Pump Setting or Yield

Well Use

Number of Users

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level Below Land Surface

Soil Type

Zone of Influence

Comments

NUS Representative

Date

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

Myrtle Sileo
5623 Ortega Farms Rd

Telephone

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer

 Depth of Well ≈ 100 ft.

Casing Type

Diameter

Screened Interval

Type of Pump

Pump Setting or Yield

Well Use

Number of Users

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level

Below Land Surface

Soil Type

Zone of Influence

Comments

NUS Representative

Date

WELL INVENTORY FORM

Roger Jennings (778-3911)
 Club trailer

3 people on well

OWNER

Name & Address of Resident

Tim Williams

5256 Delphin Lane

Telephone

779-8286

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well 187'

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

Rents from Roger Jennings (778-3011)

@ least 2 people on well

OWNER

Name & Address of Resident Startson
5247 Delphia ~~St~~ Ln
 Telephone _____

WELL INFORMATION

Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well 187' Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL INVENTORY FORM
2 people on well
OWNER

Name & Address of Resident

Myo Grubbs
5125 Delphin Rd. Ln

Telephone

771-2098
WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

 Depth of Well 186 ft

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

Ken Downing
5163 Delphin Rd Ln

Telephone

777-1240

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer

Depth of Well ≈ 180 Ft

Casing Type

Diameter

Screened Interval

Type of Pump

Pump Setting or Yield

Well Use

Number of Users

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level

Below Land Surface

Soil Type

Zone of Influence

Comments

NUS Representative

Date

WELL INVENTORY FORM

3 people on well

OWNER

Name & Address of Resident John Ranz
5209 Delphin Rd. Ln.
 Telephone 772-6867

WELL INFORMATION

Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well ≈ 180 ft. Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL INVENTORY FORM

No alternative source

2 people on well

OWNER

Name & Address of Resident

George Russell
5222 Dolphin Lane

Telephone

778-2394

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer _____

Depth of Well 187 ft.

Casing Type _____ Diameter _____

Screened Interval

Type of Pump

Pump Setting or Yield _____

Well Use

Number of Users _____

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level

_____ Below Land Surface

Soil Type

Zone of Influence

Comments

no water lines on this street

NUS Representative

Date

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

Mr. Orman
5233 Delphin Rd Ln

Telephone

Neighbor (George Lussell) gave well depth

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer

Depth of Well 187 ft

Casing Type

Diameter

Screened Interval

Type of Pump

Pump Setting or Yield

Well Use

Number of Users

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level

Below Land Surface

Soil Type

Zone of Influence

Comments

NUS Representative

Date

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

D. R. Lucas
5160 Delphin Lane 72297

Telephone

778-8176

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well ≈ 200 ft.

Casing Type _____ Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____ Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____ Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

4 people on well

OWNER

Name & Address of Resident Doug Pate
5338 107th Street
 Telephone Private phone #

WELL INFORMATION

Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well less than 200" Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident John Floyd Cains
5107 107th Street
 Telephone 771-7659

WELL INFORMATION

Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well Not deeper than 100 ft. Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL INVENTORY FORM

2 people on well

OWNER

Name & Address of Resident

Henry Tquire
5200 107th Street

Telephone

778-3981

WELL INFORMATION

 Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

 Depth of Well *150 ft.*

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

 Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

3 people on well

OWNER

Name & Address of Resident A. W. Bennett
5389 107th Street
 Telephone 771-4638

WELL INFORMATION

Approximate Location of Well _____
 Date Well Drilled _____ Driller or Installer _____
 Depth of Well 160 ft. Casing Type _____ Diameter _____
 Screened Interval _____
 Type of Pump _____ Pump Setting or Yield _____
 Well Use _____ Number of Users _____
 Any Tests Performed on Well _____
 Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____
 Approximate Elevation _____
 Estimated Static Water Level _____ Below Land Surface
 Soil Type _____
 Zone of Influence _____
 Comments _____
 NUS Representative _____
 Date _____

WELL INVENTORY FORM

3 people on well

OWNER

Name & Address of Resident

Glenda Shirey
5337 107th Street

Telephone

771-0281

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well 150 ft.

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

4 people on well

OWNER

Name & Address of Resident

Anthony Dimeggio
5362 107th Street

Telephone

777-3828

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well 120 ft.

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

WELL INVENTORY FORM

7 people on well

OWNER

Name & Address of Resident

Clyde Cook
5354 107th Street

Telephone

778-4561

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____

Driller or Installer _____

Depth of Well ≈ 100 ft.

Casing Type _____

Diameter _____

Screened Interval _____

Type of Pump _____

Pump Setting or Yield _____

Well Use _____

Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____

Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

1 person at well

WELL INVENTORY FORM



OWNER

Name & Address of Resident

Roger Jennings
107th St.

Telephone

778-3811

WELL INFORMATION

Approximate Location of Well

Date Well Drilled

Driller or Installer

Depth of Well 187'

Casing Type

Diameter

Screened Interval

Type of Pump

Pump Setting or Yield

Well Use

Number of Users

Any Tests Performed on Well

Any Problems Noted by Well Owner

GENERAL INFORMATION

Approximate Distance to Site

Approximate Elevation

Estimated Static Water Level

Below Land Surface

Soil Type

Zone of Influence

Comments

NUS Representative

Date

WELL INVENTORY FORM

18 trailers in park
 Avg. well depth of each
 trailer well \approx 170 ft.
 manager indicated total of
 54 people in park.

OWNER

Name & Address of Resident

Bob Walter Owner of trailer park
5518 110th Street

54 people served
 by wells. Telephone

778-7863

WELL INFORMATION

Approximate Location of Well _____

Date Well Drilled _____ Driller or Installer _____

Depth of Well 170 ft. Casing Type _____ Diameter _____

Screened Interval _____

Type of Pump _____ Pump Setting or Yield _____

Well Use _____ Number of Users _____

Any Tests Performed on Well _____

Any Problems Noted by Well Owner _____

GENERAL INFORMATION

Approximate Distance to Site _____

Approximate Elevation _____

Estimated Static Water Level _____ Below Land Surface

Soil Type _____

Zone of Influence _____

Comments _____

NUS Representative _____

Date _____

NUS CORPORATION AND SUBSIDIARIES

TELECON NOTE

CONTROL NO:

DATE:

December 22, 1987

TIME:

0930

DISTRIBUTION:

1 person on well

BETWEEN:

Steve Pozio

OF: (Wesconnett)
5906 Manor Drive
Jacksonville, FL

PHONE:

(904) 778-1319

AND:

Julie Knapp, NUS Corporation

DISCUSSION:

Do you have a well?

Yes

Do you know how deep it is?

150 feet

Do you use it for drinking water?

Yes

Do you know if any of your neighbors are using wells?

Yes - Mr. Davison Timquana Rd. and the Bracketts on Lynn St. have wells.

Also the trailer park on Timquana probably has a well - I don't know the name.

ACTION ITEMS:

Davis number is not listed.

Brackett well is 175' deep.