Alten Facility Release, Mead, NE

On 2/12-13/21, Approximately 4 million gallons of stillage liquids and manure was released from a frozen valve on a digester tank. The contents of the tank are suspected to contain pesticide residue. Attempts by the facility to stop the flow at the source (tank) were unsuccessful. The facility placed two dams along the flow path to stop the material, recover with a vac truck/pumps and place the recovered material in retention ponds at the facility. USEPA FOSC Ferguson and NDEE SOSC Morrow arrived on site 2/13/21 to assess the work of the responsible party's containment and recovery progress. Material consistent with the nature of the release was observed flowing beyond the recovery points set up by the facility. USEPA FOSC Ferguson has requested the facility personnel contain and cleanup the release as soon as possible. Extreme low temperatures and frozen ground at the site are exasperating response efforts. Observations were made of the extent of the release and samples of released material were collected.

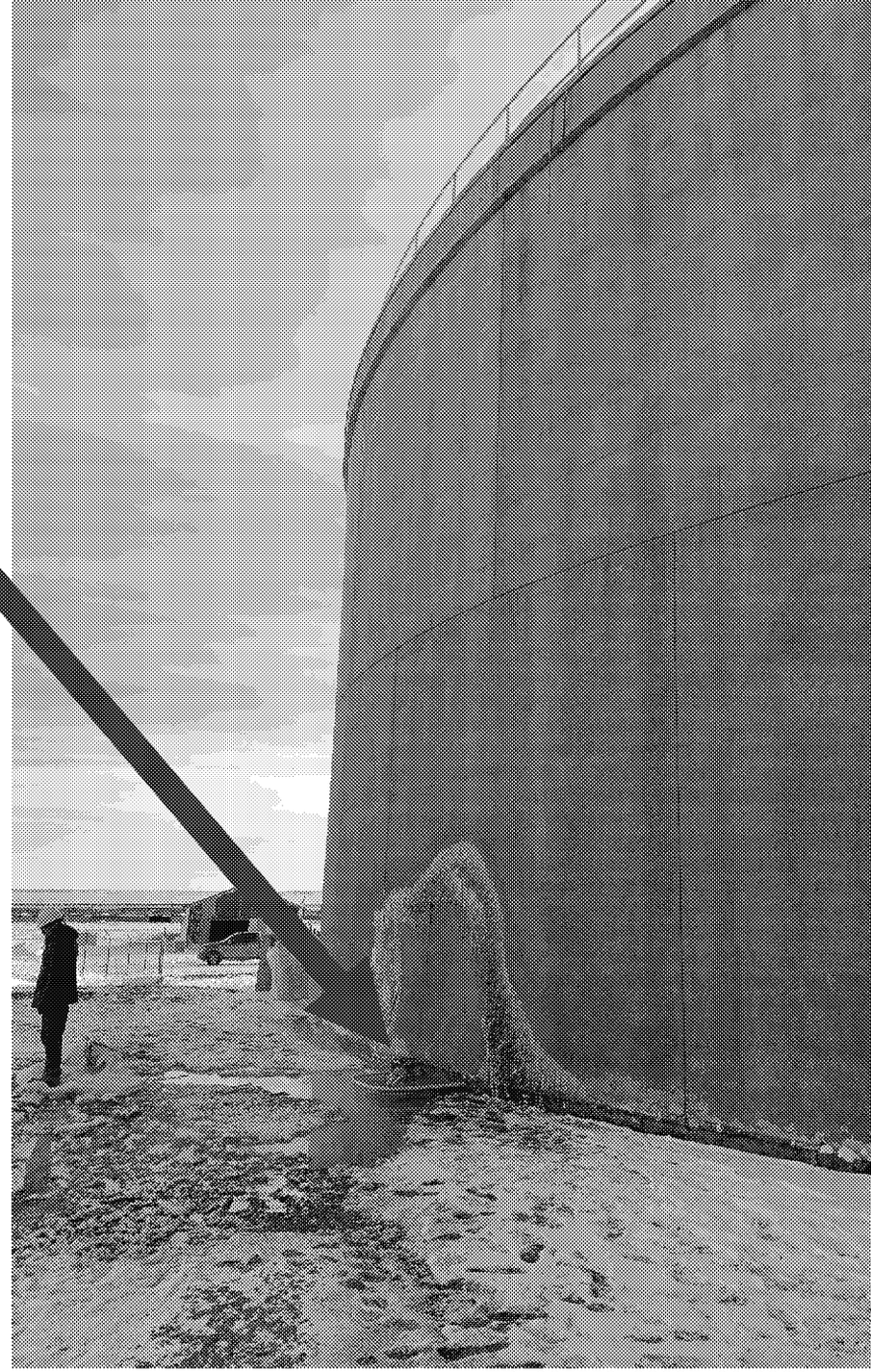
AltEn Facility, 1344 County Road 10, Mead, NE
ounty Rd 10
First sample location and attempted dam
Leaking Tank and Second Sample Location
Flow Direction
©2021 Google
Google Earth
1985
Imagery Date: 6/4/2018 41°11'40.78" N 96°28'34.19" W elev 1184 ft eye alt 4395 ft

1344 County Rd 10
Leaking Tank
Flow Direction
from facility
10
9
N
© 2021 Google
Google Earth
1985
Imagery Date: 6/4/2018 41°11'38.84" N 96°28'27.41" W elev 1183 ft eye alt 7357 ft

Arrow pointing to the sub-surface broken valve on the digester tank.

Pressure of the released material estimated to be 600 psi for the approximately 4M gallons released from the tank.

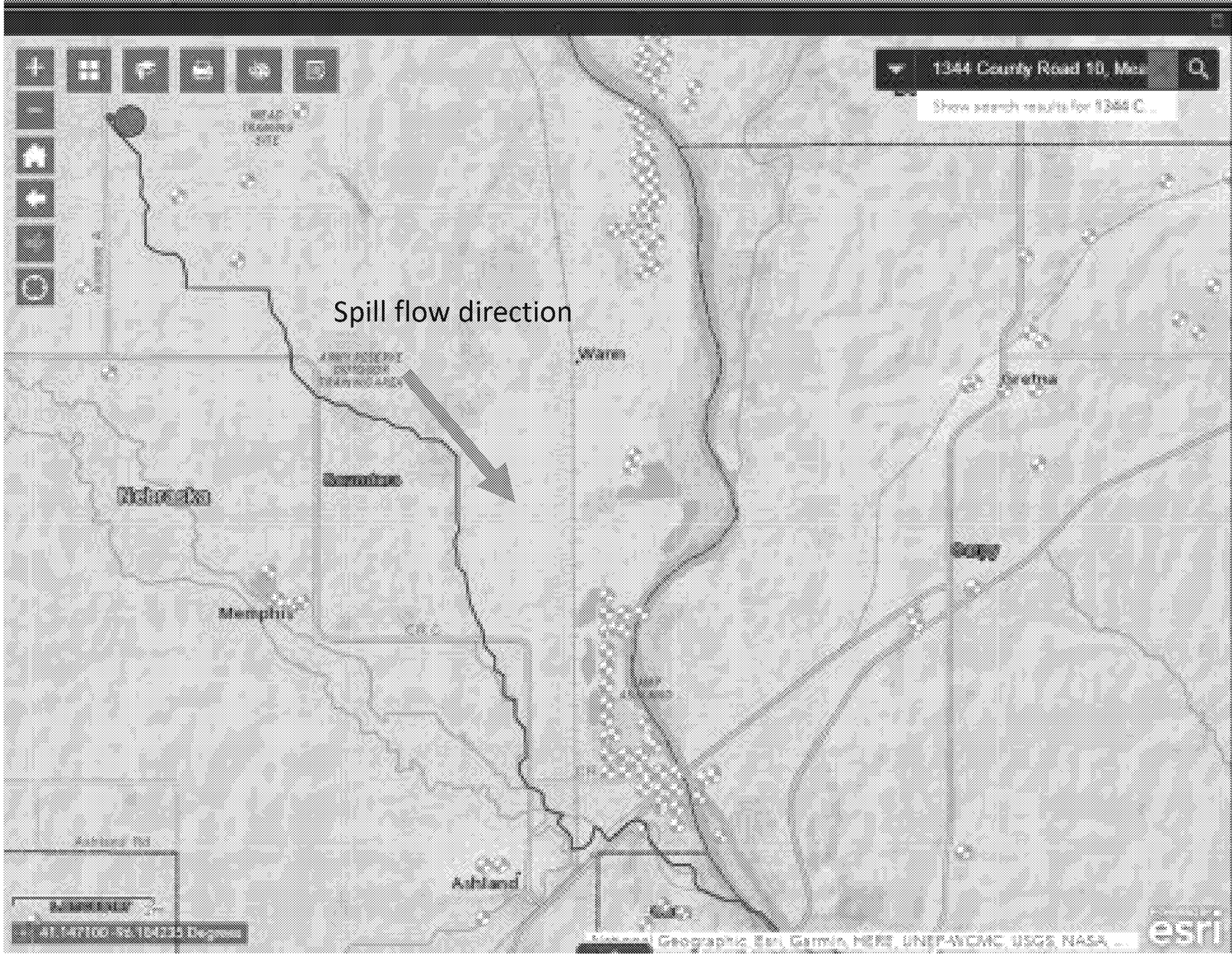
Crews placed insulation and a heating device on the valve at the other digester tank to reduce the likelihood of a similar failure.

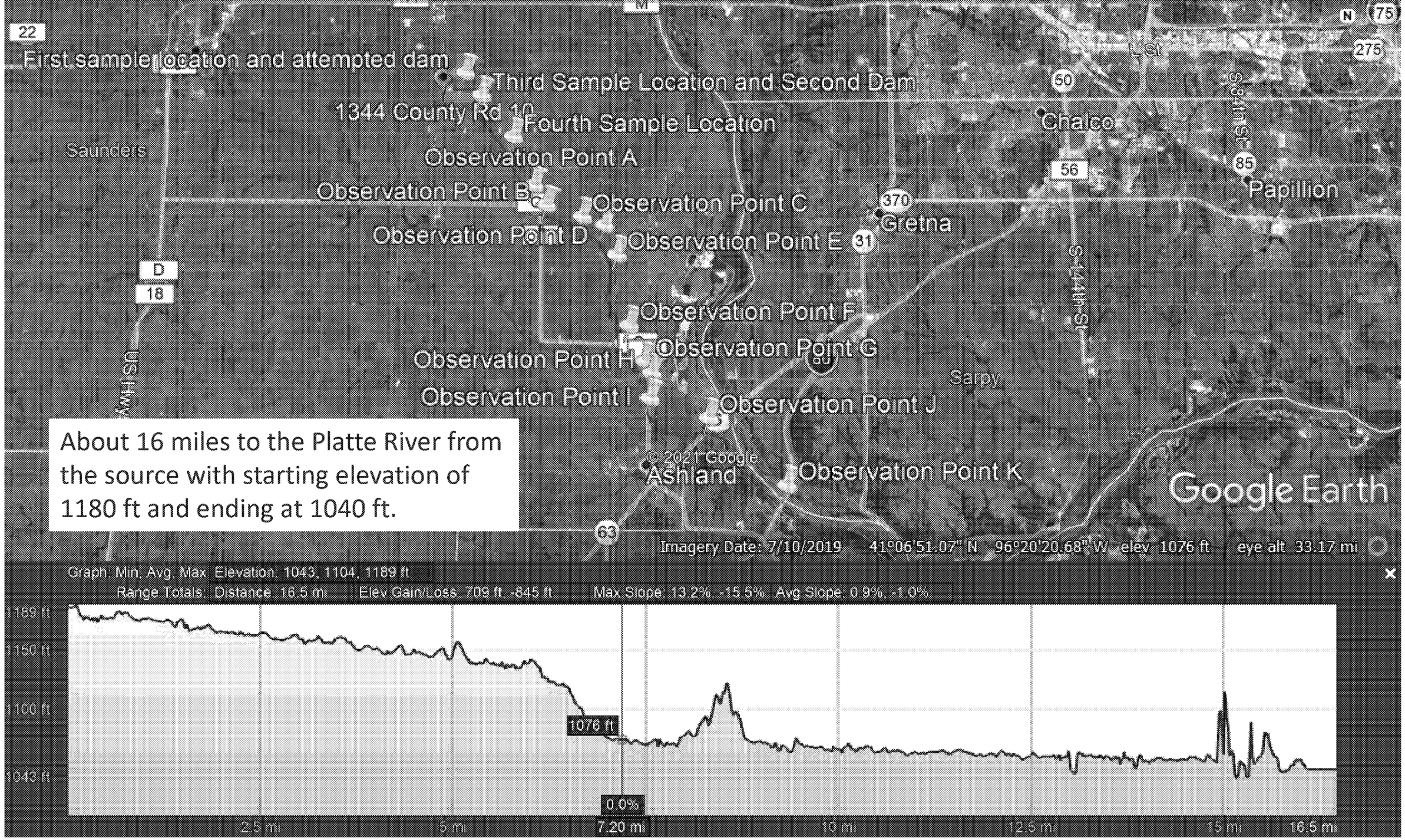


Material flow path from the tank

Sampling Locations and Retention Structures from 2/14/21

Down stream trace of facility to the Platte River




First sampler location and attempted dam
Third Sample Location and Second Dam
1344 County Rd 10
Fourth Sample Location
Observation Point A
Observation Point B
Observation Point C
Observation Point D
Observation Point E
Observation Point F
Observation Point G
Observation Point H
Observation Point I
Observation Point J
Observation Point K
Saunders
Chalco
Papillion
Gretna
Sarpy
Ashland
© 2021 Google
Google Earth
About 16 miles to the Platte River from the source with starting elevation of 1180 ft and ending at 1040 ft.
Imagery Date: 7/10/2019 41°06'51.07" N 96°20'20.68" W elev 1076 ft eye alt 33.17 mi
Graph: Min, Avg, Max Elevation: 1043, 1104, 1189 ft
Range Totals: Distance: 16.5 mi Elev Gain/Loss: 709 ft, -845 ft Max Slope: 13.2%, -15.5% Avg Slope: 0.9%, -1.0%
1189 ft
1150 ft
1100 ft
1043 ft
1076 ft
0.0%
2.5 mi
5 mi
7.20 mi
10 mi
12.5 mi
15 mi
16.5 mi

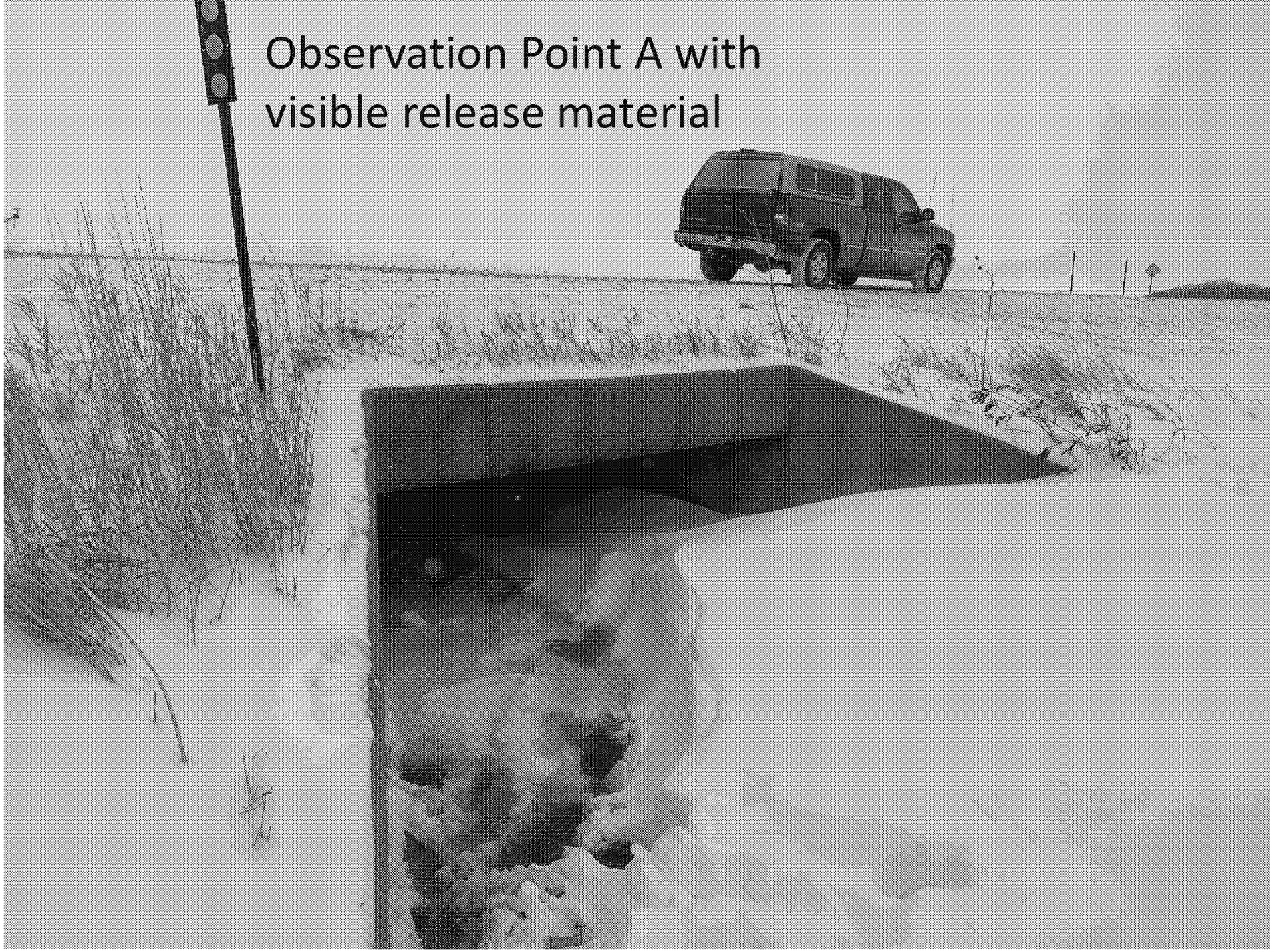
Planned Activities for 2/14/2021

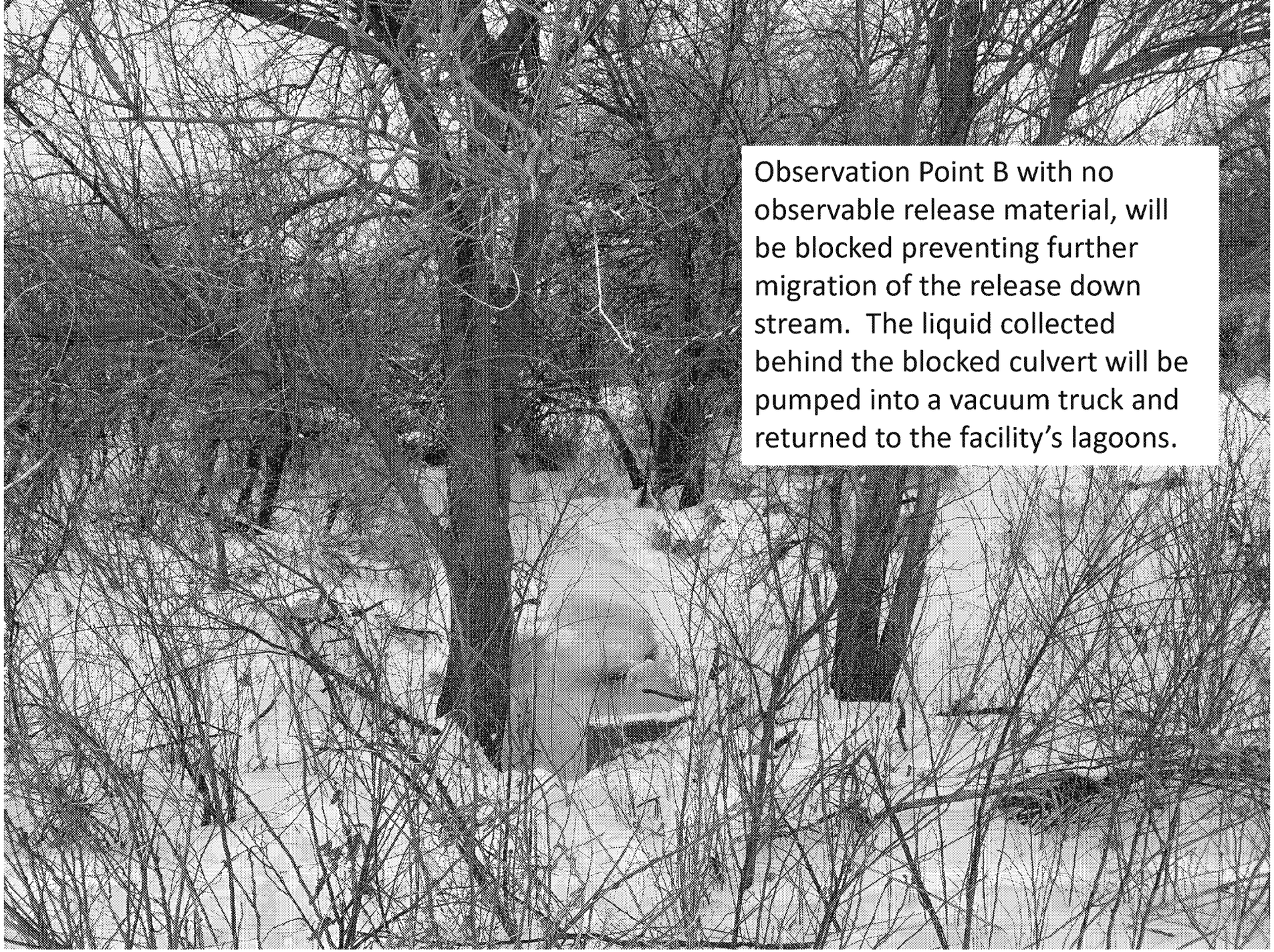
- Oversee the facility's containment and recovery activities
- Travel to observation points accessible by road and assess the extent of the release
- Obtain samples from the receiving stream where possible at the observation points
- Deliver samples to the laboratory on Monday 2/15/2021

AltEn Release, Mead, NE

USEPA FOSC Ferguson and START return to the site on 2/14/2021 to identify the extent of the release's flow from the facility. Release material observed at the intersection of Highway 66 (AKA County Road G) and the flow path at Observation Point A, but not observed at Observation Point B where Highway 66 turns south and intersects the flow path again about 2/3 of a mile southeast (see map next page). The material flowed about 4.32 miles before freezing or encountering a blockage in the flow path. Samples were collected at both Observations Points A and B. Facility personnel are blocking off the culvert at Observation Point B and will use this as their collection point for recovering material released from the facility. The facility General Manager and Plant Manager met with FOSC Ferguson to discuss plans for cleaning up the material released. The material collected will be placed in each of 3 lagoons on the facility property. The facility told us they have obtained an emergency exemption enabling them to reduce their freeboard to 18 inches in the lagoons giving them approximately 7.2 million gallons of additional storage volume in their lagoons. The cleanup plan the facility verbally agreed to includes stopping any further flow down stream (scheduled implementation today, 2/14/21—pictures of the containment will be sent to me when completed). Released materials stopped at Observation Point B will be pumped from the blocked culvert and placed in lagoons at the facility. Water from the facility's well will be flushed through the impacted stream and collected at the culvert and returned to the facility's lagoons. Samples will be collected to ensure all released materials have been removed and flushed from the receiving stream. The facility has committed to provide a written cleanup plan by Friday, 2/19/2021. The facility will also develop a plan to ensure the second digester tank has a plan to address a release like the current scenario.

Released material and rinsate flowing to Observation Point B will be pumped from the ditch with a vacuum truck and returned to the lagoons at the facility.


Observation Point A with
visible release material



Observation Point B with no observable release material, will be blocked preventing further migration of the release down stream. The liquid collected behind the blocked culvert will be pumped into a vacuum truck and returned to the facility's lagoons.

Blocked off culvert at collection point

Response Summary
AltEn, Mead, NE Release

- 22 liquid and 2 solid/sludge samples from 6 sample locations were collected along the flow path from the leaking tank to just past the end of the flow path at Observation Point B. Samples will be analyzed for pesticides, including those associated with seed corn used for fermentation by the facility. Samples will be delivered to Pace Labs in Lenexa, KS on Monday, 2/15/21 with processing starting Tuesday, 2/16/21. Turn-around-time will be a quick as possible and will be communicated as soon as it is determined.
- The facility has blocked the culvert just past the furthest point of travel in the flow path. Material collecting at the culvert will be pumped into a vacuum truck and returned to lagoons at the facility. The flow path will be flushed with the facility's well water and rinsate collected will be analyzed to ensure material has been removed from the flow path.
- A written plan describing the release cleanup and plans to address potential future releases from the second digester tank will be provided by 2/19/21.
- EPA and MDEE will work out arrangements for overseeing the cleanup of the release.