

APPENDIX A: Kingsbridge 1 (K1) Wind Project Turbine Fire in ACW

- a) Goderich Fire Department Incident Report - Pages ii - iv
- b) Newspaper Reports of turbine fire in ACW - Pages v - x
- c) Affidavit of Paul Frayne Re: Turbine #19 fire in K1 Wind project - Pages xi - xxvi

Note: This material was submitted to the Environmental Review Tribunal in ERT- 13-097/098 Drennan v MOE. Page numbering inserted at the bottom of the pages was from the ERT presentation.

Standard Incident Report

Office of the
Fire Marshal

Fire Department Incident #	FD Station	OFM Investigations Contacted	Aid From Other Fire Department(s)
04022013		No	4-Not applicable

OFM-ISPC: Low

Section A - All Emergency Responses

Incident Location	Fire Department Code	FD Station	Date of Incident DD MM YYYY	Initial Call Received Hr Min Sec	Dispatch Time Hr Min Sec			
4083	00	4028	2 4 2013	01 00 00	01 04 00			
FD Time on Scene	Initial Personnel	Total Personnel	Estimated KM Distance	Alarm to FD	Response Type	Rescues	Firefighter Injuries	Fatalities
01 10 00	6	14	11	1-911	1-Fire	0	0	0

Section B - All Fires or Explosions (Response Types 1 and 2)

App of Agent	Under Control Date/Time	Status on Arrival	Water	Fire Control	Property Area of Type Origin	Ignition Source	Ignition Fuel	Object 1st Ignited	Possible Cause
01 10 00	02 04 2013	01 10 00	5-Flames showing from large area (more available than one storey, large area outdoors)	4-Tanker shuttle service (no hydrant)	5-Action taken unclassified	798-Wind 99-Turbine	99-Undetermined (formerly not applicable)	99-Undetermined	99-Undetermined

Vehicle Purpose	Fuel	Estimated \$ Loss	Insurance Estimate	Estimated Total Value at Risk	Total Exposures	Exposure Number	Civilians only: Injuries	Fatalities
		\$1,000,000	2-No	9-\$1 MIL to \$1.9 MIL	0	0	0	0

Persons Rescued	Child Adult	Snr	Physical Condition	Civ Fire Control	Non Evacuation Reasons
0	0	0	99-Not applicable, no persons rescued	4-Not applicable, no persons present	8-Not applicable -all evacuated, no person present, or suicide

Other agencies contacted	OPP	MOE	TSSA	ESA	MOL	EMS	CANUTEC	Gas Utility	Hydro Utility	Municipal Bld	Health	Police	Other
									Yes				

Section C - All Structure Fires or Explosions (Response Types 1 and 2)

Initial Detection	Extent of Smoke Spread	Est # Displaced	Business Impact	Complex	Occupancy Status	Building Status	Illegal Use	Building Height	Level Origin	Age of Structure
6-Person detected - visual sighting, smell or sound	1-Confined to object of origin	8-Entire Structure	1-No business interruption	98-Not Applicable	8-Not applicable (formerly Undetermined)	1-Normal (no change)	8-Not applicable	1	998-Not applicable (formerly Undetermined)	6-After 2010
Smoke Alarms					Fire Alarm System			Sprinkler System		
Alarm on floor or in suite of fire origin	Other Floors	Every	Impact of alarm	Evacuation # Evac	Presence	Operation	Impact	Presence	Activation	
1- Floor/suite of fire origin: No smoke alarm	8-Not applicable - no smoke alarm or presence undetermined	1-Other floor(s): No smoke alarms	8-Not applicable: No alarm, no residential persons structure present	8-Not applicable: No alarm, no residential persons structure present	9-Undetermined	9-Fire alarm system operation undetermined	8-Not applicable: No fire system, no persons present	9-Undetermined	9-Activation undetermined	

Section D - Incident Address: All Incidents

Street or Lot Number	Street Name/Line or Concession Number	Apt Number	City/Town/Township	Postal Code
34480	Golf Course Road		Ashtfield Colborne Wawanosh	N7A3Y3

GODERICH FIRE DEPARTMENT

ATTENDANCE

INCIDENT Wormyell fire

DATE April 2 '13

DISPATCH DUTY Fire

TIME 12:00

NAME	ON SCENE	STANDBY	VACATION	OTHER	ABSENT
Gardiner, S. Chief	/				
Crittenden, K. Dep Chief	✓				
Gozzard, W. Capt.		✓			
Dobie, J. Capt.	✓				
Doak, D. Capt.	✓				
Wormington, J. Capt.	✓				
Kyle, D					/
Beange, M					/
Erb, G	✓	ANN			/
Pollock, R					
Hodges, B	✓				
Beach, D		✓			
Austin, J	✓				/
Ferguson, G					
Jenkins, N	✓				
Chisholm, J					/
Pollock, R	✓				
Vanderburgh, K	✓				
Morley, W		✓			
Andrews, I	✓				
Duckworth, A	DISPATCH				
Duncan, S	✓				
Morley, P		✓			
Shanahan, C	✓				
VandenHeuvel, M	✓				

AUXILIARY

Austin, S		✓			
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B-3

GFD INCIDENT LOG

519 525-5072
DAN. (APPROX. 5 MIN)

DATE OF INCIDENT: 04/02/13
TIME OF DISPATCH: 0100
OFFICER IN CHARGE: DOBIE

RESPONSE TYPE	
Fire	<input checked="" type="checkbox"/>
MVA	<input type="checkbox"/>
CO	<input type="checkbox"/>
Public Hazard (gas leak, spill, hydro)	<input checked="" type="checkbox"/>
Unauthorized controlled burning	<input type="checkbox"/>
Auto Alarm - malfunction	<input type="checkbox"/>
Auto Alarm-accidental	<input type="checkbox"/>
Medical - ambulance assist	<input type="checkbox"/>
Assist other agency (police)	<input type="checkbox"/>
Huron County Mutual Aid	<input type="checkbox"/>
Other Perceived Emergency	<input type="checkbox"/>

COMPLETE ADDRESS (MUST INCLUDE STREET OR 911 NUMBER)	
<u>34480 GOLF COURSE RD.</u>	
<u>(WIND TURBINE)</u>	
Goderich	<input checked="" type="checkbox"/>
Central Huron	<input type="checkbox"/>
ACW	<input type="checkbox"/>

BENCHMARK TIMES :

Agent Applied : _____
Primary Search : _____
Secondary Search : _____
Under Control : _____
Loss Stopped : _____

TRUCK	TIME LEFT HALL	ARRIVED ON SCENE	NUMBER OF FF'S	RETURN TIME	COMMENTS
PUMP 14	<u>0104</u>	<u>0120</u>	<u>6</u>	<u>0148</u>	
RESCUE 12	<u>0105</u>	<u>0114</u>	<u>6</u>	<u>0144</u>	
PUMP 11					
TANKER 10	<u>0106</u>	<u>0122</u>	<u>2</u>	<u>0144</u>	
LADDER 13					

MUTUAL AID	TIME CALLED
Clinton	
Blyth	
Bayfield	
Lucknow	

RADIOS	
Radio to CH#2	
MA	
Radio back to CH# 3	

OTHER AGENCY	TIME CALLED
OPP	
Victim Services	
EMS	
Gas	
Hydro <u>EPCOR</u>	<u>0110</u>
MOE(Environement)	
MOL (labor)	
Other	

Lights and Sirens

False Alarm- trucks did not leave hall	
SNR- trucks left hall but service was not required	

Dispatch Duty DUCKWORTH

Incident Cleared -Back in Service 0148

B-4

Wind turbine catches fire

GODERICH — A wind turbine at the Kingsbridge 1 wind farm near Goderich, in Huron County, caught fire in the early hours of April 2, but the cause is still unknown.

The Goderich fire department responded to the blaze on Golf Course Road at 1 a.m., but as the turbine is 80 metres in the air, the

firefighters had no hoses or ladders tall enough to reach the fire. The fire burned itself out by 2:45 a.m. Lori Wilson, spokes-

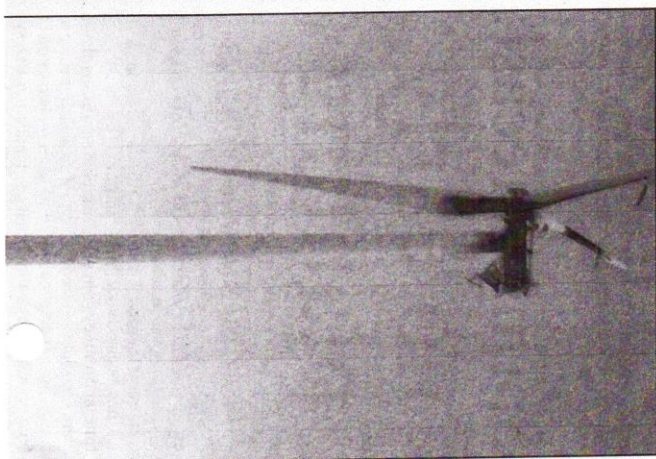
person for Capital Power, which owns the turbine, said crews are still investigating the cause. The estimate of the damage is still unknown.

Capital Power operations manager Dan Hayden said when the turbine caught fire, hundreds of sensors in the nacelle (the centre piece that the blades attach to) caused the blades to pitch 90 degrees and immediately stop turning.

This prevented fire debris from being thrown through the air. The turbine was one of 22 at the Kingsbridge 1 wind farm — about 11 kilometres north of Goderich — and started operating in 2006.



LifeCycle Feeds
Nutrition and health for the young calf.



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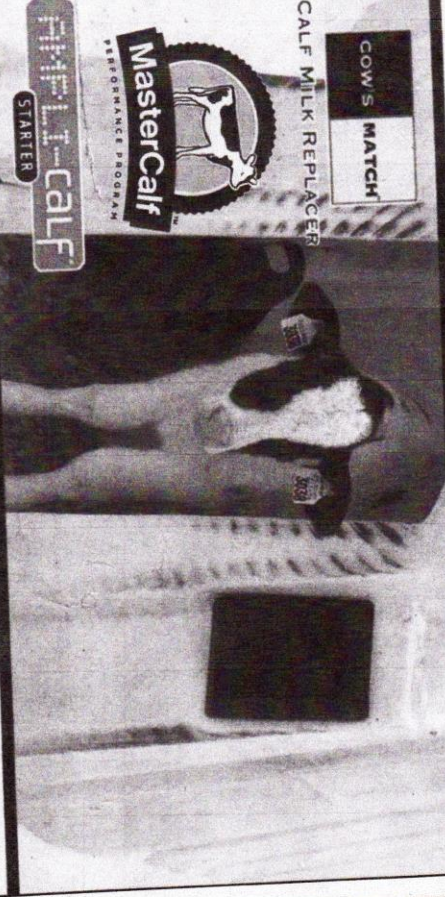
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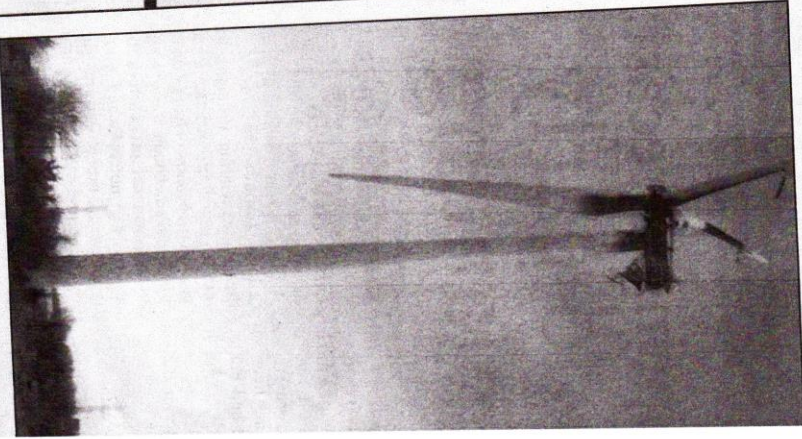
 E^{no}_2

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Nutrition and health
for the young calf.



For more information about Masterfeeds LifeCycle Feeds, contact your local Masterfeeds or Lake Country Dealer.

www.masterfeeds.com



A wind turbine near Goderich caught fire on April 2. Power, which owns the turbine, is still investigating cause and the amount of damage.



NEWS LOCAL

Fire destroys giant turbine near Goderich



By Debora Van Brenk, The London Free Press
Tuesday, April 2, 2013 8:43:48 EDT PM



Scorched wind turbine near Goderich on April 2, 2013. Contributed photo

So how do you put out a fire atop a wind turbine tower as tall as a 20-storey building and in the middle of a field?

The short answer is: you don't.

That's why an early morning blaze that extensively damaged a turbine north of Goderich was allowed to burn itself out.

E-3

The fire has fueled the fierce debate between those who add fire hazard to their list of reasons to hate wind turbines and those who say an isolated incident doesn't detract from wind energy's exceptional safety record.

The turbine caught fire, for reasons still under investigation, about 1 a.m. Tuesday.

Goderich volunteer firefighters were called to the scene and, in turn, called Capital Power which owns and operates the Kingsbridge I wind farm.

Fire Chief Steve Gardiner said the turbine owner is responsible to respond according to its emergency plans.

If a turbine fire ignites materials on the ground, firefighters would take a more active role but that wasn't needed.

Even so, there's no water source on site and the tallest ladder the department has stretches only 22 metres.

The turbine tower is 80 metres high and each of the three blades is 40 metres long.

Dave Griffiths, head of Bluewater Against Turbines, said chemicals from burning blades would be toxic.

"If that thing is spinning when it's on fire, it can throw material a long way," he said Tuesday morning. "The toxic fumes coming off these things is unbelievable."

None of that took place, said Dan Hayden, operations manager for Capital Power. The fire was brief and the blades stopped spinning almost immediately.

Some debris landed near the base of the tower and the farthest reach of the debris was "300 metres, tops. . . . It really is contained," he said.

The nacelle — which houses the generator and gear box where the three blades meet at the top of the turbine tower — is a blackened metal skeleton. All three blades are intact but two have extensive damage.

Hayden said the company and Danish turbine manufacturer Vestas will jointly investigate.

Spokesperson Lori Wilson said the company won't speculate on whether the turbine can be repaired. She wasn't able to put a value of the structure which became operational in 2006, when costs were about \$2 million a turbine.

For wind energy opponents, this is more ammunition. "It's perfect timing for us," Griffiths said.

deb.vanbrenk@sunmedia.ca

TURBINE FACTS

- Part of the 22-turbine Kingsbridge I wind farm north of Goderich.
- 80 metres high, with each blade stretching 40 metres.
- Built by Vestas and began operating in March 2006.

Reader's comments »

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Comments for this thread are now closed.

91 comments



Newest Community

Share  

 Bill Carson • 5 months ago

E-4



Turbine fire cause still undetermined

➤ Third-party investigator
coming from Denmark

Gerard Creces
Goderich Signal-Star

An early morning fire at an industrial wind turbine off Golf Course Road Tues., April 2, is currently under investigation by Capital Power.

At around 1 a.m. the fire department responded to a turbine on fire at Golf Course Road near Loyal Line. The root cause is under investigation, however the fire had burned itself out by 3 a.m. according to Dan Hayden of Capital Power.

The turbine blades and nacelle (the square box off the blade that houses the generator) were severely damaged in the fire. However, many of the hydraulic hoses remain intact, the rubber burnt but the braiding holding out.

"Personally, I'm surprised the damage isn't worse," Hayden said. "We don't have quantities yet, but the majority of gear and hydraulic oil remains up there. The investigation will continue and give us more clear details over the next few days."

The Ministry of the Environment was on site the day after the fire to investigate for oil spills, though none were found. Debris from the blade itself was found downwind of the

Gerard Creces Goderich Signal-Star

off Golf Course Road, north of

CONTINUED > PAGE 2

MCA!

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(s)

()

Kettlebell... Wednesdays, 4:30 - 5:30pm (14+)

Drop The Bar... Wednesdays, 5:30 - 6:15pm (14+)

...and classes



E-5



Bethany Davidson For the Signal-Star

tip of the top hat

ictured: Rowland Howe, President of Goderich Port Management Corporation; Councillor David Yates; Councillor Judy Crawford; Councillor Michele Hansen; Captain Wayne Penney of the Algoma Navigator; Mayor Deb Shewfelt; Larry McCabe, Clerk/Chief Administrative Operator; Lucio Odorico, Manager of Logistics of Sifton Ontario; Chip Wilson, Director of Operations. The Algoma Navigator and its crew of 27 set out from Hamilton on March 29. It voyaged to Nanticoke, then Detroit, before docking at Goderich on April 2nd. Here, it picked up 24,000 tonnes of salt – one down from capacity of 25,000, in order to safely navigate the shallow waters of springtime. The Navigator, which weathered the tornado at port in Goderich, will next travel through Lake Superior to Duluth, Wisconsin. Its main cargoes are salt, grain and iron ore. Captain Wayne Penney, from a family of mariners in the town of Paradise in Conception Bay, Newfoundland, signed the top hat in a tradition dating back to 1932. He will work two months before returning home for a month.

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CHEVROLET

Turbine fire cause still undetermined

CONTINUED FROM > PAGE 1

turbine. Larger pieces (about the size of this newspaper) were found within 200 meters, however smaller pieces were located up to 400 meters away. All pieces were found in the same field as the turbine and cleanup crews have been combing for debris. As of Friday, about 10 garbage bags full have been found.

"The waste is being sorted and disposed of appropriately," Hayden said. "The blade material is landfill acceptable however, we will ensure it is disposed of properly following local regulations."

The turbine is part of the Kingsbridge 1 project occupying much of the Ashfield-Colborne-Wawanosh landscape.

Hayden said the fire is extremely rare - the incident is the first of its kind in Ontario.

However, priorities are to ensure employee and public the safety, make sure the damage is contained to the turbine site.

Later Tuesday, Hayden went to ACW Council to inform them of the details, and on April 4, met with Huron County Emergency Response Committee meeting.

He has been in touch with municipi-

pal, federal and provincial government representatives.

"We're trying to be open and in touch with people," Hayden said. "If they have any questions, please let us know."

A third-party investigator from Denmark will be coming to inspect the site.

The turbine is a Vestas V80 1.8MW model, which houses three computers from top to bottom. The base computer has been removed for analysis, and Hayden noted as soon as the turbine's computer detected a problem, it shut itself down and stopped turning as well as disconnected from the power grid.

"Basically, the turbine was running. Something went wrong inside the turbine and instantly when the computer recognized a problem it was shut down," he said.

Sensors on the door at the turbine show no exit or entry the night of the fire.

While the fire has created a flurry of speculation, Hayden said as a community member it means a lot to make sure the facts are clear.

Damage estimates are expected to come within the next week, however they were unavailable as of press time.

IN THE MATTER OF the Appeals by Shawn and Tricia Drennan filed August 6, 2013 for a Hearing before the Environmental Review Tribunal (Tribunal) pursuant to section 142.1 of the *Environmental Protection Act*, R.S.O. 1990, c. E.19, as amended with respect to a Renewable Energy Approval issued by the Director, Ministry of the Environment, on July 23, 2013 to K2 Wind Power Inc., under section 142 of the *Environmental Protection Act*, regarding a Class 4 wind facility consisting of 140 turbines with a total nameplate capacity of 270 MW located in the Township of Ashfield-Colborne-Wawanosh, County of Huron

AFFIDAVIT OF PAUL FRAYNE

I, Paul Frayne, of the Township of Ashfield Colborne Wawanosh (ACW), in the County of Huron, and Province of Ontario make oath and state as follows:

1. I am a cash crop farmer in the Township of Ashfield Colborne Wawanosh. I have personal knowledge of the matters hereinafter deposed to.
2. I am 59 years old. I was born and raised in the Ashfield Ward of ACW and have been farming full-time in ACW since 1974.
3. I currently rent and farm a property in the former Colborne Ward of ACW. Turbine #19 of the Kingsbridge I Wind Project is located immediately east of this farm. The locations of this farm and Turbine #19 are shown in Exhibit A - Map #1.
4. It is my understanding that, on the night of April 2, 2013, the Goderich Fire Department responded around 1:00 a.m. to a 911 call to alert the fire department to a fire in progress which had engulfed a wind turbine in the Kingsbridge I Wind project. I later became aware that this fire pertained to Turbine #19. It is also my understanding, from published reports, that the fire department was unable to do anything to stop the fire, due to the height of the turbine, but they were able to monitor the situation from the ground.
5. Early in the spring planting season of this year, sometime after the fire occurred at Turbine #19, I drove onto the aforesaid farm. The field was dry and I was able to drive throughout the field to conduct a pre-planting check.

6. When I reached the central part of the field, I got out of the truck to take a look at the field. I could see debris scattered throughout the field. This material emitted a burnt smell and appeared to have come from the turbine fire on the abutting property to the east. It became obvious, upon closer inspection of the field, that a good deal of foreign material had been deposited on the ground. The extent of the area on which the debris was scattered is shown on Map #2.

7. There was a range of size in the pieces of debris. I retrieved one of the larger pieces for closer examination. The location where I discovered this piece is marked by the red star on Exhibit B - Map #2. Smaller pieces of debris were scattered throughout the highlighted red area shown on Map #2. Photos of the piece of debris which I recovered are included as Exhibit "C". It measured approximately 1 foot in width and 8 feet in length. The tape measure shown in the photos provides a comparison as it is set to measure one foot.

8. I was concerned about the potential for problems with this material being on the field, particularly at harvest time. Any debris could be picked up by the combine head when harvesting and could plug the knife and/or end up in the grain bin with the harvested crop.


9. I asked my wife, Anita Frayne, to contact the Capital Power office to report the debris in the field.

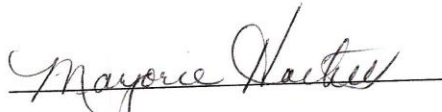
10. My wife contacted the Capital Power office in Goderich. She spoke with Dan Hayden, the Site Manager for the Kingsbridge 1 Wind Project. She advised him that I had found turbine fire debris on the adjacent field which I farm. He advised my wife that "they would get on that right away".

11. To the best of my knowledge, Dan sent a crew to walk the field where the debris was found and they conducted cleanup operations. I rechecked the field subsequent to the clean up effort by Kingsbridge I. The larger pieces of debris appeared to have been removed. However, a closer examination of the ground revealed that there were numerous small pieces of debris, roughly the size of a five dollar bill or smaller, which had not been removed by the clean up effort.

12. I make this affidavit in support of the position of the ACW Residents Group before Environmental Review Tribunal Hearing Number 13/097/098 in respect of the K2 Wind Project and for no other or improper purpose.

SWORN before me at the Town of
Goderich, in the County of Huron
and Province of Ontario this 2nd
October
day of ~~September~~, 2013.


Paul Frayne

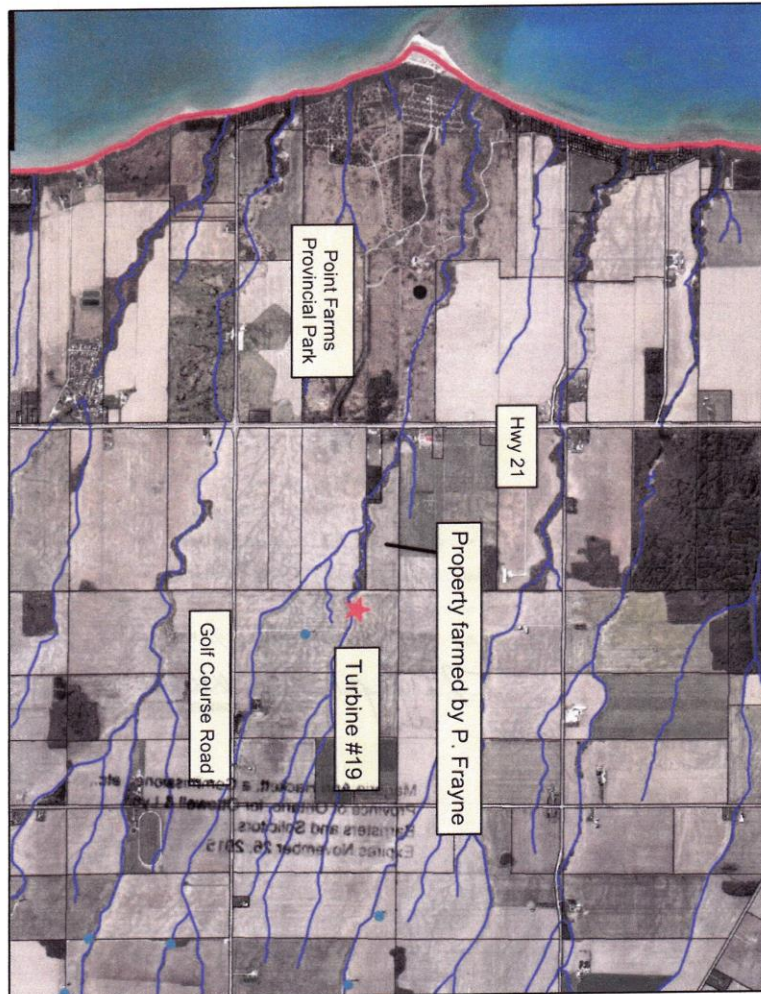

A Commissioner, etc.

Marjorie Ann Hackett, a Commissioner, etc.,
Province of Ontario, for Ottawell & Lynn,
Barristers and Solicitors.
Expires November 26, 2015.

EXHIBIT "A"

MAP #1: Location of K1 Wind Turbine #19

Map 1 - Location of K1 Wind Turbine #19

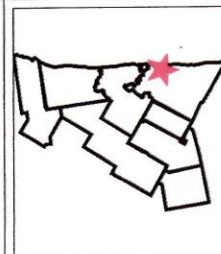


0 1000 2000 3000 m.

This map is a user generated static output from an internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Map center: 444194, 4850314

Notes: The red star shows the location of Turbine #19 in the K1 Wind project. Turbine #19 was severely damaged by fire on April 2, 2013.



Legend

- Wind_Turbines
- ACW_PublicAssessment
- huron_city_boundary
- hc_tier
- ACW_Lots
- /// waterlnd
- Huron2010_DVD.sld



Scale: 1:32,876

F-5

A
Paul Frayne
2nd
October = 2013
Marjorie Hackett

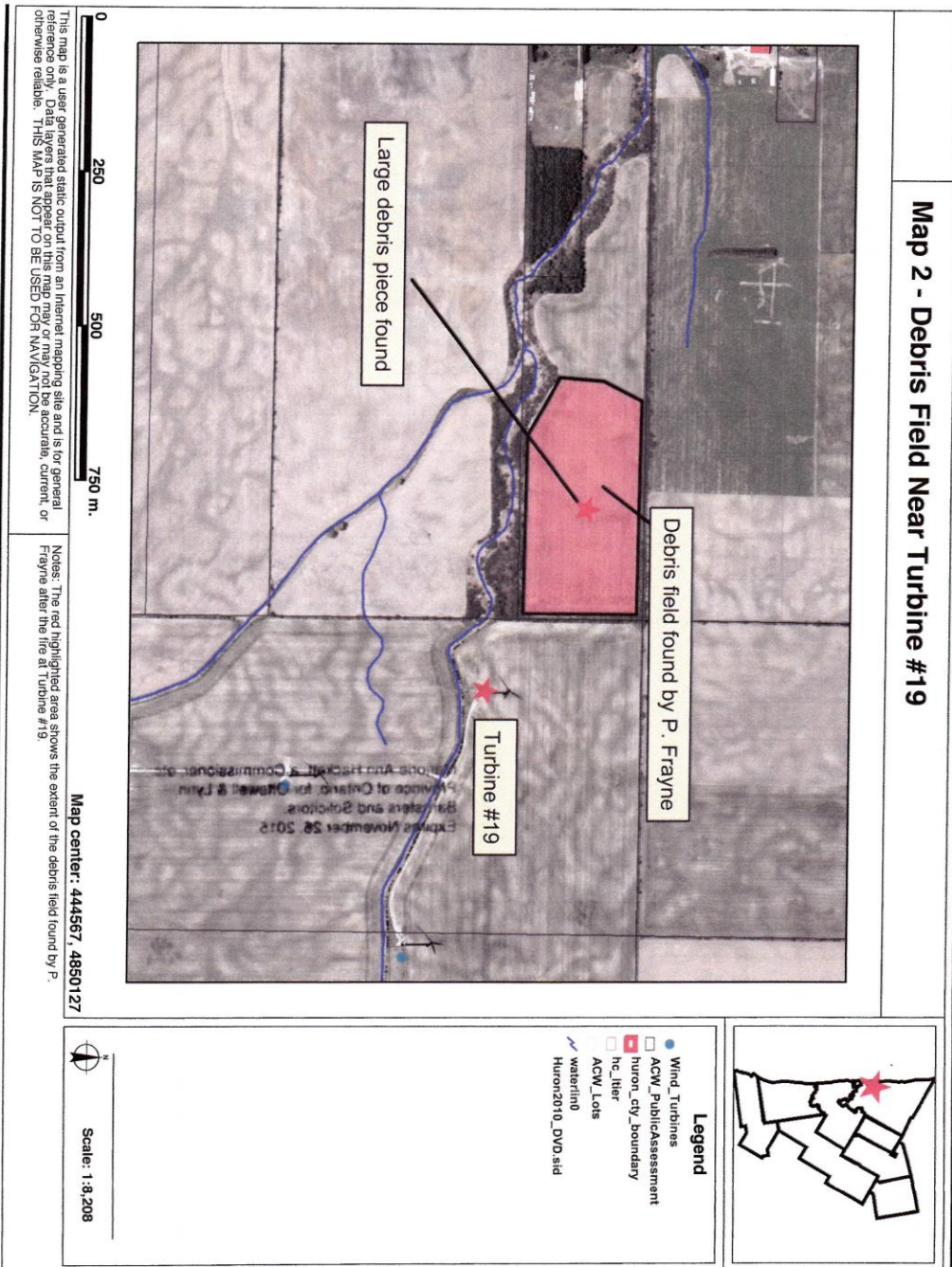
Marjorie Ann Hackett, a Commissioner, etc.,
Province of Ontario, for Ottawell & Lynn,
Barristers and Solicitors.
Expires November 26, 2015.

F-6

EXHIBIT "B"

MAP #2: Debris Field Near Turbine #19

Map 2 - Debris Field Near Turbine #19



^B
Paul Frayne
2nd
October 2013
Marjorie Hackett

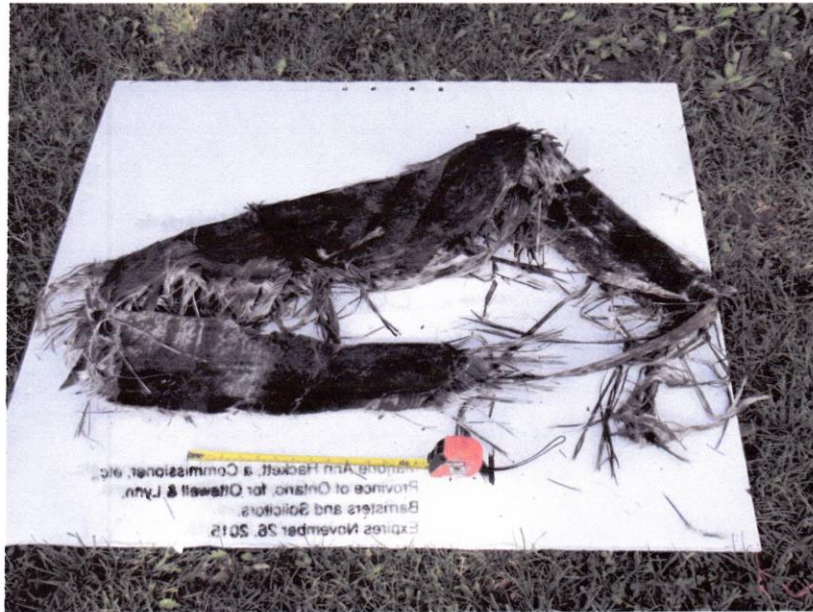
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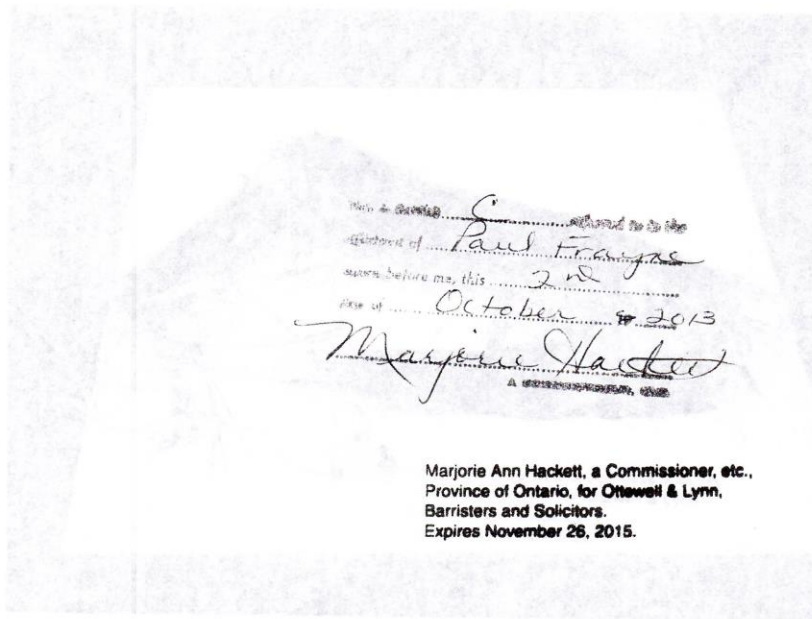
F-9

EXHIBIT "C"

Three photos taken of piece of turbine debris removed by Paul Frayne from field shown on Map #2 (Exhibit B).

PHOTO #1: Photo of piece of debris found by Paul Frayne in field identified in Map 2 (Exhibit B). The tape measure is set extended to a one-foot length for comparison purposes.





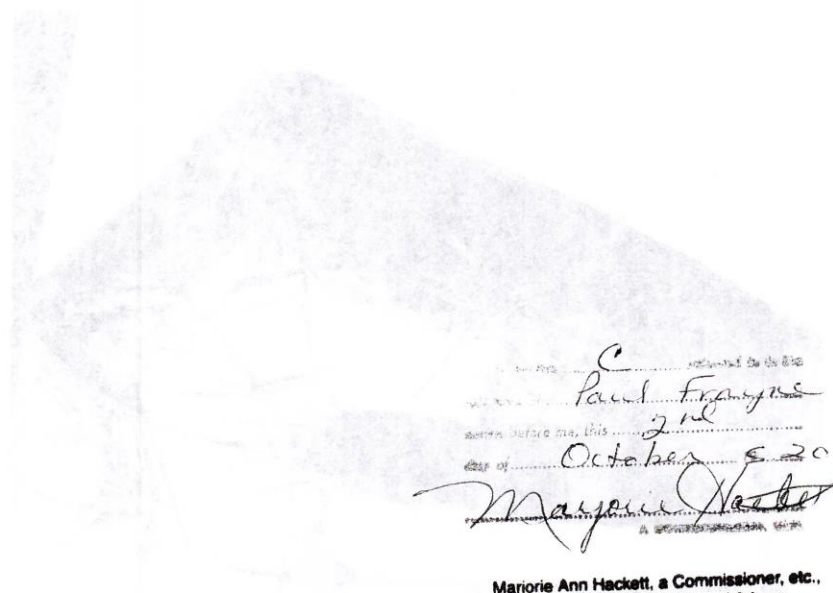
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Expires November 26, 2015.

F-12

Photo #2: Photo of piece of debris found by Paul Frayne in field identified in Map #2 (Exhibit B). The tape measure is set extended to a one-foot length for comparison purposes.



THIS IS TO CERTIFY THAT I HAVE READ AND UNDERSTAND THE CONTENTS OF THE ABOVE
AND THAT I HAVE SIGNED THE SAME IN THE PRESENCE OF THE
COMMISSIONER OF THE REVENUE



I, Paul Frayne
do hereby certify, this 2nd
day of October, 2013
Marjorie Hackett
A Commissioner, etc.

Marjorie Ann Hackett, a Commissioner, etc.,
Province of Ontario, for Ottewill & Lynn,
Barristers and Solicitors.
Expires November 26, 2015.

F-14

Photo #3: Photo of close up of piece of debris found by Paul Frayne in field identified in Map #2 (Exhibit B).



I, the undersigned, do hereby certify that the
signature of Paul Traynor
appears before me, this 2nd
day of October, 2013
Marjorie Hackett
A Commissioner, etc.

Marjorie Ann Hackett, a Commissioner, etc.,
Province of Ontario, for Ottawell & Lynn,
Barristers and Solicitors.
Expires November 26, 2015.

F-16