




**MEMO**

To: File  
From: Liz Victor   
Date: May 18, 2017  
Site Name/BRRTS: Kewaunee Marsh Arsenic Spill (02-31-000508)  
Re: **Field Activities Report for March 22, 2017**

**Purpose of Field Visit:** Verify presence of 2 benchmarks using metal detector & GPS. These will be used for upcoming topographic survey. In preparation of spring groundwater sampling, collect one round of groundwater elevation data and remove bailers from all wells. Locate and GPS GW-08.

**Who:** Liz Victor, DNR Oshkosh

**Equipment:**

GPS Units Used: Garmin eTrex 20 Sof  
Camera Used: DNR's Canon Powershot SX 210 IS  
Metal Detector (borrowed from Law Enforcement)

**Scope of Work for Field Visit:** No formal Scope of work was prepared.

**Work Performed:** Attempted to locate 2 benchmarks using metal detector. Did not find either one. Collected total depths and groundwater elevation data and removed bailers from some wells (many were frozen). Located GW-08.

**Comments:**

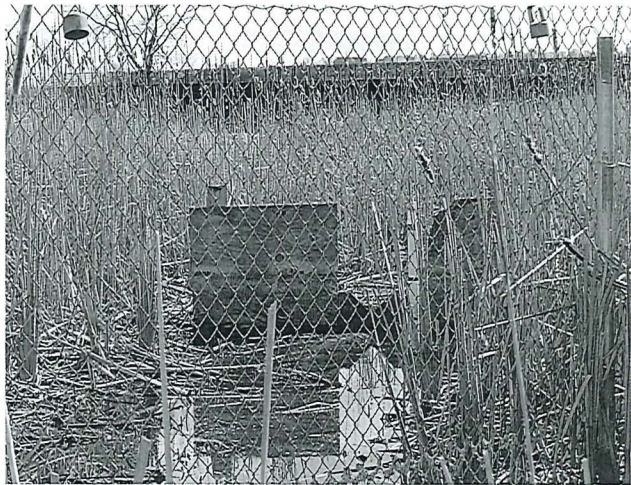
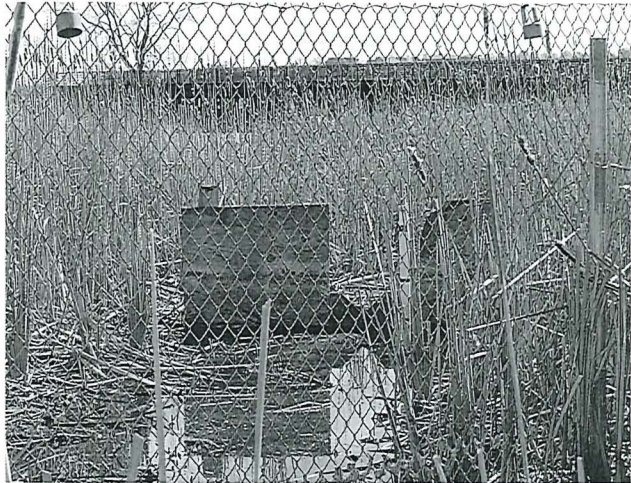
- Most of the wells were still frozen, even though we had a period of warming in early spring.
- I did not find the benchmarks – they appeared to be buried under rail trail gravel.
- Bailers: Most of the bailers are submerged in the water columns making collecting water elevation data problematic because the bailers need to be removed before data collection. Because of the large number of wells and the time required for equilibration, I decided to do away with the dedicated bailers and go to either using disposable bailers or decontaminating existing bailers. Many of the bailers were stained and had a film of sediment and the braided polyethylene cords are very dirty.
- I found GW-08: N44.47551 W 87.51353
- The trail access gate (on Kuehl's property) has been lifted from its hinge and is tied to the post by rope. This will need to be fixed.
- The weir in the south slough can be seen through the fence. It appears to be in good shape. At the fence near the south slough is a muskrat den.

**Recommendations/Follow-up:** Get assistance from Jim Killian in locating the benchmarks. Fix gate.

**Attachments:**

- Photo Log for photos taken 3/22/17 & Thumbnails
- Field Notes, 3/22/17.
- Information provided by J. Killian regarding location of benchmarks





⑥ 3/22/17

FIELD VISIT

27° am

LIZ VICTOR

Sunny

- LOCATE BENCHMARKS

37° pm

- WATER LEVELS

- REMOVE BAILERS

8:45 AM - LV. OSH OFFICE

10:03 AM - ARR. SITE. ACCESS GATE

- IS OPEN - ONE OF THE GATES

LOOKS OFF ITS HINGE. - THIS

IS A HINGED TRAP GATE

Set GPS - SAFE 8-10

Locate KMOA. ~~...~~

1149 - Cannot locate. ~~...~~

Metal detector found

iron from RR bed.

conclude the use of a metal

detector at an old well site

to find rebar might be

difficult.

- Look for KMO1-B

12:03 - QUIT

60 collected WLS.

⑦

Double gate Key = "BEST"

MW11-2 bailer frozen to inside (BEST)

MW11-1 3.64 12:44

MW11-1 3.70 12:44

MW11-3 3.08 12:54

MW11-3 3.09 11

MW04-9 2.12 12:59

GW01-9 2.4' 1:04

MW02-8) open - decide

MW02-8) to open all wells, remove  
bailers, then return to the WLS.

- MW02-8/8) - caps w/ bolts  
for bailers.

STS-MP3 - FROZEN 2"

- cap w/ hole & bolt

- bailer in well

STS-MP-2 - Cap w/ hole & bolt

partially frozen

MW02-6/6) - best Key

- bailers are frozen in wells.

Cap w/ hole + bolt.

8

MW04-9 - cap has drilled  
hole + bolt

① Bailer frozen. H<sub>2</sub>O coming up.  
PVC twists in hole.

GW01-11 - bailer is  
frozen in well

cap w/ bolt & hole

GW01-7 - bailer stuck  
in well. Locking  
cap, no lock.

GW-09 - n 1 1/2 cap  
no lock ch.

slough near GW-09  
- Looks like ↑ water

Line was 1/2 - 2' high -  
based on stiff sticks in

Fence. Slough

only comes 2-15'

into fence,

weir is not flowing.

TVD - well

9



MW02-4, 4i = bailers are  
frozen in well. caps w/ bolts

MW02-4dr - cap w/ bolt

MW02-S/Si = bailers are  
frozen in well. caps w/ bolts

GW01-6 - no cap  
bailer frozen in well.

STS-MPI-2" - cap w/ bolts.  
No bailer. No  
lock

FOUND - GW-08 #248

N 44.47 S S1

W 87.51 S S3

1 1/2" cap - no NO  
lock mark

(10)

GW01-5 Locking cap  
No Lock  
bailer frozen in well

GW01-3 Locking cap  
No Lock  
bailer frozen in well

MW02-3 = bailer frozen  
in well

MW02-3i/d = not  
frozen  
~~from~~ cap + bolt

MW02-2/2i -  
both wells frozen  
bailers in wells  
cap + bolt

GW01-2 - bailer  
frozen in well.  
locking cap lost  
No lock  
Skip GW-00

(11)

2:42 - done w/ opening  
wells,  
collected water levels

MW02-8i	1.93
MW02-8	1.63
MW04-9	2.06
MW11-3i	3.20
MW11-3	3.06
GW-10	Frozen
GW01-8	1.57
STS-MP-2	2.95 - meta on ice
GW09	No reading frozen
MW02-4d	3.43
MW02-2d	3.59
MW02-3i	Frozen
MW11-1	3.61
MW11-1i	3.69

4:14 - Lv. site.

5:45 - Arr. at Osh.

→ Notes: All the monitor wells  
have the same locks. The  
silver "Best" Key fits -  
we need to make more

(12) Copies of this key.

→ The shallow PVC stickup wells GW-09, STS-mp1, GW-08, and GW-07 → I did not try to take WBS on these wells - all the other shallow wells were frozen. I forgot to secure the caps on these wells.

→ The bailers have nylon string or polyethylene string - some of the bailers were filthy, some were very clean. Pulled bailers from those wells I could. These I plan on de-canning & re-using. All bailers are marked (w/ a Sharpie) which wells they belong to.

ENV

(13)

## DNR TOPOGRAPHIC SURVEY CONTROL POINTS

Kewaunee Marsh

(12/28/2001 J. Killian, DNR)

ID	X ft	Y ft	Z ft	Lat	Long
KM01-A	2616993.19	243595.30	586.52	44.4743065	-87.5152373
KM01-B	2616689.40	243768.19	586.40	44.474806	-87.5163803

### Notes:

Both monuments are 2' long, 1/2" rebar pounded flush with surface and have yellow plastic caps. Controls were set using a Trimble 4800 RTK GPS, referencing COE first-order monument 76-4 and NGS Tidal Bench Mark 908 7068 G. (see enclosed .pdf pages)

KM01-A is located between the main RR line and the older spur, 22.8' from the opposite fencepost (painted orange)

KM01-B is located just north of the main RR line, and is 6.2' from the painted/flagged section of fence.

Both monuments were located and marked with paint and lathe on 12/27/01. They were also checked for vertical stability at this time and found to be true.

Horizontal: Wisconsin State Plane (central-4802) Coordinate System, NAD 83, U.S. feet. Vertical: IGLD 1985/NAVD 1988, U.S. feet

