From:	Brand, Jeff <jeff.brand@stantec.com></jeff.brand@stantec.com>
Sent:	Monday, July 8, 2019 2:49 PM
То:	Krueger, Sarah E - DNR
Subject:	RE: Project Status Update - Tynan Property, W998 STH 23, Town of Forest,
	WI; BRRTS# 02-20-554881
Attachments:	Temp Well Abandonment Forms.pdf

Sarah,

Attached please find the well abandonment forms for the temporary monitoring wells at the Tynan Property. Please let me know if there is anything else you would need at this time. Thanks!

## Jeff Brand

Engineer in Training

Direct: 920 278-3208 Mobile: 920 883-8501 Fax: 920 592-8444 Jeff.Brand@stantec.com

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From: Krueger, Sarah E - DNR <<u>sarah.krueger@wisconsin.gov</u>>

Sent: Wednesday, July 3, 2019 4:36 PM

To: Brand, Jeff <<u>Jeff.Brand@stantec.com</u>>

Subject: RE: Project Status Update - Tynan Property, W998 STH 23, Town of Forest, WI; BRRTS# 02-20-554881

Check that Jeff – I just had a quick conversation with the closure committee before we closed up for the weekend and we are not going to do a second round of groundwater sampling so you can schedule some time to do the well abandonment.

Let me know if you have any questions. Thank you, Sarah

We are committed to service excellence. Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

Sarah Krueger, P.G. Phone: 920-662-5443 Sarah.Krueger@wisconsin.gov

From: Krueger, Sarah E - DNR Sent: Wednesday, July 3, 2019 4:19 PM To: 'Brand, Jeff' <<u>Jeff.Brand@stantec.com</u>> Subject: RE: Project Status Update - Tynan Property, W998 STH 23, Town of Forest, WI; BRRTS# 02-20-554881

Jeff –

Thank you for this, the information you provided is very helpful. We will want to confirm the groundwater results with a second round of groundwater sampling early this September, and will likely abandon the wells following the receipt of the second round of results. Thank you,

Sarah

#### We are committed to service excellence.

Visit our survey at <u>http://dnr.wi.gov/customersurvey</u> to evaluate how I did.

Sarah Krueger, P.G. Phone: 920-662-5443 Sarah.Krueger@wisconsin.gov

From: Brand, Jeff <<u>Jeff.Brand@stantec.com</u>>
Sent: Wednesday, July 3, 2019 1:53 PM
To: Krueger, Sarah E - DNR <<u>sarah.krueger@wisconsin.gov</u>>
Subject: Project Status Update - Tynan Property, W998 STH 23, Town of Forest, WI; BRRTS# 02-20554881

Good afternoon Sarah-

Stantec is providing a project status update for the Tynan Property Site, W998 STH 23, town of Forest, Wisconsin (the Site). This email presents the results of the additional investigation activities completed at the Site in June 2019.

# Soil Sampling Overview

On June 18, 2019, Stantec observed the advancement of three soil borings (B100 – B300) on the Site by Geiss Soil and Samples, LLC (Geiss) of Merrill, Wisconsin using a truck-mounted Geoprobe<sup>®</sup>. Stantec personnel collected soil samples continuously at each boring location in two-foot intervals from the ground surface to a maximum depth of 20 feet below grade (fbg). Soil boring locations are illustrated on Figure 1. Each two-foot soil sampling interval was divided into two aliquots; one used for field screeening purposes and one used to supply materials for potential submittal to the laboratory for chemical analysis. The laboratory aliquot for each soil sample was immediately placed into laboratory provided containers, sealed, and placed in a cooler with ice. The other portion of each sample was placed into plastic Ziploc® bags and used to field screen for the presence of VOCs using a photoionization detector (PID). An unsaturated soil sample from the top four feet of each boring exhibiting the highest field PID was submitted for laboratory analysis of lead and/or volatile organic compounds (VOCs). Soil field screening results are summarized on the attached soil boring logs.

## Monitoring Well Installation and Groundwater Sampling Overview

Groundwater monitoring wells were installed in soil borings B100, B200, and B300 and designated as TW100, TW200, and TW300, respectively. The monitoring wells were constructed using 1-inch inner diameter, schedule 40 polyvinyl chloride (PVC) casing with 15-foot lengths of factory-slotted PVC screen (0.010-inch slot) that were positioned to intersect the water

table. Temporary monitoring well locations are shown on Figure 1. Monitoring well construction forms have also been attached.

On the same day, Stantec personnel collected water levels, pH and conductivity readings, and groundwater samples from each monitoring well. As part of the groundwater sample collection process, observations were specifically made for the presence of unusual odors, oil droplets, or a petroleum sheen, which could indicate the presence on the water table of a floating layer of Light Non-Aqueous Phase Liquids (LNAPLs). No evidence of unusual odors or LNAPL were observed by Stantec personnel in any of the wells installed on the Site. Water quality readings are summarized in Table 1.

Groundwater samples were collected via low flow method and poured directly into pre-cleaned sample bottles provided by Test America's (TA) Chicago, Illinois area laboratory. The bottles were prepared with pre-measured chemical preservatives by the analytical laboratory (i.e., hydrochloric acid for VOC samples). The sample bottles were packed into a cooler with ice immediately after collection and delivered under chain-of-custody procedures to TA for analysis of volatile organic compounds (VOCs).

#### **Soil Analytical Results**

Lead and/or styrene was detected in each of the soil samples collected. However, neither was found to exceed the Wisconsin Administrative Code (WAC) Natural Resources (NR720) Residual Contaminant Levels (RCLs) for non-industrial direct or for protection of groundwater. Soil sample results can be found on the attached laboratory analytical report.

#### **Groundwater Analytical Results**

Various petroleum compounds were found in groundwater samples collected from temporary monitoring wells TW100 and TW300. However, none of the compounds were found in excess of the NR140 Preventive Action Limit (PAL) or NR140 Enforcement Standard (ES). Groundwater analytical results can be found on the attached laboratory analytical report.

Please feel free to call me if you would have any questions or if you would like to discuss any of the results. Thank you.

#### **Jeff Brand**

Engineer in Training

Direct: 920 278-3208 Mobile: 920 883-8501 Fax: 920 592-8444 Jeff.Brand@stantec.com

Stantec



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State of Wis., Dept. of Natural Resources dnr.wi.gov

#### Well / Drillhole / Borehole Filling & Sealing Report Page 1 of 2

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

	Route to DNR Bureau:		
Verification Only of Fill and Seal	Drinking Water	Watershed/Wastewater	Remediation/Redevelopment
TW100	Waste Manageme	nt Other:	
1. Well Location Information		2. Facility / Owner Information	
County WI Unique Well # of	Hicap #	Facility Name	
Removed Well		Tynan Icoper	ty
	- North Mathed Ords	Facility ID (FID or PWS)	1
15, 17, 47 610 N	SCR002	License/Permit/Monitoring #	
- <u>88.2062)</u> w	DDM OTH001		
1/1/ NW 1/ NE Section T	ownship Range 🔀 E	Original Well Owner	
or Gov't Lot #	(S N 19 W		
Well Street Address		Present Well Owner	*:
W998 STH 23		rond du Lac lanty	
Well City, Village or Town	Well ZIP Code	Mailing Address of Present Owner	POR ISIE
Forest		160 Just Mac Street	
Subdivision Name	Lot #	City of Present Owner Sta	NT SY92(-1515
		A Pump Liner Screen Casing & Scaling	Matorial
Reason for Removal from Service WI Unique W	/ell # of Replacement Well	Pump and piping removed?	
Completed sampling -		Liner(s) removed?	
3. Filled & Sealed Well / Drillhole / Boreho	le Information	Liner(s) perforated?	
Monitoring Well		Screen removed?	
Water Well	1 2017	Casing left in place?	
Borehole / Drillhole	uction Report is available,	Was casing cut off below surface?	
Construction Type:		Did sealing material rise to surface?	
Driven (Sendneint)		Did material settle after 24 hours?	
	Dug	If yes, was hole retopped?	
		If bentonite chips were used, were they hydrated	
Formation Type:		with water from a known safe source?	
Unconsolidated Formation	drock	Required Method of Placing Sealing Material	
Total Well Depth From Ground Surface (ft.) Casin	g Diameter (in.)	Conductor Pipe-Gravity Conductor Pipe	-Pumped
20		(Bentonite Chips) Other (Explain):	
Lower Drillhole Diameter (in.) Casin	g Depth (ft.)	Sealing Materials	
2	20	Neat Cement Grout	ncrete
		Sand-Cement (Concrete) Grout Ber	ntonite Chips
vvas weil annular space grouted?		For Monitoring Wells and Monitoring Well Borehole	s Only:
If yes, to what depth (feet)? Depth to W	ater (feet)	Bentonite Chips Bentonite	- Cement Grout
		Granular Bentonite Bentonite	- Sand Slurry
5. Material Used to Fill Well / Drillhole		From (ft.) To (ft.) No. Yards, Sacks Seala	ant or Mix Ratio or
	2.1.1	Surface 20 CI3	) Willia Weight
	Dentonite	Surface and S. II ft	
	1		
6. Comments			

7. Supervision of Work	DNR Use Only			
Name of Person or Firm Doing Filling & Sealing Stantee Consulting Services Inc	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) ひ7 / 08 / 2019	Date Received	Noted By
Street or Route O 1165 Scheuring Rd		Telephone Number (920)592-8400	Comments	
City De Rece	WI SHI	Signature of Person Diging y	Vorx	Date Signed 07 / 08 / 2019
		(Re ) I		

State of Wis., Dept. of Natural Resources dnr.wi.gov

# Well / Drillhole / Borehole Filling & Sealing Form 3300-005 (R 4/08) Page 1 of

Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

		Roule to:					
Verification Only of Fill a	ind Seal	Drinking Water		Watershed/V	Vastewater	Remedi	ation/Redevelopment
TW	200	Waste Manageme	nt 🗌	Other:			
1. Well Location Information			2. Facility	/ Owner In	formation		
County WI Unique Remove	ue Well # of d Well	Hicap #	Facility Nam	e Ty	non Pro	posty	
Lattitude / Longitude (Degrees and 43 : 77244	$\frac{\text{Minutes}}{16}$ ' N	d Code (see instructions)	License/Peri	nit/Monitorin	g #		
-88:20621	• w		200000000000000000000000000000000000000				
1/4/1/4 NW 1/4 NE	Section To	wnship Range	Original Wel	l Owner			
or Gov't Lot #	15	15 N 19 aw	Present Wel	Owner		-	
Well Street Address W998 STH 73	1		Mailing Addr	Fond di	Lac Ce	unty	
Well City, Village or Town		Well ZIP Code	J6	O Sout	h Macy	Street	Po Box 151
Subdivision Name		Lot #	City of Prese	du La	2	State $\omega$ I	ZIP Code 54936-151
Reason For Removal From Service	WI Unique We	II # of Replacement Well	4. Pump, L	iner, Scree	en, Casing & S	ealing Mater	ial
Complete Sampling			Pump and	l piping remo	oved?		res No N/A
3. Well / Drillhole / Borehole In	formation		Liner(s) re	emoved?			res No N/A
Monitoring Well	riginal Construct	ion Date (mm/dd/yyyy)	Screen re	moved?			
	06/18	5 1 2019	Casing lef	t in place?			
Borehole / Drillhole	a Well Construc lease attach.	tion Report is available,	Was casir	ng cut off bel	ow surface?		
Construction Type:			Did sealin	g material ris	se to surface?		
Drilled Driven (Sa	ndpoint)	Dug	If ves.	was hole re	topped?		
Other (specify):	rube		If bentonit	e chips were	used, were they	hydrated	
Formation Type:			Required Me	thod of Placir	ng Sealing Materi	ial	
	Bedr	ock	Conduc	ctor Pipe-Gra	vity 🔲 Conduc	tor Pipe-Pump	ed
Total Well Depth From Ground Surf	ace (ft.) Casing	Diameter (in.)	- Screen (Bentor	ed & Poured hite Chips)	Other (E	Explain):	
	Casting	Denth (#)	Sealing Mate	rials			
	Casing	Depth ( $\pi$ .)		ement Grout	arata) Craut	Clay-Sand	Sourry (11 lb./gal. wt.)
Was well annular space grouted?	Yes	No Unknown		te te	Monitoring Well F	Bentonite	Chips
If yes, to what depth (feet)?	Depth to Wa	ter (feet)	Benton	ite Chips ar Bentonite	Be	entonite - Ceme entonite - Sand	nt Grout Slurry
5. Material Used To Fill Well / Dri	lihole		From (ft.)	To (ft.)	No. Yards, Sa	cks Sealant circle one)	Mix Ratio or Mud Weight
		Bentonite	Surface	20	0.115	H3	
· · · · · · · · · · · · · · · · · · ·					-		
6. Comments							

7. Supervision of Work	DNR Use Only		
Name of Person or Firm Doing Filling & Sealing License #	Date of Filling & Sealing (mm/dd/yyyy) のフノロをノスロ19	Date Received	Noted By
Street or Route 1165 Scheurine Rd	Telephone Number (520) 592 - 8400 /	Comments	
City DePere State ZIP Code WI SHII	5 Signature of Person Doing V	Nork	Date Signed
	ou		

State of Wis., Dept. of Natural Resources dnr.wi.gov

#### Well / Drillhole / Borehole Filling & Sealing Form 3300-005 (R 4/08) Page 1 or Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

□ Verification Only of Fill an Tい	nd Seal	Route to:	ent	Watershed/\ Other:	Nastewater	Remedia	ation/Redevelopment
1. Well Location Information	Spill	- And Wards	2. Facility	/ Owner Ir	nformation	Sec. march	13. A
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and du Lac			Easility ID /F	UD as DIA(S)	nan icop	123 Y	
Lattitude / Longitude (Degrees and M	linutes) Metho	d Code (see instructions	s)	1D 01 PW(3)			
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-88:20621	'w		LIGENSE/T EN	maniform	ig #		
1/411/4 NW 1/4 NE S	ection Tov	vnship Range X E	Original Wel	I Owner			
or Gov't Lot #	15	15 N 19 0W	Present Wel	Owner			
Well Street Address			-resent ver		Jac Ca	t	
W998 STH 23,			Mailing Addr	ress of Press	ont Owner	<u>-in y</u>	
Well City, Village or Town		Well ZIP Code		$O \leq \lambda$	1 Mary S	steppt	PO DON ISI
Forest			City of Press	o Sour	n They c	State	ZIP Code
Subdivision Name		Lot #	Fond	duLa	C	WI	54936-15
-		# of Deple comont Wall	4. Pump, L	iner, Scree	en, Casing & Sea	aling Materi	ial
Reason For Removal From Service	www.onique.we	i # of Replacement weil	Dumpon				
Compare Surpring			Pump and	a piping remo	ovedr		
3. Well / Drillhole / Borehole Info	ormation		Liner(s) re	emoved?		H	
V Monitoring Well	inal Construct	on Date (mm/dd/yyyy)	Screen re	moved?			'es ≌No ⊒N/A
	06/18	1 2019	Casing let	ft in place?		<u>IA</u> Y	
Vvater Vvell	Well Construct	tion Report is available,	Was casir	ng cut off bel	ow surface?	XY	'es ∐No ∐N/A
Borehole / Drillhole ple	ase attach.		Did sealin	g material ris	se to surface?	×	′es □ <sub>No</sub> □ <sub>N/A</sub>
Construction Type:			Did mater	ial settle afte	er 24 hours?	$\Box_{Y}$	es No DNA
Drilled Driven (Sand	dpoint)	Dug	If yes.	was hole re	topped?		
X Other (specify) Good 050	be		If bentonit	e chips were	used, were they hy	drated	
			Beguired Me	from a know	in sate source?		
Formation Type:			Required we	Inou of Placin			
Unconsolidated Formation	Bedr	ock		od & Poured		r Pipe-Pumpe	ea
Total Well Depth From Ground Surfac	ce (ft.) Casing	Diameter (in.)	(Bentor	nite Chips)	Other (Exp	plain):	
20		1	Sealing Mate	rials		_	
Lower Drillhole Diameter (in.)	Casing	Depth (ft.)	Neat C	ement Grout	L	Clay-Sand	Slurry (11 lb./gal. wt.)
2	Ĩ	20	Sand-C	ement (Cond	crete) Grout	Bentonite-	Sand Slurry " "
Was well annular space grouted?	Yes			te	Manitaring Wall Ro		Chips
If yes, to what depth (feet)?	Depth to Wat	er (feet)		ito China		onite Como	at Grout
	and the second sec			ne Onips		onite - Center	
	1		Granula Granula	ar Bentonite	Bent	onite - Sand	Siurry Mix Patio or
5. Material Used To Fill Well / Drillh	nole		From (ft.)	To (ft.)	of Volume ci	rcle one)	Mud Weight
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7. Supervision of Work	DNR Use Only			
Name of Person or Firm Doing Filling & Sealing License #	Date of Filling & Se	aling (mm/dd/yyyy) I 2019	Date Received	Noted By
Street or Route 1165 Scheurine Rd	Telephone (Sco)S	Number 92-8400	Comments	
City DePere O State ZIP Co	de Signatur	e of Person Doing W	lock	Date Signed 07/08/2019
	C	W		