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Our File No: 11-069

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Report on the Survey of the line between Concessions 18 & 19 across Lots 9, 10, 11, 12 & 13, Geographic Township of Tiny in the Municipal Township of Tiny, County of Simcoe for the Ontario Ministry of Natural Resources. (OSG Ref. No. 2011-4250)

1. Purpose of Survey

The purpose of the survey is to determine the true location of the road allowance between Concessions 18 and 19 across Lots 9 to 13 inclusive in the Geographic Township of Tiny. The line between Concessions 18 and 19 was run in the original survey of the Township (Tab 20) in the year 1822 by John Goessman Deputy Surveyor. This report will focus on the evidence relating to the position of this line and in particular will try to relate the evidence to surveys which have been made in the years subsequent to the original survey.

2. (a) Historical Background

The original survey of Tiny Township was made by W. John Goessman, P.L.S. in 1821-1822. It was surveyed as a double front Township with lots 30 chains wide and 66.67 chains in depth.

The diary kept by Goessman, as well as his field notes, are available at the Ministry of Natural Resources and are significantly important documents in the retracement of the subject line. Mr. Goessman's diary indicates that he had a great deal of trouble completing his work due to the quality of the men he had working for him. His diary reveals that his men were not only disobedient and refused, on several occasions, work assignments, but were also heavy drinkers, prone to drunkenness, were thieves and physically abusive to him.

Notwithstanding the troubles he had completing the work, the diary is particularly informative with respect to the sequence of lines run and the chronology of the work as it progressed. Mr. Goessman records not only the dates on which the lines were run, but also the crew members, the difficulties he had with them and the directions in which the lines were actually run on the ground. This information has been very important in assessing the evidence found on the ground and has had a significant bearing on the conclusions reached.

In the instructions to Mr. Goessman, the line ABHC is referred to as the "baseline" and Mr. Goessman uses this term in his diary and field notes. Having completed the baseline Mr. Goessman proceeded to mark out, by various means, and on either side thereof, the grid which forms the framework for the lots and concessions of Tiny Township.

(b) The Jog in the line between Concessions 18 & 19 at the baseline

According to current plans deposited in the Registry Office a jog exists in the line between Concession 18 and 19 at the baseline. The line between Concessions 18 and 19 west of the baseline is approximately 2.5 chains (50 metres) south of the line east of the baseline. It is this jog which has brought into question, at least in part, the position of the line between Concessions 18 and 19 across Lots 9 to 12. This jog has been recorded by several surveyors over the years. In 1872 Burnet shows the jog on his field notes. The jog is also shown by P.L.S. Armstrong in 1884. P.L.S. C.E. Fitton shows the jog in 1888 and also records in his notes that P.L.S. Burnet stated that the jog was 2.25 chains. In 1918, A.G. Cavana also recorded the existence of the jog.

(c) The significance of the jog

According to current plans of survey, the position of the concession line east of the baseline lies approximately 50 metres north of the concession line west of the baseline. Some would argue that the concession line is straight, that there is no jog at the baseline and that the concession line west of the baseline should be established by a westerly production of the concession line evidence east of the baseline. The result of this survey method would be to place the concession line west of the baseline approximately 50 metres north of the position shown on existing reference plans. The road allowance would then run through lots and blocks on a registered plan of subdivision and through at least two houses. One of the purposes of this report is to determine if Burnet's line is in fact a new line or if he found the original line by Goessman.

3. The Evidence for the position of the line between Concessions 18 & 19

(a) The Survey by Peter Burnet

In the year 1872 P.L.S. Peter Burnet ran the line between Concessions 18 and 19 from the baseline, (the road allowance between Lots 8 and 9) westerly to Georgian Bay. Burnet's notes are somewhat cryptic and irritatingly lacking in some respects, however; there are some pieces of information that are quite significant and certainly should be considered in arriving at the final conclusion as to the position of the line. Although we know that other surveyors have worked in the area prior to Mr. Brunet's survey, their notes have not been found.

Peter Burnet commenced his survey on November 13th, 1872 which was a Wednesday and very likely completed it on November 15th, 1872. Other notes of his show that on November 16, 1872 he was working elsewhere in Tiny Township. Until the present time when the position of the subject concession line was questioned, it has generally been assumed that Burnet's line west of the baseline is the line between Concessions 18 and 19 and is also the one that presently exists on the ground.

It has been said recently that Burnet's line is not the original Goessman line but is a "new" line. The argument has also been made that Burnet found no original posts or

evidence of Goessman's line. As mentioned previously, Burnet's notes are lacking greatly in specifics with respect to found evidence, however, they are not completely devoid of references to found evidence.

On page 4 of his notes (Tab 1) he makes the following notation "chainage 192.15 tree marked by H. Creswicke W14/15". H. Creswicke Jr. was a provincial Land Surveyor who practiced in the area at least as early as 1864. Although he is known to have practiced in the area I could find none of his field notes which refer to his survey. It is however significant that Burnet found Creswicke's post on the line he was running. If Burnet was running a "new" line 50 metres or more south of Goessman's original line, it is difficult to see how he could have struck Creswicke's corner at chainage 192.15. The chainage 192.15 is also significant. This measurement, recorded to the nearest link, is evidence he was measuring to a specific point which would have been the tree marked by Creswicke.

A second significant piece of evidence is also found on page 5 of Burnet's notes (Tab 1). At chainage 342.12, which is a very precise chainage (to the nearest link), he draws a line on his notes at right angles to the concession line and records it as Lot 19/20 line. This notation is very significant because in no other location did he draw a line with a precise chainage which he calls a lot line. He therefore had a reason for calling this the Lot 19/20 line.

If you examine Page 7 of Burnet's 1872 notes Tab (1) you will see the reason he records this precise chainage. The reason is that he has found the actual post. The very last entry on Page 7 shows the chainage from Lot 9 to Lot 20. He states on Page 7 "342.12 post between Lot 19 and 20". This entry confirms that he found a post on the line he was running. What could it have been other than an original post and why would it be there if he were not on the original line?

Other Information on Page 7 of Burnet's notes

A cursory glance at Page 7 of Burnet's 1872 notes would indicate that he was just doing some arithmetic related to the job. However, an examination of his numbers reveals some significant information.

At the top of the page he records the total chainage that he measured from the baseline to Lake Huron which was 514.2 chains. He then subtracts 3 chains for the three intervening road allowance 13/14, 18/19 and 23/24 which gives him a total of 511.20 chains. His next entry is very significant. He subtracts 16 chains from this total chainage. Why did he subtract 16 chains from this total? The reason is because 16 chains is the distance Goessman recorded in his notes for the width of Lot 25, the broken lot adjacent to Lake Huron and Burnet wanted to know the lot proportion from the baseline to the last full lot. Burnet clearly says on Page 7 "16 allowance by F.N. for L 25." (allowance by Field Notes for Lot 25). His notation unequivocally confirms that he had Goessman's original field note information. If he was running a new line, 50 metres south of the original line, why would he care what the last lot measured? The angle of the shoreline of Lake Huron is approximately 45° to the concession line which would render the distance of 16 chains unworkable on any line except the original. The inference is that he was following the original line and was attempting to determine a lot division.

Burnet's Offset around Thunder Bay

As well as the reference to Creswicke's tree post, Page 4 (Tab 1), Burnet's field notes show that he measured an offset around Thunder Bay. When he reached the beach area at Thunder Bay he turned southerly at station 124 and ran an unknown distance to a point where he turned westerly running parallel to the concession line. He then ran this line a distance of 60 chains from chainage 124 to chainage 184. At 184 chains, he turned northerly again and ran an unknown distance back to the concession line where he proceeded to continue the line westerly. It is reasonable to ask, why did he not record the distance from the concession line southerly to his offset line. In other words what was his offset? There is a good reason for asking this question. If he was blazing a new line then he would have to know what his offset was and would need to record it so that when he reached the west side of the bay, he could continue his line. If he was simply following an existing line which was already marked on the ground by a blazed line, then why would he need to record his offset? He would only need to know the overall chainage to keep track of where he was; he would not need to know the amount of the offset.

4. (a) The Jog at the Baseline

As previously discussed, several surveyors over a period of decades have found the jog in the 18/19 concession line at the baseline and have recorded it. O.L.S. Peter Burnet appears to be the first to show it on his 1872 field notes. P.L.S. C.E. Fitton indicates in 1881 that P. Burnet recorded the jog in field book 4 as 2.25 chains.

Burnet clearly shows the jog on page two of his 1872 notes (Tab 1).

One has to ask, why Burnet would purposely create a jog at the baseline when he was fully aware of the position of the concession line lying east of the baseline. The only logical conclusion is that west of the baseline he found Goessman's line on the ground and was following it. This conclusion is supported by the fact that he found P.L.S. Creswicke's post 192.15 chains west of the baseline. It would be an almost impossible coincidence that he would have run into Creswicke's post if he was not on the original line. If he had been cutting a new line, he would have been 50 metres south of Creswicke's post. The evidence seems to confirm that Goessman's line created a jog at the baseline but the question then is why is it there?. The answer to that is to be found in Goessman's diary. The following entries are from his diary of April 5th, 6th and 7th, 1822.

Goessman's Diary (Pages 34 & 35)

April 5th, 1822 (Pg. 34)

We chained across Thunder Bay on the ice, finished the west part of the 20th and 21st Concession line, chained through the woods across the 20th and 19th Concessions and nearly 2 lots in the 18th and 19th Concession.

April 6th, 1822 (Page 35)

Finished the 18th and 19th Concessions from Lake Huron to Lot No. 12 on Thunder Bay exclusive Lots 20 and 21 mostly. Encamped Thunder Bay.

April 7th, 1822 (Pg 35)

We finished this line till the baseline We run one lot in Concessions 16 and 17th and encamped.

Goessman clearly says that on April 6th he ran from Lake Huron to Lot 12 on Thunder Bay exclusive of Lots 20 and 21. The reason he excluded these two lots was that he had run them the previous day on April 5th when he turned west to Lake Huron. The diagram labelled at Tab 10 attached hereto shows the configuration of the lines run by Goessman April 5th, 6th and 7th west of Thunder Bay.

It is clear from the above diary entries that Goessman did not run the Concession 18/19 line westerly from the baseline. His diary confirms that west of the baseline the line was run easterly from Lot 20 to Thunder Bay and then continued on to intersect the baseline. That work was completed on April 7th, 1822.

The subject concession line east of the baseline was run in a similar fashion but at a somewhat later date. East of the baseline he ran the line between Concessions 18 and 19 westerly from a point on the line H.I. on July 1st, 1822. It would not be unreasonable that his line struck the baseline approximately 2 ½ chains north of the line west of the baseline. In both instances, both east and west of the baseline, Goessman ran his lines into the baseline from points remote. He did not run the concession 18/19 line east and west from the baseline. The resulting 2 ½ chain miss is not at all surprising. He did very well to strike within 2 ½ chains of his closing point given the length of his traverses and the equipment he was using. The traverse on the west side of the baseline is just short of 12 miles and that on the east is somewhat less.

It has been argued that Burnet was not able to locate the 18/19 concession line west of the baseline and so he applied Section 6 and 7 of 22 Victoria cap 93 which allows for two adjoining concessions to be split proportionately if the line between them cannot be found. Cap 93 of 22 Victoria is merely a precursor of Method 54 of Regulation 808 under the current surveys act where a lost or obliterated concession line may be reestablished across the entire width of the Township. It does not apply to a part of a concession. It applies only to our entire concession from Township boundary to Township boundary.

Both concession 18 and 19 were laid out by Goessman at 66.67 chains therefore if Burnet had attempted to split the distance, he would have split it equally. In 1888 the depth of concession 18 at Lot 9 was found by P.L.S. Fitton to be 65.22 chains (we measured 65.36 chains). The depth of Concession 19 was found by Burnet to be 67.00 chains at Lot 9. We found it to be 68.04 chains by actual measurement. Whether you use our measured distance, or the distance recorded by Burnet and Fitton it is clear that Burnet did not split the total depth of Concessions 18 and 19. The depths of each of the two concessions are not close to the same measurement.

There is one more interesting element to the mystery of the jog and why it is there. It is worth mentioning. On April 3rd and 4th, 1822 Goessman's diary indicates that he ran the baseline northerly and on the fourth of April came out at the 20th and 21st concession line at Thunder Bay. According to his notes (Page 69) he gave every concession from 1 to 20

a depth of 66.67 chains on the baseline except for Concession 20 which he records as 65.50 chains. On April 5th the very next day he then ran westerly across the ice between Concessions 20 and 21. From what point did he run the line westerly? Was it from the point 65.50 chains north of Concession 19/20 or was it at 66.67 chains? If he ran it from 65.50 chains, which is the last chainage he records for Concession 20, then that accounts for a good portion of the jog at the baseline at the Concession 18/19 line. His notes clearly say that when he measured Concession 19 and 20 at Lot 20/21 he gave them each 66.67 chains. Given the shenanigans of his crew on April 4 when he was completing the baseline and preparing to run westerly, it would not have surprised me that he ran westerly from the point 65.50 chains instead of 66.67 chains. I have enclosed copies of the diary for those dates and have underscored the difficulties he was having with his drunken crew. See Tab 11.

(b) Notes of C.E. Fitton, P.L.S., 1881, Tab 7

On February 24th, 1881, P.L.S. C.E. Fitton ran the line between Concessions 18 and 19 westerly from the baseline to Lot 12 (97.21) chains. This, of course, is the same line run by Burnet 9 years previously. On his field notes he states that he found two original tree posts. One post was found at the line between Lots 9 and 10. In his notes he states "an original oak tree post rotted on east, west and south sides but marks plain on north side Con. XIX". This post was found at 35.65 chains west of the baseline.

At 61.56 chains farther west from this post P.L.S. Fitton found the stump of a second original tree post. He states on his notes "Found an original pine stump about 20 feet high marked for the north-west corner of Lot, Concession XVIII".

Fitton also shows finding a post on the intersection of the centerline of the baseline and the centreline of the road allowance between Concessions 18 and 19.

(c) The Significance of the Posts found by Fitton

An examination of the field notes of various surveys made in Tiny Township in the 19th and early 20th century reveals that many of the original posts which were set by Goessman were tree posts. His method of marking the lot corners appears to have been, in many cases, the squaring up of a tree close to the corner and marking it with the appropriate lot and concession numbers. Indeed, in the AOLS survey law course manual Module 1.2 "The nature of boundaries" the very last page in the book shows an original tree post with markings on it which was found in Tiny Township in 1946.

It is clear that in 1881 P.L.S. Fitton is finding original posts along the concession line and he unequivocally states that they are original posts that he is finding.

(d) Notes of C.E. Fitton, P.L.S., 1888, (Tab 8)

On December 21st, 1888, C.E. Fitton ran the line between Concessions 18 and 19 easterly from the baseline across Lot 8 for the Council of the Township of Tiny.

On page 16 of his field notes, he indicates that he found an original oak tree post, squared and marked for the south west corner of Lot 8, Concession 19. He records the width of Lot 8, as 35.50 chains.

On Page 17 of the same 1888 survey Fitton's shows the jog at the baseline between Concessions 18 and 19. He also indicates that he found the blazed lines on the centreline of the concession road allowance on each side of the baseline, the blazed lines being 2.30 chains apart which is the amount of the jog that he measured. He also records the depth of Concession 18 in Lot 8 as 67.52 chains and 65.22 chains in Lot 9.

(e) Inferences to be drawn from the Fitton's Surveys of 1881 & 1888

It is clear from page 17 of his 1888 survey that Fitton was acutely aware of the jog at the baseline. It is also apparent that he found the blazed lines marking the centreline of the road allowance, both east and west of the jog. In both the 1881 and 1888 surveys he is definite in his assessment of the vintage of the tree posts that he found recording that they are original posts. The original tree post he found at Lot 7/8 in 1888 east of the baseline coupled with the two original tree posts he found in 1881 at Lot 9/10 and 11/12 west of the baseline are conclusive evidence that the concession line jogged at the baseline. These posts are also conclusive evidence that he had the original line run by P.L.S. Goessman. Burnet's survey was in November of 1872 and Fitton found original posts in a state of decay in 1881 only nine years later. The fact that the posts were rotted indicates that they were older posts and obviously the originals as he so stated.

(f) The Widths of Lot 8 and Lot 9 as found by Fitton in 1881 & 1888

It is interesting and significant to note the width of Lots 8 and 9 as found by P.L.S. Fitton. In a previous section in this report I explained how P.L.S. Goessman ran his survey lines. According to his diary the line between Concessions 18 and 19 west of the baseline was run from Lake Huron easterly to intersect the baseline. As stated previously this work was completed on April 6th and 7th, 1822. According to his diary he had started on the baseline at the line between Concessions 20 and 21 and run westerly on the ice across Thunder Bay to Lake Huron. He then ran south for two concessions to the line between Concessions 18 and 19. At that point he turned west. On April 6th he completed the line out to Lake Huron, returned to Lot 20 at Concessions 18/19 and ran easterly to Thunder Bay. On April 7th he completed the 18/19 Concession line from Thunder Bay to the baseline. The last lot he surveyed, coming into the baseline was therefore Lot 9, the closing lot.

On the following June 25 and 26th two and a half months later, Goessman started at Point "H" on the baseline and ran the line H.I. in a northerly direction terminating the line at the waters of Georgian Bay. According to his diary on July 1st, 1822 he then turned westerly from a point on the line H.I. and ran the line between Concessions 18 and 19 westerly across to the baseline. In running easterly from Thunder Bay on April 7th, 1822 the last and closing lot he measured was Lot 9. Similarly, running westerly from the east toward the baseline the last lot he measured on July 1st, 1822 was Lot 8. His closing lot for this loop east of the baseline was therefore Lot 8. In 1888 P.L.S. Fitton measured from the baseline easterly to the original tree post at Lot 7/8 and found the distance to be 35.5 chains, again a large surplus of 5.5 chains in the closing lot.

In traverses of this magnitude one would expect, given the nature of the measuring equipment available to him in 1822, to have a significant error in the closing lots. As previously stated this assumption is borne out by the measurements found by P.L.S. Fitton in 1881 and 1888. In Goessman's large traverse loop west of the baseline he

ended up with a surplus of 5.65 chains in Lot 9 as evidenced by the original posts found by Fitton in 1881 (Tab 7). In his loop east of the baseline Fitton found the error in Lot 8, Goessman's closing lot, to be 5.50 chains (Tab 8).

To better illustrate the probability of large errors in his closing lines, I have enclosed for your information as Tab 12, a copy of two pages of notes of an original survey done approximately 40 years after Mr. Goessman's work in 1822. The pages are for the survey of a concession line in Clarendon Township in 1861. Page 131 shows that each lot was made 20 chains wide but the closing lot coming into the sideroad at Lot 35/36 was 21.68 chains. The error therefore was 1.68 chains in only a single section each boundary of which was fully surveyed using much better instrumentation than was available to Mr. Goessman. The point to this is that the errors of 5.65 chains and 5.5 chains by Mr. Goessman in 1822 are not unreasonable given the conditions and circumstances under which he laboured including the equipment he used, the length of his traverses, the difficulty of the terrain and the state of sobriety of the chainmen.

5. Comments on Goessman's Chainage

Although it is virtually impossible to locate any of Goessman's original survey posts today, from the field notes of other surveyors in the late 19th century and early 20th century we can make certain assumptions about Goessman's chaining. An examination of the measurements between original posts found by other surveyors reveals that almost every lot as laid out by Goessman contained a substantial surplus. The compilation of old field notes by Chester Stanton, O.L.S., in this regard has been very helpful. The following is a listing of a few of the measurements found and used by surveyors for various lot and concession widths.

Tab 1: Peter Burnet indicates the width of lots on the line between Concessions 18 and 19 to be 30.92 chains by proportioning.

Tab 8: C.E. Fitton – Line between Concessions 17 and 18

Lot 7 31.19 ½ chains Page 21
Lot 6 – 31.14 ½ chains Page 21

<u>Tab 2:</u> P. Burnet 1872 – Page 33 line between Concessions 8 and 9		
Lot 11 – 30.6 chains		
Page 38	Lot 21, Concession 19	30.6 chains
Page 39	Lots 16 and 17, Concession 5	30.5 chains
Page 40	Lots 14 and 15, Concession 7	30.5 chains
Page 51	Depth of Concession 17 at Lot 8/9	68.66 chains
Page 54	Width of Lots 5, 6, 7, Concession 15	92.77 chains
Page 60	Width of Lots 14, 15 & 16, Concession 11	93.96 chains or 31.32 chains/lot
Page 72	A note stating that the lots intervening between the B line and Lot No. 13 according to the subdivision by Creswicke are 33.05 chains	
Page 77	Lot 10, Concession 12	30.87 ½ chains
Page 78	Distance between baseline and line 12/13 on Concession line 12/13 is 116.60 chains or a shortage	

6. The Alleged Conflict between Goessman's Field Notes & Diary & the Discrepancies in his Measurements

It has been said that there is a serious conflict between Mr. Goessman's diary and his field notes and that the information in the field notes does not accord with what is in the diary. I would like to address that allegation because only to a very minor extent is it true. This alleged conflict has nowhere near the import that it is made out to have. This apparent conflict is a result of incorrect expectations on the part of modern surveyors and a misunderstanding of how these early surveys were performed and what is meant by the term "field notes". We know from his diary the dates upon which Mr. Goessman ran his lines and the directions he ran them. For some reason it has been assumed that because the notes progress in a continuous line or direction that the field work was performed in the same sequence. This assumption is totally false.

At a superficial glance, the notes, would appear to indicate the line between Concessions 18 and 19 was run from east to west. They show a continuous line from Penetanguishene Harbour to Lake Huron. The lots are lettered and numbered consecutively from Lot G to A and from 1 to 25 inclusive (see pages 52, 53, 54, 55 and 56). This sequence is not the way the line was run nor is it the method used for any of the other lines run in this Township. We need to ask ourselves this question, "Is that the way we would have run the 18/19 concession line if we had an entire Township to survey?" Of course not. Any one of us would survey the township in large blocks so that our campsites need only be moved a minimum number of times. One would never run a single line across an entire Township and then walk back across the Township and start a new line. It is ridiculous to assume that the sequence presented on the final note pages represents how the survey was performed. The notes are not indicative of how large surveys of this magnitude were done and even today are not representative of how large survey are made. Mr. Goessman had no other means of transport other than walking so he surveyed as much of the Township as he could from one base. When those lines were completed and the distances to new lines became too great, he moved camp. The notes he prepared therefore represent a final compiled result of all the disparate parts that were surveyed.

His notes in no way are a misrepresentation of his work. It is our own lack of understanding and the incorrect assumptions we have made that have given rise to this allegation of conflict between diary and field notes.

At the risk of repeating myself, of necessity, the work progressed in a piece meal fashion with parts of various lines being surveyed at vastly different times. If the final notes were recorded in the exact sequence they were measured, they would be extremely difficult to follow and I'm certain the index would have been a nightmare to produce. For convenience sake and ease of finding information he has compiled as a continuous line, full concessions from one end to the other. This presentation of information does not mean that he ran the lines in that order. For example, the concession 18/19 line was measured in 3 different sections at 3 different times, April 6th - 7th, July 1st and September 2nd.

We also know that his notes were not actual field notes but are what is known as "fair copy notes" made, not in the field, but at some time after the field work was completed. The following notations in Goessman's diary show that the chaining was done by members of his field crew other than himself and that measurements were recorded in the field in some manner by the chainman. The final notes were then prepared by himself from the field records submitted to him by the chainbearers. From his 1822 diary he records:

June 3rd – "The men arrived with their chaining at my encamp at 11 a.m. Ducks keeping the field notes. I noted down the remarks thereof in my field notes – as I constantly through the whole survey intirely kept the field notes myself".

July 7th – I arose early, copied field notes

July 21st – Being Sunday I copied the field notes from the 17th till the 20th incl.

Sept. 1st – Being Sunday wrote journal, copied field notes and mended survey compass.

Sept. 4th – "I had to keep and copy the field notes which I have done during the whole survey".

These comments provide the proof that he was relying on his chain bearers to carry out and record proper measuring and was transcribing the results of their observations. It is entirely possible that given the nefarious acts of the crew members throughout the survey that he was not even aware of the discrepancies which are now apparent in the chaining including the jog at the baseline.

The notes clearly say that each lot is 30 chains wide, nevertheless as I have shown from evidence of original corner posts found on the ground, virtually all of the lots surveyed by him had a substantial surplus in them. As explained above, although his notes are presented so that it appears that the line between Concession 18/19 west of the baseline was surveyed as a westerly extension of the concession line east of the baseline, we know this is not true. In addition although his notes show that both Lots 8 and 9 are 30 chains wide, original marked corner posts have been found at Lots 7/8 and 9/10 and the lot width for each is nothing like 30 chains, having surpluses of 5.50 and 5.65 chains respectively. In this respect the only serious conflict is between the measurements recorded in his notes and the actual measurements on the ground.

The Allegation that the Concession Line West of the Baseline is a Production of the Line East of the Baseline

A superficial examination of Mr. Goessman's notes would indicate that the line west of the baseline was run in a westerly direction yet his diary clearly confirms that the line was run easterly. The detail in his diary would lead one to believe that his diary is a much more believable and realistic record of what actually happened during the progression of the survey than the record indicated by the notes. Unfortunately the topography along the line is, for the most part, unremarkable except for the top of the hill which overlooks the lake. It therefore is of little help in the determination of the line location. There are no creeks, cliffs, swamps or specific topographic features which

would confirm the location of the line. The most distinct feature is the summit of the hill and its location would fit whether or not the line was moved to the north. As I said previously, I have not assigned much weight to the lakeshore ties because of the snow and ice conditions encountered by Mr. Goessman and the questionable location of the water's edge in 1822.

We know that the baseline was run first and posted at each concession line giving to each one a depth of 66.67 chains and an intervening road allowance of one chain. It has also been suggested that wherever the concession lines were run subsequently, the lot corners along the baseline as initially established should govern and be held as gospel.

This position is untenable for 2 reasons. First of all, at the time he initially set his posts along the baseline (if indeed he did set them) at that point in the survey the remainder of the survey was incomplete. He had, at that point, still to run the intersecting concession lines. We have no record of what he did after those lines were completed but presumably he made a decision on what corners would be final. How many of us have been in the same position during the course of a survey. On many occasions I have seen survey field notes which show iron bars which were ultimately not used as final corners for whatever reason. In other words all the field notes are not necessarily represented on a plan. The same rationale would apply here. Mr. Goessman's survey was not complete at the time he ran the baseline, the returns of survey were not yet submitted and his notes were not even completed. He was quite within his rights to change any line or corner or do what he wanted with the intersecting lines. Certainly he would not have rerun and reblazed the concession lines. If anything, he would have adjusted the posts along the baseline to agree with the intersecting lines. The second reason is as follows:

Let us for the moment agree that he should have used the initial posts on the baseline. Given the extremely bad attitude of his field crew and their propensity for bad chaining, how do we know which of the corners at the jog is incorrect? Perhaps it was the corner at Lot 8 east of the baseline which was the wrong line. Why are we saying that the line west of the baseline is the incorrect one? Why not the line east of the baseline? Why not both of them?

7. The Width of Thunder Bay on the 18/19 Concession Line

In early April of 1822, Goessman measured easterly across Thunder Bay on the line between Concessions 18 and 19. We have no idea what water levels existed at that time particularly since he was measuring on the lake ice. The beaches and lake ice would presumably have been covered with snow and ice making the precise interface between land and water uncertain. His diary states that he measured on the ice. The chainage we measured across the bay on the line between Concessions 18 and 19 was 1084 metres, the distance from waters edge to waters edge. This chainage does not compare very well with Mr. Goessman's who measured the width of the bay in increments including Lot 12 at 5 chains, Lot 13 at 30 chains, a one chain road allowance and Lot 14 at 20 chains making a total of 56 chains across the bay (1126.54 metres) a difference of 42.5 metres from our measured value. There are several factors which could make his chainage uncertain.

Firstly, the fluctuation in the water levels of Lake Huron is substantial and we have no way of knowing what the water level was at the time Mr. Goessman measured it in 1822.

Secondly, the water's edge abutting a shallow beach such as exists on Thunder beach with no sharply defined banks is only distinct in spring, summer or fall conditions. In winter and early spring conditions, which is the time Mr. Goessman measured the bay, the lake is covered by ice and snow. The precise line of the water's edge would have been very difficult if not impossible to discern.

Thirdly, an examination of the beach on the east side of the bay suggests some minor shoreline alteration particularly where the present dock is located on the road allowance. It looks suspiciously like there has been an alteration in the beach where the road allowance crosses.

Fourthly, it is common knowledge that the great lakes water levels have decreased substantially in recent years. Much has been said and written about this phenomenon and it is of great concern to scientists. For these reasons I have not placed great significance on the width of the bay as measured by Mr. Goessman.

8. Relationship between Goessman's diary & Goessman's notes

The documentary evidence of Mr. Goessman's work includes not only the notes that he made but also his diary.

It is a well known fact that the notes made by surveyors of that vintage were not actual field notes. What we have today and what were prepared for the official record are what is known as "fair copy notes". They are not field notes at all but were constructed sometime after the field work was completed from records of what was actually measured in the field. I would hope that the confirmation authorities for this survey project would take judicial notice of that fact.

This is an important distinction because to the inexperienced eye Goessman's notes indicate that he ran the line between Concessions 18 and 19 from east to west in a continuous line as indicated on pages 52 to 56 inclusive of his notes.

His diary on the other hand, provides an entirely different picture of the work progression. It indicates that the line west of the baseline was run on April 6th and 7th of 1822 and the line east of the baseline was run July 1st, 1822 and in a completely different direction. The diary is very specific in most cases as to what he was measuring and when. As explained later on in the report his diary reveals what actually happened in the field.

9. The Line between Concessions 18 & 19 West of Thunder Bay

During the course of the survey, I located certain lot corners and points on the line between concession 18 and 19 west of Thunder Bay as far west as Lots 20 and 21. The resulting measurements show that the concession line is essentially a straight line from the baseline all the way to Lot 21 which was as far west as I went. There are some small bends at the lot corners but nothing significant and certainly no large jogs or bends which would indicate that the line is anything other than the true line. As previously explained,

the location of Creswicke's post and the post at change 342.12 both of which lie west of Thunder Bay are confirming evidence of Goessman's line.

10. Bylaw 26 Township of Tiny

Peter Burnet's survey of 1872 is a considerable piece of work for which someone or some agency must have paid a substantial amount of money to have completed. It seems logical that only a municipality would be interested in having an entire concession line run across 18 lots. With this thought in mind, I attended at the Township of Tiny municipal office to research their records. It seemed to me that if the Township had commissioned such a survey, there would be some sort of record of it, perhaps a bylaw. I was informed that the old records had been sent to the Simcoe County archives; however, on a compact disc at their office, they had recorded the bylaws from 1869 to 1939. I looked through the documents covering the period 1870 to 1873 but found no bylaw authorizing the Burnet survey of the subject road allowance. I did however, find a bylaw which was very interesting. In 1871 the Municipality passed a bylaw authorizing the sale of all the pine and oak timber on all the lines from the 17th Concession to the Bay to Charles Perrault and Ovid Lafreniere.

The document reads as follows:

Bylaw No. 26

To confirm a sale of all the timber
of Pine and Oak on certain lines
of the Township of Tiny to Charles
Perrault and Ovid Lafrenier

Whereas on the 30th day of October
A.D. 1871 by resolution of the council of the
Corporation of the Township of Tiny in council
assembled it was ordered that a
bylaw be passed to confirm a certain
sale of all the pine and oak timber on all
the lines from the 17th Con. to the bay made to Charles
Perrault and Ovid Lafreniere subject to certain considerations
to be done and performed by the said Charles
Perrault and Ovid Lafreniere which fully appear on
the minutes of Council of said date. Therefore
the said Corporation of Tiny hereby confirms the
said sale of timber and the said timber is hereby
granted to the said Charles Perrault and Ovid
Lafreniere for the term of three years to be computed
from the said thirtieth day of October, reserving
the right of free ingress, regress and egress at all times
to all settlers that may take up land bordering on
the said lines.

Council Room
December 4th, 1871

Lewis Columbus
Reeve

Thompson
Township Clerk

A copy of this document is attached to the report as Tab 13 and offers a plausible explanation for the purpose of the running of the line by P.L.S Burnet and also suggest why his notes show very little found evidence. The time period is exactly correct since it would have taken several years to remove all of the timber from these many road allowances, the bylaw being passed in 1871 and Burnet's survey performed a year later.

As I mentioned previously, I believe Burnet was following the old blazed line which would still have been visible on the ground since the interval between the original survey and his survey was only 50 years. It is my view that if Burnet was doing a survey simply to mark the concession line for tree removal, then he would not have been particularly interested in the precise position of original lot corners. His line, which I believe was Goessman's original line, was on the centreline of the road allowance and was all he needed in order to satisfy his client for the tree removal. The date of Burnet's survey was November 13th to 14th, 1872 which means there was a very good possibility that there was snow on the ground. The entire area around Muskoka and the Georgian Bay area receives substantially more precipitation than areas farther east or south. It is quite reasonable to expect that the lot corner posts may have been snow covered and that he was following the more obvious blazed line rather than waste time looking for original posts at the edge of the road allowance. In deep snow a blazed line is much easier to locate than posts.

11. Summary

The investigations of the line between Concessions 18 and 19 across Lots 9 to 13 inclusive have brought to light a number of facts which prior to 2010 had not been expressed in any sort of consolidated or coherent form. From the original diary and notes we know that the subject concession line was first run in the year 1822 by Deputy Surveyor John Goessman. We know that other surveys along the length of this line have been performed over the decades since the original survey. We know that Provincial Land Surveyor Peter Burnet ran a line in 1872 from the baseline westerly to Lake Huron, the line purporting to be the line between Concessions 18 and 19. We also know that Burnet's survey was only 50 years subsequent to the original survey by Goessman. Other surveyors, namely P.L.S. Fitton and Creswicke have been involved in the same line and have found original evidence of it including blazes and original tree posts. We also know that the notes prepared by John Goessman do not agree very well with the survey evidence found on the ground subsequently by other surveyors. We have been made aware that a jog of approximately 50 metres exists in the concession line at the baseline and that this jog has become a focal point of the disagreement with respect to the position of the concession line. It also appears that almost all surveyors, who have been involved in subsequent surveys have recognized the jog in the concession line at the baseline and have accepted it. Certainly, all surveyors who have registered or deposited plans in the Land Registry Office, have accepted it. The question therefore is whether or not the line run by Burnet and others before him and accepted by everyone thereafter is the original line. If it is not the original line, then what is the evidence for a different line?

12. Conclusion

A great deal of material has been accumulated in the course of this investigation in the form of plans, field notes and reports with respect to the subject line. A survey report by O.L.S. Stewart for a Boundaries Act plan has been prepared for an area close to Thunder Bay in which there is much discussion about water levels, accretion and erosion of water boundaries, crown grants and conveyances of lands adjoining the subject road allowance. Mr. Stewart also alleges that the line presently on the ground is not the original line by Goessman but is a new line created by Mr. Burnet as a result of his 1872 survey.

Notwithstanding that much information has been accumulated there is only a very minimum of it which relates directly to the line between Concessions 18 and 19. The work done by Provincial Land Surveyors Burnet and Fitton contain the most significant clues to the puzzle although there are other surveyors who have made lesser contributions.

It is my conclusion that the road allowance that I have shown on the draft Municipal survey plan is the best evidence of the original line as run by Deputy Surveyor Goessman in 1822. My reasons are as follows:

P.L.S. Peter Burnet ran the concession line in 1872 only 50 years after the original survey in 1822. The original blazed line on the centreline of the road allowance or much of it, would still have been visible at that time. The first page of his field notes indicates that he was quite aware that there was a jog at the baseline because he clearly shows it on page 2 (Tab 1). One therefore has to ask "why would Burnet purposely offset the concession line by 2 ½ chains to the south if the true line was a westerly extension of the line east of the baseline?" The answer is that he would not. I believe he was following the original blazed line by Goessman which would have been visible to him. This supposition is supported by the following information:

On his field notes (pg 4 Tab 1) Burnet states that he found P.L.S. H. Creswicke's tree post at chainage 192.15. This is solid evidence that he was following the original line, otherwise he would never have struck Creswicke's post because he would have been too far south. Creswicke was certainly working in that area because Burnet also records that he found a line by Creswicke in Lot 21, Concession 19 (see Page 38, Tab 2).

On page 5, Tab 1 Burnet draws a line between lots 19 and 20 running northerly and at right angles to the concession line at chainage 342.12. On page 7 he indicates that he found a post at chainage 342.12. If he had been running a new line, he would not have found either the post or the line between Lots 19 and 20 for the same reason that he would not have found Creswicke's post.

The most compelling pieces of evidence were found in 1881 by P.L.S. Fitton. He found original tree posts on the subject line between Lots 9 and 10 and between Lots 11 and 12 proving conclusively that the line Burnet was running was the original line.

Similarly in 1888 (Tab 8, Pages 16 and 17) P.L.S. Fitton found the original tree post at Lot 7/8 and as well he found the two blazed concession lines and the jog between them

(pg 17). These findings are indisputable evidence that not only does the line jog at the baseline but that it is the original line run by Goessman.

In 1888 Fitton also records, Book 14A, Pg. 89 (Tab 9), that Burnet measured the jog in 1873 at 2.25 chains.

One of the most compelling arguments for the position of the road allowance is that it is presently there on the ground and has been there for many years manifested by the road bed, the remains of old fences on either side, the old stone rows bordering it and the intersecting fence corners coming into it on either side.

I have examined each lot line for a minimum distance of 50 to 75 metres north of the present road bed and have found no evidence whatever of a road allowance, no fence corners, monuments or lines running in an east west direction.

In addition there are many reference plans presently abutting the present road allowance namely 51R-12932, 51R-12600, 51R-18994, 51R-11404, 51R-31682, 51R-13426 as well as two registered plans of subdivision 1267 and 51M-252

For these reasons, I have concluded that the line as I have shown it on the draft retracement survey is the best evidence of the original line by John Goessman, and is also the one retraced by P. Burnet and is the true line between Concession 18 and 19.

13. An Explanation for the lack of water frontage on Thunder Bay for Lot 12, Concession 18

As concluded in my report, I believe that the road allowance between Concessions 18 and 19 is exactly where it always has been and that the line I have surveyed is both Goessman's line and Burnet's line. The preponderance of evidence in favour of it being the original line is, in my view, overwhelming.

However, the question still remains as to why the original Township plan shows Lot 12 with frontage on the lake yet today it is no longer the case. This apparent anomaly is not at all surprising to me as I can produce numerous examples of lake shorelines that are nowhere near the positions shown on original plans. Still one wonders how this could have happened and with that in mind, I would like to provide you with an explanation as to what I think may have happened. There are very likely 2 reasons for this occurrence.

Reason No. 1

Reason number 1 is, in my view, the most reasonable explanation for the lack of water frontage. As my report indicates, and Goessman's diary confirms, the concession line west of the baseline was run easterly from Thunder Bay to intersect the baseline. The concession line east of the baseline was run westerly from the east toward the baseline. Quite understandably the two lines did not match each other and for the reasons I explained. The line between Concessions 18 and 19 is nevertheless in the correct location. The problem of the lack of water frontage for Lot 12 is not the alignment of the concession road allowance, the problem is the lot division.

Let us review the width of both Lots 8 and 9, lot 8 being Goessman's closing lot east of the baseline and lot 9 being his closing lot to the west thereof. Keep in mind that these 2 lots were the closing lots of extremely long traverses.

P.L.S. Fitton shows finding an original post at Lot 9/10 in 1881 (Tab 7) and the chainage across Lot 9 was 35.65 chains, a very large surplus.

Similarly, in Lot 8 in 1888 Fitton found the original oak tree post at Lot 7/8 and measured Lot 8 at a width of 35.50 chains, another large surplus. This surplus is confirmed by Fitton in April of 1924, some 36 years after his first survey. In 1924 he measured Lot 8 at 35.52 chains only two links different than his 1888 survey.

Now let us examine how the surveyors have treated these large surpluses in the closing lots.

In Lot 8, the surplus was found by Fitton to be 5.50 chains. Plan 51R-17171, which is a plan by J.W. Nicholson, O.L.S. shows the width of Lot 8, Concession 18 as 2128.76 feet or 32.25 chains. Fitton's measurement was 35.50 chains. What happened to the other 3.25 chains? If we examine the width of Lot 7 on Plan 51R-17171, we see it has a width of 2265.67 feet or 34.33 chains yet Fitton's measured it in 1924 at 30.84 chains. What happened? Now let us add the width of Lot 7 and 8 together.

Lot 7 & 8 Fitton	66.36 chains for Lots 7 & 8
Lot 7 & 8 J.W. Nicholson	66.58 chains for Lots 7 & 8

This result tells me that the line between Lots 7 and 8 has been moved from the time Fitton found the original post in 1888, yet Mr. Nicholson has found an old post and wire fence on the line. Where did that fence come from and why is there such a difference with Fitton's measurements?

Now for the moment, let us look at Lot 9. In 1881 Fitton found the original corner tree post at Lot 9/10 a distance of 35.65 chains from the baseline, indicating quite reasonably, that the closing lot had a 5.65 chain surplus.

Now let us look at how Fitton surveyed the aliquot Parts of Lot 9, Concession 18. In 1888 he surveyed the line between the east and west half of Lot 9. Page 26 of his notes (Tab 8) indicates he gave a lot width of 30.92 chains and a half lot width of 15.46 chains. My plan indicates the half lot and full lot width as indicated by the old fence lines and tree lines. The width of Lot 9 is now 627.34 metres or 31.18 chains not far off 30.92 chains but a far cry from 35.65 chains. In 1923 O.L.S. J.M. Watson measured Lot 9 at 31.21 chains. O.L.S. F.W. Armstrong measured it at 31.47 chains in 1894, Page 109 (Tab 3). All of these lot widths are reasonably close to what we are getting today and the line between Lots 9/10 on both sides of the road allowance is well established by old fences and stone rows. So then, what happened to the original post that Fitton found 35.65 chains west of the baseline? Obviously no one used it for lot division and Fitton himself seems to have ignored it. Page 26 of his 1888 notes (Tab 8) indicates that he laid off Burnet's proportion of 30.92 chains (15.46 for the half lot). So it appears that the

original posts were used only for the alignment of the concession road allowance and not for lot division.

Further evidence is as follows:

On Saturday November 16th, 1872 (Tab 10) P.L.S. Fitton established the front corners of Lots 9, 10 and 11, Concession 19 at 30.92 chains and surveyed the south halves of these lots at a depth of 33.50 chains (see Tab 10). He notes that the 19th Concession is 67.00 chains deep. This date has great significance because it is virtually the same date that P. Burnet was surveying the line between Concessions 18 and 19. Burnet ran the concession line on November 13th and 14th of 1872 and on Monday the 18th of November Burnet surveyed the north halves of Lots 9, 10 and 11, Concession 19 working in the same lots as Fitton had surveyed on Saturday. In short, Burnet surveyed the north halves of Lots 9, 10 and 11 on the Monday and Fitton surveyed the south halves the previous Saturday. It looks very much like Burnet and Fitton collaborated on the work and were obviously working together. In fact, one day after Burnet had worked out the lot proportion of 30.92 chains Fitton used it in his survey.

The point to all this is that Fitton used 30.92 chains for the front of Lots 9, 10 and 11 which is the exact proportion worked out by Burnet. Burnet's survey therefore set the lot division (Tab 1, page 7) and Fitton's survey established the lot corners.

In 1881, 9 years after Fitton had laid out Lots 9, 10 and 11 in Concession 19 he returned to the same concession line and found 2 original posts which he did not find previously in 1872. In 1888, he again attended at the Concession 18/19 line to survey the aliquot Parts of Lot 9, Concession 18. Note Page 26 of Tab 8 where he runs the line between Concessions 18 and 19, December 29th, 1888 laying off 30.92 chains for Lot 9 and 15.46 for half the width of the lot. Page 27 (Tab 8) shows that he was running the line between the east and west halves of Lot 9 in Concession 18. Page 26 (Tab 8) confirms that he laid off 15.46 chains for half a lot and 30.92 for the full lot. Therefore it is obvious that he decided to agree with his 1872 survey and the proportion established by Burnet ignoring the original lot division posts at 9/10 and 11/12 which he found in 1881. Page 68 of Tab 2 shows that Burnet also continued the practice of laying off 30.92 chains for each lot when he laid out the sidelines of Lot 12 in Concession 18 in 1873.

If you examine my plan you will observe that I have plotted the two sites where Fitton found original posts. You can deduce from their locations that if the lot division was laid off westerly from the original pine stump he found at Lot 11/12, the corner of Lots 12/13 would fall west of the present 12/13 lot line.

Note the following calculation:

514.20	is the total chainage across Lots 9 to 25 as measured by Burnet
- 3	subtract 3 chains for 3 roads (13/14, 18/19 and 23/24)
511.20	
-16.47	subtract 16.47 chains for broken Lot 25 (Burnet's proportion)
494.73	Page 7 Burnet (Tab 1)
-97.21	subtract Fitton's 1881 chainage for Lots 9, 10 & 11 to original pine stump

397.52 The total length of Lot 12-24 inclusive (13 lots)

$$\frac{397.52}{13} = 30.58/\text{lot proportion}$$

Assuming Burnet and Fitton's chainage was perfect then the proportion would be 30.58 chains per lot. Laying off 30.58 chains westerly from Fitton's found original pine stump puts the 12/13 line west of the present line and in the lake.

The following is another very significant clue as to the shift in lot division. Having regard to my plan, note that the line between Lots 11 and 12 as it has been established for over 100 years falls just east of the summit of the hill overlooking the lake. This hill is the only significant piece of topography in the whole line from the baseline to the lake. But the original notes say that the 11/12 corner fell just west of the summit of the hill. Now note the location of the original post found by Fitton in 1881. The location of the post is west of the summit and well into Lot 12 as it is presently configured, proving conclusively what I have said about the lot division being shifted.

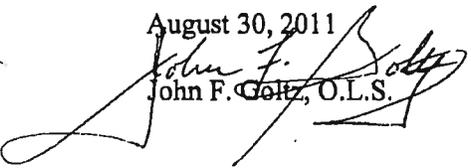
You can see clearly the result of proportioning the huge surplus in Lot 9 into the lots. The result is that all of the lot lines are pushed easterly. The problem is exacerbated by the lake being close to the baseline because the difference between the original lot corners and the proportioned ones is greatest at the east end of the line nearest the baseline. I believe this is the primary reason that lot 12 is no longer riparian. There may be a second reason however.

Reason No. 2

As I alluded to earlier, Goessman's diary indicates that he was chaining across the ice of Thunder Bay in early April of 1822. Everyone who has attended at the site will attest to the fact that the shoreline in this area has a very long and shallow slope and any change in water elevation will render a very large difference in horizontal position. Since Goessman was measuring in early spring and late winter conditions the water and the shoreline would have been obscured by snow and ice. That being the case, how did he know where the actual interface was between water and land?

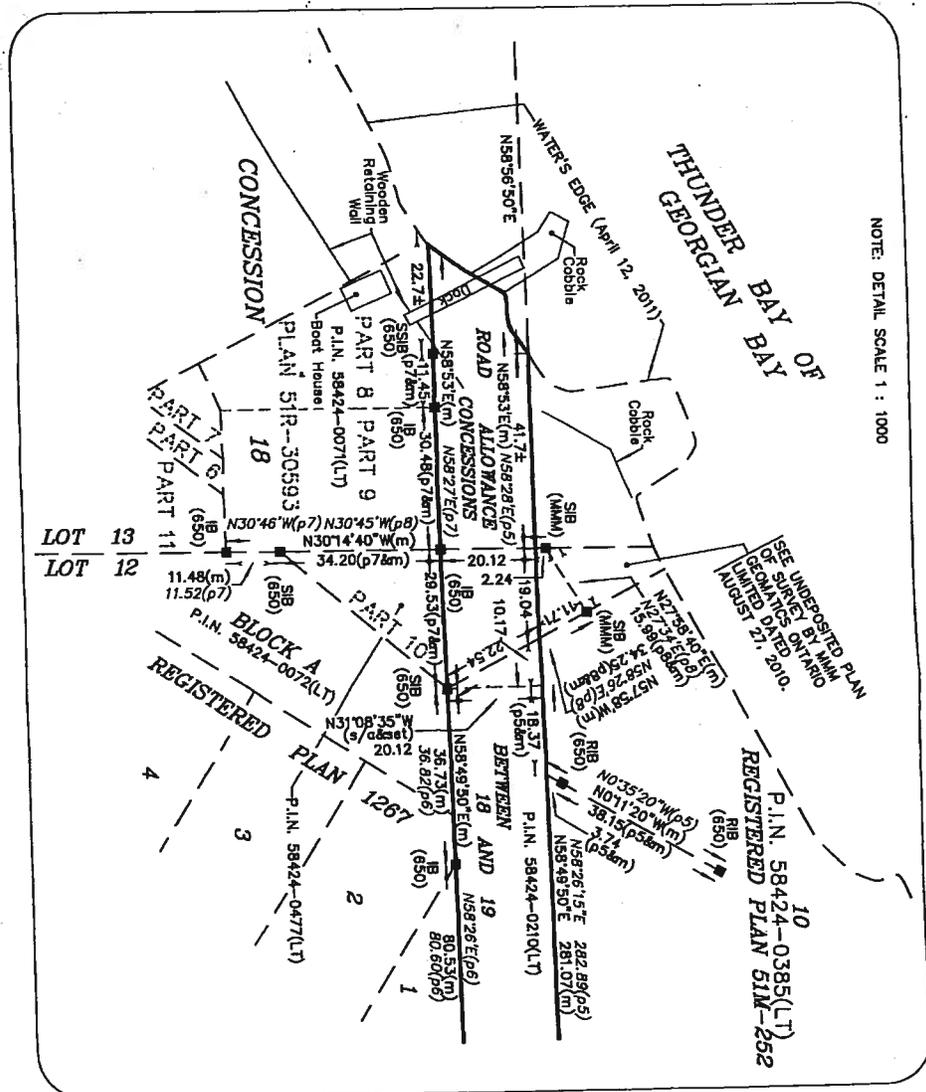
If the line of demarcation was not obvious then to what point did he measure? I have encountered that circumstance many times in the past and have struggled to get a proper shore location. My view is that the ice and snow could have obscured the water line so badly that he had no idea where it was, perhaps not within 100 feet on either shoreline. If the actual shoreline was located farther west than he thought it was, then his measurement, and consequently his plan would have been incorrect. At the rate of speed he was working, covering up to 7 ½ miles per day, according to his diary he would not have been stopping to dig through snow and ice to determine the exact shoreline. It would be preposterous to assume that he returned to the site under summer conditions and remeasured his shoreline ties.

August 30, 2011


John F. Goltz, O.L.S.

NOTE: DETAIL SCALE 1 : 1000

THUNDER BAY OF GEORGIAN BAY



8
 ROAD 06(LT)
 BLOCK 26