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ADDENDUM #1

RE: LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
PRE-REMEDIAL PROGRAM IDNR SITE ID No.2798
709 HIGHWAY 61 NORTH, WAPELLO, IOWA
ENET Project 230123.02

TO: JAKE BUCKLIN of IDNR

This Addendum has been prepared for IDNR's Preremedial Group concerning the site referenced above. It includes a discussion requested by Mr. Bucklin specific to pathways of potential exposure and Activity Use Limitations (AULs), going forward. Attached is an environmental covenant with the AULs.

- Residential land use is prohibited per the AUL
- Permanent drinking and non-drinking water wells are prohibited per the AUL

Soil exceedances in excess of the Statewide Standards (SWS) were limited to five near-surface locations with Arsenic (2.15 to 4.01 mg/kg) over the SWS of 1.9 mg/kg. Three (3) of these locations in the public right of way.

Groundwater exceedances were limited to Benzene in two borings in the public right of way; Cadmium in four locations, three of which were in the public right of way, and one beneath the new parking lot at the Dollar General Market (subject site); and lead (pb) in two locations, one of which is in the public right of way. Refer to Figures 1-3, attached.

Pathways of potential exposure as outlined in the Iowa DNR RBCA guidance dated November 2022 are discussed. Each is shown to be of no significant environmental concern for commercial/ industrial exposure scenarios.

Routes of potential exposure are discussed below:

1. **Groundwater Ingestion**

   According to Iowa GeoSam, there are no drinking water wells within 1000 feet of the property. One irrigation well was identified approximately 950 feet from the property. Arsenic located in the shallow soil horizon (two to six feet bgs) above the vadose zone is not of significant environmental concern to the irrigation well. The well, apart from being 950 feet to the SE, is screened in the stratigraphic horizon between 49 to 69 feet bgs.

Migration of the contaminants as detected in groundwater is unlikely for several reasons. The low concentrations are associated with turbid water in the initial field collection efforts. Also, the soil primarily consists of lean clay (CL), which has a hydraulic conductivity of 8.6e-8 to 8.6e-5 m/day. In addition, the USDA Web Soil Survey identifies the soil on the property as Bolan Loam, which has a hydraulic conductivity of 0.086 m/day in the surface layers. For these reasons, the soil could logically be classified as a non-protected groundwater source. These factors together demonstrate low probability of groundwater contaminants, where present, to migrate beyond the right of way.

2. Soil Leaching to Groundwater

The soil leaching to groundwater exposure pathway of ingestion is not of significant environmental concern as discussed above (for arsenic).

3. Groundwater to Water Line - Potential Water Line.

The actual water line receptor is not of concern as the water lines in Wapello are constructed with petroleum resistant lines and gaskets.

The water utility company previously replaced the water lines in the right of way adjacent to the subject property. The water utility company/municipality public works department will be notified of current conditions as identified during this assessment because groundwater was encountered less than 20 feet bgs on the property and in the right of way.

4. Soil to Water Line

The soil to water line exposure pathway is not of concern due to the reasons listed above.

5. Groundwater Vapor to Enclosed Space

The groundwater vapor to enclosed space pathway is not of concern as no VOC or SVOC vapors were identified as a continuing concern. In addition, there are no enclosed spaces on the property.

6. Soil Vapor to Enclosed Space

The soil vapor to enclosed space pathway is not of concern as no SVOC or VOC exceedances were identified in soil, and because soil vapor testing demonstrated no significant environmental risk using the cumulative risk calculator. In addition, there are no enclosed spaces on the property.

7. Surface Water

The surface water pathway is not of concern as there are no designated use receptors or general use receptors within 200 feet of the property.

We sincerely hope the attached information completes the Pre-remedial review for recategorization of this property.

It has been a pleasure to work with you on this project.

Sincerely,
ENVIRO*NET*, INC.

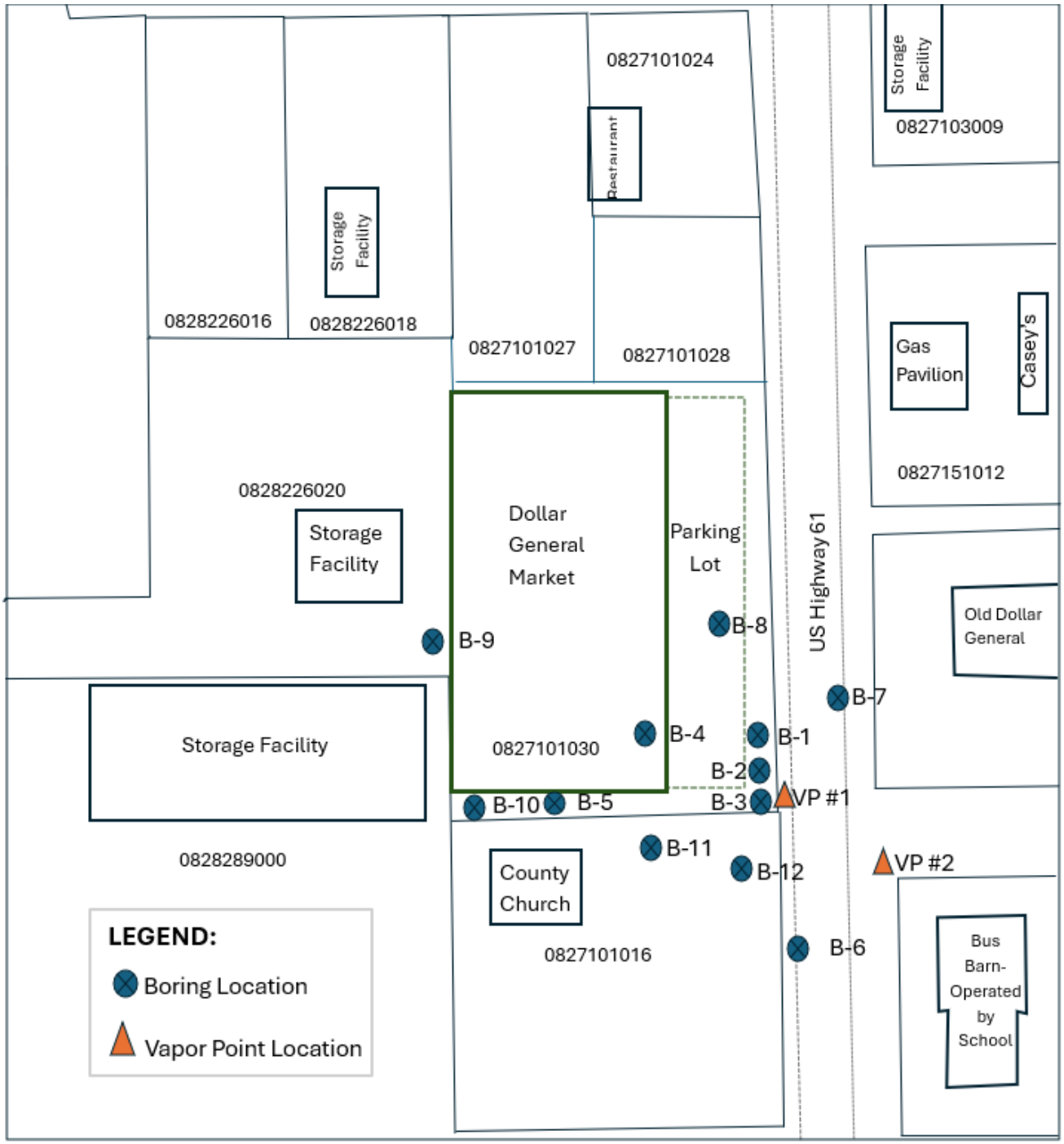
Molly E. Arp Newell, PG, CHMM

President

cc:
Matt Davis, mattdavis@firstlinkllc.com
Lou Pappan, loupappan@firstlinkllc.com

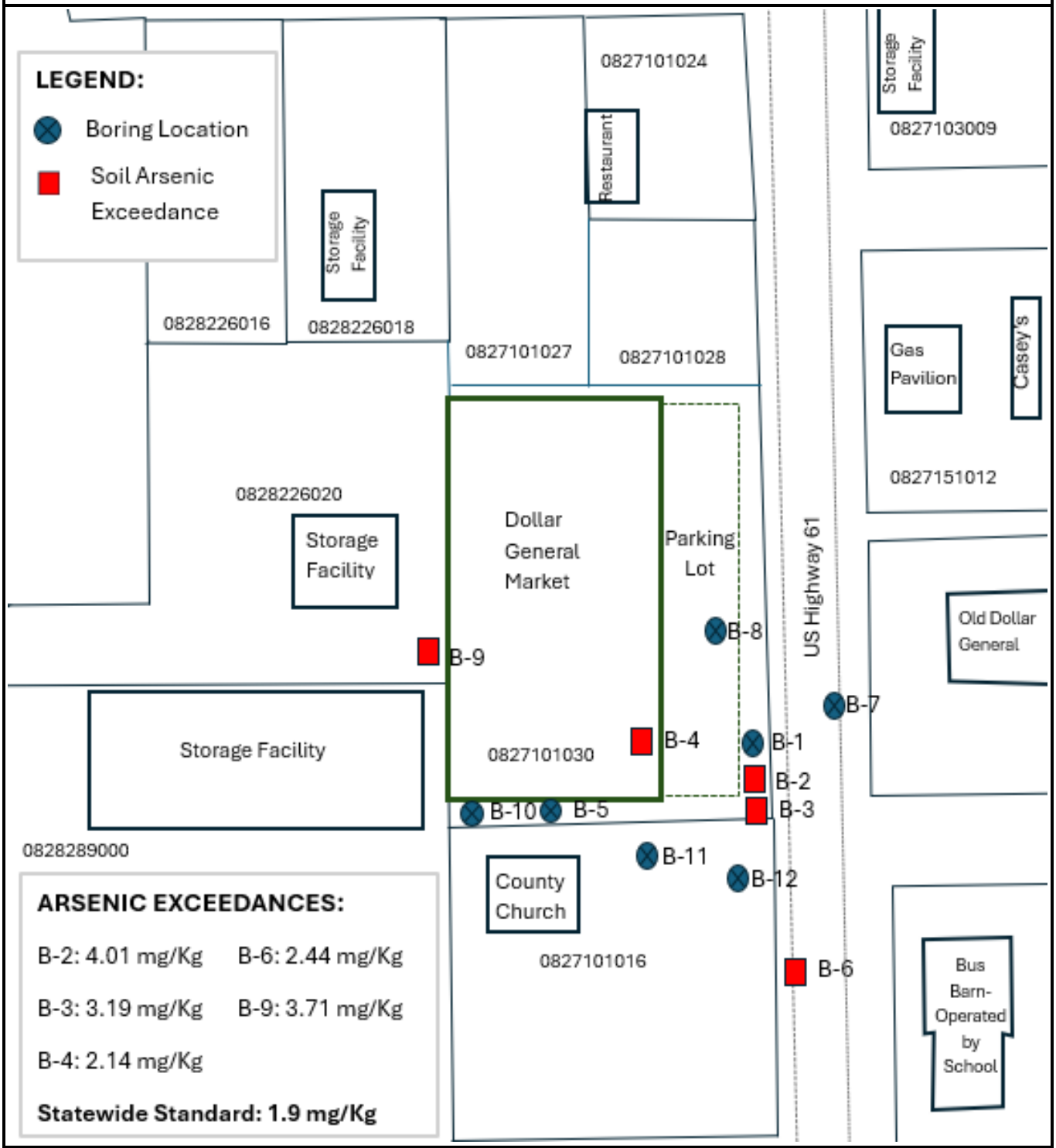
Attached:
Environmental Covenant AUL, draft
Figures 1-3
Well Radius Map
Nearest Well log and construction information

FIGURE 1:
BORING & SOIL VAPOR BORING LOCATION MAP



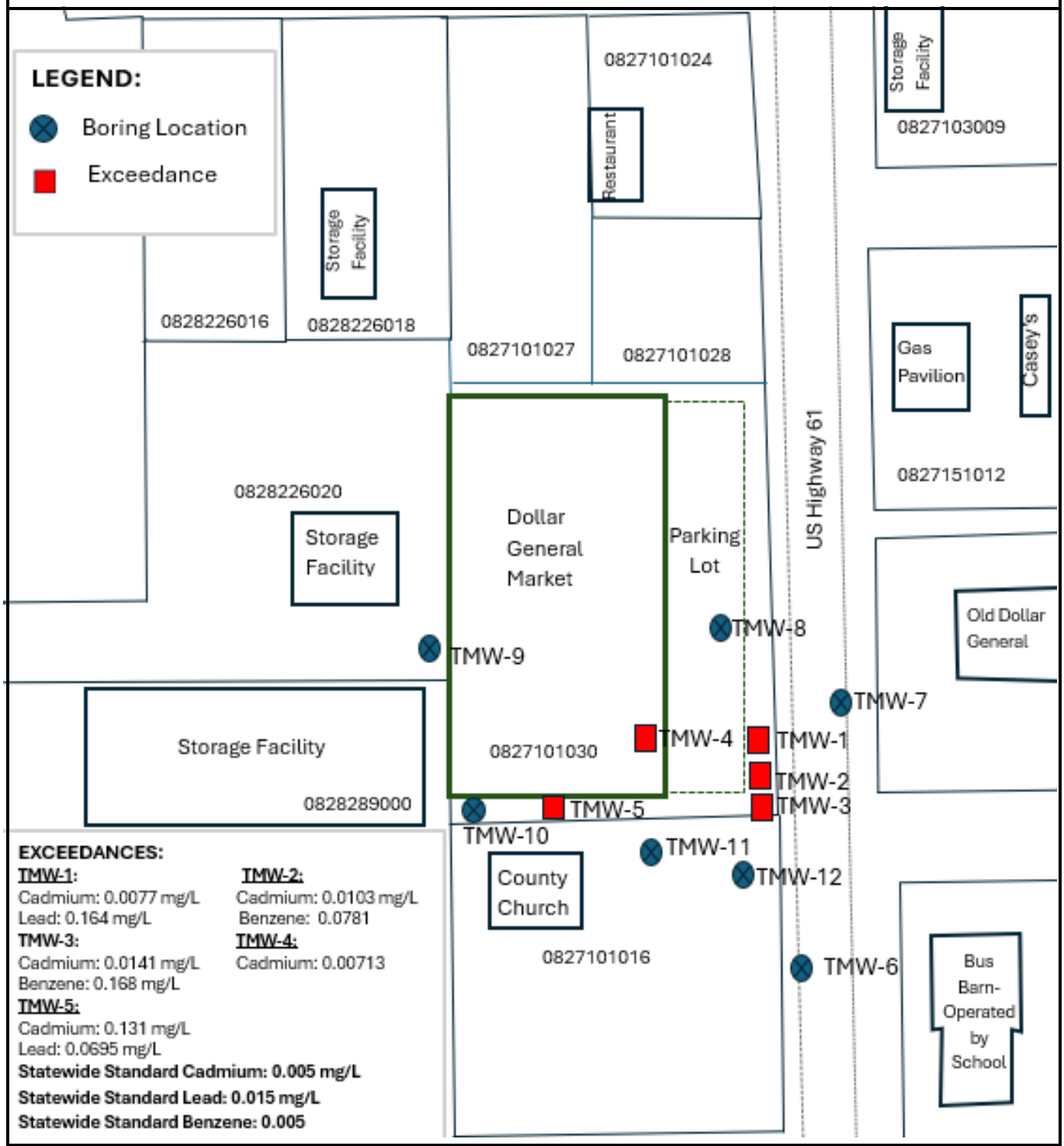
Limited Phase II ESA	↑	ENET #240123
709 Hwy 61 N		Date: 2024
Wapello, Iowa 52653	N	Scale: Digitally altered
Data Source: Google Maps NTS		Enviro***NET***, Inc.

FIGURE 2:
SOIL EXCEEDANCES (ARSENIC ONLY)



Limited Phase II ESA	↑	ENET #240123
709 Hwy 61 N		Date: 2023
Wapello, Iowa 52653	N	Scale: Digitally altered
Data Source: Google Maps NTS		Enviro***NET***, Inc.

FIGURE 3: GROUNDWATER EXCEEDANCES



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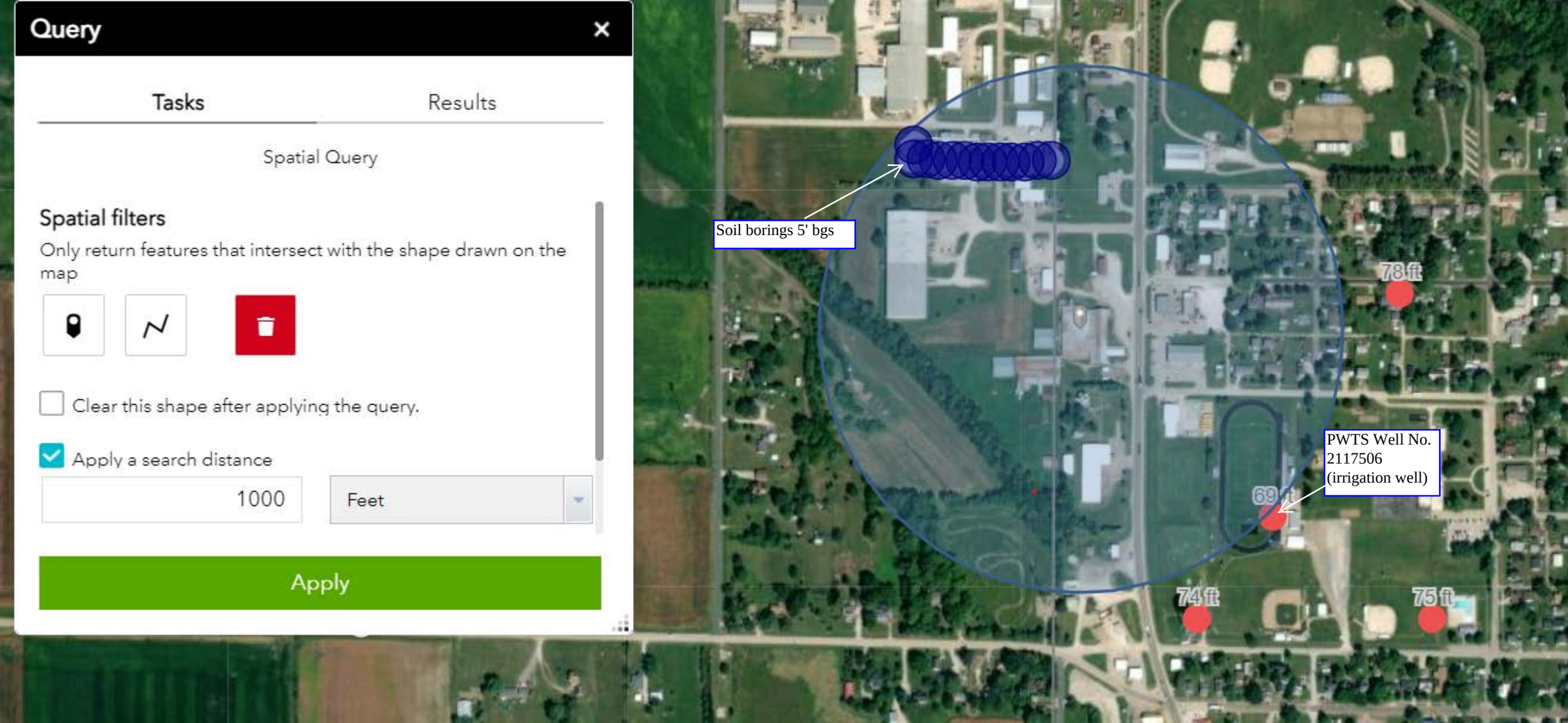
Query
Tasks
Results
Spatial Query
Spatial filters
Only return features that intersect with the shape drawn on the map
Clear this shape after applying the query.
Apply a search distance
1000
Feet
Apply
Soil borings 5' bgs
78 ft
PWTS Well No. 2117506 (irrigation well)
69 ft
74 ft
75 ft

Well Record

Iowa Department of Natural Resources - Water Supply Sections
502 East 9th Street, Des Moines, IA 50319-0034 (515) 725-0282

PWTS Well No. **2117506**

PWTS Permit No. **22270**
County Permit No. _____

Site Identification

Property Owner: **Wapello Community School**

Address: **445 N. Cedar Street**
Wapello, IA 52653

Well Depth: **69 ft.** Date completed: **4/26/2006**

Location

County: **LOUISA**

PLS: **NW1/4, SW1/4, SW1/4, Sec 27, T 74, R 3W**

Lat: **41.1835**
Long: **-91.194**

Topography: **Upland** Elevation: **ft.**

Formation Log

From	To	Color	Desc
0	8	Gray	clay
8	26	Red	sand
26	56	Gray	clay
56	69	Gray	sand

Developed Well

Explain:

Method: **Airlifted for 1 hours @ 30 GPM**

Pump

Installed on: 5/3/2006

Installer Name: **Mark Latta**

Type: **Submersible** Depth to Intake: **47 ft.**

Pump Diameter: **6 ft.** Rated Cap.: **50 ft.**

Well Uses

Irrigation

Contractor: **Latta Well & Pump**

Driller: **Not Listed**

Drill Method

Rotary Drill

Hole Size

From	To	Diameter	Notes
0	69	12	

Casing

Size	ID/OD	Type	Top	Bottom	Length
8	OD		-1	49	0

Grout

Type	Method	Top	Bottom	Weight	Notes
		0	40	200	

Well Screen

Diam.	Slot Size	Top	Bottom	Length	Material
8	0.025	49	69	0	

		Method	Depth
Bottom Capped:	**Yes**	**PVC**	
Seals:	**Yes**		
Packers:	**Yes**		

Type	From	To	Amount	Notes

Water Information

Aquifer: **Sand/Gravel**

Main water-supply zone: **From 56 ft. to 69 ft.**

		Method:
Static Water Level:	**24 ft. below ground**	**Estimate**
Pumping Water Level:	**40 ft. below ground**	**Estimate**
At Yields of:	**30 GPM**	**Estimate**