

The Cadastre of Little Cattai Creek (Re-Defining Original Crown Grants)

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ABSTRACT

Little Cattai Creek flows into the Hawkesbury River at South Maroota. In 1880, as part of Crown land release, surveys were carried out by Mr George Matcham Pitt Jr., which created portion boundaries along Little Cattai Creek. The area of investigation includes Portions 50-65 which were all the subject of Torrens Title Crown grants in 1880. This paper delves into some of the interesting and fascinating questions raised when trying to re-establish the original Crown grants using plans of survey, which were not survey accurate, and from pawing through the scant chain of subsequent subdivision plans and re-definition plans. This paper describes in detail some of the anomalies and strange happenings uncovered during the research and tries to answer such poignant questions as: How is the original intention of the Crown grant survey determined? Does the original intention of the plan of survey for the Crown grant override all else? How does one uncover remnant slivers of land? How does one manage remnant slivers of land? How does one account for differences in definitions by different surveyors?

KEYWORDS: *Intention, Crown grants, grant boundary, rock face reference marks, sliver.*

1 INTRODUCTION

Investigating cadastral issues along urban watercourses can involve a journey back in time to the first Crown land grants and uncover interesting anomalies and strange occurrences in the name of the cadastre (e.g. de Belin, 2019, 2020a, 2020b). One such example is Little Cattai Creek, which flows into the Hawkesbury River at South Maroota. As part of Crown land release, surveys were carried out in 1880 that created portion boundaries along Little Cattai Creek. The area of this investigation includes Portions 50-65, delving into some of the interesting and fascinating questions raised when trying to re-establish the original Crown grants using plans of survey, which were not survey accurate, and from pawing through the scant chain of subsequent subdivision plans and re-definition plans.

This paper describes some of the anomalies and strange happenings uncovered during the research and tries to answer such poignant questions as: How is the original intention of the Crown grant survey determined? Does the original intention of the plan of survey for the Crown grant override all else? How does one uncover remnant slivers of land? How does one manage remnant slivers of land? How does one account for differences in definitions by different surveyors?

2 FIRST GRANTS IN THE DISTRICT

In April 1832, a Crown grant survey, Crown Plan 33.690 (Figure 1), comprising 60 acres and situated on Little Cattai Creek, was carried out by Felton Matthew (Assistant Surveyor), and much later, in 1885, was adopted as Crown Portion numbered 14.

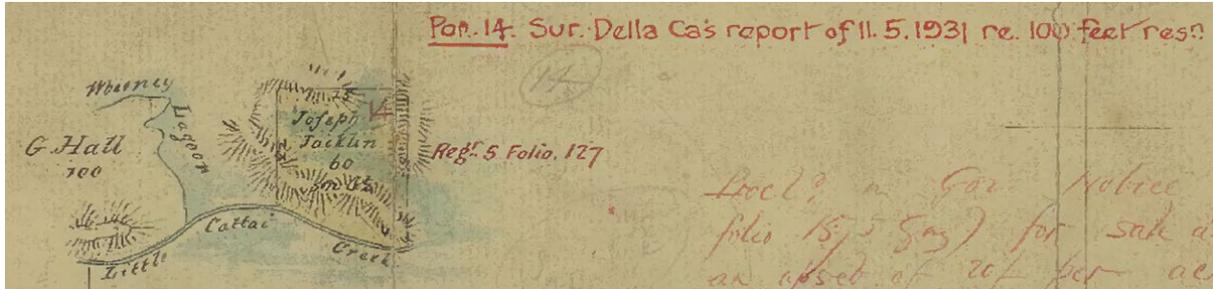


Figure 1: Crown Plan 33.690 of Portion 14 – 1832.

In November 1833, a Crown grant survey, Crown Plan 139.690 (Figure 2), comprising 50 acres, was also carried out by Felton Matthew, and later adopted as Crown Portion 18 in 1885.

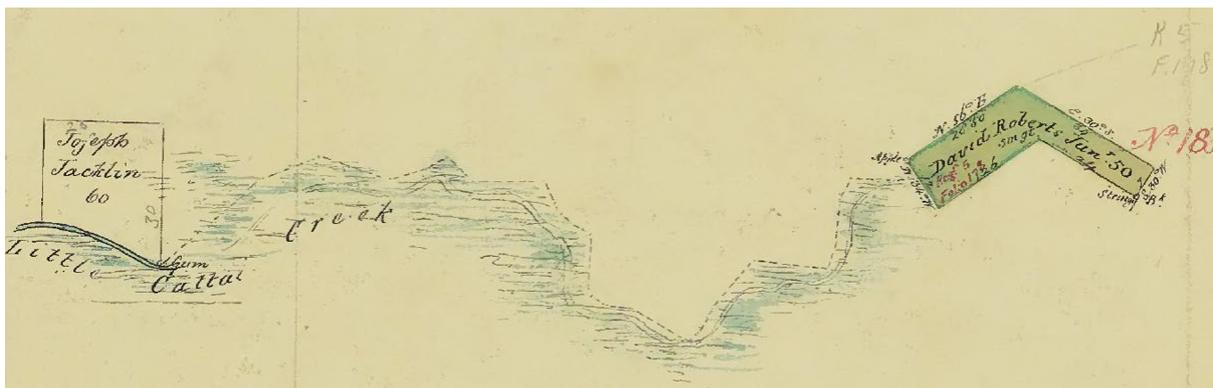


Figure 2: Crown Plan 139.690 of Portion 18 – 1833.

These Crown Plans make no mention of the survey instruments that were used at the time, but it was most probably a compass and linked chain. The wife of Felton Matthew wrote in her journal of 1833, describing the district: “The road is of course very bad, nothing but rock and sand. In some few spots the scenery is mild and rather pleasing but generally of the usual monotonous description.” This sounds like a typical comment from any land surveyor’s wife.

Country Lot A, now known as Portion 2 (Figure 3), was surveyed in 1867 with circumferentor and chain by Licensed Surveyor George Matcham Pitt Jr. (who was licensed in 1859). Unfortunately, the Crown Plan (M2.636) of the adjoining 160-acre parcel is unobtainable.

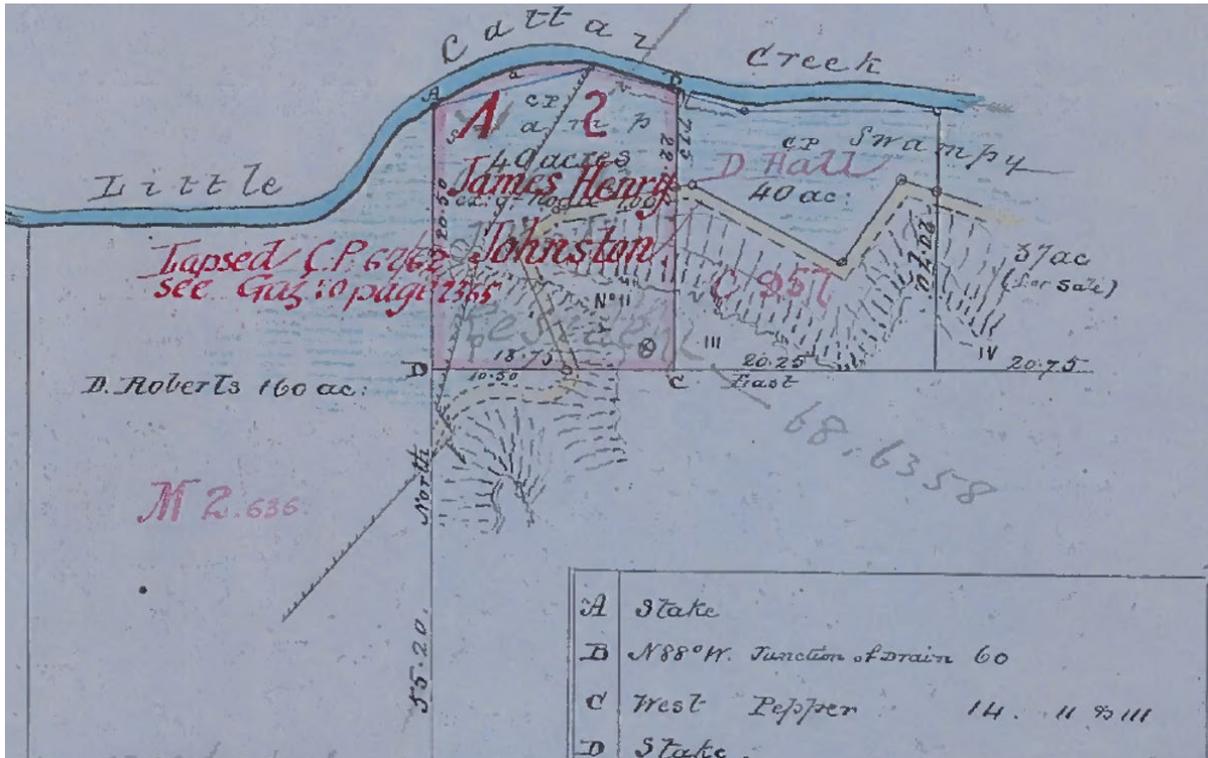


Figure 3: Detail from Crown Plan 956.690 – 1867.

Note that corner 'B' is referenced from the junction of a drain 60 links distant. It is unknown at this stage if there is existing evidence of this drain on site. A drain cut through rock (constructed in 1820) was adopted as a corner on Portion 10 in the Parish of Maroota in 1871 (Figure 4). Portion 10 was situated on the banks of the Hawkesbury River, and even though the survey for the grant did not occur until 1871 (surveyed by George Matcham Pitt Jr.), the land had been occupied and farmed since 1809.

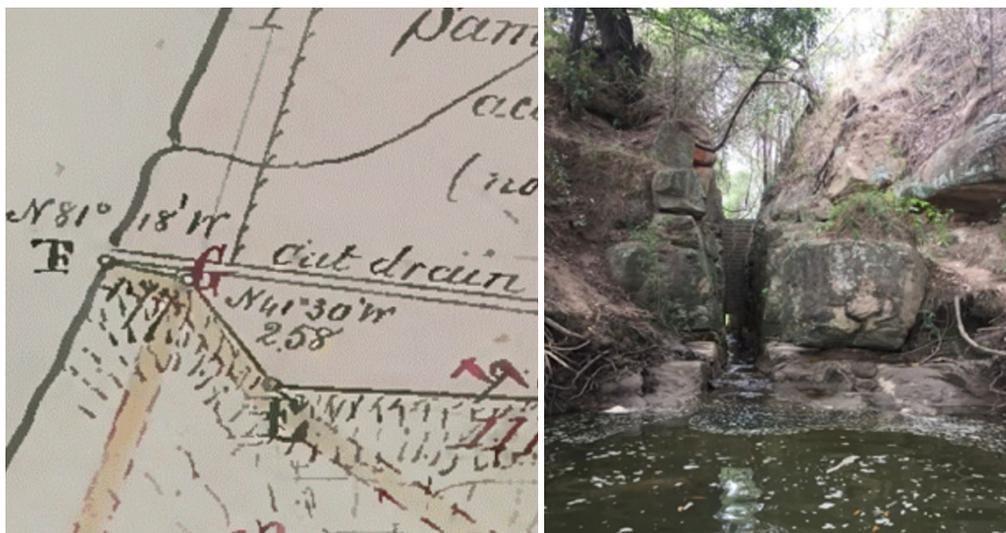


Figure 4: Drain cut through rock c. 1820 as shown by George Matcham Pitt Jr. in 1871 and photo in 2018.

Alongside Country Lot A, Country Lots B, C and D, now known as Portions 3, 4 and 5 (Figures 5 & 6), were also surveyed in 1867 by Licensed Surveyor George Matcham Pitt Jr. with circumferentor and linked chain. The intention of the surveys was to create land parcels of 40 acres in area, with the side boundaries parallel and the rear boundaries being on one

straight line. This meant that the width of the parcel varied because of the irregularity of Little Cattai Creek being a natural boundary. In fact, the variability of the creek was so influential that Portion 4 could only achieve an area of 37 acres and yet maintain the straight-line rear boundary. It appears that Portion 5, which comprised only 27 acres, was governed more by the surrounding terrain. The view upstream of the swamplands of Portions 2, 3 and 4 in flood is shown in Figure 7.

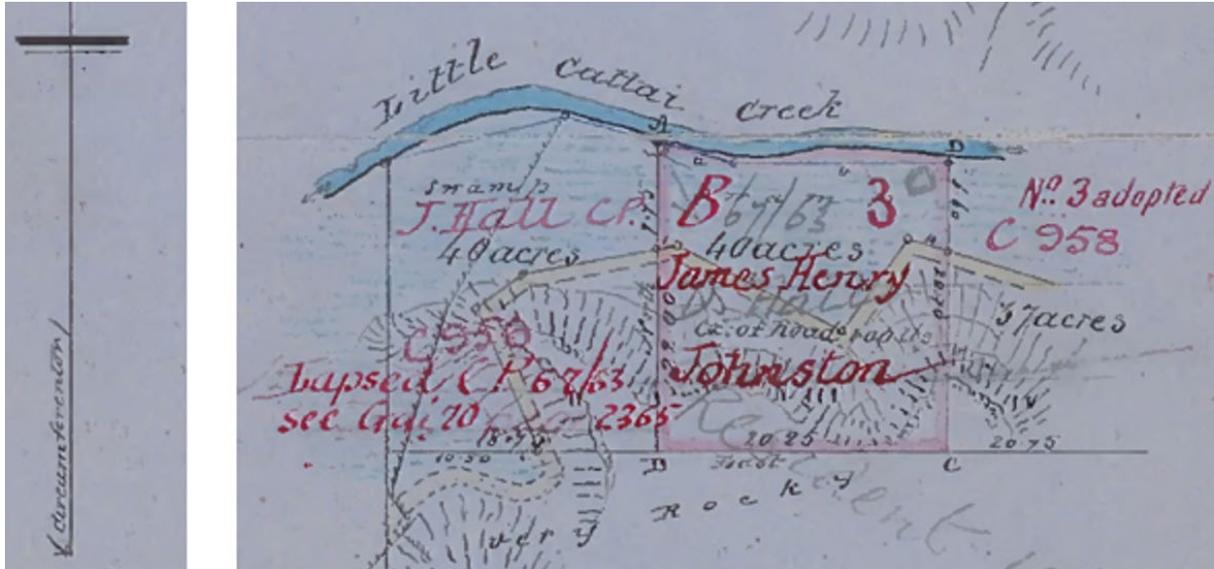


Figure 5: Detail from Crown Plan 957.690 showing circumferentor reference – 1867.

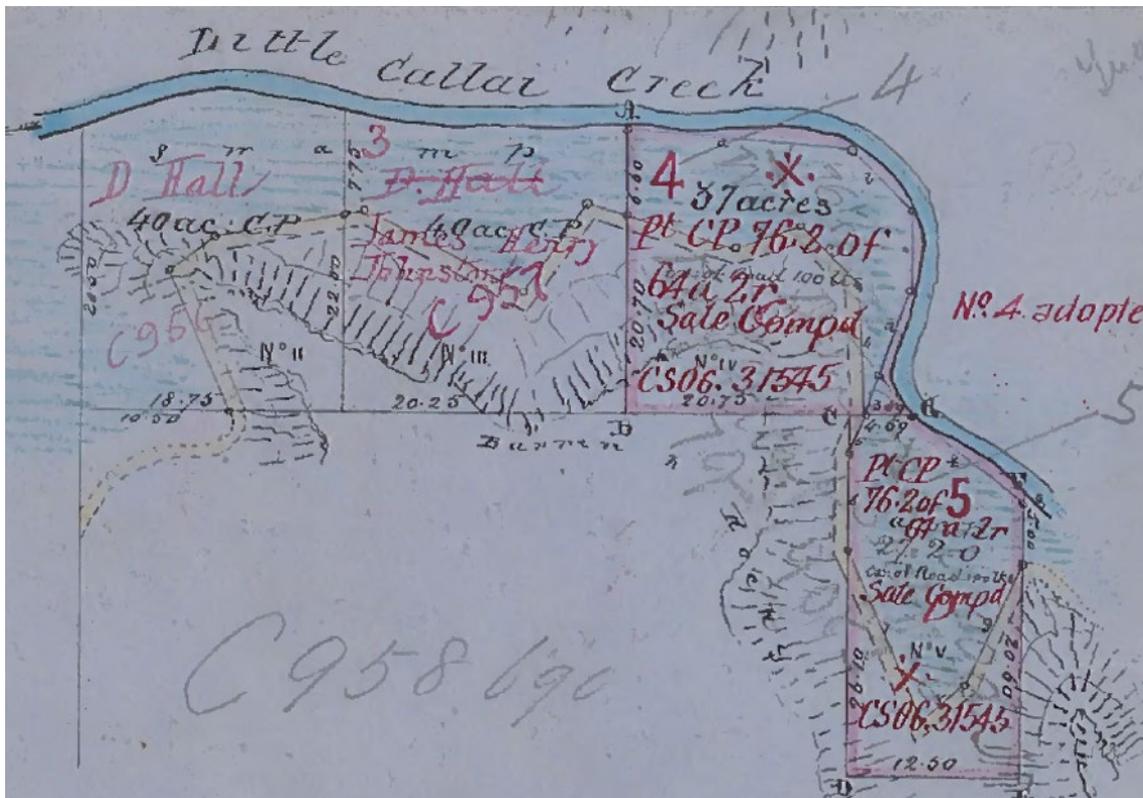


Figure 6: Detail from Crown Plan 958.690 – 1867.



Figure 7: The view upstream, with the swamplands of Portions 2, 3 and 4 under flood – 2020.

The grant for Portion 2 was created in 1871 as Certificate of Title Volume CXLVII Folio 37. Certificates of Title commenced in 1863, with Roman numerals being used to denote the volumes in the register. This practice continued from Volume I Folio 1 up until 1875 with Volume CCXXIX Folio 250 (which is Volume 229 Folio 250). Then Volume 230 Folio 1 became the first Certificate of Title not using the Roman numerals.

3 FURTHER FIRST GRANTS ALONG LITTLE CATTAI CREEK

Upstream along the creek, between Portion 14 and Portion 18, Portions 50 to 60 (applied for under the Crown Lands Alienation Act 1861) were surveyed in 1880. Each of these portions was 40 acres in area. The original intention was for each portion to comprise 40 acres and that the side boundaries of each portion would be parallel and on the cardinal (i.e. running north-south), with the rear boundary being a line square. The first three portions (numbered 50, 51 and 52) were surveyed 20 chains wide (Figure 8), with the land area of 40 acres being governed and determined by the shape of Little Cattai Creek (a natural boundary) and the length of the side boundary. Note that the watercourse was notated as ‘Little Cattai Creek’ in the plans of 1833 but called ‘Little Caddai Creek’ in the survey of 1880, which was later amended back to the original ‘Cattai’.

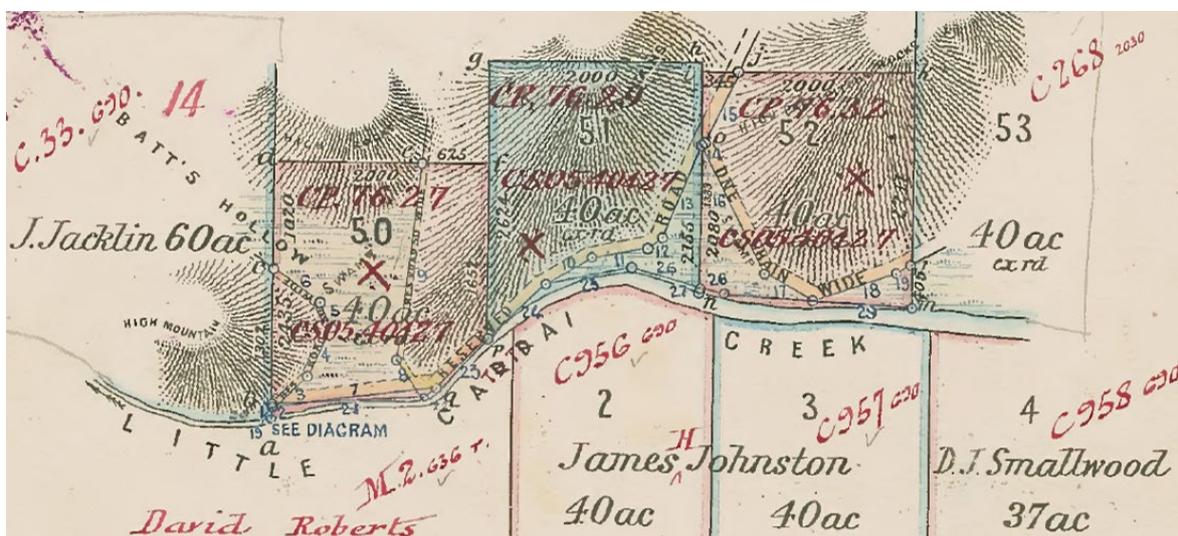


Figure 8: Detail from Crown Plan 267.2030 showing Portions 50 to 52 – 1880.

These surveys in 1880 were conducted using a theodolite (Figure 9) and chain. From 1872, the use of a theodolite in land surveys was mandatory. Accurate distance measurements were not attainable in all Crown land areas until the mid-1880s with the introduction of the steel riband, so we know that at Little Cattai Creek in 1880 the angles were survey accurate and the distances not quite so.

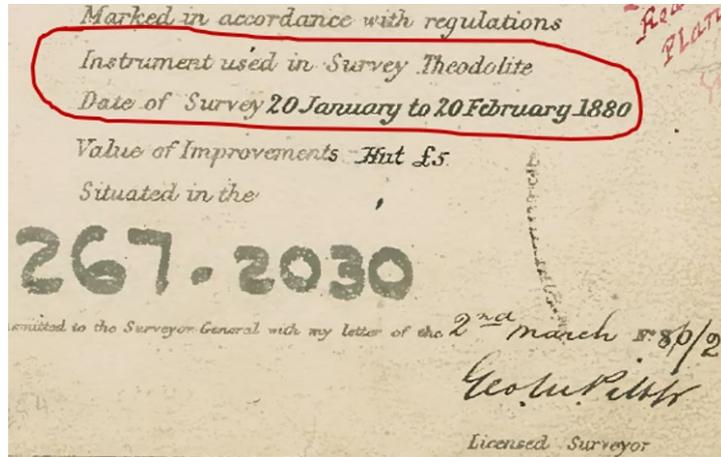


Figure 9: Detail from Crown Plan 267.2030 showing instrument used is theodolite – 1880.

Corner 'a' of Portion 50 (Figure 10) is a large stake placed 'near corner of fence'. There appears to be no other reference to the eastern side boundary of Portion 14, which is the intended kick-off point for the land grants in 1880. These latest land grants were also surveyed by Licensed Surveyor George Matcham Pitt Jr. Remembering that the boundary of Portion 14 was first surveyed by Felton Matthew in 1832, there is a good chance that the fence at corner 'a' was *adopted* by Pitt Jr. as defining the south-eastern corner of Portion 14 and therefore common to both surveys.

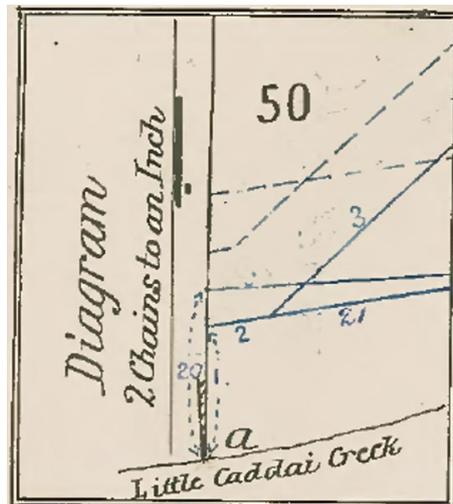


Figure 10: Diagram from Crown Plan 267.2030 showing corner 'a' – 1880.

Portion 53 is only 14.6 chains wide (Figures 11 & 12) and adjoins Portion 52. The common side boundary extends further inland in order to maintain the acreage of 40.

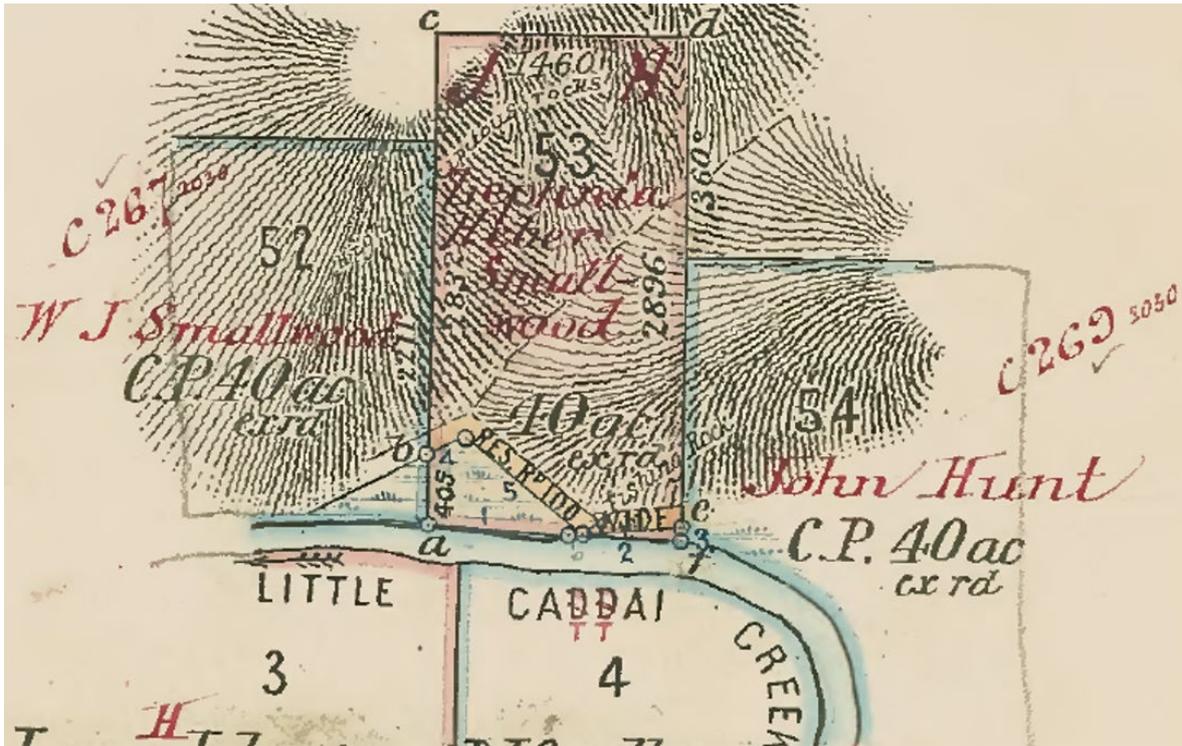


Figure 11: Detail from Crown Plan 268.2030 showing Portion 53 – 1880.



Figure 12: View downstream from high on Portion 53 – 2020.

Detail from Portion 53 (Figure 13) shows a feature called ‘Fishing Rock’. The obvious first question is: Was this a recognised Aboriginal heritage site? Various landowners, over the decades, have scoured the Fishing Rock in the hope of finding evidence of Aboriginal carvings or artefacts but have remained unfulfilled. Perhaps the Fishing Rock (Figure 14) was simply a natural waterside feature used by the early survey teams to indulge in a little food gathering and recreation.



Figure 13: Detail from Crown Plan 268.2030 showing 'Fishing Rock' – 1880.



Figure 14: The 'Fishing Rock' feature – 2020.

Portion 54 is 15.81 chains wide (Figure 15) and adjoins Portion 53. Once again, the side dimensions are set to achieve the desired area of 40 acres.



Figure 15: Detail from Crown Plan 269.2030 showing Portion 54 – 1880.

Portion 55 is 15 chains wide, Portion 56 is 14.88 chains wide, Portion 57 is 15.26 chains wide and Portion 58 is 13.11 chains wide and all adjoin, with sides on the cardinal (Figure 16).

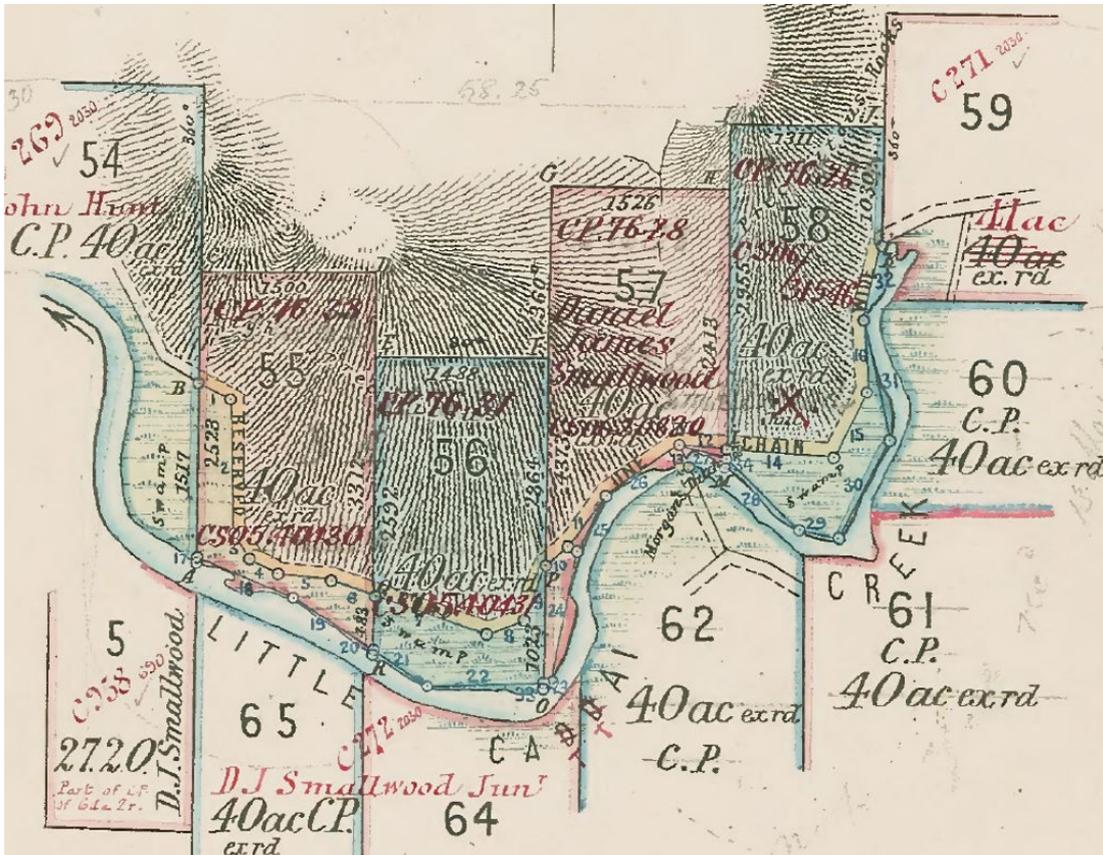


Figure 16: Detail from Crown Plan 270.2030 showing Portions 55 to 58 – 1880.

There is a notation of another drain, 'Morgan's Ditch', between Portions 57 and 58 (Figure 17).



Figure 17: Detail from Crown Plan 270.2030 showing 'Morgan's Ditch' – 1880.

Portion 59 returns to 20 chains wide but is 41 acres in area because common corners have been formed with the south western boundary line of original Portion 18 (Figure 18). A tree was found and adopted for the westernmost corner of Portion 18: 'Apple (old corner)'. A rock reference mark was cut at Corner 'g', after maintaining the original dimensions for Portion 18. Note that Portion 59 is situated at the very head of Little Cattai Creek. The grant description for Portion 58 cites the *right bank* of the creek being the boundary, while the description for Portion 59 cites the *left bank* of the creek being the boundary!



Figure 18: Detail from early Parish Map 271.2030 showing original marks as found – 1880.

Portions 60 to 65 are each of varying widths in order to achieve a consistent area of 40 acres. The original intent was for all side boundaries to be parallel and on cardinal with the rear boundary being a right-angled line (Figures 19 & 20).



Figure 19: Detail from Crown Plan 291.2030 showing Portions 60, 61 and 63 – 1880.

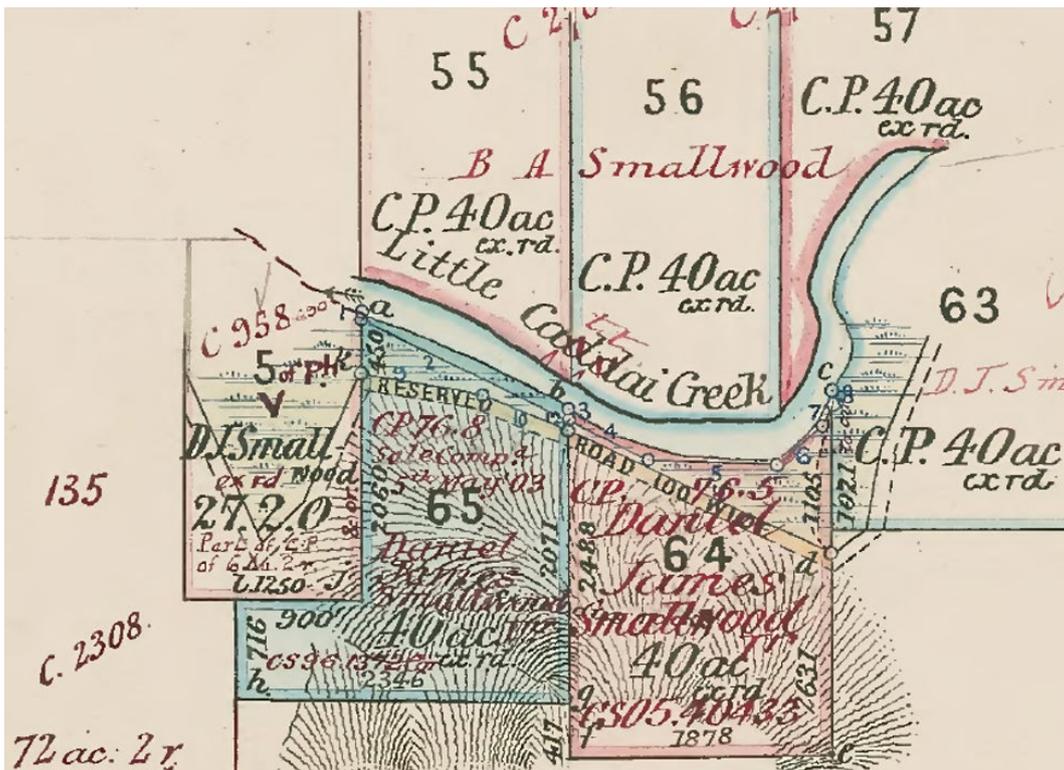


Figure 20: Detail from Crown Plan 272.2030 showing Portions 64 and 65 – 1880.

However, not every corner was marked. It appears that a cliff or tall rock ledge was sufficient to deter our intrepid survey team from occupying and marking some of the more difficult corners. ‘High rock impracticable’, ‘impracticable’ and ‘precipitous rocks’ are common notations to be found on the Crown plans (Figure 21).

Reference to Corners					Reference to Corners <i>Hand</i>					
Corner	Bearing	From	Links	N ^o on Tree	Corner	Bearing	From	Links	N ^o on Tree	
a	Large Stake near Cor. of fence					a	Stake in Swamp			
b	Large Stake					b	S40°0'E	Apple	57	A R
c	do					c	Precipitous Rocks			
d	Pile of Stones					d	do do			
e	S56°30'E	Gum	64	A R	e	S39°46'E	Oak	46	A R ✓	
f	on Rock					f	Large Stake in Swamp ✓			
g	Pile of Stones									
h	on Rock									
i	West	Apple	59	52						
j	N45°W	Gum	43	A R						
k	Impracticable									
l	S40°E	Apple	57	A R						
m	Large Stake in Swamp									
n	do									
o	Large Stake									
p	on Rock									
q	Large Stake									

Figure 21: Detail from Crown plans showing corners not marked – 1880.

Detail from an early Parish map shows all the grants along the upper reaches of Little Cattai Creek (Figure 22). To this map has been added a coloured symbol at portion corners to indicate the nature of the corner marking, i.e. rock marks or rock reference marks (blue), tree reference marks (green), piles of stone (light blue) or no mark placed at all (red).

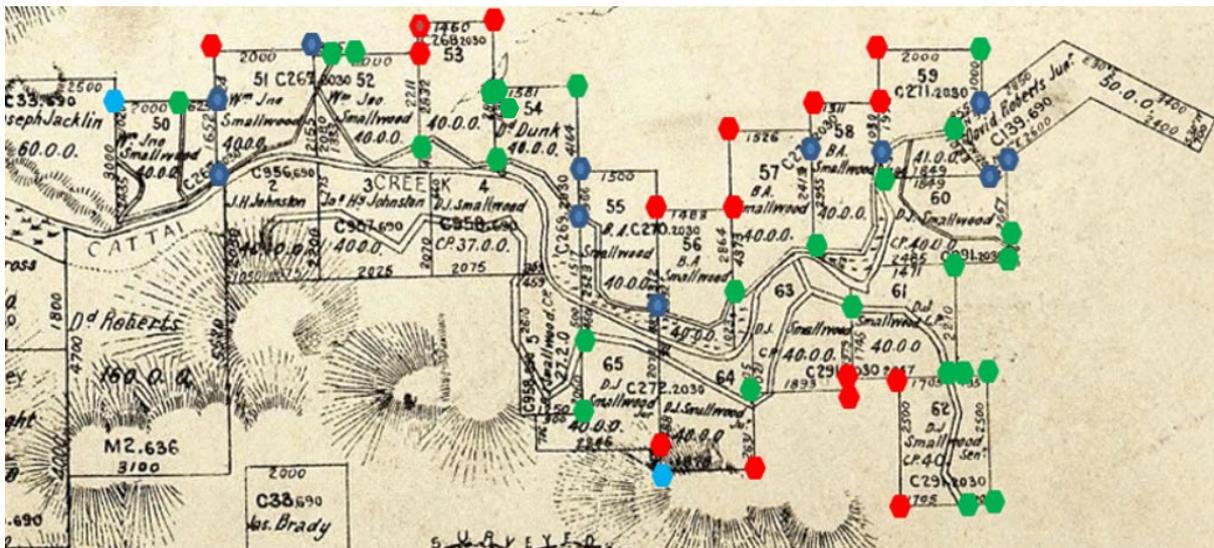


Figure 22: Grants along the upper reaches of Little Cattai Creek showing corner marking – 1880. Red = corners where marks were not placed, green = corners where reference trees were placed, blue = corners where rock marks or reference rock marks were placed, light blue = corners where piles of stones were placed, all other corners were marked by stakes.

4 LATER SURROUNDING CROWN GRANTS

The survey of Portions 133, 134 and 135 was the first of the later surrounding Crown grants and occurred in 1902 (Figure 23), 35 years after the survey of Portions 2 to 5 and forming a common boundary with these portions.



Figure 23: Later grants by Crown Plan 2308.2030 showing the abuttal with Portions 2 to 5 – 1902.

‘Old marks found’ on the western boundary of Portion 5 and ‘corner found’ (Figure 24) determine a bearing of $179^{\circ} 49'$. Along the southern boundary of Portions 3 and 4 a ‘corner found’ at the south-west of Portion 3 and the ‘corner found’ at the north-west of Portion 5 determine a bearing of $89^{\circ} 50'$, almost at a right angle. This is interesting in that the earlier angle work was by circumferentor.

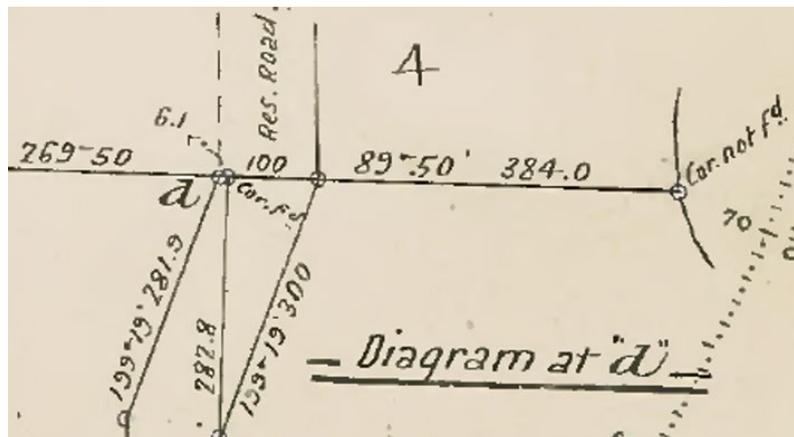


Figure 24: Detail from diagram on Crown Plan 2308.2030 – 1902.

The first of the surveys north of Little Cattai Creek for later surrounding Crown grants came with Portion 141 in 1911, 30 years after the original survey for Portions 51 and 52 (Figure 25). A peg, a broad arrow rock mark and a ‘marked line’ were found at the north-east and north on Portion 51. Short lines 1, 2, 3 and 5 are all parallel or at right angle, indicating a bearing of $89^{\circ} 37'$. It is interesting that the side boundaries of Portion 141 were then created on cardinal.

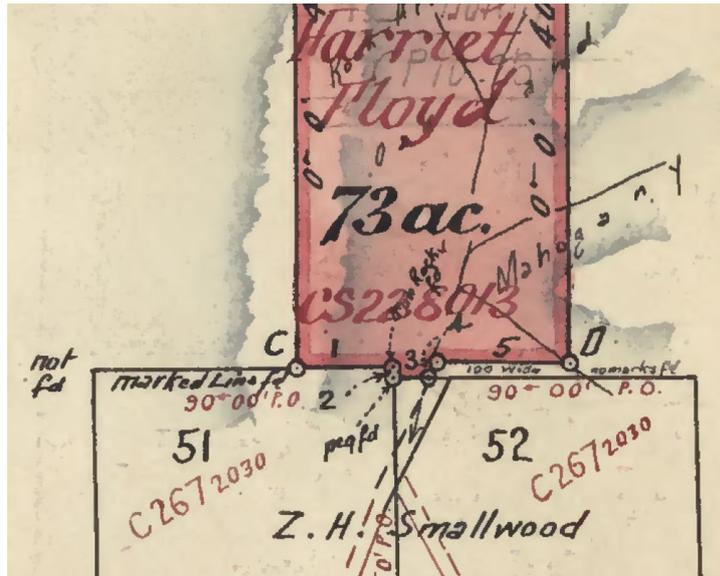


Figure 25: Later grant by Crown Plan 2826.2030 showing the abuttal with Portions 51 and 52 – 1911.

No further Crown grant activity occurred north of Little Cattai Creek until 1952, another 40 years later, when Crown land surrounding the first grants was once again released. Portion 219 was created, with the intention of forming a common boundary with original Portions 52, 53, 54 and 55 and the more recent Portion 141 (Figure 26).

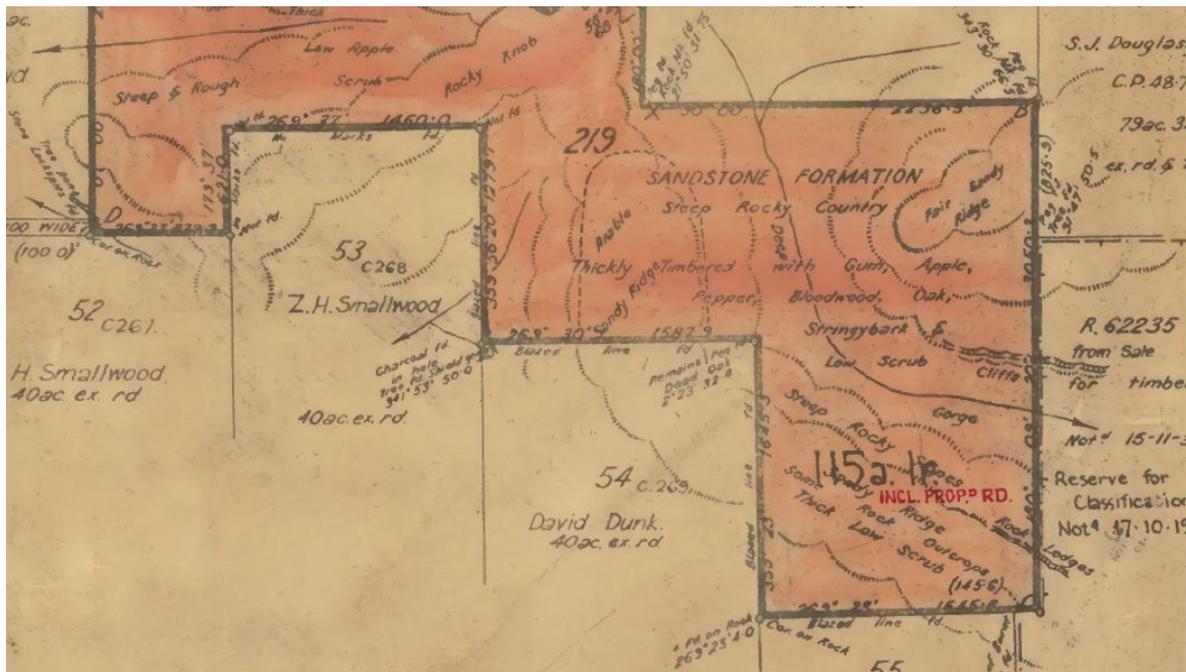


Figure 26: Detail from Crown Plan 7371.2030 showing Portion 219 adjoining the original portions – 1952.

The survey for Portion 219 formed a common boundary with Portion 141, on cardinal, then continued at $89^{\circ} 37'$, laying 'per original' angle and distance all the way to the north-west corner of Portion 54, where an original reference tree was found. It is interesting that the survey of Portion 219 shows corner marks for Portion 53 (Figure 27) as 'not found'. Not surprisingly, as we know that the survey for Portion 53 placed no marks at those corners. Marks were found along the rear of Portion 54, which indicates a clear excess of 6.9 links (1.4 m). Does this suggest that laying 'per original' across the rear of Portion 53 is erroneous?

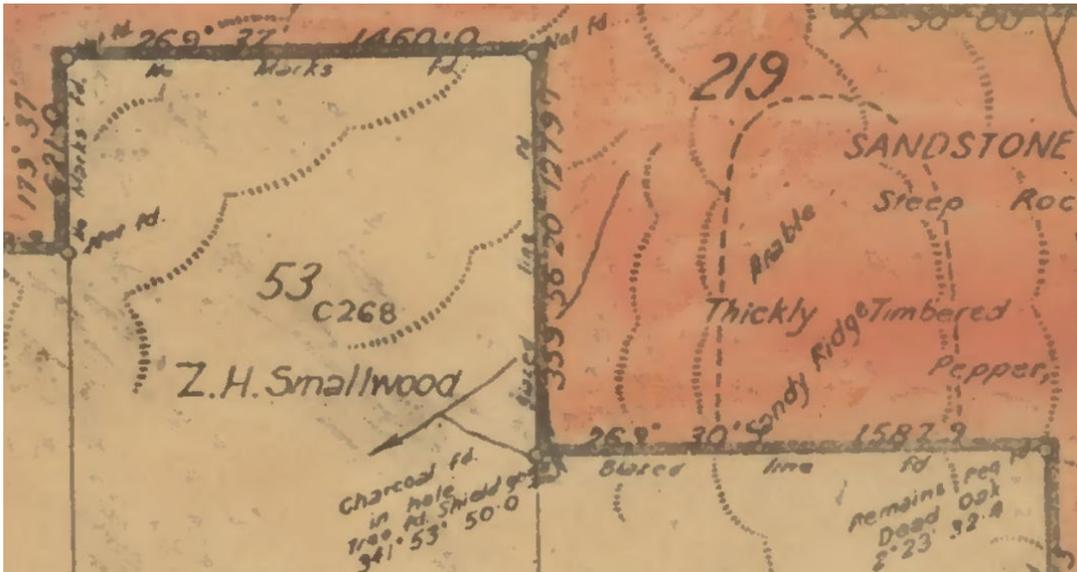


Figure 27: Detail from Crown Plan 7371.2030 showing no marks found on original Portion 53 and marks found on original Portion 54 – 1952.

Crown Plan 7371.2030 also found a broad arrow in rock reference mark at the north-west corner of Portion 55 (Figure 28) and a purported burnt-out stake at the north-east corner of Portion 55.

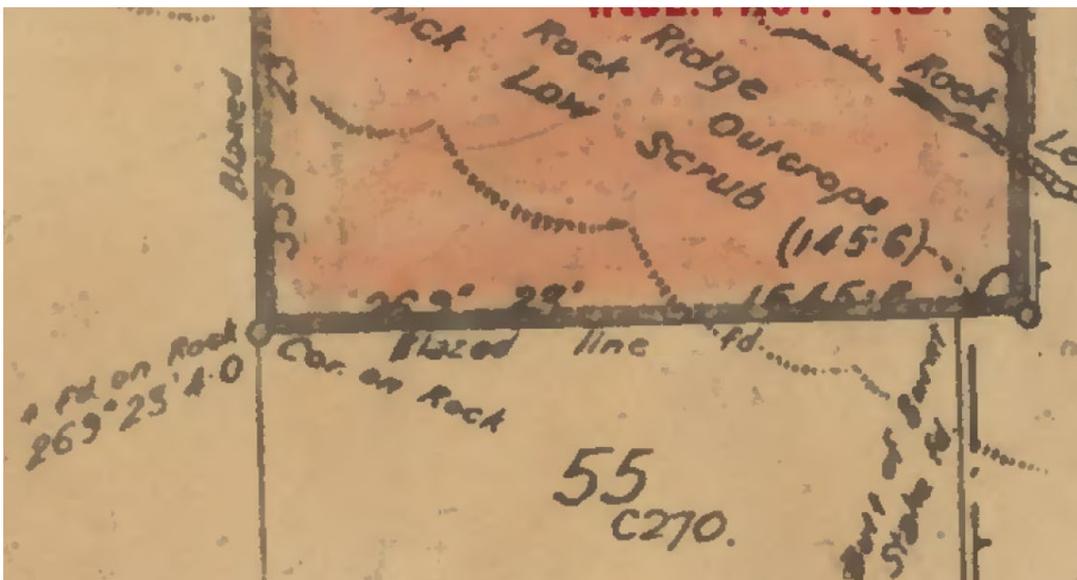


Figure 28: Detail from Crown Plan 7371.2030 showing original marks found on Portion 55 – 1952.

Crown Plan 7930.2030, in 1958, connected to the western boundary of Portion 141 but also found three original rock marks from the survey of Portion 51 in 1880 (Figure 29). This was the only surrounding survey that connected back down to marks at Little Cattai Creek and displays an excess of 5 links. This is supported by mark evidence and a post and rail fence occupation along the northern boundary of Portion 51, which now displays a bearing that is 11' off being square. The north-west corner of Portion 51 was not marked in the original survey and neither corner was occupied by the original surveyor to read or set the angle from one corner to the other.

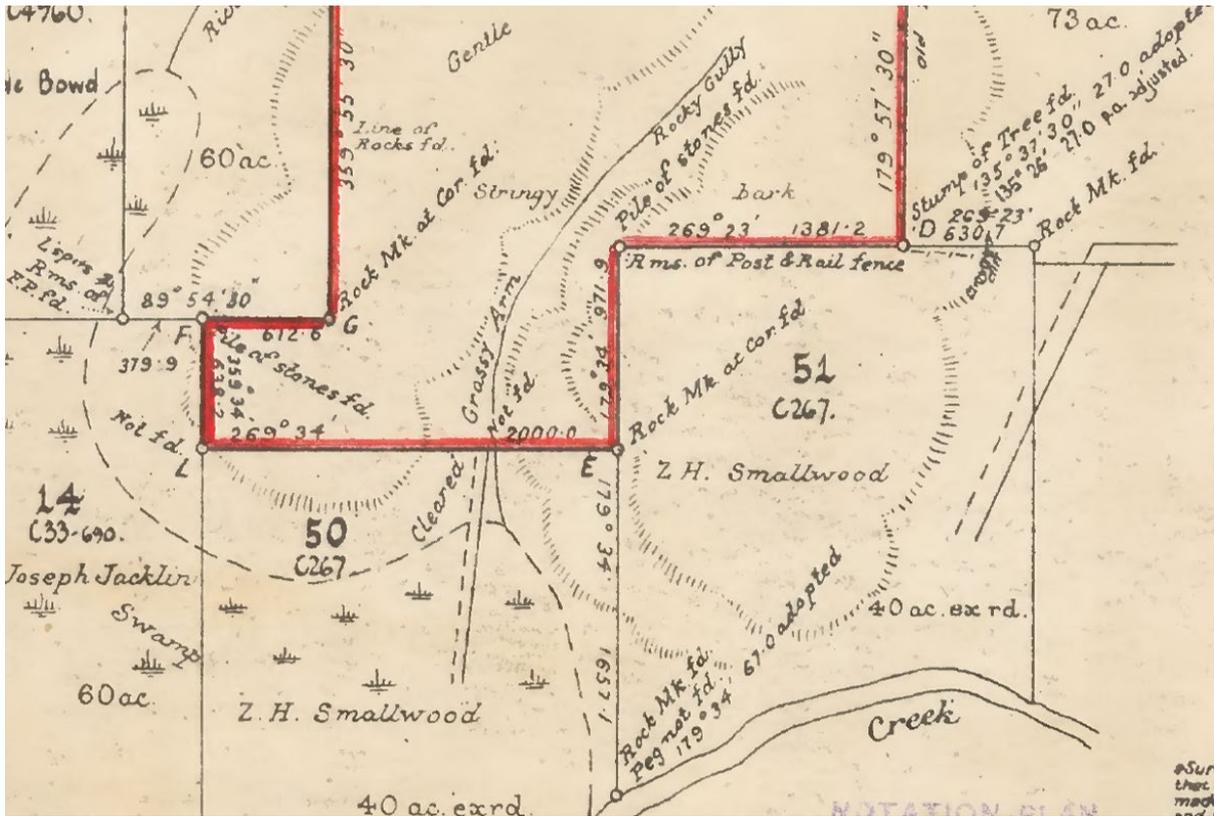


Figure 29: Detail from Crown Plan 7930.2030 showing three original rock marks found on Portion 51 – 1958.

The remainder of the surveys for the surrounding Crown grants were all compiled Departmental Plans in 2009 (DP 1139713, DP 1142075 and DP 1152513), which meant that the titles created from them carried a limitation as to survey accuracy and veracity. DP 1152513 did, however, include a short survey along the boundary of Portion 219 where it was common with original Portions 54 and 55. All the marked corners from the 1952 survey were found.

5 DO ANY ORIGINAL MARKS REMAIN?

In 1985, DP 730390 subdivided Portions 58 and 61 but in so doing also surveyed across Portions 56, 57, 60 and 62 (Figure 30). Five original broad arrow rock marks were found, together with one original reference tree and one original stake in swamp. Additionally, over the last two years, several of the early Crown grant portions have been used to prepare re-definition surveys as rural projects for candidates of the Board of Surveying and Spatial Information (BOSSI) assessments. Portions 52 through to 56 were surveyed completely (Figure 31). Reference rock marks cut into the face of the cliff are examples of some of the original marks that were found (Figure 32).

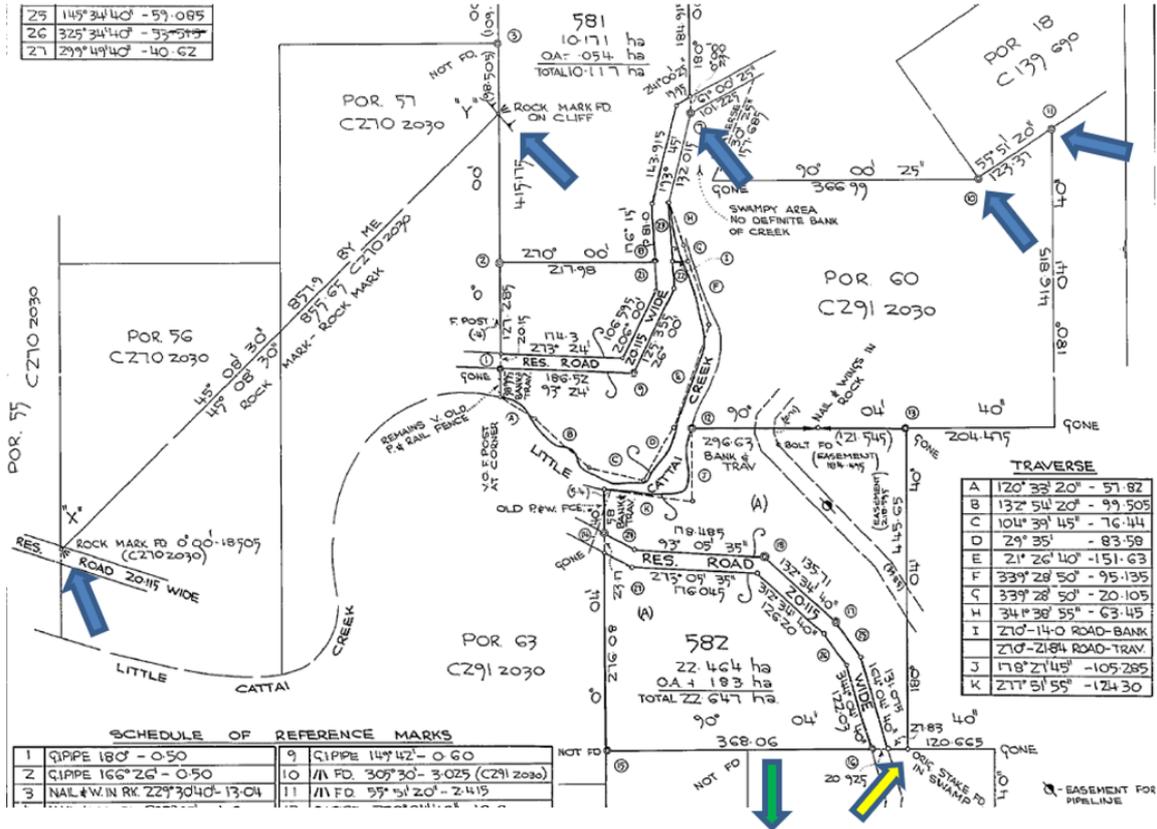


Figure 30: Detail from DP 730390 showing original marks found – 1985.

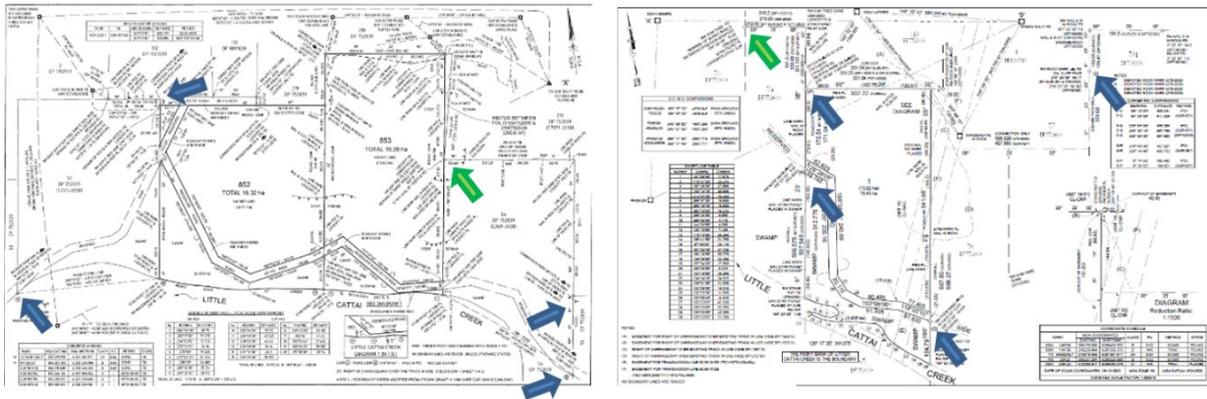


Figure 31: Detail from two BOSSI rural projects showing original marks found – 2021.



Figure 32: Original broad arrow in rock reference marks cut into vertical cliff face – 2021.

In comparison to the situation in 1880 (see Figure 22), the original marks remaining after 140 years consist of 10 rock marks (blue) and one reference tree (green) (Figure 33). Two side boundaries (one on Portion 51 and one on Portion 55) both retain *pairs* of original rock marks, which the modern surveys find to be parallel.

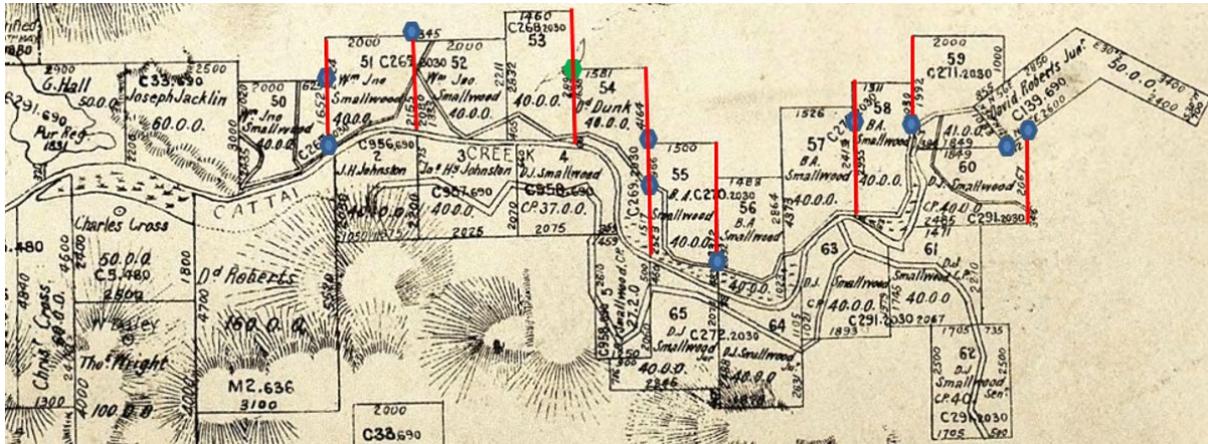


Figure 33: Original rock marks (blue) and reference tree (green) still existing – 2021.

6 SLIVERS OF LAND: OVERLAP, HIATUS AND ORIGINAL INTENT

Even without the direct evidence from field books (this evidence should be revealed soon by a research visit to State Archives), it can be surmised how the 1880 field work was undertaken: a traverse along the flat land of Little Cattai Creek and the turning of parallel side boundary lines. Portion width and offset area to the creek bank were calculated along with the required depth of each portion in order to achieve a total area of 40 acres, which in most cases was then laid in, away and up from the creek. Terrain restraints meant that some rear corners were neither occupied nor marked.

So, what do we do in a survey for re-definition purposes? The side boundaries are definitely parallel, the width of the portion is not ‘per original’ and the lengths of the side boundaries are also not ‘per original’ because of the uncertainty in the measuring of the original distances. A common boundary can be formed with the later Crown grants (which were survey accurate when it came to measured distances) across the rear of the original portions, but the side boundaries are kept parallel and straight. In some cases, this will leave a hiatus between the original and later grants, in other cases it will create an overlap of title where a part of Crown land has been granted twice.

Portion 219 in 1952 laid ‘per original’ distances across the rear of Portion 53, which introduced a significant bend in the eastern side boundary of Portion 53 that created the hiatus to the original straight-line boundary (Figure 34). The sliver of land forming the hiatus is now fully defined by survey and can be dealt with. The question is whether Portion 53 (new Lot 853) is entitled to claim this additional sliver and area. Lot 853 is vacant and unoccupied, and the boundary is not fenced, so there would appear to be little evidence of claiming rights. A re-definition survey of Portion 219 would result in the same scenario except that the original intention of Crown Plan 7371.2030 in 1952 was to form a common boundary with original Portion 53!

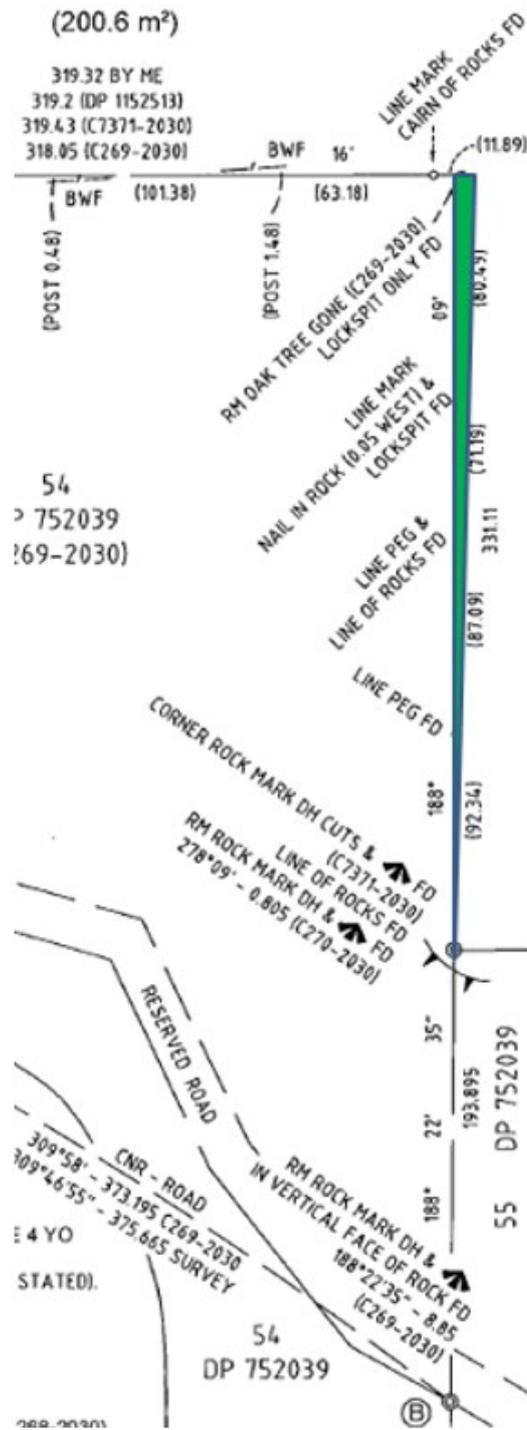


Figure 35: Detail from re-definition survey showing overlap of Portion 54 – 2020.

7 CONCLUDING REMARKS

This paper has outlined some of the interesting and fascinating questions raised when trying to re-establish the boundaries of original Crown grants. So, how do the original grants along Little Cattai Creek stand up? Too many of the surveyors involved in following and re-defining the original surveys have, in the absence of finding original marks, decided to lay ‘per original’ distances, without regard to the original intention of the first Crown grants.

These later surveys have created bends in the side boundaries, left slivers of land unalienated and in some cases defined a fresh grant over a sliver of land which had already been granted. There was no reliable distance measuring tool available at the time of first grant surveys, so reliance must be placed on the angular relationships between boundaries. The lengths of the side boundaries can only be determined from any original marks that are found. With the knowledge of such uncertainty, it is acceptable to re-define the original portions as having a rear boundary common with that of the surrounding later Crown grants. The finding of rock marks from the original surveys has enabled side boundaries to be placed in the same relationship to each other as in the original surveys of 1880.

A plan of re-definition of any original portion should examine the intent of the original survey, indicate and define any remnant slivers of land between parcels and then decide if such a sliver can or should be included within the re-defined parcel. Noting that 40 acres are equivalent to 16.19 ha, the parcel areas after re-definition by surveys discussed in this paper are:

- Portion 52: 16.32 ha.
- Portion 53: 16.28 ha.
- Portion 56: 16.45 ha.
- Portions 58 and 61: 32.76 ha total combined (average 16.38 ha).

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