

**Time-Critical Concurrence**

**Area:**

Emory River, Segment 1, B-33

**Agreement:**

Ash removal activities have been completed in Segment 1 grid B-33.

Documentation for completion of the grid includes a combination of a) results of post dredging bathymetric survey and b) dredge shift records indicating that dredging operations had reached refusal prior to the targeted depth which indicates that material too massive or durable to be hydraulically dredged, such as bedrock or native sediments, were encountered higher than projected from the U.S. Army Corp of Engineers pre-spill bathymetry.

- a) The post dredging bathymetric survey on 5/23/10 has been used to calculate the depth between dredge surface and estimated river bottom for the listed grid. The survey indicates that B-33 was dredged to within 2' to 6' of the targeted pre-spill surface.
- b) The area was dredged by the *Kylee 16"* on January 20<sup>th</sup> & 21<sup>st</sup> which was unable to cut to grade due to encountering rocks. A second attempt to cut to target grade was with the *Adelyn 14"* dredge on May 12<sup>th</sup> & 13<sup>th</sup>. End of shift screen shots from the on board software (Dredgepack and e-Track) are attached with the dredge logs and show the locations and depth of cut obtained in this grid.

These results indicate that the target grade was erroneous and that there is no remaining recoverable ash in Segment 1 grid B-33

**Attachments:**

- Figure 5, Ash Remaining to Pre-Spill Surface Segments 1,2,3 and 5, dated 2/25/10
- Figure 1, Ash Remaining Through Severson 05-26 Survey, dated 5/26/10
- Figure 1, Bathymetry Removal Areas - Segment 1, B-33, dated 5/26/10
- Daily Dredge Logs & End of Shift Screen Shots – *Kylee* 1/20/10 & 1/21/10 and *Adelyn* 5/12/10 & 5/13/10

**Concurrence Comments:**

*Julia L Pfiff*  
 Jacobs Project Manager

5/26/10  
 Date

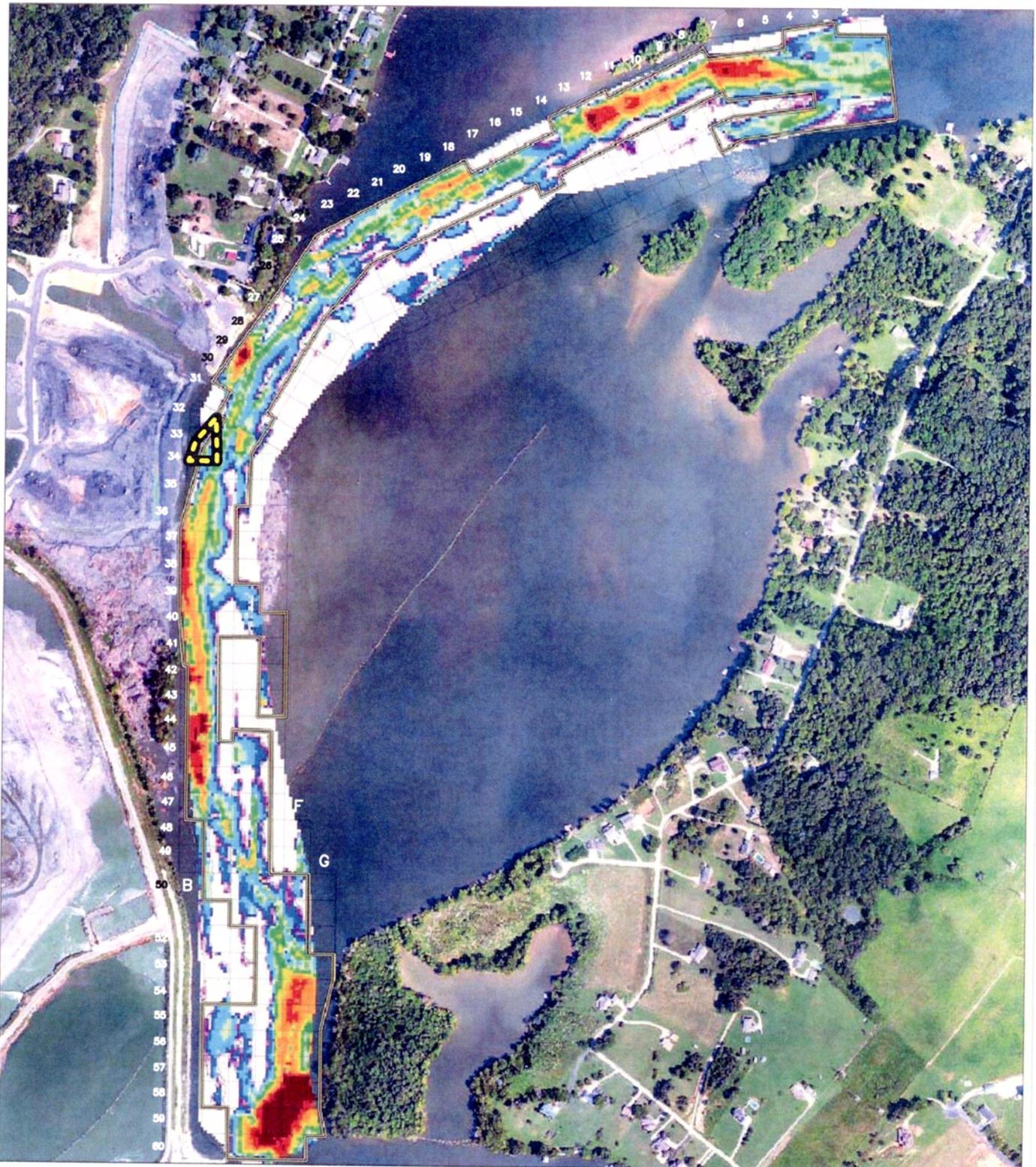
*Kathryn Nash*  
 Tennessee Valley Authority

5/27/10  
 Date

*Loof ranch*  
 U. S. Environmental Protection Agency

5/27/10  
 Date

*consulted w/ TDEC*



**Legend**

Ash Remaining: ~438,592 cy

- |                            |                        |
|----------------------------|------------------------|
| 0 - 1 inch - 32 cy         | 10 - 15 ft - 81,783 cy |
| 1 - 6 inches - 1,315 cy    | 15 - 20 ft - 62,820 cy |
| 6 inches - 1 ft - 3,802 cy | > 20 ft - 56,629 cy    |
| 1 - 2 ft - 14,177 cy       |                        |
| 2 - 4 ft - 45,426 cy       |                        |
| 4 - 6 ft - 57,924 cy       |                        |
| 6 - 8 ft - 57,980 cy       |                        |
| 8 - 10 ft - 46,704 cy      |                        |

Proposed Dredge Area

Area of Interest

**DRAFT**

0 300 600

Feet 1:1,800

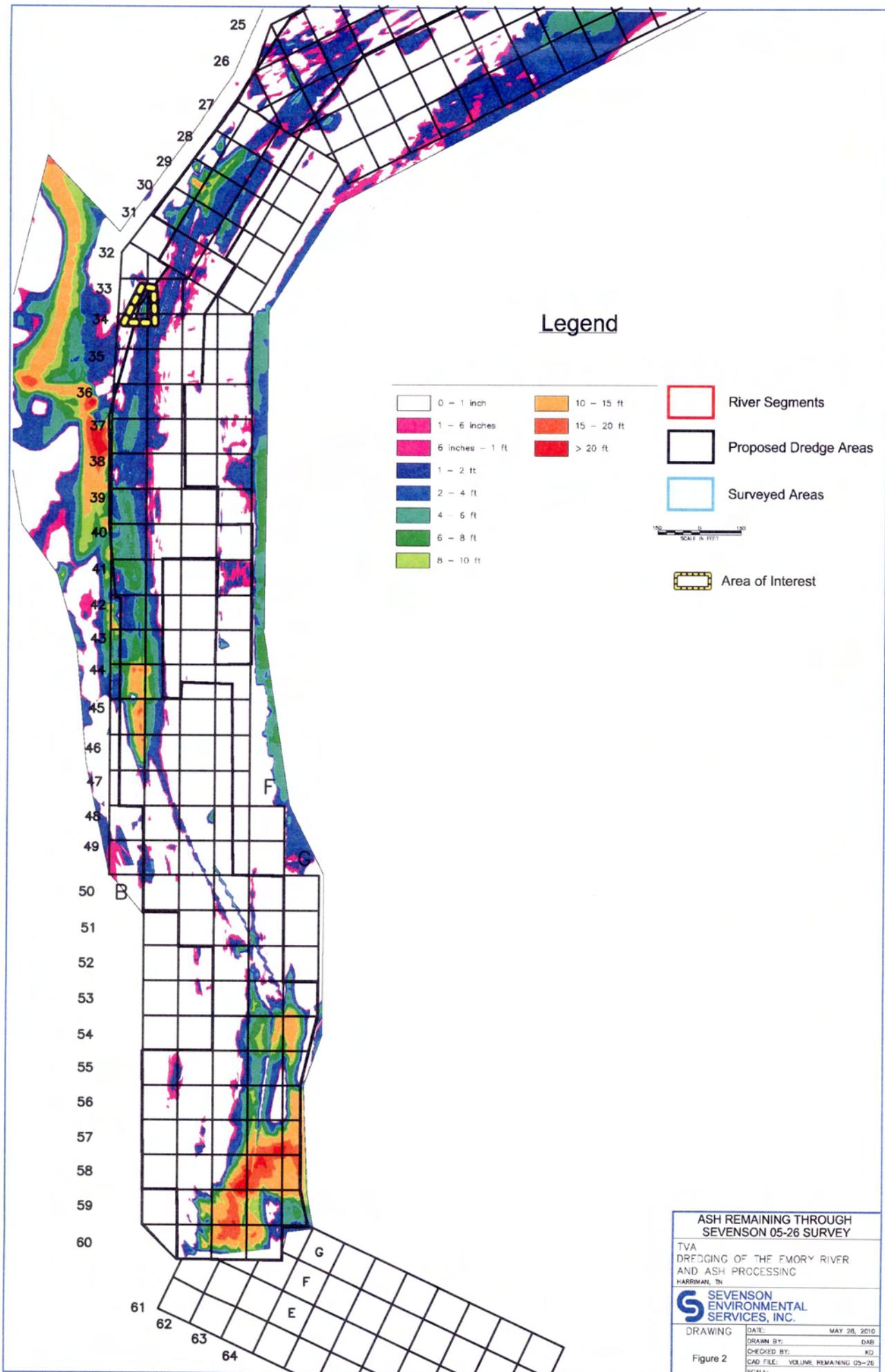


**JACOBS**

Ash Remaining to Pre-Spill Surface Segments 1, 2, 3, and 5

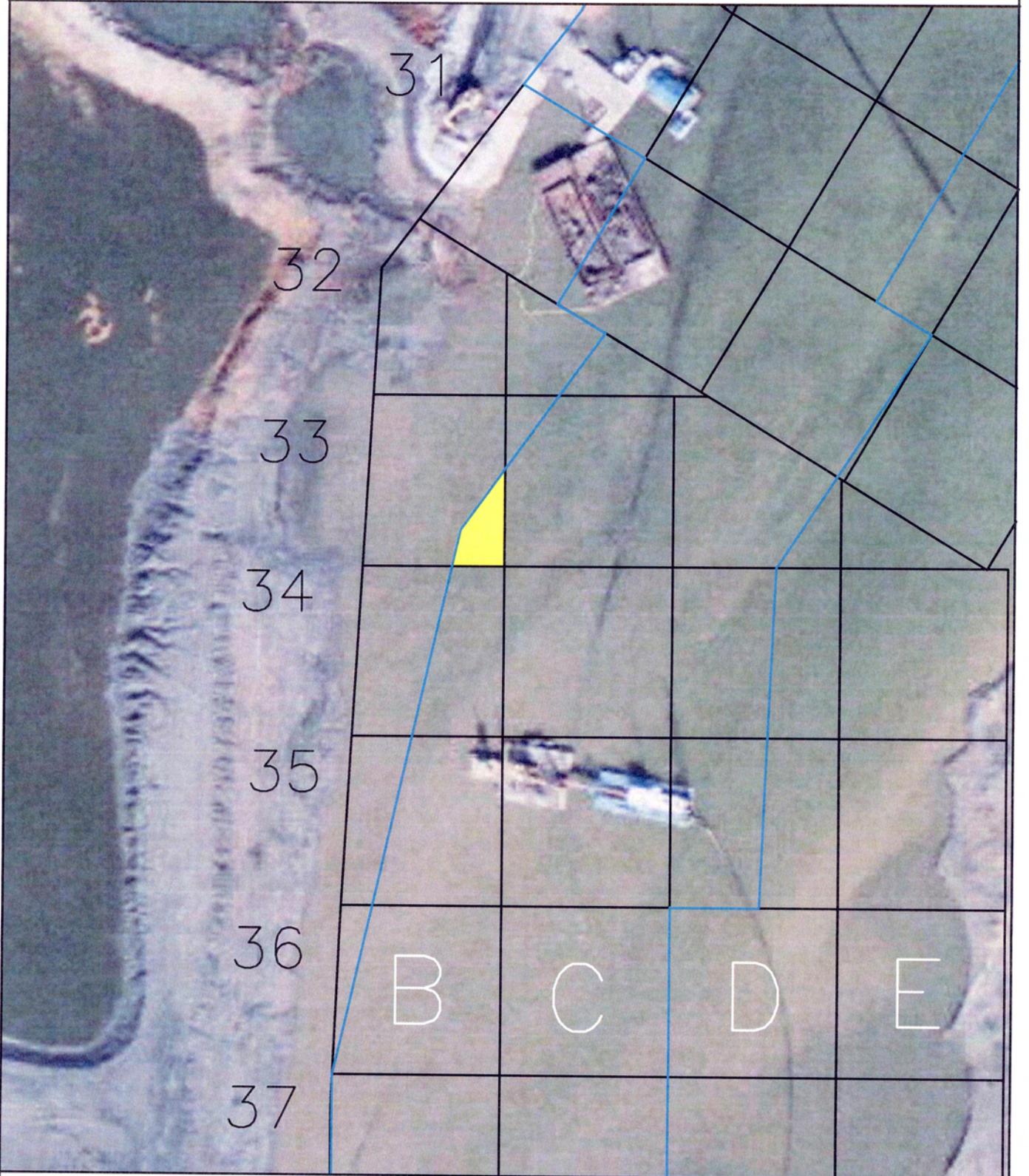
NAME: croberts DATE: 02/25/2010

Figure 5



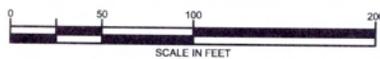
<b>ASH REMAINING THROUGH SEVENSON 05-26 SURVEY</b>	
TVA DREDGING OF THE EMORY RIVER AND ASH PROCESSING HARRISMAN, TN	
<b>SEVENSON ENVIRONMENTAL SERVICES, INC.</b>	
DRAWING	DATE: MAY 26, 2010
	DRAWN BY: DAB
	CHECKED BY: KD
	CAD FILE: VOLUME REMAINING 05-26
	SCALE:

# Bathymetry Removal Areas - Segment 1



■ Removed From Plan

— E-trac Dredging Path



**JACOBS**

05/26/10

Figure 1





Sevenson  
Environmental  
Services, Inc.

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KYLEE

DAILY DREDGE LOG - TVA ASH REMOVAL

Day Wednesday

Date 1-20-10

Dredge Shift: Nights

Hours: 1892

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:25	7:25	—	35 min			JM/FH	Service <del>Proble</del>
8:00	8:55	55 min	20 min				Change 5 cutter Head Teeth
9:15	9:25	10 min	10 min				Clean Pump
9:35	12:40	3hr 5min	15 min				Clean Main Pump
12:55	3:00	2hr 5min	35 min				Move STBD Swing Anchor AHEAD
3:35	5:45	1hr 50 min	30 min				had to Reset STBD Anchor
6:15	6:50	45 min	20 min				check cutter
7:10							End of Shift
		8hr 50 min 3hr 10 min		Total Hours			

Vacuum 14 to 16

Area Dredged: 33 B

Actual → (923)

Vegetation  Light  Medium  Heavy

Debris  Light  Medium  Heavy

Shift Start X 2442935 Shift End X 2442886

Y 557514 Y 557511

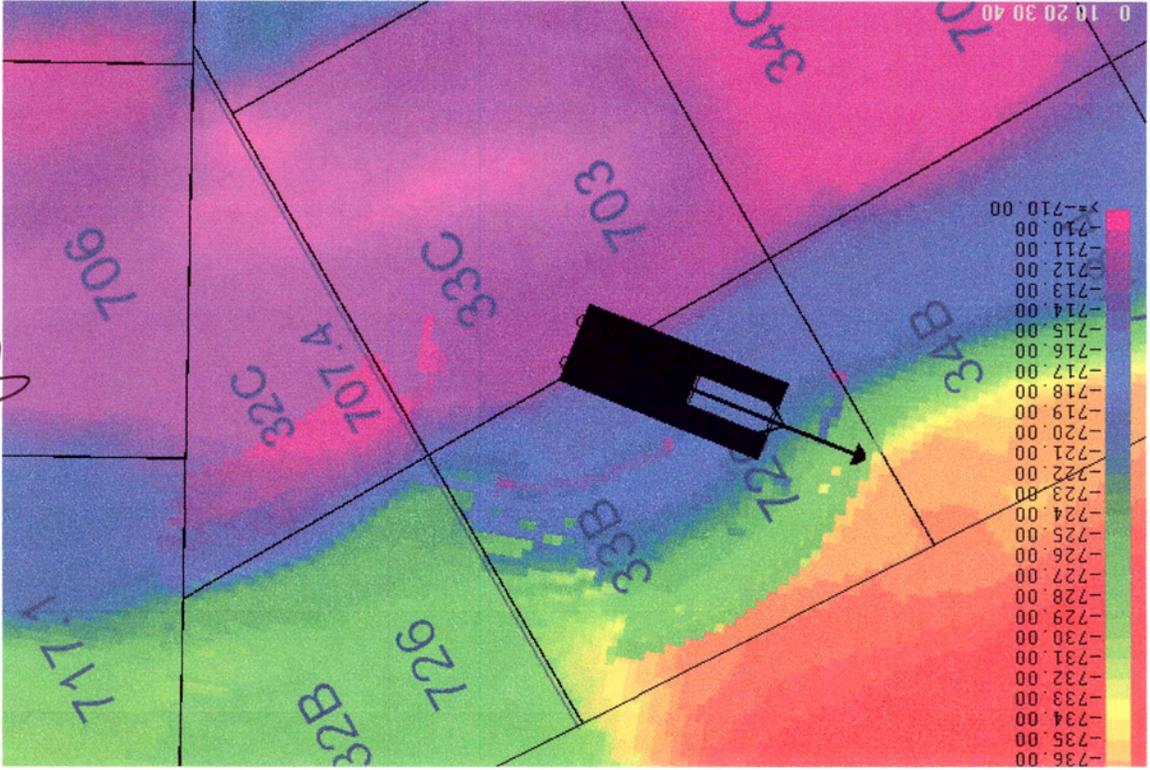
Conditions:

Initial Flyash Thickness 10 Ft

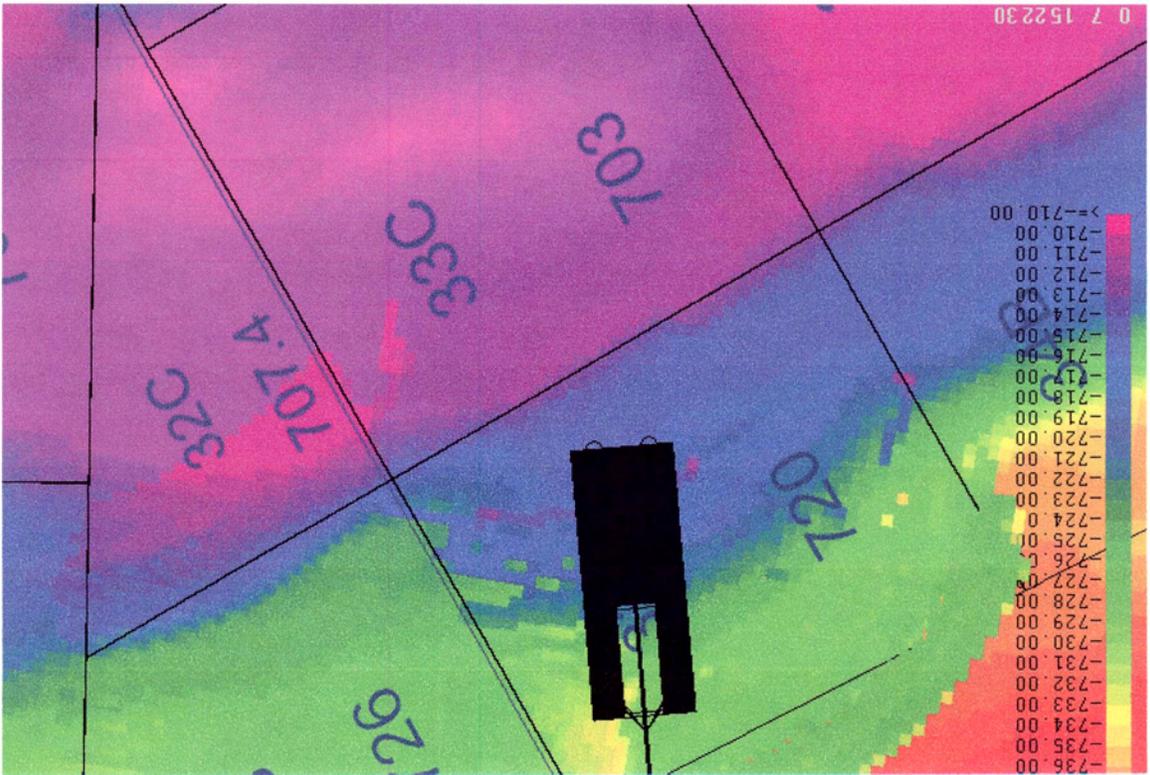
# of Blockage Clears

Comments: Rock Pile on stb side had to Shorten Swing to come around it  
7:30 PM 5 teeth missing on cutter

DAYS



NIGHT  
cell surface





Sevenson  
Environmental  
Services, Inc.

DAILY DREDGE LOG - TVA ASH REMOVAL

Day Thursday

Date 1-21-10

Dredge Shift: Day

Operator: Kylee

Hours:

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:20	8:20	1:00	1:25	1630	72	JRTCC	clean cutterhead
8:45	9:10	1:25	1:30				clean cutterhead + pump
9:40	10:45	1:05	1:30				shut down move pipeline + service dredge/clamp
11:15	13:00	1:45	1:25				clean cutterhead
13:25	14:25	1:00	1:15				pump choke
14:40	14:55	1:15	1:20				clean cutterhead
15:15	18:15	3:00					flush line for lightning
	TO FF		45				
		8:30	2:25	10:55			
		Total Hours					

Conditions:

Initial Flyash Thickness 9 Ft

Vegetation  Light

Debris  Light

# of Blockage Clears 5

Medium

Medium

Heavy

Heavy

Area Dredged: Leuce

Shift Start X 2442886

Shift End X 2442854

Y552511

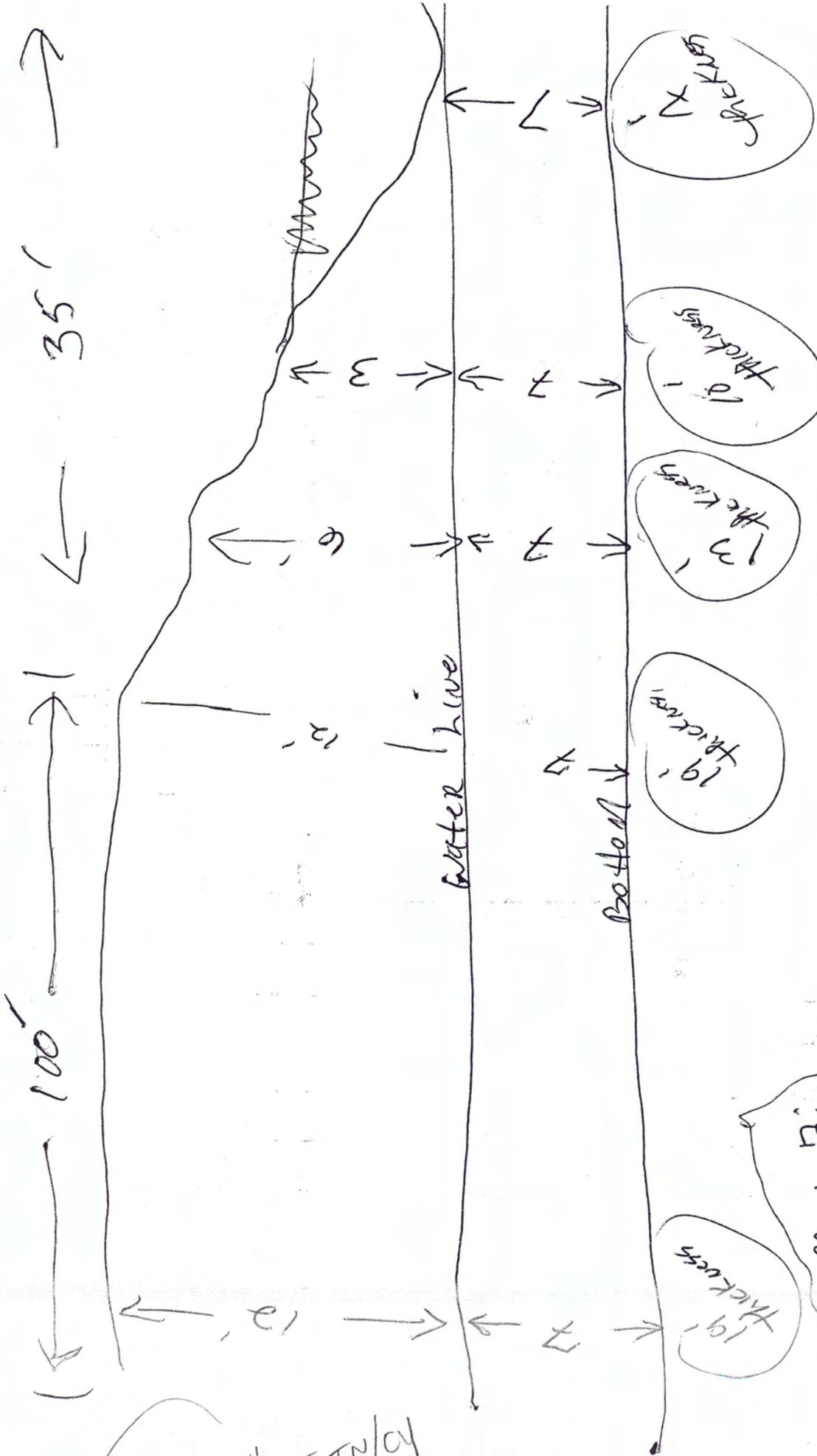
Y557510

Comments: 

2442854

557510





steps

20° Degress sets

12:30 AM to 7:00 AM  
Digging time

11-1-17  
VADAN





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**KYLEE**

**DAILY DREDGE LOG - TVA ASH REMOVAL**

Day Wednesday  
Date 1-20-10

Dredge Shift: Nights

Hours: 1892

Start Time	Stop Time	Hours Dredge	Hours Down	Avg RPM	Avg Pressure	Operator	Reason for Stopping/Downtime
7:25	7:25	—	35 min			JM/FH	service <del>operation</del> <sup>Dredge</sup>
8:00	8:55	55 min	20 min				change 5 cutter head teeth
9:15	9:25	10 min	10 min	150	✓		clean pump
9:35	12:40	3hr 5 min	15 min	150	∞		clean MAIN pump
12:55	3:00	2hr 5 min	35 min	150	∞		move STBD swing anchor AHEAD
3:35	5:45	1hr 50 min	30 min	150	∞		had to reset STBD Anchor
6:15	6:50	45 min	20 min	150	∞		check cutter
7:10				150	∞		End of shift
		8h 50 min	3h 10 min	Total Hours			

VACUUM 14 to 16

**Conditions:**

Initial Flyash Thickness 10 Ft  
 Vegetation Light  Medium  Heavy   
 Debris Light  Medium  Heavy

# of Blockage Clears \_\_\_\_\_

Area Dredged: 33B

Actual → (923)

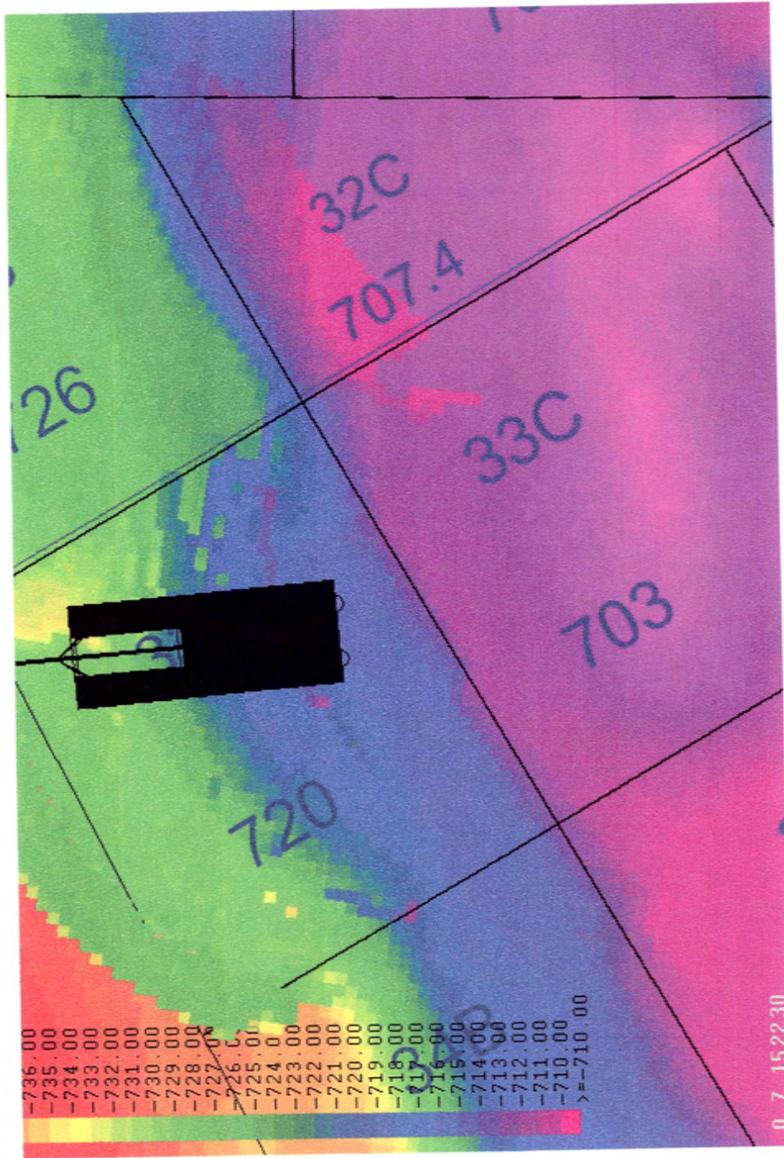
Shift Start X 2442935 Shift End X 2442886  
Y 557514 Y 557511

**Comments:**

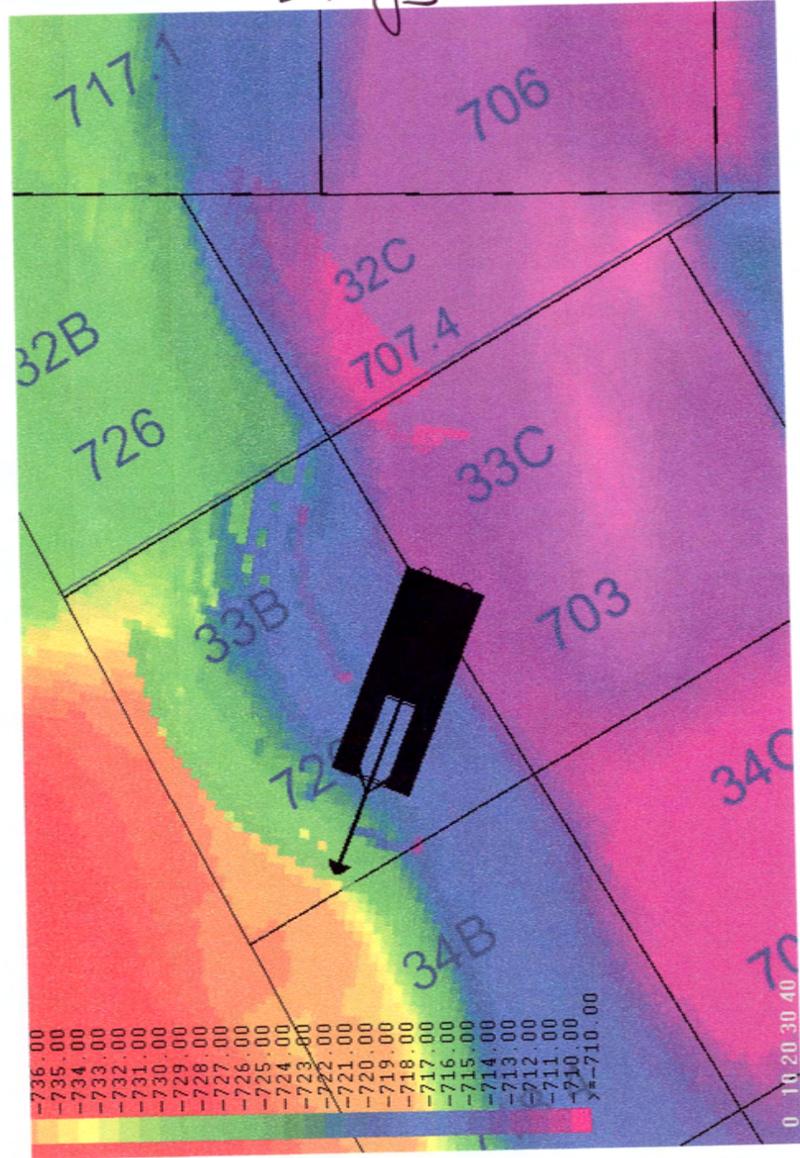
Rock Pile on stb side Had to shorter swing to come around it  
 7:30 PM 5 teeth missing on cutter

Keyes 1/20

NIGHT



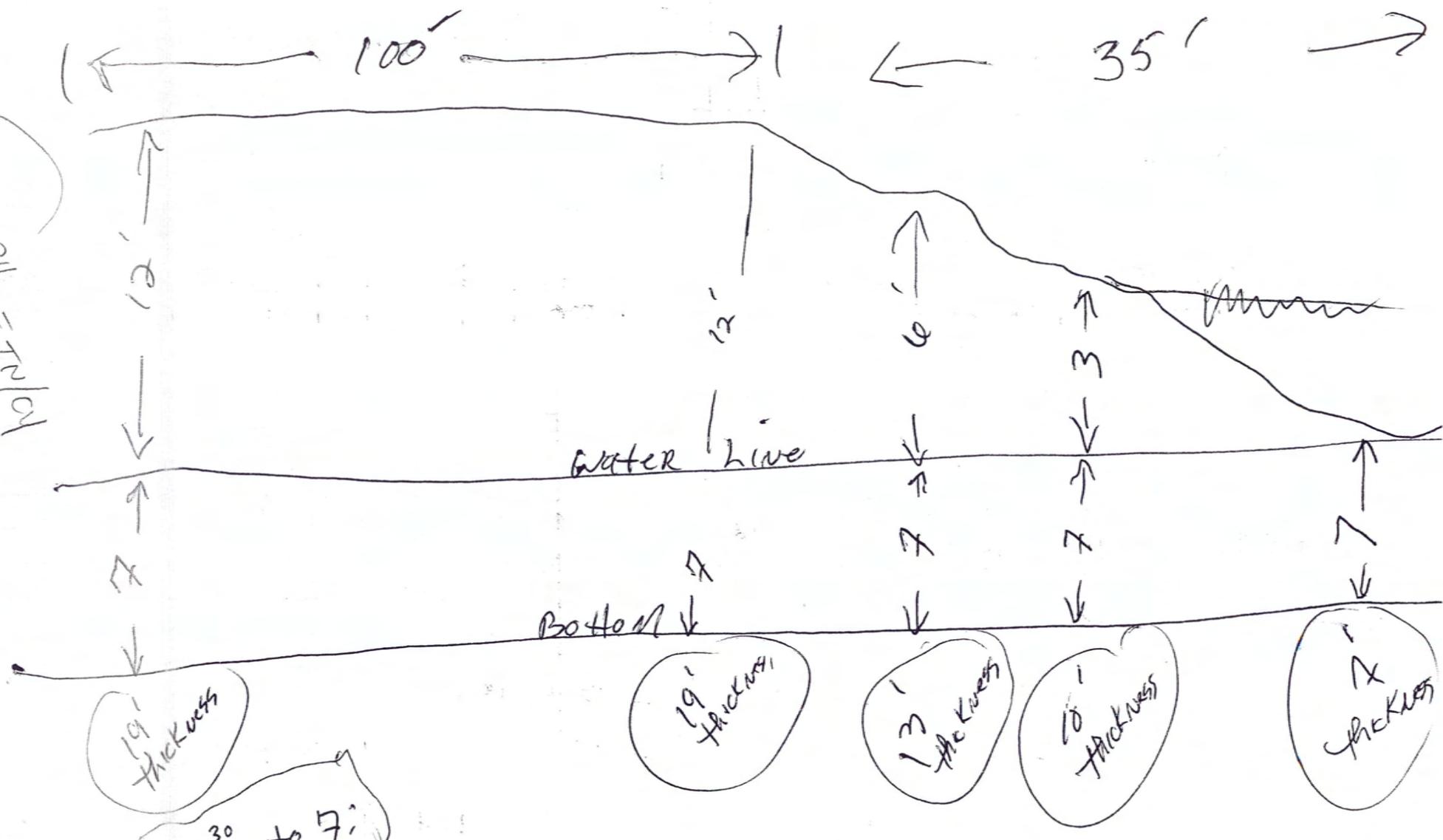
DAYS







171 + .34 = 171.34  
906



12<sup>30</sup> AM to 7:  
Digging time

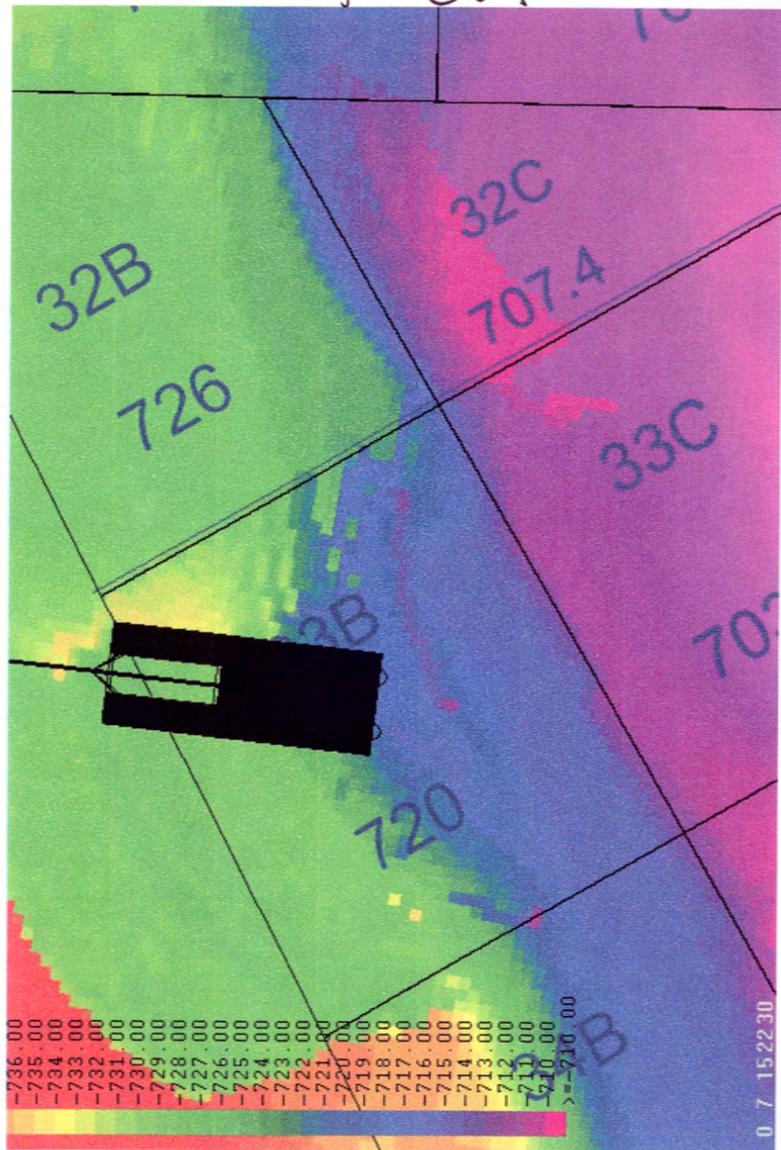
Vacuum  
11- to 17

20° degrees sets

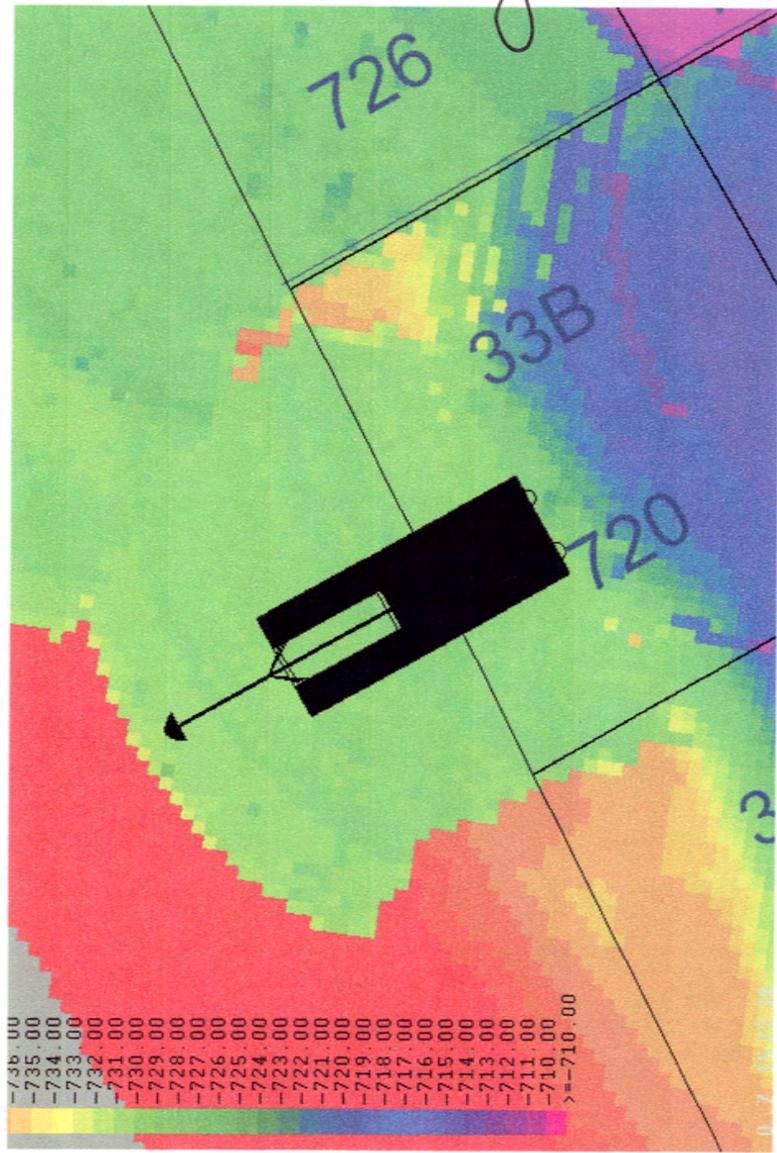
Steps

Keyce 1/21

NIGHT



Day





5/12/ Nisht, bmp

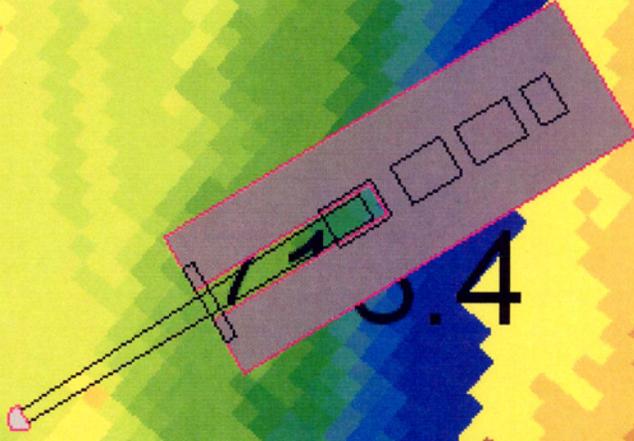
↑  
N  
↓

33B  
720

34B

3.4

35B



740.00  
 738.00  
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 701.00  
 700.00  
 699.00  
 698.00



5/13/10 days, BMP

33B

33C

720

703

34B

34C

718.4

707.4

