August 8, 2025
File No. 27223536.00

Mr. Brian Rath, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Ave, Suite 200
Des Moines, Iowa 50321

Subject: Leachate Piezometer Installation
Anderson Excavating C&D Landfill
Permit No. 78-SDP-04-89C

Dear Brian:

SCS Engineers, on behalf of Anderson Excavating, is submitting the boring log and well construction information following the installation of leachate piezometers at the Anderson Excavating C&D Landfill.

Leachate piezometers LPZ-3, LPZ-4, LPZ-5, LPZ-6, and LPZ-7 were installed approximately five feet above the clay liner in accordance with DNR correspondence dated March 3, 2025 (Doc #112434).

The boring logs and construction documentation for the installed leachate piezometers are included in Attachment A. A site map including the locations of the leachate piezometers is included in Drawing 1.

If you have any questions regarding this submittal, please contact Sean Marczewski at (712) 661-9682.

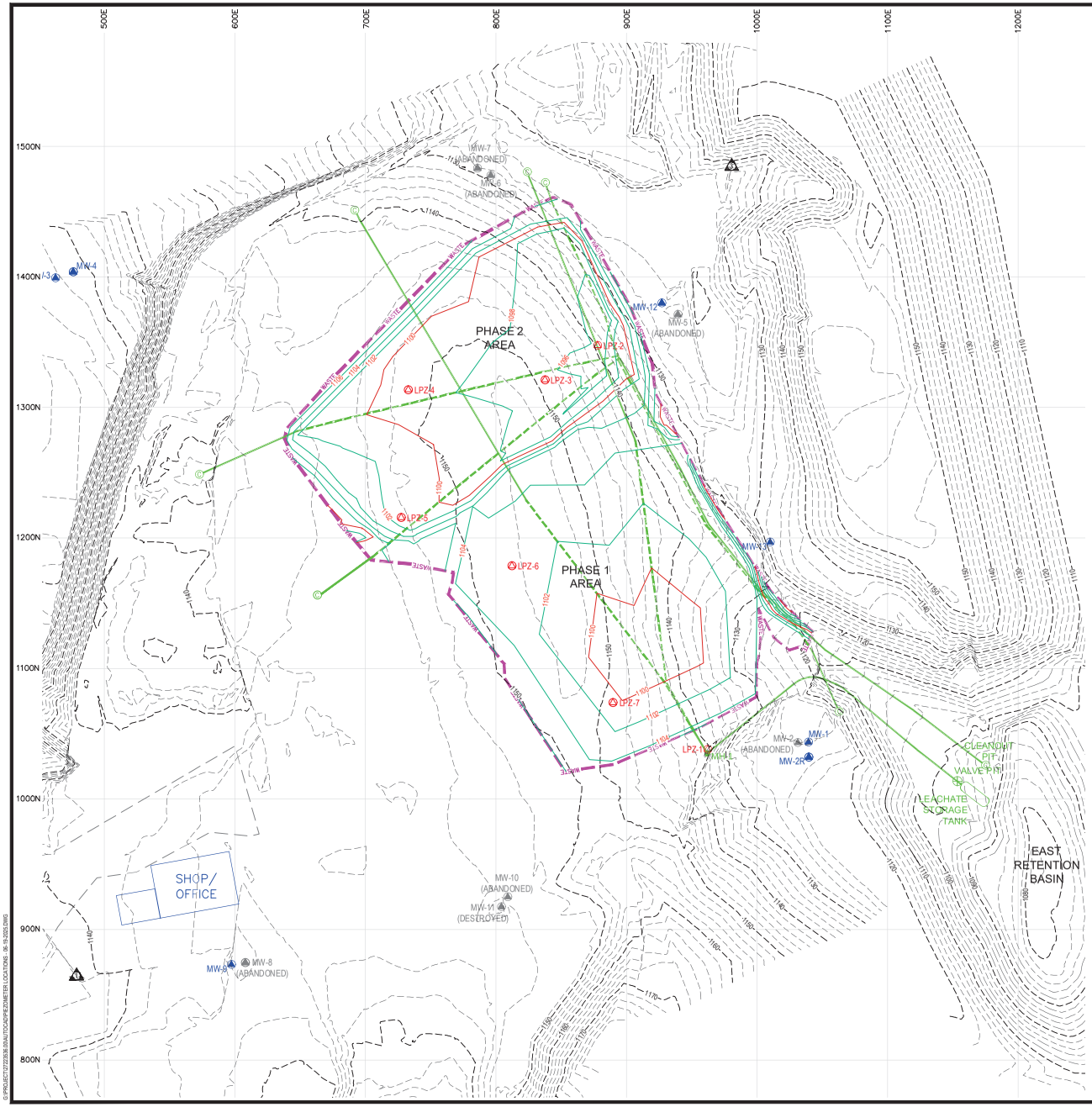
Sincerely,

Sean Marczewski
Senior Project Professional
SCS Engineers

Nathan Ohrt
Senior Project Professional
SCS Engineers

SAM/NPO

Copies: Ms. Virginia Anderson – Anderson Excavating



LEGEND

- DOCUMENTED TOP OF CLAY LINER CONTOUR
- EXISTING GROUND SURFACE CONTOUR
- GRAVEL ROAD
- WASTE — APPROXIMATE WASTE BOUNDARY (LINER LIMITS)
- LEACHATE COLLECTION PIPING (SOLID)
- LEACHATE COLLECTION PIPING (PERFORATED)
- LEACHATE CLEANOUT
- MW-1 — MONITORING WELL
- MW-1 — ABANDON/DESTROYED MONITORING WELL
- SURVEY CONTROL POINT
- PROPOSED PIEZOMETER LOCATION
- LPZ-1 — INSTALLED PIEZOMETER

NOTES:

1. TOPOGRAPHIC SURVEY INFORMATION FROM VARIOUS GROUND SURVEYS CONDUCTED BY EVORA CONSULTING: 2007, 2009, 2011, 2013, 2016, AND 2017.
2. SITE FEATURES INCLUDING MONITORING WELLS, APPROXIMATE WASTE BOUNDARIES, UTILITIES, ETC. ARE BASED ON DRAWINGS PROVIDED BY EVORA CONSULTING.
3. SURVEYED GROUND ELEVATIONS FROM STAKING PERFORMED BY TD2 ENGINEERING & SURVEYING ON MARCH 3, 2025.

REV.	DATE	CK BY
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-

SHEET TITLE
INSTALLED PIEZOMETER LOCATIONS

PROJECT TITLE
COUNCIL BLUFFS C&D LANDFILL
LEACHATE SYSTEM REPAIRS

CLIENT
ANDERSON EXCAVATING COMPANY
1920 DORCAS STREET
OMAHA, NE 68108

SCS ENGINEERS
1690 ALL STATE COURT, SUITE 100
WEST DES MOINES, IA 50265
PH: (515) 432-4240

PROJ. NO. 27223536.00
DSN. BY: CTC
DWN. BY: SAM
CHK. BY: CTC
PROJ. MGR. TCB

CADD FILE:
PIEZOMETER LOCATIONS - 06-19-2025.DWG

DATE: 6/19/25

DRAWING NO.
1

G:\PROJECT\27223536.00\AUTOCAD\PIEZOMETER LOCATIONS - 06-19-2025.DWG

Attachment A

Leachate Piezometer Boring Log and Construction Forms

WELL RECORD FORM

PWSID# *or* PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber *(IGS use only)* _____

Site Identification

Property owner Anderson Excavating Other ID LP2-3

Address 2520 E Kanesville Blvd. City Council Bluffs

Tenant _____

Well depth 44 ft Date completed 5 / 19 / 25

Drill Method

☐ Rotary ☒ Auger ☐ Cable ☐ Other _____

Hole size

6.25 inch from 0 ft to 44 ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

Location

County Pottawattamie

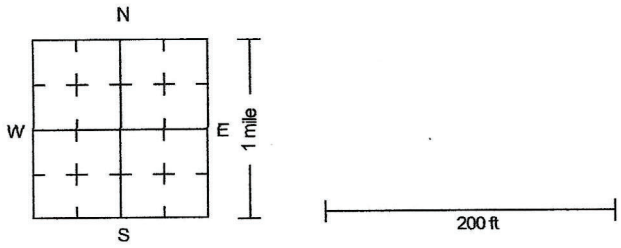
GPS coordinates (NAD83 datum)

41.2835967 Latitude -95.8148749 Longitude

☒ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Casing, Screen and/or Loop Pipe

Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top(ft)	Depth Bottom(ft)	Perforated	Slotted	Screen
2	pvc	0	34	☐	☐	☐ slot size _____
2	pvc	34	44	☐	☒	☒ slot size .010
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed		32	44	amount 7 variety Sand		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Formation Log

From	To	Color	Hardness	Formation description
0	44	Brn	firm	Loess + C+D Waste
				(use additional sheets as needed)

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Chips Bentonite	1	4	50#

Pump Installation

Date ___ / ___ / ___ Depth to intake _____ ft

Type of pump _____ Rated capacity _____ GPM

Pump diameter _____ in Final Yield _____ GPM

Well Development and Water Information

Date ___ / ___ / ___

Static Water Level	Pumping Water Level	Yield	Duration
— ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☒ E-line ☐ Estimate

Water yield measurement: ☐ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from _____ ft to _____ ft below GL

Well Development

Explain: Dry

Well Disinfection

System Water Volume _____ gal/ft³ Chemical _____

Chemical Concentration _____ mg/L Contact Time _____ hrs

Remarks (including depth of lost drilling fluids, materials, or tools)

Certified Well Driller

Company O'Malley Inv

Name Blair Bare Certification no. 12460

Certified Pump Installer

Company _____

Name _____ Certification no. _____

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ___ ☒ Monitoring ☐ Other _____

WELL RECORD FORM

PWSID# *or* PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber *(IGS use only)* _____

Site Identification

Property owner Anderson Excavation Other ID LPZ-4

Address 25 20 E Kanesville Blvd. City Council Bluffs

Tenant _____

Well depth 44 ft Date completed 5 / 14 / 2025

Location

County _____

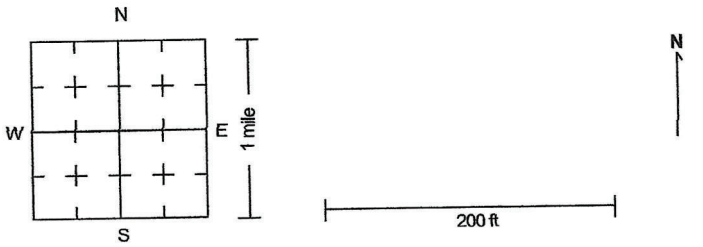
GPS coordinates (NAD83 datum)

41.2835893 Latitude -95.8152555 Longitude

☒ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Formation Log

From	To	Color	Hardness	Formation description
0	44	Bro	Firm	Loess & C+D waste
				(use additional sheets as needed)

Remarks (including depth of lost drilling fluids, materials, or tools)

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ____ ☒ Monitoring ☐ Other _____

Drill Method

☐ Rotary ☒ Auger ☐ Cable ☐ Other _____

Hole size

6.25 inch from 0 ft to 44 ft

____ inch from ____ ft to ____ ft

hole size continued

____ inch from ____ ft to ____ ft

____ inch from ____ ft to ____ ft

Casing, Screen and/or Loop Pipe

Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top(ft)	Depth Bottom(ft)	Perforated	Slotted	Screen
2	PVC	0	34	☐	☐	☐ slot size _____
2	PVC	34	44	☐	☒	☒ slot size .010
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed		32	44	amount 7	variety Sand	
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Chips Bentonite	4	4	50 #

Pump Installation

Date ___/___/___ Depth to intake _____ ft

Type of pump _____ Rated capacity _____ GPM

Pump diameter _____ in Final Yield _____ GPM

Well Development and Water Information

Date ___/___/___

Static Water Level	Pumping Water Level	Yield	Duration
NA ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☒ E-line ☐ Estimate

Water yield measurement: ☐ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from _____ ft to _____ ft below GL

Well Development

Explain: Dry

Well Disinfection

System Water Volume _____ gal/ft³ Chemical _____

Chemical Concentration _____ mg/L Contact Time _____ hrs

Certified Well Driller

Company O'malley Inc.

Name Blair Bare Certification no. 12460

Certified Pump Installer

Company _____

Name _____ Certification no. _____

WELL RECORD FORM

PWSID# or PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber (IGS use only) _____

Site Identification

Property owner Anderson Excavating Other ID LPZ-5

Address 2520 Kanesville Blvd City Council Bluffs

Tenant _____

Well depth 41 ft Date completed 5 / 14 / 2025

Drill Method

☐ Rotary ☒ Auger ☐ Cable ☐ Other _____

Hole size

6.25 inch from 0 ft to 41 ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

Location

County _____

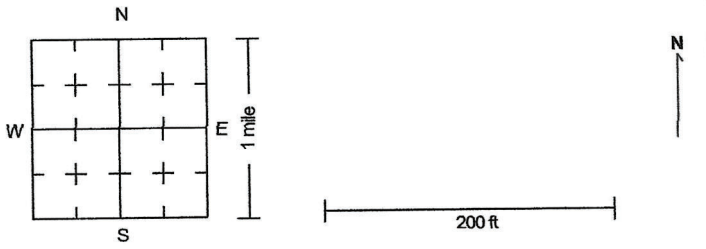
GPS coordinates (NAD83 datum)

41.2833331 Latitude -95.8153503 Longitude

☒ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Formation Log

From	To	Color	Hardness	Formation description
0	41	Brn	firm	Loess + C+D waste
				(use additional sheets as needed)

Remarks (including depth of lost drilling fluids, materials, or tools)

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) _____ ☒ Monitoring ☐ Other _____

Casing, Screen and/or Loop Pipe

Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top(ft)	Depth Bottom(ft)	Perforated	Slotted	Screen
2	PVC	0	31	☐	☐	☐ slot size _____
2	PVC	31	41	☐	☒	☒ slot size 010
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed		29	41	amount 7 variety Sand		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Chips Bentonite	1	4	50 #

Pump Installation

Date ___ / ___ / _____ Depth to intake _____ ft

Type of pump NA Rated capacity _____ GPM

Pump diameter _____ in Final Yield _____ GPM

Well Development and Water Information

Date ___ / ___ / _____

Static Water Level	Pumping Water Level	Yield	Duration
NA ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☒ E-line ☐ Estimate

Water yield measurement: ☐ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from _____ ft to _____ ft below GL

Well Development

Explain: Dry

Well Disinfection

System Water Volume _____ gal/ft³ Chemical _____

Chemical Concentration _____ mg/L Contact Time _____ hrs

Certified Well Driller

Company Omalley Inv.

Name Blair Dare Certification no. 12460

Certified Pump Installer

Company _____

Name _____ Certification no. _____

WELL RECORD FORM

PWSID# *or* PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber *(IGS use only)* _____

Site Identification

Property owner Anderson Excavation Other ID LP2-6

Address 2520 Kanesville Blvd City Council Bluffs

Tenant _____

Well depth 44 ft Date completed 5/14/2025

Drill Method

☐ Rotary ☒ Auger ☐ Cable ☐ Other _____

Hole size

6.25 inch from 0 ft to 44 ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

Location

County _____

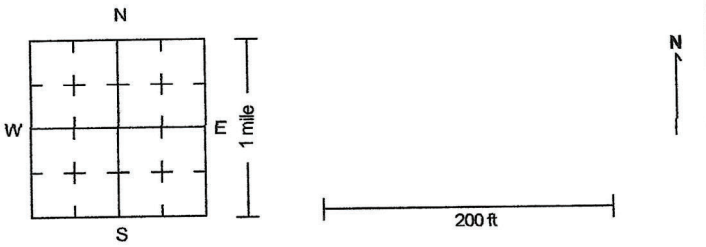
GPS coordinates (NAD83 datum)

41.283986 Latitude -95.8150586 Longitude

☒ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E/W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Casing, Screen and/or Loop Pipe

Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top(ft)	Depth Bottom(ft)	Perforated	Slotted	Screen
2	PVC	0	34	☐	☐	☐ slot size _____
2	PVC	34	44	☐	☒	☒ slot size .010
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed		32	44	amount 7 variety Sand		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Formation Log

From	To	Color	Hardness	Formation description
0	44	Brn	firm	Loess, CTD waste
				(use additional sheets as needed)

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Chips Bentonite	1	4	50#

Pump Installation

Date ___/___/___ Depth to intake _____ ft

Type of pump _____ Rated capacity _____ GPM

Pump diameter _____ in Final Yield _____ GPM

Well Development and Water Information

Date ___/___/___

Static Water Level	Pumping Water Level	Yield	Duration
NA ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☒ E-line ☐ Estimate

Water yield measurement: ☐ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from _____ ft to _____ ft below GL

Well Development

Explain: Dry

Well Disinfection

System Water Volume _____ gal/ft³ Chemical _____

Chemical Concentration _____ mg/L Contact Time _____ hrs

Remarks (including depth of lost drilling fluids, materials, or tools)

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ____ ☒ Monitoring ☐ Other _____

Certified Well Driller

Company O'Malley Inv.

Name Blair Bare Certification no. 12460

Certified Pump Installer

Company _____

Name _____ Certification no. _____

FORM

WELL RECORD FORM

PWSID# or PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber (IGS use only) _____

Site Identification

Property owner Anderson Education Other ID LPZ-7

Address 2526 Kanesville Blvd. City Council Bluffs

Tenant _____

Well depth 43 ft Date completed 5 / 14 / 2025

Drill Method

☐ Rotary ☒ Auger ☐ Cable ☐ Other _____

Hole size

8.25 inch from 0 ft to 43 ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

Location

County _____

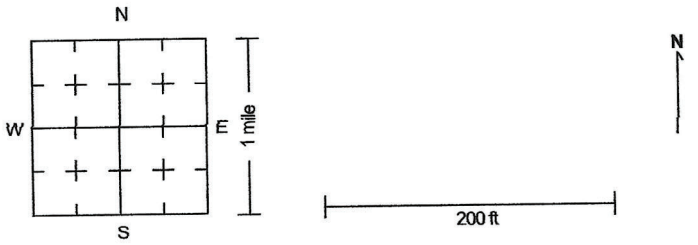
GPS coordinates (NAD83 datum)

41.28288859 Latitude -95.81483600 Longitude

☒ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Casing, Screen and/or Loop Pipe

Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top(ft)	Depth Bottom(ft)	Perforated	Slotted	Screen
2	PVC	0	33	☐	☐	☐ slot size _____
2	PVC	33	43	☐	☒	☒ slot size .010
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed		31	43	amount 7 variety Sand		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Formation Log

From	To	Color	Hardness	Formation description
0	43	Brn	firm	Loess, C&D waste
				(use additional sheets as needed)

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Chips Bentonite	1	4	50#

Pump Installation

Date ___/___/_____ Depth to intake _____ ft

Type of pump _____ Rated capacity _____ GPM

Pump diameter _____ in Final Yield _____ GPM

Well Development and Water Information

Date ___/___/_____

Static Water Level	Pumping Water Level	Yield	Duration
NA ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☒ E-line ☐ Estimate

Water yield measurement: ☐ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from _____ ft to _____ ft below GL

Well Development

Explain: Dry

Well Disinfection

System Water Volume _____ gal/ft³ Chemical _____

Chemical Concentration _____ mg/L Contact Time _____ hrs

Remarks (including depth of lost drilling fluids, materials, or tools)

Certified Well Driller

Company O'Malley Inc.

Name Blair Barr Certification no. 12460

Certified Pump Installer

Company _____

Name _____ Certification no. _____

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ____ ☒ Monitoring ☐ Other _____