



EA Engineering, Science,
and Technology, Inc., PBC

221 Sun Valley Blvd, Suite D
Lincoln, NE 68528
Telephone: (402) 476-3766
www.eaest.com

Technical Memorandum

DATE: March 26, 2021

TO: Wade Gregson, Nebraska Department of Environment and Energy (NDEE)

FROM: Dan Bigbee

SUBJECT: Task Assignment TA-21-08A/B/C
Alt-En Ethanol Plant – Environmental Sampling Support
IIS Number: 84069, Program ID: Fast Track
Pond Composite Sampling

Project Description

EA Engineering, Science, and Technology, Inc., PBC (EA) provided Fast Track/On-Call Environmental Sampling Support associated with the Alt-En Ethanol Plant. EA collected a composite sample from a pond southwest of the intersection of County Road 5 and County Road F (Figure 1) located in Saunders County, NE.

Data Collection

EA arrived at the site at 1500 hours to collect a composite sample on Tuesday, March 2, 2021. The following activities were completed.

- Met with property owner to discuss project objectives and process to collect sample.
- Surveyed the pond to determine distribution of 4 sample points to collect aliquots for a composite sample. Lake was ice covered, however the deteriorating ice limited lake access to areas of safe ice for sampling.
- At each sample point, a hole was chiseled through the ice and ice chips and slush were removed using a stainless-steel scoop prior to aliquot collection.
- At each sample point, a 250-milliliter aliquot of surface water was collected approximately 1 foot below the ice surface (Figure 1) and composited in a laboratory provided 1-liter HDPE container.
- The sample container was labeled, placed in a zipper bag, and stored on ice.
- Sample locations were surveyed using a handheld submeter global positioning system (GPS) unit.
- Returned to Lincoln and placed the sample in a refrigerator for preservation of the sample.
- On Thursday, March 4, 2021, the sample was placed in a shipping cooler with fresh ice, chain-of-custody, sealed, and shipped via overnight courier to South Dakota Agricultural Laboratories, Brookings, SD for analyses of agricultural chemicals.

Attachments

Attachments to this Technical Memorandum include:

- Photographic Log, and
- Collection Field Sheets



Figure 1



Photographs



Photo 1. Overview of pond.



Photo 2. Testing of ice for sample collection.



Photo 3. Sample collection.



Photo 4. Sample collection.

DAILY QUALITY CONTROL REPORT

Project Manager: Dan Bigbee

Project: Air-Eu Off-Site

Date: 2 Mar 21

S	M	T	W	TH	F	S
		X				

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	To 32	32-50	50-70	70-85	>85
Wind	Still	Moderate	High	Gusty	
Humidity	Dry	Moderate	Humid		

NDEQ Personnel on Site: None

Contractors on Site: K Dixon and M. Wallman EA

Visitors on Site: None

Work Performed:

Collected composite surface water from
Pond Located West of County Rd S and Rd F
intersection Saunders County.

Cut holes through ice collected subsample ~ 1 ft
below ice GPS Locations. Composite sample
collected and stored in EA sample Fridge.

Sample shipped to Lab on 4 Mar 2021

GPS Sample Location

Project: AIT-En Off-Site Date: 2 Mar 21

Quality Control Activities (including field calibration and duplicate samples collected): _____

None

Problems Encountered/Corrective Actions Taken: _____

None

Downtime/Standby: None

Health and Safety Activities: _____

Ice - Caution - Tested Ice with Bar
as Sampler walked on the Ice.

Special Notes: _____

None

By: [Signature] Date: 2 Mar 21

COLLECTION FIELD SHEET

Project Name Alt. En Off-SiteSample Number Off-Site Surface WaterName and Address of Property Owner Private PropertySample Location Pond West of Saunders Co Road 5 and E intersectionSample Media Surface Water Sample Depth ≈ 1-ft below IceWell I.D. NADate Collected 2 Mar 21 Time Collected 1730Sampling Personnel K Dixon and M. WallmanSample QC Duplicate: Yes ☒ No ☐ Duplicate Sample No. NA

Field Measurements

Photo Ionization Detector Measurements: _____

pH _____ Conductivity _____ Temperature _____

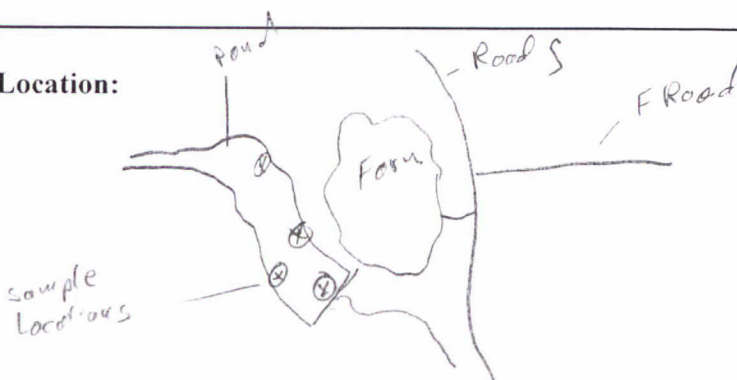
Container	Sample Type	Preservative	Analysis Requested
-----------	-------------	--------------	--------------------

1-L HDPE		Refrigerate	Pesticide Screens
----------	--	-------------	-------------------

Comments: _____

4- Locations Sampled for Composite Sample

Site Sketch Showing Sampling Location:



Gregson, Wade

From: Bigbee, Dan <dbigbee@eaest.com>
Sent: Friday, March 26, 2021 11:10 AM
To: Gregson, Wade
Cc: Felix, Mike
Subject: Alt-En Ethanol Plant – Environmental Sampling Support - Trip Reports
Attachments: Alt-en Ethanol - Mead Public Park Composite Sampling - Trip Report.pdf; Alt-en Ethanol - Pond Composite Sampling - Trip Report.pdf; Alt-en Ethanol - Stream Composite Sampling - Trip Report.pdf

Wade,

Please find attached the Alt-En Ethanol Plant – Environmental Sampling Support trip reports.

Thanks!

Dan

=====

Daniel Bigbee, PWS, CERP

Senior Environmental Scientist



221 Sun Valley Blvd., Suite D

Lincoln, NE 68528

Direct: (402) 817-7612

Mobile: (402) 304-6104

dbigbee@eaest.com

IMPROVING THE QUALITY OF THE ENVIRONMENT IN WHICH WE LIVE, ONE PROJECT AT A TIME®