State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1701 N. 4th Street
Superior WI 54880

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

July 9, 2020

Adam M. Jarchow, Esq.
Jarchow Law LLC
360 4th Street
P.O. Box 117
Clear Lake, WI 54005

Subject: Village of Luck Fire Association
115 West Street, Luck, Wisconsin
BRRTS Activity #: 03-49-582629

Mr. Jarchow,

I am writing in response to your letter and accompanying documents that the Wisconsin Department of Natural Resources (DNR) received from Jarchow Law LLC on February 10 of this year, which included a historical Phase II Site Assessment report (Site Assessment) prepared by Cedar Corporation (Cedar) dated July 1991, and the Notification of Continuing Obligations and Residual Contamination form from the Lakeland Communications Group (Luck Telephone) site (BRRTS Activity #03-49-563934) provided to the Luck Fire Association (LFA) by Luck Telephone in late January 2020.

First, thank you for providing a copy of the Site Assessment. When I spoke with Chief Carter of the LFA in November 2019 prior to sending the DNR Responsible Party (RP) letter to LFA, Chief Carter mentioned the Site Assessment conducted on the LFA property. I encouraged Chief Carter to provide a copy of the Site Assessment to the DNR, as it could be helpful understanding the existing case. The DNR has the following comments concerning the contents of the Site Assessment:

- Soil samples collected during the 1991 Site Assessment at the LFA property were analyzed for total petroleum hydrocarbons (TPH) and VOCs. TPH is used to describe a group of several hundred compounds that originate from crude oil. The DNR does not have soil standards for TPH, but has standards for individual compounds that comprise TPH (e.g. benzene, ethylbenzene, toluene, etc.).

- The LFA property is 1.54 acres. A total of four soil samples were collected from the property and submitted for analysis during the 1991 Site Assessment, and placement of the borings/samples appeared to be determined by potential off-site sources of contamination (e.g. Equity Coop Agricultural Center/feed mill, Luck Collision Center, etc.) rather than potential on-site sources of contamination (e.g. above-ground storage tanks (ASTs) formerly located on the property). More specifically, all the soil borings and corresponding soil samples were completed at locations along the property boundary rather than the interior of the property, meaning a large portion of the LFA property was not investigated back in 1991.

- The report references "circa 1930s" and 1978 aerial photographs showing ASTs on the former Equity Coop Agricultural Center property, located directly south of the LFA property. The Site Assessment states that the photographs also show ASTs on the Railway property, consisting of a bulk system with three tanks. According to the Site Assessment, no information was available concerning the removal of the ASTs from either the Equity Coop Agricultural Center or the Railway property. The Railway property referenced in the Site Assessment is property now owned by the LFA. Additionally, although Cedar states that ASTs

were visible in the aerial photographs, it appears no attempt was made to include the area of the former tanks in the Site Assessment investigation, which may have eliminated the ASTs as a potential on-site source of contamination.

- In the Conclusions and Recommendations section of the Site Assessment (#2), it is stated that the "subsurface investigation did not reveal any evidence of soil or groundwater contamination either originating from or migrating onto the Railway property". This conclusion is offered despite the investigation not including collection and laboratory analysis of groundwater samples; therefore, it is unclear how that conclusion is supported.

Second, in addition to the Cedar report, you provided a copy of the Notification of Continuing Obligations and Residual Contamination form that was sent to the LFA, notifying them of petroleum-related groundwater contamination that has migrated to their property from the adjacent Luck Telephone property. Included with the form was environmental consultant REI's Figure B.3.b, which depicts the location and extent of the dissolved phase groundwater contamination plume migrating onto the LFA property from the Luck Telephone property. The southwestern extent of the contamination plume includes MW1 (located on LFA property), but does not include MW8 or MW9, which have never had petroleum-related contaminants detected in any of the samples collected at those well locations. The three monitoring wells effectively define the southern and western extent of the groundwater contaminant plume that has migrated from Luck Telephone onto LFA property. Additionally, the location of soil boring GP22 is approximately 195 feet southwest of MW1. GP22 was completed during REI's investigation of the Luck Marine site (BRRTS Activity #03-49-211682) and is shown on REI's Figure B.1.b, which was included in their Update Report submitted to the DNR in December 2010. Figure B.1.b and associated Table 2 were provided to the LFA in the RP letter they received in November 2019, and are attached again with this letter for your reference.

Third, in February 2020, the DNR received additional analytical data related to the neighboring Laundry Basket site (BRRTS Activity #02-49-544893) from MSA Professional Services (MSA). When the DNR received the data, MSA had not yet finalized their report, which would include analytical results from the latest groundwater sampling event for the site. On March 10, 2020, MSA submitted a report to the DNR, titled "Status Report – Monitoring Well Sampling and Direct Push Groundwater Sampling", which detailed the groundwater sampling conducted. As part of the investigative field work, MSA performed two soil borings on the southern portion of the LFA property (GPW-11 and GPW-12) in December 2019, which are shown on MSA's Attachment B.1.b. Analytical results from the groundwater sample collected at GPW-11 show detections of petroleum-related compounds above Wis. Admin. Code ch. NR 140 Enforcement Standards, including benzene at a concentration of 2,060 ug/L (MSA Attachment A.1.A.). This benzene concentration is significantly higher than concentrations detected in the last two rounds of groundwater sampling at MW1 in the Luck Telephone investigation, which were 94.3 ug/L (4/25/19) and 557 ug/L (9/5/19), respectively. The higher concentration of benzene detected in the GPW-11 boring suggests another source of contamination, as concentrations typically decrease with increasing distance from the source (i.e. leaking USTs removed from Luck Telephone property).

MSA's Attachment A.1.A. and Attachment B.1.b are included as attachments to this letter for your reference. The full report submitted by MSA is available on the DNR's Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW). BOTW can be accessed online at dnr.wi.gov by searching "BOTW".

In summary, based on the information the DNR has received from the Luck Marine investigation (closed in November 2018) and the Luck Telephone investigation (currently submitted to the DNR for closure), in addition to the data recently received from investigation activities for the Laundry Basket site (ongoing), it appears a hazardous substance discharge has occurred on the LFA property that is not related to the hazardous substance discharges associated with the Laundry Basket or Luck Telephone sites referenced above. There are additional site investigation activities necessary on the LFA property that were not adequately addressed in the early 1990s

documentation. Therefore, the DNR believes LFA is responsible for the investigation, and if needed, remediation of the hazardous substance discharge originating on the LFA property.

As stated in the November 22, 2019 RP letter, the DNR expects notification from LFA that a consultant has been retained and a work plan for an investigation of the hazardous substance discharge be submitted. Unless otherwise directed by DNR, responsible parties, including LFA, are required to submit a site investigation work plan meeting the requirements of Wis. Admin. Code § NR 716.09 to the DNR within 60 days of receiving notification that a site investigation is required. The DNR encourages LFA to address this non-compliance issue as soon as practicable. The guidance document RR-967 NR 700 Process & Overview is also included as an attachment to this letter for your reference of applicable legal timelines and work required of responsible parties for remedial action sites in Wisconsin.

If you have any questions, please feel free to contact me by phone at (715) 392-3126 or email at Grant.Neitzel@wisconsin.gov.

Sincerely,

Grant Neitzel
Hydrogeologist - Remediation & Redevelopment Program
Northern Region

Enclosures: Attachment A.1.A., Direct Push Groundwater Results Summary (MSA)
Attachment B.1.b, Detailed Site Map (MSA)
Figure B.1.b, Detailed Site Map (REI)
Table 2, Summary of Groundwater Analytical Results (REI)
RR-967, NR 700 Process & Timeline Overview

Attachment A.1.A.

DIRECT PUSH GROUNDWATER RESULTS SUMMARY

VOLATILE ORGANIC COMPOUNDS

Laundry Basket

Luck, Wisconsin

	Qualifiers	State Program	GRO	DRO	Benzene	Ethylbenzene	Toluene	MTBE	TMBs	Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-butylbenzene	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Isopropylbenzene	p-Isopropyltoluene	2-Butanone (MEK)	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	(PCE) Tetrachloroethene	(TCE) Trichloroethene	Vinyl Chloride
ES	--		--		**5**	**700**	**1000**	**60**	**480**	**10000**	--	--		**5**	**7**	**70**	**100**	--	--	**460**	**5**	**100**	--	**100**	**5**	**5**	**0.2**
PAL	--		--		*0.5*	*140*	*200*	*12*	*96*	*1000*	--	--		*0.5*	*0.7*	*7*	*20*	--	--	*90*	*0.5*	*10*	--	10	*0.5*	*0.5*	0.02
2019 Groundwater Profile Borings																											
GPW-1 (10')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-1 (30')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-1 (50')																											
25-Jun-19			NA	NA	0.10J	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-2 (10')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-2 (30')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-2 (50')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	0.35J	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-3 (10')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-3 (30')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092

Attachment A.1.A.

DIRECT PUSH GROUNDWATER RESULTS SUMMARY

VOLATILE ORGANIC COMPOUNDS

Laundry Basket

Luck, Wisconsin

	Qualifiers	State Program	GRO	DRO	Benzene	Ethylbenzene	Toluene	MTBE	TMBs	Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-butylbenzene	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Isopropylbenzene	p-Isopropyltoluene	2-Butanone (MEK)	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	(PCE) Tetrachloroethene	(TCE) Trichloroethene	Vinyl Chloride
ES	--		--		**5**	**700**	**1000**	**60**	**480**	**10000**	--	--		**5**	**7**	**70**	**100**	--	--	**460**	**5**	**100**	--	**100**	**5**	**5**	**0.2**
PAL	--		--		*0.5*	*140*	*200*	*12*	*96*	*1000*	--	--		*0.5*	*0.7*	*7*	*20*	--	--	*90*	*0.5*	*10*	--	10	*0.5*	*0.5*	0.02
GPW-3 (50')																											
25-Jun-19	J		NA	NA	<0.10	<0.14	0.14J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-4 (10')*																											
25-Jun-19	J		NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	2.2	1.8	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	0.34J	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-4 (30')																											
25-Jun-19	J		NA	NA	0.13J	<0.14	0.20J	<0.16	<0.32	<0.31	0.48J	0.49J	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-4 (50')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-5 (50')																											
25-Jun-19	J		NA	NA	<0.10	<0.14	0.23J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
DUP-1			NA	NA	<0.10	<0.14	0.32	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	0.49J	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-6 (50')																											
25-Jun-19	J		NA	NA	0.12J	<0.14	0.16J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	4.0	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	**39.4**	**5.1**	<0.092
19-Dec-19	J		NA	NA	0.11J	<0.14	0.17J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	1.8	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	**15.0**	*2.3*	<0.092
GPW-6 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.15J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	*0.74*	<0.15	<0.092
GPW-7 (30')																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-7 (50')																											
25-Jun-19	J		NA	NA	<0.10	<0.14	0.13J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092

Attachment A.1.A.

DIRECT PUSH GROUNDWATER RESULTS SUMMARY

VOLATILE ORGANIC COMPOUNDS

Laundry Basket

Luck, Wisconsin

	Qualifiers	State Program	GRO	DRO	Benzene	Ethylbenzene	Toluene	MTBE	TMBs	Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-butylbenzene	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Isopropylbenzene	p-Isopropyltoluene	2-Butanone (MEK)	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	(PCE) Tetrachloroethene	(TCE) Trichloroethene	Vinyl Chloride
ES	--		--		**5**	**700**	**1000**	**60**	**480**	**10000**	--	--		**5**	**7**	**70**	**100**	--	--	**460**	**5**	**100**	--	**100**	**5**	**5**	**0.2**
PAL	--		--		*0.5*	*140*	*200*	*12*	*96*	*1000*	--	--		*0.5*	*0.7*	*7*	*20*	--	--	*90*	*0.5*	*10*	--	10	*0.5*	*0.5*	0.02
GPW-8 (50')																											
25-Jun-19	J		NA	NA	<0.10	<0.14	0.13J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	1.7	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	**5.7**	*0.52*	<0.092
DUP-2	J		NA	NA	<0.10	<0.14	0.14J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	1.8	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	**6.0**	0.37J	<0.092
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	*7.7*	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	0.36	<0.19	*3.3*	*0.54*	<0.092
GPW-8 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.16J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	0.47J	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	0.36	<0.19	<0.17	<0.15	<0.092
GPW-9 (30')																											
25-Jun-19	J		NA	NA	0.23J	<0.14	0.16J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	*40.7*	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	**82.1**	**23.8**	<0.092
GPW-9 (50')																											
25-Jun-19	J		NA	NA	0.23J	<0.14	0.23J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	0.75	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	*1.3*	0.32J	<0.092
19-Dec-19	J		NA	NA	<0.10	<0.14	0.17J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	0.20J	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	0.36	<0.19	*1.3*	0.30J	<0.092
GPW-9 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.14J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	0.36	<0.19	0.19J	<0.15	<0.092
GPW-10 (10')																											
19-Dec-19			NA	NA	<0.51	<0.69	<0.42	<0.80	<1.59	<1.5	<1.2	<0.76	<0.74	<1.1	<0.80	<0.77	<1.2	<0.92	<0.76	<5.0	<7.4	<8.2	<0.50	<0.94	<0.85	<0.76	<0.46
GPW-10 (30')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-10 (50')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-10 (55')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092

Attachment A.1.A.

DIRECT PUSH GROUNDWATER RESULTS SUMMARY

VOLATILE ORGANIC COMPOUNDS

Laundry Basket

Luck, Wisconsin

	Qualifiers	State Program	GRO	DRO	Benzene	Ethylbenzene	Toluene	MTBE	TMBs	Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-butylbenzene	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Isopropylbenzene	p-Isopropyltoluene	2-Butanone (MEK)	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	(PCE) Tetrachloroethene	(TCE) Trichloroethene	Vinyl Chloride
ES	--		--		**5**	**700**	**1000**	**60**	**480**	**10000**	--	--		**5**	**7**	**70**	**100**	--	--	**460**	**5**	**100**	--	**100**	**5**	**5**	**0.2**
PAL	--		--		*0.5*	*140*	*200*	*12*	*96*	*1000*	--	--		*0.5*	*0.7*	*7*	*20*	--	--	*90*	*0.5*	*10*	--	10	*0.5*	*0.5*	0.02
GPW-11 (10')																											
19-Dec-19	J		NA	NA	**2060**	*651*	26.7	0.42J	**921.9**	793	27.8	17.5	1.3	<0.22	<0.16	<0.15	<0.24	39.0	16.6	<0.99	<1.5	**490**	101	0.42J	<0.17	<0.15	<0.092
GPW-11 (30')																											
19-Dec-19	J		NA	NA	<0.10	0.24J	<0.083	<0.16	0.40J	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-11 (50')																											
19-Dec-19			NA	NA	<0.10	0.99	<0.083	<0.16	0.83	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	0.36	<0.19	<0.17	<0.15	<0.092
GPW-11 (70')																											
19-Dec-19	J		NA	NA	0.29J	2.7	0.14J	<0.16	5.1	2.7	0.33J	0.25J	<0.15	<0.22	<0.16	<0.15	<0.24	0.39J	0.17J	<0.99	<1.5	3.6J	1.0	<0.19	<0.17	<0.15	<0.092
GPW-12 (10')																											
19-Dec-19	J		NA	NA	<0.10	0.20J	<0.083	<0.16	1.5	<0.31	0.26J	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	2.5J	0.16J	<0.19	<0.17	<0.15	<0.092
GPW-12 (30')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	4.4	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	**22.7**	**5.9**	<0.092
GPW-12 (50')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	1.9	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	*1.9*	0.40J	<0.092
GPW-12 (70')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-13 (10')																											
19-Dec-19			NA	NA	<0.20	<0.28	<0.17	<0.32	<0.63	<0.62	<0.48	<0.30	<0.30	<0.44	<0.32	<0.31	<0.47	<0.37	<0.30	<2.0	<3.0	<3.3	<0.20	<0.37	<0.34	<0.30	<0.18
GPW-13 (30')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.12J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-13 (50')																											
19-Dec-19	J		NA	NA	0.30J	0.18J	0.37	<0.16	0.24J	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	3.6	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092

Attachment A.1.A.

DIRECT PUSH GROUNDWATER RESULTS SUMMARY

VOLATILE ORGANIC COMPOUNDS

Laundry Basket

Luck, Wisconsin

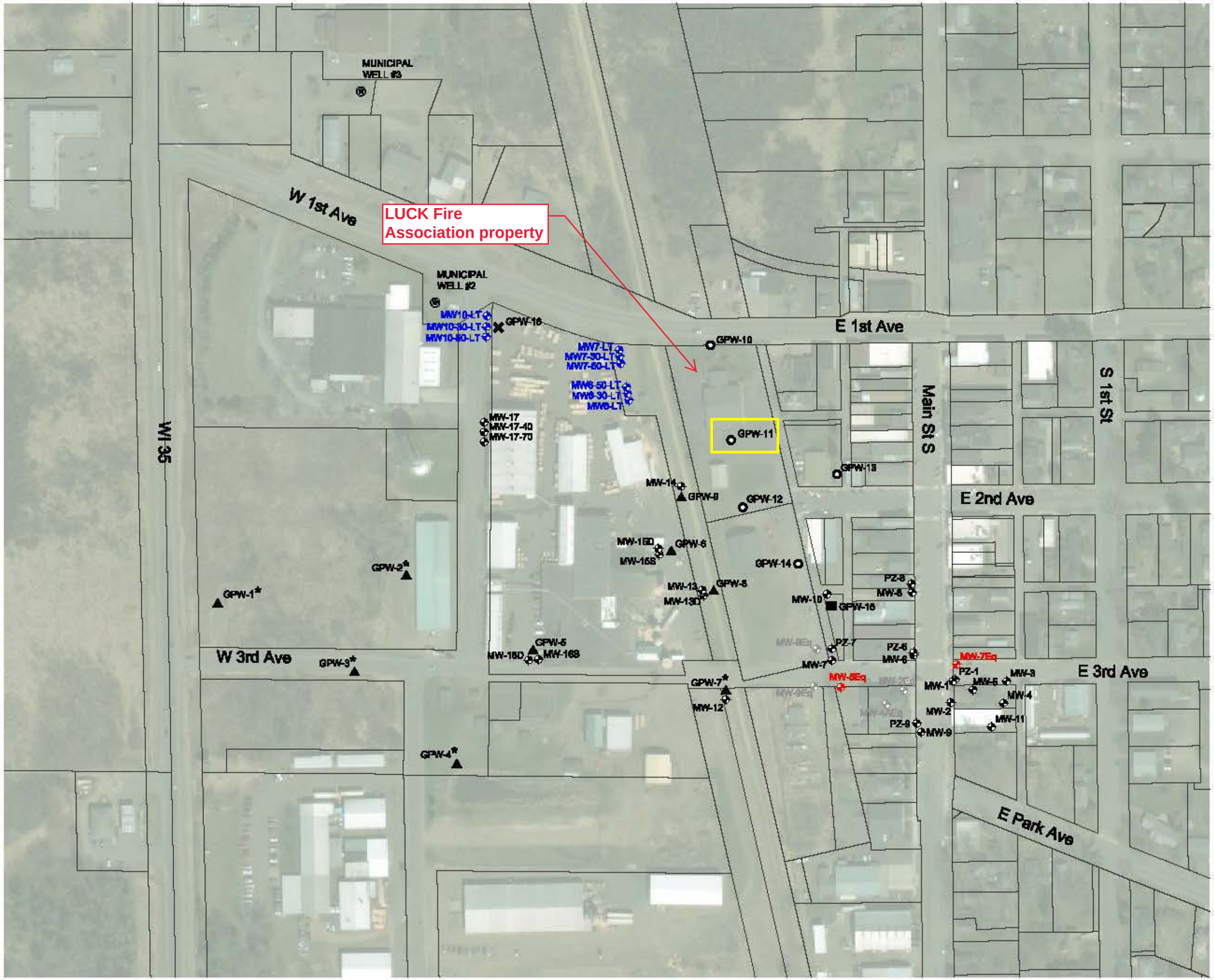
	Qualifiers	State Program	GRO	DRO	Benzene	Ethylbenzene	Toluene	MTBE	TMBs	Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-butylbenzene	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Isopropylbenzene	p-Isopropyltoluene	2-Butanone (MEK)	Methylene Chloride	Naphthalene	n-Propylbenzene	Styrene	(PCE) Tetrachloroethene	(TCE) Trichloroethene	Vinyl Chloride
ES	--		--		**5**	**700**	**1000**	**60**	**480**	**10000**	--	--		**5**	**7**	**70**	**100**	--	--	**460**	**5**	**100**	--	**100**	**5**	**5**	**0.2**
PAL	--		--		*0.5*	*140*	*200*	*12*	*96*	*1000*	--	--		*0.5*	*0.7*	*7*	*20*	--	--	*90*	*0.5*	*10*	--	10	*0.5*	*0.5*	0.02
GPW-13 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.14J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-14 (10')																											
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-14 (30')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.11J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	*1.6*	0.22J	<0.092
GPW-14 (50')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.10J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-14 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.17J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-15 (50')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.22J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-15 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.22J	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
GPW-16 (70')																											
19-Dec-19	J		NA	NA	<0.10	<0.14	0.15J	1.2	<0.32	<0.31	<0.24	<0.15	<0.15	**5.5**	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<1.5	<1.6	<0.10	<0.19	<0.17	<0.15	<0.092
Trip Blank																											
25-Jun-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092
19-Dec-19			NA	NA	<0.10	<0.14	<0.083	<0.16	<0.32	<0.31	<0.24	<0.15	<0.15	<0.22	<0.16	<0.15	<0.24	<0.18	<0.15	<0.99	<0.98	<0.48	<0.10	<0.19	<0.17	<0.15	<0.092

ND = Not Detected above method detection limit.

* GPW-4 (10') was incorrectly labeled as GP-4 (20') on the laboratory report due to field labeling error

Italics = Exceeds contaminant PAL

Bold = Exceeds contaminant ES



0 200' 400'

LEGEND

MW-1	LAUNDRY BASKET MONITORING WELL LOCATION
MW-1	LUCK TELEPHONE MONITORING WELL LOCATION
MW-1	FORMER EQUITY CO-OP MONITORING WELL LOCATION
GPW-1	DISCRETE GROUNDWATER SAMPLING LOCATION
GPW-11	BORING (5-10 FT, 25-30 FT, 45-50 FT, AND 65-70 FT INTERVALS)
GPW-15	BORING (45-50 AND 65-70 FT INTERVALS)
GPW-16	BORING (65-70 FT INTERVAL)
*	SAMPLED PREVIOUSLY IN 2019

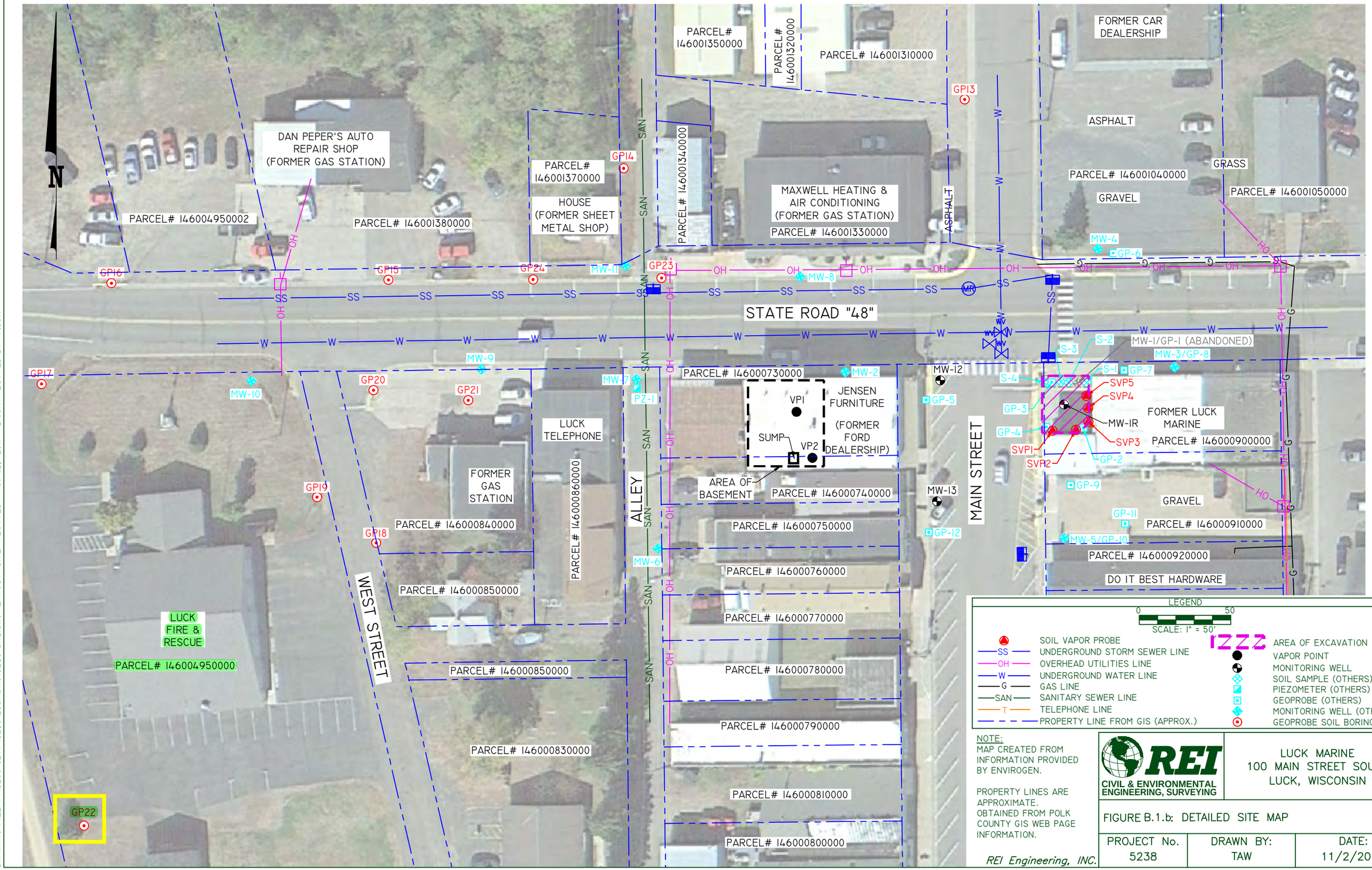
ATTACHMENT B.1.b
DETAILED SITE MAP

—

LAUNDRY BASKET
LUCK, WISCONSIN

MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
532 W Superior Street, Duluth MN 55802
(218) 723-9615 www.msa-ps.com

DRAWN BY ZB	DATE 01/20	SHEET NO. B.1.B	
CHECKED BY MD	SCALE AS SHOWN	FILE NO. 6050801	



LEGEND

0 50
SCALE: 1" = 50'

- SOIL VAPOR PROBE
- SS — UNDERGROUND STORM SEWER LINE
- OH — OVERHEAD UTILITIES LINE
- W — UNDERGROUND WATER LINE
- G — GAS LINE
- SAN — SANITARY SEWER LINE
- T — TELEPHONE LINE
- PROPERTY LINE FROM GIS (APPROX.)
- AREA OF EXCAVATION
- VAPOR POINT
- MONITORING WELL
- SOIL SAMPLE (OTHERS)
- PIEZOMETER (OTHERS)
- GEOPROBE (OTHERS)
- MONITORING WELL (OTHERS)
- GEOPROBE SOIL BORING

NOTE:
MAP CREATED FROM INFORMATION PROVIDED BY ENVIROGEN.

PROPERTY LINES ARE APPROXIMATE. OBTAINED FROM POLK COUNTY GIS WEB PAGE INFORMATION.

REI CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

LUCK MARINE
100 MAIN STREET SOUTH
LUCK, WISCONSIN

FIGURE B.1.b: DETAILED SITE MAP

PROJECT No.	DRAWN BY:	DATE:
5238	TAW	11/2/2017

REI Engineering, INC.

DRAWING FILE: P:\5200-5299\5238-LUCK\DWG\5238-SITE.DWG LAYOUT: SITE PLOTTED: Nov 02, 2017 - 2:00PM PLOTTED BY: TODDW

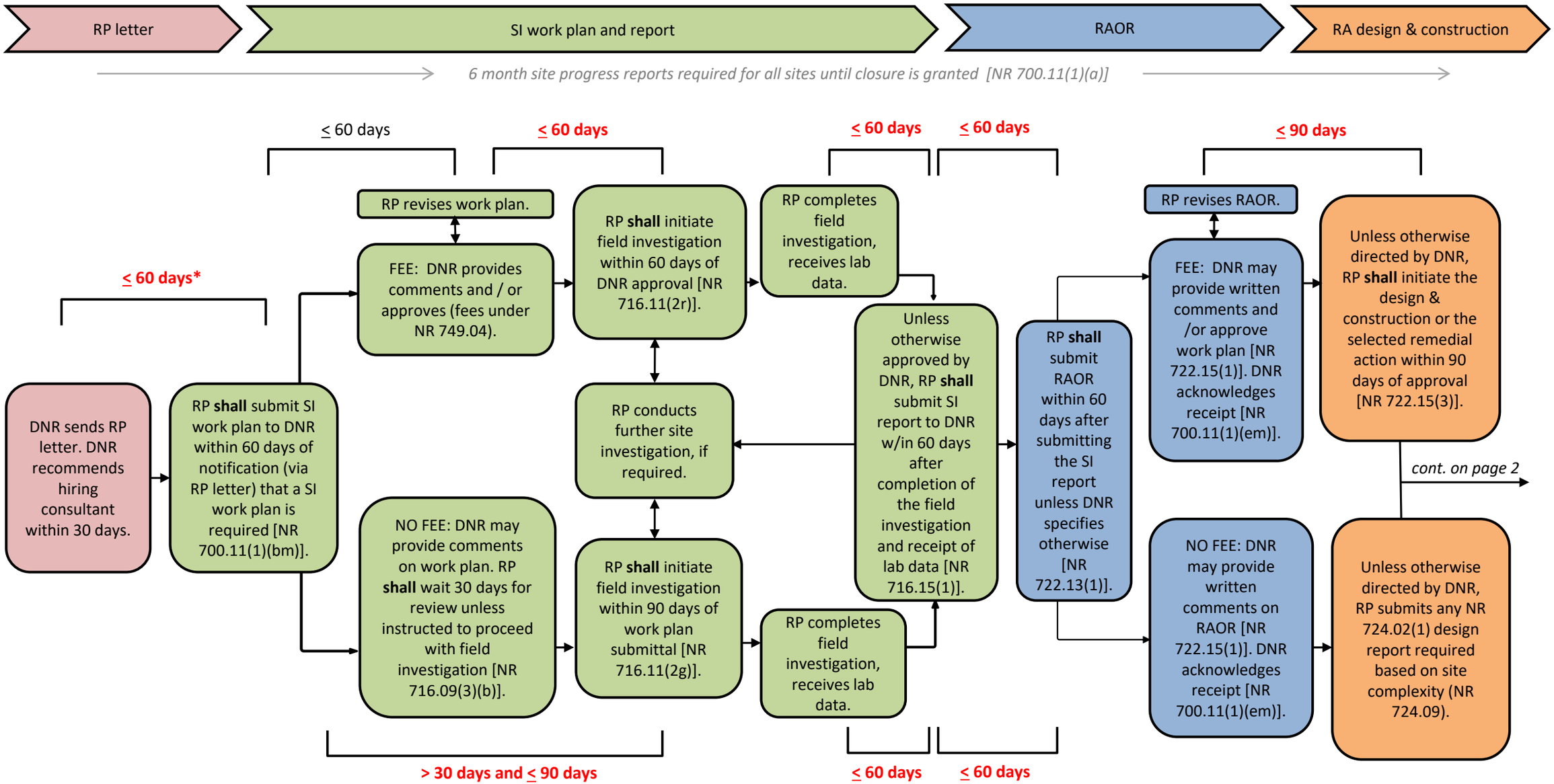
Table 2
Summary of Groundwater Analytical Results
Geoprobes
Former Luck Marine
100 Main Street South
Luck, WI

Parameter				GP13	GP14	GP15	GP16	GP17	GP18
	ES	PAL	Units	8/23/2010	8/23/2010	8/23/2010	8/23/2010	8/23/2010	8/23/2010
VOC Parameters									
Benzene	5	0.5	µg/l	< 0.39	< 0.39	< 0.39	**1,370**	< 0.39	< 0.39
Ethylbenzene	700	140	µg/l	< 0.41	< 0.41	< 0.41	29.1	< 0.41	< 0.41
Toluene	1,000	200	µg/l	< 0.42	< 0.42	< 0.42	< 8.3	< 0.42	< 0.42
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.38	< 0.38	< 0.38	< 7.6	< 0.38	< 0.38
Xylenes (mixed isomers)	10,000	1,000	µg/l	< 0.87	< 0.87	< 0.87	< 17.4	< 0.87	< 0.87
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.43	< 0.43	< 0.43	< 8.6	< 0.43	< 0.43
Naphthalene	100	10	µg/l	< 0.40	< 0.40	< 0.40	< 8.1	< 0.40	< 0.40

Parameter				GP19	GP20	GP21	GP22	GP23**	GP24
	ES	PAL	Units	8/23/2010	8/23/2010	8/23/2010	8/23/2010	8/23/2010	8/23/2010
VOC Parameters									
Benzene	5	0.5	µg/l	< 0.39	**17,100**	**7,470**	**104**	**490**	< 0.39
Ethylbenzene	700	140	µg/l	< 0.41	**2,710**	**2,480**	8.1	**3,850**	0.58*
Toluene	1,000	200	µg/l	< 0.42	**23,900**	**19,900**	11.9	**6,540**	0.99*
Methyl tert-Butyl Ether (MTBE)	60	12	µg/l	< 0.38	< 76.2	*50.3*	< 0.61	*96.6**	*< 0.38*
Xylenes (mixed isomers)	10,000	1,000	µg/l	< 0.87	**13,450**	**12,010**	309.9	**13,620**	1.2*
Trimethylbenzenes (mixed isomers)	480	96	µg/l	< 0.43	**2,383**	**2,507**	56.1	**4,750**	< 0.43
Naphthalene	100	10	µg/l	< 0.40	**582**	**452**	< 0.89	**714**	1.4
sec-Butylbenzene			µg/l	NA	NA	NA	1.1*	NA	NA
Isopropylbenzene			µg/l	NA	NA	NA	2.7	NA	NA
n-Propylbenzene			µg/l	NA	NA	NA	1.1	NA	NA

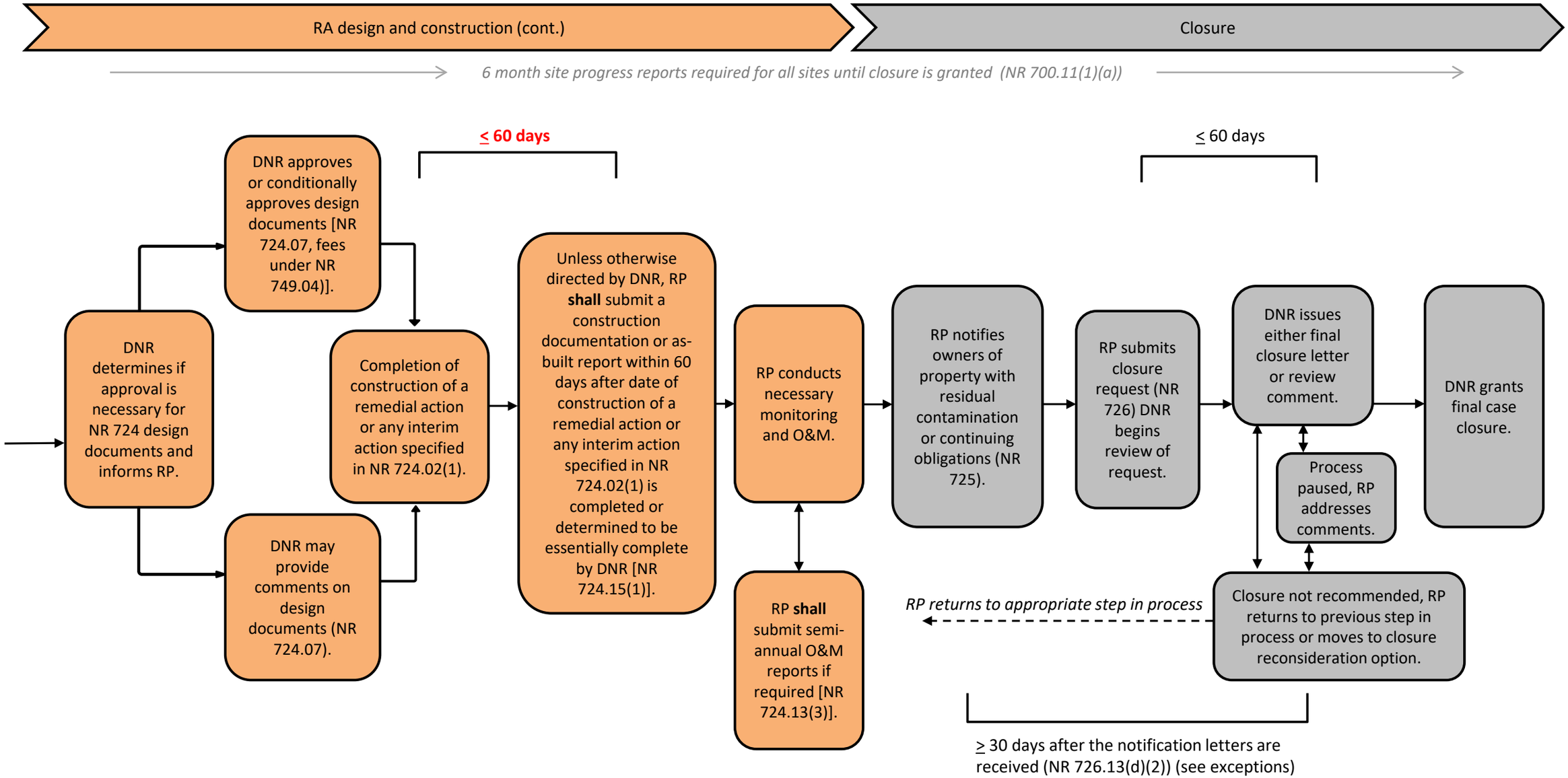
Notes:
ES = NR140.10 Enforcement Standards
PAL = NR140.10 Preventive Action Limits
NS = Not Sampled
NA = Not Analyzed
* = Estimated value, concentration between the Limit of Detection and the Limit of Quantitation
Enforcement Standard exceeded **BOLD**
Preventive Action Limit exceeded *BOLD*
** = Product observed in water sample vial

NR 700 Process & Timeline Overview*



***Bold red font indicates timelines required in administrative code.** **Disclaimer:** This document is intended solely as guidance and does not include mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any manner addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

NR 700 Process & Timeline Overview*



Bold red font indicates timelines required in administrative code.* **Disclaimer: This document is intended solely as guidance and does not include mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any manner addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.