

September 10, 2026

Mr. Brad Davison, Environmental Specialist
IDNR – Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



RE: Well Abandonment Records
US Gypsum Landfill Permit #94-SDP-08-89C (*Rescinded*)

Mr. Davison:

As required by the IDNR Letter dated July 7, 2026 (Doc #117509), monitoring wells associated with the referenced facility were properly plugged and abandoned. A map is attached illustrating the former monitoring well/piezometer locations.

The monitoring wells were abandoned September 1, 2026, and September 2, 2026. The well abandonment work was performed by a well contractor as defined by IAC 567- Chapter 82. Copies of the Monitoring Well/Piezometer Abandonment Forms and the associated well information are attached. Note that the well heads and protector covers were removed at each well location and the ground surface was repaired and graded to drain away from the former well heads.

The first biennial inspection of the facility under the Environmental Covenant is scheduled to occur in the Spring of 2027.

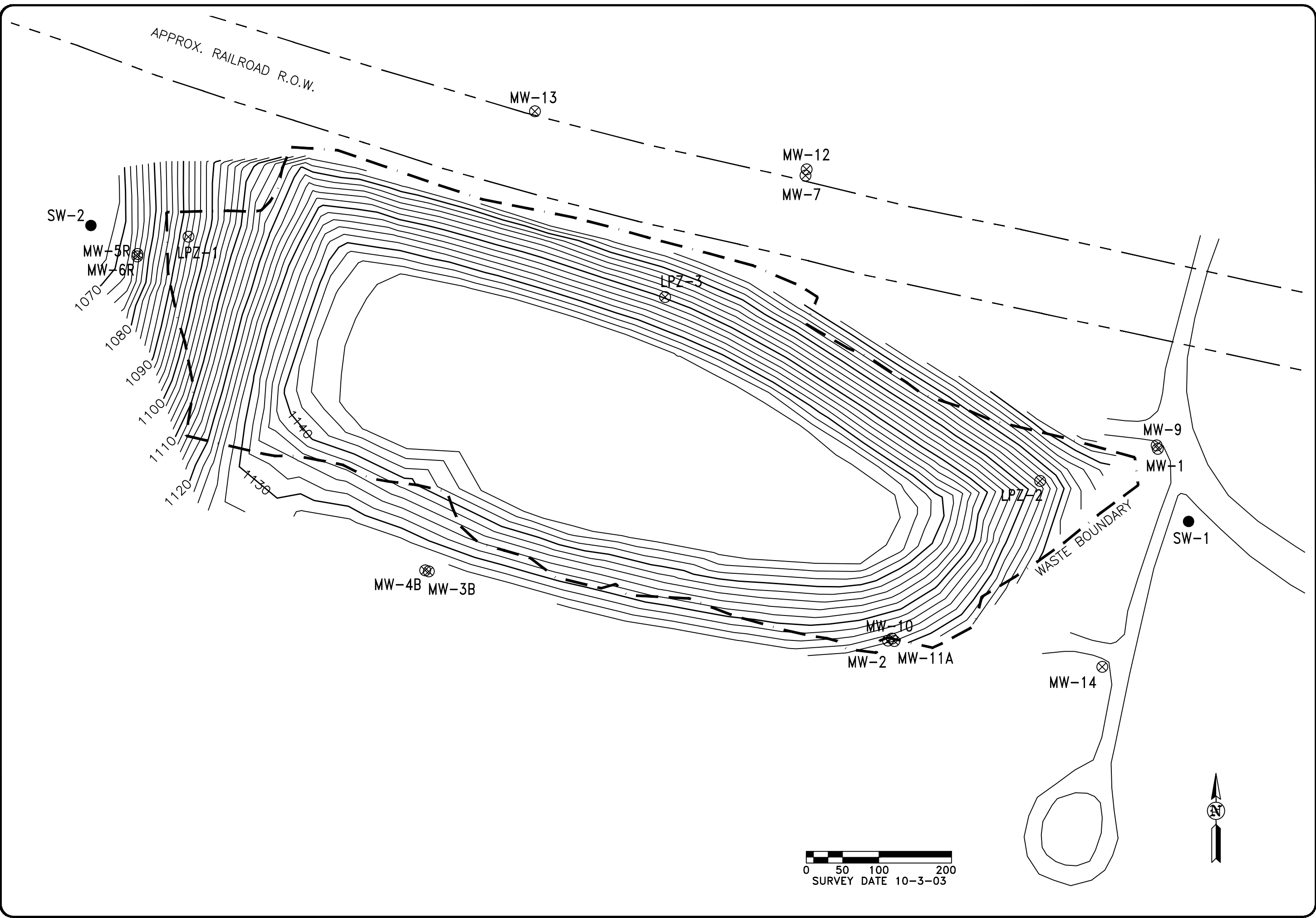
Feel free to contact our office at (515)733-4144 with any questions that you may have.

Sincerely,
HLW Engineering Group

A handwritten signature in blue ink, appearing to read "Todd Whipple", is written over a light blue horizontal line.

Todd Whipple, CPG
Project Manager

cc: *James Clabaugh, US Gypsum*
Erik Day, IDNR Water Supply Section





HLW Engineering Group
204 West Broad Street, P.O. Box 314
Story City, Iowa 50248
Phone: (515) 733-4144
FAX: (515) 733-4146

SITE PLAN
US GYPSUM LANDFILL
FORT DODGE, IOWA

REVISION	NO.	DATE
DRAWN	PROJECT NO.	DATE
DRA	4081	11-5-24

FIGURE: 1



IOWA DEPARTMENT OF NATURAL RESOURCES

Monitoring Well/Piezometer
Abandonment Form

Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89C

Well/Piezometer No.: MW-1

Applicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39

1. Location of Well²

Site Coordinates: Northing: 8862.64 Easting: 6942.64

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:

Well depth: 29.88 ft

Depth to water: 25.1 ft.

Well material: PVC (PVC, stainless, iron, etc.)

Well diameter: 2.0 in.

Year or decade constructed: 1992

Abandonment date: 9/2/2026

Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

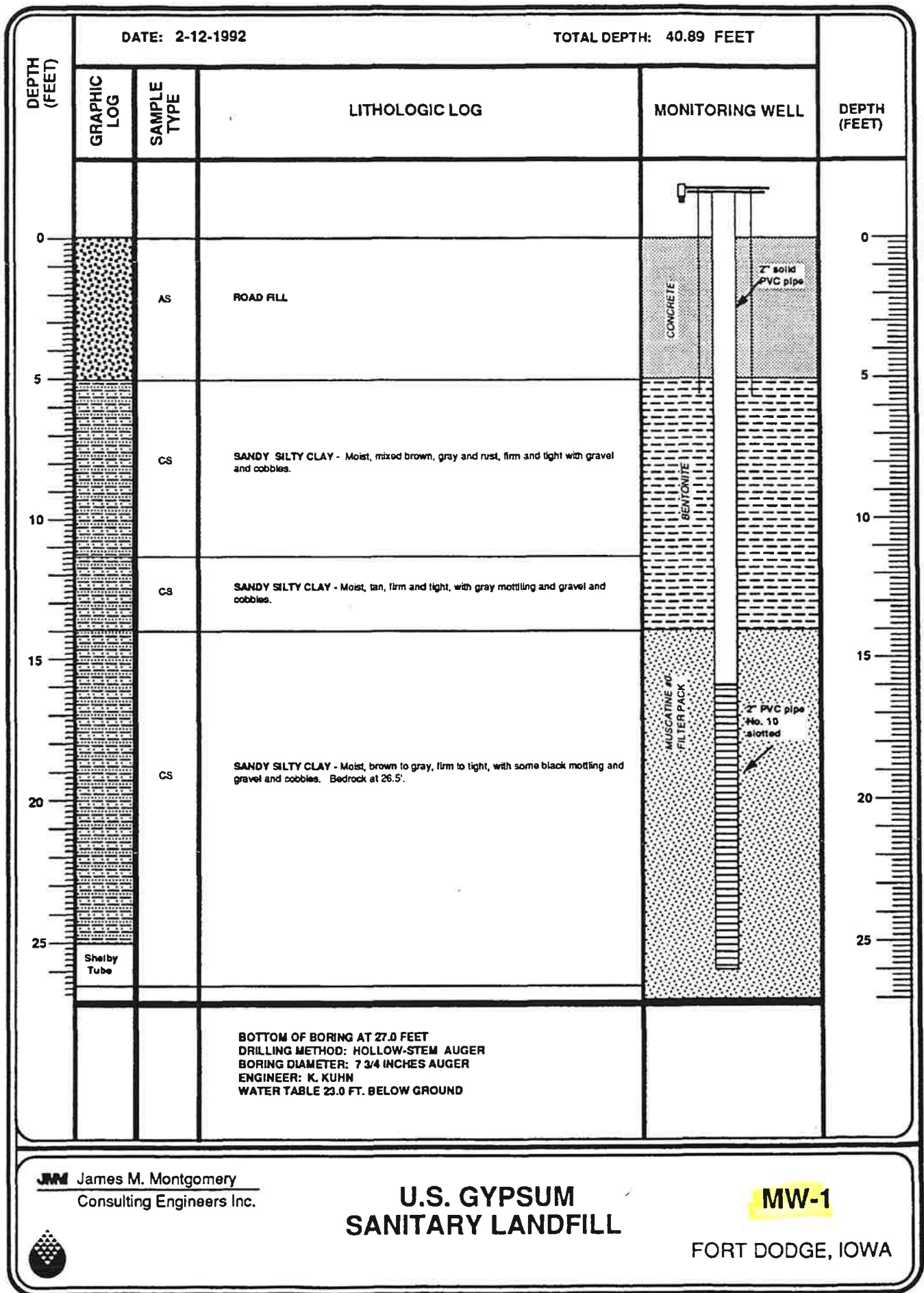
I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

☒ Signature of Contractor: *[Signature]* Cert No: 9062

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

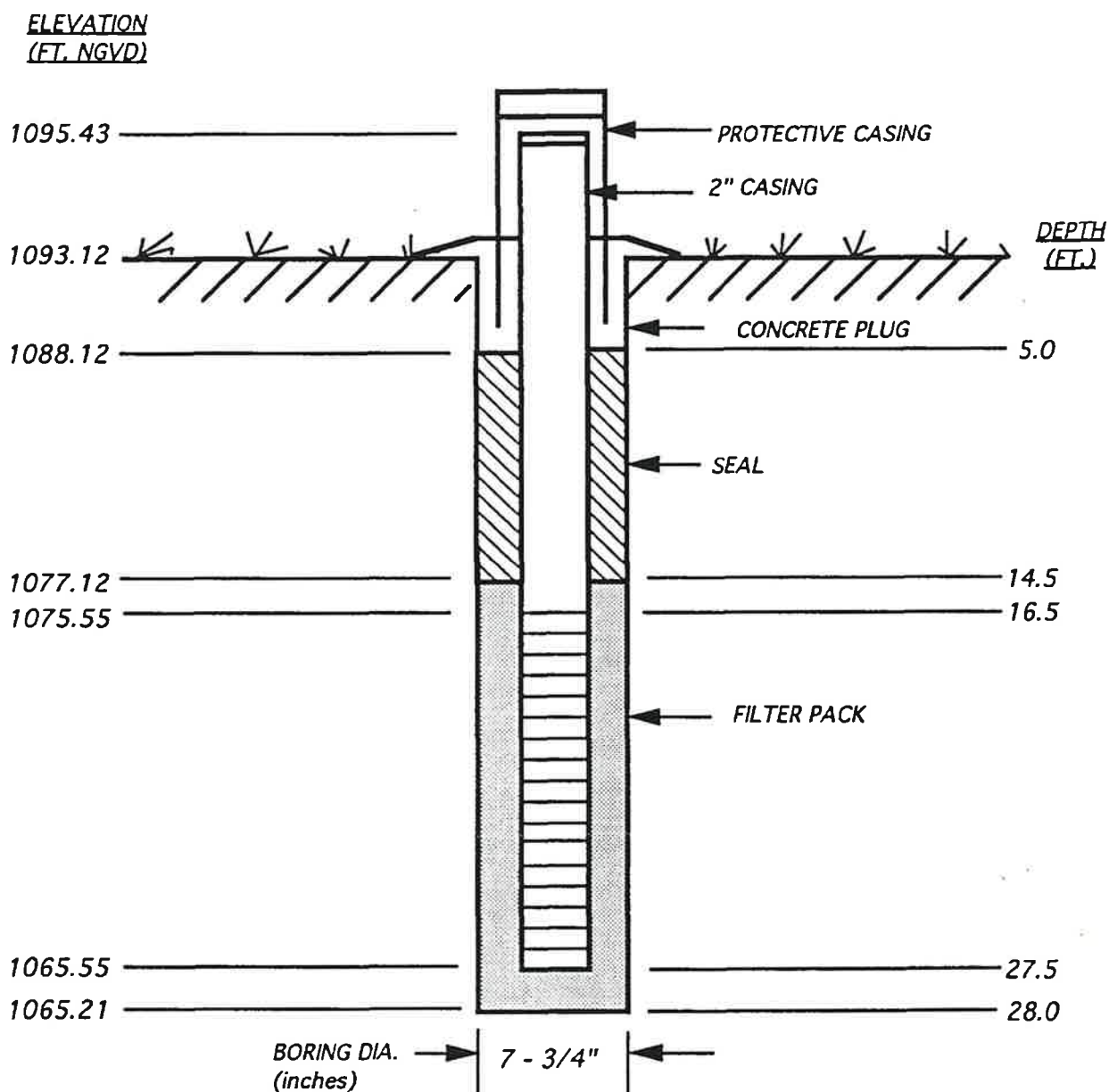


DATE INSTALLED: 2-18-92

REF. BORING NO. SB-1

TOTAL DEPTH: 29.88 FT.

INSTALLATION NO. MW-1



JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-1

DATE STARTED: 2-17-1992

DATE COMPLETED: 2-18-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8862.64 FT. EAST
6942.64 FT. NORTH

ELEVATIONS:

Ground Surface 1093.12
Top of Well Casing 1095.43
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
J & R Drilling, Grimes, Iowa

Name of Driller Don Carlson
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Continuous core
Depth of Boring 27.0 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 19.88 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 10 feet
Depth of Well 29.88 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 350 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 250 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 29.70 ft.

Stabilization Time 3 months
Well Development Method Pumping

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study) Downgradient
Average Depth of Frostline 4.0 feet

JMM James M. Montgomery
Consulting Engineers Inc.

U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA



MW-1



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-2Applicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8496.08 Easting: 6681.04

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 88.0 ftDepth to water: 64.63 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/2/2024Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

x Signature of Contractor: *Brian Rath* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

TOTAL DEPTH: 81.0 FEET

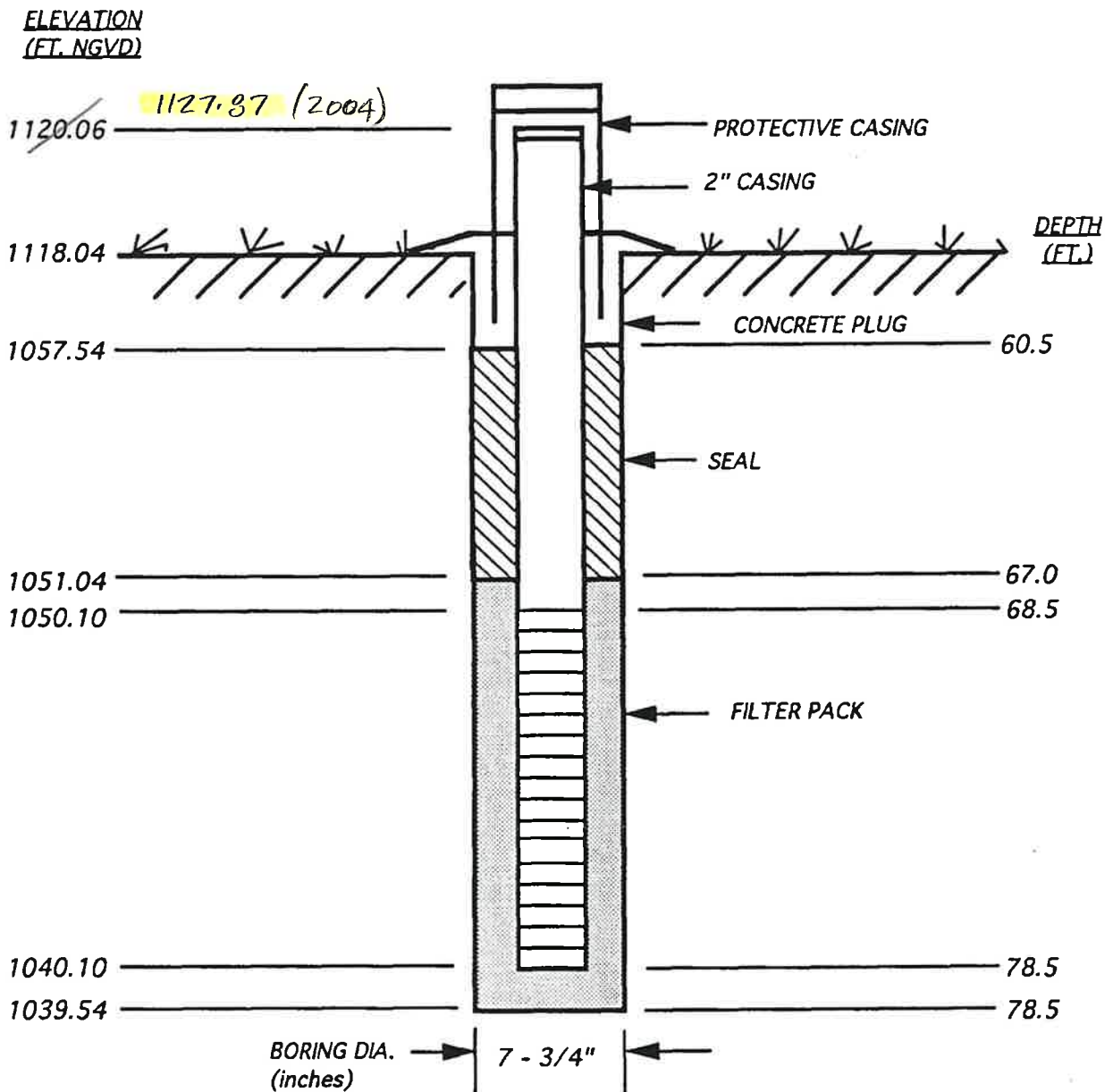
FORT DODGE, IOWA

DATE INSTALLED: 2-19-92

REF. BORING NO. SB-2

TOTAL DEPTH: 79.96 FT.

INSTALLATION NO. MW-2



JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-2

DATE STARTED: 2-18-1992

DATE COMPLETED: 2-19-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8496.08 FT. EAST
6681.04 FT. NORTH

ELEVATIONS:

Ground Surface 1118.04
Top of Well Casing 1120.06
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
J & R Drilling, Grimes, Iowa

Name of Driller Don Carlson
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Continuous core
Depth of Boring 78.5 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 69.96 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 10 feet
Depth of Well 79.96 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 300 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 100 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 65.40 ft.

Stabilization Time 3 months
Well Development Method Pumping

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study Downgradient
Average Depth of Frostline 4.0 feet

JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA

MW-2



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-3BApplicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 6773.27 Easting: 7858.62

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 96.74 ftDepth to water: 75.45 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 2004Abandonment date: 9/2/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

X Signature of Contractor: *Jerome Hoban* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

**MONITORING WELL/PIEZOMETER CONSTRUCTION
DOCUMENTATION FORM**

Disposal site name US GYPSUM LANDFILL

Permit # 94 SDP 8 89 P

Well or Piezometer # MW-3B

Date Started 6-23-04

Date Completed 6-23-04

A. Surveyed Locations and Elevations

Location (+/-0.5 ft):

Specify corner of site SOUTH WEST
Distance and direction
along boundary N 6773.27
E 7858.62
Distance and direction
from boundary to well SEE MAP

Elevations (+/-0.01 ft. MSL) TOP WELL CASING=1128.54

Ground surface 1125.8
Top of protective casing 1128.70
Benchmark elevation _____
Benchmark description _____
iron in SWC of site. _____

B. Soil Boring Information

Name and address of construction company
J and R Drilling

Name of driller Ray Coons
Drilling method HSA
Drilling fluid N/A
Bore hole diameter 8.25 OD
Soil sampling method Split spoon
Depth of boring 94'

C. Monitoring Well Installation

Casing material PVC
Length of casing 76.7
Outside casing diameter 2.375
Inside casing diameter 2.067
Casing joint type Flush Threaded
Casing/screen joint type Flush Threaded
Screen material PVC
Screen opening size 0.01
Screen length 10 FT
Depth of well 86.7

Well Installation, continued:

Filter pack:

Material Silica
Grain size 0.75
Volume 4.3 cubic ft

Seal (minimum 3 ft. length above)

filter pack:

Material Bentonite chip
Placement method Poured
Volume 14.7 cubic ft

Backfill (if different from seal):

Material N/A
Placement method _____
Volume _____

Surface seal design:

Material of protective casing:

ALUMINUM

Material of grout between protective
casing and well casing:

N/A

Protective cap:

Material ALUMINUM
Vented? ☒ Yes ☐ No
Locking? ☒ Yes ☐ No

Well cap:

Material PVC
Vented? ☒ Yes ☐ No

D. Groundwater Measurement

Water level (+/-0.01 ft. below top
of inner well casing) N/A

Stabilization time >24 HOURS

Well development method N/A

☐ Upgradient Well ☒ Downgradient Well
(See piezometric map from Hydrogeologic study)

Average depth of frostline 48"

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing location of all monitoring wells and piezometers.

WELL OR PIEZOMETER# **MW-3B**

ELEVATION: +0.01 FT. MSL
DEPTHS: +0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK II

TOP OF PROTECTIVE CASING
ELEVATION 1128.70

TOP OF WELL CASING
ELEVATION 1128.54 ✓

GROUND SURFACE
ELEVATION 1125.8

TOP OF BACKFILL
BASE OF CONCRETE PLUG
AND BENTONITE GROUT
ELEVATION 1121.8
DEPTH 4

BASE OF PROTECTIVE
CASING
ELEVATION 1121.7
DEPTH 7

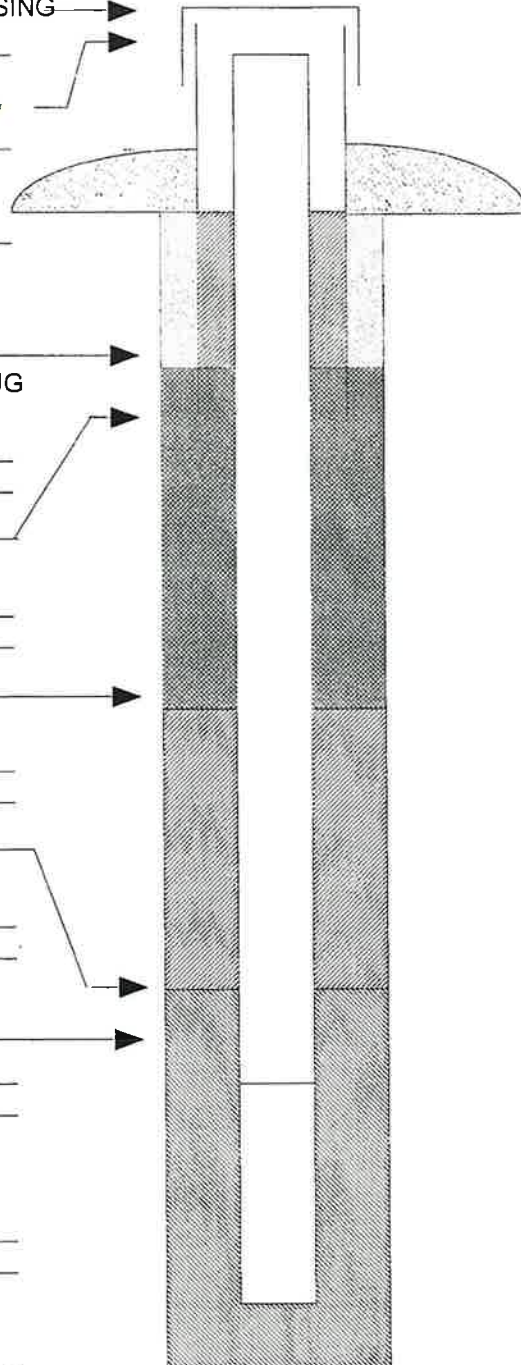
BASE OF BACKFILL
TOP OF SEAL
ELEVATION 1095.8
DEPTH 30

TOP OF FILTER PACK
BASE OF SEAL
ELEVATION 1053.8
DEPTH 72

TOP OF SCREEN
ELEVATION 1051.8
DEPTH 74

BOTTOM OF SCREEN
ELEVATION 1041.8
DEPTH 84

BASE OF FILTER PACK
ELEVATION 1031.8
DEPTH 94





IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-4BApplicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 6773.17 Easting: 7860.51

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 41.27 ftDepth to water: 8.15 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 2004Abandonment date: 9/2/2024Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Contractor: *[Signature]* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

MONITORING WELL/PIEZOMETER CONSTRUCTION
DOCUMENTATION FORM

Disposal site name US GYPSUM LANDFILL

Permit # 94 SDP 8 89 P

Well or Piezometer # MW-4B

Date Started 1-12-04

Date Completed 1-12-04

A. Surveyed Locations and Elevations

Location (+/-0.5 ft):

Specify corner of site SOUTH WEST

Distance and direction
along boundary _____

Distance and direction
from boundary to well _____

SEE MAP

Elevations (+/-0.01 ft. MSL) TOP WELL CASING=1128.30

Ground surface 1125.8

Top of protective casing 1128.53

Benchmark elevation _____

Benchmark description _____

iron in SWC of site. _____

B. Soil Boring Information

Name and address of construction company

J and R Drilling

Name of driller Ray Coons

Drilling method HSA

Drilling fluid N/A

Bore hole diameter 8.25 OD

Soil sampling method Split spoon

Depth of boring 40'

C. Monitoring Well Installation

Casing material PVC

Length of casing 31.27

Outside casing diameter 2.375

Inside casing diameter 2.067

Casing joint type Flush Threaded

Casing/screen joint type Flush Threaded

Screen material PVC

Screen opening size 0.01

Screen length 10 FT

Depth of well 41.27

Well Installation, continued:

Filter pack:

Material Silica

Grain size 0.75

Volume 4.5 cubic ft

Seal (minimum 3 ft. length above)

filter pack:

Material Bentonite chip

Placement method Poured

Volume 6.7 cubic ft

Backfill (if different from seal):

Material N/A

Placement method _____

Volume _____

Surface seal design:

Material of protective casing:

ALUMINUM

Material of grout between protective
casing and well casing:

N/A

Protective cap:

Material ALUMINUM

Vented? ☒ Yes ☐ No

Locking? ☒ Yes ☐ No

Well cap:

Material PVC

Vented? ☒ Yes ☐ No

D. Groundwater Measurement

Water level (+/-0.01 ft. below top
of inner well casing) N/A

Stabilization time >24 HOURS

Well development method N/A

☐ Upgradient Well ☒ Downgradient Well

(See piezometric map from Hydrogeologic study)

Average depth of frostline 48"

Attachments: Driller's log. Pipe schedules and grouting schedules. 8 1/2 inch x 11 inch map showing location of all monitoring wells and piezometers.

WELL OR PIEZOMETER# MW-4B

ELEVATION: +0.01 FT. MSL
DEPTHS: +0.1 FT. FROM
GROUND SURFACE

SPACE TO ATTACH ENTIRE SOIL BORING LOG
(SHOW SCREENED INTERVAL AND FILTER PACK II

TOP OF PROTECTIVE CASING
ELEVATION 1128.53

TOP OF WELL CASING
ELEVATION 1128.30 ✓

GROUND SURFACE
ELEVATION 1125.8

TOP OF BACKFILL
BASE OF CONCRETE PLUG
AND BENTONITE GROUT
ELEVATION 1121.8
DEPTH 4.0

BASE OF PROTECTIVE
CASING
ELEVATION 1121.53
DEPTH 4.27

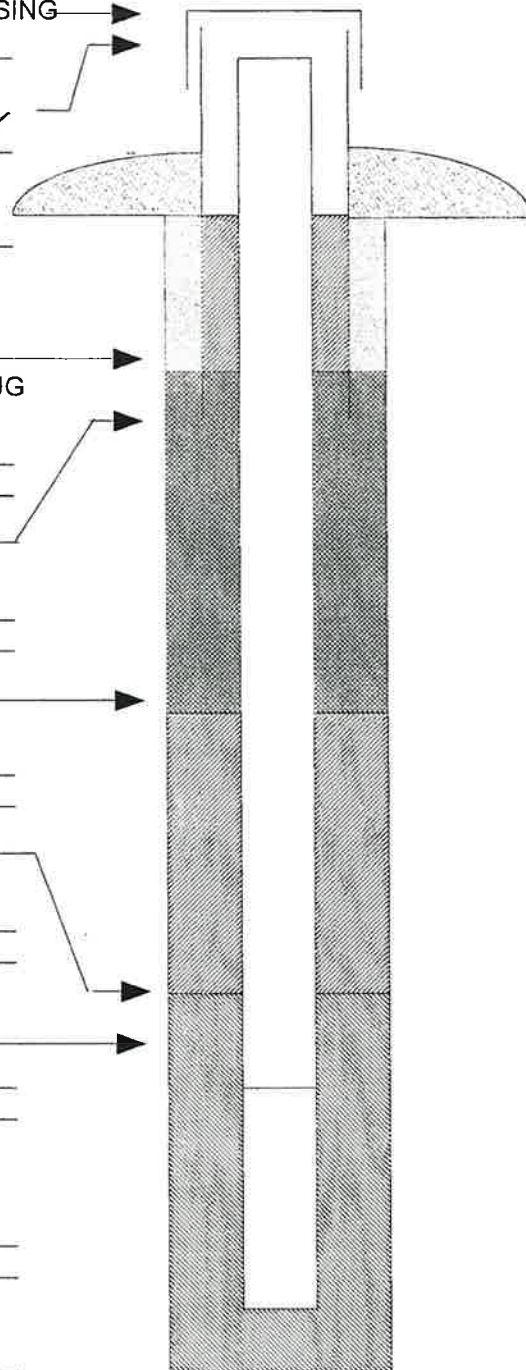
BASE OF BACKFILL
TOP OF SEAL
ELEVATION 1116.80
DEPTH 9.0

TOP OF FILTER PACK
BASE OF SEAL
ELEVATION 1098.8
DEPTH 27.0

TOP OF SCREEN
ELEVATION 1097.03
DEPTH 28.77

BOTTOM OF SCREEN
ELEVATION 1087.03
DEPTH 38.77

BASE OF FILTER PACK
ELEVATION 1085.8
DEPTH 40.0





IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-5R

Applicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39

1. Location of Well²Site Coordinates: Northing: 7211.12 Easting: 7457.56

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 51.28 ftDepth to water: 26.99 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 2000Abandonment date: 9/2/2024Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

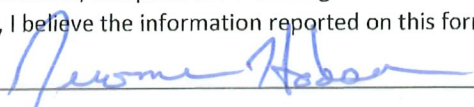
If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Contractor:  Cert No: 9062

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: MW-5R		Facility Name: US Gypsum		Facility Street Address:	
Boring Depth (ft) X Diameter (in): 37 feet deep X 8.25 inches				Drilling Method: HSA	
Certified Well Contractor Name: Allender Butzke Certification Number: 40311				Logged by: EAS	
Ground Surface Elevation (ASL):			Top of Casing Elevation (ASL):		
Date: 9-12-2000 Start Time: 1710		Date: 9-13-2000 End Time: 1730		UST Number	
Date: 9-12-2000 Start Time: 1710		Date: 9-13-2000 End Time: 1730		LUST Number	
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No. Type*		Field Screening Results (PID / FID)
0 – 20	2 inch flush-threaded PVC riser from –2 to 25 feet below ground level, flush-threaded to 10 feet of 2 inch PVC screen with 0.010 inch slot width	Push	1	SS	
20-22					
25-27					
30-32					
		100+	2	SS	
		22/30	3	SS	
Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) First column for USCS Blind drilled, see log for MW-6R  SP-1 Brown 10YR 5/4-4/4 fine to SML medium sand with silty gravelly clay lenses, stratified, wet, drilling hard at 22 feet. White to gray gypsum, dry, hard, easy drilling 28-29 Gray-blue shale with maroon layers, at 32 feet shale color changes to maroon with gray layers					

* SS (split spoon) HS (hollow stem auger)

Observations	Date:					
Water Levels (ASL)	Level:					
Static Water Level Symbol (v)	Time:					

DNR FORM 542-1392



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-6RApplicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 7207.76 Easting: 7457.16

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 36.07 ftDepth to water: 26.73 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 2000Abandonment date: 9/2/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

✓ Signature of Contractor: *Brian Rath* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: MW-6R		Facility Name: US Gypsum		Facility Street Address:		
Boring Depth (ft) X Diameter (in): 22 feet deep X 8.25 inches				Drilling Method: HSA		
Certified Well Contractor Name: Allender Butzke Certification Number: 40311				Logged by: EAS		
Ground Surface Elevation (ASL):			Top of Casing Elevation (ASL):			
Date: 9-12-2000 Start Time: 1430		Date: 9-12-2000 End Time: 1700		UST Number		
				LUST Number		
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No.	Type*	Field Screening Results (PID / FID)	Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) First column for USCS
0 - 5	2 inch flush-threaded PVC riser from -2 to 11 feet below ground level, flush-threaded to 10 feet of 2 inch PVC screen with 0.010 inch slot width		1	core		CL Brown 10YR 5/8 silty sand (fill)
5-10			2	core		CL 5-6.6' as above 6.6-8.3' Dark gray brown 2.5Y 4/2 silty clay w/ gravel 8.3-10' Dark gray 2.5Y 3/1 as above
10-15			3	core		CL 10-10.9' Yellow brown 2.5Y 5/6 silty clay with sand & gravel 10.9-12.5' Dark gray 2.5Y3/1 sandy clay 12.6-15' Dark gray brown 2.5Y4/6 silty clay with sand and gravel, common wood fragments and root mat fibers
15-20			4	core		CL 15-16 as above, with peat at 16.1 SM- 16.1-17.8 Gray 5Y 5/1 fine SC to medium silty sand 20-22' as above

* SS (split spoon) HS (hollow stem auger)

Observations	Date:				
Water Levels (ASL)	Level:				
Static Water Level Symbol (v)	Time:				

DNR FORM 542-1392



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-7Applicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8300.80 Easting: 7330.87

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 86.52 ftDepth to water: 64.48 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/1/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

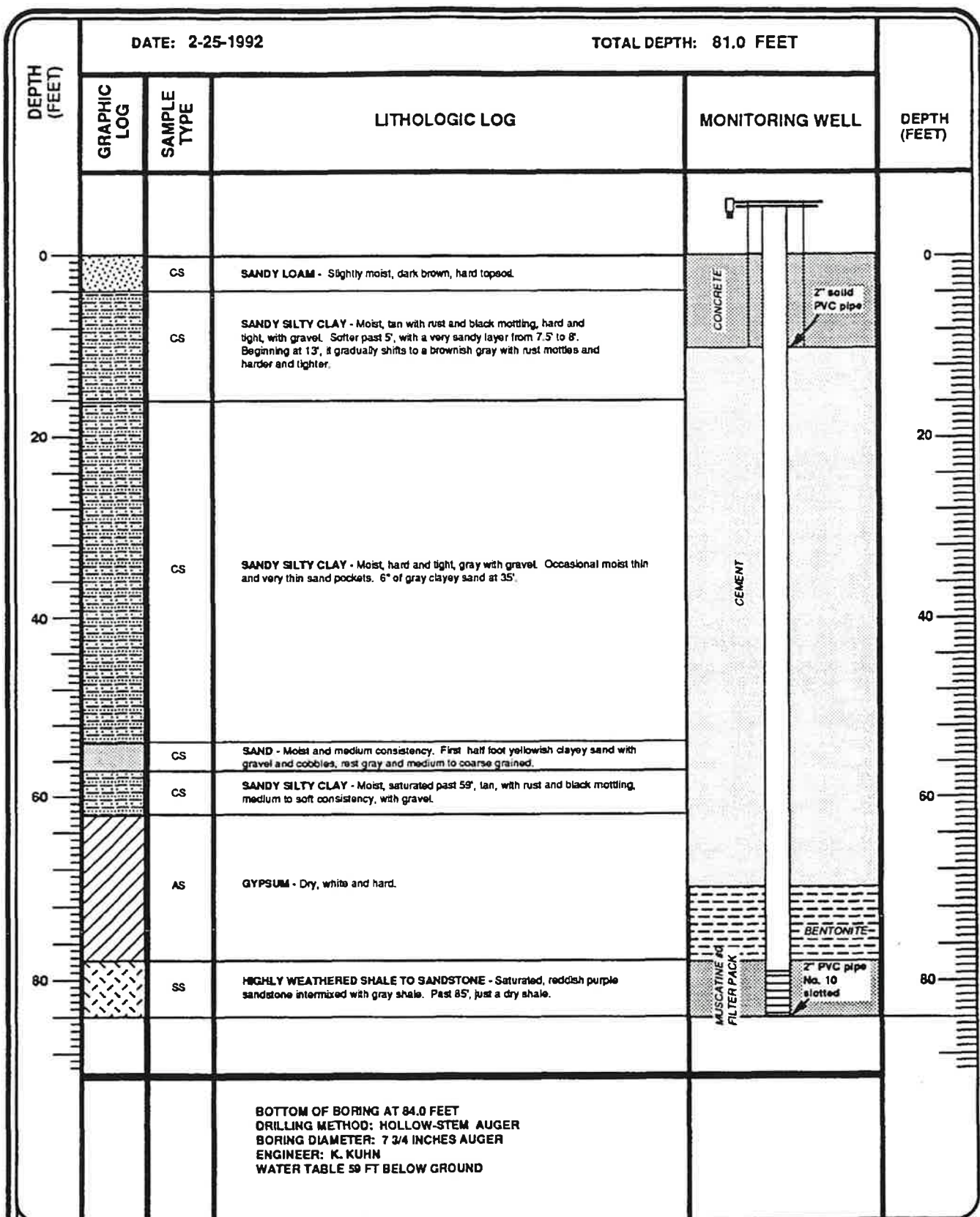
If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Contractor: [Signature] Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.



JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL

MW-7

FORT DODGE, IOWA

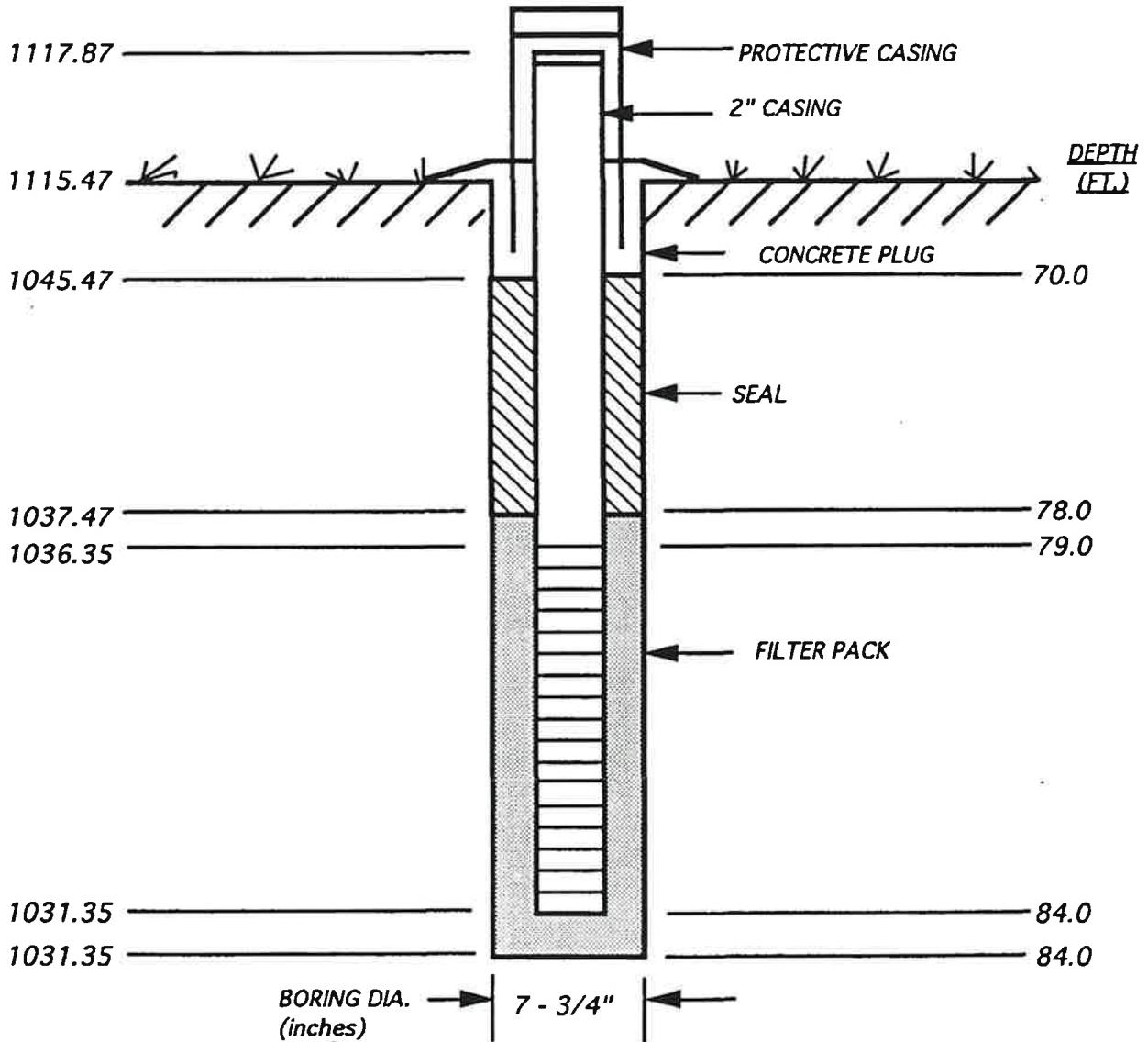
DATE INSTALLED: 2-25-92

REF. BORING NO. SB-7

TOTAL DEPTH: 86.52 FT.

INSTALLATION NO. MW-7

ELEVATION
(FT. NGVD)



DRAWING NOT TO SCALE

JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-7

DATE STARTED: 2-25-1992

DATE COMPLETED: 2-26-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8300.80 FT. EAST
7330.87 FT. NORTH

ELEVATIONS:

Ground Surface 1115.47
Top of Well Casing 1117.87
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
J & R Drilling, Grimes, Iowa

Name of Driller Don Carlson
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Continuous core
Depth of Boring 84.0 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 81.52 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 5 feet
Depth of Well 86.52 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 175 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 100 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 67.87 ft.

Stabilization Time 3 months

Well Development Method Pumping

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study Upgradient
Average Depth of Frostline 4.0 feet





IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-9Applicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8859.51 Easting: 6944.79

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 64.26 ftDepth to water: 37.45 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/1/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

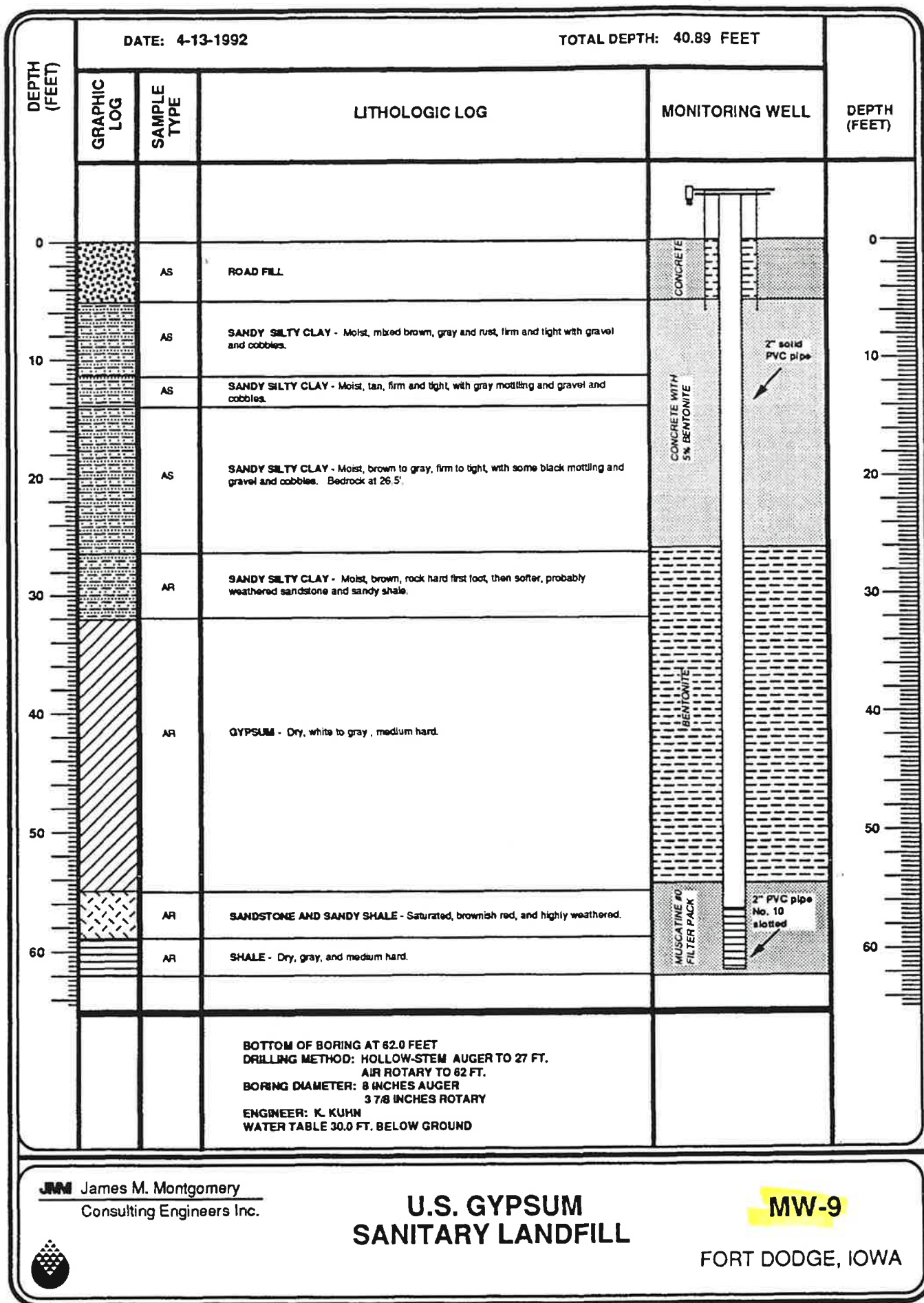
If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

X Signature of Contractor: *Brian Rath* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

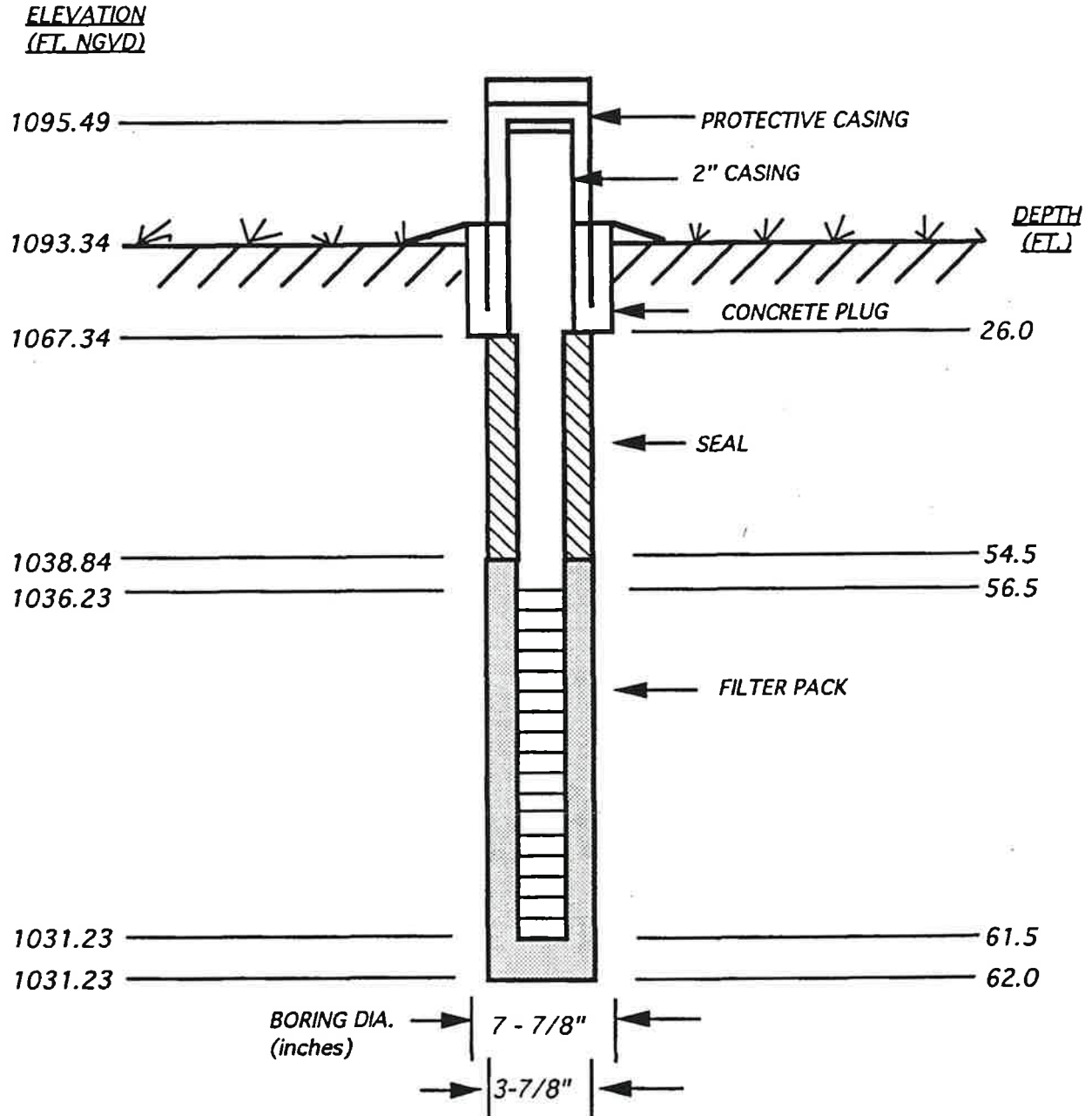


DATE INSTALLED: 4-14-92

REF. BORING NO. SB-9

TOTAL DEPTH: 64.26 FT.

INSTALLATION NO. MW-9



JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-9

DATE STARTED: 4-13-1992

DATE COMPLETED: 4-14-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8859.51 FT. EAST
6944.79 FT. NORTH

ELEVATIONS:

Ground Surface 1093.34
Top of Well Casing 1095.49
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
Layne-Western, Ames, Iowa

Name of Driller Dennis Alt
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches, 3 - 7/8 inches
Soil Sampling Method Auger spin-up
Depth of Boring 62.0 feet
Drilling Method Hollow Stem Auger, Air Rotary

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 59.26 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 5 feet
Depth of Well 64.26 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 50 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 50 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 44.78 ft.
Stabilization Time 1 month
Well Development Method Bailing

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study) Upgradient
Average Depth of Frostline 4.0 feet

JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA

MW-9



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-10Applicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8449.98 Easting: 6677.79

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 97.5 ftDepth to water: 80.42 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/2/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

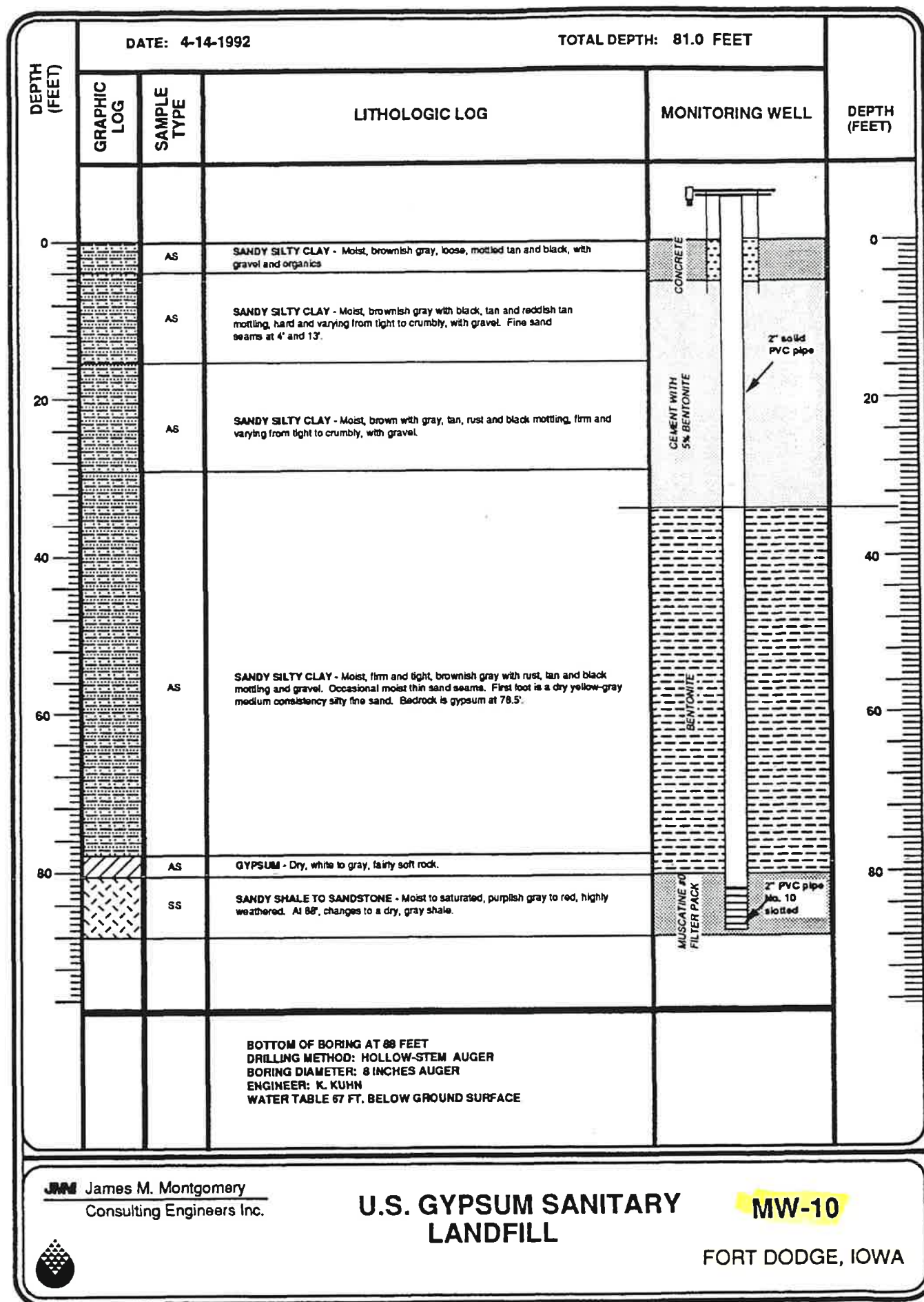
If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

X Signature of Contractor: *[Signature]* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.



JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY
LANDFILL**

MW-10

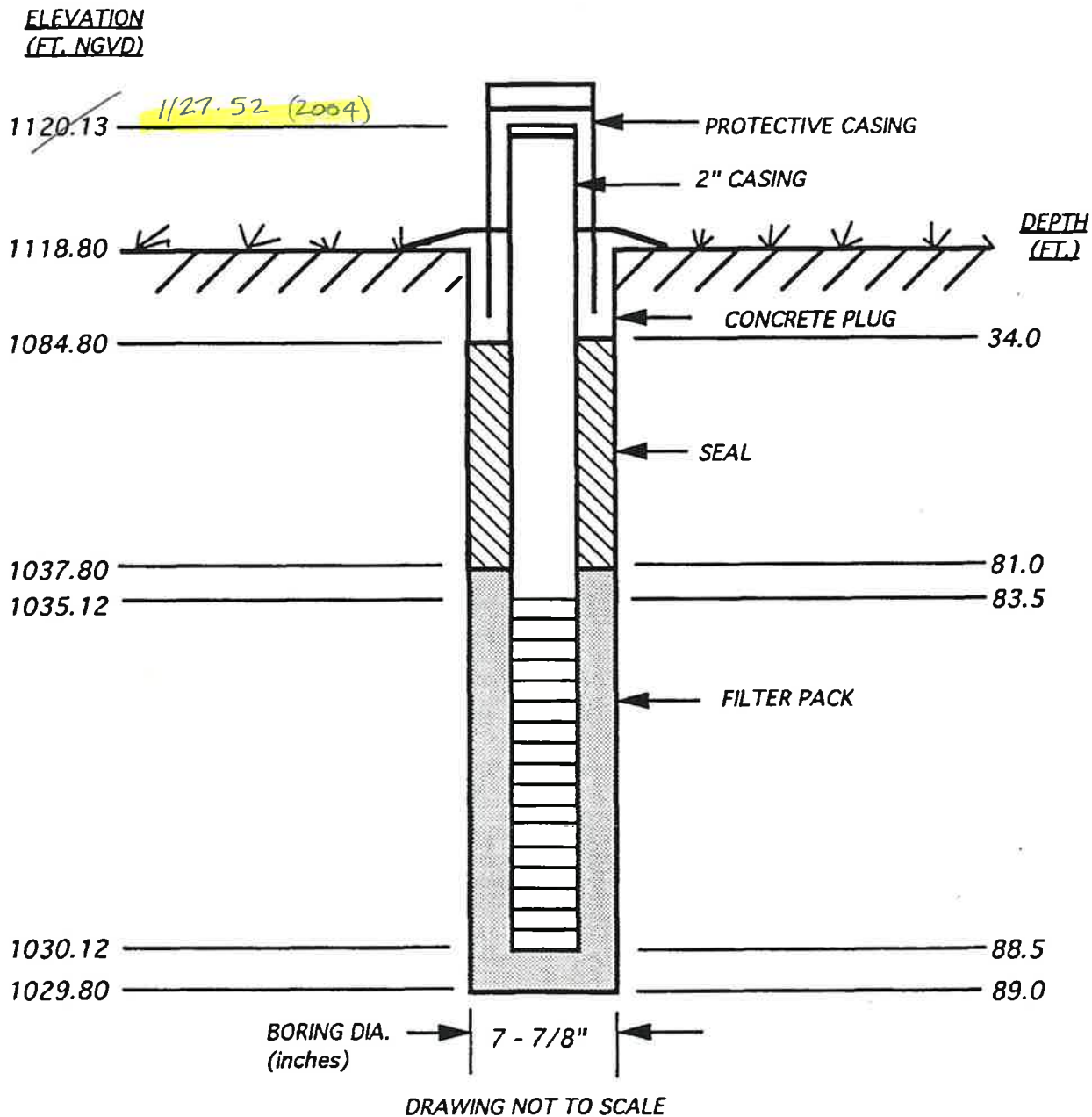
FORT DODGE, IOWA

DATE INSTALLED: 2-16-92

REF. BORING NO. SB-10

TOTAL DEPTH: 90.01 FT.

INSTALLATION NO. MW-10



JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-10

DATE STARTED: 4-14-1992

DATE COMPLETED: 4-15-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8499.98 FT. EAST
6677.79 FT. NORTH

ELEVATIONS:

Ground Surface 1118.80
Top of Well Casing 1120.13
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
Layne-Western, Ames, Iowa

Name of Driller Dennis Alt
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Auger spin-up
Depth of Boring 88.0 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 85.01 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 5 feet
Depth of Well 90.01 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 150 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 775 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 70.82 ft.

Stabilization Time 1 month

Well Development Method Bailing

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study) Downgradient
Average Depth of Frostline 4.0 feet

JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA

MW-10



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-11AApplicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8496.12 Easting: 6677.65

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 68.8 ftDepth to water: 50.84 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1996Abandonment date: 9/2/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

X Signature of Contractor: *Brian Rath* Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

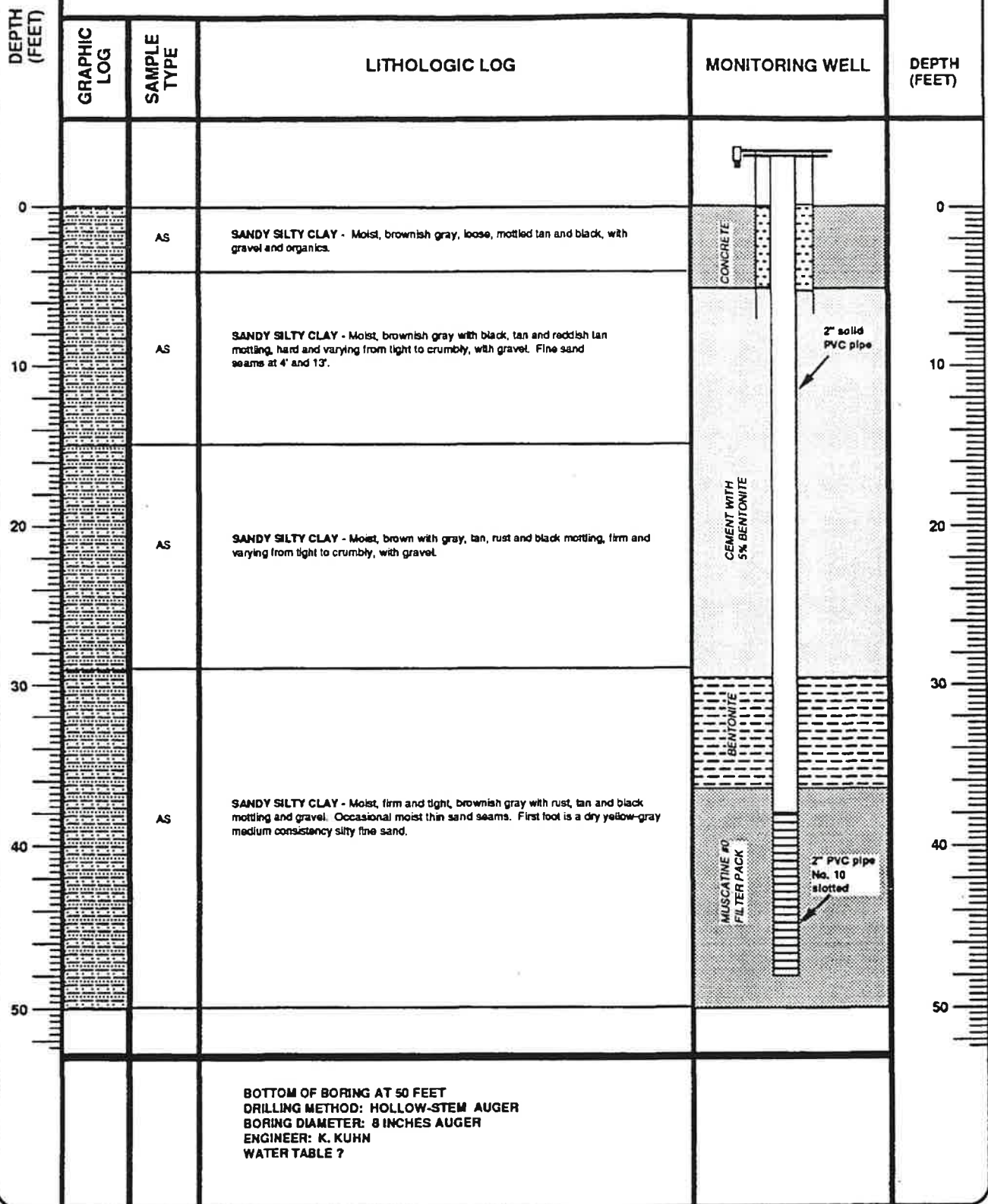
SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Facility U.S Gypsum Sanitary Landfill Name Fort Dodge, Iowa				EnvironManagement™ Environmental Consultants & Contractors Ames, IA St. Louis, MO		
Boring Depth (Feet) x Diameter (Inches) 58' x 6.25"					Drilling Method HS	
Well Contractor Registration # Dean DuVall 40365				Drilling Date 3/14/96	Boring/Well # MW11A	
Depth in Feet	Well Construction Details	Blow Count if Applicable	Sample No.	Type*	PID/FID Reading ppm	Rock Formation, Soil, Color and Classifications, Observations (moisture, etc.)
RECOVERY						
-0	51' Riser 43' Bentonite 10' Screened Interval 12' Filter Pack					CL, Sandy Silty Clay, Brn-Gy, Crumbly, moist, tan & blk mottles, dism gvl
-5						CL, Sandy Silty Clay, Brn-Gy, Crumbly, moist, tan, reddish tan & blk mottles, hard, dism gvl. Fine sand seams at 4' and 13'
-10						CL, Sandy Silty Clay, Brn, moist, firm, tight to crumbly, gray, tan, rust & blk mottles, w/ some gvl.
-15						
-20						
-25	Inner casing & Screen Diameter=2"					CL, Sandy Silty Clay, Brn-Gy, tight, moist, & firm w/ rust, tan, & blk mottles, occasional moist, thin sand seams
-30						
-35						
-40						
-45						
-50						
-55						
-60						End of boring @ 58'

* SS (split spoon) HS (hollow stem auger)

DATE: 4-15-1992

TOTAL DEPTH: 81.0 FEET



JMM James M. Montgomery
Consulting Engineers Inc.

U.S. GYPSUM SANITARY
LANDFILL

MW-11

FORT DODGE, IOWA

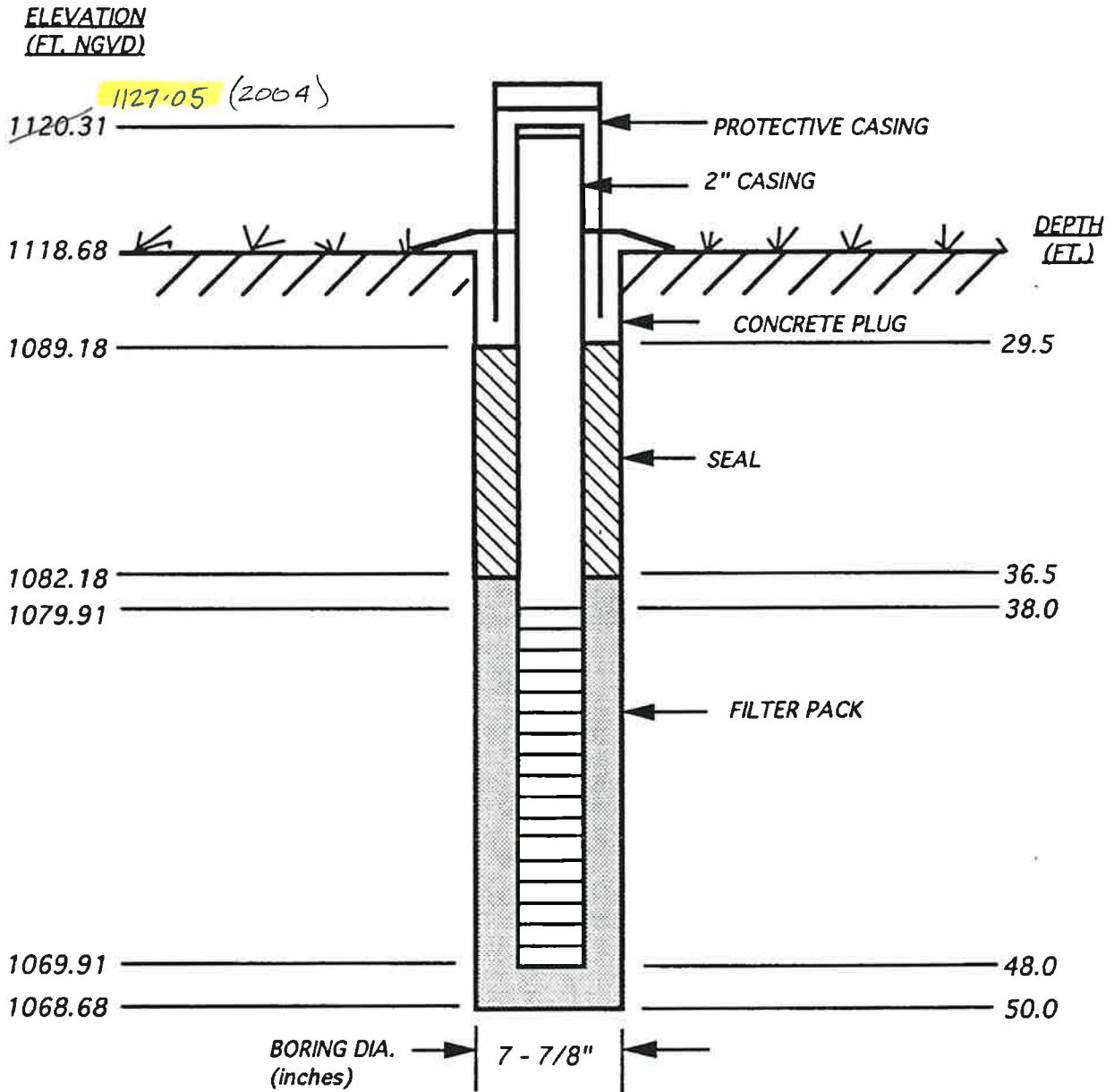


DATE INSTALLED: 2-16-92

REF. BORING NO. SB-11

TOTAL DEPTH: 50.40 FT.

INSTALLATION NO. MW-11



DRAWING NOT TO SCALE

JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-11

DATE STARTED: 4-15-1992

DATE COMPLETED: 4-16-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8496.12 FT. EAST
6677.65 FT. NORTH

ELEVATIONS:

Ground Surface 1118.68
Top of Well Casing 1120.31
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
Layne-Western, Ames, Iowa

Name of Driller Dennis Alt
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Auger spin-up
Depth of Boring 50.0 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 40.40 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 10 feet
Depth of Well 50.40 feet

FILTER PACK:

Material Muscataine Filter Sand
Grain Size #0
Volume (or weight) 450 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 100 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 50.35 ft.

Stabilization Time 1 month
Well Development Method _____

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study Downgradient)
Average Depth of Frostline 4.0 feet

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: MW-11A		Facility Name: US Gypsum		Facility Street Address:		
Boring Depth (ft) X Diameter (in): 63 feet deep X unknown diameter				Drilling Method: Unknown		
Certified Well Contractor Name: Unknown Certification Number: Unknown				Logged by: Unknown		
Ground Surface Elevation (ASL): 1,117.92 feet			Top of Casing Elevation (ASL): 1,120.99 feet			
Date: Unknown Start Time:		Date: Unknown End Time:		UST Number		
				LUST Number		
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No.	Type*	Field Screening Results (PID / FID)	Rock Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.) First column for USCS
	2 inch PVC riser pipe, total well depth is 63 feet from top of riser.					-

* SS (split spoon) HS (hollow stem auger)

Observations	Date:				
Water Levels (ASL)	Level:				
Static Water Level Symbol (v)	Time:				

DNR FORM 542-1392



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-12Applicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 8305.29 Easting: 7332.98

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 48.81 ftDepth to water: 42.86 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/1/2024Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

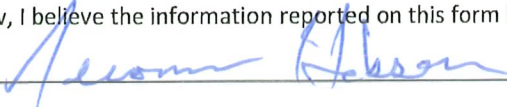
If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

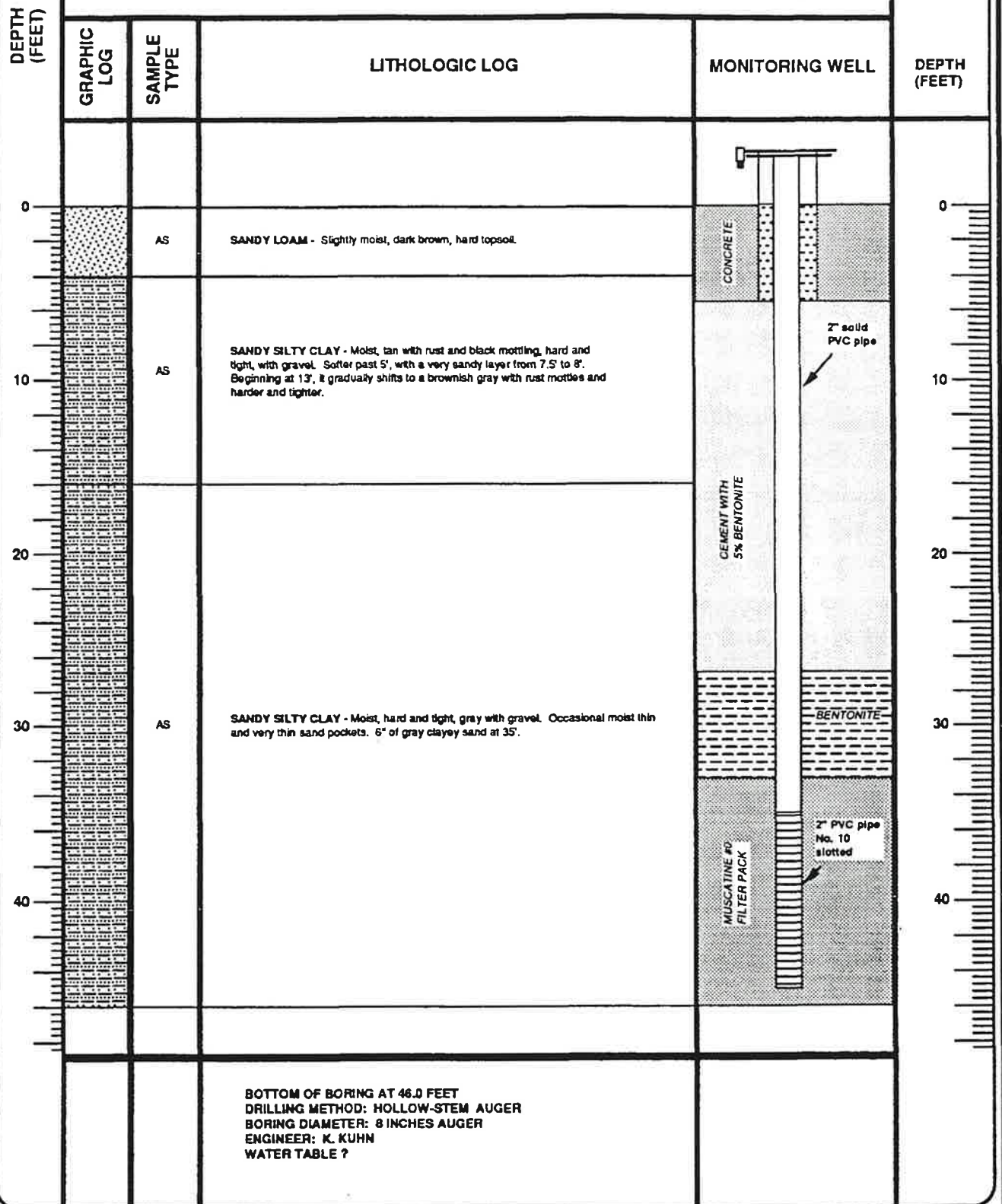
Signature of Contractor:  Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

DATE: 4-16-1992

TOTAL DEPTH: 81.0 FEET



JMM James M. Montgomery
Consulting Engineers Inc.



U.S. GYPSUM SANITARY
LANDFILL

MW-12

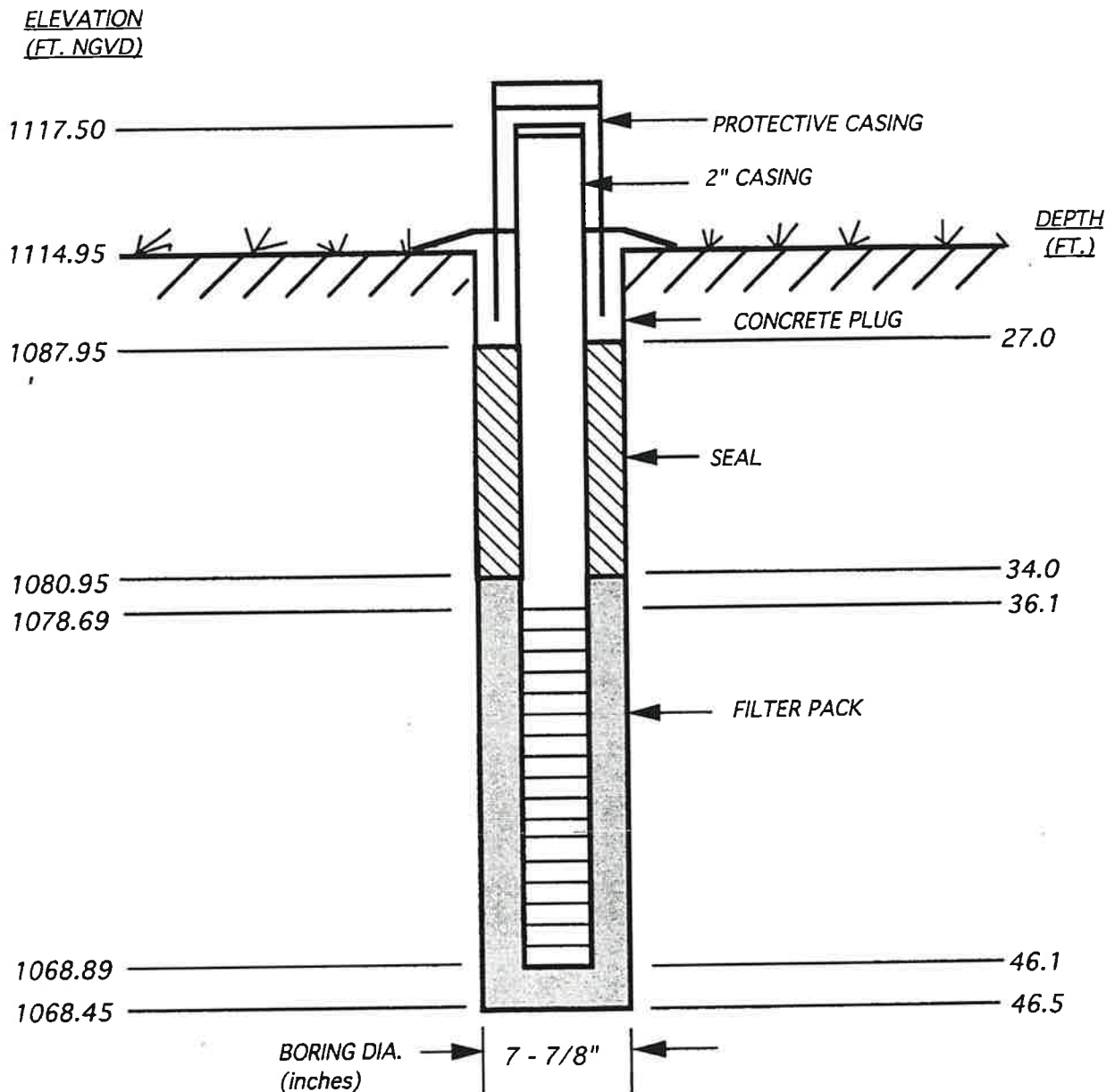
FORT DODGE, IOWA

DATE INSTALLED: 2-16-92

REF. BORING NO. SB-12

TOTAL DEPTH: 48.61 FT.

INSTALLATION NO. MW-12



JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

DISPOSAL SITE NAME: U.S. GYPSUM SANITARY LANDFILL

PERMIT #: _____

DISPOSAL SITE LOCATION: FORT DODGE, IOWA

WELL OR PIEZOMETER: MW-12

DATE STARTED: 4-16-1992

DATE COMPLETED: 4-16-1992

A. SURVEYED LOCATIONS AND ELEVATIONS

COORDINATES:

8305.29 FT. EAST
7332.98 FT. NORTH

ELEVATIONS:

Ground Surface 1114.95
Top of Well Casing 1117.50
Benchmark Elevation 1116.30
Benchmark Description X on bolt of SE wing wall
of RR bridge over landfill
entrance.

B. SOIL BORING INFORMATION

Name and Address of Construction Company _____
Layne-Western, Ames, Iowa

Name of Driller Mark Evans
Drilling Fluid None
Borehole Diameter 7 - 7/8 inches
Soil Sampling Method Auger spin-up
Depth of Boring 46.0 feet
Drilling Method Hollow Stem Auger

C. MONITORING WELL INSTALLATION

Casing Material PVC
Length of Casing 38.61 feet
Outside Casing Diameter 2.375 inches
Inside casing Diameter 2.067 inches
Casing Joint Type Threaded
Casing/Screen Joint Type Threaded
Screen Material PVC
Screen Opening Size 0.01 inches
Screen Length 10 feet
Depth of Well 48.61 feet

FILTER PACK:

Material Muscatine Filter Sand
Grain Size #0
Volume (or weight) 400 lbs

WELL INSTALLATION CONTINUED:

SEAL (Minimum 3 ft. length above filter pack):

Material Bentonite Chips
Placement Method Pour
Volume (or Weight) 150 lbs.

BACKFILL (if different from the seal):

Material Cement
Placement Method Pour
Volume (or Weight) _____

SURFACE SEAL DESIGN:

Material of Protective Casing Steel
Material of Grout Between Protective Casing and
Well Casing Kwikcrete
Protective Cap:
Material Steel
Vented? Yes
Locking? Yes
Well Cap:
Material PVC
Vented? Yes

D. GROUNDWATER MEASUREMENT

Water Level (+ or - 0.01 ft. below top of inner well
casing) 34.29 ft.

Stabilization Time 1 month
Well Development Method Bailing

Upgradient or Downgradient Well (See Piezometric
Map from the Hydrogeological Study Upgradient
Average Depth of Frostline 4.0 feet



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89CWell/Piezometer No.: MW-13Applicable Requirements¹:
☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39**1. Location of Well²**Site Coordinates: Northing: 7416.88 Easting: 7961.78

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:Well depth: 56.87 ftDepth to water: 56.3 ft.Well material: PVC (PVC, stainless, iron, etc.)Well diameter: 2.0 in.Year or decade constructed: 1992Abandonment date: 9/2/2026Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

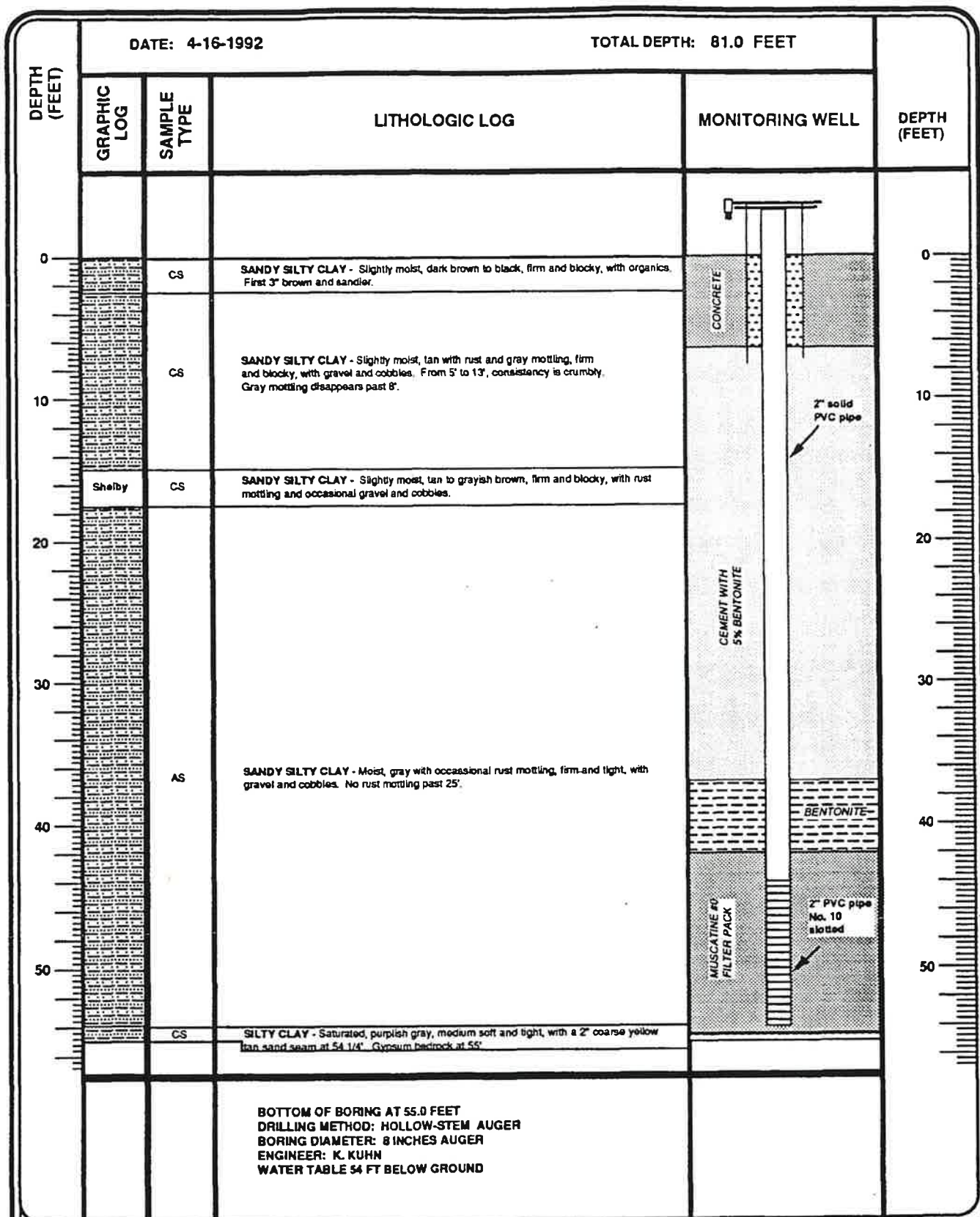
If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Contractor: [Signature] Cert No: 9062Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable and include with this form an aerial photograph showing the location. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.



JMM James M. Montgomery
Consulting Engineers Inc.

**U.S. GYPSUM SANITARY
LANDFILL**

MW-13

FORT DODGE, IOWA



DATE INSTALLED: 4-16-92

REF. BORING NO. SB-13

TOTAL DEPTH: 56.87 FT.

INSTALLATION NO. MW-13

ELEVATION
(FT. NGVD)

1120.10

1118.12

1081.12

1075.62

1073.23

1063.23

1063.12

1062.62

PROTECTIVE CASING

2" CASING

CONCRETE PLUG

SEAL

FILTER PACK

SEAL

DEPTH
(FT.)

37.0

42.5

44.5

54.5

55.0

55.5

BORING DIA.
(inches)

7- 7/8"

DRAWING NOT TO SCALE

JMM James M. Montgomery
Consulting Engineers Inc.



**U.S. GYPSUM SANITARY LANDFILL
FORT DODGE, IOWA**



IOWA DEPARTMENT OF NATURAL RESOURCES

**Monitoring Well/Piezometer
Abandonment Form**

Disposal Site Name: US Gypsum Sanitary Landfill Permit No.: 94-SDP-08-89C

Well/Piezometer No.: MW-14

Applicable Requirements¹: ☐ 567 IAC 113 ☐ 567 IAC 139
☐ 567 IAC 114 ☐ Site Permit
☐ 567 IAC 115 ☒ Other: 567 IAC 39

1. Location of Well²

Site Coordinates: Northing: 6652.55 Easting: 8784.18

World Coordinates: Latitude: _____ Longitude: _____

2. Well Description:

Well depth: 66.9 ft

Depth to water: 58.47 ft.

Well material: PVC (PVC, stainless, iron, etc.)

Well diameter: 2.0 in.

Year or decade constructed: 1995

Abandonment date: 9/1/2026

Abandonment method: IAC 39- by placing tremie tube to bottom of well and bentonite grouting from bottom-up.

If plugged by owner, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

Signature of Owner _____

If plugged by certified well contractor, complete the following:

I certify, under penalty of law, I believe the information reported on this form is true, accurate, and complete.

☒ Signature of Contractor: [Signature] Cert No: 9062

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov.

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirement, then 567 UAC Chapter 39 shall apply, which requires use of the Abandoned Water Well Plugging Record, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

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SOIL BORING LOG & MONITORING WELL CONSTRUCTION DIAGRAM

Facility U.S Gypsum Sanitary Landfill Name Fort Dodge, Iowa				EnvironManagement™ Environmental Consultants & Contractors Ames, IA St. Louis, MO			
Boring Depth (Feet) x Diameter (Inches) 65' x 6.25"				Drilling Method HS			
Well Contractor Registration #Dean DuVall 40365				Drilling Date 7/13/95		Boring/Well # MW14	
Depth in Feet	Well Construction Details		Blow Count if Applicable	Sample No.	Type*	PID/FID Reading ppm	Rock Formation, Soil, Color and Classifications, Observations (moisture, etc.)
RECOVERY							
-0	58" Riser 48" Bentonite 10' Screened Interval 12' Filter Pack						CL, Sandy Silty Clay, Brn-Gy, Crumbly, moist, tan & blk mottles, dism gvl
-5							CL, Sandy Silty Clay, Gy, Crumbly, moist, tan, reddish tan & blk mottles, hard, dism gvl. Fine sand seams at 4' and 13'
-10							CL, Sandy Silty Clay, Grey, moist, firm, tight to crumbly, gray, tan, rust & blk mottles, w/ some gvl.
-15							CL, Silty Clay, Gy, tight, moist, & firm w/ rust, tan, & blk mottles, occasional moist,
-20							48' Hard layer (3")
-25							CL, Silty Clay, Gy, tight, moist, & firm w/ mottles, occasional moist,
-30							CL, Sandy Clay, Gy, tight, moist, ,
-35							Shale
-40							End of boring @ 65'
-45							
-50	Inner casing & Screen Diameter=2"						

* SS (split spoon) HS (hollow stem auger)

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring / Well Number: MW-14		Facility Name: US Gypsum		Facility Street Address:	
Boring Depth (ft) X Diameter (in): 62.3 feet deep X unknown diameter				Drilling Method: Unknown	
Certified Well Contractor Name: Unknown Certification Number: Unknown				Logged by: Unknown	
Ground Surface Elevation (ASL): 1,094.73 feet			Top of Casing Elevation (ASL): 1,096.58 feet		
Date: Unknown Start Time:		Date: Unknown End Time:		UST Number	
Date: Unknown Start Time:		Date: Unknown End Time:		LUST Number	
Depth (feet)	Well Construction Details	Blow Count if applicable	Sample No. Type*		Field Screening Results (PID / FID)
	2 inch PVC riser pipe, total well depth is 62.34 feet from top of riser. ↓ 66.66 Top PVC = 1106.45				

* SS (split spoon) HS (hollow stem auger)

Observations	Date:				
Water Levels (ASL)	Level:				
Static Water Level Symbol (v)	Time:				

DNR FORM 542-1392