

PART B

**GEORGIA HAZARDOUS WASTE FACILITY
PERMIT APPLICATION**

**SAFT America Inc.
711 Gil Harbin Industrial Blvd.
Valdosta, GA 31601**

**Submitted: March 28, 2024
Revised: May 14, 2024
Revised: November 8, 2024
Revised: November 12, 2024
Revised: March 4, 2025
Revised: April 22, 2025
Revised: June 25, 2025**

Prepared By:

**Mr. William O. Wildes, Jr.
Environmental Manager**

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APPENDICES

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(Geosyntec)
- Appendix C: Premises Pollution Liability Insurance Policy

HAZARDOUS WASTE PERMIT PART A FORM

EPA ID Number

G	A	D	0	6	3	1	5	2	5	7	3
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1. Facility Name

Saft America Incorporated

2. Reason for Submittal

First-Time Applicant

Modification (Check one)

Class 1 not requiring approval

Class 1 requiring approval

Class 2

Class 3

Renewal

3. Facility Existence Date (mm/dd/yyyy)

0	8	/	0	9	/	1	9	7	5
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4. Facility Status (Check all that apply)

Operating TSD

Post-Closure

HSWA Corrective Action

5. Facility Location Address

Street Address 711 Gil Harbin Industrial Boulevard			
City Valdosta	County Lowndes	State Georgia	Zip Code 31601
Latitude 308018N (30.8018)		Longitude 0832875W (-0832875W)	
Land Type:			
<input checked="" type="radio"/> Private	<input type="radio"/> Municipal	<input type="radio"/> County	<input type="radio"/> State
<input type="radio"/> Federal	<input type="radio"/> Other		

6. Facility Mailing Address

Same as Location Address

Street Address		
City	State	Zip Code

7. Facility Permit Contact

Full Name William Osborne Wildes, Jr. (Chip)	Title Environmental Manager
Phone 229-245-2898	Fax 229-247-8486
Email chip.wildes@saft.com	

8. Facility Permit Contact Mailing Address

Same as Location Address

Street Address		
City	State	Zip Code

9. Legal Owner and Operator of the Facility

Does the Facility have multiple owners and/or operators? If yes, please use Attachment 1.

Yes No

A. Name of Facility's Legal Owner

Same as Location Address

Full Name Saft America Inc.		Date Became Owner									
		0	8	/	0	9	/	1	9	7	5
Are there any previous owners of this Facility? If yes, please list in an attachment.										<input type="radio"/> Yes	<input checked="" type="radio"/> No
Owner Type											
<input checked="" type="radio"/> Private <input type="radio"/> Municipal <input type="radio"/> County <input type="radio"/> State <input type="radio"/> Federal <input type="radio"/> Other											
Street Address 711 Gil Harbin Industrial Boulevard											
City Valdosta											
State Georgia				Country Lowndes				Zip Code 31601			
Phone 229-247-2331				Fax 229-247-8486				Email jody.beasley@saft.com			

B. Name of Facility's Legal Operator

Same as Facility's Legal Owner

Full Name		Date Became Operator									
				/			/				
Are there any previous operators of this Facility? If yes, please list in an attachment.										<input type="radio"/> Yes	<input checked="" type="radio"/> No
Operator Type											
<input checked="" type="radio"/> Private <input type="radio"/> Municipal <input type="radio"/> County <input type="radio"/> State <input type="radio"/> Federal <input type="radio"/> Other											
Street Address											
City											
State				Country				Zip Code			
Phone				Fax				Email			

10. North American Industry Classification System (NAICS) Code(s) for the Facility (at least 5-digit codes)

A. (Primary) 335911	C.
B.	D.

11. Nature of Business

Manufacturing of Nickel-Cadmium batteries for aviation, rail, and telecommunications applications and collection of used Nickel-Cadmium batteries for recycling. Management of hazardous wastes exhibiting characteristic of toxicity for cadmium (D006) under 90-day accumulation period. The management of all hazardous waste is conducted under Large Quantity Generator status.

12. Other Environmental Permits

A. Permit Type	B. Permit Number														C. Description
S	3	6	9	1	-	0	9	2	-	1	2	0	9	0	Air Quality Permit
S	0	9	2	-	0	0	0	0	7						Groundwater Use Permit
N	G	A	R	0	0	0	0	0	0	0					NPDES Permit

13. Process Information

Line No.	A. Process Code	B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
		(1) Amount	(2) Unit of Measure		

14. Description of Hazardous Wastes

Line No.	A. EPA Hazardous Waste Code	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 14.D1)

15. Clean Closed Hazardous Waste Management Units (Do not include current Post-Closure Units)

Unit Name	Dates of Operation			Date of Clean Closure Certification, if applicable	Date of Clean Closure Equivalency Demonstration, if applicable
J-Mate Sludge Dryer	1986	to	1996		
Zinc-Air Battery and Electrolyte Recycling	1993	to	2007		
Ni-Cd Battery Draining/Processing	1993	to	2023	12/15/2023	
Permitted Hazardous Waste Storage Area	1993	to	2023	12/15/2023	

16. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the entire facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids under- ground. Include all springs, rivers, and other surface water bodies in this map area. Include drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. USGS 7.5-minute series topographic or orthophotographic maps are available for all areas of the state.

17. Facility Drawing

All existing facilities must include a scale drawing of the facility showing the location of all past, present, and proposed treatment, storage, and disposal areas, including but not limited to solid waste management units and areas of concern.

18. Photographs

All existing facilities must include dated photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. Use the process codes listed in item 14 to indicate the location of all storage, treatment, and disposal areas.

19. List of Affected Governments

Full Name Lowndes County Commissioners		Title Chairman, Bill Slaughter
Street Address 327 N. Ashley Street		
City Valdosta	State Georgia	Zip Code 31601

Full Name City of Valdosta		Title Mayor, Scott Matheson
Street Address 216 E. Central Avenue		
City Valdosta	State Georgia	Zip Code 31601

Full Name City of Hahira		Title Mayor, Bruce Cain
Street Address 102 S. Church Street		
City Hahira	State Georgia	Zip Code 31632

Full Name City of Remerton		Title Mayor, Cornelius Holesendolph
Street Address 1757 Poplar Street		
City Valdosta	State Georgia	Zip Code 31601

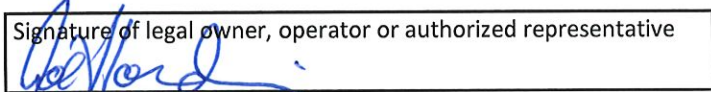
Full Name City of Lake Park		Title Mayor, Jena Sandlin
Street Address 120 N. Essa Street		
City Lake Park	State Georgia	Zip Code 31636

Full Name City of Dasher		Title Mayor, Bill Hatfield
Street Address 3686 US Highway 41 S		
City Valdosta	State Georgia	Zip Code 31601

20. Comments (include item number for each comment)

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21. **Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative 	Date (mm/dd/yyyy) 06/25/2025
Printed Name (First, Middle Initial, Last) Joe Hardison	Title General Manager
Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial, Last)	Title

Part B FACILITY DESCRIPTION

B-1 GENERAL DESCRIPTION [40CFR 270.14(b)(1)]

Saft America Inc. is located in the Azalea Industrial Park in Valdosta, Georgia. The street address is 711 Gil Harbin Industrial Boulevard, Valdosta, Georgia 31601.

The facility has manufactured nickel-cadmium cells and batteries at this location since 1975. Saft no longer stores or treats hazardous waste and closed its permitted hazardous waste storage area in 2023. However, Saft retains responsibility for the ongoing corrective action activities at the site in accordance with Georgia Department of Natural Resources, Environmental Protection Division (EPD) Hazardous Waste Facility Permit No. HW-001(CA) (permit). The regulated waste activities associated with the ongoing corrective action activities at the site are registered under U.S. Environmental Protection Agency (USEPA) ID No. GAD 063152573. Saft continues to generate hazardous waste that is managed in accordance with the accumulation time allowed large quantity generators.

The Saft facility covers approximately 64 acres and is located in an industrialized area known as the Azalea Industrial Park south of Valdosta, Georgia. The facility has been in continuous operation as Saft America Inc. since its construction in 1975.

Saft's operational activities include the manufacturing and storage of chemicals needed for making battery electrodes, nickel-cadmium battery assembly operations, and distribution of nickel-cadmium battery products for aviation, rail, rail trackside, standby power, and telecommunications applications. Saft also operates an on-site wastewater treatment facility which treats approximately 20 to 24 million gallons of water per year under its wastewater discharge permit with the City of Valdosta. Saft previously operated a permitted hazardous waste storage facility and treated D006 hazardous waste sludge by drying it in a sludge dryer under permit HW-001(S&T) until receiving permission in 2023 to manage its sludges exhibiting a characteristic of hazardous waste in accordance with 40 CFR 261.2, Table 1. The permit allowed Saft to store up to 200,000 gallons of D006 dried sludge and filtercake and 5,500 gallons of D002 battery electrolyte from off-site. The permit also allowed treatment (drying in a sludge dryer) of 224 gallons per day of D006 filtercake. The D006 dried sludge and filtercake wastes were temporarily stored in appropriate containers until they were shipped off to a permitted TSD facility (metal reclaimer). The D002 used electrolyte was temporarily stored until it was used in wastewater treatment for pH control. The permitted hazardous waste storage area was cleaned for closure, and a Permitted Storage Facility Closure Report dated December 2022 describing the closure activities and findings was submitted to Georgia EPD. After reviewing the surface wipe sample data submitted in Saft's December 2022 closure report, EPD determined that the proposed cleanup criteria was not an acceptable method based on its use of OSHA Permissible Exposure Limits (PELs) which OSHA acknowledges on their website as being outdated and inadequate for ensuring protection of

worker health. Since the PELs are outdated and there is insufficient evidence to correlate air concentrations to surface contamination, EPD's Risk Assessment Unit (RAU) developed their own preliminary risk screening criteria that identified hexavalent chromium as exceeding the risk-based cleanup value and requested that rinseate samples be taken from the trench/sump system and the electrolyte drain table tank to confirm the presence or absence of any residual hexavalent chromium remaining in these areas. In accordance with EPD's February 20, 2023, comments, rinseate samples were collected on February 23, 2023, and sent to Eurofins for testing. All rinseate sample results for hexavalent chromium were reported to be below Method 218.7 method detection limits. This information was submitted to EPD for review. In response to a December 7, 2023, request from EPD, a final permitted storage facility closure report dated December 2023 and a certificate of closure was submitted to EPD on December 15, 2023. The December 2023 report summarizes the first report, the following request for additional testing, the results of that additional testing, and Saft's conclusion that the additional testing results coupled with the preliminary risk screening criteria developed by EPD's Risk Assessment Unit for the surface wipe sample data demonstrate that the decontamination activities performed successfully reduced RCRA metals, nickel, and hexavalent chromium to levels that pose no threats to human health or to the environment.

The facility maintains permit HW-001(CA) for ongoing corrective action obligations associated with SWMUs. There is currently no permitted hazardous waste storage or hazardous waste treatment at the facility. Temporary storage of waste that is generated by the facility's ongoing manufacturing operations does occur onsite and that waste is stored onsite for up to 90 days under the current large quantity generator status.

B-2 FACILITY AND TOPOGRAPHIC MAPS [40 CFR 270.14]

B-2a General Requirements [40 CFR 270.14(b)(19)]

The following maps are located at the end of this part:

- Figure 1 is a USGS 7.5-Minute Series, Valdosta Quadrangle Site Vicinity Map.
- Figure 2a is a facility map and topographic map (with contours sufficient to show surface water flow) showing the legal boundaries of the facility, buildings and structures, the former permitted wastewater treatment location, the former permitted storage location, 100-year flood plain line, surface waters (Mud Creek), access control (security fencing and gates), withdrawal well locations, access and internal roads, sanitary sewer location, stormwater drainage and barriers for stormwater runoff control, loading/unloading areas, the facility's stormwater equipment shed location, the stormwater and Mud Creek surface water and sediment sampling locations, and a wind rose map.
- Figure 2b is a Solid Waste Management Unit and topographic map similar to Figure 2a and specifically featuring the locations of the site's three closed Hazardous Waste Management Units (HWMUs) and the site's Solid Waste Management Units (SWMUs) 1 through 11.

- Figure 2c is a 1,000-foot radius aerial photograph and topographic map showing the Saft facility, surrounding properties, and surrounding land uses (all zoned M-1 and M2).
- Figure 3 shows the 100-year plain water flood for the Industrial Park area.
- Figure 4 is a Valdosta regional wind rose map.
- Figure 5 is Figure 6.1 from the August 1994 OHM Remediation Services Corporation RCRA Facility Investigation Report that has been renamed and modified to more clearly show SWMU 9 and SWMU 10 components.

This site has no injection wells within a 1000-foot radius of the facility, no treatment or storage areas, no runoff control systems, and no fire control facility.

B-2b Additional Information on the Topographic Map for Land Disposal Facilities [40 CFR 270.14(c)(3)]

This facility is not a land disposal facility. Therefore, additional information is not required.

B-3 LOCATION INFORMATION [40 CFR 270.14(b)(11)(i) and (ii); 264.18(a)]

B-3a Seismic Requirements [40 CFR 270.14(b)(11)(i) and (ii); 264.18(a)]

Because this is an existing rather than a new facility, and it is not a political jurisdiction specified in 40 CFR 264, Appendix VI, the seismic standard does not apply.

B-3b Flood Plain Standard [40 CFR 270.14(b)(11)(iii), 264.18(b)]

Figure 3 is a USGS website-generated map with a June 2024 map date. The map shows Saft's property outlined in black and the 100-year flood plain area in blue and outlined in white. The map shows that Saft's property is not located within the 100-year flood plain area.

B-4 TRAFFIC PATTERNS [40 CFR 270.14(b)(10)]

The requirements under this section are not applicable since hazardous waste that requires a permit is no longer stored, treated, or otherwise managed at this facility.

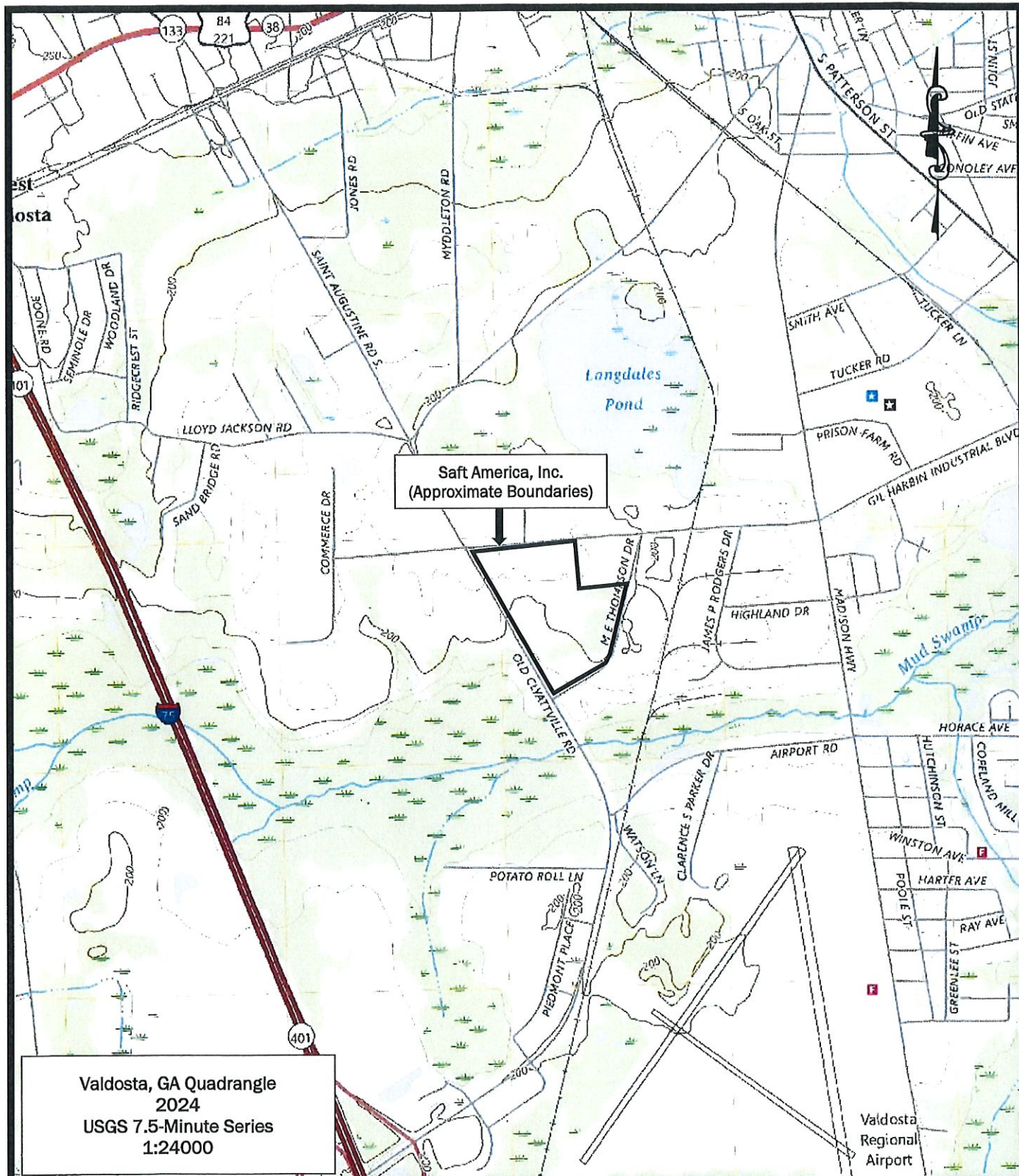


FIGURE 1
Site Vicinity Map
711 Gil Harbin Industrial Boulevard
Valdosta, Georgia

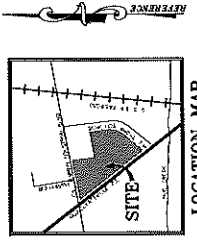
DATE	DESCRIPTION	BY

SAFT AMERICA, INC.
 FACILITY MAP FOR
AZALEA CITY INDUSTRIAL PARK
 CITY OF VALDOSTA, LOWNDES COUNTY, GA

ASA ENGINEERING & SURVEYING, INC.
 400 W. COLLETTA RD. - VALDOSTA, GA 31601
 TEL: 706/266-0500

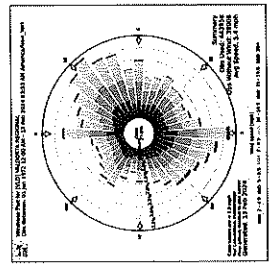
FIGURE
2 B

SHEET
 1 OF 1

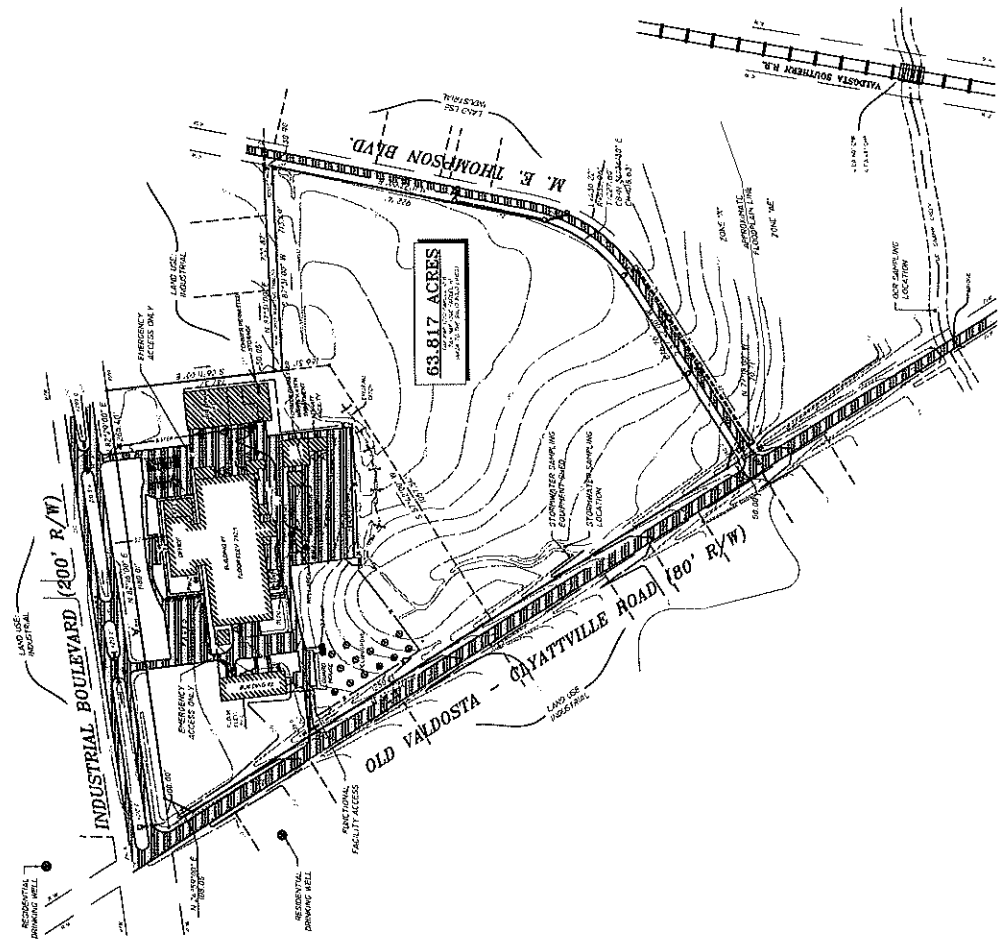


SYMBOL LEGEND

	PROPOSED BUILDING FOOTPRINT
	PROPOSED DRIVEWAY
	PROPOSED LOT LINES
	EXISTING LOT LINES
	EXISTING DRIVEWAY
	EXISTING ROAD
	EXISTING FENCE
	EXISTING UTILITY LINES
	EXISTING EASEMENTS
	EXISTING SURVEY MARKS
	EXISTING TREES
	EXISTING TOPOGRAPHIC CONTOURS
	EXISTING PROPERTY LINES
	EXISTING EASEMENTS
	EXISTING UTILITIES
	EXISTING FENCES
	EXISTING DRIVEWAYS
	EXISTING ROADS



THIS COMPANY WAS ENGINEERED BY ASA ENGINEERING & SURVEYING, INC.
 (A) PROFESSIONAL ENGINEER, STATE OF GEORGIA, NO. 12345.
 (B) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 67890.
 (C) PROFESSIONAL LAND SURVEYOR, STATE OF GEORGIA, NO. 12345.
 (D) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 67890.
 (E) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 12345.
 (F) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 67890.
 (G) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 12345.
 (H) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 67890.
 (I) PROFESSIONAL SURVEYOR, STATE OF GEORGIA, NO. 12345.



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 Call below
 1-800-282-7411
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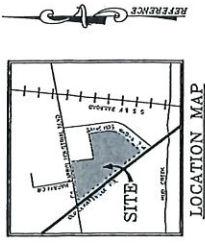
DATE	REV	DESCRIPTION
08/23/99	1	ISSUED FOR PERMITTING
08/23/99	2	REVISED TO REFLECT COMMENTS
08/23/99	3	REVISED TO REFLECT COMMENTS
08/23/99	4	REVISED TO REFLECT COMMENTS
08/23/99	5	REVISED TO REFLECT COMMENTS
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08/23/99	12	REVISED TO REFLECT COMMENTS
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08/23/99	19	REVISED TO REFLECT COMMENTS
08/23/99	20	REVISED TO REFLECT COMMENTS

HAZARDOUS WASTE MANAGEMENT UNIT AND
SAFT AMERICA, INC.
 AZALEA CITY INDUSTRIAL PARK
 CITY OF VALDOSTA, LOWDES COUNTY, GA

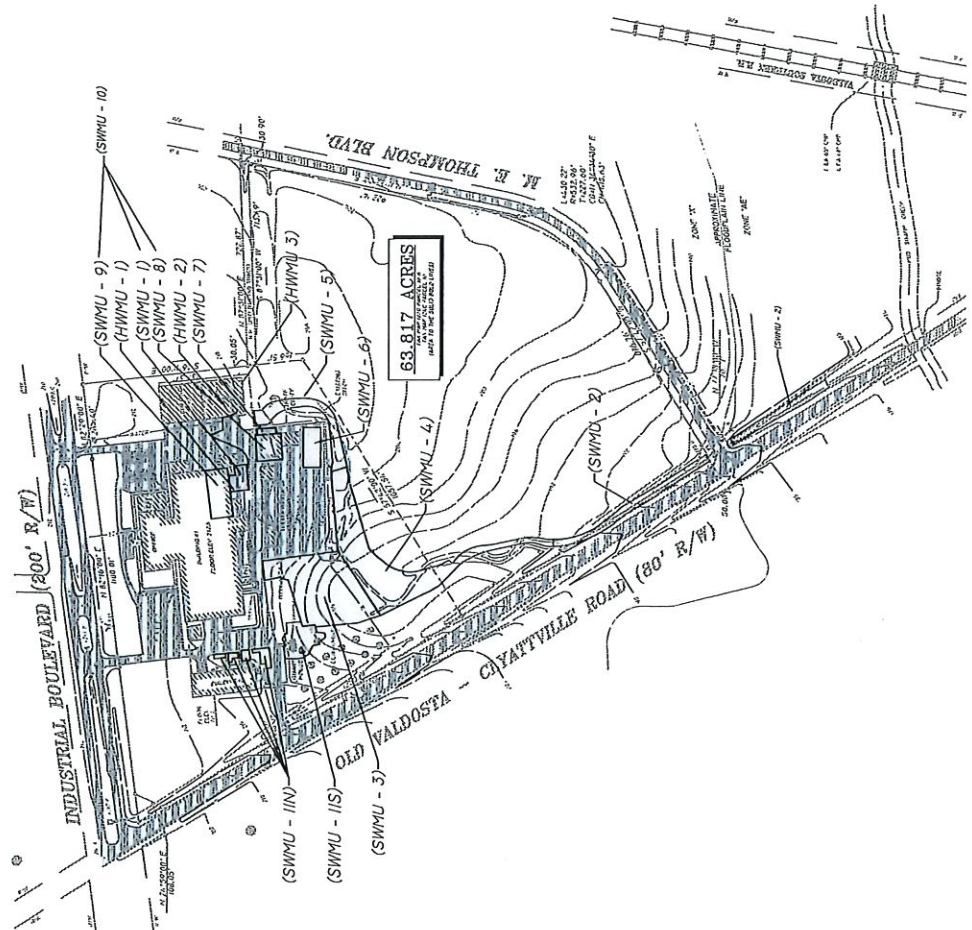


FIGURE
2b

WORK ORDER: 5199
 SHEET
 1 OF 1



NUMBER	DESCRIPTION
1	THE J-MATE SLUDGE DRYER AND ITS RELATED FILTERPRESS BEGAN OPERATIONS ON THE CHEMICAL PLANT PATIO IN 1986 AND WAS CLOSED IN 1996.
2	ELECTROLYTE RECYCLING OPERATIONS BEGAN IN THE RECYCLE FACILITY LOCATED IN THE SOUTH END OF BUILDING 3 IN 1993 AND WERE CLOSED IN 2007.
3	THE FORMER HAZARDOUS WASTE PERMITTED STORAGE AREA OPERATIONS IN THE SOUTH END OF BUILDING 3 IN 1993 AND WAS CLOSED IN 2023.



NUMBER	DESCRIPTION
1	CHEMICAL PLANT 10,000 GALLON TANKS WERE REMOVED AND DISPOSED DURING THE 1998-1999 SOIL REMEDIATION PROJECT. GROUNDWATER CORRECTIVE ACTION CONTINUES.)
2	CLAYVILLE DITCH (REMEDiated DURING 1998-1999 SOIL REMEDIATION PROJECT. NO FURTHER ACTION REQUIRED AT THIS TIME.)
3	BEGAN GROVE BOTTOM (REMEDiated DURING 1998-1999 SOIL REMEDIATION PROJECT. NO FURTHER ACTION REQUIRED AT THIS TIME.)
4	PROPERTY DRAINAGE DITCH (REMEDiated DURING 1998-1999 SOIL REMEDIATION PROJECT. NO FURTHER ACTION REQUIRED AT THIS TIME.)
5	TRUCKWELL DRAIN PIPE (REMEDiated DURING 1998-1999 SOIL REMEDIATION PROJECT. NO FURTHER ACTION REQUIRED AT THIS TIME.)
6	CLOSED CONTAINER STORAGE AREA (REMEDiated DURING 1998-1999 SOIL REMEDIATION PROJECT. NO FURTHER ACTION REQUIRED AT THIS TIME.)
7	SOLVENT STORAGE AREA (OPERATIONS CEASES PRIOR TO JULY 1992. SOIL INVESTIGATIONS YIELDED NO CONCERNS. NO FURTHER ACTION IS REQUIRED.)
8	WASTEWATER TREATMENT UNIT AND APPURTENANCES (AS DOCUMENTED IN THE OHM REMEDIATION SERVICES CORPORATION RCRA FACILITY INVESTIGATION REPORT DATED AUGUST 1994. ADDRESS DURING RFI INVESTIGATION.)
9	ALL TRANSPORT LINES USED TO TRANSPORT WASTE (AS DOCUMENTED IN THE OHM REMEDIATION SERVICES CORPORATION RCRA FACILITY INVESTIGATION REPORT DATED AUGUST 1994. ADDRESS DURING RFI INVESTIGATION.)
10	ALL SWMUS USED TO COLLECT WASTE (AS DOCUMENTED IN THE OHM REMEDIATION SERVICES CORPORATION RCRA FACILITY INVESTIGATION REPORT DATED AUGUST 1994. ADDRESS DURING RFI INVESTIGATION.)
11	BUILDING 2 FORMER BURN AREA (AS DOCUMENTED IN THE OHM REMEDIATION SERVICES CORPORATION RCRA FACILITY INVESTIGATION REPORT DATED AUGUST 1994. ADDRESS DURING RFI INVESTIGATION.)

Keep clean below
 811
 Call before you dig.
 1-800-282-2727
 UTILITIES PROTECTION CENTER
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Figure 2b



PHOTO DATE 2/8/2020

Property Line M-2 Manufacturing & Distribution CON Conservation
 1000 FT Radius M-1 Restricted Industrial C-H Commercial Highway

Figure 2c



NO.	DATE	DESCRIPTION
1	1/1/20	ISSUED FOR PERMITTING
2	1/15/20	REVISED PER COMMENTS
3	1/22/20	REVISED PER COMMENTS
4	1/29/20	REVISED PER COMMENTS
5	2/5/20	REVISED PER COMMENTS
6	2/12/20	REVISED PER COMMENTS
7	2/19/20	REVISED PER COMMENTS
8	2/26/20	REVISED PER COMMENTS
9	3/5/20	REVISED PER COMMENTS
10	3/12/20	REVISED PER COMMENTS
11	3/19/20	REVISED PER COMMENTS
12	3/26/20	REVISED PER COMMENTS
13	4/2/20	REVISED PER COMMENTS
14	4/9/20	REVISED PER COMMENTS
15	4/16/20	REVISED PER COMMENTS
16	4/23/20	REVISED PER COMMENTS
17	4/30/20	REVISED PER COMMENTS
18	5/7/20	REVISED PER COMMENTS
19	5/14/20	REVISED PER COMMENTS
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23	6/11/20	REVISED PER COMMENTS
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40	10/8/20	REVISED PER COMMENTS
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76	6/24/21	REVISED PER COMMENTS
77	7/1/21	REVISED PER COMMENTS
78	7/8/21	REVISED PER COMMENTS
79	7/15/21	REVISED PER COMMENTS
80	7/22/21	REVISED PER COMMENTS
81	7/29/21	REVISED PER COMMENTS
82	8/5/21	REVISED PER COMMENTS
83	8/12/21	REVISED PER COMMENTS
84	8/19/21	REVISED PER COMMENTS
85	8/26/21	REVISED PER COMMENTS
86	9/2/21	REVISED PER COMMENTS
87	9/9/21	REVISED PER COMMENTS
88	9/16/21	REVISED PER COMMENTS
89	9/23/21	REVISED PER COMMENTS
90	9/30/21	REVISED PER COMMENTS
91	10/7/21	REVISED PER COMMENTS
92	10/14/21	REVISED PER COMMENTS
93	10/21/21	REVISED PER COMMENTS
94	10/28/21	REVISED PER COMMENTS
95	11/4/21	REVISED PER COMMENTS
96	11/11/21	REVISED PER COMMENTS
97	11/18/21	REVISED PER COMMENTS
98	11/25/21	REVISED PER COMMENTS
99	12/2/21	REVISED PER COMMENTS
100	12/9/21	REVISED PER COMMENTS

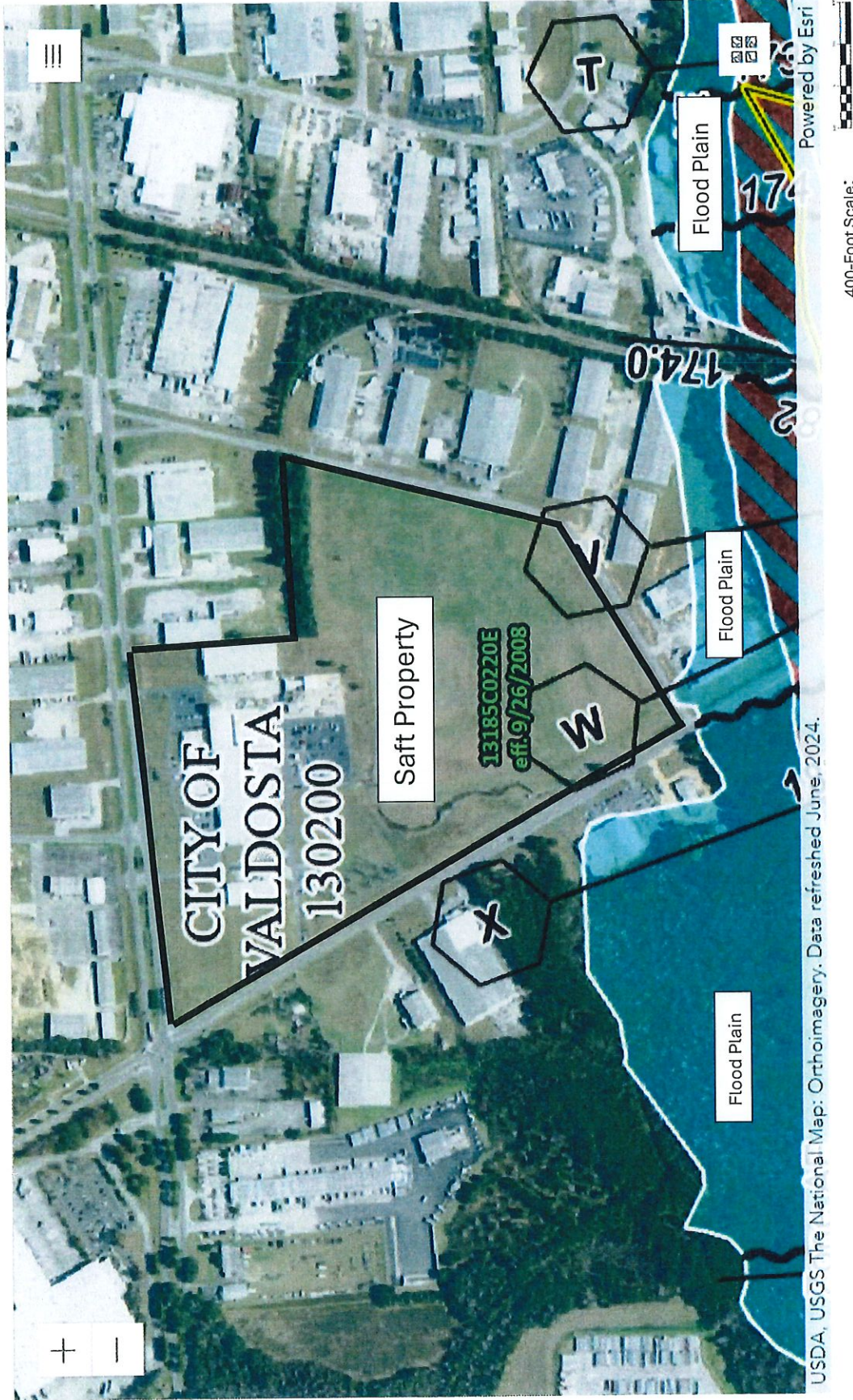
1,000' RADII MAP FOR
 SAFT AMERICA, INC.
 AZALEA CITY INDUSTRIAL PARK
 CITY OF VALDOSTA, LOWNDERS COUNTY, GA



FIGURE
 2C

DATE: 1/1/21
 DRAWN BY: JLD
 CHECKED BY: JLD

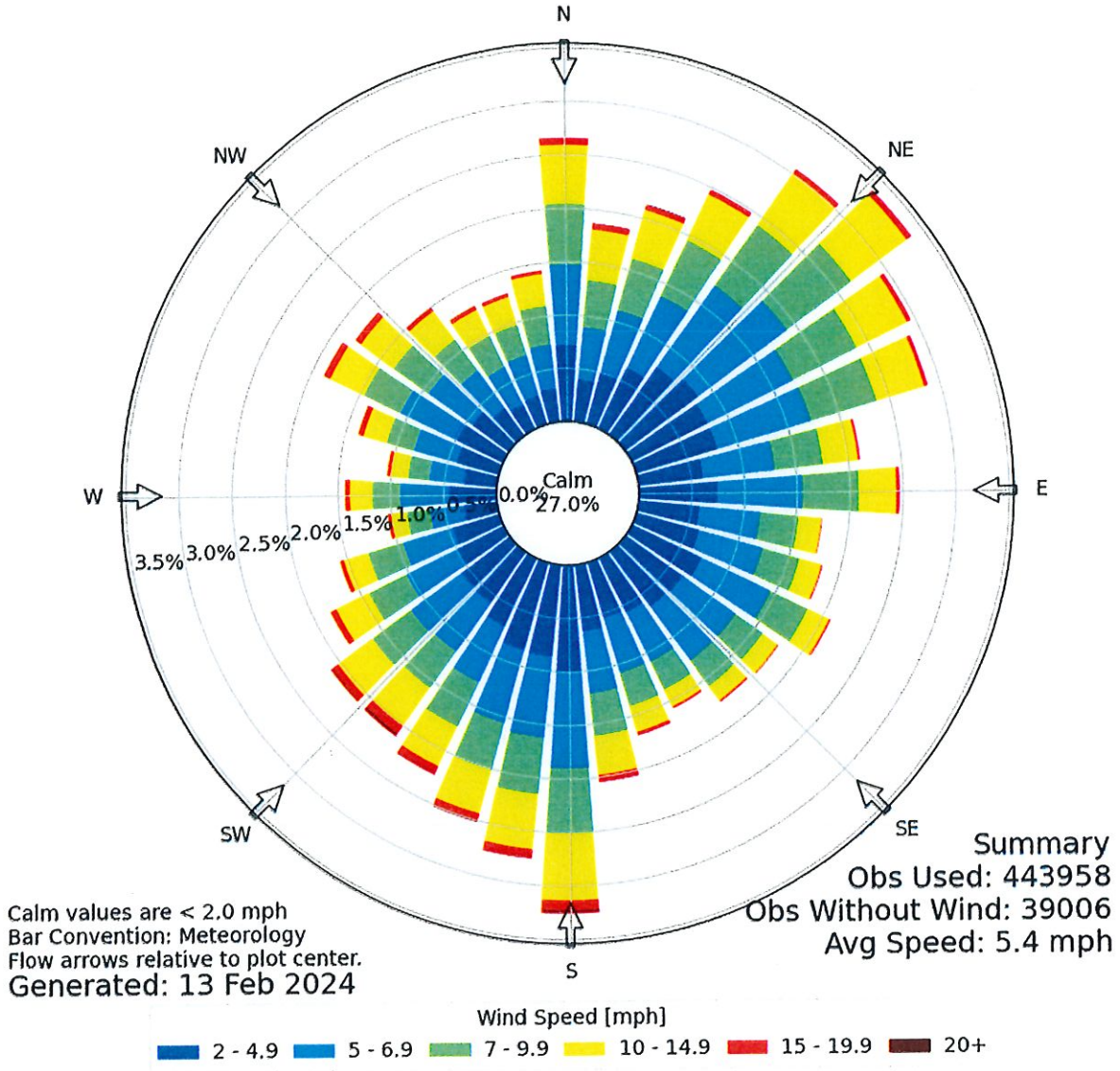




FLOODED ZONES SUBJECT TO 100-YEAR FLOODS
 USGS The National Map: Orthoimagery. Data refreshed: June 2024
 Map Date: June 2024
 FIGURE 3



Windrose Plot for [VLD] VALDOSTA REGIONAL
Obs Between: 01 Jan 1972 12:00 AM - 13 Feb 2024 03:53 AM America/New_York



WIND ROSE MAP

FIGURE 4



SWMU #9

- VASTRETRON A
- VASTRETRON B
- VASTRETRON C
- VASTRETRON D
- VASTRETRON E
- VASTRETRON F
- SEGMENTED VASTRETRON SECTION
- DEFERRED VASTRETRON SECTION
- SPONSOR VASTRETRON SECTION

SWMU #10

See Sumps S-1 through S-29
Highlighted in Yellow

LEGEND

- VASTRETRON A
- VASTRETRON B
- VASTRETRON C
- VASTRETRON D
- VASTRETRON E
- VASTRETRON F
- SEGMENTED VASTRETRON SECTION
- DEFERRED VASTRETRON SECTION
- FLUX SECTION
- VASTRETRON COLLECTION SUMP
- BRAN
- CLEANOUT
- ALL PIPING DIMENSIONS ARE TO SCALE

OHM Remediation Services Corp.
A Division of OHM Corp.

DRAWN BY	J. COLLINS	8/15/94
CHECKED BY	J. MILLER	8/15/94
APPROVED BY	P. LEDFORD	8/15/94

REV. 1 SHEET 7 DRAWING NO. CAUD FILE CHEMPLDING 9

FIGURE 5
SWIMU #9 AND
SWIMU #10
CHEMICAL TANK FARM FLOOR
DRAINS INFLUENT LINE
NETWORK AND 10,000 GALLON
PUMP
PREPARED FOR
SHELL OIL CO.
VALDOSTA, GEORGIA
PROJECT No. 16318

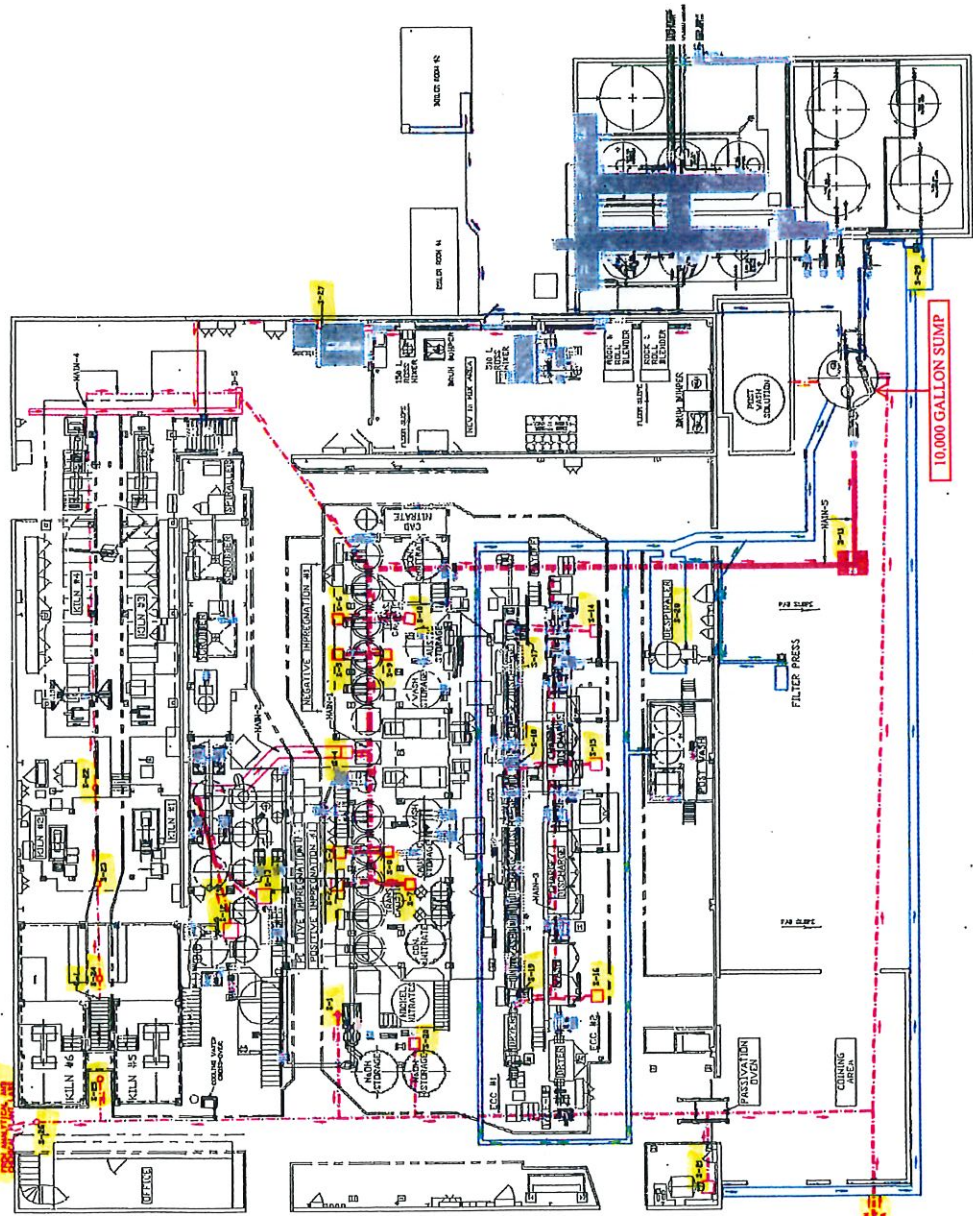


FIGURE 5

DESIGNED BY SHELL OIL CO. INC. DRAWING FILED, CHECKED AND ASSISTING

PART C
WASTE CHARACTERISTICS

Saft formerly operated one regulated hazardous waste storage area under Permit HW-001(S&T). The permitted storage area was located inside Building 3 on the south end of the building. The permit allowed Saft to store up to 200,000 gallons of D006 dried sludge and filtercake and 5,500 gallons of D002 battery electrolyte from off-site. The D006 wastes were temporarily stored in appropriate containers until they were shipped off to a permitted TSD facility (metal reclaimer). The D002 used electrolyte was temporarily stored until it was used in wastewater treatment for pH control. This facility was certified as being cleaned and closed in accordance with Saft's Permitted Hazardous Waste Storage Area Closure Plan on December 5, 2023. Saft submitted a final permitted storage facility closure report dated December 2023 and a certificate of closure to EPD on December 15, 2023. After receiving permission from GA EPD in 2023, Saft manages its sludges exhibiting a characteristic of hazardous waste in accordance with 40 CFR 261.2 Table 1.

C-1 CHEMICAL AND PHYSICAL ANALYSES [40 CFR 270.14(b)(2), 264.13(a)]

Not Applicable.

PART D

PROCESS INFORMATION

Saft formerly operated one regulated hazardous waste storage area under Permit HW-001(S&T). The permitted storage area was located inside Building 3 on the south end of the building. The permit allowed Saft to store up to 200,000 gallons of D006 dried sludge and filtercake and 5,500 gallons of D002 battery electrolyte from off-site. The D006 wastes were temporarily stored in appropriate containers until they were shipped off to a permitted TSD facility (metal reclaimer). The D002 used electrolyte was temporarily stored until it was used in wastewater treatment for pH control. This facility was certified as being cleaned and closed in accordance with Saft's Permitted Hazardous Waste Storage Area Closure Plan on December 5, 2023. Saft submitted a final permitted storage facility closure report dated December 2023 and a certificate of closure to EPD on December 15, 2023. Investigation and corrective action are the only ongoing activities covered by this permit at this site as of the date of this permit application.

- D-1 CONTAINERS [40 CFR 270.15, 264.170]**
Not Applicable.
- D-2 TANK SYSTEMS [40 CFR 270.16; 264.191 through 264.194]**
Hazardous wastes are not managed in tank systems at this facility.
- D-3 WASTE PILES [40 CFR 270.18; 264.250 through 264.259]**
Hazardous wastes are not managed in waste piles at this facility.
- D-4 SURFACE IMPOUNDMENTS [40 CFR 264.220 through 264.232]**
Hazardous wastes are not managed in surface impoundments at this facility.
- D-5 INCINERATORS [40 CFR 270.19, 264.340]**
Hazardous wastes are not treated in incinerators at this facility.
- D-6 LANDFILLS [40 CFR 270.21; 264.300 through 264.317]**
Hazardous wastes are not disposed of in landfills at this facility.
- D-7 LAND TREATMENT [40 CFR 270.20; 264.270 through 264.283]**
Hazardous wastes are not managed in land treatment units at this facility.
- D-8 MISCELLANEOUS UNITS [40 CFR 270.23 and 264.601]**
Hazardous wastes are not managed in miscellaneous units at this facility.

Saft America Inc.
711 Gil Harbin Industrial Blvd.
Valdosta, GA 31601

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- D-9 BOILERS AND INDUSTRIAL FURNACES (BIF) [40 CFR 270.22]**
Hazardous wastes are not managed in boilers or industrial furnaces at this facility.
- D-10 CONTAINMENT BUILDINGS [40 CFR 270.14(a), (b) and 264.1100 through 264.1102]**
Hazardous wastes are not managed in containment buildings at this facility.
- D-11 DRIP PADS [40 CFR 270.26, 264.570 through 264.575]**
Hazardous wastes are not managed on drip pads at this facility.

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PART E
GROUNDWATER MONITORING

In accordance with 40 CFR 265.90(a), information regarding ground-water monitoring is required from owners or operators of a surface impoundment, landfill, or land treatment facility. This site is not one of the listed facility types. Therefore, the groundwater monitoring requirements specified are not applicable to this facility.

Saft America Inc.
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Valdosta, GA 31601

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PART F
PROCEDURES TO PREVENT HAZARDS

The requirements under subsection F-1 through F-5 are not applicable since hazardous waste that requires a permit is no longer stored, treated or otherwise managed at this facility.

Saft America Inc.
711 Gil Harbin Industrial Blvd.
Valdosta, GA 31601

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PART G
CONTINGENCY PLAN

The requirements under subsections G-1 through G-8 are not applicable since hazardous waste that requires a permit is no longer stored, treated or otherwise managed at this facility.

Saft America Inc.
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Valdosta, GA 31601

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PART H PERSONNEL TRAINING

The requirements under subsections H-1 through H-2 are not applicable since hazardous waste that requires a permit is no longer stored, treated or otherwise managed at this facility.

PART I

**CLOSURE PLAN, POST-CLOSURE PLAN,
AND
FINANCIAL REQUIREMENTS**

This section is submitted in accordance with the requirements of 40 CFR, 264.111 through .115, 264.197, 270.14 (b)(15), 270.14(b)(19), and 270.14 (d)(1). The plan identifies all steps that are necessary for facility closure at the end of its operating life.

Saft formerly operated as regulated hazardous waste storage units 1) a J-Mate Sludge Dryer, 2) a Zinc-Air Battery and Electrolyte Recycling operation, and 3) a Permitted Storage Area :

- 1) Saft operated a J-Mate sludge dryer located on the Chemical Plant Patio between 1986 and 1996. The sludge dryer was used to dry nickel and cadmium hydroxide filtercake to reduce its volume and weight prior to shipment for recycling.
- 2) Saft operated a Zinc-Air Battery and Electrolyte Recycling operation located in the Recycle Facility in the south end of Building 3 between 1993 and 2007. This operation involved draining electrolyte from used zinc-air batteries and recovering what remained of the zinc electrodes and copper connectors for sale as scrap metal. The electrolyte was processed for recovery of dissolved zinc as zinc hydroxide as a filtercake. The zinc hydroxide was sold as a micronutrient for making fertilizer. Saft submitted a closure letter and a certificate of closure to EPD on August 21, 2007.
- 3) The Permitted Storage Area was located inside Building 3 on the south end of the building. The permit allowed Saft to store up to 200,000 gallons of D006 dried sludge and filtercake and 5,500 gallons of D002 battery electrolyte from off-site. The D006 wastes were temporarily stored in appropriate containers until they were shipped off to a permitted TSD facility (metal reclaimer). The D002 used electrolyte was temporarily stored until it was used in wastewater treatment for pH control. This facility was certified as being cleaned and closed in accordance with Saft's Permitted Hazardous Waste Storage Area Closure Plan on December 5, 2023. Saft submitted a final permitted storage facility closure report dated December 2023 and a certificate of closure to EPD on December 15, 2023.

No hazardous waste unit remained following the closure of these former permitted hazardous waste storage units. Investigation and corrective action are the only activities covered by this permit and underway at this site as of the date of this permit application. Therefore, sections of this Part pertaining to Closure Plans and Post Closure Plans are not applicable.

A post-closure plan is not required since this facility is not, nor has it ever been a waste pile, surface impoundment, or landfill disposal facility.

Saft will prepare an RFI work plan for the investigation and remediation of the five Solid Waste Management Units with known historical contamination located under buildings or concrete/pavement when the facility ceases operations and permanently closes or, if prior to the facility ceasing operations, conditions at any of the five SWMUs change and are observed to potentially be a threat to human health and the environment. The estimated costs to prepare an RFI work plan, perform the RFI investigation, prepare an RFI report and prepare a Corrective Action Plan are provided in Appendix A.

I-1 CLOSURE PLANS

[(40 CFR 264.112; 264.178; 264.197; 270.14(b)(13)]

I-1a Closure Performance Standard

[40 CFR 270.14(b)(13); 264.111]

Not applicable, as no hazardous waste unit remains on-site following closure of the former hazardous waste storage area.

I-1b Time and Activities Required for Partial Closure and Final Closure Activities

[40 CFR 270.14(b)(13); 264.112(b)(1) through 264.112(b)(7)]

Not applicable.

I-1c Maximum Waste Inventory

[40 CFR 270.14(b)(13); 264.112(b)(3)]

Not applicable.

I-1d Schedule for Closure

[40 CFR 270.14(b)(13); 264.112(b)(6)]

Not applicable.

I-1d(1)(a) Extension for Closure Time

[40 CFR 270.14(b)(13); 264.113(a) and (b)]

Not applicable.

I-1e Closure Procedures

[40 CFR 270.14(b)(13); 264.112; 264.114]

Not applicable.

I-1e(1) Inventory Removal

[40 CFR 270.14(b)(13); 264.112(b)(3)]

Not applicable.

I-1e(2) Disposal or Decontamination of Equipment, Structure, and Soils

[40 CFR 270.14(b)(13); 264.112(b)(4); 264.114]

Not applicable.

I-1e(3) Closure of Disposal Units/Contingent Closures

[40 CFR 270.14(b)(13)]

Not applicable.

I-1e(4) Closure of Containers

[40 CFR 270.14(b)(13); 264.178; 264.112(b)(3); 270.14(b)(13)]

Not applicable.

I-1e(5) Closure of Tanks

[40 CFR 270.14(b)(13); 264.197; 264.112(b)(3)]

No hazardous wastes are stored in tanks at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(6) Closure of Waste Piles

[40 CFR 270.14(b)(13); 270.18(h); 264.258]

There are no waste piles on-site at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(7) Closure of Surface Impoundments

[40 CFR 270.14(b)(13); 270.17(f); 264.228(a)(1),(2), and (b)]

There are no surface impoundments on-site at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(8) Closure of Incinerators

[40 CFR 270.14(b)(13); 264.351]

There are no incinerators on-site at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(9) Closure of Landfills

[40 CFR 270.14(b)(13); 270.21(e); 264.310(a)]

There are no landfills at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(10) Closure of Land Treatment Facilities

[40 CFR 270.14(b)(13); 264.280(a); 270.20(f)]

This facility is not a land treatment facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(11) Closure of Miscellaneous Units

[40 CFR 270.14(b)(13); 270.14(b)(13); 270.23(a)(2)]

There are no miscellaneous disposal units at the facility. Therefore, completion of this section is not applicable to this Permit Application.

I-1e(12) Closure of Boilers and Industrial Furnaces

[40 CFR 270.14(b)(13); 266.102(a)(2)(vii)]

Hazardous wastes are not managed in boilers or industrial furnaces at this facility.

I-1e(13) Closure of Containment Buildings

[40 CFR 270.14(b)(13); 264.1102]

Hazardous wastes are not managed in containment buildings at this facility.

I-2 POST-CLOSURE PLANS

[40 CFR 264.118 and 270.14(b)(13)]

Not Applicable

I-3 Notice in Deed and Notice in Local Land Authority (40 CFR 264.120)

Not Applicable

I-4 CLOSURE COST ESTIMATE

[40 CFR 264.142 and 270.14(b)(15)]

Closure of the regulated units has previously been accomplished, and the cost estimate contained in this section pertains to the following tasks: A 30-year cost estimate for the remediation and monitoring of contaminated groundwater at SWMU #1 (Chemical Patio 10,000 Gallon Underground Sump), and a separate cost estimate for the investigation and remediation of the 5 SWMUs identified as requiring investigation at the time the facility ceases operations is also provided. Both of these cost estimates can be found in Appendix A. The total of these cost estimates will equal the total amount of funds required for financial assurance. The closure and corrective action cost estimates will be updated for inflation and submitted to GA EPD annually.

I-5 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE

[40 CFR Sections 270.14 (b)(15); 264.143 and 264.151]

Saft will utilize letters of credit accompanied by a standby trust agreement to cover closure and corrective action obligations. The letters of credit and standby trust agreement documents are included in this permit application in Appendix A. The closure and corrective action cost estimates and their corresponding financial assurance mechanism(s) will be updated for inflation and submitted to GA EPD annually.

I-6 POST-CLOSURE COST ESTIMATE
[40 CFR 270.14(b)(16); 264.144]

A Post-Closure Cost Estimate for operation of a hazardous waste disposal unit is not warranted for this facility because it is not, nor has it ever been, a waste pile, surface impoundment, or landfill disposal facility, and clean closure of the hazardous waste storage facility was accomplished in 2023.

I-7 FINANCIAL ASSURANCE MECHANISM FOR POST-CLOSURE
[40 CFR Sections 270.14 (b)(16); 264.145; and 264.151]

No post-closure care financial assurance mechanism is required for this facility.

I-8 LIABILITY REQUIREMENTS
[40 CFR 270.14 (b)(17); 264.147(b)]

Saft will maintain liability coverage for non-sudden accidental occurrences in the amount of at least \$3,000,000 per occurrence with an annual aggregate amount of at least \$6,000,000 exclusive of legal defense costs. A copy of the facility's Premises Pollution Liability Insurance Policy Binder is included in Appendix C.

I-9 USE OF STATE-REQUIRED MECHANISMS
[40 CFR 264.149 (a) & (b)]

This section is not applicable.

PART J

OTHER FEDERAL LAWS

	<u>LAW IMPACT</u>	<u>IMPACT</u>
1.	Wild and Scenic Rivers Act	Not Applicable
2.	National Historic Preservation Act (1966)	Not Applicable
3.	Endangered Species Act	Not Applicable
4.	Coastal Zone Management Act	Not Applicable
5.	Fish & Wildlife Coordination Act	Not Applicable

Saft's facility located at 711 Gil Harbin Industrial Boulevard, Valdosta, Georgia, is not located within a wild and scenic rivers geographical boundary. Therefore, the Wild and Scenic Rivers Act does not apply to this permit application.

The site is neither on nor eligible for the National Register Listing and therefore is not impacted by the National Historic Preservation Act of 1966.

Operations at this facility do not adversely affect rare or endangered species as defined by the Endangered Species Act. Therefore, that federal law does not apply to this facility or impact this permit application.

Both the Coastal Zone Management Act and the Fish and Wildlife Coordination Act do not apply to this facility. Therefore, neither act impacts this permit application.

Saft America Inc.
711 Gil Harbin Industrial Blvd.
Valdosta, GA 31601

U.S. EPA ID No. GAD063152573

PART K
CERTIFICATION

K-1 Certification
[40 CFR 270.11]

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the environmental response ongoing at this project site, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Joe Hardison
General Manager
Saft America Inc.

06/25/2025

Date

PART L

INFORMATION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS

Extensive investigations have been performed at this site since the Georgia Environmental Protection Division performed a RCRA Facility Assessment (RFA) -Visual Site Inspection (VSI) on May 24, 1990, which resulted in the identification of four solid waste management units requiring investigation:

- A 10,000-gallon in-ground sump which is part of the Wastewater Treatment System
- The outdoor container storage area being used at that time (1990)
- A solvent storage area located under a shelter
- A truck well drainpipe area (located on Saft property but outside of the fenced developed area of the property)

EPD was notified by Chip Wildes of an additional SWMU in a letter dated 10/30/1990 to Bruce Khaleghi. The SWMU identified was a 500-gallon in-ground sump which services a filter press located within the entrenched area of the Chemical Plant Patio.

A result of these findings was the addition of Section III. *Corrective Action For Solid Waste Management Units And Other Releases* as condition of the subsequent Part B Hazardous Waste Facility Permit issued on December 23, 1993. The conditions of Section III applied to the solid waste management units identified during the RCRA Facility Assessment (RFA) Investigation (May 24, 1990), the solid waste management units identified in the "Information Regarding Potential Releases from Solid Waste Management Units" questionnaire dated June 21, 1990, and any additional sold waste management units (SWMUs) or areas of concern (AOCs) discovered during the course of future groundwater monitoring, on-going field investigations, environmental audits or other means. The December 1993 Part B Permit listed the following SWMUs:

- a) Underground Tank (the 10,000-gallon wastewater sump)
- b) Closed container storage area
- c) Solvent storage area
- d) Drain pipe area (outside of the facility's fence)
- e) Wastewater treatment unit and appurtenances used in waste management
- f) All transfer lines used to transport waste to the wastewater treatment plant
- g) All sumps used to collect waste

(Note: the Closed Container Storage Area was the original outdoor container storage area located south of the wastewater treatment facility and operated between 1976 and 1993)

After investigation, the August 1995 *Corrective Action Plan For Saft America Inc.* prepared by OHM Remediation Services Corporation and subsequently approved by EPD, identified the following five SWMUs for remediation:

- Truck well drain pipe area
- Saft property drainage ditch
- Pecan grove
- Old Clyattville Road drainage ditch
- Chemical plant patio area

Remediation of these SWMUs was performed during 1998. Saft’s discovery of contaminated groundwater following the removal of the in-ground 10,000-gallon wastewater tank (as part of the Chemical Plant Patio Area remediation) in April 1998 led to investigations that resulted in the requirement of a groundwater corrective action plan which was prepared by EMC Engineering Services, Inc., *Corrective Action Plan (Revision No. 1) For Former Acid Storage Tank Area*, dated July 2, 2022. The groundwater corrective action plan is discussed further in Sections L-4 and L-5.

Investigations of the five SWMUs (SWMUs 6, 8, 9, 10, and 11) requiring soil investigation will require an RFI work plan that is to be submitted upon notification that Saft is ceasing operations, or, if prior to the facility ceasing operations the conditions at any of the 5 SWMUs change and are observed to potentially be a threat to human health or the environment.

L-1 DESCRIPTION of SOLID WASTE MANAGEMENT UNITS
[40 CFR 270.14(d)(1)]

The chart below lists the SWMUs at the facility which are or have been associated with nickel and cadmium soil contamination. The SWMU locations are shown on Figure 2b in Section B.

SOLID WASTE MANAGEMENT UNITS		
UNIT ID	NAME	REQUIRED ACTIONS
SWMU-1	Chemical Patio 10,000-gallon underground sump	Currently Under Corrective Action
SWMU-2	Clyattville Ditch	No Further Action at this Time
SWMU-3	Pecan Grove Bottom	No Further Action at this Time
SWMU-4	Property Drainage Ditch	No Further Action at this Time
SWMU-5	Truckwell Drain Pipe	No Further Action at this Time
SWMU-6	Closed Container Storage Area	Address during RFI Investigation
SWMU-7	Solvent Storage Area	No Further Action at this Time
SWMU-8	Wastewater Treatment Unit and Appurtenances	Address during RFI Investigation
SWMU-9	All Transfer Lines used to Transport Waste	Address during RFI Investigation
SWMU-10	All Sumps used to Collect Waste	Address during RFI Investigation
SWMU-11	Building 2 Former Burn Area	Address during RFI Investigation

Descriptions of the Solid Waste Management Units (SWMUs) follow:

SWMU-1 Chemical Patio 10,000 Gallon Underground Sump

The Chemical Plant Patio 10,000 Gallon Underground Sump SWMU is located directly adjacent to and south of the Chemical Plant facility which is located in the southeast corner of Building No. 1 in a 90' X 50' area located at the east end of the Chemical Plant Patio. The 10,000-gallon sump received and blended waste water from the manufacturing processes and laboratory and work sinks located in Building 1. The 10,000-gallon sump was operated from 1975 until its removal and disposal during the 1998 soil remediation project. The wastes sent to the sump included out-of-spec caustic solutions, process wash waters, and waste water from laboratory and work area sinks. These waste waters contained sodium and potassium hydroxides, cadmium, nickel and cobalt. The 10,000-gallon sump SWMU is known for historical releases of process waste waters in the form of tank overflows. Located within this SWMU area were a 10,000 gallon in-ground sump and a 500-gallon in-ground sump which extended to depths of 10.5 feet and 3 feet below grade surface respectively. During the 1998 soil remediation project, contaminated groundwater was found beneath the 10,000-gallon sump. After removing the 10,000-gallon wastewater sump, soil samples were collected from varying depths down to the groundwater table. The soil samples exhibited elevated levels of nickel and cadmium, and subsequent groundwater sampling produced samples containing nickel and cadmium. Plume delineation and corrective action activities followed.

Saft requested permission to begin ground water removal under Interim Measures provisions of our Part B Permit in August 1998. The groundwater investigation work plan was submitted to EPD in December 1998. Withdrawal under interim measures began in February 1999. Groundwater corrective action continues today in accordance with the site's Groundwater Monitoring Plan.

SWMU-2 Clyattville Ditch

The Old Clyattville Road Ditch (OCR) SWMU originates at the confluence with the SAFT property drainage ditch and extends approximately 1125 feet south/southeast along the east side of the Old Clyattville Road to the confluence with Mud Swamp Creek. The OCR SWMU is the OCR ditch itself and covers an estimated 30,000 square foot area. The OCR ditch has for decades served as a stormwater drainage feature and is a wet weather channel discharging stormwater runoff received from SAFT and properties on the east side of the OCR. Historical spills containing caustic solutions, cadmium and nickel have been released to the ditch. This SWMU was remediated to cadmium and nickel background levels during the soil remediation project performed in 1998.

SWMU-3 Pecan Grove Bottom

The Pecan Grove SWMU originates at the northwest corner of the paved parking area and extends southwest into a small drainage swale that flows alongside the fence line directly adjacent to the SAFT Property Drainage Ditch SWMU covering an estimated 65,000 square foot area. This SWMU received stormwater draining from essentially the entire developed area of the property from 1975 until the stormwater discharge was rerouted from being discharged from the southwest corner of the employee parking lot westward to the pecan grove to being discharged southward into the undeveloped southern parcel during the 1998 soil remediation project. The SWMU was remediated to cadmium and nickel background levels during the soil remediation project performed in 1998.

Note: In 2000, it was learned from an employee, who helped burn factory trash on-site in 1975, that the source of nickel and contamination in the pecan grove's higher ground located above the stormwater flow line was the burning of factory trash in the area west of the original factory (only Building 1 existed at that time (1975). The burn area later became the site where Building 2 would be built. The trash burning occurred during the first several months of operation and ended when the City of Valdosta noticed the burning and notified Saft it was illegal to burn trash within the city limits. When Building 2 was being built in 1979, contractors preparing the ground for pouring concrete took excess soils to the pecan grove and spread them around. The trash burning is how SWMU 11 got the name: Building 2 Former Burn Area.

SWMU-4 Property Drainage Ditch

The SAFT Property Drainage Ditch SWMU was a 1150-foot-long drainage feature originating along the southeastern edge of the paved parking area and extending to the west and southwest to its confluence with the Old Clyattville Road Ditch. This SWMU has collected, carried and discharged stormwater runoff from the SAFT property since the property was developed in 1975 and covers an area of 88,000 square feet. This SWMU was remediated to cadmium and nickel background levels during the soil remediation project performed in 1998.

SWMU-5 Truckwell Drain Pipe

The Truck Well Drain Pipe Area SWMU is located between the waste water treatment facility and Building No. 3. This SWMU originates along the southwest edge of the fence line behind Building No. 3 and extends southward into the SAFT Property Drainage Ditch covering a 25,600 square foot area. The truck well drain pipe was installed when Building 1 was built in 1974. It transferred rainwater from the truck dock wells located on the east side of Building 1 through an underground pipe. Discharge from the truck wells was terminated before during or before 1990. This SWMU was remediated to cadmium and nickel background levels during the soil remediation project performed in 1998.

SWMU-6 Closed Container Storage Area

The term "Current Container Storage Area" used in Appendix B of the 2002 – 2012 Part B Permit is a misnomer as the SWMU to which the word "current" is referring is a former Container Storage Area identified in the June 21, 1990, RCRA Facility Assessment questionnaire which was closed in 1993. The Closed Container Storage Area was a roughly 60' X 140' area located in the southeast corner of the concreted and curbed area located south of Building #1. The Closed Container Storage Area (CCSA) is where drums of wastewater sludge and filter cake were stored beginning in 1976 and until container storage was moved to the south end of Building 3 when Saft opened its Recycle Facility. The 1990 Container Storage Area was a paved or concreted and curbed.

SWMU-7 Solvent Storage Area

The Solvent Storage Area SWMU is located on the east side of the wastewater treatment building between the building's east wall and the concrete curb that parallels the building and covering the northern half of that area. The solvent storage area was an approximately 18-foot square (324 square feet) open structure with an asphalt floor. The structure was a simple shelter consisting of a sheet metal roof supported by steel posts and secured by a chain link fence with a gate. It was used during the 1980's and early 1990's for bulk storage (55-gallon drums) of kerosene, hydraulic oil, isopropyl alcohol, and acetone. Soil samples collected and analyzed during the 1992 RFI project showed no detectable levels of isopropyl alcohol or acetone. Petroleum hydrocarbons were found in soil samples collected immediately under the asphalt, and it was believed the organic content of the asphalt caused these results. The solvent storage shelter was subsequently closed and the structure was removed.

SWMU-8 Wastewater Treatment Unit and Appurtenances

The wastewater treatment facility is located southeast of Building 1 directly across the facility access road from the tank farm area. The wastewater treatment facility was built in 1989 and consists of a 90' X 80' (7200 square feet) bermed area containing the equalization tanks (E-tanks), pH adjustment tanks, clarifier, sludge thickening tank, rotating sand filter, and clear well. Adjacent to the bermed area in an 18.5' X 30' (555 square feet) pit are two in-ground tanks which initially receive and blend all nickel and cadmium bearing wastewaters, spent sodium hydroxide conversion and ECC solutions, and waste potassium hydroxide solution. Level probes control pumps which pump the water from the in-ground tanks to the E-tanks.

SWMU-9 All Transfer Lines used to Transport Waste

The wastewater transfer lines which comprise SWMU 9 are located under the Chemical Plant. These lines were installed in 1974 when the Chemical Plant was being built and were used for transferring aqueous impregnation process wastes containing nickel, cadmium and caustic solutions from Chemical Plant operations to the 10,000-gallon underground (actually in-ground) sump. These lines are the subject of the 1994 Chemical Plant RFI. Broken transfer lines were discovered, and EPD required Saft to abandon these lines and install an in-floor trenching system for transporting wastewater. The lines were abandoned in 1995 and replaced as directed.

SWMU-10 All Sumps Used to Collect Waste

All sumps located in the Chemical Plant, Tank Farm, wastewater treatment, and cell formation areas documented in the August 1994 OHM RFI were installed when the Chemical Plant was being built and fed underground to the 10,000 sump. Except for sump 29, all were abandoned in 1995. Sump 29 was connected to the new (1989) Wastewater Treat System via above-ground piping.

SWMU-11 Building 2 Former Burn Area

The Building No. 2-Former Burn Area SWMU was discovered in May 2000, when soil that was excavated for new construction of an addition to Building 2 was tested and found to contain cadmium and nickel. This SWMU is located at the southeast corner of Building No. 2 and extends across the plant access road into the pecan grove. As mentioned above in the description of SWMU3, this former burn area SWMU encompasses an area where factory trash containing nickel and cadmium was burned for a few months during 1975. The SWMU was divided into two sections, Burn Area North and Burn Area South, for description and management purposes. The Burn Area North a roughly 55-foot by 200-foot area on the east side of Building 2 and is currently covered by structures and concrete, including a loading dock ramp and an aboveground storage tank within a concrete secondary containment structure. The former grassy areas next to the building have been capped with concrete. The Burn Area South is the portion of the SWMU located south of the access road that extends into the pecan grove. The Burn Area South very roughly approximates the shape of the state of Texas, covers approximately three-quarters of an acre, and is roughly 190 feet by 220 feet at its longest dimensions.

L-2 INFORMATION PERTAINING TO RELEASES
[40 CFR 270.14(d)(2)]

Contaminated groundwater was found on-site during the 1998 soil remediation project. After the removal of the former in-ground 10,000- gallon wastewater treatment sump, soil samples were collected from varying depths down to groundwater. The soil samples exhibited elevated levels of nickel and cadmium, and subsequent groundwater sampling produced samples containing nickel and cadmium. Plume delineation activities followed. Details concerning the plume and plans to remediate the contaminated groundwater are included in the *CORRECTIVE ACTION PLAN FOR FORMER ACID STORAGE TANK AREA prepared by EMC Engineering Services, Inc., dated July 2, 2002.*

Groundwater remediation began under interim measures on February 22, 1999. Reports have been sent to EPD since October 2003. Saft's most recent 22nd Semi-Annual Groundwater Corrective Action Report was submitted to EPD on December 10, 2024. At the time of this submission, 190,000,000 million gallons of groundwater has been pumped and either beneficially used or treated and discharged.

Releases to the Environment

Note: There have been historical releases of unknown/unrecorded dates at this site. Years ago, unknown quantities of wastewater were released from the 10,000-gallon wastewater treatment system sump during times when processes were sending more water than the system could handle. The wastewater that overflowed ran across the employee parking lot, into the pecan grove bottom, and down the property drainage ditch. These areas were remediated in 1998.

1.
 - a. July 30, 1985
 - b. Sodium Hydroxide spill - 50% solution of NaOH
 - c. 700 to 800 gallons was released
 - d. A transfer pump seal failed and released the material during a thunderstorm.
 - e. The spill resulted in a fish kill at Mud Swamp Creek. No lasting harm is believed to have been done.

2.
 - a. August 28, 1985
 - b. Cadmium Nitrate Solution - Approximately 85% $\text{Cd}(\text{NO}_3)_2 \cdot 4 \text{H}_2\text{O}$
 - c. Approximately 5 gallons was released.
 - d. Released from a pinhole leak that developed in a temporary storage tank.
 - e. The spill was contained at the spillway located at the end of the parking lot. The water was collected and poured into our wastewater treatment system. The top two inches of soil was collected, drummed, and disposed as hazardous waste.

3.
 - a. November 18, 1985
 - b. Sulfuric Acid Spill - 97% H₂SO₄
 - c. The quantity of material is not known but is thought to be less than 10 gallons.
 - d. A truck driver delivering Sulfuric Acid spilled the material while removing his hoses after off-loading. He washed down his truck with water and left the water hose running which spread the material.
 - e. The spill was quickly contained and neutralized with soda ash. Once neutralized, the area was purged with water. No known environmental damage occurred.

4.
 - a. May 1, 1986
 - b. Wastewater Spill - 2.0 ppm Nickel; 5.5 ppm Cadmium; and pH = 12.0
 - c. 500 gallons was released.
 - d. A wastewater treatment tank overflowed because the power to the transfer pumps, and alarm systems have been cut off to allow an outside contractor to do some work.
 - e. The spill was neutralized with citric acid and flushed with water. The water carried the spill to Mud Swamp Creek. Samples of water from Mud creek showed less than 0.2 mg/l Cadmium and 0.1 mg/l Nickel. No known environmental damage occurred.

5.
 - a. June 29, 1989
 - b. Cadmium Oxide Power Spill - 85% CdO; 15% Cd metal
 - c. Approximately one pound was released.
 - d. The powder trickled from a small hole in bag during transfer from warehousing to point of use.
 - e. The material was vacuum cleaned and then mopped up with a mild solution of nitric acid. There was no known damage to the environment.

6.
 - a. May 23, 1990
 - b. Cadmium Nitrate Solution - 60% Cd(NO₃)₂
 - c. Approximately 50 gallons was released.
 - d. The material was spilled when a 50 gallon drum fell from a pallet and split open at its top.
 - e. The spilled material was stopped on the parking lot with an absorbent dam. Absorbent material was used to soak up the material for drum disposal per SAFT's Hazardous Waste Storage Instructions. There was no known damage to the environment.

7.
 - a. June 4, 1990
 - b. Sodium Hydroxide Spill
 - c. 10 to 15 gallon of 50% NaOH
 - d. A leaking sodium hydroxide line caused the spill.
 - e. The spilled material was cleaned up using absorbent. The resulting materials were sent to Chemical Waste Management's facility near Emelle, AL facility for disposal. The spill area was neutralized to pH 6.0-6.5 with citric acid.

8.
 - a. February 21, 1991
 - b. 67% Nitric acid
 - c. 20-30 gallons spilled
 - d. Caused by malfunctioning of the acid tank's electronic level indicator.
 - e. The spill was contained using absorbents, neutralized with soda ash, mixed with additional absorbent, and collected for disposal in SAFT's hazardous waste rolloff.

9.
 - a. June 11, 1993
 - b. Cadmium containing materials
 - c. Quantity believed to be around 10 pounds.
 - d. Janitor mistook bag of material for trash and put material in non-hazardous waste container. Container was emptied at the Lowndes County Landfill.
 - e. SAFT employees went to Lowndes County Landfill and worked with County employees to successfully locate and retrieve the material and surrounding contaminated materials.

10.
 - a. January 17, 1994
 - b. Nickel Nitrate solution
 - c. Approximately 10 liters
 - d. Computer program error - the alarm for the valve that caused the spill had not been enabled in the computer program.
 - e. The spill was immediately mopped up and collected in buckets. Due to rainy conditions, it is believed that up to 5% of the material was not recovered. This would represent approximately 270 grams of nickel and 8 grams of cadmium.

11.
 - a. July 11, 1994
 - b. NOx gas
 - c. Worst case scenario is 78 pounds
 - d. Contractors accidentally opened an acid valve while climbing on top of a tank. The acid went into a reaction vessel charged with cadmium metal and started an unplanned/uncontrolled reaction which generated the NOx.
 - e. The acid valve was closed. Cold water was dumped into the reactor killing the reaction. Windy conditions quickly dissipated the NOx plume.

12.
 - a. July 25, 1994
 - b. 9.3% solution of nitric acid
 - c. Approximately 20 gallons
 - d. A pump flange broke causing the acidic solution to empty into the secondary containment unit. The pump that empties the secondary containment unit malfunctioned allowing the unit to overfill and spill into the parking lot.
 - e. The spill was contained to the parking lot curbing by an absorbent dam, neutralized with soda ash, collected, and disposed in the hazardous waste roll-off.

13.
 - a. September 3, 1994
 - b. Diluted solution of NaOH with high pH
 - c. Exact quantity released unknown
 - d. A mix tank valve malfunctioned and allowed water to continue to flow into and overfill the mix tank and secondary containment unit.
 - e. The spill was contained to SAFT property and either collected for processing through SAFT's wastewater treatment system or neutralized and released as described in SAFT's report dated 9/13/94 and addressed to EPD's Terri Crosby.

14.
 - a. November 1, 1994
 - b. Sodium hydroxide solution with high pH
 - c. Less than ten gallons
 - d. Caustic feed system servicing the plant DI water system overfilled and flowed into the parking lot behind the boiler room.
 - e. The spill was contained to the parking lot area behind the boiler room, absorbed into a clay-based absorbent material, neutralized with citric acid, collected, and disposed in Saft's hazardous waste rolloff.

15.
 - a. January 16, 1995
 - b. 25% potassium hydroxide solution
 - c. Less than three gallons
 - d. A forklift hit an uneven area in the concrete forklift path causing batteries to fall out of the transfer basket onto the ground and release electrolyte.
 - e. The spill was contained and collected into a clay-based absorbent material which was collected and placed in Saft's hazardous waste rolloff.

16.
 - a. February 7, 1995
 - b. 25% potassium hydroxide solution
 - c. Very small quantity, exact amount unknown
 - d. A forklift hit an uneven area in the concrete forklift path causing batteries to fall out of the transfer basket and spill electrolyte into a depression holding rainwater from an earlier rain. The pH of the puddle was 12.75.
 - e. The spill was contained and collected into a clay-based absorbent material which was collected and placed in Saft's hazardous waste rolloff.

17.
 - a. July 22, 1995
 - b. Wastewater
 - c. Two to three gallons
 - d. Operator inadvertently blocked one of the equalization tanks from discharging causing it to overflow with some wastewater splashing over the secondary containment wall.
 - e. The spill was contained and collected into a clay-based absorbent material which was collected and placed in Saft's hazardous waste rolloff.

18.
 - a. September 15, 1995
 - b. Wastewater
 - c. 500 gallons
 - d. Maintenance failed to properly lock out a wastewater process pump prior to working on the pump causing the spill.
 - e. The spill was contained and collected into a clay-based absorbent material which was collected and placed in Saft's hazardous waste rolloff.

19.
 - a. September 26, 1995
 - b. Nickel-bearing boiler water
 - c. 20 to 25 gallons
 - d. Pin holes in the steam heat exchanger allowed nickel solution to enter the boiler system and ultimately discharge through the steam boiler condensate pump ventilation pipe.
 - e. The spill was contained and collected into a clay-based absorbent material which was collected and placed in Saft's hazardous waste rolloff.

20.
 - a. October 9, 1995
 - b. 25% potassium hydroxide solution
 - c. Three gallons
 - d. Electrolyte leaked from batteries being delivered by ABF Freight Systems. The driver reported that the a pallet of batteries turned on its side when he drove over speed bumps.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

21.
 - a. June 13, 1996
 - b. Dilute nitric acid
 - c. 600 gallons
 - d. A Nitrates Facility operator failed to turn off DI water being added to the nitric acid reclamation tank. The tank overflowed into its secondary containment. The secondary containment overflowed into the parking lot prior to discovery.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

22.
 - a. September 1, 1996
 - b. Wastewater – pH 12.8 and Cd = 31.6 mg/l
 - c. Ten gallons
 - d. A threaded plug vibrated out of a wastewater transfer line near the hydroxide reclamation filter press causing wastewater to spray outside of the secondary containment area.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

23.
 - a. October 28, 1996
 - b. Water from nitrate facility – Cd = 3.4 mg/l
 - c. Five gallons
 - d. A contractor squeegeed the water out of the nitrate facility.
 - e. The spill was absorbed into a clay-based absorbent material, collected and placed in Saft's hazardous waste rolloff.

24.
 - a. June 13, 1997
 - b. 34% hydrochloric acid
 - c. 50 gallons
 - d. A vendor delivering totes accidentally pushed a tote out of the back of the delivery van. The tote fell to the ground and spilled approximately 50 gallons of acid before it could be uprighted. Uprighting the tote stopped the leakage.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

25.
 - a. June 9, 1998
 - b. 34% hydrochloric acid
 - c. 5 gallons
 - d. An acid carboy began to leak while an operator was dispensing acid.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

26.
 - a. September 15, 1998
 - b. Acidic water, pH = 0 pH units
 - c. 35 gallons
 - d. A leak developed in the Nox scrubber resulting in the leakage of a nitric acid and water mixture.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

27.
 - a. December 23, 1999
 - b. Wastewater containing cadmium and nickel
 - c. 20 gallons
 - d. During Christmas shutdown, an effluent operator came in to check on the effluent system and found the equalization tanks full. The tank agitator combined with high winds had caused wastewater to spray over the top of the tank and outside of the tank's secondary containment.
 - e. The spill was absorbed into a clay-based absorbent material, collected and placed in Saft's hazardous waste rolloff.

28.
 - a. February 8, 2000
 - b. Scrubber water from the nitrate facility containing 26 mg/l cadmium and 27 mg/l nickel and pH = 1.3.
 - c. 600 gallons
 - d. Air was cut off at the compressed air line controlling the air-operated water valve to the water holding tank. The PLC called for water to be added and the valve had enough air to open, but not enough to close. The water tank and secondary containment overflowed.
 - e. The spilled material located on the asphalt parking lot was managed same as #24 above. The spill material that traveled approximately 250 feet down our stormwater ditch mixed with water that was present in the ditch. All water in the impacted areas of the stormwater ditch was pumped into totes and processed through the wastewater treatment system. 115.43 tons of impacted soil, with cadmium levels below TCLP toxicity but above background, were removed and disposed at the Pecan Row Subtitle D Landfill.

29.
 - a. August 27, 2000
 - b. Scrubber water from the nitrates scrubber containing 13.0 mg/l cadmium and 19.8 mg/l nickel.
 - c. 55 gallons
 - d. A process chiller shorted out and tripped a 250-volt breaker that services the entire nitrate facility. The effluent facility continued to send water to the scrubber, but the scrubber pump was not able to return the water to effluent.
 - e. The spill was absorbed into a clay-based absorbent material, collected, and placed in Saft's hazardous waste rolloff.

30.
 - a. September 29, 2000
 - b. 32% hydrochloric acid
 - c. Three gallons
 - d. An "empty" tote being transferred inside to be loaded onto a delivery truck was set down outside the east rollup door, and acid leaked from the tote's valve.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

31.
 - a. March 16, 2001
 - b. 32% hydrochloric acid
 - c. 300 gallons
 - d. Forklift driver stated that forklift cut off and restarted, it jerked hard to one side causing the tote to fall off of the forks.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

32.
 - a. May 6, 2002
 - b. Anhydrous ammonia
 - c. 60 pounds
 - d. Ruptured diaphragm in regulator
 - e. The release went into the atmosphere under moderately breezy conditions.

33.
 - a. October 22, 2002
 - b. 32% hydrochloric acid
 - c. Less than five gallons
 - d. Leak developed at a tote valve facing the effluent berm wall resulting in HCl hitting the wall and splashing over.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

34.
 - a. May 23, 2005
 - b. Acidic water: pH = 0, Cd = 2.1 g/l, Ni = 2.7 g/l
 - c. Two gallons
 - d. The release was caused by a small hole in one of the NOx scrubber stacks and a hole in the secondary containment pan that allowed the release to the environment.
 - e. The spill was absorbed into a clay-based absorbent material, neutralized, collected and placed in Saft's hazardous waste rolloff.

35. a. February 12, 2007
- b. Acidic water: pH = 0.9, Cd = 141 mg/l, Ni = 134 mg/l
- c. 12,000 gallons
- d. The compressed air line controlling the valve to the water fill line for the acid mix tank broke at a 90° connection. The valve opened, water over-filled the tank and secondary containment and made it into the stormwater ditch.
- e. Managed in the same manner as #28 above.

No spills have occurred at this facility since February 12, 2007.

L-3 SAMPLING AND ANALYSIS **[40 CFR 270.14(d)(3)]**

Saft Valdosta has conducted groundwater monitoring at this site since 1999 as part of ongoing investigation and corrective action activities. Groundwater monitoring reports have been submitted to Georgia EPD on a semi-annual basis since 2003. EPD approved changing from semi-annual to annual monitoring in an email to Chip Wildes dated September 10, 2024.

The 22nd Annual Groundwater Corrective Action Report is the last report submitted under the semi-annual monitoring schedule. The next report, Saft's 23rd Annual Groundwater Corrective Action Report due November 2025, will be the first report submitted under the new (October 4, 2024) Groundwater Monitoring Plan's annual schedule.

The facility is under investigation as part of the on-going RCRA Facility Investigation Process. The following is a brief summary of environmental investigations and actions that have been conducted at the Saft Valdosta facility:

- 1990 – May 24, 1990, an EPD team visits and identifies four SWMUs:
 - Underground Tank (10,000-gallon sump which is part of the wastewater treatment system)
 - Current container storage area (closed in 1993)
 - Solvent Storage area
 - Drainpipe area (outside the facility's fence)
- 1990 – August 21, 1990 - EPD's Bruce Khaleghi takes soil samples from the truck well drain pipe ditch, stormwater ditch, solvent storage area, and pecan grove bottom and finds cadmium and nickel contamination.
- 1990 – September - EPD issues a modified permit allowing the return, storage and treatment of used batteries for recycling. As a condition of the permit, EPD requires Saft to perform a RCRA Facility Investigation within six months.

- March 1991 – RFI Work Plan to submitted to EPD. EPD approves the Work Plan.
- July 1992 – Saft completed the RFI and submits a Phase I RFI Report to EPD. The report identifies contaminated soil in stormwater path from factory to Mud Creek.
- March 1991 – RCRA Facility Investigation Work Plan to submitted to EPD. EPD approves the Work Plan.
- July 1992 – Saft completes the RFI and submits a Phase I RFI Report to EPD. The report identifies contaminated soil in stormwater path from factory to Mud Creek.
- April 1993 – Saft requests authorization to operate a spent battery recycling process. EPD grants authorization in a letter dated June 25, 1993.
- December 1993 – EPD issues a new Part B Hazardous Waste Facility Permit. The conditions of Section III apply to the solid waste management units identified during the RCRA Facility Assessment (RFA) Investigation (May 24, 1990), the solid waste management units identified in the “Information Regarding Potential Releases from Solid Waste Management Units” questionnaire dated June 21, 1990, and any additional sold waste management units (SWMUs) or areas of concern (AOCs) discovered during the course of future groundwater monitoring, on-going field investigations, environmental audits or other means. The December 1993 Part B Permit lists the following SWMUs:
 - a) Underground Tank (the 10,000-gallon wastewater sump)
 - b) The current (1990) container storage area (the original outdoor container storage area, located south of the wastewater treatment facility, identified during the 1990 RFA.)
 - c) Solvent storage area
 - d) Truck well drainpipe area (outside the facility fence and southwest of Building 3)
 - e) Wastewater treatment unit and appurtenances used in waste management
 - f) All transfer lines used to transport waste to the wastewater treatment plant
 - g) All sumps used to collect waste

EPD requires that Saft investigate the soil beneath the Chemical Plant, all Chemical Plant subsurface transfer lines used to transport water to wastewater treatment, sumps used to collect wastewater, wastewater treatment unit and appurtenances used in waste management, and the Chemical Plant Tank Farm.

- August 1994 – Saft completes the Chemical Plant investigation and submits the Chemical Plant RFI Report. The Chemical Plant RFI study reveals plugged and broken transfer lines and soil contamination under the Chemical Plant. However, the report shows no cadmium was found at levels above 1.0 mg/l TCLP. Saft modifies Part B Permit to state that remediation under buildings will not be required until final closure of the facility. Saft is

required by EPD to abandon underground lines and install above ground trench system for transferring wastewater from Chemical Plant processes to the wastewater treatment system. Saft appropriates \$750,000 in the 1995 operating budget for this purpose. EPD calls for submission of a soil remediation Corrective Action Plan outlining the technology to be used and an implementation schedule.

- December 1994 – In a letter dated 12/14/1994, EPD approves the Chemical Plant RFI and requests a Corrective Action Plan for the remediation of contaminated soils identified in this and previous RFIs. A Corrective Action Plan satisfying this request was prepared by OHM Corporation and submitted to EPD In April 1995. The CAP proposed to excavate and treat cadmium and nickel contaminated soil described within the following SWMUs to background levels:
 - Chemical Plant Patio Area
 - Truck Well Drain Pipe Area
 - Pecan Grove
 - Saft Property Drainage Ditch
 - Old Clyattville Road Drainage Ditch
- 1995 – Saft requests to investigate alternative soil remediation technologies and to look into newly developed Risk Assessment regulations.
- 1997 – EPD directs Saft to implement remediation of the five SWMUs identified for remediation. Saft hires Mactec to perform the soil remediation project which began in December 1997 and ended in April 1998. Contaminated soils are cleaned up to background levels. Soil under the former 10,000-gallon wastewater sump was not clean at 17 feet deep. Knowing that groundwater is approximately 24 feet below land surface, EPD asks Saft to stop digging, bore to groundwater, and take a ground water sample. The groundwater was found to contain cadmium and nickel. Contaminated soil located under the Chemical Plant floor as identified in the 1994 Chemical Plant RFI was left in place to be addressed upon close of business at the site. The project resulted in a total of 32,214 tons of soil being excavated and sent for disposal. Of this quantity, 22,419 tons of soil did not require treatment.
- November 1998 - Saft submits its RFI Remediation Final Report to EPD. Section 4 of the report required post-corrective action monitoring at Mud Creek. Quarterly water sampling and annual sediment sampling is required.
- April 1998 - After contaminated groundwater was found following the removal of the in-ground 10,000-gallon wastewater sump, EPD requires Saft to develop a workplan for remediation of the contaminated groundwater. To control the plume, Saft requests permission to begin ground water removal under Interim Measures provisions of our Part B Permit in August 1998.
- December 1998 - A groundwater investigation work plan is submitted to EPD. Approval was granted and Saft installed a 35-foot-deep removal well, RW-1, on July 21, 1998, at the former in-ground wastewater sump location and began pumping the contaminated water and sending it through the on-site wastewater treatment system for treatment and discharge to the City of Valdosta Mud Creek water pollution control plant.

- February 1999 – RW-1 went dry after operating only six months. RW-2 was installed on February 5, 1999, with a well depth of 55.4 feet. The first record for RW-2 water is for a sample that was collected on February 23, 1999. The sample contained 2.96 mg/l cadmium, 14.64 mg/l nickel, and had a pH of 4.3.
- March 1999 - EPD approved the RFI soil remediation project final report. Continuing action included post-remediation monitoring of water and sediment at Mud Creek on a quarterly basis.
September 1999 - Four permanent monitoring wells (MW-1, MW-2, MW-3, and MW-4) were installed to help determine the horizontal plume limits.
December 1999 - An additional permanent monitoring well (MW-5) was installed to define the horizontal plume limit in the downgradient direction.
March 2000 - A *Remedial Groundwater Investigation*, describing the horizontal delineation investigation was submitted to EPD and subsequently approved.
May 2000 - Construction related to modifying Building #2 for new NCX cell production generates waste soils that fail TCLP testing. Saft notifies EPD, and EPD directs Saft to perform a RCRA Facility Investigation (RFI).
December 2000 - Saft submits the Building #2 RFI to EPD for review and approval.
January 2001 - Contaminated groundwater plume delineation is completed and reported to EPD.
- January 2001 - Contaminated groundwater plume delineation is completed and reported to EPD.
- April 2001 - EPD requires that two deep wells be installed for sampling water directly above the clay layer (105.0 feet deep, well MW-7) and below the aquatard (180.5 feet deep, MW-6). Wells MW-6 and MW-7 were installed on 6/22/2001 and 6/27/2001 respectively and remain as permanent monitoring wells.
- July 2001: Results for MW-6 and MW-7 wells show no detectible cadmium or nickel. EPD accepts the horizontal and vertical delineation and requires a Groundwater Corrective Action Plan and Class 3 Part B Permit modification. The Part B Permit modification requires the development and inclusion of Groundwater Post-Closure Care costs.
- August 2001: David Yardumian (EPD) approves changing Mud Creek monitoring for water to annually and for sediment to quarterly.
- November 2001: A Groundwater Corrective Action Plan was submitted to EPD.
- May 2002: EPD requests additional information and detail regarding the Groundwater Corrective Action Plan.
- July 2002 - Saft submits its revised Corrective Action Plan For Contaminated Groundwater which is subsequently approved by EPD. The plan describes the sequence of installation of the recovery wells RW-1 and RW-2 and the seven permanent monitoring wells, the delineation of horizontal and vertical plume limits, groundwater flow direction and rate, and provides a summary of groundwater quality data, a remediation plan, and monitoring report requirements.

- August 2002: EPD calls for public notification of the Groundwater Corrective Action Plan. The public notice runs 8/28/02 through 10/16/02.
- November 2002: EPD issues Part B Permit HW-001(S&T)-3 on November 19, 2002. The permit has a termination date of November 19, 2012. The permit includes the groundwater corrective action plan as Appendix C. The CAP is dated July 2, 2002. The CAP requires groundwater monitoring to continue until such time that twelve (12) consecutive sets of quarterly results for cadmium and nickel show levels equal to or less than the maximum concentration for constituents for groundwater protection. Based on regulatory guidelines, the cleanup criteria for the groundwater remediation project will be:
 - Cadmium – 0.01 mg/l
 - Nickel - 0.1 mg/l
- August 2003 – EPD sends letter approving the Building #2 RFI and stating that Saft has the option of remediating to background levels or to risk-based concentrations. The letter requests submission of a Corrective Action Plan or a specific health and ecological site risk assessment within 90 days.
- October 2003 – Saft submits to EPD its First Annual Groundwater Corrective Action Report covering the period May 2003 through September 2003. Semi-annual and annual groundwater corrective action reports have been submitted every six months (in May and November) since the first report.
- November 2003 - Saft submits the Building #2 Risk Assessment report to EPD.
- May 2005 - EPD approves the Building #2 risk assessment and requests submission of Corrective Action Plan within 60 days.
- October 2006 - Saft Submits Building #2 Corrective Action Plan after requesting and being granted additional time for completing and submitting the CAP.
- March 2007 - EPD issues a Building #2 CAP approval letter and requests submission of a Class 2 permit modification for the use of staging piles.
- April 2007 - A Class 2 permit modification request was mailed to EPD in compliance with EPD's letter dated March 12, 2007. In compliance with Section III of Saft Valdosta's Part B Permit, the modification also requested incorporation of the Building #2 CAP into the Part B Permit.
- May 2007 - A Part B Permit modification for adding the Building #2 Corrective Action Plan was mailed to EPD.
- June 2009 - Saft discontinues the site-wide risk assessment after learning from EPD that the site soil remediation targets for cadmium and nickel would be background even if the risk assessment were to be taken to completion.
- May 2012 - Saft submits Part B Permit Renewal request to EPD on May 11, 2012. Request includes incorporation of Building #2 CAP into the permit and Class 2 Modification for use of staging piles.

- September 2013 - A revised Interim Corrective Action Plan was submitted to EPD. The ICAP incorporated a corrective action that involved excavating the soils, stabilizing them in containers, and shipping the soil offsite for disposal. However, in order to complete the project by the end of 2013, a revision to the method was request and negotiated with EPD. Chip Wildes met with Amy Potter at EPD offices in Atlanta and explains Saft's need to complete the Building #2 soil remediation project by the end of the year and how treating the soils in situ will the project time. The meeting is summarized in a letter from Wildes to Potter dated November 7, 2013. An updated ICAP is submitted to incorporate performing treatment without using containers and placement of a concrete cap in the Burn Area North.
- November 2013 – Saft receives a letter from EPD Unit Coordinator, Mike Elster, dated November 8, 2013, stating that earlier agreed to Region 9 PRGs are no longer acceptable for use as screening or cleanup standards due to regulatory changes and that the appropriate Building #2 cleanup levels will be the site background levels of 3 mg/kg for cadmium, 9 mg/kg for nickel, and 0.04 mg/kg for mercury.
- December 2013 - EPD approved Saft's revised Interim Corrective Action Plan for the Building #2 soil remediation project allowing the on-site treatment without using containers as described in a November 8, 2013, letter from Wildes to Potter. The Building #2 project is started with Clean Harbors performing the construction work and TTL performing project oversight.
- January 2014 - The Building #2 soil remediation project is completed. Demobilization by Clean Harbors is completed on January 10, 2014. Approximately 3,000 tons of contaminated soil were remediated. Contaminated soils located under Building #2, associated with high-voltage underground cables discovered along the north side of the Burn Area South by the excavator operator during the soil remediation project, and under the concrete capped area on the east side of Building #2 in the Burn Area North were left in place to be addressed upon close of business at the site.
- September 2014 - EPD issues Hazardous Waste Facility Permit No. HW-001(S&T)-4. Conditions related to Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) are given in Section IV. Conditions related to Corrective Action For Groundwater Remediation At The Chemical Patio Area – 10,000 Gallon Sump are given in Section V.
- September 2022 – Saft sends letter to Holly Nelson requesting permission to no longer manage wastewater sludges as hazardous waste based on 40 CFR 26.12 Table 1 which exempts them from regulation as solid waste. A Hazardous Waste Storage Area and Recycle Facility Closure Plan is submitted with the letter.
- October 14, 2022 – Saft receives permission from EPD (Holly Nelson) to begin cleaning the Recycle Facility permitted HW storage area and to remove some of the storage racks.
- October 28, 2022 – Saft receives permission in an email from EPD (Holly Nelson) to remove the permitted area fences and berms and manage dried sludge, ECC Ditch Sludge, and Nitrate Filtercake on a non-hazardous waste basis under 40 CFR 261.2 Table 1 exemption of wastewater sludges exhibiting a characteristic of toxicity and being recycled solid waste exemption.

- December 2022 – Saft submits its initial Permitted Storage Facility Closure Report to EPD.
- February 2023 – Saft receives EPD’s Permitted Storage Facility Closure Report comments requesting additional details, sampling, and closure certification.
- December 2023 – Saft submits its final Permitted Storage Facility Closure Report after satisfactorily addressing EPD’s comments and completing the additional sampling. The report includes a Certification of Closure as requested.
- March 2024 – Saft submits a Part B Permit Application for permit renewal to EPD.

L-4 MONITORING WELL NETWORK
[40 CFR 270.14(d)(3)]

The groundwater monitoring program contained in Section 7.5 of the *Corrective Action Plan (Revision No. 1) For Former Acid Storage Tank Area* and dated July 2, 2022, is outdated, and has been replaced in its entirety with the content of the Groundwater Monitoring Plan prepared by TTL and dated October 4, 2024. The Groundwater Monitoring Plan describes the monitoring well network for the site and how it assists with evaluation of the efficiency of the site’s recovery well as a corrective action to treat contamination at the site and control the plume. The plan contains information on groundwater sampling procedures, surface water and sediment sampling, laboratory analytical methods, quality assurance/quality control measures, and reporting.

A copy of the Groundwater Monitoring Plan is included at the end of this section as Attachment A.

L-5 CORRECTIVE ACTION PLAN
[40 CFR 264.101]

The *Corrective Action Plan (Revision No. 1) For Former Acid Storage Tank Area* and dated July 2, 2022, provides details concerning the plume and plans to remediate the contaminated groundwater. Saft’s groundwater remediation project began under interim measures on February 22, 1999. At the time of this submission, over 191,500,000 gallons of groundwater have been pumped, beneficially used and/or treated, and discharged.

A copy of the Corrective Action Plan is provided at the end of this section as Attachment B.

An RFI work plan to address the investigation and remediation of soil at SWMUs 6, 8, 9, 10, and 11 will be prepared at the time the facility ceases operations, or, if any potential threat to human health or the environment is discovered at any of these SWMUs; a cost estimate for this scope of work and a Closure Cost Estimate Letter Report documenting the assumptions made as part of the preparation of the Closure Cost Estimate are provided in Appendix A.

PART L
ATTACHMENT A

GROUNDWATER MONITORING PLAN

GROUNDWATER MONITORING PLAN
SAFT AMERICA, INC.
711 GIL HARBIN INDUSTRIAL BOULEVARD
HAZARDOUS WASTE PERMIT NO. HW-001(CA)
TTL PROJECT NO: 15-07-00076.24

Prepared for:

Saft America, Inc.
Attn: Mr. Chip Wildes
711 Gil Harbin Industrial Boulevard
Valdosta, GA 31601

Prepared by:

TTL, Inc.
4589 Val North Drive
Valdosta, Georgia 31602

TTL



Trent Hall, P.G.
Project Professional III



Keith H. Reaves, P.E.
Vice President/Regional Manager

October 4, 2024

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GROUNDWATER MONITORING PLAN
Saft America, Inc.
711 Gil Harbin Industrial Boulevard
Valdosta, Lowndes County, Georgia
Hazardous Waste Permit No. HW-001(CA)

CERTIFICATION

I certify that I am a qualified groundwater scientist who has received a baccalaureate degree in geology and have sufficient training and experience in ground water hydrology and related fields, as demonstrated by state registration and completions of accredited university courses, which enable me to make sound professional judgments regarding ground water monitoring and contaminant fate and transport. I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Date: October 4, 2024

Trent Hall, P.G.
Georgia Registered Professional Geologist
License No. 2026



Groundwater Monitoring Plan

Saft America Inc.
711 Gil Harbin Industrial Boulevard
Valdosta, GA 31601

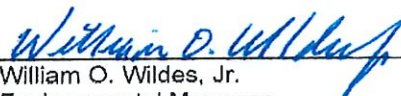
Hazardous Waste Permit No. HW-001(CA)

September 16, 2024

CERTIFICATION

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

October 4, 2024
Date



William O. Wildes, Jr.
Environmental Manager
Saft America Inc.

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APPENDICES

Appendix A: Figures

Figure 1: Site Layout Map with Well Locations
Figure 2: Surface Water and Sediment Sample Location Map
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Appendix B: Tables

Table 1: Groundwater Sampling Frequency
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Groundwater Monitoring Well Inspection Log
Field Data Sheet – Groundwater Monitoring Well Water Levels Only
Well Parameter Stabilization/Sampling Data Sheet
Field Data Sheet
Field Instrument Calibration Log

1.0 INTRODUCTION

TTL, on behalf of Saft America Inc. (Saft) has prepared this Groundwater Monitoring Plan (GWMP) for review by the Georgia Department of Natural Resources, Environmental Protection Division (Georgia EPD or EPD) for the Saft groundwater remediation conducted at 711 Gil Harbin Industrial Boulevard in Valdosta, Lowndes County, Georgia. The site layout is shown in Figure 1 (Appendix A).

The groundwater monitoring program contained in Section 7.5 of the Corrective Action Plan-Revision 1 (CAP) dated July 2, 2002, is outdated, and is being replaced in its entirety with the content of this GWMP (as amended)".

2.0 MONITORING WELL SAMPLING AND ANALYSIS

The Plan presented herein intercepts the potential contaminant pathways in the monitored zone and will assist with evaluation of the efficiency that Recovery Well (RW-2) as a corrective action to treat contamination at the site.

2.1 Monitoring Well Network and Schedule

Currently, the groundwater monitoring well network (GMWN) for the site consists of the following nine (9) wells (Figure 1 – Appendix A):

- Upgradient – Well MW-1
- Downgradient/Cross-Gradient Wells – MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7
- Suspected Source Area Wells – RW-1 and RW-2 (Recovery Well)

Table 1 (Appendix B) lists the groundwater sampling frequency and Table 2 provides installation and construction details for the existing on-site monitoring wells.

The following wells will be sampled on an annual basis (September):

- MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, RW-1, and RW-2

During each annual sampling event, each monitoring well will be visually inspected to assure they are maintained as being locked, well-marked, and in good working order. A copy of an example version of the Well Inspection Log is provided in Appendix C.

2.2 Analytical Methods

All groundwater samples will be collected in new laboratory provided 250 mL HDPE containers with nitric acid (HNO₃) preservative added by the laboratory. Each container will be filled, sealed, labeled, and stored in a cooler during field sampling activities. Each cooler will be sealed and shipped to an off-site Georgia certified laboratory for the following analyses:

- Cadmium and Nickel EPA Method SW 6010C

A fully completed and signed chain-of-custody form will accompany all sample shipments to the off-site laboratory.

3.0 GROUNDWATER SAMPLING PROCEDURES

3.1 Groundwater Monitoring and Sample Collection

The following sections outline the activities to be performed during each groundwater monitoring and sampling event. During each event, the depth to groundwater will be measured prior to groundwater purging and sample collection. All depth to groundwater measurements, purging, and groundwater sampling activities will be conducted at each well in order of least to most impacted according to groundwater analytical data from the previous event. New disposable nitrile gloves will be worn, and changed out between each well, during purging and sample collection activities to avoid cross-contamination.

3.1.1 Depth to Groundwater Measurements

The measurement of depth to groundwater at the site will be performed in general conformance with the EPA Region 4 SESD (LSASDPROC-105-R5 – April 22, 2023, as amended) procedures.

Prior to the groundwater purging and sample collection activities for each monitoring event, the depth to groundwater and total well depth at each location will be measured from the designated location marked on the top of the well casing. Each monitoring well location will be opened (and left open) for at least 30 minutes prior to measurement to allow groundwater levels to equilibrate. The elevations will be measured to the nearest 0.01 foot with an electronic water-level meter, which will be decontaminated between each measurement following the procedures described in Section 3.1.2 below. These measurements will be recorded on field data forms, which will be included in the subsequent report for each monitoring event. The depth to groundwater measurements will be utilized to generate a potentiometric surface map for each event. The total well depth measurements will be

used to calculate purge volumes and to evaluate if sediment has accumulated in the bottom of the well. A copy of an example version of the water level field form is provided in Appendix C.

It should be noted that monitoring location RW-2 is a recovery (remediation) well that is operational (except for weekends and holidays) and removes impacted groundwater from the aquifer. Due to the pumping, the groundwater elevations at RW-2 continuously fluctuate. Therefore, the groundwater elevation data collected from RW-2 will not be utilized to generate potentiometric surface maps.

3.1.2 Equipment Decontamination

The decontamination of field equipment used in wells will be performed in general conformance with the EPA Region 4 SESD (LSASDPROC-205-R4 – June 2, 2020, as amended) procedures.

Prior to use at each well, water level meters (probe and tape), stainless-steel bladder pumps, or any additional reusable equipment that may come into contact with groundwater will be decontaminated. The decontamination activities will include the following:

- An initial wipe down of the equipment;
- A tap water rinse;
- Distilled water and phosphate-free detergent washes;
- Wipe downs;
- Additional washes as deemed necessary; and
- A final distilled water rinse.

When used, the bladder pump will be disassembled down to its base components and decontaminated. During decontamination, cleaned equipment and/or components will be stored on clean plastic sheets. New disposable Nitrile gloves will be worn, and changed appropriately, during decontamination and purging/sampling activities.

3.1.3 Proposed Groundwater Purging and Sampling Methods

The proposed groundwater purging and sampling described in the following text will be performed in general conformance with the EPA Region 4 SESD (LSASDPROC-301-R6 – April 22, 2023, as amended) procedures. Parametric stabilization criteria contained in Section 2.0 of the EPA Region 4 SESD will be adhered to.

3.1.3.1 Low-Flow Purging and Sampling

Monitoring wells RW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7 will be purged by a low-flow technique utilizing a stainless-steel bladder pump with new polyethylene tubing (air supply line) and Teflon® lined tubing (discharge line). At each of the above listed wells, the pump will be positioned approximately mid-screen of the well. The low-flow method will be utilized in order to achieve relatively low flow rates that minimize drawdown within each well in order to obtain stable drawdown. The purge flow rate will be maintained between 100 and 1,000 mL/minute, and drawdown will be limited to less than 0.5 feet. Drawdown will be monitored by an electronic water-level meter during well purging activities and measurements will be recorded on well stabilization field data forms at approximately 5- to 10-minute intervals.

Prior to purging, the discharge line from the bladder pump will be connected to a flow-through cell attached to a calibrated multiparameter meter. The cell/meter combination will continuously measure and monitor field parameters (pH, specific conductivity, dissolved oxygen, and temperature) during purging activities. Groundwater turbidity will also be measured (and recorded) with a turbidity meter. Groundwater parameters will be measured and recorded on well stabilization field data forms at approximately 5- to 10-minute intervals, concurrent with drawdown measurements. Purging at each well will be considered complete when parameters have stabilized for three (3) consecutive measurements and turbidity has stabilized or is less than 10 Nephelometric Turbidity Units (NTUs). A copy of an example version of the Well Parameter Stabilization/Sampling Data Sheet is provided in Appendix C.

Following the completion of purging at each of the above listed monitoring wells, the discharge tubing will be disconnected from the flow-through cell. Groundwater samples will be collected for cadmium and nickel analyses from the discharge tubing, which will be held near the open container. The tubing will not come in contact with the container during filling.

3.1.3.2 Monitoring Well Purging and Sampling Using a Pump

Monitoring location MW-6 is installed in the Floridan Aquifer and is equipped with a dedicated 0.5-horsepower submersible pump. The discharge line for the pump is a 2-inch diameter PVC pipe. Monitoring location MW-6 will be purged via the multiple-volume purge method in general conformance with the EPA Region 4 SESD (LSASDPROC-301-R6 – April 22, 2023, as amended).

Prior to purging, the volume of one (1) well volume of groundwater will be calculated to determine the total quantity of groundwater to be purged. To purge MW-6, the dedicated pump will be activated and allowed to operate until a minimum of three (3) well volumes have been removed, which typically exceeds 100 gallons. Flow volume will be gauged with a five (5) gallon bucket, or other containers with a known volume. It should be noted that no constituents of concern have been historically detected in groundwater samples collected from monitoring location MW-6. Therefore, the purge water will be discharged directly onto the impervious asphalt, in a direction that is downslope relative to the well and allowed to evaporate.

During purging activities, field parameters (pH, specific conductivity, dissolved oxygen, temperature, and turbidity) will be measured and recorded on well stabilization field data forms at approximately 5- to 10-minute intervals. Purging will be considered complete when approximately three (3) well volumes have been removed and field parameters are stable for at least three (3) consecutive readings. If field parameters have not stabilized after the removal of purging of 3 well volumes, purging will continue until approximately five (5) well volumes have been removed and field parameter measurements will continue. Groundwater samples will be collected following the removal of five (5) well volumes. A copy of an example version of the Well Parameter Stabilization/Sampling Data Sheet is provided in Appendix C.

Immediately following purging at MW-6, a groundwater sample will be collected for cadmium and nickel analyses directly from the end of the discharge pipe. The container will not come in contact with the discharge pipe and will not be overfilled to prevent the loss of the preservative from the container.

3.1.3.3 Active Recovery Well Sample Collection

Since monitoring location RW-2 is an operating remediation well, purging of RW-2 is not considered necessary. Groundwater samples are collected from RW-2 through a valve. Prior to sample collection, the valve will be opened, and groundwater will be allowed to flow through the valve for approximately five (5) minutes. Groundwater samples will be collected in the laboratory supplied containers directly from the valve. Only one (1) set of parameter measurements will be recorded, immediately prior to sample collection at RW-2. A copy of an example version of the Well Parameter Stabilization/Sampling Data Sheet is provided in Appendix C.

3.1.4 Alternate Groundwater Purging and Sampling Methods

The following purging and sampling methods are proposed in the event of a malfunction and/or breakdown of purging and sampling equipment proposed in Section 3.1.3.

3.1.4.1 Monitoring Well Purging and Sampling Using a Bailer

If determined necessary, monitoring wells RW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7 will be purged utilizing a new, dedicated disposable Teflon® lined polyethylene bailer and new nylon rope combination at each location. The new disposable bailer will be slowly lowered into the monitoring well until it is completely submerged below the groundwater surface. Once full, the bailer will be slowly removed from the well. Groundwater parameters will be measured and recorded on well stabilization field data forms at approximately 10- to 15-minute intervals, with a final measurement of field parameters immediately prior to groundwater sample collection. Purging at these wells will be considered complete when approximately three (3) well volumes of groundwater have been evacuated or the field parameters have stabilized. The appropriate purge volumes will be calculated using the well casing diameter, depth to groundwater, and total depth of well. The well volumes, including purged amounts, will be recorded on well stabilization field data forms.

Following the completion of purging at each monitoring well, groundwater samples will be collected by pouring the sample from the outlet at the top of the bailer directly into the new laboratory supplied sample containers. Groundwater parameters will be monitored and recorded on the Field Data Sheet – Groundwater Wells Purged/Sampled with Bailers forms following the completion of the groundwater sample collection.

3.1.4.2 Monitoring Well Purging and Sampling Using a Peristaltic Pump

If necessary, monitoring wells RW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-7 will be purged by a low-flow technique utilizing a peristaltic pump with new polyethylene, Teflon® lined tubing. The end of the intake tubing will be submerged within the mid-screen section of the water column in the well and the discharge tubing will be connected to a flow through cell attached to a calibrated multiparameter meter.

The low-flow method will be utilized in order to achieve relatively low flow rates that minimizes drawdown within each well. The purge flow rate will be maintained and adjusted accordingly to accomplish a minimal and stable drawdown rate. Drawdown will be monitored by an electronic water-level meter during well purging activities and measurements will be recorded on well stabilization field data forms at approximately 5- to 10-minute intervals. Groundwater parameters will be measured and recorded on well stabilization field data forms at approximately 5- to 10-minute intervals, concurrent with drawdown measurements. Purging at each well will be considered complete when parameters have stabilized for three (3) consecutive measurements and turbidity has stabilized or is less than 10 NTUs.

Following the completion of purging at each of the above listed monitoring wells, the discharge tubing will be disconnected from the flow-through cell. Groundwater samples will be collected for cadmium and nickel analyses from the discharge tubing, which will be held near the open container. The tubing will not come in contact with the container during filling and will not be overfilled to prevent the loss of the preservative from the container.

3.1.4.3 Monitoring Well Purging and Sampling Using a Submersible Pump

If the depth to water exceeds the suction capability of a peristaltic pump, a submersible pump (bladder, turbine, displacement, etc.) with new polyethylene unlined (intake) and Teflon® lined (discharge) tubing may be utilized. Prior to insertion into the well, the pump will be decontaminated following the steps listed in Section 3.1.2. In these cases, the submersible pump itself will be lowered into the mid-screen of the well and the discharge tubing will be connected to a flow through cell attached to a calibrated multiparameter meter.

The low-flow method will be utilized in order to achieve relatively low flow rates that minimizes drawdown within each well. The purge flow rate will be maintained and adjusted accordingly to accomplish a minimal and stable drawdown rate. Drawdown will be monitored by an electronic water-level meter during well purging activities and measurements will be recorded on well stabilization field data forms at approximately 5- to 10-minute intervals. Groundwater parameters will be measured and recorded on well stabilization field data forms at approximately 5- to 10-minute intervals, concurrent with drawdown measurements. Purging at each well will be considered complete when parameters have stabilized for three (3) consecutive measurements and turbidity has stabilized or is less than 10 NTUs.

Following the completion of purging at each of the above listed monitoring wells, the discharge tubing will be disconnected from the flow-through cell. Groundwater samples will be collected for cadmium and nickel analyses from the discharge tubing, which will be held near the open container. The tubing will not come in contact with the container during filling and will not be overfilled to prevent the loss of the preservative from the container.

3.1.5 Field Measurements During Purging

Field parameter measurements will be recorded on Well Parameter Stabilization/Sampling Data Sheet during well purging/sampling activities. Purging at each well will be considered complete when the following parameters have stabilized for three (3) consecutive measurements:

- pH measurements do not vary more than 0.1 standard units (SUs);
- Conductivity measurements do not vary more than 5%;
- Turbidity measurements are below 10 nephelometric turbidity units (NTUs) or have stabilized;
and
- Dissolved Oxygen measurements do not vary more than 10%.

If the monitoring wells are purged dry, additional purging will not be required prior to collecting groundwater samples. If field parameters do not stabilize following the purging of three (3) well volumes, purging will continue until all parameters have stabilized or five (5) well volumes have been purged. If parameter stabilization has not been achieved following the purging of five (5) well volumes, it will be assumed that the changes in parameters represent migration of different quality water towards the well under influence of purging, and purging will be terminated.

3.2 Investigative Derived Waste (IDW)

Groundwater purged from all monitoring locations, except for MW-6, will be collected in five (5) gallon buckets and transported to, and deposited into, the on-site in-ground tanks of the waste water system. Since no constituents of concern have been historically detected in groundwater samples collected from monitoring location MW-6, the purge water will be discharged directly onto the impervious asphalt, in a direction that is downslope relative to the well and allowed to evaporate. In addition, Since cadmium and nickel has not been detected in groundwater samples collected from MW-1, MW-2, MW-4, MW-5, and MW-7 in over three (3) years, the purge water collected from these wells will be discharged directly onto the impervious asphalt, in a direction that is downslope relative to the well and allowed to evaporate. If cadmium and/or nickel is detected in a sample collected from these wells

during future events, the purge water from that well will be disposed of in the on-site waste water system.

3.3 Documentation

Field data forms will be used to record all field measurements and purge volumes made during well purging and sampling activities. Copies of the various field data forms are provided in Appendix C.

Information to be recorded on these forms will include, but not limited to:

- Site/Facility name;
- Field personnel;
- Well identification;
- Well Diameter;
- Groundwater depth and total well depth;
- Volumetric calculation of groundwater within each well;
- Water quality parameter measurements; and
- Date, time, and method of well purging and sample collection.

Prior to collecting each groundwater sample, laboratory-supplied sample containers will be labeled with the following information:

- Sample location ID;
- Date and time of sample collection;
- Sample project identification number;
- Name of groundwater sampler;
- Type of preservative added to sample; and
- Parameters to be analyzed.

4.0 SURFACE WATER AND SEDIMENT SAMPLING

During each annual sampling event, a surface water sample (OCR-W) and sediment sample (OCR-S) will be collected from Mud Creek. The surface water sample will be collected before the sediment sample to avoid contamination of the surface water sample. The approximate locations of these sample locations are shown in Figure 2 (Appendix A). New disposable Nitrile gloves will be worn, and changed appropriately, during surface water and sediment sampling activities.

4.1 Justification for the Chosen Sampling Locations

The surface water and sediment sample locations were chosen based on their downstream position relative to the confluence of the on-site ditch and Mud Creek.

4.2 Sampling Techniques

4.2.1 Surface Water

The surface water sample will be collected in general conformance with the Dipping Using Sample Container method as described in the April 22, 2023, US EPA Laboratory Services and Applied Science Division Operating Procedure guidance (LSASDPROC-201-R6), as amended. The sample collector will stand on the bank of the creek facing in the upstream direction of flow to collect the surface water sample. A new laboratory-provided, unpreserved plastic sample container will be secured to a sampling rod. With the bottle facing upstream, the plastic sample container will be slowly submerged beneath the water surface and allowed to fill. Next, the surface water will be poured from the unpreserved container directly into a laboratory provided container containing nitric acid (HNO_3) and capped.

4.2.2 Sediment

The sediment sample will be collected in general accordance with the methods described in the April 22, 2023, US EPA Science and Ecosystem Support Division Operating guidance (LSASDPROC-200-R5), as amended. The sample will be collected by scooping the sediment with a stainless-steel scoop or spoon, while standing and facing in the upstream direction of the creek. The sediment will then be transferred from the scoop or spoon into a laboratory provided container and capped. The scoop will be decontaminated prior to sample collection in the manner discussed in Section 3.1.2.

4.3 Laboratory Analytical Methods

The surface water and sediment samples containers will be stored in a cooler during field sampling activities. These samples will be shipped to an off-site Georgia certified laboratory for the following analyses:

-
- | | | |
|-------------------------|--------------------|---------------------|
| • Surface Water (OCR-W) | Cadmium and Nickel | EPA Method 200.8 |
| • Sediment (OCR-S) | Cadmium and Nickel | EPA Method SW 6010C |

Surface water and sediment samples will be handled following normal chain-of-custody protocol with a fully completed and signed COC accompanying all shipments to the laboratory

5.0 QUALITY ASSURANCE/QUALITY CONTROL MEASURES

5.1 Field QA/QC Program

During each groundwater sampling event, the QA/QC procedures discussed in the following sections will be performed.

5.1.1 Field Calibration Procedures

Immediately prior to each sampling event, field parameter measurement instruments will be calibrated pursuant to manufacturer's recommendations using known calibration solutions. Calibration results will be recorded on a calibration form. An example copy of the field parameter measurement equipment calibration form is included in Appendix C.

5.1.2 Equipment Blanks

When bladder pumps, or other downhole sampling equipment that requires decontamination between use in each well, is used for groundwater purging and/or sample collection, at least one (1) rinsate Equipment Blank (EB) sample will be collected for laboratory analysis. The EB sample will be used to ensure the integrity of field sampling and equipment decontamination procedures. The EB sample will be collected by pouring distilled water through the bladder pump after it has been decontaminated. The rinsate water will be collected in laboratory-provided sample containers, which will be sealed, labeled, and stored in a cooler. The EB sample will be shipped with groundwater samples to the off-site laboratory for the analyses of cadmium and nickel (EPA Method SW 6010C).

6.0 REPORTING

The groundwater monitoring data for each sampling event will be submitted to EPD on or before 60 days following the completion of each sampling event. The annual groundwater sampling event will be performed in September of each calendar year, and the subsequent report will cover the period from October 1 through September 31.

Each report will include, but not limited to, the following:

Section

- 1.0 Summary
- 2.0 Groundwater Conditions
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- Appendix J: Stormwater Historical Analytical Results (Historical)
- Appendix K: Table 7 And Figure 1.1 From May 16, 2014; Capture Zone Analysis of Pump Well RW-2

Appendix A: Figures

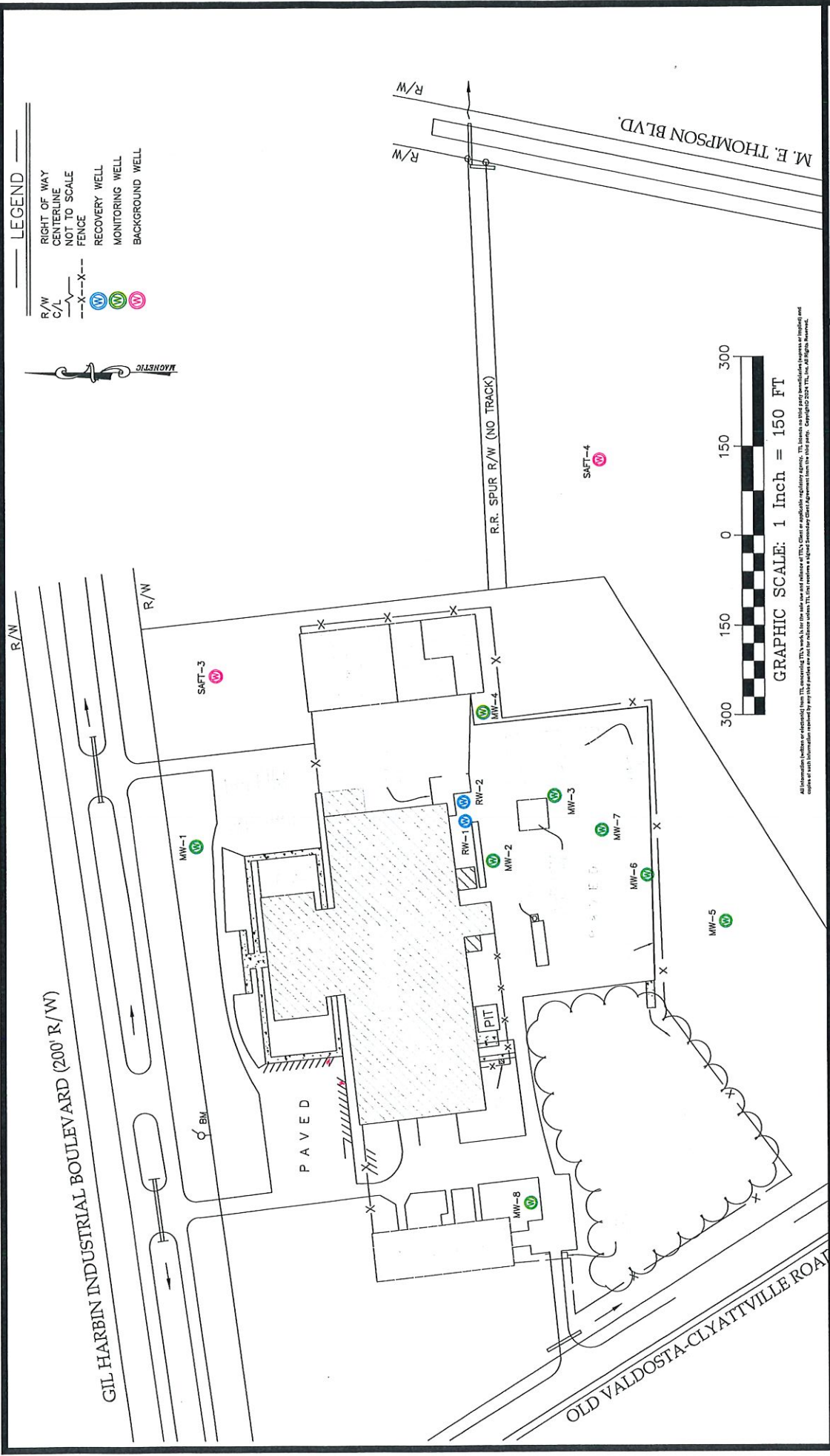


FIGURE 1
 Groundwater Monitoring Plan - Saft America, Inc.
 71.1 Gil Harbin Industrial Boulevard
 Valdosta, Lowndes County, Georgia
 Hazardous Waste Permit No. HW-001(CA)

Site Layout Map with Well Locations

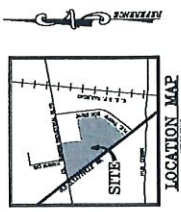


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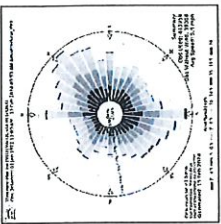
FACILITY MAP FOR
SAFT AMERICA, INC.
 AZALEA CITY INDUSTRIAL PARK
 CITY OF VALDOSTA, LOWNDOS COUNTY, GA



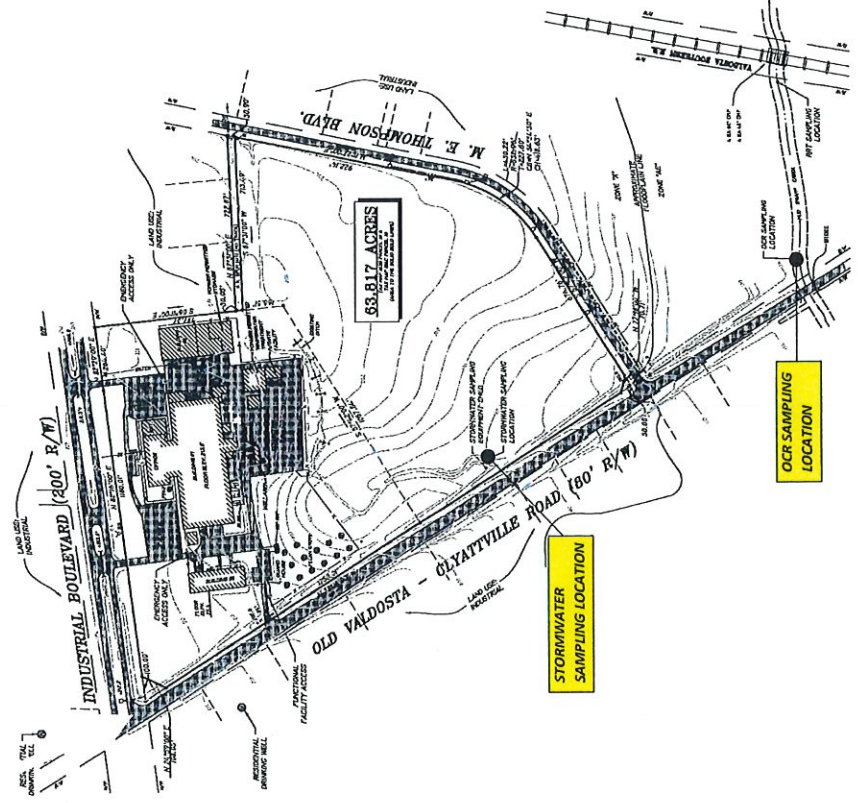
WORK ORDER: 4398
 SHEET
 1 OF 1



NO.	DATE	DESCRIPTION



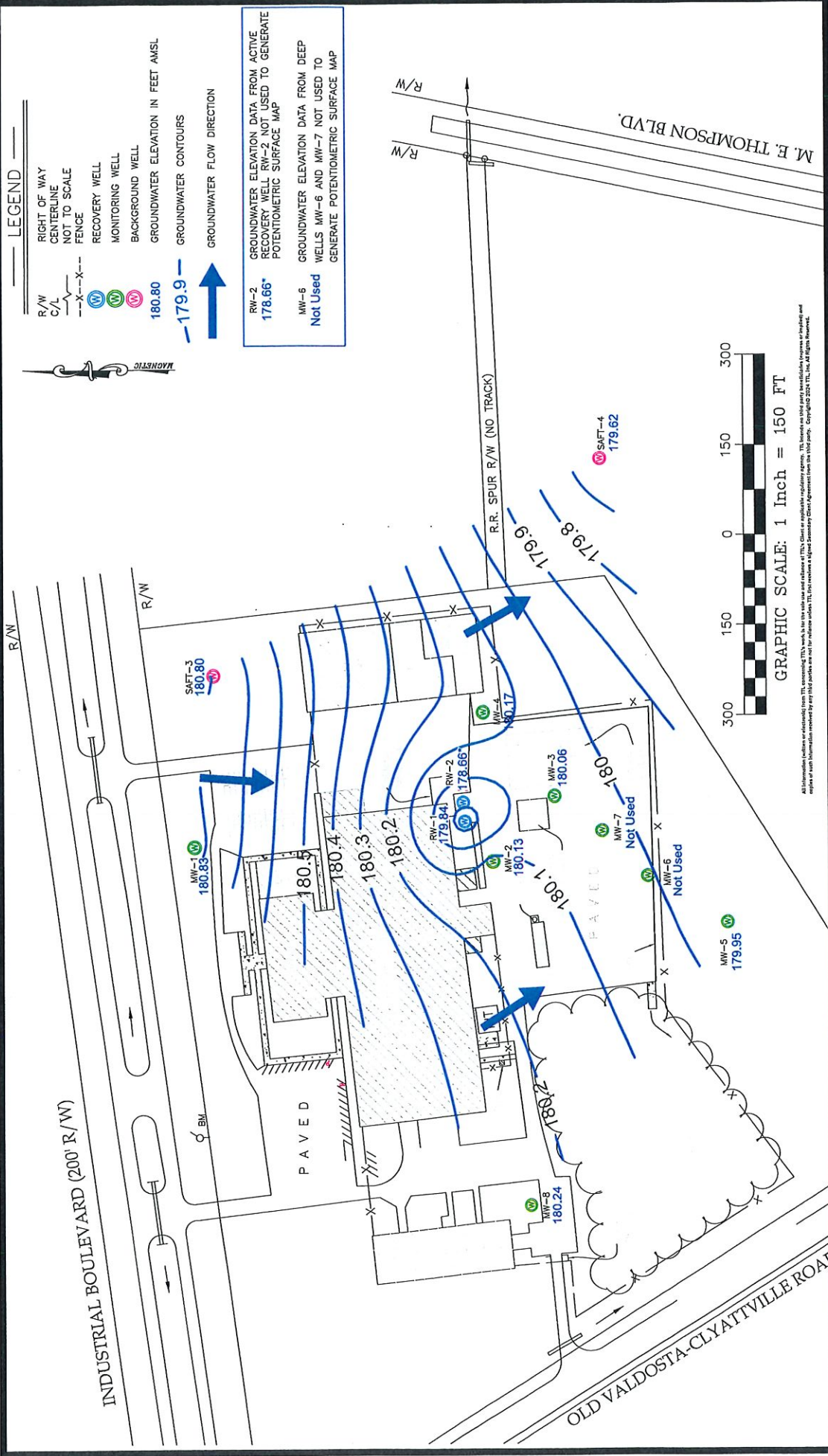
THE INFORMATION ON THIS MAP WAS OBTAINED BY ASA ENGINEERING & SURVEYING, INC. FROM THE FOLLOWING SOURCES:
 (1) THE COMPANY'S SURVEY RECORDS.
 (2) THE COMPANY'S FIELD NOTES.
 (3) THE COMPANY'S PHOTOGRAMMETRIC DATA.
 (4) THE COMPANY'S AERIAL PHOTOGRAPHS.
 (5) THE COMPANY'S GROUND PHOTOGRAPHS.
 (6) THE COMPANY'S FIELD MEASUREMENTS.
 (7) THE COMPANY'S FIELD NOTES.
 (8) THE COMPANY'S FIELD NOTES.
 (9) THE COMPANY'S FIELD NOTES.
 (10) THE COMPANY'S FIELD NOTES.



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FIGURE 2
 Surface Water and Sediment Sample Location Map
 Groundwater Monitoring Plan
 Saft America, Inc.
 711 Gil Harbin Industrial Boulevard
 Valdosta, Lowndes County, Georgia
 Hazardous Waste Permit No. HW-001(CA)





LEGEND

R/W
C/L
NOT TO SCALE
FENCE
RECOVERY WELL
MONITORING WELL
BACKGROUND WELL
GROUNDWATER ELEVATION IN FEET AMSL
GROUNDWATER CONTOURS
GROUNDWATER FLOW DIRECTION

180.80
-179.9-

GROUNDWATER ELEVATION DATA FROM ACTIVE RECOVERY WELL RW-2 NOT USED TO GENERATE POTENTIOMETRIC SURFACE MAP
178.66*

GROUNDWATER ELEVATION DATA FROM DEEP WELLS MW-6 AND MW-7 NOT USED TO GENERATE POTENTIOMETRIC SURFACE MAP
Not Used

300 150 0 150 300

GRAPHIC SCALE: 1 Inch = 150 FT

All information shown on this map is derived from data provided by the client. TTL, its consultants, and its subcontractors do not warrant the accuracy or completeness of the information shown on this map. TTL, its consultants, and its subcontractors shall not be held responsible for any errors or omissions on this map. Copyright © 2024 T.T.L. Inc. All Rights Reserved.

POTENTIOMETRIC SURFACE MAP
March 4, 2024

FIGURE 3
Groundwater Monitoring Plan - Saft America, Inc.
711 Gil Harbin Industrial Boulevard
Valdosta, Lowndes County, Georgia
Hazardous Waste Permit No. HW-001(CA)



Appendix B:

Tables

TABLE 1
GROUNDWATER SAMPLING FREQUENCY
Groundwater Monitoring Plan
 SAFT America, Inc.
 711 Gil Harbin Industrial Boulevard
 Valdosta, Lowndes County, Georgia
 Hazardous Waste Permit No. HW-001(S&T)-4

Groundwater Samples	
Well ID	Annual Event (September)
	Analytes
	Cadmium and Nickel
RW-1	X
RW-2	X
SAFT-3	NS-GEO
SAFT-4	NS-GEO
MW-1R	X
MW-2	X
MW-3	X
MW-4	X
MW-5	X
MW-6	X
MW-7	X
MW-8	NS-GEO

X = Sample Required

NS-GEO = Not Sampled - Groundwater Elevation Only

TABLE 2
MONITORING WELL INSTALLATION AND CONSTRUCTION DETAILS

Groundwater Monitoring Plan
SAFT America, Inc.
711 Gil Harbin Industrial Boulevard
Valdosta, Lowndes County, Georgia
Hazardous Waste Permit No. HW-001(CA)

Well Number	Date Drilled	Well Depth (ft. BTOC)	Casing Diameter (Inches)	Top of Filter Pack (feet BGS)	Top of Bentonite Seal (feet BGS)	Screened Interval (feet) ¹	Top of Casing (ft) (Relative to GS)	GS Elev. (feet, MSL)	TOC Elev. (feet, MSL)
RW-1	7/21/1998	38.1	4	23.5	21.5	25.0-35.0	2.35	212.27	214.62
RW-2	2/5/1999	55.4	4	24.0	18.0	43.0-53.0	2.44	212.11	214.55
SAFT-3	9/12/2001	39.0	2	25.0	10.0	30.4 to 35.4	see footnote ²	211.0	211.08
SAFT-4	9/14/2001	35.0	2	22.0	18.0	23.5 to 33.5	see footnote ²	207.0	207.04
MW-1	9/16/1999	44.4	2	32.5	27.0	34.4-44.8	-0.3	213.45	213.15
MW-2	9/16/1999	38.1	2	26.2	23.2	27.7-38.1	-0.35	209.58	209.23
MW-3	9/15/1999	37.9	2	27.0	23.2	27.5-37.9	-0.28	208.44	208.16
MW-4	9/14/1999	39.1	2	28.3	20.2	29.0-39.4	-0.35	209.94	209.59
MW-5	12/8/1999	31.8	2	19.5	15.0	21.3-31.7	-0.2	200.33	200.13
MW-6	6/22/2001	180.5	4	182.5	160.5	164.5-175.8	-0.5	203.47	203.97
MW-7	6/27/2001	105.0	4	80.0	58.0	81.0 - 96.0	-0.5	206.43	206.93
MW-8	9/12/2001	40.0	2	22.5	17.6	23.2 to 34.1	-0.34	206.73	207.07

NOTE: BTOC = Below Top of Casing
BGS = Below Ground Surface
MSL = Mean Sea Level

FOOTNOTES:

¹Monitoring Wells MW-1 - MW-5 have a 0.4' endpoint which is included in the screened interval; MW-6 and MW-7 have a 4" diameter wash plug which is 0.5' (MW-7) and 1.3' (MW-6).
Monitoring Well MW-8 has a 0.9' wash plug which is included in the screened interval.
²SAFT-3 and SAFT-4 were originally installed as temporary wells. They were converted to permanent wells on 12/19/01 (SAFT-4) and 12/14/01 (SAFT-3). The casing in both wells was cut to approximate ground level. Both wells are protected with steel manhole covers.

DESIGN & MATERIALS USED IN ALL MONITORING WELLS (MW) AND RECOVERY WELL (RW-2) ARE SUMMARIZED BELOW:

Driller's Name: Earl F. Titcomb, Jr., P.G. or Tony Fletcher (MW-6 and MW-7)
Driller's Georgia Water Well Bond #: MBOD9105 (Fletcher)
Drilling Method: Mud Rotary; 5" fishtail bit; Mud Rotary 8 or 9.5" fishtail bit
Borehole Diameter: 4" (MW); 6" (RW); 9.5" (MW-7); 5.5" (MW-6)
Screen Materials: ASTM 2 or 4" Diameter Schedule 40 PVC (MW); 4" Diameter Stainless Steel (RW-2)
Casing Materials: ASTM 2 or 4" Diameter Schedule 40 PVC (MW); 4" Diameter Stainless Steel (RW-2)
Casing and Screen Joint Types: Flush Threaded
Screen Slot Size/Length: 0.010" Slots/10 feet in length (MW); 20 feet (RW-2); 15' (MW-7)
Filler Pack Materials/Size: 16-30 Sand
Filler Pack Placement Method: Tremie (where feasible)
Sealant Materials: 3/8" Bentonite Pellets
Sealant Placement Method: Gravity
Surface Seal Design/Construction: 2'x2' Concrete GROUT Pad (MW)
Type of Protective Cover: 8 or 12" cast iron manhole cover (MW); 4"x4"x5' Standing Locking Cover (RW)
Type of Protective Well Cap: Locking Well Cap

Appendix C: Example Forms

GROUNDWATER MONITORING WELL INSPECTION LOG

Saft America Inc.
7411 Gil Harbin Industrial Blvd.
Valdosta, Georgia 31601

Date: _____ Time: _____ Inspector: _____ Temp: _____ Weather: _____

Well ID	Outer Protective Casing Intact	Inner Casing Intact	Well ID Clearly Marked	Well Cap Present/Intact	Annulus Free of Water	TOC Measuring Point Clearly Marked	Well Locked	Vegetation Present	Pad Condition
RW-1									
RW-2									
MW-1									
MW-2									
MW-3									
MW-4									
MW-5									
MW-6									
MW-7									

TOC = Top of Casing

Comments:

FIELD DATA SHEET - GROUNDWATER MONITORING WELL WATER LEVELS ONLY

SITE NAME: _____

PROJECT NO: _____

EVENT NO: N = _____

PERMIT NO: _____

EVENT DATE: _____

WATER LEVEL METER:

OTHER EQ: _____

Well or Location ID	Well Depth (ft - TOC)	Water Level (ft - TOC)	Water Level		Well Type	Well Condition:	
			Date	Time		Well Condition:	Notes:

Well Condition: (Condition of well casing, outer casing, well pad, lock missing, lock needs replacement, other observations)

MEASURED BY: _____

Signature: _____



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PART L
ATTACHMENT B

CORRECTIVE ACTION PLAN

CORRECTIVE ACTION PLAN

(REVISION NO. 1)

FOR

**FORMER ACID STORAGE TANK AREA
SAFT AMERICA, INC.
711 GIL HARBIN INDUSTRIAL BOULEVARD
VALDOSTA, GEORGIA**

PREPARED BY:

**EMC ENGINEERING SERVICES, INC.
23 EAST CHARLTON STREET
SAVANNAH, GEORGIA 31401**

EMC PROJECT NO. 02-0230.30

JULY 2, 2002

CORRECTIVE ACTION PLAN (Revision No. 1)

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3	POTENTIOMETRIC SURFACE MAP (JUNE 21, 2001)
4	POTENTIOMETRIC SURFACE MAP (SEPTEMBER 18, 2001)
5	APPROXIMATE PLUME LIMITS MAP (BASED ON JUNE 2001 ANALYTICAL RESULTS)/CROSS SECTION LOCATION PLAN
6	VERTICAL CROSS SECTION OF GROUNDWATER PLUME

APPENDIX

A	BORING LOGS/WELL CONSTRUCTION DETAILS
B	SAMPLE INSPECTION LOG
C	SAMPLING AND ANALYSIS PLAN

1.0 INTRODUCTION

This Corrective Action Plan (CAP) for SAFT America, Inc., (SAFT), has been prepared in accordance with 40 CFR 264.100-101; Hazardous Waste Facility Permit HW-001(S&T)-2 (Section III.C.2.); and verbal discussions between SAFT and the Georgia Environmental Protection Division (EPD).

Condition III.C.2. of the permit requires SAFT to prepare a Corrective Action Plan (CAP) for any release to the environment of hazardous waste constituents from a Solid Waste Management Unit (SWMU). This Plan constitutes a Class III RCRA Permit Modification as described in 40 CFR 270.42, Appendix I, *Classification of a Permit Modification*. This document was included as an appendix to the permit modification application when prepared in November 2001 by Clayton Group Services.

1.1 REVISIONS TO CAP

EPD reviewed the original permit modification application and CAP and issued a Notice of Deficiency (NOD) to SAFT dated May 9, 2002. EMC Engineering Services, Inc., (EMC) has revised the CAP (Revision No. 1) to address EPD's comments.

1.2 SITE DESCRIPTION

The SAFT facility is located at the west end of the Azalea City Industrial Park; south of Gil Harbin Industrial Boulevard where it intersects the Old Clyattville Road. See Figure 1; Site Vicinity Map. The site covers approximately 65 acres fronting 1,444 feet of the south side of Gil Harbin Industrial Boulevard.

The physical facility consists of an office building which is connected to the aviation and industrial battery manufacturing facility (Building #1); the Tele-com facility (Building

#2); the warehousing and recycle facility (Building #3); the wastewater treatment/nitrate facility; and the employee parking lots. Figure 2 is a Site Plan for the SAFT facility.

The subject area (SWMU) consists of an area located adjacent to and south of Building #1, which extends into the employee parking areas and undeveloped SAFT property further south. A 10,000-gallon wastewater sump/tank (partially underground), which contained high pH waste water as well as Cadmium and Nickel, was located adjacent to the southeast corner of Building #1 in the "patio" area. This area is adjacent to the former acid storage tank location.

1.3 SITE OPERATIONS

SAFT has been responsible for manufacturing Nickel and Cadmium batteries at this site since 1975. SAFT received its first Part B Hazardous Waste Permit allowing the generation and storage of hazardous waste in 1983. SAFT is currently permitted to manage two types of hazardous waste: (1) sludge generated from the chemical plant wastewater by the treatment system; and (2) spent batteries returned from customers for reclamation of the contained Nickel and Cadmium.

1.4 PROJECT BACKGROUND

During removal of the former in-ground 10,000-gallon wastewater tank in April 1998, soil samples were collected from varying depths to the groundwater table. The samples exhibited elevated levels of Nickel and Cadmium.

Approximately 32,214 tons of contaminated soil were removed from the site in April 1998 and disposed properly offsite in conjunction with soil remediation which took place south of the plant. Only 9,795 tons of the removed soil failed the TCLP analysis and required treatment.

1.4.1 Recovery Wells (RW-1 and RW-2)

In July 1998, a 4-inch recovery well (RW-1) was installed by Geosciences, Inc., in the suspected source area. The well, approximately 35 feet in total depth below grade, was contaminated with Nickel and Cadmium. Attempts to obtain sufficient quantities of water from the well by pumping were unsuccessful. The well, measured on November 4, 1998, had only 2.85 feet of screen set below the water table, and this did not allow for adequate drawdown to create a cone of depression. RW-1 is presently in use as an observation well.

On February 3, 1999, Clayton Group Services, Inc. (Clayton), installed a deeper recovery well (RW-2) adjacent to RW-1. The well was installed to a depth of approximately 55 feet in order to obtain an adequate amount of water to pump. Presently, SAFT is pumping from 24 gallons per minute of groundwater from this well. The withdrawal rate has varied from approximately six to 27 gpm as modifications have been made to the system.

1.4.2 Delineation of Horizontal Plume Limits

Four permanent monitoring wells (MW-1R, MW-2, MW-3, and MW-4) were installed September 13-16, 1999, to determine the horizontal plume limits. One additional permanent monitoring well (MW-5) was installed December 7, 1999 to define the horizontal plume limit in the downgradient direction. A *Remedial Groundwater Investigation*, describing the horizontal delineation investigation, prepared by Clayton, was submitted to the Georgia Environmental Protection Division (EPD) in March 2000 and subsequently approved.

1.4.3 Pumping Test

A groundwater pumping test was conducted on December 8 to 10, 1999. The results of the pumping test investigation found an Estimated Transmissivity of the Aquifer = 101

m²/day (1080 ft²/day); and an Estimated Specific Yield of the aquifer = 0.12, as shown below:

UNITS	TRANSMISSIVITY, T	*HYDRAULIC CONDUCTIVITY, K	SPECIFIC YIELD, S _y
S.I.	101 m ² /day	13 m/day	0.12
English	1080 ft ² /day	43 ft/day	0.12
English	8100 gal/ft/day		

*These results were obtained using an estimated aquifer thickness of 25 feet. If a greater aquifer thickness (i.e., 55 feet) was used, then hydraulic conductivity values would be approximately 6 m/day, or 20 ft/day. Transmissivity values and specific yield values would be essentially unchanged.

The capture zone of the aquifer under the 15 gpm pumping rate (in effect at the time of the test) extended approximately 60 feet downgradient of RW-2. This well alone would not likely be able to capture flow from all of the area encompassing MW-2, MW-3, and MW-4 at this rate. The pumping rate was subsequently increased to approximately 27 gpm which resulted in a greater and more effective capture zone.

1.4.4 Delineation of Vertical Plume Limits

On July 26, 2000, Clayton mobilized to the subject site to supervise the installation of one direct push boring (GP1) to determine the vertical extent of groundwater contamination at the subject property. The boring was located approximately four feet south of the midpoint between RW-1 and RW-2, in the area believed to be the source of contamination. Total depth of the probe was 118 feet below ground surface (bgs); however, no groundwater was obtained after a depth of 95 feet.

The extent of vertical contamination appeared to be approximately 95 feet bgs, due to the presence of an aquitard, as described on a drillers log from an onsite deep water well. The original report on the Vertical Delineation, prepared by Clayton, was submitted to EPD in August 2000. EPD responded with a Notice of Violation (June 2000) indicating that direct push technology was not acceptable for the vertical delineation and that permanent

monitoring wells were necessary to confirm the presence of the aquitard and determine impacts to groundwater at depths below the aquitard.

Clayton submitted a second Phase II Vertical Delineation at the former source area on July 30, 2001, to assess the vertical extent and limits of the groundwater contaminant plume with permanent well installations. The workplan to be followed for this investigation was submitted May 2001 to EPD and subsequently approved. Two deep permanent monitoring wells (MW-6 and MW-7) were installed June 2001. MW-7 was installed 100 feet southwest of MW-3, a contaminated well. MW-7 was installed to a depth of 96 feet bgs. Analytical results for MW-7 found no detectable levels of Cadmium and Nickel at 0.011 mg/l (below the applicable drinking water standard). MW-6 was located approximately 125 feet southwest of MW-7 near the plume boundary and was screened from 168.5 to 178.5 feet bgs, below the aquitard. No Cadmium or Nickel was detected.

2.0 PHYSICAL SETTING

The property is on sloping terrain at an elevation of approximately 210 feet above the National Geodetic Vertical Datum (NGVD) of 1929 and slopes to the southwest toward a drainage ditch. The drainage ditch carries surface runoff to the south when precipitation occurs and empties into Mud Swamp Creek.

Mud Swamp Creek is a naturally occurring surface water body that is located approximately 0.5 miles south of the factory and 0.15 mile from the closest SAFT property. Mud Swamp Creek (Mud Creek) flows approximately 11 miles to Grand Bay Creek. Grand Bay Creek is a tributary of the Alapahoochee River which flows to the Alapaha River. The Alapaha River flows into the Suwannee River which empties into the Gulf of Mexico.

Mud Creek has a broad, flat floodplain containing wetland areas. Even though SAFT is located near Mud Creek, no SAFT property lies within the 100-year flood plain.

2.1 REGIONAL GEOLOGY

The site is located in the Coastal Terrace region of Georgia. The area has undergone geologic processes typical of the lower Coastal Plain of Georgia, and consists of nearly level to gently sloping terrain. The upland areas are dissected by small streams which become sluggish as the topography levels. The soils in the area are deep sedimentary sands and clays.

The geology in the area in order of oldest to youngest units consists of the Suwanee Limestone Unit of the early Oligocene Age, the Hawthorn Formation of the Middle Miocene Age, and sediments from the Pliocene Age. The Suwanee Limestone Unit is composed of limestone which crops out in lime sinks in the lower southeastern part of Lowndes County and along the Withlacoochee River on the county's western boundary. The limestone is white or cream colored, sandy, phosphatic, locally cherty, and slightly fossiliferous. The Hawthorn Formation overlies the Suwanee Limestone Unit, averages 150 feet in thickness, is phosphatic, and is pale green to dark green. The Hawthorn Formation is sandy clay interbedded with fine to coarse-grained sand and sandy limestone. Sediments from the Pliocene period to the present overlie the Hawthorne Formation.

The sediments have a shallow surface increment of fine to coarse sand overlying sandy clay. The sandy clay is limonitic and mottled and contains finely disseminated phosphate grains. The sediments range from 20 to 90 feet in thickness.

2.2 SITE GEOLOGY

Knowledge of site specific geology is based on information obtained during the *Remedial Groundwater Investigation (March 2000), Phase II Vertical Delineation Reports (August 2000 and July 2001)*, as well as data from onsite water supply well records. This information indicates the site's subsurface consists of a vadose zone approximately 30

feet deep at the plant, consisting of orange-red clayey fine sands and fine sandy clays. Around 30 feet bgs, the soils become more sandy with interlayered white to orange, fine to coarse sands, and gray to orange sandy clays. The water table is approximately 30 to 34 feet bgs at the plant.

An impervious zone is encountered from approximately 95 to 175 feet bgs which appears to control the vertical limit of contamination. A "blue" clay zone, described by an onsite water well log, was not found in Clayton's investigations. The zone is actually gray and consists of both limestone and clay. The upper surface of this "impervious" zone is defined by a stiff light gray clay at 95 feet overlying a relatively soft limestone at approximately 105 feet bgs. A light gray sandy clay, which is relatively impervious, is the predominant material from 95 feet to approximately 175 feet. Limestone is encountered at approximately 175 feet bgs and appears to be the interface with the underlying principal water supply aquifer for the area. The impervious zone contains harder layers of limestone at 130 feet, 135 feet, and 156 feet. At 172 feet, a three-foot thick hard dark green clay was encountered. These materials are included in what is referred to as the impervious zone or aquitard found in the area.

3.0 MONITORING WELL SYSTEM

The monitoring well system for the former acid storage tank area (SWMU) consists of one upgradient (background) monitoring well (MW-1) and six downgradient monitoring wells (MW-2 through MW-7). The wells were installed September 1999 to July 2001. One active recovery well (RW-2), installed February 1999, is currently in operation. MW-2 and MW-5 have not been impacted. With the exception of MW-6 (a deep well) the monitoring wells range from 31.7 (MW-5) to 96 feet (MW-7) in depth. MW-6, approximately 178 feet in depth, is located outside the horizontal plume limits and indicates the vertical extent of contamination. MW-3 and MW-4 are historically the only contaminated wells, except for RW-1, located in the source area.

Figure 2 is a Well Location Plan. Table 1 is a well data summary. Appendix A contains boring logs and well construction detail diagrams

4.0 GROUNDWATER FLOW DIRECTION AND RATE

A Potentiometric Surface Map was previously constructed for the Phase II Vertical Delineation report in the subject area. These contours were based on water level measurements obtained June 21, 2000. Figure 3 illustrates the previous contours (June 21, 2001) contours.

A Potentiometric Surface Map has been constructed for this report based on water level measurements obtained September 18, 2001. Water level measurements from two temporary monitoring wells (SAFT-3 and SAFT-4) and one permanent monitoring well (MW-8), installed September 2001 for an ongoing RCRA Facilities Investigation at the Building #2, Burn Area, were included in constructing the most recent contours. Figure 4 illustrates the recent contours (September 2001).

4.1 PREVIOUS FLOW DIRECTION (JUNE 21, 2001)

RW-1 and RW-2 were not included in this event. In addition, water level measurements obtained from the deep wells (MW-6 and MW-7) were not used in constructing the potentiometric map as these wells do not screen the same interval as MW-1 through MW-5. Flow direction was estimated to be generally south-southwest at S45°W, conforming to the surface topography in the area.

This water table data shows the lowest water level at MW-3 and the highest level at MW-1. MW-5, previously measuring the lowest level in the well system, was the second highest level for this event. It appears that MW-2, MW-3, and MW-4, located near the source area and recovery wells, were showing effects from the higher withdrawal rate (27 gpm) at RW-2. Pumping at this rate had been ongoing for the past two months. Prior to

that time, the withdrawal rate was much lower, generally six to 15 gpm. In April 2001, the recovered groundwater use was changed by rerouting the piping from a production tank to a scrubber tank, decreasing the head. This change increased the pumping rate from around 15 gpm to 27 gpm, or approximately an 80% increase. This condition has caused expansion of the previous capture zone, apparently resulting in the water level decreases, as illustrated on Figure 3.

4.2 PRESENT FLOW DIRECTION (SEPTEMBER 18, 2001)

Data for this event includes one new monitoring well (MW-8), two temporary, background wells (SAFT-3 and SAFT-4), RW-1, and MW-1 through MW-5. Neither of the deep wells (MW-6 or MW-7) was included in this event. The present contours show the groundwater flow varying from southeast to southwest around the pumping well RW-2. It is believed that the relatively low water levels found in the vicinity of RW-2 are related to the pumping of RW-2. MW-5, topographically downgradient and previously with a lower water level than MW-3, now exhibits essentially the same level as MW-2 and MW-4 (only .01 to .05 feet lower); while MW-3, located between MW-2 and MW-5, is 0.15 feet lower. This may reflect drawdown related to the pumping of RW-2. In all cases, the hydraulic gradients are low, toward RW-1 from MW-2, MW-3, and MW-4 as shown:

MW-2 to RW-1	=	.0026
MW-3 to RW-1	=	.0017
MW-4 to RW-1	=	.0028

The average pumping rate at this time was approximately 27 gpm.

5.0 GROUNDWATER QUALITY

Constituents of Concern (COCs) designated in the Part B Permit for the site consist of Cadmium and Nickel. The Groundwater Protection Standard (GWPS) established for the

site is the U.S. Drinking Water Standards, Maximum Contaminant Levels (MCLs), where there is a listed MCL. For those COCs without an MCL, such as Nickel; the background level will be the GWPS.

Groundwater monitoring wells MW-1 through MW-4 have been monitored since installation September 1999. MW-5 has been monitored since it was installed December 1999. Contaminated wells MW-3 and MW-5 were also sampled December 1999. In January 2000, previously contaminated wells MW-3, MW-5, and RW-2, were again sampled. These wells are analyzed for Nickel and Cadmium by EPA Method 6010.

MW-6 and MW-7 were sampled June 2001 at installation. These wells were analyzed for eight RCRA Metals (Cadmium Nickel, Arsenic, Barium, Chromium, Lead, Selenium, and Silver) by EPA Method 6010 and Mercury by EPA Method 7470. MW-1 through MW-5 were also sampled for this event and analyzed for Cadmium and Nickel.

Table 2 is a summary of the analytical results. Laboratory data sheets and chain-of-custody records are included in Appendix D.

5.1 UPGRADIENT/BACKGROUND WELL (MW-1)

Analytical results from the initial sampling event (September 1999) conducted after the installation of MW-1 found no detectable levels of Cadmium or Nickel. This well is located approximately 300 feet north (upgradient) of RW-2 and the source area.

This well was also sampled in June 2001 with no Cadmium or Nickel concentrations above the detection limits.

5.2 MONITORING WELLS (MW-2 THROUGH MW-5)

Analytical results from the initial sampling event conducted after the installations of MW-2, MW-3, and MW-4 found no detectable levels of Cadmium or Nickel in wells, MW-2 and MW-4, located downgradient and/or crossgradient of the source area. However, MW-3, also a downgradient well, was contaminated with Cadmium at 0.29 mg/L and Nickel at 0.12 mg/L.

MW-5 was then installed approximately 380 feet downgradient and southwest of MW-3. RW-2, MW-3, and MW-5, were sampled in December 1999. Previously clean wells, MW-1R, MW-2, and MW-4, were not resampled. The analytical results found higher levels of Cadmium and Nickel in RW-2 and MW-3 than levels from the initial sampling event. A low level of Cadmium was detected in MW-5 at 0.01 mg/L. Nickel was not detected in MW-5.

Another sampling event was conducted January 2000. Again, the previously contaminated wells, RW-2, MW-3, and MW-5, were sampled. Cadmium and Nickel were detected at elevated levels in RW-2 and MW-3. However, the analytical results found no detectable levels of Cadmium or Nickel in MW-5, indicating that the horizontal plume limit had been defined.

During the Phase II Vertical Delineation in June 2001, MW-1 through MW-7 were sampled. The analytical results for MW-1, MW-2, MW-5, MW-7 found no detectable levels of Cadmium or Nickel. For the first time, Cadmium and Nickel were detected in MW-4 at 0.014 mg/l and 0.021 mg/l, respectively. MW-3 was again the most contaminated well with a Cadmium level of 2.0 mg/l and Nickel level of 0.73 mg/l. Nickel was detected at 0.011 mg/l in MW-6.

5.3 RECOVERY WELLS (RW-1 and RW-2)

Cadmium and Nickel levels in RW-2, located in the suspected source area, were 0.9 and 0.14 mg/L, respectively. RW-1 has not been sampled and is in use only as an observation well.

The contaminant concentrations in RW-2, located in the source area, vary from those found in MW-3, the other contaminated well. Most recent testing has shown higher levels of Cadmium and Nickel in MW-3 than in RW-2. This appears to be a result of two factors. First, the levels in RW-2 are higher after a period of shutdown of the pump and decline as the well is pumped. The initial higher contaminant levels in RW-2 is due to a leaching of contamination from the soil, under the natural low rate of groundwater movement. When pumping, clean water is drawn into the well from upgradient, which causes dilution of the contaminant levels. MW-3, which is beyond the Capture Zone, is not effected by the pumping, and is therefore relatively high in contaminant concentrations when compared to the analytical results from RW-2 during periods of pumping.

5.4 VERTICAL EXTENT WELLS (MW-6 AND MW-7)

Groundwater samples collected from deep wells MW-6 and MW-7 in June 2001 were analyzed for eight RCRA Metals (Cadmium Nickel, Arsenic, Barium, Chromium, Lead, Selenium, and Silver) by EPA Method 6010 and Mercury by EPA Method 7470.

No Cadmium was detected in the samples. Nickel was detected at 0.011 mg/l in MW-7 (0.001 mg/l above the method detection limit). Other RCRA Metals detected included Barium and Chromium, both at low levels considered to be naturally occurring.

5.5 SUMMARY OF GROUNDWATER QUALITY DATA

Based on the analytical results and geologic data obtained from previous investigations, the vertical limit of contamination appears to be controlled by the impervious zone encountered from approximately 95 to 175 feet bgs. The upper surface of this "impervious" zone is defined by a stiff light gray clay at 95 feet overlying a relatively soft limestone at approximately 105 feet bgs. A light gray sandy clay, which is relatively impervious, is the predominant material from 95 feet to approximately 175 feet. Limestone is encountered at approximately 175 feet bgs and appears to be the interface with the underlying principal water supply aquifer for the area. The impervious zone contains harder layers of limestone at 130 feet, 135 feet, and 156 feet. At 172 feet, a three-foot thick hard dark green clay was encountered. These materials are included in what is referred to as the impervious zone or aquitard.

Analytical results for the deep well MW-6 found no detectable levels of Cadmium and Nickel (0.011 mg/l) below the drinking water standard. MW-7 is located near the plume boundary which was confirmed by the analytical results, as Cadmium and Nickel were not detected in the last sampling event.

Three monitoring wells (MW-1, MW-2, and MW-5) have not been impacted by the release and no COCs were detected during the last sampling event. Contaminated monitoring wells (MW-3 and MW-4) continue to show levels of Cadmium and Nickel above detection limits and applicable drinking water standards during the last sampling event (June 2001).

The contaminant plume extends in depth at the source to the aquitard found at a depth of approximately 95 feet bgs. The horizontal plume limits, based on June 2001 analytical results, are shown on Figure 5. Both MW-3 and MW-4 are within the plume, while MW-2 and MW-5 are outside of the shallow plume boundary. A cross section depicting

vertical plume extent and including data from five wells (MW-5, MW-6, MW-7, MW-3, and RW-2) is included as Figure 6.

6.0 REMEDIATION PLAN

6.1 AREA OF REMEDIATION

Based on the past analytical results discussed in the previous paragraph, the groundwater contamination appears limited to the vicinity of RW-2, MW-3, and MW-4. Remediation is required for the groundwater in this area. Should future analytical results indicate that other areas or constituents require remediation, these will be added at that time. The remediation system is designed to be readily expandable.

6.2 HYDRAULIC CONTROL

Recovery well (RW-2) provides hydraulic control of the contaminant plume in the area of remediation. Although the previously conducted pumping test indicated MW-3, a contaminated well, was not within the capture zone, the pumping rate for the test was only 15 gpm. As a result, contaminant levels were greater in MW-3 than RW-2, located in the source area. Since that time, mechanical improvements have been made to the piping system associated with RW-2, and the pumping rate has been increased to approximately 27 gpm. Based on water level measurements obtained July 2001 and September 2001, a depression is present at MW-3 indicating an effect on this well from the pumping of RW-2 (see Figure 3, Potentiometric Surface Map). The plume has not migrated in a downgradient direction beyond MW-7 or laterally beyond MW-2.

6.3 CONTINGENCY PROCEDURE

If, during a regularly scheduled sampling event, COCs above the Groundwater Protection Standard (GWPS) are detected in MW-1, MW-2, MW-7, or MW-5, then the well(s) will

be re-sampled for confirmation within seven days of receipt of sampling results. If the second analysis disconfirms the presence of COCs above the GWPS, then that well will be sampled on a quarterly basis for the following one-year period. If the second analysis confirms the presence of COCs above the GWPS in one of these wells, the Georgia EPD will be contacted to determine the appropriate action. The remediation system may be revised and/or expanded to implement additional corrective action.

7.0 REMEDIATION PLAN

The contaminant plume will be remediated by pumping from the four-inch recovery well (RW-2). The boring log with well construction details for RW-2 is included in Appendix A.

7.1 PUMPING RATE HISTORY

Pumping has been ongoing in this well since installation in February 1999. Originally, a ½ horsepower Grundfos 5 to 10 gpm pump was installed in RW-1. It was discovered that there was not sufficient water in this well to pump. Then, RW-2 was drilled and the same type of pump was installed. A pumping rate of only six gpm was achieved and would then decrease as the pump would “clog” with clay deposits. The well was treated with hyposodium phosphate to break up the clay deposits; however, the well still pumped only six gpm.

A one-horsepower Grundfos 25 to 32 gpm submersible pump was installed next, which pumped at a 27 gpm rate. The recovered water was originally routed to a runoff trench which feeds captured water to the onsite wastewater treatment plant. However, SAFT was concerned the flow was too great for the onsite wastewater treatment system. The recovered water was then routed to the main production line for beneficial use as process water, resulting in no increase to the net quantity of water going to the system. This

caused a decrease in flow to approximately 15 gpm due to increased head of the piping system.

7.2 CURRENT PUMPING RATE

In April 2001, the recovered groundwater use was changed by rerouting the piping from a production tank to a scrubber tank, decreasing the head. This change increased the pumping rate from around 15 gpm to 27 gpm, or approximately an 80% increase. The scrubber water is then routed to the onsite industrial wastewater treatment plant where it is treated and released to the Valdosta municipal sewer system. This change also results in a beneficial use for the recovered water as production water from the onsite water supply well is no longer necessary.

It appears that MW-2, MW-3, and MW-4, located near the source area and recovery wells, are now being effected by the much higher withdrawal rate (27 gpm) at RW-2. This condition has caused expansion of the previous capture zone, apparently resulting in the water level decreases, as illustrated on Figure 3.

*maximum
rate*

7.3 MINIMUM PUMPING RATE

Presently, the system is pumping at a rate of 24 gpm. Recent water level measurements indicate this rate is effecting MW-2 and MW-3. SAFT is evaluating this rate to determine if a lower pumping rate will have the same effectiveness. The recovery rate will be adjusted to capture the plume movement at the lowest effective pumping rate. We anticipate this rate to be approximately 20 gpm.

7.4 DEVIATIONS FROM PUMPING

Due to recent layoffs at the site, RW-2 will be pumped during normal plant operational hours (five days/week, 24 hours/day). The pump will be shutoff during the weekends when the plant is unable to receive water.

In addition, there are times when scheduled and emergency shut-downs occur at SAFT's plant. During this time, the treatment plant will not be in operation to receive any water. Two shut-downs are scheduled every year in July and December and last from one to two weeks in duration. Emergency shut-downs cannot be predicted. On scheduled and emergency shut-down occasions, RW-2's pump will be turned off when the treatment plant cannot receive the recovered groundwater.

Unscheduled shut-downs at the treatment plant will be reported immediately to EPD.

7.5 REMEDIATION SYSTEM EFFICIENCY

In order to evaluate the effectiveness of the remediation system, groundwater quality will be monitored on a regular basis.

7.5.1 MONITORING FREQUENCY

The wells have been arranged into two groups. The first group of wells consists of MW-2, MW-3, and MW-4. These wells will be sampled on a quarterly basis for Cadmium and Nickel by EPA Method 6010. The second group of wells consists of MW-1, MW-5, MW-6, and MW-7. These wells will be sampled on a semiannual basis for Cadmium and Nickel by EPA Method 6010.

7.5.2 MONITORING REPORTS

Monitoring reports describing the sampling event and documenting the analytical results will be submitted on a semiannual basis. The reports will include current groundwater contours as illustrated on potentiometric surface maps. The groundwater flow rate will be calculated and also included in the semiannual monitoring reports.

In addition, the monitoring reports will include a section describing current pumping conditions and effectiveness of system. Pumping logs will record the number of gallons pumped. Meter readings will be taken at the end of each week and during shutdowns when the pump is turned off and/or the beginning of each week when the pump is turned on. Information recorded will include the number of gallons showing on the meter, the date, the time of day, and the name of the person taking the reading. This information will be used to calculate weekly pumping rates to ensure that the pumping rate is being maintained.

8.0 INSPECTION OF REMEDIAL AND MONITORING WELL SYSTEM

Routine inspection of the remedial system and monitoring wells will be performed on a monthly schedule to assure the recovery and monitoring well network are operating at optimal efficiency. Pump operation and efficiency, as reflected by the pumping rate will be determined. The meter will be checked for accuracy on an annual basis.

A well inspection log maintained by Saft's Environmental Manager will be kept on-site with the operating record. The log will indicate when the inspection was made, by whom, and list any observations, adjustments, or corrective measures that were made. A sample log has been included as Appendix B.

9.0 PERMITTING

Saft has a permit to discharge to the City of Valdosta's municipal sewer system. Saft is permitted to discharge up to 250,000 gallons of treated water per day. The recovered

water provides a beneficial use being used in production as was water formerly obtained from the onsite water supply well.

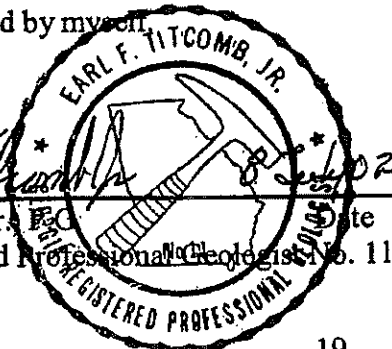
10.0 CORRECTIVE ACTION SCHEDULE

Records of the pump operation since February 1999 indicate a wide range of Cadmium and Nickel levels in RW-2, from a high of 33.25 mg/l in March 2001 to a low of 0.35 mg/l in July 2000. When the system is shut down for a period of time, the initial levels of Cadmium and Nickel are much higher when pumping is restarted, than those recorded after a long period of operation. Shorter down periods seem not to cause this effect. These variations are not uniform; however, there does appear to be a relationship. Since March 2001, the Cadmium levels in RW-2 have dropped to less than 0.10 mg/l. However, since the quantity of COCs to be removed is unknown, it is not technically feasible to estimate a time period to meet the GWPS. As the remediation progresses, it may become possible to predict with some degree of accuracy the time required to reach the GWPS.

11.0 CERTIFICATION

I certify that I am a qualified ground water scientist who has received a baccalaureate degree in geology and have sufficient training and experience in ground water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding ground water monitoring and contaminant fate and transport. I further certify that this report was prepared by myself.


Earl F. Titcomb, Jr.
Georgia Registered Professional Geologist No. 11



TABLES

**TABLE 1
WELL DESIGN AND CONSTRUCTION**

**Corrective Action Plan - Former Acid Storage Tank Area
SAFT AMERICA, INC.
Valdosta, Georgia
Clayton Project No. 20-02163.00**

Well Number	Date Drilled	Well Depth (ft. BTOC)	Casing Diameter (Inches)	Top of Filter Pack (feet BGS)	Top of Bentonite Seal (feet BGS)	Screened Interval (feet)**	Top of Casing (ft) (Relative to G.S.)	G.S. Elev. (feet, MSL)	TOC Elev. (feet, MSL)
RW-1	7/21/98	37.4	4	23.5	21.5	25.0-35.0	2.35	212.27	214.62
RW-2	2/5/99	55.4	4	24.0	18.0	43.0-53.0	2.44	212.11	214.55
MW-1R	9/16/99	44.4	2	32.5	27.0	34.4-44.8	-0.3	213.45	213.15
MW-2	9/16/99	38.1	2	26.2	23.2	27.7-38.1	-0.35	209.58	209.23
MW-3	9/15/99	37.9	2	27.0	23.2	27.5-37.9	-0.28	208.44	208.16
MW-4	9/14/99	39.1	2	28.3	20.2	29.0-39.4	-0.35	209.94	209.59
MW-5	12/8/99	31.8	2	19.5	15.0	21.3-31.7	-0.2	200.33	200.13
MW-6	6/22/01	180.5	4	162.5	160.5	164.5-175.8	-0.5	203.47	203.97
MW-7	6/27/01	105.0	4	60.0	58.0	81.0 - 96.0	-0.5	206.43	206.93
MW-8	9/12/01	40.0	2	22.5	17.6	23.2 to 34.1	-0.34	206.73	207.07

NOTE: BTOC = Below Top of Casing
BGS = Below Ground Surface

** Monitoring Wells MW1 - MW5 have a 0.4' endpoint which is included in the screened interval; MW6 and MW7 have a 4" diameter was plug which is 0.5' (MW-7) and 1.3' (MW-6). Monitoring Well MW-8 has a 0.9' ash plus which is included in the screened interval. The final log for this well is in preparation and will be submitted for the a separate investigator

DESIGN & MATERIALS USED IN ALL MONITORING WELLS (MW) AND RECOVERY WELL (RW-2) ARE SUMMARIZED BELOW:

Driller's Name: Earl F. Titcomb, Jr., P.G. or Tony Fletcher (MW-6 and MW-7)

Driller's Georgia Water Well Bond #: M8009105 (Titcomb)

Drilling Method: Mud Rotary; 5' fishtail bit, Mud Rotary 8 or 9.5' fishtail bit

Borehole Diameter: 4" (MW); 6" (RW), 9.5" (MW-7), 5.5" (MW-8)

Screen Materials: ASTM 2 or 4" Diameter Schedule 40 PVC (MW); 4" Diameter Stainless Steel (RW-2)

Casing Materials: ASTM 2 or 4" Diameter Schedule 40 PVC (MW); 4" Diameter Stainless Steel (RW-2)

Casing and Screen Joint Types: Flush Threaded

Screen Slot Size/Length: 0.010" Slot/10 feet in length (MW); 20 feet (RW-2); 15' (MW-7)

Filter Pack Material/Size: 16-30 Sand

Filter Pack Placement Method: Tremie (where feasible)

Sealant Material: 3/8" Bentonite Pellets

Sealant Placement Method: Gravity

Surface Seal Design/Construction: 2x2' Concrete Grout Pad (MW)

Type of Protective Cover: 8 or 12" cast iron manhole cover (MW);

4"x4"x5" Standing Locking Cover (RW)

Type of Protective Well Cap: Locking Well Cap

TABLE 2
ANALYTICAL RESULTS for CADMIUM AND NICKEL

Corrective Action Plan
 SAFT America, Inc.
 Valdosta, Georgia
 EMC Project No. 02-0230.30

WELL NO.	DATE SAMPLED	CADMIUM	NICKEL	DATE SAMPLED	CADMIUM	NICKEL	DATE SAMPLED	CADMIUM	NICKEL	DATE SAMPLED	CADMIUM	NICKEL
MW6	Jun-01	<0.0050	0.011	Jan-00	Not Installed		Dec-99	Not Installed		Sep-99	Not Installed	
MW7	Jun-01	<0.0050	<0.010	Jan-00	Not Installed		Dec-99	Not Installed		Sep-99	Not Installed	
MW1	Jun-01	<0.0050	<0.010	Jan-00	Not Sampled		Dec-99	Not Sampled		Sep-99	BDL	BDL
MW2	Jun-01	<0.0050	<0.010	Jan-00	Not Sampled		Dec-99	Not Sampled		Sep-99	BDL	BDL
MW3	Jun-01	2.0	0.73	Jan-00	11	3.3	Dec-99	8.1	2.7	Sep-99	0.29	0.12
MW4	Jun-01	0.014	0.021	Jan-00	Not Sampled		Dec-99	Not Sampled		Sep-99	BDL	BDL
MW5	Jun-01	<0.0050	<0.010	Jan-00	BDL	BDL	Dec-99	0.01	BDL	Sep-99	Not Installed	
RW-2	Jun-01	Not Sampled		Jan-00	1.18	0.36	Dec-99	2.18	0.71	Sep-99	0.9	0.14

All units shown in mg/l, or parts per million

**TABLE 3
GROUNDWATER ELEVATION DATA
JUNE AND SEPTEMBER 2001**

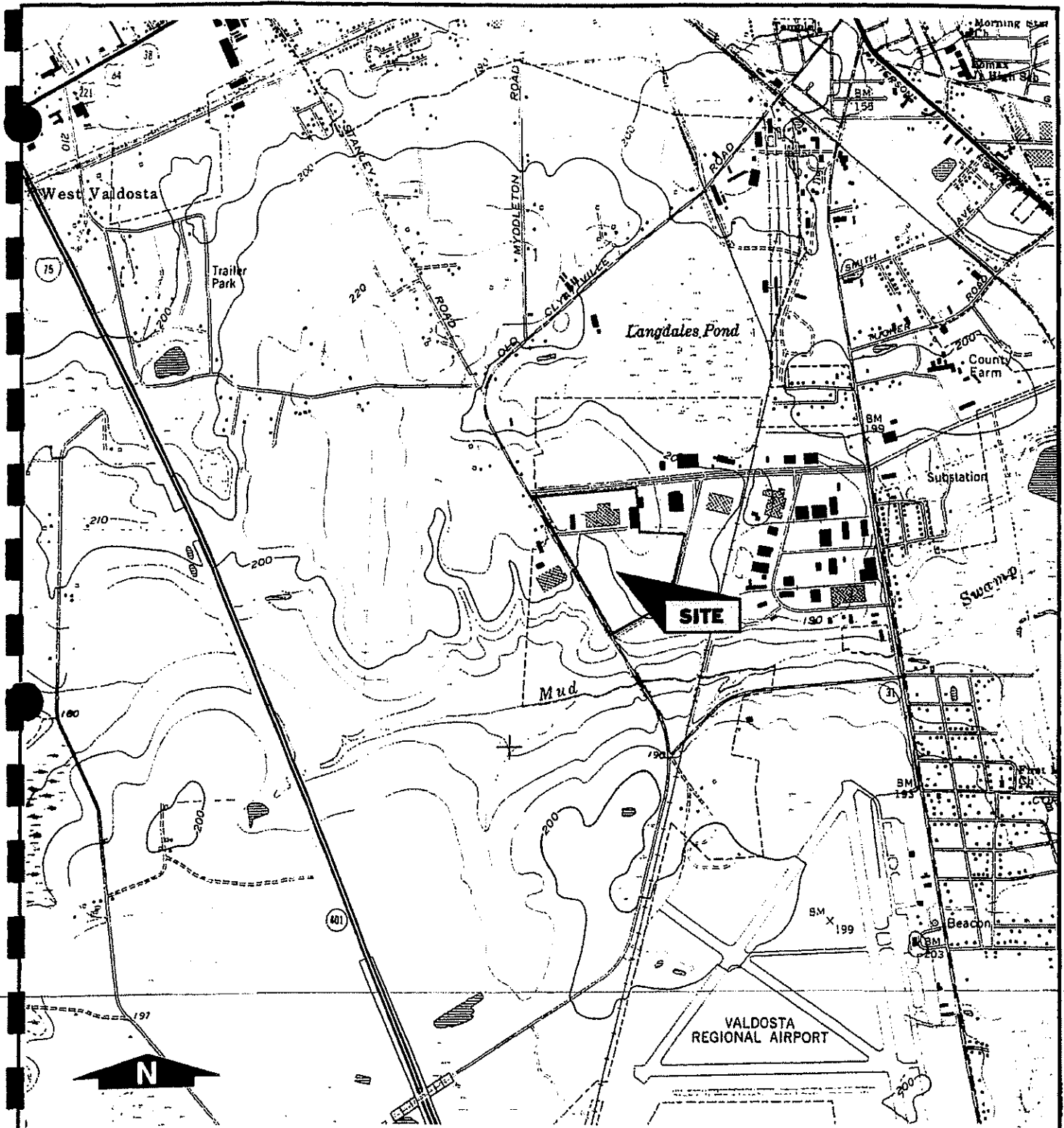
**Corrective Action Plan - Former Acid Storage Tank Area
SAFT AMERICA, INC.
Valdosta, Georgia
Clayton Project No. 20-02163.00**

WELL NO.	TOTAL DEPTHS (ft. BTOC)	ELEVATION (TOC)	DATE	WATER LEVEL (ft. BTOC)	GROUND WATER ELEVATION	DATE	WATER LEVEL (ft. BTOC)	GROUND WATER ELEVATION
MW-1R	44.4'	213.15	21-Jun-01	34.7	178.45	18-Sep-01	33.76	179.39
MW-2	38.1	209.23	21-Jun-01	31.59	177.66	18-Sep-01	30.71	178.52
MW-3	37.9	208.16	21-Jun-01	30.52	177.64	18-Sep-01	29.78	178.38
MW-4	39.1	209.59	21-Jun-01	31.89	177.7	18-Sep-01	31.03	178.1
MW-5	31.85	200.13	21-Jun-01	22.32	177.81	18-Sep-01	21.62	178.51
MW-6 (6-26-01)*	180.5	203.97	21-Jun-01	125.0	78.97	18-Sep-01	-	-
MW-7 (6-28-01)*	104.7	208.93	21-Jun-01	41.22	165.71	18-Sep-01	-	-
MW-8	40.0	207.07	21-Jun-01	Not Installed		18-Sep-01	28.31	178.76
SAFT-3	39.0	212.47	21-Jun-01	-	-	18-Sep-01	33.05	179.42
SAFT-4	35.0	208.33	21-Jun-01	-	-	18-Sep-01	29.99	178.34
RW-1	37.4	214.62	21-Jun-01	-	-	18-Sep-01	36.5	178.12

NOTE: BTOC = Below Top of Casing

* water level data obtained from this well was not used in constructing the potentiometric surface map, as it is screened in a deeper interval.

FIGURES



TAKEN FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, VALDOSTA, GEORGIA, 1961 (REVISED 1974)

2000 1000 0 2000

Scale: 1" = 2000'



SAFT AMERICA INC.
711 GIL HARBIN INDUSTRIAL BLVD.
VALDOSTA, GEORGIA

SITE VICINITY MAP

Figure No.

1

Job No.: 20-01215.00

Scale: 1"=20'

Date: 12-18-00

Drawn By: M.V.

Reviewed By: J.T.



SAFT AMERICA INC.
711 GIL HARBIN INDUSTRIAL BLVD
VALDOSTA, GEORGIA 31688
PHONE (706) 221-4322
FAX (706) 221-9989

FIGURE 2
WELL LOCATION PLAN

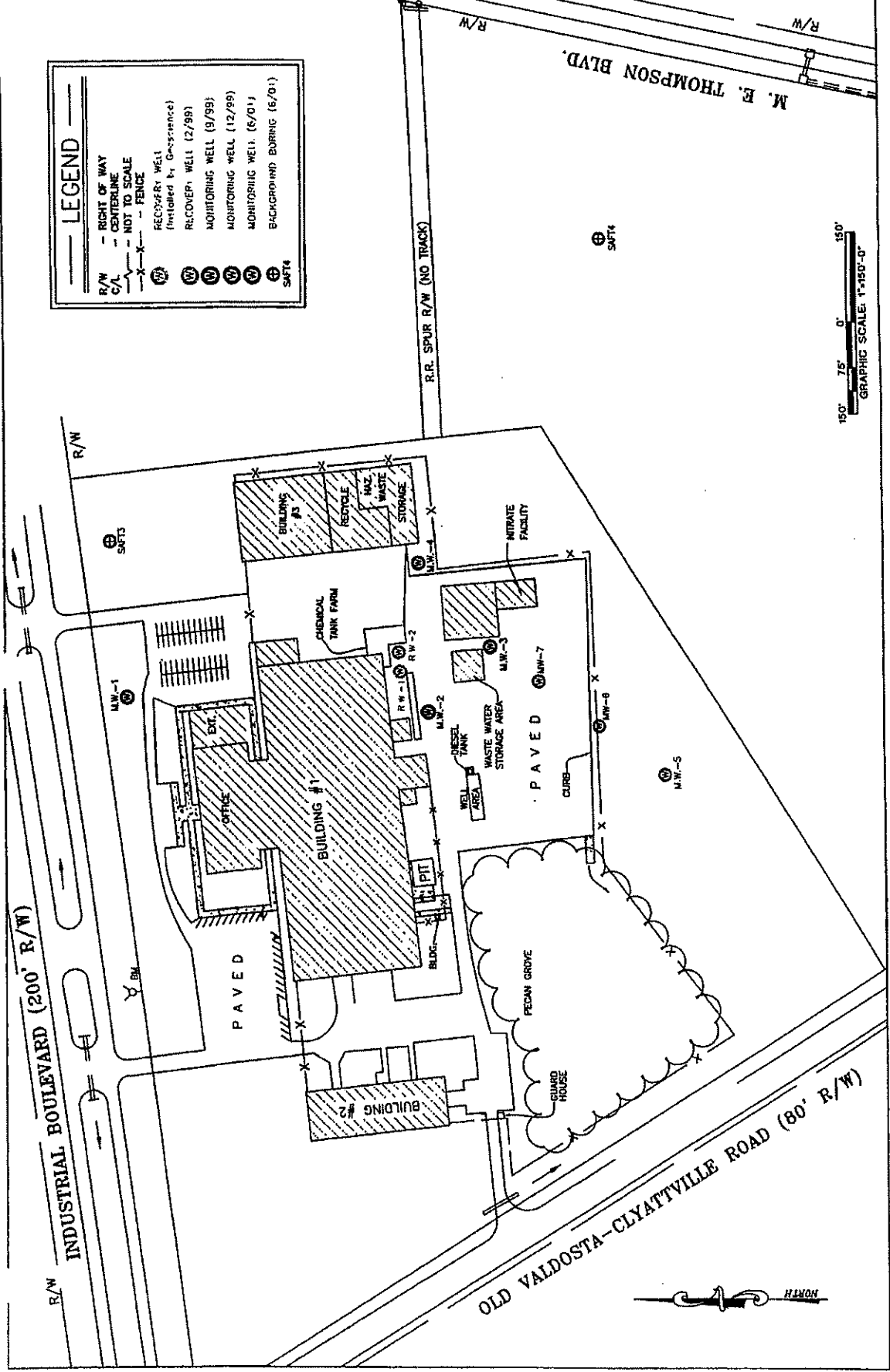
SAFT AMERICA INC.
711 GIL HARBIN INDUSTRIAL BLVD
VALDOSTA, GEORGIA

NO.	DATE	REVISIONS

LEGEND

R/W — RIGHT OF WAY
 - - - CENTERLINE
 C/A — NOT TO SCALE
 X-X-X — FENCE

RECOVER WELL (Installed by Geoscience)
 (M) RECOVER WELL (12/99)
 (M) MONITORING WELL (9/99)
 (M) MONITORING WELL (12/99)
 (M) MONITORING WELL (6/01)
 (M) BACKGROUND BORING (6/01)
 (M) SAFT4



150' 75' 0' 150'
 GRAPHIC SCALE: 1"=150'-0"

Figure No. **2**

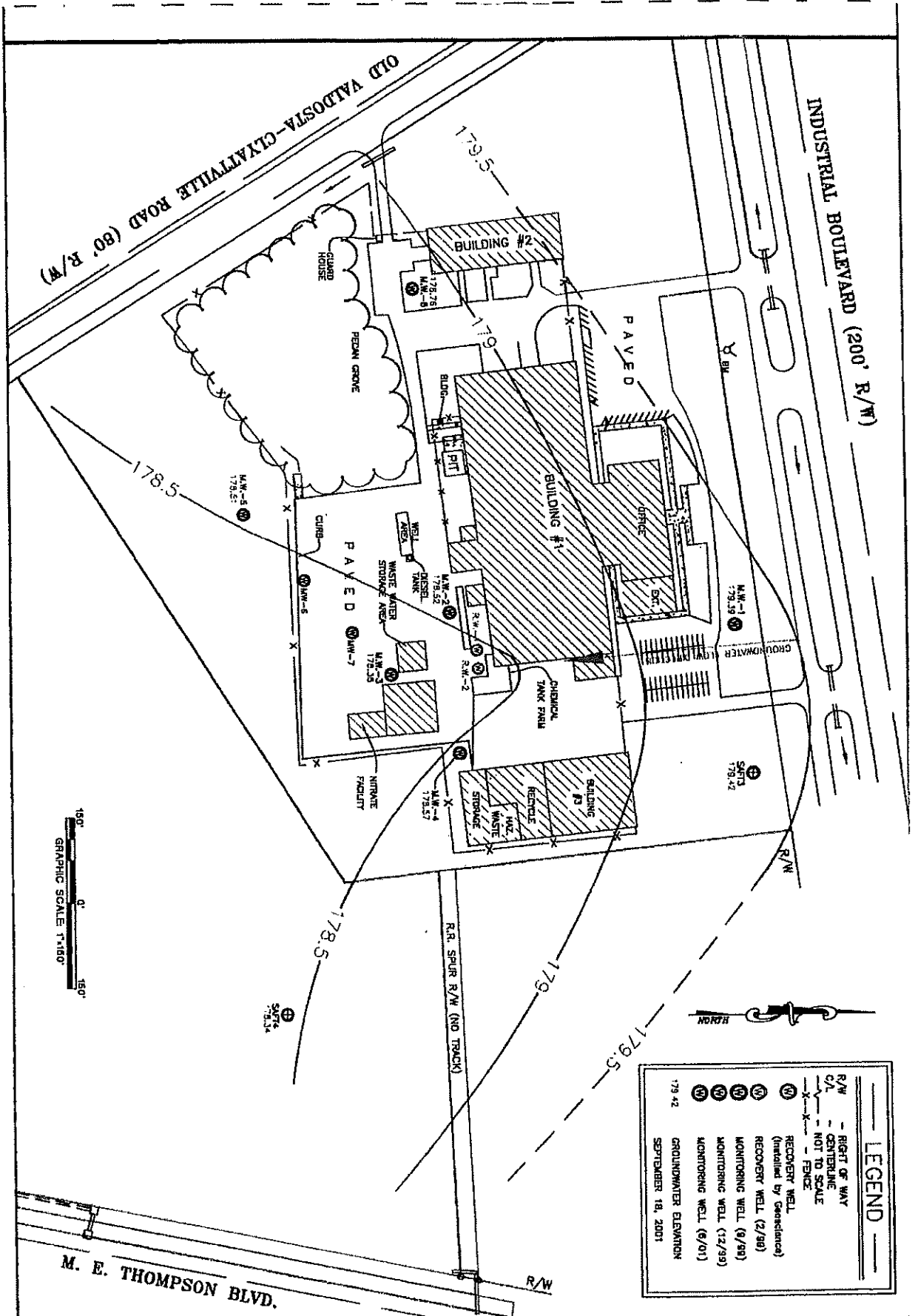
SITE/WELL LOCATION PLAN

SAFT AMERICA
 711 GIL HARBIN INDUSTRIAL BOULEVARD
 VALDOSTA, GEORGIA

INDUSTRIAL BOULEVARD (200' R/W)

OLD VALDOSTA-CLYATTVILLE ROAD (80' R/W)





LEGEND

- RIGHT OF WAY
- - - CENTERLINE
- - - NOT TO SCALE
- - - FENCE
- RECOVER WELL
- (Recovery by Gaslift)
- RECOVERY WELL (2/88)
- MONITORING WELL (9/88)
- MONITORING WELL (12/99)
- MONITORING WELL (6/01)
- GROUNDWATER ELEVATION

79.42
SEPTEMBER 18, 2001



SAFT AMERICA
711 GIL HARBIN INDUSTRIAL BOULEVARD
VALDOSTA, GEORGIA

POTENTIOMETRIC SURFACE MAP

SEPTEMBER 18, 2001 CONTOURS

Figure No.
4

Job No.:	20-02163.00	Scale:	1"=150'	Date:	10-01-01	Drawn By:	M.V.	Reviewed By:	J.T.
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EMC ENGINEERING
SERVICES, INC.
FIRST CLASS MAIL PERMIT
NO. 1000 VALDOSTA, GA 31601
PHONE: (770) 248-1111
FAX: (770) 248-1112

FIGURE 5
APPROXIMATE PLUME LIMITS/
CROSS-SECTION LOCATION PLAN

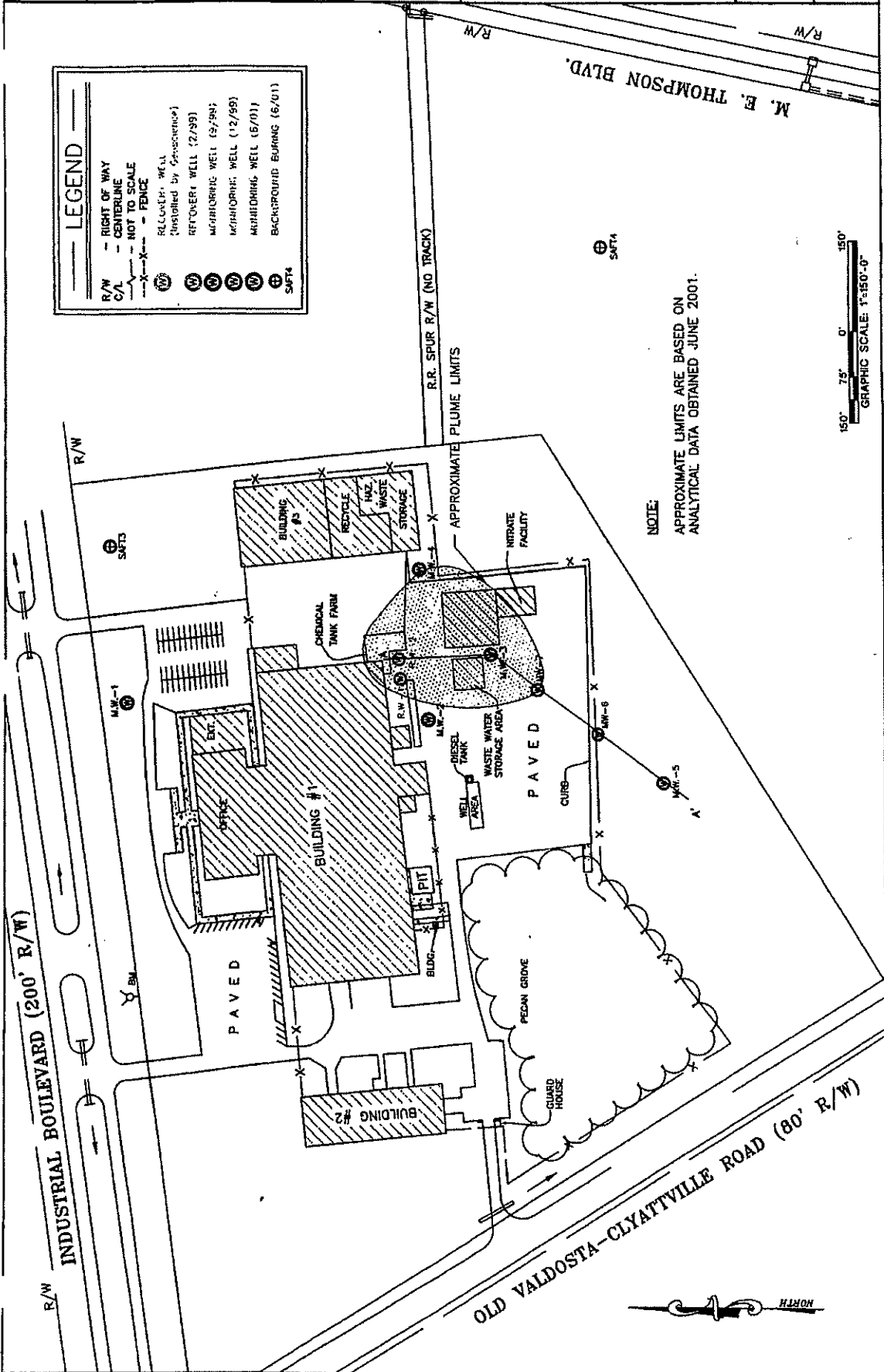
SAFT AMERICA INC
711 GIL HARBIN INDUSTRIAL BLVD
VALDOSTA, GEORGIA

DATE:	
SCALE:	
PROJECT NO.:	
DATE:	
SCALE:	
PROJECT NO.:	

LEGEND

R/W - RIGHT OF WAY
C/L - CENTERLINE
- - - NOT TO SCALE
X-X-X - FENCE

RECYCLE WELLS (Installed by Geoservice)
 (M) RECYCLE WELLS (2/99)
 (M) METEORIC WELLS (2/99)
 (M) METEORIC WELLS (12/99)
 (M) METEORIC WELLS (5/01)
 (M) BACKGROUNDBURNING (5/01)
 SAFT4



NOTE:
APPROXIMATE LIMITS ARE BASED ON
ANALYTICAL DATA OBTAINED JUNE 2001.

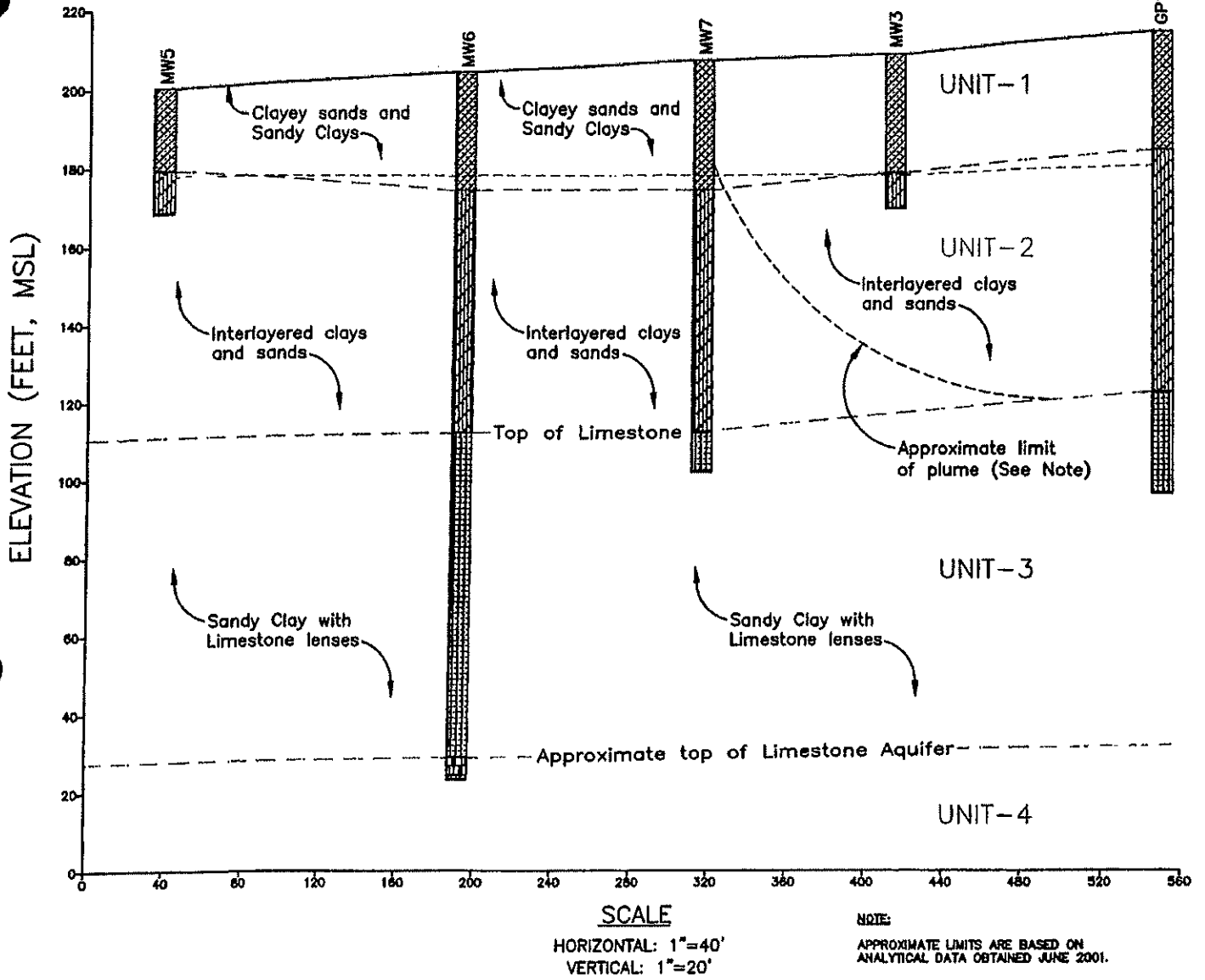


Figure No. **5**

SAFT AMERICA
711 GIL HARBIN INDUSTRIAL BOULEVARD
VALDOSTA, GEORGIA

APPROXIMATE PLUME LIMITS MAP

GEOLOGIC CROSS SECTION A-A'



LEGEND

- | | | |
|---|---|--|
| UNIT-1 Clayey Sands/
Sandy Clays | UNIT-3 Clay layers with
occ. limestones | ----- Water Level
(Surficial Aquifer) |
| UNIT-2 Interlayered Clays.
& Sands with
occ. Clay layers | UNIT-4 Limestone aquifer | |



**EMC ENGINEERING
SERVICES, INC.**

Post Office Box 8101
23 East Charlton Street
Savannah, Georgia 31412
Phone: (912) 232-6533
Fax: (912) 232-2920

FIGURE 6
VERTICAL CROSS-SECTION A-A'
SAFT AMERICA INC

DESIGN:	-
GRAPHICS:	MAL
REVIEW:	JLT
DATE:	6/17/02
SCALE:	AS SHOWN
PROJECT:	020230

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APPENDIX A
BORING LOGS
WELL CONSTRUCTION DETAILS

APPENDIX A
BORING LOGS
WELL CONSTRUCTION DETAILS

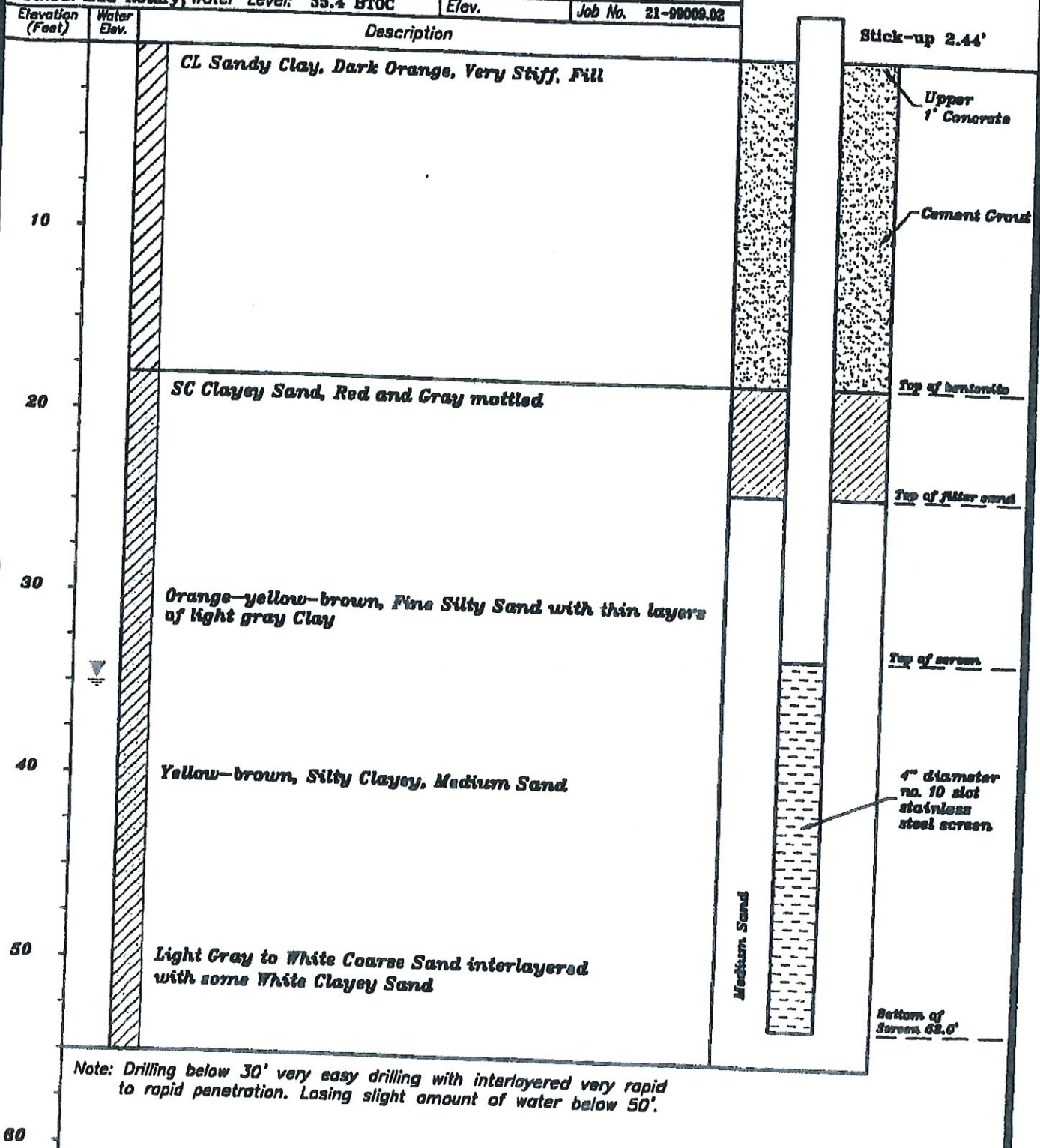
Clayton

ENVIRONMENTAL
CONSULTANTS

SAFT AMERICA
VALDOSTA, GEORGIA

Log of Boring

Driller: E. Titcomb Total Depth: 55.0' Drill Date: Feb. 3-5, 89 Boring No. RW-2
 Method: Mud Rotary Water Level: 35.4 BTOC Elev. Job No. 21-88009.02



Note: Drilling below 30' very easy drilling with interlayered very rapid to rapid penetration. Losing slight amount of water below 50'.

Clayton

ENVIRONMENTAL SERVICES

SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW1R

Location:

Size and Type of Bit: 5" fishtail, mud rotary

Thickness of Overburden: N/A

Total No. of Overburden (Samples Taken): logged fr. cuttings

Depth Drilled into Rock: N/A

Date Hole: Started: 16-9-99 Completed: 16-9-99

Total Depth of Hole: 45.0'

Elevation Top of Hole:
Depth of Groundwater: 34.37 13-10-99 BTOC

Name of Driller: E. Titcomb

Signature of Inspector or Geologist: E. Titcomb

Depth	Elevation	Legend	Classification of Materials (Description)	SPT	Sample No.	Remarks (Drilling time, water loss, depth of weathering, etc., if significant)
0.0			SM Greenish Brown Silty Fine Sand			8" Dia. Manhole
2.0			SC Yellow-Red Clayey Sand			TOC .30' below ground level
4.0			SC Gray and Red Layered Red Silty Sand with Gray Clay			Cement Grout
6.0						
8.0						
10.0						
12.0						
14.0						
16.0						
18.0						
20.0						
22.0						
24.0						
26.0			SM/SC Dark Red Clayey Silty Sand w/layers White Clayey			Top of Bentonite
28.0						Top of Sand
30.0						
32.0						
34.0	7					Top of Screen
36.0			SM/SC			10 1/2" No. 10 slot PVC
38.0						16-30 filter sand
40.0						
42.0						
44.0						
46.0						Bottom of Screen

Boring Terminated @ 45.0'

Clayton

ENVIRONMENTAL SERVICES

SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW2

Drilling Agency:

Size and Type of Bit: 5" fishtail, 4" auger

Thickness of Overburden: N/A

Total No. of Overburden (Samples Taken) 1

Depth Drilled Into Rock: N/A

Date Hole: Started: 16-9-99 Completed: 16-9-99

Total Depth of Hole: 43.2'

Elevation Top of Hole: TOC 209.23' msl

Elevation Groundwater: 31.07 13-10-99

Name of Driller: E. Titcomb

Signature of Inspector or Geologist: E. Titcomb

Depth	Elevation	Legend	Classification of Materials (Description)	SPT	Sample No.	Remarks (Drilling time, water loss, depth of overburden, etc., if significant)
0.0			SM Greenish-Brown Silty Fine Sand			8" Dia. Manhole
2.0			SC Gray & Red Clayey Sand			
4.0			Becomes Orange			
6.0						
8.0						Cement Grout
10.0						
12.0						
14.0						
16.0						
18.0						
20.0						
22.0						
24.0						Top of Bentonite
26.0			SP/SC Yellow to Brown to Light Gray Clayey Sand			Top of Sand
28.0						Top of Screen
30.0						10"x2" No. 10 slot PVC
32.0						16-30 filter sand
34.0						
36.0						
38.0						Bottom of Screen
40.0						
42.0			Coarse Sand with Clay Laminae	20	1	
44.0			Boring Terminated @ 43.2'			

Clayton

ENVIRONMENTAL SERVICES

SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW3

Location: South of Waste Water Tanks

Size and Type of Bit: 5" fishtail, 4" auger

Thickness of Overburden: N/A

Total No. of Overburden (Samples Taken): none/logged fr. cuttings

Depth Drilled Into Rock: N/A

Date Hole: Started: 15-9-99 Completed: 15-9-99

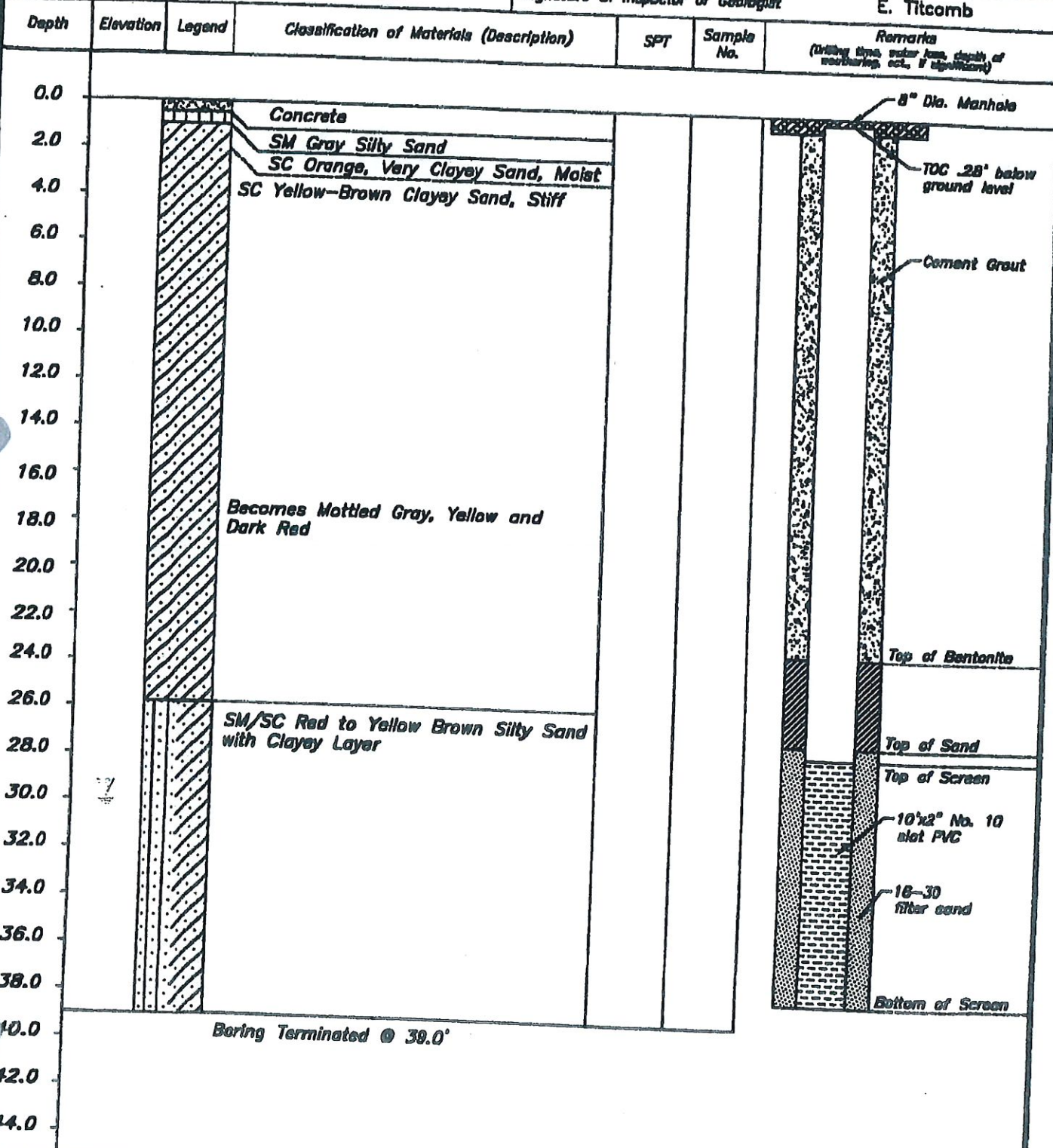
Total Depth of Hole: 39.0'

Elevation Top of Hole: TOC 208.16' msl

Name of Driller: E. Titcomb

Depth of Groundwater: 30.02 13-10-99 BTOC

Signature of Inspector or Geologist: E. Titcomb



Clayton

ENVIRONMENTAL SERVICES

SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW4

Location: Near SW Corner Building #3

Size and Type of Bit: 5" fishtail, 4" auger
Total No. of Overburden (Samples Taken): none/logged fr. cuttings

Thickness of Overburden: N/A

Date Hole: Started: 13-9-99 Completed: 14-9-99

Depth Drilled into Rock: N/A

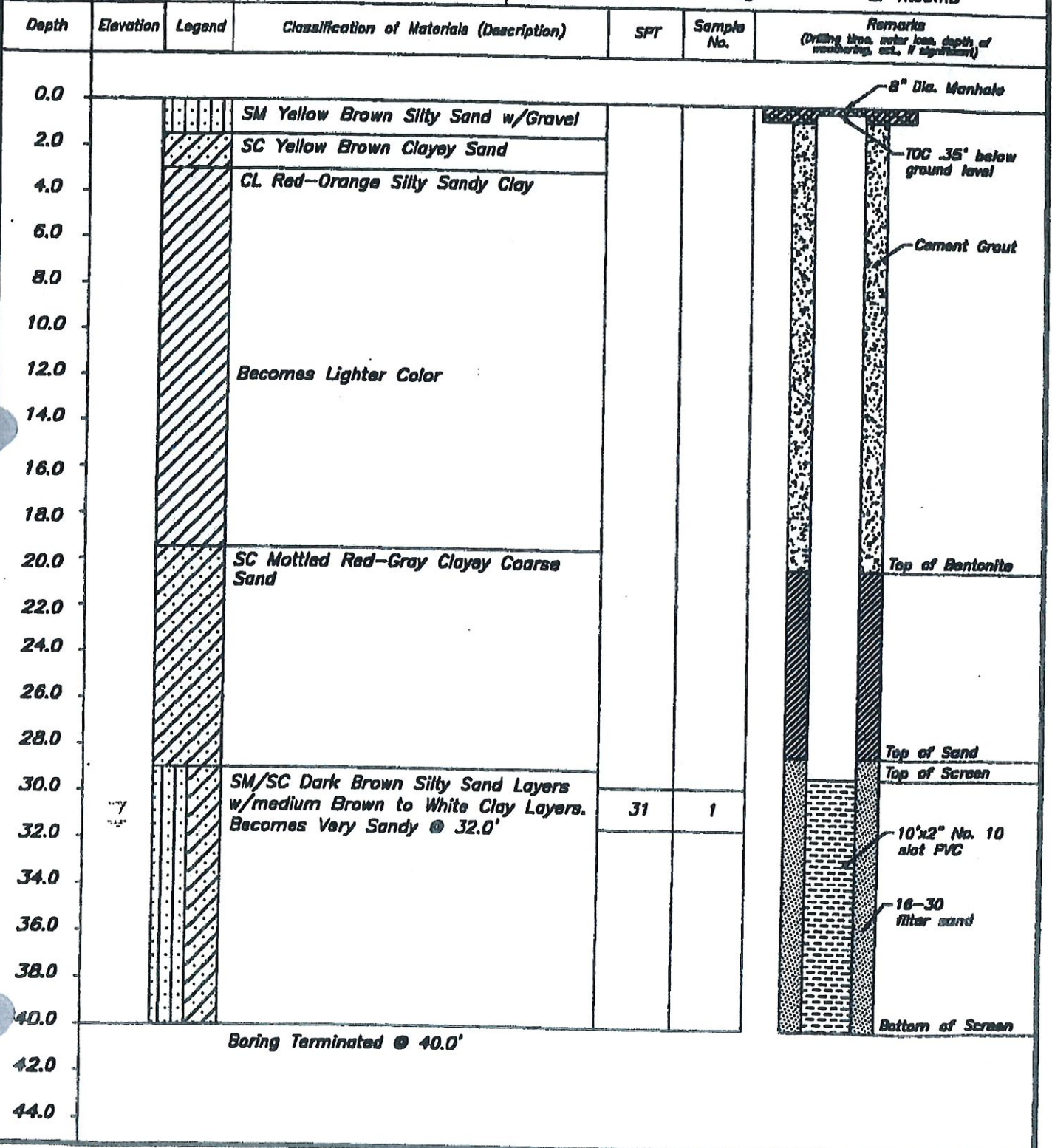
Elevation Top of Hole: TOC 209.59' msl

Total Depth of Hole: 40.0'

Depth of Groundwater: 31.35 13-10-99 BTOC

Name of Driller: E. Titcomb

Signature of Inspector or Geologist: E. Titcomb



Clayton

ENVIRONMENTAL SERVICES

SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW5

Location: South of Parking Lot

Size and Type of Bit: 5" fishtail, 4" auger

Total No. of Overburden (Samples Taken): 2

Thickness of Overburden: N/A

Date Hole: Started: 6-12-99 Completed: 8-12-99

Depth Drilled Into Rock: N/A

Elevation Top of Hole:

Total Depth of Hole: 34.0'

Depth of Groundwater: 22.35 10-12-99 BTOC

Name of Driller: E. Titcomb

Signature of Inspector or Geologist: E. Titcomb

Depth	Elevation	Legend	Classification of Materials (Description)	SPT	Sample No.	Remarks (Drilling time, water loss, depth of weathering, etc., if significant)	
0.0			SP Light Tan Fine Sand (Back Fill)			8" Dia. Manhole	
2.0			SC Orange, Pink and Gray Clayey Slightly Silty Sand Becomes more Clayey			TDC .20' below ground level	
4.0						Cement Grout	
6.0							
8.0							
10.0							
12.0							
14.0							
16.0						Top of Bentonite	
18.0							
20.0			SM Orange Sand w/Dark Brown Silt Layers	23	1	Top of Sand	
22.0						Top of Screen	
24.0							
26.0						10"x2" No. 10 slot PVC	
28.0						18-30 filter sand	
30.0			SC Light Gray to Tan Sand w/Gray Clay Layers	20	2		
32.0							
34.0			Boring Terminated @ 34.0'				Bottom of Screen
36.0							
38.0							
40.0							
42.0							
44.0							



SAFT America
Valdosta, Georgia

Installation: Valdosta Sheet: 1 of 1 Boring: MW6

Drilling Agency: Betta Environmental Recovery

Size and Type of Bit: 9 1/2", 5" fishtail, mud rotary

Sampler: 1 split spoon and logged fr. cuttings

Thickness of Overburden: N/A

Started: June 21, 2001 Completed: June 26, 2001

Depth Drilled into Rock: N/A

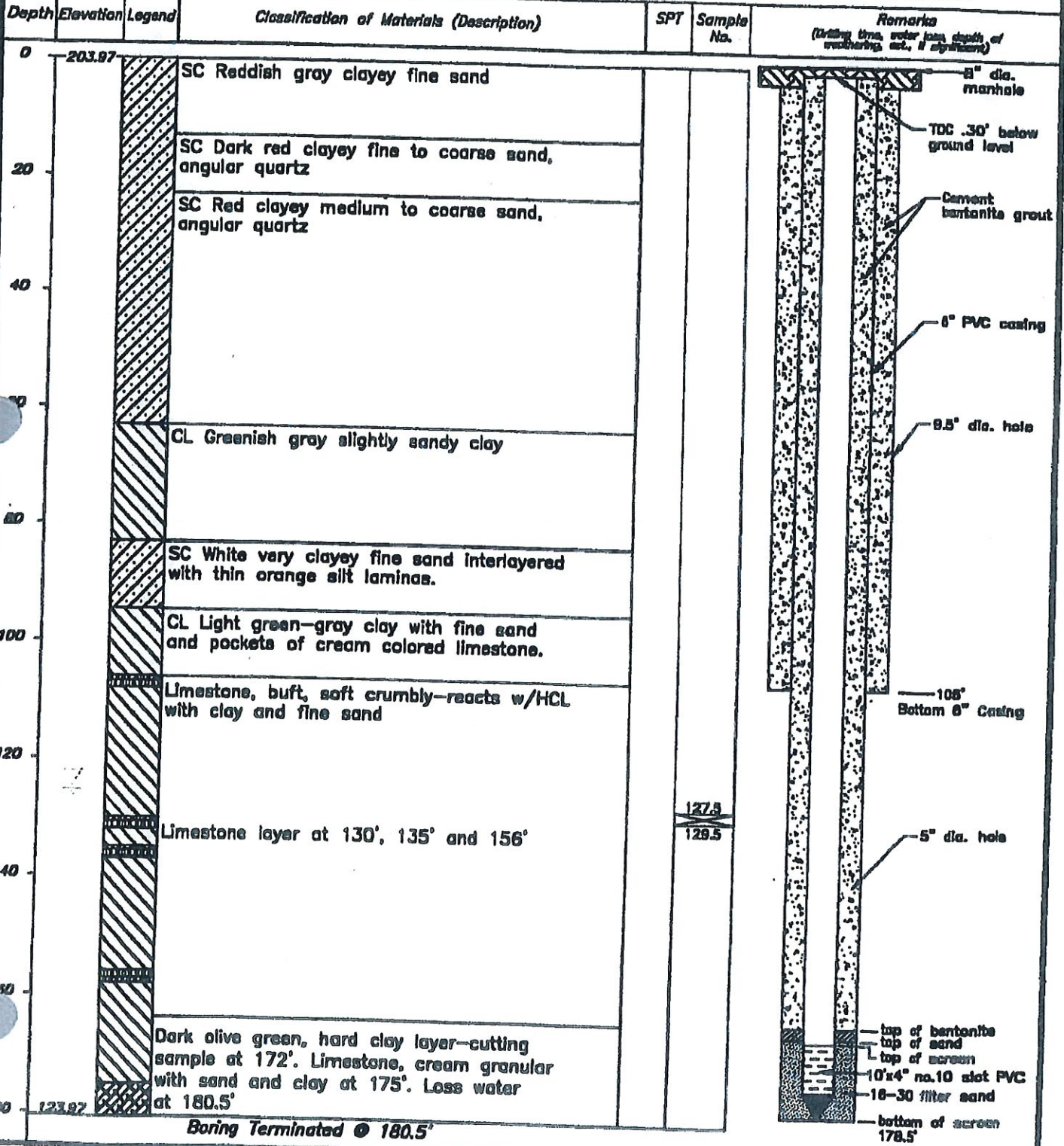
Elevation Top of Hole: TOC 203.97' msl

Total Depth of Hole: 180.5'

Depth Groundwater: 125' 26-6-01 BTOC

Name of Driller: Tony Fletcher

Signature of Inspector or Geologist: E. Titcomb





SAFT America
Valdosta, Georgia

Installation: Valdosta

Sheet: 1 of 1

Boring: MW7

Drilling Agency: Betts Environmental Recovery

Size and Type of Bit: 9 1/2", fishtail, mud rotary

Sampler: 4 split spoon and logged fr. cuttings

Thickness of Overburden: N/A

Started: June 19, 2001 Completed: June 21, 2001

Depth Drilled into Rock: N/A

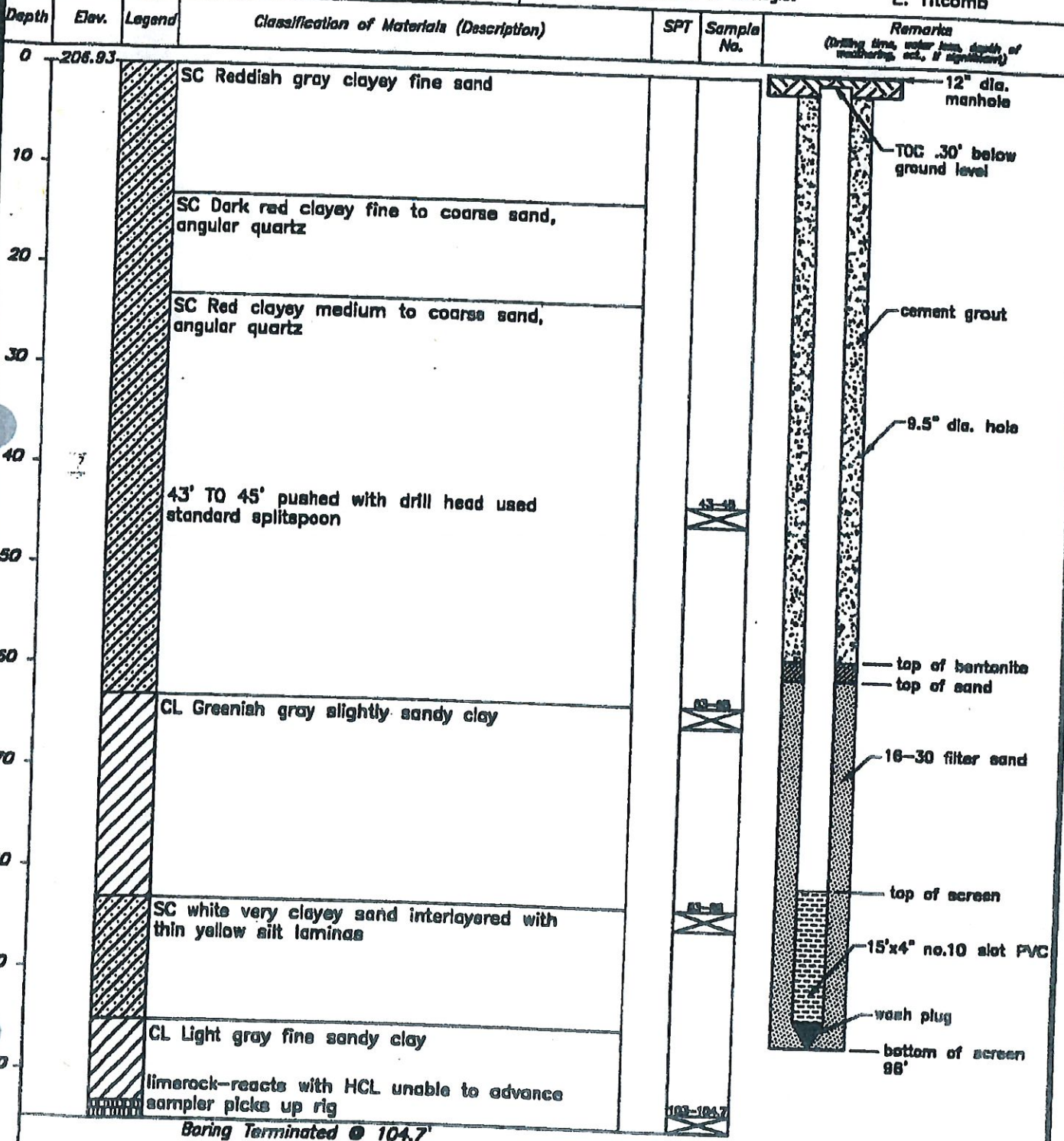
Elevation Top of Hole: TOC 206.93' msl

Total Depth of Hole: 104.7'

Depth Groundwater: 41.22' 28/6/01 ETOC

Name of Driller: Tony Fletcher

Signature of Inspector or Geologist: E. Titcomb



APPENDIX A

STANDBY TRUST AGREEMENT

LETTERS OF CREDIT

**CORRECTIVE ACTION & SWMU INVESTIGATION
AND REMEDIATION COSTS**

(Financial documents are bound separately)

TABLE 1: 30-Year Estimated Corrective Action Cost
(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

Date: 4/26/2025

Total Cost
\$192,397.50

1.	Monitoring and Reporting						
	a. Complete annual groundwater sampling at 9 monitoring wells, collect 1 sediment sample from Mud Creek, and collect 1 surface water sample from Mud Creek.						
		Unit Rate	Unit	Number of Units	Cost		30-Year Cost
	i. Labor - 2 people		18	Hours	\$ 110.00	\$1,980.00	\$59,400.00
	ii. Sampling equipment						
	A. Bladder pump and controller (2 sets of equipment)		2	Per	\$200.00	\$400.00	\$12,000.00
	B. Tubing (feet) - New tubing at RW-1 and MW-3		1	Lump Sum	\$375.00	\$375.00	\$11,250.00
	C. Tubing (feet) - New tubing every 4 years in clean we	0.25		Per Year	\$1,125.00	\$281.25	\$8,437.50
	D. Water level indicators (2 sets of equipment)		2	Per	\$200.00	\$400.00	\$12,000.00
	E. Water quality multimeters (2 sets of equipment)		2	Per	\$200.00	\$400.00	\$12,000.00
	F. Disposable consumables		1	Lump Sum	\$45.00	\$45.00	\$1,350.00
	iii. Mobilization		40	Per Mile	\$0.70	\$28.00	\$840.00
	iii. Laboratory analysis						
	A. 9 groundwater samples for cadmium and nickel anal;		9	Per	\$35.00	\$315.00	\$9,450.00
	B. 1 sediment sample for cadmium and nickel analysis		1	Per	\$35.00	\$35.00	\$1,050.00
	C. 1 sediment sample for percent moisture analysis		1	Per	\$10.00	\$10.00	\$300.00
	D. 1 surface water sample for cadmium and nickel anal;		1	Per	\$35.00	\$35.00	\$1,050.00
	E. Environmental responsible waste management - sam;		11	Per	\$5.00	\$55.00	\$1,650.00
	iv. Reporting						
	A. Project professional labor		10	Hours	\$140.00	\$1,400.00	\$42,000.00
	B. Senior professional labor		3	Hours	\$218.00	\$654.00	\$19,620.00
2.	Groundwater Monitoring Well Inspections						\$79,200.00
	a. Complete monthly inspections of annually sampled monitoring wells.						
		Unit Rate	Unit	Number of Units	Cost		30-Year Cost
	i. Labor - 2 hours per month		24	Hours	\$ 110.00	\$2,640.00	\$79,200.00
3.	Corrective Action System						\$70,200.00
	a. Complete bi-weekly inspections of corrective action system						
		Unit Rate	Unit	Number of Units	Cost		30-Year Cost
	i. Labor - 1 hour per event		26	Hours	\$ 90.00	\$2,340.00	\$70,200.00
4.	Maintenance						\$60,000.00
	a. Repairs to corrective action system						
		Unit Rate	Unit	Number of Units	Cost		30-Year Cost
	i. Monitoring well replacement		0.1	Per Year	\$ 4,000.00	\$400.00	\$12,000.00
	ii. Maintaining/repairing monitoring wells		0.5	Per Year	\$ 400.00	\$200.00	\$6,000.00
	iii. Pump and piping replacement for RW-2	0.25		Per Year	\$ 4,000.00	\$1,000.00	\$30,000.00
	iv. Pump replacement for MW-6		0.2	Per Year	\$ 2,000.00	\$400.00	\$12,000.00
						Subtotal	\$401,797.50
						Administrative Fee (10%)	\$40,179.75
						Contingency Fee (5%)	\$20,089.88
	2025 Dollars					Total 30-Year Estimated Corrective Action Cost	\$462,067.13

TABLE 2: SWMU Investigation & Remediation Cost Estimate
SWMUs 6, 8, 9, 10, and 11

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

Date: 4/26/2025

		<u>Total Cost</u>
1.	Solid Waste Management Unit 6 - Closed Container Storage Area	\$239,697.00
2.	Solid Waste Management Unit 8 - Wastewater Treatment Unit and Appurtenances	\$143,450.00
3.	Solid Waste Management Unit 9 - All Transfer Lines Used to Transport Waste	\$150,600.00
4.	Solid Waste Management Unit 10 - All Sumps Used to Collect Waste	\$137,570.00
5.	Solid Waste Management Unit 11 - Building 2 Former Burn Area	\$450,552.00
	Subtotal	\$1,121,869.00
	Administrative Fee (10%)	\$112,186.90
	Contingency Fee (5%)	\$56,093.45
	Total SWMU Investigation & Remediation Cost	\$1,290,149.35

Notes

1. SWMU indicates Solid Waste Management Unit
2. Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent leaching and reduce exposure risks.

APPENDIX B

SWMU INVESTIGATION & REMEDIATION COST ESTIMATE

LETTER REPORT

26 April 2025

VIA ELECTRONIC-MAIL

Mr. Chip Wildes
Manager – Environmental Affairs/Compliance Officer
SAFT America, Inc.
711 Gil Harbin Industrial Blvd.
Valdosta, Georgia 31601

**Subject: SWMU Investigation & Remediation Cost Estimate Letter Report
SAFT America, Inc. Facility
711 Gil Harbin Industrial Blvd, Valdosta, GA**

Dear Mr. Wildes:

Geosyntec Consultants (Geosyntec) is pleased to provide this Solid Waste Management Unit (SWMU) Investigation & Remediation Cost Estimate letter report for the SAFT America, Inc. (SAFT) facility located at 711 Gil Harbin Industrial Boulevard in Valdosta, Georgia (“the Site”). This report documents the assumptions made during the preparation of the SWMU Investigation & Remediation Cost Estimate for SWMUs 6, 8, 9, 10, and 11 as part of SAFT’s Resource Conservation and Recovery Act (RCRA) Part B permit renewal with the Georgia Environmental Protection Division (GA EPD). SWMU Investigation & Remediation Costs associated with SWMUs 1 through 5 and 7, as well as the long-term groundwater pump and treat system, have been prepared separately and will not be evaluated or discussed as part of this report.

BACKGROUND

At the referenced facility, SAFT manufactures nickel-cadmium batteries and cells. These manufacturing processes generate waste streams associated with the fabrication, impregnation, and cleaning of electrode materials in addition to the formation and filling of cells with electrolyte. To manage this waste, the facility operates its own wastewater treatment system to remove heavy metal hydroxides and adjust the pH before discharging to the City of Valdosta’s sewage system. Throughout the facility’s 50-year history, there have been 11 identified SWMUs at the Site based on known or suspected releases of hazardous waste, hazardous waste constituents, or hazardous constituents into the environment. Based on review of available Site information, a subset of these SWMUs (1, 2, 3, 4, 5, and 7) have been investigated as part of historical RCRA Facility Investigations (RFIs) with reports dated August 1994 and January 2003. As part of SAFT’s recent permit renewal activities, GA EPD has indicated the need for further investigation and assumed

remediation at the remaining SWMUs not previously evaluated (6, 8, 9, 10, and 11). GA EPD has agreed that this work will be completed upon cessation of operations at the Site, and for the purposes of this report, can be estimated based on available Site data. As part of the SWMU Investigation & Remediation Cost Estimate development, GA EPD indicated in their 26 February 2025 email that they are looking for “ballpark” total costs to both investigate and to remediate the five referenced SWMUs in order for SAFT to provide financial assurance that is sufficient to cover the cost for this work, should SAFT go out of business or file for bankruptcy.

SWMU SUMMARIES

Geosyntec conducted a thorough review of available records presenting the Site’s environmental history focusing on the five (5) SWMUs below (**Figure 1**). To supplement the written records, Geosyntec also conducted a Site visit to the facility on 12 March 2025 to observe each of the below referenced SWMUs. A photolog documenting current Site conditions, as observed during the site visit, is included in **Attachment A**.

- SWMU 6 – Closed Container Storage Area
- SWMU 8 – Wastewater Treatment Unit and Appurtenances
- SWMU 9 – All Transfer Lines Used to Transport Waste
- SWMU 10 – All Sumps Used to Collect Waste
- SWMU 11 – Building 2 Former Burn Area

Below are brief summaries of each SWMU based on information presented in historical reports and correspondence with SAFT personnel.

SWMU 6: Closed Container Storage Area

The former Closed Container Storage Area is an approximately 60-foot by 140-foot area located in the southeastern corner of the concreted and curbed area of the Site (south of the wastewater treatment unit). This is where drums of wastewater sludge and filter cake were stored beginning in 1976 until the Site’s container storage area was ultimately moved to the south end of Building 3 as part of SAFT’s expanded recycling facility construction. According to the 21 June 1990 RCRA Facility Assessment questionnaire, the use of this area for waste storage was terminated in 1993. The area has since remained concrete paved with surrounding concrete berms, with sealant applied to any visible cracks in the surface of the concrete.

SWMU 8: Wastewater Treatment Unit and Appurtenances

The wastewater treatment facility is an approximately 80-foot by 90-foot area located southeast of Building 1, directly across the facility access road from the Site’s tank farm. This facility was built

in 1989 and contains equalization tanks, pH adjustment tanks, a clarifier, a sludge thickening tank, a rotating sand filter, and a clear well. Adjacent to the primary wastewater treatment area is an approximately 20-foot by 30-foot pit with two inground tanks that initially receive and blend the nickel and cadmium bearing wastewater, spent sodium hydroxide conversion and electrochemical cleaning solutions, and waste potassium hydroxide solution. These liquids are then transferred to the equalization tanks via pumps controlled by level probes.

SWMU 9: All Transfer Lines Used to Transport Waste

The wastewater transfer lines are located beneath the Chemical Plant within Building 1. These lines were installed in 1974 as part of the Chemical Plant construction and were used for transferring aqueous impregnation process wastes containing nickel, cadmium, and caustic solutions from the Chemical Plant to a 10,000-gallon inground sump that was removed from the Site in 1998 as part of source removal activities. These lines were the subject of the 1994 Chemical Plant RFI. Investigation activities indicated damage to the underground lines, requiring abandonment in 1995 and replacement with a floor trenching system for transporting wastewater.

SWMU 10: All Sumps Used to Collect Waste

The wastewater sumps are located within the Chemical Plant, Tank Farm, wastewater treatment plant, and cell formation areas. Except for sump #29, all sumps were abandoned in 1995. Sump #29 is currently connected to the new wastewater treatment facility via aboveground piping.

SWMU 11: Building 2 Former Burn Area

The Building 2 former burn area is located near the southeastern corner of Building 2 (Burn Area North) and extends southward across the plant access road into the grass cover pecan grove (Burn Area South). This SWMU was first discovered in 2000 when soils excavated as part of Building 2 construction activities were found to contain cadmium and nickel above background levels established in the August 1995 Corrective Action Plan (CAP), Revision 2 (3.0 milligrams per kilogram [mg/kg] and 24 mg/kg, respectively). Records indicate the Burn Area North was utilized to burn factory trash containing nickel and cadmium for a few months following commencement of operations at the SAFT facility in 1975. The contaminated soil was later redistributed to Burn Area South as part of Building 2 construction activities. Burn Area North is an approximately 55-foot by 200-foot area located on the eastern portion of Building 2. The area surrounding the building is paved with concrete to the limits of the asphalt plant access roads, which are original to the Site. Burn Area South is an approximately 0.75-acre grassy area located south of Building 2 across the plant access road. CAP field activities, inclusive of soil excavation and Site restoration, were completed in 2013 within Burn Area South. These activities remediated the observed soil impacts to background levels in Burn Area South except for those located in the immediate vicinity

of identified underground electrical utilities transecting SWMU 11. The location of the contaminated soil that remained in place is depicted in the SWMU 11 Land Use Controls Plan.

SWMU INVESTIGATION & REMEDIATION COST ESTIMATE ASSUMPTIONS

As indicated previously in this report, GA EPD is looking for “ballpark” total costs to both investigate and remediate the five referenced SWMUs for SAFT to provide financial assurance that is sufficient to cover the cost for this work, should they go out of business or file for bankruptcy. To derive these costs, Geosyntec has identified the below list of assumptions that help clarify the path forward for each SWMU and the Site as a whole. These assumptions were discussed with and agreed upon by SAFT and GA EPD during a teleconference on 17 March 2025.

- The Site will be conditionally closed upon cessation of operations with implementation of institutional controls to limit future use of the Site to commercial/industrial use and engineering controls to reduce infiltration and leaching potential while preventing direct exposure to contaminated soil remaining in place.
- The current infrastructure at the Site is suitable for use as engineering controls (i.e. impervious caps) including building foundations, concrete paved areas, and asphalt paved areas.
- Soil sampling locations presented within each SWMU investigation section later in this report will be placed approximately every 25 ft with one floor sample collected every 625 ft² in accordance with guidance provided in the Georgia Department of Natural Resources Environmental Protection Division’s Guidance for Demonstrating Completion of Soil Removal Actions at Corrective Action Site in Georgia dated 1 July 2017.
- Soil sampling will be conducted at discrete depth intervals to support the development of soil excavation cut lines, as necessary.
- Costs for long-term monitoring of engineering controls have not been included in this SWMU Investigation & Remediation Cost estimate and have been assumed to be included with the long-term monitoring of the groundwater extraction system currently operating at the facility as cost savings to SAFT.

INVESTIGATION AND REMEDIATION APPROACHES

Utilizing the information gathered as part of Geosyntec’s review of available records presenting the Site’s environmental history and the above assumptions made regarding future use of the Site upon cessation of operations, Geosyntec has prepared the below RFI and CAP approaches for each of the referenced SWMUs. The below discussed investigation and remedial approaches, including but not limited to soil sampling and equipment decontamination, will be conducted in accordance

with all applicable United States Environmental Protection Agency Region 4 Quality System and Technical Procedures for Laboratory Services and Applied Science Division Field Branches guidance documents.

SWMU 6: Closed Container Storage Area

To investigate whether soil has been contaminated at this SWMU, it has been proposed to advance up to 28 soil borings from land surface to a maximum depth of 4 feet below land surface (ft BLS). The proposed soil borings have been placed in accordance with the above assumption regarding sample distribution to ensure sufficient coverage of the SWMU, with locations presented on **Figure 2**.

A drilling subcontractor equipped with a concrete core drill will be utilized to access soils beneath the concrete surface. Based on the depth of soil contamination observed during CAP activities at the adjacent SWMU-5 (Truckwell Drain Pipe [3 ft BLS]), a minimum of three discrete soil samples will be collected via a decontaminated hand auger from each of the proposed 28 soil boring locations from 0.5, 2, and 4 ft BLS (84 samples total). The soil samples will be analyzed for the presence of cadmium and nickel by a fixed-base commercial laboratory.

Based on observations during the Site visit and correspondence with SAFT personnel, it has been assumed that soil contamination is unlikely to be present beneath the paved portion of this SWMU. For the purposes of estimating remediation costs, it has been assumed that any soil containing contaminant concentrations above background within this SWMU are most likely to be located just beyond the confines of the concrete paved and berm portions due to Site topography and surface drainage. The assumed extents of contaminated soil are likely limited based on the location of CAP activities conducted at the adjacent SWMU-5.

This results in an area of assumed soil contamination above background of approximately 730 square feet (sq ft). Assuming the deepest soil samples advanced during the investigation activities (4 ft BLS) indicate contaminant concentrations are below background, approximately 108 cubic yards (CY) or 151 tons of assumed non-hazardous soil will require excavation and proper disposal, followed by backfilling and Site restoration.

Excavated soil will be staged in stockpiles on a liner (minimum 6-mil thickness). The stockpiles will also be covered with a liner (minimum 6-mil thickness), secured to prevent human exposure, windblown dust, and potential runoff, and labeled. Once stockpiled, the excavated soil will be sampled to properly manifest the waste for transport and disposal. Upon receipt of the waste characterization sampling, the stockpiled soil will be loaded on trucks and transported to the appropriate disposal facility. It has been assumed that one waste profiling sample will be collected

and analyzed per truckload (approximately 15 tons) for RCRA metals via the toxicity characteristic leaching procedure.

SWMU 8: Wastewater Treatment Unit and Appurtenances

To investigate whether soil has been contaminated at this SWMU, it has been proposed to advance up to 25 soil borings from land surface to a maximum depth of 4 ft BLS. The proposed soil borings have been placed in accordance with the above assumption regarding sample distribution to ensure sufficient coverage of the SWMU, with locations presented on **Figure 3**.

A drilling subcontractor equipped with a concrete core drill will be utilized to access soils beneath the concrete surface. Based on the depth of soil contamination observed during CAP activities at the adjacent SWMU-5 (Truckwell Drain Pipe [3 ft BLS]), a minimum of three discrete soil samples will be collected via a decontaminated hand auger from each of the proposed 25 soil boring locations from 0.5, 2, and 4 ft BLS (75 samples total). The soil samples will be analyzed for the presence of cadmium and nickel by a fixed-base commercial laboratory.

Based on observations during the Site visit and correspondence with SAFT personnel, it has been assumed that soil contamination is unlikely to be present beneath this SWMU due to the location, integrity, and thickness of concrete (minimum 1-ft thickness) within the SWMU boundaries. As such, there have been no CAP costs included as part of this SWMU Investigation & Remediation Cost estimate.

SWMU 9: All Transfer Lines Used to Transport Waste

To investigate whether soil has been contaminated at this SWMU, it has been proposed to advance up to 30 soil borings from land surface to a maximum depth of 6 ft BLS. The proposed soil borings have been placed in accordance with the above assumption regarding sample distribution to ensure sufficient coverage of the SWMU while also considering the locations of facility infrastructure and proximity to underground lines, with locations presented on **Figure 4**.

A drilling subcontractor equipped with a concrete core drill will be utilized to access soils beneath the concrete surface. Based on the depth of historical transfer line installation (approximately 4 ft BLS), a minimum of four discrete soil samples will be collected via a decontaminated hand auger from each of the proposed 30 soil boring locations from 0.5, 2, 4, and 6 ft BLS (120 samples total). The soil samples will be analyzed for the presence of cadmium and nickel by a fixed-base commercial laboratory.

Based on observations during the Site visit and correspondence with SAFT personnel, it has been assumed that any soil contamination present beneath this SWMU is likely encapsulated within the low permeability clay lithology observed within the upper 10 feet of vadose zone at the Site while

being covered by an expansive impervious cap consisting of Building 1, resulting in a low likelihood of leaching to groundwater (approximately 20 to 34 ft BLS) at concentrations above regulatory levels. There is presently a long-term groundwater extraction system operating at the facility as part of interim measures associated with SWMU-1 (Chemical Plant 10,000 Gallon Underground Sump). Recovery wells associated with this system are located hydraulically downgradient from SWMU-9 (groundwater flow documented towards southeast), resulting in the capture of any potential contaminant leaching as evidenced by the capture zone analysis completed as part of the 2024 annual Corrective Action Report. As such, there have been no CAP costs included as part of the SWMU Investigation & Remediation Cost estimate.

SWMU 10: All Sumps Used to Collect Waste

To investigate whether soil has been contaminated at this SWMU, it has been proposed to advance up to 16 soil borings from land surface to a maximum depth of 6 ft BLS. The proposed soil borings have been placed in accordance with the above assumption regarding sample distribution to ensure sufficient coverage of the SWMU, with locations presented on **Figure 5**.

A drilling subcontractor equipped with a concrete core drill will be utilized to access soils beneath the concrete surface. Based on the depth of historical transfer line installation (approximately 4 ft BLS), a minimum of four discrete soil samples will be collected via a decontaminated hand auger from each of the proposed 16 soil boring locations from 0.5, 2, 4, and 6 ft BLS (64 samples total). The soil samples will be analyzed for the presence of cadmium and nickel by a fixed-base commercial laboratory.

Based on observations during the Site visit and correspondence with SAFT personnel, it has been assumed that any soil contamination present beneath this SWMU is likely encapsulated within the low permeability clay lithology observed within the upper 10 feet of vadose zone at the Site while being covered by an expansive impervious cap consisting of Building 1, resulting in a low likelihood of leaching to groundwater (approximately 20 to 34 ft BLS) at concentrations above regulatory levels. There is presently a long-term groundwater extraction system operating at the facility as part of interim measures associated with SWMU-1 (Chemical Plant 10,000 Gallon Underground Sump). Recovery wells associated with this system are located hydraulically downgradient from SWMU-10 (groundwater flow documented towards southeast), resulting in the capture of any potential contaminant leaching as evidenced by the capture zone analysis completed as part of the 2024 annual Corrective Action Report. As such, there have been no CAP costs included as part of the SWMU Investigation & Remediation Cost estimate.

SWMU 11: Building 2 Former Burn Area

To investigate whether soil has been contaminated at this SWMU, it has been proposed to advance up to 30 soil borings from land surface to a maximum depth of 4 ft BLS. The proposed soil borings have been placed in accordance with the above assumption regarding sample distribution to ensure sufficient coverage of the SWMU, with locations presented on **Figure 6**.

A drilling subcontractor equipped with a concrete core drill will be utilized to access soils beneath any asphalt or concrete surfaces, as necessary. Based on the depth of soil contamination observed during CAP activities previously completed at this SWMU (3 ft BLS), a minimum of three discrete soil samples will be collected via a decontaminated hand auger from each of the proposed 30 soil boring locations from 0.5, 2, and 4 ft BLS (90 samples total). The soil samples will be analyzed for the presence of cadmium and nickel by a fixed-base commercial laboratory.

Based on observations during the Site visit and correspondence with SAFT personnel, it has been assumed that soil contamination is unlikely to be present beneath the asphalt paved portions of this SWMU as these roads are original to the facility and were installed prior to commencement of operations. It has also been assumed that most contaminated soil associated with this SWMU is likely present beneath the footprint of Building 2 (impervious cover) and to its west as past soil redistribution activities during building construction. For the purposes of estimating remediation costs, it has been assumed that the only contaminated soils present beneath pervious cover that require remediation efforts are located on the western side of Building 2. Additionally, soil contamination was left in place as part of the 2013 CAP activities associated with Burn Area South. It has been assumed that these soils will be accessible following cessation of facility operations and will be remediated along with those surrounding Building 2 as part of future CAP activities.

This results in a total area of assumed soil contamination above background of approximately 9,034 sq ft. Assuming the deepest soil samples advanced during the investigation activities (4 ft BLS) indicate contaminant concentrations are below background, approximately 1,339 cubic yards (CY) or 1,874 tons of assumed non-hazardous soil will require excavation and proper disposal, followed by backfilling and Site restoration.

Excavated soil will be staged in stockpiles on a liner (minimum 6-mil thickness). The stockpiles will also be covered with a liner (minimum 6-mil thickness), secured to prevent human exposure, windblown dust, and potential runoff, and labeled. Once stockpiled, the excavated soil will be sampled to properly manifest the waste for transport and disposal. Upon receipt of the waste characterization sampling, the stockpiled soil will be loaded on trucks and transported to the appropriate disposal facility. It has been assumed that one waste profiling sample will be collected and analyzed per truckload (approximately 15 tons) for RCRA metals via the toxicity characteristic leaching procedure.

UNIFORM ENVIRONMENTAL COVENANT

Following soil investigation and remediation activities, a Uniform Environmental Covenant will need to be developed and recorded to reflect the assumed institutional (commercial/industrial use) and engineering (impervious cap) controls associated with each of the five referenced SWMUs and the Site as a whole. The assumed extents of these controls are illustrated on **Figure 7**.

COST ESTIMATE

Based on the above investigation and remediation approaches for each of the SWMUs and assumed remedial strategy for the Site, a SWMU Investigation & Remediation Cost Estimate has been prepared and included as **Attachment B**. Included within this cost estimate are the 30-year estimated groundwater corrective action costs prepared by TTL, Inc., to provide a total cost for financial assurance as part of SAFT's RCRA Part B permit renewal with GA EPD.

Mr. Chip Wildes
26 April 2025
Page 10

Should you have questions regarding this report or need additional information, please do not hesitate to contact us. We appreciate the opportunity to be of service to SAFT.

Sincerely,



Blaine Dawson, P.G.
Senior Geologist

Geosyntec Consultants



Kevin Warner, P.E.
Principal Engineer

FIGURES



- Legend**
- Solid Waste Management Unit Areas**
- SWMU 6 - Closed Container Storage Area
 - SWMU 8 - Wastewater Treatment Unit and Appurtenances
 - SWMU 9 - All Transfer Lines Used to Transport Waste
 - SWMU 10 - All Sumps Used to Collect Waste
 - SWMU 11 - Building 2 Former Bum Area

Notes:
 1. Solid Waste Management Unit (SWMU) areas are approximate and based on ASA Engineering & Surveying, Inc. Figure 2b, dated 9 August 2024.
 2. Other site areas are based on aerial and site observation.
 3. Aerial Imagery: Nearmap, HERE, captured 16 November 2024.

Solid Waste Management Unit Location Map

711 Gil Harbin Industrial Blvd
 Valdosta, GA

Geosyntec
 consultants

Figure

Jacksonville, FL

April 2025

1

File: (7:45:41)GAT1\711108-01\DWG\2025\FE11125_ExtArea\Fig1\20250408\SWMU Location 4/9/2025 1:24 PM (andb.msh)



Legend

- Proposed Soil Boring Locations
- Solid Waste Management Unit Areas
- ▭ SWMU 6 - Closed Container Storage Area

Notes

1. Solid Waste Management Unit (SWMU) areas are approximate and based on ASA Engineering & Surveying, Inc. Figure 2b, dated 9 August 2024.
2. Other site areas are based on aerial and site observation.
3. Aerial Imagery: Nearmap, HERE, captured 16 November 2024.

RCRA Facility Investigation Layout Map - SWMU 6

711 Gil Harbin Industrial Blvd
Valdosta, GA

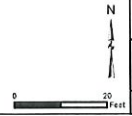
Geosyntec
consultants

Figure

2

Jacksonville, FL

April 2025





- Legend**
- Proposed Soil Boring Locations
 - Solid Waste Management Unit Areas
 - SWMU 8 - Wastewater Treatment Unit and Appurtenances

Notes

1. Solid Waste Management Unit (SWMU) areas are approximate and based on ASA Engineering & Surveying, Inc. Figure 2b, dated 9 August 2024.
2. Other site areas are based on aerial and site observation.
3. Aerial Imagery: iTeamP, HERE, captured 16 November 2024.

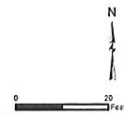
RCRA Facility Investigation Layout Map - SWMU 8

711 Gil Harbin Industrial Blvd
Valdosta, GA

Geosyntec
consultants

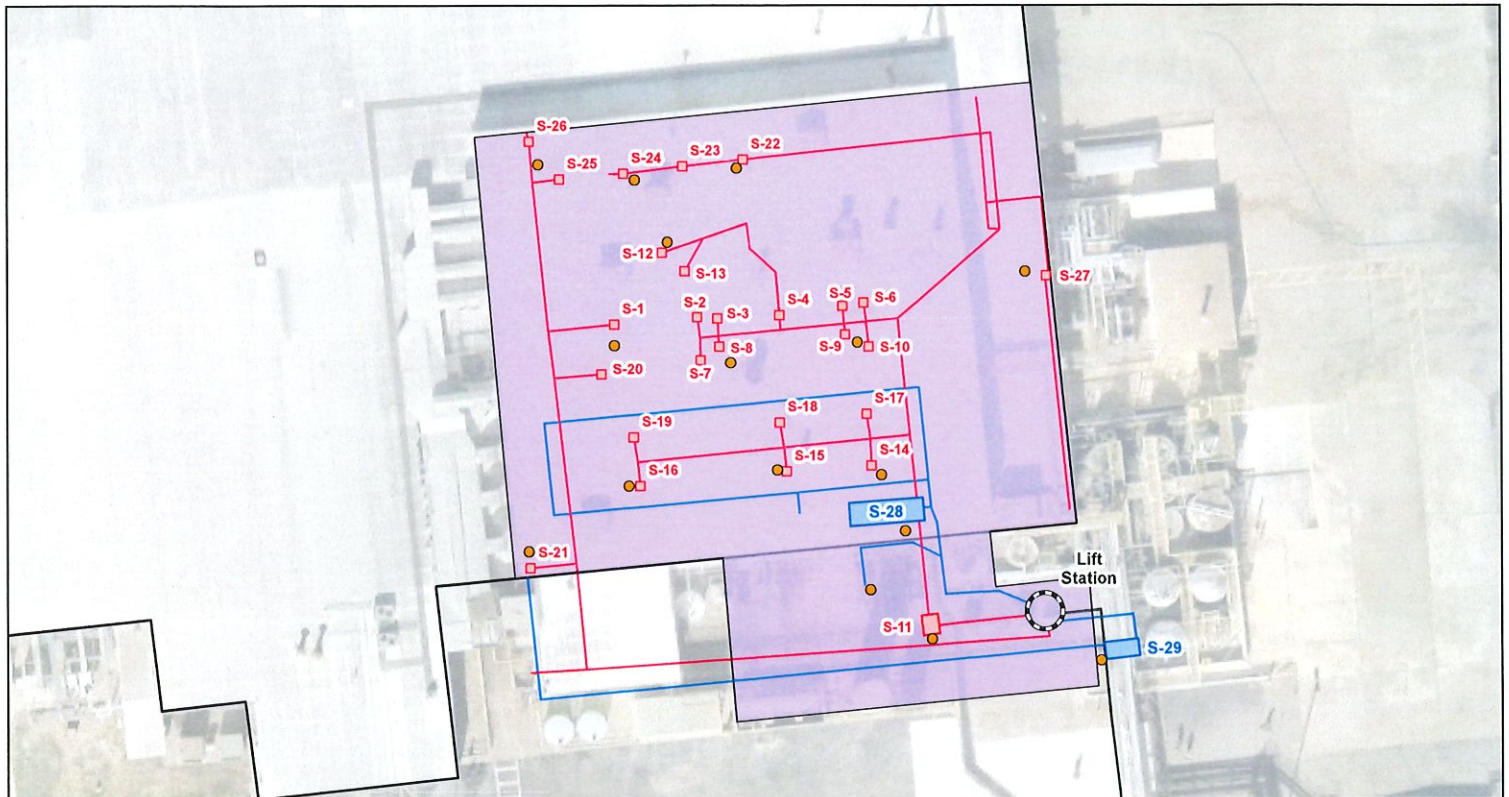
Figure

3



Jacksonville, FL

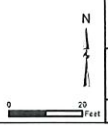
April 2025



- Legend**
- Sump Piping
 - Underground Wastestream C
 - Underground Wastestream E
 - Aboveground Wastestream F
 - Solid Waste Management Unit Areas
 - SWMU 10 - All Sumps Used to Collect Waste
 - Proposed Soil Boring Locations
 - S-# Wastewater Collection Sump

Notes

1. Solid Waste Management Unit (SWMU) areas are approximate and based on ASA Engineering & Surveying, Inc. Figure 20, dated 9 August 2024.
2. Other site areas are based on aerial and site observation.
3. Aerial Imagery: Nearmap, HERE, captured 16 November 2024.



RCRA Facility Investigation Layout Map - SWMU 10 711 Gil Harbin Industrial Blvd Valdosta, GA	
Geosyntec consultants	Figure 5
Jacksonville, FL	April 2025

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ATTACHMENT A

PHOTOGRAPHIC LOG

GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 1

Date: 12 March 2025

Direction: NE

Comments: SWMU 6 – Closed Container Storage Area



Photograph 2

Date: 12 March 2025

Direction: S

Comments: SWMU 6 – Closed Container Storage Area



GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 3

Date: 12 March 2025

Direction: N

Comments: SWMU 8 – Wastewater Treatment Unit and Appurtenances



Photograph 4

Date: 12 March 2025

Direction: S

Comments: SWMU 8 – Wastewater Treatment Unit and Appurtenances



GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 5

Date: 12 March 2025

Direction: E

Comments: SWMU 9 – All Transfer Lines Used To Transport Waste / SWMU 10 – All Sumps Used to Collect Waste



Photograph 6

Date: 12 March 2025

Direction: N

Comments: SWMU 9 – All Transfer Lines Used To Transport Waste / SWMU 10 – All Sumps Used to Collect Waste



GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 7

Date: 12 March 2025

Direction: E

Comments: SWMU 9 – All Transfer Lines Used To Transport Waste / SWMU 10 – All Sumps Used to Collect Waste

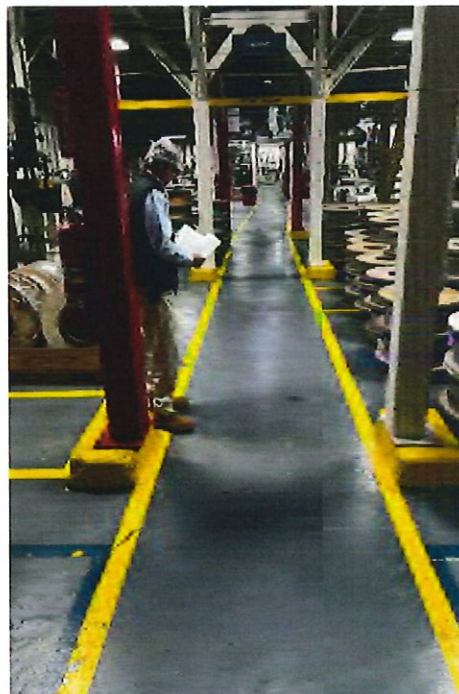


Photograph 8

Date: 12 March 2025

Direction: E

Comments: SWMU 9 – All Transfer Lines Used To Transport Waste / SWMU 10 – All Sumps Used to Collect Waste



GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 9

Date: 12 March 2025

Direction: S

**Comments: SWMU 11
– Building 2 Former
Burn Area (Burn Area
North)**



Photograph 10

Date: 12 March 2025

Direction: SW

**Comments: SWMU 11
– Building 2 Former
Burn Area (Burn Area
South)**



GEOSYNTEC CONSULTANTS
Photographic Record



Regulator: Georgia Environmental Protection Division

Project Number: FE11525

Site Name: SAFT America, Inc.

Site Location: Valdosta, GA

Photograph 11

Date: 12 March 2025

Direction: NW

**Comments: SWMU 11
– Building 2 Former
Burn Area (Burn Area
North)**



Photograph 12

Date: 12 March 2025

Direction: N

**Comments: SWMU 11
– Building 2 Former
Burn Area (Burn Area
North)**



ATTACHMENT B

SWMU INVESTIGATION & REMEDICATION COST ESTIMATE

TABLE 1: 30-Year Estimated Corrective Action Cost
(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

						<u>Total Cost</u>
1.	Monitoring and Reporting					\$192,397.50
	a. Complete annual groundwater sampling at 9 monitoring wells, collect 1 sediment sample from Mud Creek, and collect 1 surface water sample from Mud Creek.					
		Unit Rate	Unit	Number of Units	Cost	30-Year Cost
	i. Labor - 2 people		18	Hours	\$ 110.00	\$1,980.00
	ii. Sampling equipment					
	A. Bladder pump and controller (2 sets of equipment)		2	Per	\$200.00	\$400.00
	B. Tubing (feet) - New tubing at RW-1 and MW-3		1	Lump Sum	\$375.00	\$375.00
	C. Tubing (feet) - New tubing every 4 years in clean we	0.25		Per Year	\$1,125.00	\$281.25
	D. Water level indicators (2 sets of equipment)		2	Per	\$200.00	\$400.00
	E. Water quality multimeters (2 sets of equipment)		2	Per	\$200.00	\$400.00
	F. Disposable consumables		1	Lump Sum	\$45.00	\$45.00
	iii. Mobilization		40	Per Mile	\$0.70	\$28.00
	iii. Laboratory analysis					
	A. 9 groundwater samples for cadmium and nickel analy		9	Per	\$35.00	\$315.00
	B. 1 sediment sample for cadmium and nickel analysis		1	Per	\$35.00	\$35.00
	C. 1 sediement sample for percent moisture analysis		1	Per	\$10.00	\$10.00
	D. 1 surface water sample for cadmium and nickel analy		1	Per	\$35.00	\$35.00
	E. Environmental responsible waste management - samj		11	Per	\$5.00	\$55.00
	iv. Reporting					
	A. Project professional labor		10	Hours	\$140.00	\$1,400.00
	B. Senior professional labor		3	Hours	\$218.00	\$654.00
						\$19,620.00
2.	Groundwater Monitoring Well Inspections					\$79,200.00
	a. Complete monthly inspections of annually sampled monitoring wells.					
		Unit Rate	Unit	Number of Units	Cost	30-Year Cost
	i. Labor - 2 hours per month		24	Hours	\$ 110.00	\$2,640.00
						\$79,200.00
3.	Corrective Action System					\$70,200.00
	a. Complete bi-weekly inspections of corrective action system					
		Unit Rate	Unit	Number of Units	Cost	30-Year Cost
	i. Labor - 1 hour per event		26	Hours	\$ 90.00	\$2,340.00
						\$70,200.00

TABLE 1: 30-Year Estimated Corrective Action Cost
 (Remediate to commercial/industrial levels with Institutional and Engineering Controls)

4.	Maintenance		\$60,000.00
	a. Repairs to corrective action system		
		Unit Rate Unit Number of Units Cost 30-Year Cost	
	i. Monitoring well replacement	0.1 Per Year \$ 4,000.00 \$400.00 \$12,000.00	
	ii. Maintaining/repairing monitoring wells	0.5 Per Year \$ 400.00 \$200.00 \$6,000.00	
	iii. Pump and piping replacement for RW-2	0.25 Per Year \$ 4,000.00 \$1,000.00 \$30,000.00	
	iv. Pump replacement for MW-6	0.2 Per Year \$ 2,000.00 \$400.00 \$12,000.00	
			Subtotal \$401,797.50
			Administrative Fee (10%) \$40,179.75
			Contingency Fee (5%) \$20,089.88
			Total 30-Year Estimated Corrective Action Cost \$462,067.13

Notes

1. Calculations provided by TTL, Inc., based on the performance of specific required tasks over a 30-year period in accordance with 40 CFR 264.117.

**TABLE 2: SWMU Investigation & Remediation Cost Estimate
SWMUs 6, 8, 9, 10, and 11**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

	<u>Total Cost</u>
1. Solid Waste Management Unit 6 - Closed Container Storage Area	\$239,697.00
2. Solid Waste Management Unit 8 - Wastewater Treatment Unit and Appurtenances:	\$143,450.00
3. Solid Waste Management Unit 9 - All Transfer Lines Used to Transport Waste	\$150,600.00
4. Solid Waste Management Unit 10 - All Sumps Used to Collect Waste	\$137,570.00
5. Solid Waste Management Unit 11 - Building 2 Former Burn Area	\$450,552.00
	Subtotal \$1,121,869.00
	Administrative Fee (10%) \$112,186.90
	Contingency Fee (5%) \$56,093.45
	Total SWMU Investigation & Remediation Cost \$1,290,149.35

Notes

1. SWMU indicates Solid Waste Management Unit
2. Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent leaching and reduce exposure risks.

TABLE 3: Total Cost Calculation

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

	<u>Total Cost</u>
1. 30-Year Estimated Groundwater Corrective Action Cost	\$462,067.13
2. SWMU Investigation & Remediation Cost Estimate	\$1,290,149.35
Grand Total Cost for Financial Assurance	\$1,752,216.48

**TABLE 4: SWMU Investigation & Remediation Cost Estimate
SWMU 6**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

		<u>Total Cost</u>	
1.	RCRA Facility Investigation Work Plan Development		\$25,000.00
2.	RCRA Facility Investigation Field Work		\$33,720.00
	a. Complete soil sampling activities inclusive of concrete coring and hand auger sampling at up to 28 boring locations from up to 3 depth intervals each for analysis of cadmium and nickel.		
		Unit Rate	Unit
			Number of Units
			Cost
	i. Private utility locate	1	Lump Sum \$ 1,000.00 \$1,000.00
	ii. Soil boring advancement and sampling		
	A. Drilling subcontractor		
	I. Direct-push daily rate	5	Days \$2,100.00 \$10,500.00
	II. Mobilization	1	Round Trip \$1,000.00 \$1,000.00
	III. Per Diem	4	Nights \$750.00 \$3,000.00
	IV. 55-gallon drums	2	Drums \$125.00 \$250.00
	V. Decontamination pad	1	Lump Sum \$350.00 \$350.00
	VI. Steam cleaner	5	Days \$100.00 \$500.00
	VII. Concrete core drill with 4-inch bit	5	Days \$100.00 \$500.00
	B. Consultant oversight		
	I. Oversight labor hours	50	Hours \$200.00 \$10,000.00
	II. Oversight expenses	1	Lump Sum \$3,500.00 \$3,500.00
	C. Laboratory Analysis		
	I. Cadmium and nickel analysis	84	Samples \$30.00 \$2,520.00
	iii. Investigation derived waste management	2	Drums \$300.00 \$600.00
3.	RCRA Facility Investigation Report		\$50,000.00
4.	RCRA Corrective Action Plan Development		\$15,000.00
5.	RCRA Corrective Action Plan Field Work		\$60,977.00
	a. Limited soil excavation along southern and eastern extents of paved portion to extents of SWMU 5 excavation limits. Excavation to be completed to estimated 4 feet below land surface based on depth of soil borings advanced during investigation activities.		

**TABLE 4: SWMU Investigation & Remediation Cost Estimate
SWMU 6**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

	Unit Rate	Unit	Number of Units	Cost	
i. Private utility locate		1	Lump Sum	\$ 1,000.00	\$1,000.00
ii. Earthwork					
A. Excavation subcontractor					
I. Mobilization		1	Round Trip	\$1,800.00	\$1,800.00
II. Temporary fencing		1	Lump Sum	\$5,000.00	\$5,000.00
III. Excavation, transportation, and disposal		151	Tons	\$124.00	\$18,724.00
III. Backfilling and compaction		108	Cubic Yards	\$171.00	\$18,468.00
IV. Site restoration		1	Lump Sum	\$2,000.00	\$2,000.00
V. Surveying		3	Each	\$2,000.00	\$6,000.00
B. Consultant oversight					
I. Oversight labor hours		20	Hours	\$200.00	\$4,000.00
II. Oversight expenses		1	Lump Sum	\$1,500.00	\$1,500.00
C. Laboratory Analysis					
I. Backfill analyses		1	Sample	\$1,000.00	\$1,000.00
II. Waste profiling analyses		11	Sample	\$135.00	\$1,485.00
6. RCRA Corrective Action Plan Completion Report					\$20,000.00
7. Uniform Environmental Covenant Development and Recording					\$35,000.00
a. Includes outside legal counsel support					
				Subtotal	\$239,697.00

Notes

- SWMU indicates Solid Waste Management Unit
- RCRA indicates Resource Conservation and Recovery Act
- Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent exposure.
- Based on correspondence with a SAFT representative and Geosyntec's observations of the concrete's condition, it is unlikely that contaminated soil is observed beneath this SWMU. However, there is the potential that contamination may have migrated beyond the confines of the concrete slab and berms. Of note, any potential contamination migrating beyond the limits of the concrete structures would be limited by the extents of the soil excavation activities associated with SWMU 5.

**TABLE 5: SWMU Investigation & Remediation Cost Estimate
SWMU 8**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

				<u>Total Cost</u>
1.	RCRA Facility Investigation Work Plan Development			\$25,000.00
2.	RCRA Facility Investigation Field Work			\$33,450.00
	a. Complete soil sampling activities inclusive of concrete coring and hand auger sampling at up to 25 boring locations from up to 3 depth intervals each for analysis of cadmium and nickel.			
		Unit Rate	Unit	Number of Units
				Cost
	i. Private utility locate		1 Lump Sum	\$ 1,000.00 \$1,000.00
	ii. Soil boring advancement and sampling			
	A. Drilling subcontractor			
	I. Direct-push daily rate	5	Days	\$2,100.00 \$10,500.00
	II. Mobilization	1	Round Trip	\$1,000.00 \$1,000.00
	III. Per Diem	4	Nights	\$750.00 \$3,000.00
	IV. 55-gallon drums	2	Drums	\$125.00 \$250.00
	V. Decontamination pad	1	Lump Sum	\$350.00 \$350.00
	VI. Steam cleaner	5	Days	\$100.00 \$500.00
	VII. Concrete core drill with 4-inch bit	5	Days	\$100.00 \$500.00
	B. Consultant oversight			
	I. Oversight labor hours	50	Hours	\$200.00 \$10,000.00
	II. Oversight expenses	1	Lump Sum	\$3,500.00 \$3,500.00
	C. Laboratory Analysis			
	I. Cadmium and nickel analysis	75	Samples	\$30.00 \$2,250.00
	iii. Investigation derived waste management	2	Drums	\$300.00 \$600.00

**TABLE 5: SWMU Investigation & Remediation Cost Estimate
SWMU 8**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

3.	RCRA Facility Investigation Report	\$50,000.00
4.	RCRA Corrective Action Plan Development	\$0.00
5.	RCRA Corrective Action Plan Field Work	\$0.00
6.	RCRA Corrective Action Plan Completion Report	\$0.00
7.	Uniform Environmental Covenant Development and Recording a. Includes outside legal counsel support	\$35,000.00
	Subtotal	\$143,450.00

Notes

1. SWMU indicates Solid Waste Management Unit
2. RCRA indicates Resource Conservation and Recovery Act
3. Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent exposure.
4. Based on correspondence with a SAFT representative and Geosyntec's observations of the wastewater treatment system's concrete foundation (> 1 foot thick), it is unlikely that contaminated soil is observed beneath this SWMU. As such, no costs have been included for a RCRA Corrective Action Plan.

**TABLE 6: SWMU Investigation & Remediation Cost Estimate
SWMU 9**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

		<u>Total Cost</u>	
1.	RCRA Facility Investigation Work Plan Development		\$25,000.00
2.	RCRA Facility Investigation Field Work		\$40,600.00
	a. Complete soil sampling activities inclusive of concrete coring and hand auger sampling at up to 30 boring locations from up to 4 depth intervals each for analysis of cadmium and nickel.		
		Unit Rate	Unit
			Number of Units
			Cost
	i. Private utility locate	1	Lump Sum \$ 1,000.00 \$1,000.00
	ii. Soil boring advancement and sampling		
	A. Drilling subcontractor		
	I. Direct-push daily rate	6	Days \$2,100.00 \$12,600.00
	II. Mobilization	2	Round Trip \$1,000.00 \$2,000.00
	III. Per Diem	4	Nights \$750.00 \$3,000.00
	IV. 55-gallon drums	2	Drums \$125.00 \$250.00
	V. Decontamination pad	1	Lump Sum \$350.00 \$350.00
	VI. Steam cleaner	6	Days \$100.00 \$600.00
	VII. Concrete core drill with 4-inch bit	6	Days \$100.00 \$600.00
	B. Consultant oversight		
	I. Oversight labor hours	60	Hours \$200.00 \$12,000.00
	II. Oversight expenses	1	Lump Sum \$4,000.00 \$4,000.00
	C. Laboratory Analysis		
	I. Cadmium and nickel analysis	120	Samples \$30.00 \$3,600.00
	iii. Investigation derived waste management	2	Drums \$300.00 \$600.00

**TABLE 6: SWMU Investigation & Remediation Cost Estimate
SWMU 9**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

3.	RCRA Facility Investigation Report	\$50,000.00
4.	RCRA Corrective Action Plan Development	\$0.00
5.	RCRA Corrective Action Plan Field Work	\$0.00
6.	RCRA Corrective Action Plan Completion Report	\$0.00
7.	Uniform Environmental Covenant Development and Recording a. Includes outside legal counsel support	\$35,000.00
	Subtotal	\$150,600.00

Notes

1. SWMU indicates Solid Waste Management Unit
2. RCRA indicates Resource Conservation and Recovery Act
3. Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent exposure.
4. It has been assumed the following factors are limiting the risk of future migration and leaching of contaminants to groundwater associated with this SWMU: the SWMU's location beneath the impervious cover of Building 1, the site's lithology indicating a very high clay content in the upper 10 feet of vadose zone, and the lack of observed groundwater contamination outside of the influence of SWMU 1. As such, no costs have been included for a RCRA Corrective Action Plan.

**TABLE 7: SWMU Investigation & Remediation Cost Estimate
SWMU 10**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

				<u>Total Cost</u>
1.	RCRA Facility Investigation Work Plan Development			\$25,000.00
2.	RCRA Facility Investigation Field Work			\$27,570.00
	a. Complete soil sampling activities inclusive of concrete coring and hand auger sampling at up to 16 boring locations from up to 4 depth intervals each for analysis of cadmium and nickel.			
		Unit Rate	Unit	Number of Units Cost
	i. Private utility locate		1 Lump Sum	\$ 1,000.00 \$1,000.00
	ii. Soil boring advancement and sampling			
	A. Drilling subcontractor			
	I. Direct-push daily rate	4	Days	\$2,100.00 \$8,400.00
	II. Mobilization	1	Round Trip	\$1,000.00 \$1,000.00
	III. Per Diem	3	Nights	\$750.00 \$2,250.00
	IV. 55-gallon drums	2	Drums	\$125.00 \$250.00
	V. Decontamination pad	1	Lump Sum	\$350.00 \$350.00
	VI. Steam cleaner	4	Days	\$100.00 \$400.00
	VII. Concrete core drill with 4-inch bit	4	Days	\$100.00 \$400.00
	B. Consultant oversight			
	I. Oversight labor hours	40	Hours	\$200.00 \$8,000.00
	II. Oversight expenses	1	Lump Sum	\$3,000.00 \$3,000.00
	C. Laboratory Analysis			
	I. Cadmium and nickel analysis	64	Samples	\$30.00 \$1,920.00
	iii. Investigation derived waste management	2	Drums	\$300.00 \$600.00

**TABLE 7: SWMU Investigation & Remediation Cost Estimate
SWMU 10**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

3.	RCRA Facility Investigation Report	\$50,000.00
4.	RCRA Corrective Action Plan Development	\$0.00
5.	RCRA Corrective Action Plan Field Work	\$0.00
6.	RCRA Corrective Action Plan Completion Report	\$0.00
7.	Uniform Environmental Covenant Development and Recording a. Includes outside legal counsel support	\$35,000.00
	Subtotal	\$137,570.00

Notes

1. SWMU indicates Solid Waste Management Unit
2. RCRA indicates Resource Conservation and Recovery Act
3. Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent exposure.
4. It has been assumed the following factors are limiting the risk of future migration and leaching of contaminants to groundwater associated with this SWMU: the SWMU's location beneath the impervious cover of Building 1, the site's lithology indicating a very high clay content in the upper 10 feet of vadose zone, and the lack of observed groundwater contamination outside of the influence of SWMU 1. As such, no costs have been included for a RCRA Corrective Action Plan.

**TABLE 8: SWMU Investigation & Remediation Cost Estimate
SWMU 11**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

		<u>Total Cost</u>			
1.	RCRA Facility Investigation Work Plan Development			\$25,000.00	
2.	RCRA Facility Investigation Field Work			\$28,350.00	
	a. Complete soil sampling activities inclusive of concrete coring and hand auger sampling at up to 30 boring locations from up to 3 depth intervals each for analysis of cadmium and nickel.				
		Unit Rate	Unit	Number of Units	Cost
	i. Private utility locate		1 Lump Sum	\$ 1,000.00	\$1,000.00
	ii. Soil boring advancement and sampling				
	A. Drilling subcontractor				
	I. Direct-push daily rate	4	Days	\$2,100.00	\$8,400.00
	II. Mobilization	1	Round Trip	\$1,000.00	\$1,000.00
	III. Per Diem	3	Nights	\$750.00	\$2,250.00
	IV. 55-gallon drums	2	Drums	\$125.00	\$250.00
	V. Decontamination pad	1	Lump Sum	\$350.00	\$350.00
	VI. Steam cleaner	4	Days	\$100.00	\$400.00
	VII. Concrete core drill with 4-inch bit	4	Days	\$100.00	\$400.00
	B. Consultant oversight				
	I. Oversight labor hours	40	Hours	\$200.00	\$8,000.00
	II. Oversight expenses	1	Lump Sum	\$3,000.00	\$3,000.00
	C. Laboratory Analysis				
	I. Cadmium and nickel analysis	90	Samples	\$30.00	\$2,700.00
	iii. Investigation derived waste management	2	Drums	\$300.00	\$600.00
3.	RCRA Facility Investigation Report				\$50,000.00
4.	RCRA Corrective Action Plan Development				\$15,000.00
5.	RCRA Corrective Action Plan Field Work				\$277,202.00
	a. Limited soil excavations along western extents of Building 2 and the portions of SWMU-11 under Land Use Controls Plan following 2013 CAP activities. Excavation to be completed to 4 feet below land surface to match depth of background concentrations per Building #2 CAP report.				

**TABLE 8: SWMU Investigation & Remediation Cost Estimate
SWMU 11**

(Remediate to commercial/industrial levels with Institutional and Engineering Controls)

	Unit Rate	Unit	Number of Units	Cost
i. Private utility locate		1	Lump Sum \$	1,000.00 \$1,000.00
ii. Earthwork				
A. Excavation subcontractor				
I. Mobilization	2	Round Trip		\$1,800.00 \$3,600.00
II. Temporary fencing	1	Lump Sum		\$10,000.00 \$10,000.00
III. Excavation, transportation, and disposal	1874	Tons		\$81.00 \$151,794.00
IV. Backfilling and compaction	1339	Cubic Yards		\$47.00 \$62,933.00
V. Site restoration	1	Lump Sum		\$4,000.00 \$4,000.00
VI. Surveying	3	Each		\$2,500.00 \$7,500.00
B. Consultant oversight				
I. Oversight labor hours	70	Hours		\$200.00 \$14,000.00
II. Oversight expenses	1	Lump Sum		\$4,500.00 \$4,500.00
C. Laboratory Analysis				
I. Backfill analyses	1	Sample		\$1,000.00 \$1,000.00
II. Waste profiling analyses	125	Sample		\$135.00 \$16,875.00
6. RCRA Corrective Action Plan Completion Report				\$20,000.00
7. Uniform Environmental Covenant Development and Recording				\$35,000.00
a. Includes outside legal counsel support				
			Subtotal	\$450,552.00

Notes

- SWMU indicates Solid Waste Management Unit
- RCRA indicates Resource Conservation and Recovery Act
- Presented costs assume SAFT has agreed to limiting future use to commercial/industrial and implementing engineering controls (caps) to prevent exposure.
- Initial RCRA Facility Investigation completed in 2002 with report submitted January 2003. Corrective Action Plan completed in 2006 with revised report submitted February 2007. Burn Area South delineated and remediated as part of CAP activities in 2013.
- Based on correspondence with a SAFT representative and Geosyntec's observations of the concrete's condition, it is unlikely that contaminated soil is observed beneath the asphalt portions of this SWMU.
- Remaining soil contamination associated with the 2013 CAP activities in the Burn Area South in accordance with SWMU-11 Land Use Controls Plan will be remediated following cessation of facility operations.

APPENDIX C

PREMISES POLLUTION LIABILITY INSURANCE POLICY

(Financial documents are bound separately)