



MEMO

To: File
From: Liz Victor, DNR
Date: May 17, 2017
Site Name/BRRTS: Kewaunee Marsh Arsenic Spill (02-31-000508)
Re: **Field Activities Report for January 24, 2017** *EV*

Who: Liz Victor, NER R&R Hydrogeologist
Alex Edler, NER R&R Hydrogeologist
Aaron Wright, NER Wildlife Technician

Purpose of Field Visit: Locate, obtain GPS coordinates, and mark site wells. Mow three paths E-W across cap to assist in future sample collection. Mow paths to all monitor wells inside the fence, and outside as time and safety allows to assist in future field work.

Equipment:

GPS Units Used: AE: Garmin GPSMAP 62s S, EV: Garmin eTrex 20 Sof
Camera Used: DNR's Canon Powershot SX 210 IS, by Liz Victor
Mower to be provided by NER Wildlife

Scope of Work for Field Visit: No formal Scope of work was prepared. A map with GPS Coordinates was provided to Aaron to assist in mowing the trails across cap.

Work Performed: Liz and Alex located wells, recorded GPS Coordinates, added PVC markers, and assisted Aaron in mowing paths the monitor wells inside fence. Aaron mowed paths to the majority of the wells located within the fence to assist in field work.

Comments:

- Used plastic zip ties to secure wells. Added flagging to top of PVC Markers (1.5 inch diameter X 10 ft).
- Did not have time to locate all wells.
- We had to pull the mower up the railroad embankment using Alex's truck. This caused ruts in the trail bed. Aaron drove over the ruts a couple of times to smooth them out. See photos.

Recommendations/Follow-up:

- Aaron sent the photos to Dave Myers at Kewaunee County.

Attachments:

- GPS coordinates measured in field on 1/24/17
- Map showing GPS coordinated for 3 transects across the cap.
- Photo Log for photos taken 1/24/17 & Thumbnails
- Field Notes, 1/24/17

GPS COORDINATES logged during 01/24/17 Field Visit.
 Kewaunee Marsh Arsenic Spill
 02-31-000508
 used Garmin GPSMAP 62s S GPS Unit and garmin eTrex 20 Sof

| COMMENT | DATE/TIME | COLLECTOR | DD_LONG | DD_LAT | WTM_X | WTM_Y |
|---------|------------|---------------------|------------|-----------|-------------|-------------|
| | 01/24/2017 | | | | | |
| GW01-11 | 17:22 | garmin GPSMAP 62s S | -87.514212 | 44.474408 | 717702.1953 | 447572.0166 |
| | 01/24/2017 | | | | | |
| GW01-7 | 17:27 | garmin GPSMAP 62s S | -87.513907 | 44.474464 | 717726.2639 | 447578.9748 |
| | 01/24/2017 | | | | | |
| STS-MP2 | 17:34 | garmin GPSMAP 62s S | -87.513861 | 44.474817 | 717728.7298 | 447618.2971 |
| | 01/24/2017 | | | | | |
| STS-MP3 | 17:37 | garmin GPSMAP 62s S | -87.514135 | 44.474893 | 717706.6808 | 447626.0762 |
| | 01/24/2017 | | | | | |
| GW01-6 | 17:46 | garmin GPSMAP 62s S | -87.513654 | 44.475102 | 717744.2301 | 447650.4554 |
| | 01/24/2017 | | | | | |
| GW01-3 | 18:42 | garmin GPSMAP 62s S | -87.514163 | 44.47576 | 717701.5247 | 447722.3141 |
| | 01/24/2017 | | | | | |
| GW01-5 | 18:55 | garmin eTrex 20 Sof | -87.513711 | 44.475574 | 717738.1018 | 447702.7468 |
| | 01/24/2017 | | | | | |
| STS-MP1 | 18:59 | garmin GPSMAP 62s S | -87.513467 | 44.475397 | 717758.1058 | 447683.6762 |
| | 01/24/2017 | | | | | |
| GW-07 | 19:14 | garmin GPSMAP 62s S | -87.514925 | 44.476035 | 717639.9924 | 447751.0178 |
| | 01/24/2017 | | | | | |
| GW01-2 | 19:20 | garmin GPSMAP 62s S | -87.515764 | 44.475864 | 717573.8427 | 447729.9947 |
| | 01/24/2017 | | | | | |
| GW-10 | 19:32 | garmin GPSMAP 62s S | -87.515214 | 44.474687 | 717621.5601 | 447600.5843 |
| | 01/24/2017 | | | | | |
| GW-09 | 19:43 | garmin GPSMAP 62s S | -87.513762 | 44.474547 | 717737.5159 | 447588.5452 |

Data downloaded and processed by R. Sanchez, DNR
 GIS



| | |
|---------------------|----------------|
| Photo #: | 001 |
| Date/Time of Photo: | 01/24/2017 |
| Photo Location: | Kewaunee Marsh |
| Photo By: | Liz victor |
| Photo Description: | Mowed Path |



| | |
|---------------------|------------|
| Photo #: | 002 |
| Date/Time of Photo: | 01/24/2017 |
| Photo Location: | |
| Photo By: | Liz victor |
| Photo Description: | Mower |



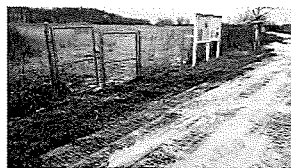
| | |
|---------------------|--|
| Photo #: | 003 |
| Date/Time of Photo: | 01/24/2017 |
| Photo Location: | |
| Photo By: | Liz victor |
| Photo Description: | Ruts in trail caused by pulling mower up rail trail embankment |



IMG_4848



20170124_152139



20170124_152153



IMG_4826



IMG_4827



IMG_4828



IMG_4829



IMG_4830



IMG_4831



IMG_4832



IMG_4833



IMG_4834



IMG_4835



IMG_4836



IMG_4837



IMG_4838



IMG_4839



IMG_4840



IMG_4841



IMG_4842



IMG_4843



IMG_4844



IMG_4845



IMG_4846



IMG_4847

People Gate NW ~~EW~~

164

072

END OF NOTES

Keweenaw Marsh Mowing

①

1/24/17

E. VICTOR

A. EDLER

> ON-SITE

8:30 - arrive at site. Mower is in Marsh, Aaron mowed around the first well cluster.

Aaron came yesterday to start job. Will meet us at site.

Ling & Alex walk fence to look at wells we can see.

* Decide Aaron should mow paths to all wells he can see. If we have time, we can look for other wells not marked.

(2)

● FOUND
 GW01-9: behind &
 right of Danger sign
 ± 25' off fence.
 white PVC marker

MW02-09 - can't see from fence -
 may be in phragmites -
 need path.

9:41 - done looking - entering
 waypoints into GPS.
 waiting for Alex - he
 has key.

Alex entering way points
 for start of transects.

→ ~~Area~~ Area area ~ 10' x 40'

● FOUND MW02-8
 → extended PVC
 w/ orange flagging
 about phragmites

● FOUND

(3)

11:17 AM - GW01-8 extended
 pole w/ flagging above
 the phragmites.

● FOUND GW01-11
 white PVC w/ cap
 GW01-11
 - in cattails
 - has white PVC marker

DNR waypoint: "GW01-11"
 ELEV " #165

(44 28.468 N)
 (87 30.853)

● FOUND GW01-7
 white PVC ± 8'
 DNR: GW01-07) 44 28.468
 ELEV: #167) 87 30.853

put orange flag on top of PVC.

(4)

FOUND

MW02-6/6i = white PVC 10' or

FOUND

① STS-mp-2 (?) unmarked PVC well 2"

DN: waypoint) 44° 28.490
BN: #164) 87 30.831

STS-mp-3

① Found - white PVC well 2"

PVC SA cap.

PVC stick cap is marked

~~6/6?~~ = likely STS mp 3 yes

DN: STS mp 3) 44° 28.494'
BN: #170) 87 30.849'

① Found: MW02-4i

- red iron casing XS

white PVC w/

red and white stripe

on top.

(5)

① FOUND

GW01-6

- NO cover,

PVC 2"

10' Flgs w/ strange tree

- DN: way) 44 28.507
BN: #17) 87 30.820

LOOK FOR GW-07=

Max could not find.

12:17 - take lunch break

again moving N-side.

He will clear paths to all wells he can find.

waypoint 188

44 28.527) metal

87 30.857) rebar

force post - for old

SNOW fence ?

photo

Along path of GW01-3

⑥

① FOUND

GW01-3-

added 10' PVC
marker w/ tape

| | | | |
|---------|---|----|--------|
| DNR: | } | 44 | 28.545 |
| ENR-189 | | 87 | 30.848 |

① FOUND

Ex. 5th 8' PVC marker
GW01-5 - added flagging tape
PVC only

| | | | |
|-------------------|---|----|--------|
| | } | 44 | 28.555 |
| ENR - Wayport 192 | | 87 | 30.823 |

STS-mp-1

① FOUND -STS-mp-1

1 of 2 wells (Jammed
on field map) - PVC stickups
+ PVC marker (1") - added flag.

| | | | |
|-----------------------------|---|----|--------|
| map # DNR-074 | } | 44 | 28.524 |
| ENR-193 = | | 87 | 30.809 |

could not find GW-08

⑦

① FOUND GW-07

- white PVC 1/2
stickup - No marker.

| | | | |
|-----------------|---|----|--------|
| DNR up: GW-07 | } | 44 | 28.562 |
| ENR Wayport 197 | | 87 | 30.897 |

- added 10' 1" PVC
marker + flagging tape

- just ~10' off marked path
(7 between 2 trees.)

FOUND MW02-2 1/2
8' 1" PVC marker

with wide red
band on top.

① FOUND GW01-2 - white PVC 2 1/2

marked w/ red
1" 8' PVC marker

- added flagging
tape

⑧ • FOUND
GW 01-2

DNR: GW 01-2

ENR: 195 } 44 28, 552

87 30, 974

• FOUND GW-10

GW-well - unmarked
Located S. of Tree.

GW-10
ENR

- added flagging to
PVC 2" pipe (1 1/2")
well is 1 1/2 dm

~~ENR~~

DNR: 75

ENR: 198

44 28, 482

87 30, 913

⑨

unmarked -

1 1/2" PVC stake

well

Located adj. to weir.
inlet has gas bubble.

GW-09
ENR

DNR 076

44 28, 473

ENR 199

87 30, 826

marked by 5' tall wood
stake - no PVC.

added flagging to
~~PVC~~ wood stake

+ to fence adj to well

you can see flagging on
fence from road - SW

1:56 - break - man was
over heated.

2:10 - Aaron finishes off
mowing.

Liz & Alex go to car, wait.

(10)

- Aaron has difficulty getting the mower up the slope at of the gate.

We go get truck to pull him out.

- Trail, especially at gate/ kiosk area is extremely soft. Ruts formed getting mower out.

Aaron levels off area

3:25 - back at gate to start.

3:35 - Leave site

Aaron is hitching up mower

~~EA~~

→ Additional notes added on 4/25/17

EA