

Table 1
2016 - 2023 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						Dinitrotoluene, Total
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	
DBG	ELN-1003B	468	2813	B	9/19/16	<0.006	<0.008	<0.003	<0.004	<0.004	<0.004	<0.008
					9/19/16 (D)	<0.006	<0.008	<0.003	<0.004	<0.004	<0.004	<0.008
					4/25/17	<0.006	<0.008	<0.003	<0.004	0.051	<0.004	<u>0.051</u>
					9/12/17	0.014 (J)	<0.0082	<0.0031	<0.0041	0.054	<0.0041	<u>0.068</u>
					4/26/18	0.029 (J)	0.026 (J)	0.028 (J)	0.024 (J)	0.1	0.025 (J)	<u>0.232</u>
					4/26/18 (D)	0.029 (J)	0.024 (J)	0.027 (J)	0.023 (J)	0.097	0.025 (J)	<u>0.225</u>
					5/14/18	0.03	<0.008	<0.003	0.036	0.12	<0.004	<u>0.186</u>
					6/28/18	0.059	<0.0076	<0.0029	<0.0038	0.12	<0.0038	<u>0.179</u>
					10/3/18	0.032	<0.0078	<0.0029	0.01 (J)	0.15	<0.0039	<u>0.192</u>
					10/3/18 (D)	0.031	<0.0081	<0.003	0.01 (J)	0.13	<0.004	<u>0.171</u>
					11/15/18	0.078	<0.0081	<0.003	0.072	0.17	<0.004	<u>0.32</u>
					4/23/19	0.045	<0.0078	<0.0029	<0.0039	0.12	<0.0039	<u>0.165</u>
					6/13/19	0.033	<0.0078	<0.0029	0.02 (J)	0.13	<0.0039	<u>0.183</u>
					6/13/19 (D)	0.033	<0.0077	<0.0029	0.019 (J)	0.13	<0.0038	<u>0.182</u>
					9/17/19	0.048	<0.0082	<0.0031	0.023 (J)	0.16	<0.0041	<u>0.231</u>
					9/17/19 (D)	0.048	<0.0082	<0.0031	0.022 (J)	0.15	<0.0041	<u>0.22</u>
					11/20/19	0.053	<0.0078	<0.0029	<0.0039	0.17	<0.0039	<u>0.223</u>
					5/6/20	<0.0063	<0.0083	<0.0031	<0.0042	0.13	<0.0042	<u>0.13</u>
					6/11/20	0.051	<0.0081	<0.003	<0.004	0.13	<0.004	<u>0.181</u>
					9/22/20	0.041	<0.0076	<0.0029	<0.0038	0.13	<0.0038	<u>0.171</u>
					11/9/20	0.04	<0.0082	<0.0031	<0.0041	0.13	<0.0041	<u>0.17</u>
					4/22/21	0.051 (J)	<0.0084	<0.0053	0.022 (J)	0.12	<0.0053	<u>0.193</u>
					4/22/21 (D)	0.048 (J)	<0.0082	<0.0051	0.022 (J)	0.12	<0.0051	<u>0.19</u>
					6/8/21	0.051 (J)	<0.0082	<0.0052	0.027 (J)	0.1	<0.0052	<u>0.178</u>
					6/8/21 (D)	0.053	<0.0084	<0.0053	0.029 (J)	0.1	<0.0053	<u>0.182</u>
					9/30/21	0.037 (J)	<0.0082	<0.0051	<0.0051	0.083	<0.0051	<u>0.12</u>
					11/9/21	0.038 (J)	<0.0077	<0.0048	<0.0048	0.086	<0.0048	<u>0.124</u>
					5/5/22	0.038 (J)	<0.0078	<0.0049	<0.0049	0.083	<0.0049	<u>0.121</u>
					7/7/22	0.041 (J)	<0.0078	<0.0049	<0.0049	0.084	<0.0049	<u>0.125</u>
					9/26/22	0.022 (J)	<0.0077	<0.0048	<0.0048	0.047 (J)	<0.0048	<u>0.069</u>
11/9/22	0.038 (J)	<0.0076	<0.0048	<0.0048	0.092	<0.0048	<u>0.13</u>					
4/25/23	0.034 (J)	<0.0076	0.0048	<0.0048	0.062	<0.0048	<u>0.096</u>					
6/27/23	0.022 (J)	<0.0077	0.0048	<0.0048	0.061	<0.0048	<u>0.083</u>					

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Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						Dinitrotoluene, Total
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	
DBG	ELN-1003C	469	2813	C	9/19/16	<0.0061	<0.0081	<0.003	<0.004	<0.004	<0.004	<0.0081
					4/25/17	<0.006	<0.008	<0.003	0.0085 (J)	<0.004	<0.004	0.0085 (J)
					9/12/17	<0.0064	<0.0085	<0.0032	<0.0043	<0.0043	<0.0043	<0.0085
					4/26/18	0.025 (J)	0.026 (J)	<0.003	0.023 (J)	<0.004	<0.004	0.074
					5/14/18	<0.0061	<0.0081	<0.003	0.029 (J)	0.079	<0.004	0.108
					6/28/18	<0.0057	<0.0076	<0.0029	<0.0038	<0.0038	<0.0038	<0.0076
					6/28/18 (D)	<0.0058	<0.0077	<0.0029	<0.0038	<0.0038	<0.0038	<0.0077
					10/3/18	0.024 (J)	<0.0078	<0.0029	0.0087 (J)	0.1	<0.0039	0.1327
					11/15/18	0.07	<0.0078	<0.0029	0.068	0.14	<0.0039	0.278
					4/23/19	<0.0058	<0.0078	<0.0029	<0.0039	0.09	<0.0039	0.09
					4/23/19 (D)	<0.0058	<0.0078	<0.0029	<0.0039	0.093	<0.0039	0.093
					6/13/19	0.028 (J)	<0.0082	<0.0031	0.022 (J)	0.11	<0.0041	0.16
					9/17/19	0.039	<0.0082	<0.0031	0.022 (J)	0.11	<0.0041	0.171
					11/20/19	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	0.13
					11/20/19 (D)	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	0.13
					5/6/20	<0.0064	<0.0085	<0.0032	<0.0043	0.13	<0.0043	0.13
					5/6/20 (D)	<0.0064	<0.0085	<0.0032	<0.0043	0.11	<0.0043	0.11
					6/11/20	0.05	<0.0084	<0.0032	0.035	0.13	<0.0042	0.215
					9/22/20	0.039	<0.0078	<0.0029	<0.0039	0.13	<0.0039	0.169
					11/9/20	0.038	<0.0082	<0.0031	<0.0041	0.14	<0.0041	0.178
					4/22/21	0.048 (J)	<0.0083	<0.0052	0.026 (J)	0.13	<0.0052	0.204
					6/8/21	0.054	<0.0084	<0.0053	0.031 (J)	0.12	<0.0053	0.205
					9/30/21	0.037 (J)	<0.008	<0.005	0.024 (J)	0.11	<0.005	0.171
					11/9/21	0.045 (J)	<0.0081	<0.0051	<0.0051	0.11	<0.0051	0.155
					5/5/22	0.046 (J)	<0.0083	<0.0052	0.033 (J)	0.11	<0.0052	0.189
					5/5/22 (D)	0.045 (J)	<0.0081	<0.0051	<0.0051	0.11	<0.0051	0.155
					7/7/22	0.044 (J)	<0.0079	<0.005	0.035 (J)	0.11	<0.005	0.189
					9/26/22	0.028 (J)	<0.0078	<0.0049	<0.0049	0.077	<0.0049	0.105
					11/9/22	0.047 (J)	<0.0076	<0.0048	0.031 (J)	0.13	<0.0048	0.208
					11/9/22 (D)	0.051	<0.008	<0.005	0.037 (J)	0.13	<0.005	0.218
4/25/23	0.042 (J)	<0.008	<0.005	0.023 (J)	0.099	<0.005	0.164					
4/25/23 (D)	0.039 (J)	<0.0077	<0.0048	0.02 (J)	0.091	<0.0048	0.15					
6/27/23	0.032 (J)	<0.0079	<0.005	0.018 (J)	0.097	<0.005	0.147					

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						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	
DBG	ELN-1502A	533	2813	A	9/15/16	0.065	<0.008	<0.003	<0.004	0.13	<0.004	<u>0.195</u>
					4/18/17	0.11	<0.0082	<0.0031	0.011 (J)	0.28	<0.0041	<u>0.401</u>
					4/18/17 (D)	0.12	<0.0084	<0.0032	0.012 (J)	0.31	<0.0042	<u>0.442</u>
					9/5/17	0.13	<0.0082	<0.0031	<0.0041	0.28	0.023 (J)	<u>0.433</u>
					9/5/17 (D)	0.13	<0.008	<0.003	<0.004	0.34	0.022 (J)	<u>0.492</u>
					4/24/18	0.14	<0.0083	<0.0031	0.03 (J)	0.39	0.034	<u>0.594</u>
					4/24/18 (D)	0.13	<0.008	<0.003	0.027 (J)	0.38	<0.004	<u>0.537</u>
					5/14/18	0.17	<0.008	<0.003	0.08	0.44	<0.004	<u>0.69</u>
					9/4/18	0.16	<0.0082	<0.0031	0.011 (J)	0.42	0.036	<u>0.627</u>
					9/4/18 (D)	0.21	<0.008	<0.003	0.02 (J)	0.53	0.041	<u>0.801</u>
					4/1/19	0.17	<0.0082	<0.0031	0.024 (J)	0.37	0.054	<u>0.618</u>
					4/1/19 (D)	0.16	<0.0082	<0.0031	0.023 (J)	0.35	0.053	<u>0.586</u>
					9/10/19	0.13	<0.0083	<0.0031	0.026 (J)	0.3	0.051	<u>0.507</u>
					9/10/19 (D)	0.14	<0.0081	<0.003	0.027 (J)	0.32	0.05	<u>0.537</u>
					4/6/20	0.085	<0.0087	<0.0033	<0.0043	0.19	<0.0043	<u>0.275</u>
					4/6/20 (D)	0.076	<0.0082	<0.0031	<0.0041	0.17	<0.0041	<u>0.246</u>
					9/21/20	0.078	<0.008	<0.003	<0.004	0.16	0.03	<u>0.268</u>
					4/5/21	0.059	0.022 (J)	<0.0051	0.011 (J)	0.12	0.028 (J)	<u>0.24</u>
					4/5/21 (D)	0.058	0.027 (J)	<0.0052	0.012 (J)	0.12	0.028 (J)	<u>0.245</u>
					9/9/21	0.06	<0.0079	<0.005	<0.005	0.13	0.027 (J)	<u>0.217</u>
					9/9/21 (D)	0.061	<0.0078	<0.0049	0.018 (J)	0.13	0.026 (J)	<u>0.235</u>
					4/25/22	0.067	<0.0082	<0.0051	<0.0051	0.11	<0.0051	<u>0.177</u>
					4/25/22 (D)	0.069	<0.008	<0.005	<0.005	0.12	<0.005	<u>0.189</u>
9/15/22	0.067	<0.0078	<0.0049	<0.0049	0.13	0.025 (J)	<u>0.222</u>					
4/10/23	0.091	<0.008	<0.005	<0.005	0.17	<0.005	<u>0.261</u>					
4/10/23 (D)	0.094	<0.005	<0.005	<0.005	0.17	<0.005	<u>0.264</u>					

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Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
DBG	ELN-1503A	535	2813	A	4/26/21	<0.0065	<0.0087	<0.0054	<0.0054	<0.0054	<0.0054	<0.0087
					9/28/21	<0.0058	<0.0077	<0.0048	<0.0048	<0.0048	<0.0048	<0.0077
					11/9/21	0.035 (J)	<0.0081	<0.0051	<0.0051	0.05 (J)	<0.0051	0.085 (J)
					4/28/22	0.043 (J)	<0.008	<0.005	<0.005	0.07	<0.005	0.113
					4/28/22 (D)	0.04 (J)	<0.008	<0.005	<0.005	0.067	<0.005	0.107
					7/7/22	<0.006	<0.008	<0.005	<0.005	<0.005	<0.005	<0.008
					7/7/22 (D)	0.037 (J)	<0.008	<0.005	<0.005	<0.005	<0.005	0.037 (J)
					9/22/22	0.018 (J)	<0.008	<0.005	<0.005	0.02 (J)	<0.005	0.038 (J)
					11/8/22	<0.0058	<0.0078	<0.005	<0.005	<0.005	<0.005	<0.0078
					4/27/23	0.041 (J)	<0.008	<0.005	<0.005	0.064	<0.005	0.105
					4/27/23 (D)	0.04 (J)	<0.008	<0.005	<0.005	0.06	<0.005	0.1
					6/27/23	<0.006	<0.008	<0.005	<0.005	0.034 (J)	<0.005	0.034 (J)
Chapter NR 140 PAL						NE	0.005	NE	0.005	NE	NE	0.005
Chapter NR 140 ES						NE	0.05	NE	0.05	NE	NE	0.05

Notes:

DBG - Deterrent Burning Ground

The Sample Level references the typical well depth configuration

All results are expressed in micrograms per liter (µg/l)

DNT analysis was performed by CT Laboratories

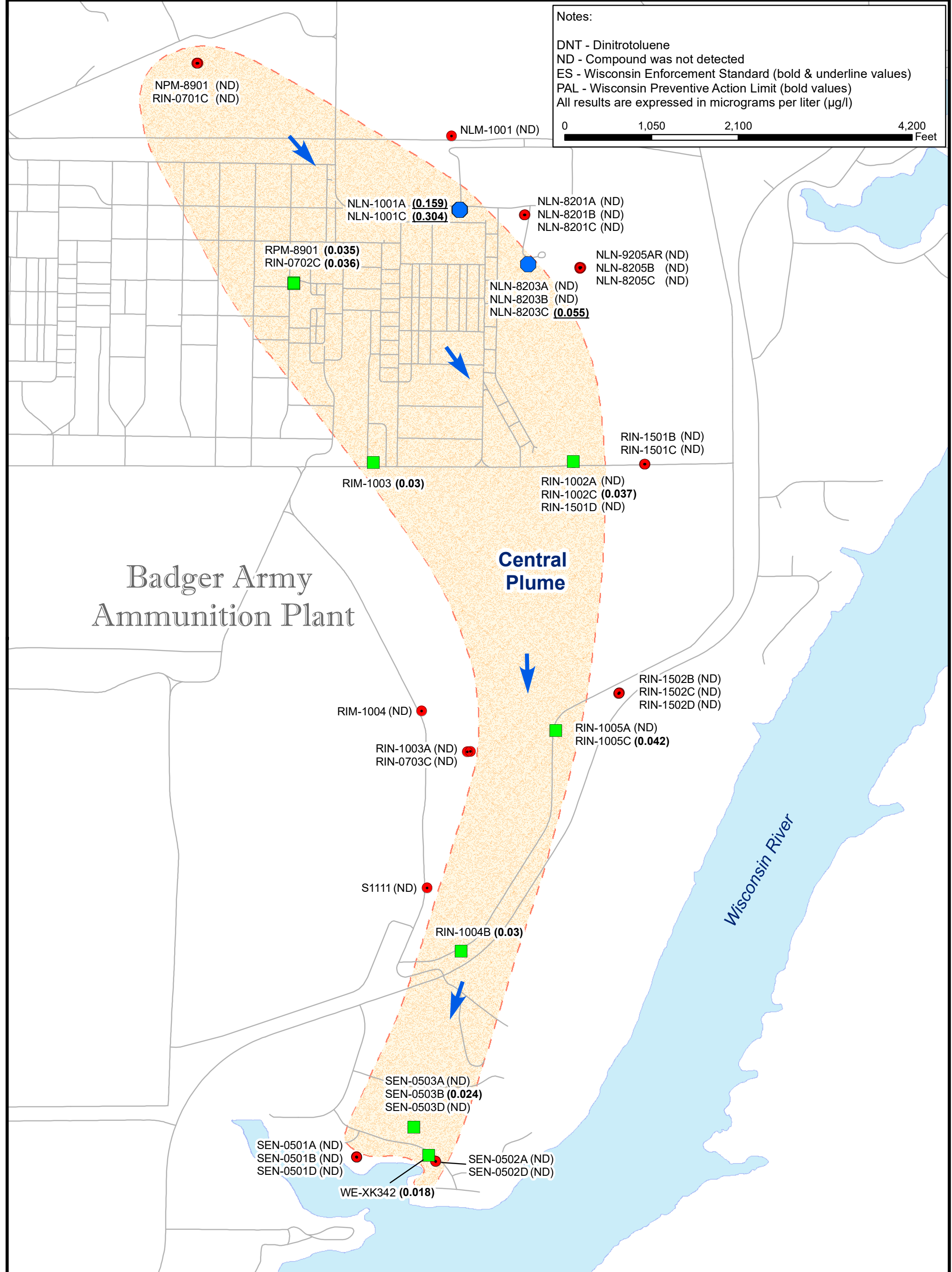
D = Duplicate sample

J = Analytical result is between the Limit of Detection (LOD) and Limit of Quantitation (LOQ)

NE = Not Established

Chapter NR 140 PAL - Chapter NR 140, Wisconsin Administrative Code, Preventive Action Limit (bold values)

Chapter NR 140 ES - Chapter NR 140, Wisconsin Administrative Code, Enforcement Standard (bold & underline values)



Legend

- Total DNT above NR 140 ES
- Total DNT above NR 140 PAL
- Total DNT not detected
- ➔ Groundwater Flow Direction
- Groundwater Plume (Based on 2021, 2022 & 2023 data)

**Dinitrotoluene Groundwater Exceedances
 June 2023 - Central Plume
 Badger Army Ammunition Plant**



June 2023

Monitoring Well and Residential Well Groundwater Data

Central Plume

Deterrent Burning Ground Plume

Badger Army Ammunition Plant

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Landfill #5	02813	157005530	6/27/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) |

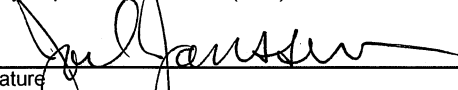
Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature  Date 8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 2813
Landfill #5
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Seven monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Deterrent Burning Ground Plume.

Total DNT exceeded the Enforcement Standard (ES) in ELN-1003B (468) and ELN-1003C (469).

2,6-DNT exceeded the Preventive Action Limit (PAL) in ELN-1003C (469). Total DNT exceeded the PAL in ELN-1503A (535).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Total Dinitrotoluenes	2813	468	ELN-1003B	6/27/2023	1	0.083	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	469	ELN-1003C	6/27/2023	1	0.018	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	469	ELN-1003C	6/27/2023	1	0.147	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	535	ELN-1503A	6/27/2023	1	0.034	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 2813

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	468	ELN-1003B	6/27/2023	1	0.022	0.0058	0.048	ug/l		
3,4-Dinitrotoluene	468	ELN-1003B	6/27/2023	1	0.061	0.0048	0.048	ug/l		
Total Dinitrotoluenes	468	ELN-1003B	6/27/2023	1	0.083	0.0077	0.048	ug/l	0.005	0.05
2,3-Dinitrotoluene	469	ELN-1003C	6/27/2023	1	0.032	0.0059	0.05	ug/l		
2,6-Dinitrotoluene	469	ELN-1003C	6/27/2023	1	0.018	0.005	0.05	ug/l	0.005	0.05
3,4-Dinitrotoluene	469	ELN-1003C	6/27/2023	1	0.097	0.005	0.05	ug/l		
Total Dinitrotoluenes	469	ELN-1003C	6/27/2023	1	0.147	0.0079	0.05	ug/l	0.005	0.05
3,4-Dinitrotoluene	535	ELN-1503A	6/27/2023	1	0.034	0.005	0.05	ug/l		
Total Dinitrotoluenes	535	ELN-1503A	6/27/2023	1	0.034	0.008	0.05	ug/l	0.005	0.05

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Southeast Boundary	03038	157005530	6/27/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 3038
Southeast Boundary
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. One monitoring well was sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Central Plume.

No compounds were detected in S1111 (751).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen

Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvcS.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Demolition Landfill	03118	157071420	6/26/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen

Project Manager

(608) 438-1110

Facility Representative Name (Print)

Title

(Area Code) Telephone No.

Signature

Date

8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
- Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 3118
Demolition Landfill
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Nine monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Central Plume.

Total DNT exceeded the Enforcement Standard (ES) in NLN-8203C (260).

2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in NLN-8203C (260).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3118	260	NLN-8203C	6/26/2023	1	0.026	ug/l	0.005	0.05
2,6-Dinitrotoluene	3118	260	NLN-8203C	6/26/2023	1	0.029	ug/l	0.005	0.05
Total Dinitrotoluenes	3118	260	NLN-8203C	6/26/2023	1	0.055	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3118

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	260	NLN-8203C	6/26/2023	1	0.026	0.0078	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	260	NLN-8203C	6/26/2023	1	0.029	0.0049	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	260	NLN-8203C	6/26/2023	1	0.055	0.0078	0.049	ug/l	0.005	0.05

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen

Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Nitroglycerine Pond/Rocket Paste Area	03487	157005530	6/26 - 6/27/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen

Project Manager

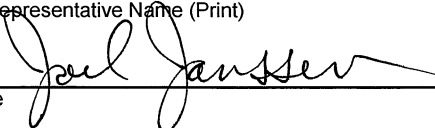
(608) 438-1110

Facility Representative Name (Print)

Title

(Area Code) Telephone No.

Signature



Date

8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
- Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 3487
Nitroglycerine Pond/Rocket Paste Area
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Nineteen monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Central Plume.

2,4-DNT and total DNT exceeded the Preventive Action Limit (PAL) in RIN-0702C (444), RIM-1003 (491), and RPM-8901 (507). 2,6-DNT and total DNT exceeded the PAL in RIN-1002C (493), RIN-1005C (497), and RIN-1004B (498).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3487	444	RIN-0702C	6/26/2023	1	0.036	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	444	RIN-0702C	6/26/2023	1	0.036	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	491	RIM-1003	6/26/2023	1	0.03	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	491	RIM-1003	6/26/2023	1	0.03	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	493	RIN-1002C	6/26/2023	1	0.037	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	493	RIN-1002C	6/26/2023	1	0.037	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	497	RIN-1005C	6/27/2023	1	0.042	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	497	RIN-1005C	6/27/2023	1	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	498	RIN-1004B	6/27/2023	1	0.03	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	498	RIN-1004B	6/27/2023	2	0.03	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	498	RIN-1004B	6/27/2023	1	0.03	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	498	RIN-1004B	6/27/2023	2	0.03	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	507	RPM-8901	6/26/2023	1	0.035	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	507	RPM-8901	6/26/2023	1	0.035	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3487

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	444	RIN-0702C	6/26/2023	1	0.036	0.008	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	444	RIN-0702C	6/26/2023	1	0.036	0.008	0.05	ug/l	0.005	0.05
2,4-Dinitrotoluene	491	RIM-1003	6/26/2023	1	0.03	0.0076	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	491	RIM-1003	6/26/2023	1	0.03	0.0076	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	493	RIN-1002C	6/26/2023	1	0.037	0.0049	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	493	RIN-1002C	6/26/2023	1	0.037	0.0078	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	497	RIN-1005C	6/27/2023	1	0.042	0.0049	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	497	RIN-1005C	6/27/2023	1	0.042	0.0078	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	498	RIN-1004B	6/27/2023	1	0.03	0.0049	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	498	RIN-1004B	6/27/2023	2	0.03	0.0049	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	498	RIN-1004B	6/27/2023	1	0.03	0.0078	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	498	RIN-1004B	6/27/2023	2	0.03	0.0078	0.049	ug/l	0.005	0.05
2,4-Dinitrotoluene	507	RPM-8901	6/26/2023	1	0.035	0.0078	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	507	RPM-8901	6/26/2023	1	0.035	0.0078	0.049	ug/l	0.005	0.05

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Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen

Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Off-Site Residential Wells	03497	157005530	6/28/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input checked="" type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen

Project Manager

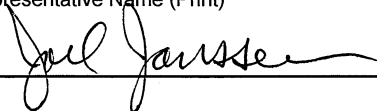
(608) 438-1110

Facility Representative Name (Print)

Title

(Area Code) Telephone No.

Signature



Date

8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
- Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 3497
Off-Site Residential Wells
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. One residential well located in the Central Plume and two residential wells located east of the Deterrent Burning Ground Plume were sampled during this round.

2,6-Dinitrotoluene (DNT) and total DNT exceeded the Preventive Action Limit (PAL) in WE-XK342 (435). WE-XK342 is located in the Water's Edge Subdivision at the southern end of the Central Plume.

DNT analysis was also performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,6-Dinitrotoluene	3497	435	WE-XK342	6/28/2023	1	0.018	ug/l	0.005	0.05
2,6-Dinitrotoluene	3497	435	WE-XK342	6/28/2023	2	0.017	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	6/28/2023	1	0.018	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	6/28/2023	2	0.017	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3497

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,6-Dinitrotoluene	435	WE-XK342	6/28/2023	2	0.017	0.0048	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	435	WE-XK342	6/28/2023	1	0.018	0.0049	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	435	WE-XK342	6/28/2023	2	0.017	0.0076	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	435	WE-XK342	6/28/2023	1	0.018	0.0078	0.049	ug/l	0.005	0.05

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- **Prepare one form for each license or monitoring ID.**
- **Please type or print legibly.**
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvcs.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Demolition Landfill Expansion	03646	157053930	6/26/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3646
Demolition Landfill Expansion
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Three monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Central Plume.

Total DNT exceeded the Enforcement Standard (ES) in NLN-1001A (331) and NLN-1001C (332).

2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in NLN-1001A (331) and NLN-1001C (332).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3646	331	NLN-1001A	6/26/2023	1	0.039	ug/l	0.005	0.05
2,4-Dinitrotoluene	3646	331	NLN-1001A	6/26/2023	2	0.04	ug/l	0.005	0.05
2,6-Dinitrotoluene	3646	331	NLN-1001A	6/26/2023	1	0.023	ug/l	0.005	0.05
2,6-Dinitrotoluene	3646	331	NLN-1001A	6/26/2023	2	0.025	ug/l	0.005	0.05
Total Dinitrotoluenes	3646	331	NLN-1001A	6/26/2023	1	0.153	ug/l	0.005	0.05
Total Dinitrotoluenes	3646	331	NLN-1001A	6/26/2023	2	0.159	ug/l	0.005	0.05
2,4-Dinitrotoluene	3646	332	NLN-1001C	6/26/2023	1	0.047	ug/l	0.005	0.05
2,6-Dinitrotoluene	3646	332	NLN-1001C	6/26/2023	1	0.037	ug/l	0.005	0.05
Total Dinitrotoluenes	3646	332	NLN-1001C	6/26/2023	1	0.304	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3646

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	331	NLN-1001A	6/26/2023	1	0.035	0.0058	0.049	ug/l		
2,3-Dinitrotoluene	331	NLN-1001A	6/26/2023	2	0.036	0.0058	0.049	ug/l		
2,4-Dinitrotoluene	331	NLN-1001A	6/26/2023	2	0.04	0.0078	0.049	ug/l	0.005	0.05
2,4-Dinitrotoluene	331	NLN-1001A	6/26/2023	1	0.039	0.0078	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	331	NLN-1001A	6/26/2023	1	0.023	0.0049	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	331	NLN-1001A	6/26/2023	2	0.025	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	331	NLN-1001A	6/26/2023	2	0.058	0.0049	0.049	ug/l		
3,4-Dinitrotoluene	331	NLN-1001A	6/26/2023	1	0.056	0.0049	0.049	ug/l		
Total Dinitrotoluenes	331	NLN-1001A	6/26/2023	1	0.153	0.0078	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	331	NLN-1001A	6/26/2023	2	0.159	0.0078	0.049	ug/l	0.005	0.05
2,3-Dinitrotoluene	332	NLN-1001C	6/26/2023	1	0.08	0.0058	0.048	ug/l		
2,4-Dinitrotoluene	332	NLN-1001C	6/26/2023	1	0.047	0.0077	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	332	NLN-1001C	6/26/2023	1	0.037	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	332	NLN-1001C	6/26/2023	1	0.14	0.0048	0.048	ug/l		
Total Dinitrotoluenes	332	NLN-1001C	6/26/2023	1	0.304	0.0077	0.048	ug/l	0.005	0.05

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen

Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvcs.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Southeast Area	04330	157005530	6/28/23

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

June 2023

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen

Project Manager

(608) 438-1110

Facility Representative Name (Print)

Title

(Area Code) Telephone No.

Signature

Date

8/7/23

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

- Found uploading problems on _____ Initials _____
- Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other

Case Narrative
Groundwater Monitoring
License Number 4330
Southeast Area
June 2023
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Eight monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Central Plume.

2,6-DNT and total DNT exceeded the Preventive Action Limit (PAL) in SEN-0503B (586).

Chloroform exceeded the PAL in SEN-0502D (584) and SEN-0503D (587).

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method SW 846 8260C.

DNT analysis was performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

June 2023

Report Date: 8/7/2023

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Chloroform	4330	584	SEN-0502D	6/28/2023	1	1.1	ug/l	0.6	6
2,6-Dinitrotoluene	4330	586	SEN-0503B	6/28/2023	1	0.024	ug/l	0.005	0.05
Total Dinitrotoluenes	4330	586	SEN-0503B	6/28/2023	1	0.024	ug/l	0.005	0.05
Chloroform	4330	587	SEN-0503D	6/28/2023	1	1.3	ug/l	0.6	6

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

June 2023

GROUNDWATER MONITORING ALL HITS REPORT

License No: 4330

Report Date: 8/7/2023

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Chloroform	582	SEN-0501D	6/28/2023	1	0.5	0.1	0.2	ug/l	0.6	6
Chloroform	584	SEN-0502D	6/28/2023	1	1.1	0.1	0.2	ug/l	0.6	6
2,6-Dinitrotoluene	586	SEN-0503B	6/28/2023	1	0.024	0.0053	0.053	ug/l	0.005	0.05
Chloroform	586	SEN-0503B	6/28/2023	1	0.17	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	586	SEN-0503B	6/28/2023	1	0.024	0.0084	0.053	ug/l	0.005	0.05
Chloroform	587	SEN-0503D	6/28/2023	1	1.3	0.1	0.2	ug/l	0.6	6

Residential Groundwater Test Results - June 2023 Sampling Event

					All results are expressed as µg/l (micrograms per liter)																																	
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">June '23 Round</th> <th style="text-align: left;">Level of Detection</th> <th style="text-align: left;">Level of Quantitation</th> </tr> <tr> <td>2,3-DNT</td> <td>0.0057</td> <td>0.049</td> </tr> <tr> <td>2,4-DNT</td> <td>0.0076</td> <td>0.049</td> </tr> <tr> <td>2,5-DNT</td> <td>0.0048</td> <td>0.049</td> </tr> <tr> <td>2,6-DNT</td> <td>0.0048</td> <td>0.049</td> </tr> <tr> <td>3,4-DNT</td> <td>0.0048</td> <td>0.049</td> </tr> <tr> <td>3,5-DNT</td> <td>0.0048</td> <td>0.049</td> </tr> </table> <p style="font-size: small; margin-top: 5px;">*Level of detection and level of quantitation may change each round.</p>			June '23 Round	Level of Detection	Level of Quantitation	2,3-DNT	0.0057	0.049	2,4-DNT	0.0076	0.049	2,5-DNT	0.0048	0.049	2,6-DNT	0.0048	0.049	3,4-DNT	0.0048	0.049	3,5-DNT	0.0048	0.049			<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; border: 1px solid black; background-color: white; margin-right: 5px;"></div> = Under PAL and ES </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; border: 1px solid black; background-color: yellow; margin-right: 5px;"></div> = Over Preventive Action Limit (PAL) </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; border: 1px solid black; background-color: orange; margin-right: 5px;"></div> = Over Enforcement Standard (ES) </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; border: 1px solid black; background-color: gray; margin-right: 5px;"></div> = No PAL or ES established </div> <div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; border: 1px solid black; background-color: lightblue; margin-right: 5px;"></div> = Not Tested </div> <div style="display: flex; align-items: center;"> ND = Compound was not detected </div> </div>	Well No.	Well Name or Address	Shared With	Analyzed By	Sample Date	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2,3-Dinitrotoluene	3,4-Dinitrotoluene	2,5-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
June '23 Round	Level of Detection	Level of Quantitation																																				
2,3-DNT	0.0057	0.049																																				
2,4-DNT	0.0076	0.049																																				
2,5-DNT	0.0048	0.049																																				
2,6-DNT	0.0048	0.049																																				
3,4-DNT	0.0048	0.049																																				
3,5-DNT	0.0048	0.049																																				
435	WE-XK342	S8741, S8737	CT Lab	6/28/2023	ND	0.018	ND	ND	ND	ND	ND	0.018																										
			CT Lab (D)	6/28/2023	ND	0.017	ND	ND	ND	ND	ND	0.017																										
803	E12375A		CT Lab	6/28/2023	ND	ND	ND	ND	ND	ND	ND	ND																										
916	S7655		CT Lab	6/28/2023	ND	ND	ND	ND	ND	ND	ND	ND																										

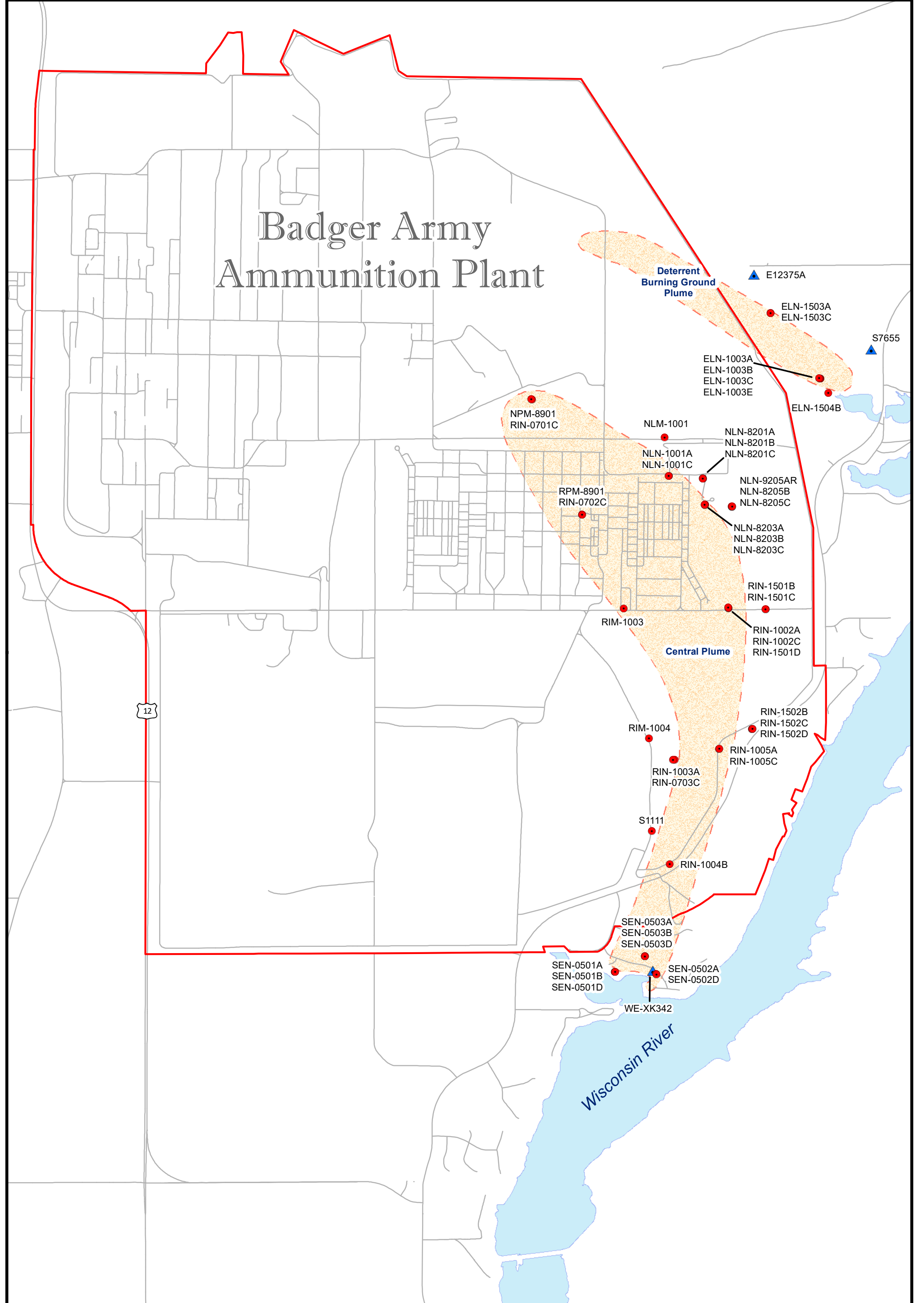
(D) = Duplicate

CT Lab = CT Laboratories, LLC

June 2023
Badger Army Ammunition Plant
Sampled Wells List

<u>License Area</u>	<u>Well ID</u>	<u>Reporting Name</u>	<u>Date</u>	<u>Plume</u>
2813	467	ELN-1003A	6/27/23	Deterrent Burning Ground
2813	468	ELN-1003B	6/27/23	Deterrent Burning Ground
2813	469	ELN-1003C	6/27/23	Deterrent Burning Ground
2813	470	ELN-1003E	6/27/23	Deterrent Burning Ground
2813	535	ELN-1503A	6/27/23	Deterrent Burning Ground
2813	536	ELN-1503C	6/27/23	Deterrent Burning Ground
2813	537	ELN-1504B	6/27/23	Deterrent Burning Ground
3038	751	S1111	6/27/23	Central
3118	252	NLN-8201A	6/26/23	Central
3118	253	NLN-8201B	6/26/23	Central
3118	254	NLN-8201C	6/26/23	Central
3118	258	NLN-8203A	6/26/23	Central
3118	259	NLN-8203B	6/26/23	Central
3118	260	NLN-8203C	6/26/23	Central
3118	265	NLN-8205B	6/26/23	Central
3118	266	NLN-8205C	6/26/23	Central
3118	269	NLN-9205AR	6/26/23	Central
3487	443	RIN-0701C	6/26/23	Central
3487	444	RIN-0702C	6/26/23	Central
3487	445	RIN-0703C	6/27/23	Central
3487	491	RIM-1003	6/26/23	Central
3487	492	RIN-1002A	6/26/23	Central
3487	493	RIN-1002C	6/26/23	Central
3487	494	RIM-1004	6/27/23	Central
3487	495	RIN-1003A	6/27/23	Central
3487	496	RIN-1005A	6/27/23	Central
3487	497	RIN-1005C	6/27/23	Central
3487	498	RIN-1004B	6/27/23	Central
3487	506	NPM-8901	6/26/23	Central
3487	507	RPM-8901	6/26/23	Central
3487	538	RIN-1501B	6/27/23	Central
3487	539	RIN-1501C	6/27/23	Central
3487	540	RIN-1501D	6/26/23	Central
3487	541	RIN-1502B	6/27/23	Central
3487	542	RIN-1502C	6/27/23	Central
3487	543	RIN-1502D	6/27/23	Central
3497	435	WE-XK342	6/28/23	Central
3497	803	E12375A	6/28/23	Deterrent Burning Ground
3497	916	S7655	6/28/23	Deterrent Burning Ground
3646	330	NLM-1001	6/26/23	Central
3646	331	NLN-1001A	6/26/23	Central
3646	332	NLN-1001C	6/26/23	Central
4330	580	SEN-0501A	6/28/23	Central
4330	581	SEN-0501B	6/28/23	Central
4330	582	SEN-0501D	6/28/23	Central
4330	583	SEN-0502A	6/28/23	Central
4330	584	SEN-0502D	6/28/23	Central
4330	585	SEN-0503A	6/28/23	Central
4330	586	SEN-0503B	6/28/23	Central
4330	587	SEN-0503D	6/28/23	Central

Badger Army Ammunition Plant



- Sampled Monitoring Well
- ▲ Sampled Residential Well

June 2023 Sampled Wells Badger Army Ammunition Plant



Plot Date: 8/3/23