

AWM4
Australian Imperial Force unit war diaries,
1914-18 War

Medical, Dental & Nursing

Item number: 26/77/17

Title: 2nd Australian Sanitary Section

August 1917



AWM4-26/77/17

WAR DIARY

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

INTELLIGENCE SUMMARY.

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
HASE BROOCK (Area Wallon Coppel)	1/8/17.		Routine sanitary work & supervision of water supplies etc, carried on in conjunction with the Area Sanitary Officers of Wallon-Coppel area. Orders given that all men of Unit shall be in camp by 9.15 p.m. ^{each night} when parade will be held & roll called. Any men absent from this roll call will be severely dealt with.	
	2.8.17.		Report on water supply of Wallon Coppel area, sent to ADMS 1st Aust Div. Use of billet wells regarded as dangerous; & recommendation made that as far as possible all water should be drawn from authorised water points at HASE BROOCK etc.	
	3.8.17		Sanitary improvements carried out as far as possible in Area, but practically no material can be obtained for this work. Indents made for material for urgent work are turned down, the reason being that this Area is normally very little used for billeting troops & that the present concentration is unusual & unlikely to last, & that consequently material cannot be supplied for sanitary works in it, since there is greater need of the material elsewhere.	
	5.8.17.		P.B. men examined by Medical Board from 2nd F. amb. Two. FORD & LYTHGO passed as fit for infantry work. The remaining ten remain classified P.B.	
	6.8.17.		Lecture by Divisional Gas Officer on new type of gas. Gas parade of Unit held & all anti gas apparatus checked & tested. Men drilled in quick adjustment of respirators & in breathing exercises. Orders given that anti gas drill will be held twice weekly.	
	7.8.17.		Orders received to move with B Echelon Divisional Hqs. troops to BERQUIN area on morning 9.8.17.	
	8.8.17.		Mr DENNIS, R.H. went on leave to U.K. went to DOULIEU (BERQUIN area) & arranged for billets etc. for Unit. also orderly room & workshop for Section. Took over control of BERQUIN area from	

2ND
AUSTRALIAN
SANITARY SECTION.

A5834 Wt. W4973 M687 750,000 8/16 D. D. & L. Ltd. Forms/C.2118/13.

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BERQUIN Area	8.8.17		Major Goldstein O.C. 4 th Aust. Sanitary Section. at 8 a.m.	
DOULIEU.	9.8.17.		marched out of Camp at V 8 d 1 q. (Sheet 27) near Hondelghem. Obtained certificate from Camp Warden that camp was left in a clean & sanitary state.	
			marched into billets at DOULIEU sheet 36A. L 3-B 5-g. at 3.30 p.m.	
	10.8.17.		saw Area Commandant regarding urgent work required. Sent inspectors out allotting separate portions of area to each inspector. Reports to be furnished to me tomorrow.	
			Pte McQUEEN. J. (P.B) evacuated sick to 2 nd F. ambulance	
			Pay drawn, & Unit paid. Acquittance Roll sent to 2 nd paymaster.	
	11.8.17.		Duplicate Acquittance Rolls Nos 11 & 12 sent to Chief Pay Office London	
			3 ton motor lorry (Peakers) 22720. sent to O.C. "K" Supply Column as ordered; to be exchanged for 8 wt. Box Car. as shown on the new War Establishment of a Sanitary Section (July 1917). Ford Box Car reported to me, & shown on the Establishment of the Unit. Motor lorry struck off.	
	12.8.17.		inspectors reports received. Area is badly off for sanitary work. Pte ILEG, MORGAN; & LYTHGO awarded 7 days F.P. No 2 for being absent from billets after tattoo roll call at 9 p.m.	
			civilian sanitation is of the worst description. Water supply within the area is bad. Area is low lying, & owing to recent rains is largely under water.	
	13.8.17.		divided Berquin Area into 5 parts. Placed an N.C.O. on man in charge of each part & divided the units into subsections under these five supervisors. Prepared small scale maps of the area delineating the boundaries of these sub areas, & marking in all roads, & groups of houses & other landmarks. Provided the sanitary supervisors with these maps of their respective sub areas, & billeted them out with their men, with instructions as to	



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DOULIEU.	13.8.17		The work to be done. Saw Staff Capt 3rd & 2nd Wf Bdes re billeting & rationing these men in their sub areas. & regarding assistance with respect to working parties for sanitary work. Sent out water supply superintendents also into the areas. with instructions to test all wells at billets & furnish a report tabulating the result of each test. Returned ptes LYTHGO & FORD to their Battalions (reclassified fit for Infantry duty) Evacuated ptes ILES & MORGAN sick to 2nd F. Ambulance. Both these men are P.B. & unfit for work even in this Unit. Saw C.R.E. 1st Aust Division & put in indent for material for sanitary work. Arranged that, providing material is available: the Sanitary section will undertake the issue of latrines etc to all units of the Division. Who may put their requisitions for sanitary stores in to the Sanitary section.	
	14.8.17.		Saw R.M.O. of battalions & arranged that, when material has been obtained from the C.R.E. the R.M.O. should send a couple of carpenters from each battalion to the sanitary section workshops, where they will have the use of material & tools to make all necessary latrines etc. required by the units.	
	15.8.17		pte LOWE, absent from tattoo Roll call on night of 14.8.17. Absented 168 hours. F.P. No 2. A.P.M. notified.	
	16.8.17.		DVR. MOULDS. transferred from 3rd Field Coy Engineers to 2nd Aust. Sanitary Sectn.	
	17.8.17.		Wells being examined & classified & notices placed on them according as they are 1. Fit for drinking purposes (measure of chlorination required) 2. Fit for cooking purposes only. (measure of chlorination required) 3. Unfit for use by Troops.	



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Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
DOULIEU.	17.8	17.	More than 50% of the wells are quite unfit for use by troops. The majority of the remainder are fit only for cooking purposes. Very few are fit for drinking. Visited water points in districts around this area & picked out a number of good water points where water can be drawn in water carts by troops in this area. Recommended that these water points be used as far as possible, & local supplies cut out.	
	18.8	17.	This area being low-lying is partly flooded. Progress is being made in clearing the ditches of reeds, rushes & other water weeds so as to facilitate drainage. Material obtained in quantity from C.R.E. & work of supplying the area with necessary sanitary works begun. Measures are made as far as possible of iron to prevent them being used by civilians as firewood.	
	19.8	17.	Infectious diseases in the area. MEASLES. DIPHTHERIA. TYPHOID FEVER. Visits made to all cases & all necessary precautions taken to prevent access to troops.	
			DR. DENNIS R.H. returned from leave.	
	20.8	17.	The prevalence of infectious diseases in the area & the overcrowding of billets & farm houses by refugees driven out of towns by hostile bombing & shelling, constitute a source of danger to troops billeted in the area & necessitates very constant & careful supervision & isolation of all infectious cases. Water supply also requires to be very carefully controlled & supervised.	
	21.8	17.	Work going on satisfactorily. Sanitary conditions in area much improved by 1st Division units.	
	22.8	17.	Anti-gas drills regularly carried out: Arrangements completed for two N.C.O.'s to attend Course of instruction in anti-gas methods & drill etc at end of month. Scavenging system in full working order in DOULIEU & VIEUX BERQUIN. No incidents.	

2ND
AUSTRALIAN
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INTELLIGENCE SUMMARY.

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2nd San Sect Original

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
DOULIEU	22/8/17		built in these villages. Public latrines erected. Street cleaning etc. carried out.	
	23.8.17.		Case of meningitis (C. S. M.) child at Pt Sec B015. isolated & house put out of bounds. Report made to A.D.M.S.	
			Carried out disinfection of billets in 8th Bn. Area. Where Diphtheria had occurred.	
	24.8.17.		Cleaned up a good well at Steingje, & placed a man in charge to chlorinate all water drawn from the well. This well is used by a large number of troops.	
			Pay drawn, & Unit paid. Acquittance Roll forwarded to Divisional Paymaster.	
	25.8.17.		Unit gas apparatus inspected by Divisional Gas N.C.O. Five S.B.R. found with small defects. These were immediately replaced.	
			all men of Unit carry the S.B.R. at all times. Anti-gas drill held twice weekly.	
	27.8.17.		Monthly report on sanitation prepared. Work of month summarised. Recommendations made. (See Report)	
			Three Billets where cases of measles had occurred were disinfected throughout after complete convalescence of patients. Billets again fit for re-occupation.	
	28.8.17.		Monthly report handed to A.D.M.S. for transmission to D.M.S. 2nd Army.	
			Anti-gas apparatus overhauled, & all defects remedied.	
			Inspection of area made north of DOULIEU, especially with reference to water supply.	
	29.8.17.		Inspection of area with A.D.M.S. 1st Aust. Div. 2nd Bde Area inspected. including water supply. Baths. Latrine accommodation. Billets.	
			Two N.C.O.s sent to Course of instruction at Gas School VIEUX BERQUIN	Sgt HOLMES L/Cpl BRIMS
	30.8.17		Inspection of 3rd Bde Area with A.D.M.S. 1st Aust. Div.	
			most of the wells are now clearly labelled. Units are well provided with fly proof latrines & with incinerators etc.	
	31.8.17.		Soap disinfection bet put in at Baths in 2nd Bde Area near DOULIEU	



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AUGUST

1917

No.

Date

Sanitary Report for the month of

BERQUIN. Area

2nd Army

2nd Australian Sanitary Section

27.8.17.

Towards the end of July the 2nd Australian Sanitary Section, which was stationed in the Area forward of BAPAUME, received instructions to join the 1st Australian Divⁿ and move to the WALLON-CAPPEL Area.

Some 10 days were spent in the WALLON-CAPPEL Area. This Area was already under the control of an Area Sanitary Section, & the work of the 2nd Australian Sanitary Section was limited to the supervision of 1st Australian Division Units in cooperation with the Area Sanitary Officer.

The concentration of troops in that area was much greater than usual, & consequently sanitary works, incinerators, latrines etc, were quite insufficient in number, and material could not be obtained in sufficient quantity to fit up the units with fly-proof latrines & other sanitary works.

As much as possible was done with the limited amount of material obtained, & some incinerators & a number of fly proof latrines were erected. Supervision of water supply and chlorination was also maintained as far as possible. Disposal of refuse & manure presented no difficulties, as this was removed & utilised by the civilians.

On August 9th, the 2nd Australian Sanitary Section

moved with the 1st Australian Div to the BERQUIN Area, & the Sanitary control of this area was taken over from the O.C. the 4th Australian Sanitary Section.

The Sanitary Report on BERQUIN Area follows.

1. Billets & Other Quarters.

Billets

a. Nature. In the BERQUIN Area troops are billeted almost entirely in the farm houses which are scattered over the area & which here & there are grouped to form small villages.

The billets as such, are good, being weather proof & dry.

b. Ventilation. is as a rule good

c. Overcrowding is apparent. Owing to refugees having been driven from towns into the country by bombing attacks & hostile shelling, the number of farmhouses available for troops is reduced. As harvest is being gathered in, barns which before were available for billeting are required for storing crops.

As a consequence billets have to accommodate rather more soldiers than is desirable.

Also farmhouses are crowded with civilians thus increasing the likelihood of the spread of the bacterial infections diseases which at present exist in the Area viz measles. Diphtheria.

Typhoid fever & cerebro spinal meningitis.

This matter will be again referred to under Infectious Diseases.

If this area is likely to be extensively used for billeting during the coming months, some

butment camps would be advisable for the winter, to increase billeting accommodation. In the meantime as many tents as possible should be provided so that the congestion in billets may be lessened, especially in view of the infectious disease present among the civil inhabitants.

d. General conditions. The farm houses with their filthy midden heaps, & the general carelessness regarding sanitation which is characteristic of the people, do not provide sanitary billets for the troops. The wells, which are shallow, & usually as close to the midden heap as possible, usually contain more or less dilute sewage, & direct communication between midden heap or cess pit & well is often to be traced. Consequently the greatest care is necessary to prevent troops using any but the better class of wells, & to ensure chlorination as far as possible.

2. WATER SUPPLY

a. Nature of supplies. As just shown, the majority of farm house wells are unfit for use by troops. A limited number however can be used for cooking purposes, where the water is rendered safe by prolonged boiling. A comparatively small number are fit for drinking purposes after chlorination.

Besides these farm house supplies, there are certain deep wells, mostly outside the Bangwin Area itself, which provide good water & from which supplies may be drawn by water cart. A list of these water points is attached TABLE 'A'.

List of waterpoints in proximity to but not included in 2nd Australian Sanitary Section ^{area} from which supplies of drinkable water may be drawn for troops occupying the area.

TABLE A.

Location	Supply.	B.P. Required.
Bailloul Station West. S 26 A 2.5. Sheet 28	^{Deep} Well with engine pump overhead storage watercart supply. ^{water at 218 ft.}	1 Measure.
Bailloul Station East. S 26 B 0.6 Sheet 28	^{Deep} Well with engine pump overhead storage watercart supply. ^{Water at 230 ft.}	1 Measure.
Supply Station No 44. B 7 d 8.5. Sheet 36.	Overhead tanks for water cart supply	2 Measures.
Sailly. G 29 B 2.5. Sheet 36.	Well & engine pump overhead storage watercart supply.	1 Measure.
G 27 C 6.3 Sheet 36	Well & hand pump watercart's fill with buckets	1 Measure.
G 16 C 9.4 Sheet 36	Well & hand pump. watercart's fill with buckets	1 Measure.
Estaires Main Square	Well with hand pump overhead storage. Water cart supply	1 Measure.
Estaires Main street	Well with hand pump watercart's fill with buckets	1 Measure.
Brewery Tron Bayard.	^{Deep} Well in brewery. Well 275 ft deep.	1 Measure.

showing the map location, nature of supply and amount of chlorination required at each point within easy distance of the BERQUIN area; & it is recommended that as far as possible all drinking water should be drawn in water carts from these points & distributed to huts after the necessary chlorination.

6. Chlorination. Water from every well in the area is being tested by the Sanitary section & notices are being affixed at the wells, according to the quality of the water supply.

These notices are as follows.

1. Water for drinking purposes
— measure of chlorination required
2. Water fit for cooking purposes Only
— measure of chlorination required
3. Water unfit for use by Troops.

Already 158 wells have been tested and notices affixed. A list of these is attached to this report (Table B) showing the locality of the water supply & the number of wells tested & labelled in each locality.

The work is being continued, & all wells in the area will be labelled according to the quality of the water.

The greatest care is necessary in the use of water in this area. Cases of Typhoid fever have occurred in the civilian population, & considering the close proximity of cess pits & midden heaps to the wells & the care with which soakage enters the wells.

Wells tested and on which NOTICES as below have been placed by 2nd Australian Sanitary Section

MAP SQUARE	NOTICE.			TABLE B
	TESTED DRINKABLE after Chlorination	Fit for Cooking Purposes Only	Unfit for use by Troops.	Total.
Sheet 36 A.				
E 11	-	1	2	3
E 12	-	-	1	1
E 17	1	1	1	3
E 24	6	-	-	6
Total	7	2	4	13
F 11	-	1	2	3
F 12	-	2	3	5
F 13	-	1	-	1
F 14	1	-	-	1
F 15	4	4	-	8
F 18	-	1	1	2
F 19	-	2	3	5
F 20	-	-	3	3
F 21	-	3	5	8
F 22	-	2	-	2
F 23	-	2	-	2
F 24	1	5	1	7
F 25	-	-	2	2
F 26	-	1	3	4
F 30	-	-	2	2
Total.	6	24	24	54.
L 1	-	-	3	3
L 2	-	4	2	6
L 3	1	4	1	6
L 4	2	6	-	8
L 5	2	4	1	7
L 6	3	2	1	6
L 7	-	-	1	1
L 9	2	2	2	6
L 10	1	3	1	5
L 11	1	3	-	4
L 12	-	-	1	1
Total.	12	28	12	52.

August 1917

Wells tested and on which NOTICES as below have been placed by 2nd Australian Sanitary Section

MAP SQUARE Sheet 36.	NOTICE.			Total
	Tested Drinking after Chlorination	Fit for drinking Purposes Only	Fit for drinking but not for use by troops	
A 2	—	1	2	3
A 3	—	1	1	2
A 4	—	—	1	1
A 8	—	4	—	4
A 13	—	1	—	1
A 14	—	1	2	3
A 15	—	2	1	3
A 19	—	—	1	1
A 21	—	4	2	6
A 22	—	1	—	1
A 25	—	—	2	2
A 26	—	1	1	2
A 27	—	—	1	1
Total	—	16	14	30
G 1	—	2	—	2
G 3	—	2	1	3
G 8	1	2	1	4
Total	1	6	2	9
Total of wells tested on which notices have been placed.		E	13	
		F	54	
		L	52	
		A	30	
		G	9	
			158	

in this water logged country; & also the fact that many wells contain nothing more or less than dilute sewage, the risk of the spread of intestinal disease through water supply is very great.

All water should be carefully chlorinated before use. The strictest control of wells used for drinking purposes should be exercised, & Units using a well should have a man stationed at the well whose duty it is to ensure that all water drawn is chlorinated.

Where any well in the area is extensively used for the supply of drinking water as for instance at DOULIEVILLE at STEINJE, a man is provided by the Sanitary section to guard the well & chlorinate the water, but the control of smaller supplies must rest with the Unit using the particular Well, & R.M.O. should exercise very strict supervision & control to see that wells are guarded, water chlorinated, & action taken if men are found using wells labelled unfit; or misusing those labelled for cooking purposes to drinking purposes respectively.

Inspection of Water Cante etc. The attached Table C shows the number of samples of water taken from Water Cante, dippers, petrol tins & tanks etc in use by units, & tested to ascertain regularity of chlorination.

From this it will be seen the chlorination is by no means regularly carried out. Out of 163 samples taken & tested, only

44

Record of water carts, dories, petrol tins and tanks
 tested to check the regularity of water chlorination
 August 1917.
 Table C

DATE.	SAMPLES TESTED				RESULTS.	
	Water carts	Dories	Petrol tins	Tanks	Chlorinated	Not Chlorinated.
2/8/17	4	8	-	1	4	9
3/8/17	6	1	3	2	5	7
4/8/17	5	4	1	-	4	6
5/8/17	3	-	-	-	3	-
6/8/17	2	4	-	-	1	5
7/8/17	-	3	-	-	-	3
8/8/17	2	-	-	-	-	2
10/8/17	3	3	-	-	3	3
11/8/17	10	2	-	-	9	3
12/8/17	2	3	-	-	2	3
13/8/17	-	2	-	-	-	2
14/8/17	2	8	4	-	2	12
15/8/17	2	9	-	-	2	9
16/8/17	2	5	-	-	2	5
17/8/17	3	2	-	-	3	2
18/8/17	2	1	-	1	3	1
19/8/17	-	2	-	-	0	2
20/8/17	1	2	-	-	1	2
21/8/17	3	7	-	1	3	8
22/8/17	3	3	-	-	3	3
23/8/17	1	4	-	-	4	1
24/8/17	-	3	-	-	-	3
25/8/17	7	1	-	-	8	-
Total	63	77	8	5	62	91

62 were found to be chlorinated.

Samples Tested 153 { 62 chlorinated = 40%
91 not chlorinated = 60%.

These 62 samples found to be chlorinated included 54 watercarts.

Consequently out of the ninety samples taken from ditches, petrol tins & tanks, only 8 were found to be chlorinated (10 11%).

Out of 63 watercarts tested 54 were found to be chlorinated = 86%.

This shows that it is the water drawn in small receptacles from shallow wells at billets, which is not being chlorinated. But it is just this water which is most in need of chlorination.

The problem is difficult because troops are so scattered, but if the number of wells authorised for drinking purposes is limited as shown in Table B, & if units place a guard on these to see that chlorination is carried out, & if steps are taken by units to prevent troops using other wells for drinking purposes & to punish offenders, the trouble will be very greatly minimised.

I recommend therefore.

1. That, as far as possible, all drinking water be drawn in Water Carts from the points shown in Table A. (attached) & that all water carts be chlorinated before leaving the water point.

The water cart to distribute the chlorinated water to units daily for drinking purposes.

2. That where water carts are not available (as in the case of units not possessing a water cart) the wells marked in

44

Table B, as fit for drinking after chlorination, should be utilised for drinking purposes, but that each well so used should be guarded by a man stationed there by the Unit at whose billet the well is situated. This guard will see that water is drawn in a clean way, that slops are not thrown round the well & that the water drawn is at once chlorinated. Chlorination by means of a stock solution of bleaching powder is easily carried out & the men can quickly be taught how to make up & use the stock solution.

3. Wells marked for cooking only, must not be used for drinking purposes even after chlorination.
4. No water to be used for any purpose except ablution, unless chlorinated.

3
Food.

Food is good, & supplies plentiful. More care is required in protecting food from dust, flies & rats; both at the supply dumps, & in process of transport from dumps to Q.M. stores, & also in cookhouses & billets. Units are showing improvement in the manufacture of safes etc with better metal & heavier, but there is room for a great deal of improvement. Cookhouses as a rule are well kept. Food refuse & slops are utilised by civilians for pig feed etc. Fat is rendered down & sent to railhead. Grease traps do not exist in any number, & the tendency is to follow the example of the civilians & throw slops on the midden heap. However grease traps are gradually being installed by units at their billets, & as shown

8

3.
FOOD

4A

4
BATHS

in the Summary at the end of this report.
34 grease traps are already in operation.

Baths at Osterstone & Strazuela are utilised by troops in this area, but are situated outside the area controlled by this Sanitary Section. Brigade Baths near DOULIEU are run in a satisfactory fashion; & change of underclothing is provided.

5
Laundries

There are no military laundries in this area. A considerable amount of washing & bandaging is done by civilians for soldiers.

6
Disinfection

Disinfection of Premises in connection with infectious diseases is carried out by the Sanitary Section.

Six billets have been disinfected throughout by the Sanitary Section since coming into the area, & the billets again rendered fit for occupation by troops.

Cleaning & disinfection of drains, stables & dirty billets has also been carried out by the Sanitary Section. In a large number of instances. In DOULIEU the disinfection & opening of drains & street channels has to be carried out daily. The area is low-lying, & stagnant water becomes foul.

Drainage of the area has been much improved by removing rushes & other water weeds from the ditches, thus allowing the water to get away to the bays more readily. This opening up of the ditches has been done by men working under the Area Commandant.

In Vieux-Benquin also, cleaning & disinfection of drains is being carried out.

Latrines & Urinals. 9.

On coming in to the Area it was found that very few latrines existed, & such as there were had in most cases to be renewed. The reason is that material used in latrine construction is removed by civilians whenever opportunity occurs.

Consequently at first units had to construct latrines on the pit & beam open system, or else utilise the filthy cess pits of the civilian inhabitants of the billets.

This was only for a short time. The Units soon obtained biscuit boxes & timber for a limited number of latrines & these were erected. Meantime an arrangement was made with C.R.E. 1st Aust Div to supply the Sanitary Section with material necessary for urgent work, on the understanding that indents for sanitary stores should be referred to the Sanitary Section for action.

Arrangements were then made with the R.M.O. of Units to send a couple of carpenters to the Sanitary Section workshop where they could quickly build the necessary latrines to a standard pattern. This was done & the Area was quickly equipped with the necessary fly proof latrines.

In all 157 fly proof pit-latrines, & 16 pan latrines with a total of 550 seats, now exist in the Area, & with the exception of the pan latrines, these have for the most part been erected by 1st ^{Aust} Division troops during the past fortnight. (See Summary at end of report)

The type of box seat latrine being built, is as follows. A frame of 3 x 2 timber is covered with galvanised iron so as to make a fly proof

box (1 - 2 or 4 seat as required). The seat¹⁰ lids also are of iron, & close automatically. The latrine being made mainly of iron, is very durable, is not easily broken up, & is not likely to be interfered with by the civilians to whom the iron can be of little use. The seats are very light & easily capable of being moved from billet to billet if necessary.

The number of these turned out at the sanitary section workshops last week was 53 with a total of 191 seats.

Owing to shortage of material, & particularly of hessian, it has not been possible to erect standings or screening round most of these latrines. In the case of public latrines however, proper standings & roofing has been provided.

Owing to the flat nature of the country, which is in the old bed of the Lys, & is very low lying, floods are very liable to occur in the winter & it will be necessary to replace the pit latrines by the pan system during the wet months, & the work of gradually converting the present pit latrines into pan latrines will be carried out.

In DOULIEU & VIEUX BERQUIN pan latrines exist & are kept in order & cleaned out by men working under the Area Command. The excreta is incinerated in the town incinerator.

Urinals are made in connection with each latrine. They consist of pits filled with incinerated turf & covered with earth. A down pipe leads from the Urinal to the interior of the pit.

Refuse Disposal

Food refuse is disposed of by the civil inhabitants who use it for pig food. etc. Other refuse, including empty tins, is incinerated. At billets refuse is collected & burnt in small incinerators built of galv. iron or tins, or else in the pit type of incinerator which is very effective.

In Vieux Berquin & in Douliu, scavenging parties collect all refuse daily in limbers & remove it to the incinerator. These parties also clean the streets & remove accumulations of mud & other street refuse.

In Douliu a large brick public incinerator has been erected by the sanitary section for the incineration of billet refuse; & excreta from the pan latrines.

9.
Stables
-
Horse
Standings

Manure is mostly disposed of by the civilians on the land. Where it is not immediately utilised by the civilians, units are requested to pack & cover it in the approved style, but so far this work has not as a rule been very well done.

Several manure dumps have now been started near horse standings in the fields. If the packing is done in a regular manner day by day, the amount of work involved is practically negligible, & the results are satisfactory as regards conservation of manure & minimising of fly breeding.

10
Anti-lice
&
Scabies
measures.

Anti-lice & scabies measures are carried out by Division. Bathing facilities are satisfactory. Clothing is disinfected by the Foden laundry steam disinfectant.

Infectious
Disease.

44

Infectious Disease

a. Prevalence amongst civil inhabitants.

Cases of the following diseases have been reported as occurring among civilians in the area.

<u>Disease</u>	<u>Number of families affected</u>
Measles.	6.
Diphtheria.	2.
Typhoid fever.	2.
? Cerebro spinal Meningitis	1.

I have personally visited these families as soon as notification of the disease was received.

In all cases the houses were placed out of bounds to troops, & precautionary measures were taken

to prevent sale of milk or other food to troops.

In one case where the billet in question was occupied as a Bⁿ. Hq^rs. it was found unne-

-cessary to discontinue the use of the farm-

-house as an orderly room & officers billets,

but steps were taken to have all troops except officers, removed to other quarters.

As soon as convalescence is well established the houses are disinfected throughout by means of strong formalin solution freely sprayed on to all curtains, furniture, bedding, clothing etc., & the house closed up for at least an hour.

Six houses have already been disinfected in this way during the past week, & their use as billets may now be continued.

No difficulty has arisen with the civil inhabitants with regard to disinfection of premises before re-occupation as billets.

In some cases however there has been some trouble in preventing sale of food, milk etc to troops, by civilians whose premises have been placed out of bounds; this of course leading to a certain, though not very serious degree of contact between soldiers & the family

of the patient. However such practices were prevented as far as possible by placing out of bounds notices on the billets, & in two cases, by mounting a guard over the billet.

The relationship between Typhoid fever, & food & water supply is one requiring great care on the part of troops.

Judging from the habits of civilians (in whom Typhoid fever is by no means uncommon though often not diagnosed by the civil doctor) the shallow wells are very liable to have become infected when a case of Typhoid has occurred in a family. The family cess pit is frequently close to the well, & soakage is the rule. Consequently the greatest care is necessary in the use of all water from farm house wells, & chlorination should invariably be carried out.

Whenever any suspicion regarding water supply is entertained, a notice is put up declaring the water unfit for use by troops; & such wells should not be used for any purpose.

14
General
Remarks.

Flies. Are not very prevalent in the area.

Labour. is obtained from Division as required.

Material. has been obtained thro' C.R.E. Division in sufficient quantity for all urgent work.

Particular features of the Area.

The area on the whole is very low-lying & liable to flood. Drainage is carried out by ditches leading to the LYS. The fall is very small. These ditches get choked up with rushes & other water weeds, & have to be cleared otherwise the general level of the water rises & floods easily occur. Owing to the

14.
liability to flood, the use of pan latrines will be necessary during the wet months, & incinerators capable of burning faeces will have to be erected.

In addition to the Benguen Area, a Brigade of 1st Aust. Divⁿ Troops occupies a portion of the La Motte Area, & sanitary supervision of this Brigade is carried out by 2nd Aust. Sanitary Section, under an arrangement made personally with the O.C. Sanitary Section controlling that Area.

The 1st Aust. Division Units have been working well to improve the sanitary condition of the Area, & the large amount of progress made is shown in the Summary of work accomplished, which is attached to this Report.

Sanitary work in the Area is being carried out in conjunction with the Area Commandant who has given all possible assistance.

The following are the principal matters now requiring attention.

1. Careful control of use of water supply as recommended in this Report.
2. Better protection of food
3. Installation of Pan latrines for the wet months, & an increase in the number of incinerators capable of burning faeces
4. Provision of tents to relieve congestion of Billets.

Attached are copies of report forms etc, used in conjunction with sanitary supervision & control in the Area.

W. Holmes Capt
O.C. 2nd Aust. Sanitary Sect.

2ND
AUSTRALIAN
SANITARY SECTION.

No.
Date 27/8/17

BERQUIN Area.

2nd Army.

AUGUST. 1917.

Sanitary Works in the BERQUIN Area; and for the most part created by 1st Australian Division under Supervision & with assistance of 2nd Australian Sanitary Section during AUGUST 1917.

Location (attached Area plan)	LATRINES			Urinals	Incinerators	Ablution Benches	Lime Traps	Scallop Pits	Refuse pits	Manure dumps	Baths	Water carts inspected	Remarks
	PIT	PAN	TOTAL SEATS										
Area A.													
Strazale etc.	3	1	10	2	1	1	1	1	1		1		
Vieux Berquin	13	2	31	5	3	1	2	1	4				
Pont Rondin	9		36	5	1	2	1	1	5				
Blau.	15		33	18	5	—	2	—	9				
Area B		2	2										
Blanche Maison	27 Box pattern		118	56	16	3	15	18	—	—	—		
Route Broom													
Steinge	15 French pattern		64										
Chien Blanc.													
Area C		2	10										
Poulieu de Verrier	14 Box pattern		64	10	6	2	4	—	—	3	—		
Area D		5	10										
Rue Prusost etc.	24 Box pattern		52	26	3	—	—	—	18	3	1		
	3 French pattern		10										
Area E		4	10										
Le Crouseleau etc.	33 Box pattern		89	33	14	3	9	2	14	—	1		
	1 French "		5										
TOTAL	157	16	550	155	49	12	34	23	51	6	3		

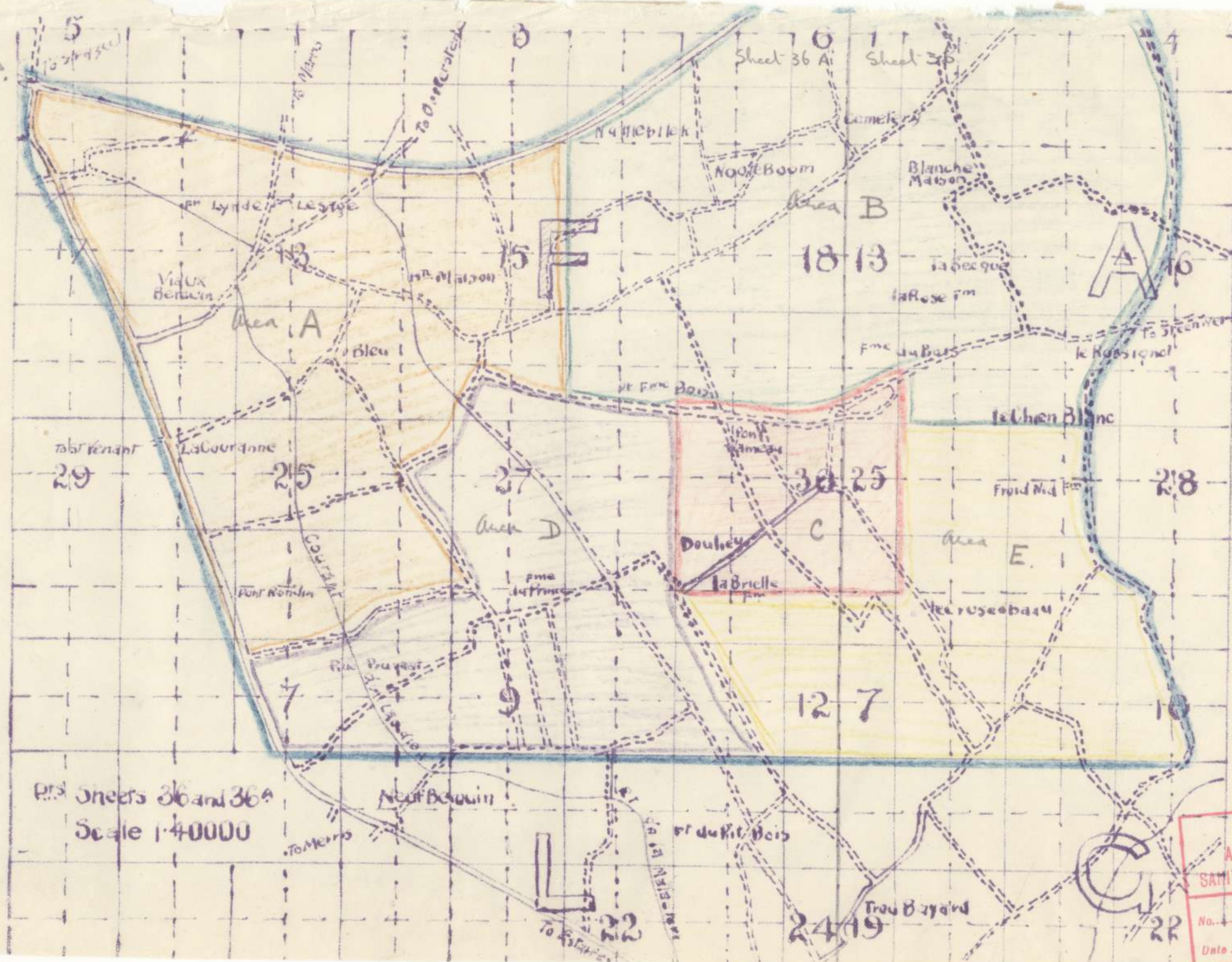
See Special Report: Attached.
Total water carts inspected 63.

2nd Australian Sanitary Section moved into Area on 9th August.

APPENDIX

2ND AUSTRALIAN
SANITARY SECTION.
No. 27/9/17

Area	A	
"	B	
"	C	
"	D	
"	E	



APPENDIX

2ND
AUSTRALIAN
SANITARY SECTION.

No. 27/8/17.
Date

2nd Australian Sanitary Section.

Testing for presence of chlorine.

Information regarding the following points is to be obtained in respect of every sample of water taken for testing purposes.

1. Exact particulars as to place where sample was taken.

A. Watercart, dixie, petrol tin etc.

B. Hut, cookhouse, dugout, trench etc.

C. Full particulars of unit.

D. Water point from which supply came.

2. Details as to person responsible for chlorinating.

3. Statement as to when chlorination was carried out.

4. Time. A. When water cart was filled

B. When sample was taken.

C. When sample was tested.

D. Result of test.

Signature.

2ND AUSTRALIAN SANITARY SECTION.	
No.	
Date	

Date.

2ND
AUSTRALIAN
MILITARY SECTION.

No.

Date

2nd AUSTRALIAN SANITARY SECTION.

Report for week ending

Name of village, camp or area
under supervision

Report furnished by

LATRINES	Number of standard latrines		} Total in use
	(a) completed, roofed & screened		
	(b) In use, but not completed		} ...
	Remarks -		
	Condition of latrines		
	Material required for)		
	work now in progress)		
	What other methods of)		
	disposal of excreta)		
	exist at present.)		
INCINERATORS.	Number completed and working		
	Number under construction		
	Remarks -		
	Condition of incinerators		
	By whom attended		
	Material required for)		
	work now in progress)		
	What other methods of)		
	disposal of refuse)		
	are in use.)		
STABLE & HORSE LINES	Manner of disposal of refuse		
	Sources of water supplyTest B.P.....		
WATER SUPPLY	Particulars of distribution		
	Particulars as to regularity of chlorination		
	Wells. Number in use by troopsTest B.P.....		
	Number prohibited by notice fixed on wells.		
	Underground tanks.		
	Number in useTest B.P.....		
BATHS & ABLUTION PLACES	Water supply to baths & ablution places		
	Disposal of drainage water		
GENERAL SANITATION	General remarks		
	General cleanliness and) sanitation of village,) camp or area.)		
	Condition of cook houses		
FATIGUE PARTIES	Disposal of kitchen refuse		
	Strength of Parties available) for Sanitary work.)		
	Work done by them		

2ND
AUSTRALIAN
SANITARY SECTION.
No.....
Date

P.T.O.

DUTIES OF MEN IN CHARGE OF WATER CHLORINATION AT WATER POINTS.

1. To personally chlorinate all water leaving the water points or well. No difference is to be made between water used for drinking, and that to be used for boiling or washing. It must all be chlorinated at the water point.
2. Water carts will be chlorinated as follows -
The amount of bleaching powder required, as shown by the notice board at the water point or well, is to be put into the water cart before the cart commences to fill. The powder will then mix with the water during the filling of the cart. One measure B.P. is the amount of bleaching powder which the small scoop found in each tin contains when filled just flush with rim of scoop.
3. Petrol tins and dixies are to be chlorinated by means of a stock solution as follows -
(a) To make a "stock solution"
Put one measure of B.P. into an empty stock solution petrol tin, provided for the purpose. Add a small amount of water and shake well. Then fill the tin with water and allow to stand for half an hour.
(b) To use the stock solution for chlorinating the water drawn by water fatigues in petrol tins and dixies. Pour one regulation measure tin full of stock solution into the empty dixie or petrol tin before allowing the water fatigue to fill the petrol tin or dixie. A supply of stock solution must be prepared first thing in the morning for use during the day.
4. Stock solution must be made up fresh every morning, and no stock solution is to be used after 24 hours from being made up. Fresh stock solution can be made up at intervals during the day, as required, but must stand for half an hour before being used.
5. The powder measure scoops must be kept clean, and not allowed to become corroded or clogged.
6. The stock solution tin and measures must be kept clean and in good order.
7. Tins of B.P. must not be allowed to remain open, but the lid must be always firmly pressed on.
8. Dixies and petrol tins are not to be brought within 5 yards of a well or a reservoir situated on the ground level. Water fatigues waiting their turn must remain at a distance of at least 10 yards from the filling point, and must draw water in a regular and orderly manner.
9. Water supervisors of the Sanitary Section will visit all water points every day. Any difficulties experienced by the man in charge of water chlorination should be referred to him. Tins of B.P. for chlorinating will be supplied as required by the water supervisor.

2ND AUSTRALIAN SANITARY SECTION.
No.
Date

C.O.
2nd Australian Sanitary Section.

The C.O.

Now that summer has come fly breeding will take place very extensively unless strict precautions are taken to destroy all refuse about camps. There is a great danger that dysentery and other fly borne diseases, which have already begun to make their appearance will become very prevalent during the summer, with consequent serious wastage of men from these diseases unless camps are maintained at the highest sanitary level by the immediate destruction of refuse of every description to prevent fly breeding and by careful protection of food supplies from flies and dust.

Your attention is directed to the following matters noted in an inspection of the
occupied by your unit on the
which require to be remedied.

Date Stamp.

2ND AUSTRALIAN SANITARY SECTION.
No.
Date

C.O.
2nd Australian Sanitary Section.

BERQUIN Area.

2nd Army.

2nd Australian Sanitary Section.

Work in progress. Month ended August 1917.

Situation	Fathoms	Urinals	ablution benches	incinerators	Recess tubs.	Manure dumps
BERQUIN Area. Troops are billeted in farm houses scattered all over the area.	14	14	9	6	4	2



27/8/17.
H. H. Jones Capt.

SYNOPSIS work carried out by & under supervision of 2nd Aust. Sanitary Sect. during month ending

AUGUST 1917

Situation	numbers of											
	Latrine dug proofed & covered	Seats or completed latrines.	Urinals erected	Latrine pits dug	Urine pits dug	Incinerators erected	Refuse dumps dug	Grease traps & soak pits.	Bullets inspected	Bullets disinfected	Kitchen erected	Water carts inspected.
BERQUIN Area. Bullets are scattered all over the Area, & have there clumped into small villages.	113	381	107	126	117	27	43	24	all.	16 including 5- disinfected in connection with infection disease	174	63.

2ND
AUSTRALIAN
SANITARY SECTION.

No.

Date 27/8/17

APPENDIX

36A

E

11

12

7

8

9

10

fme Lynda

fme Lesage

le 3 Formes

17

18

13

14

15

16

fme Lapin

Hte Maison

Vieux
Berquin

fme Hottelot

23

lr. Becave

24

19

20

21

22

la Couronne

30

25

26

27

28

2

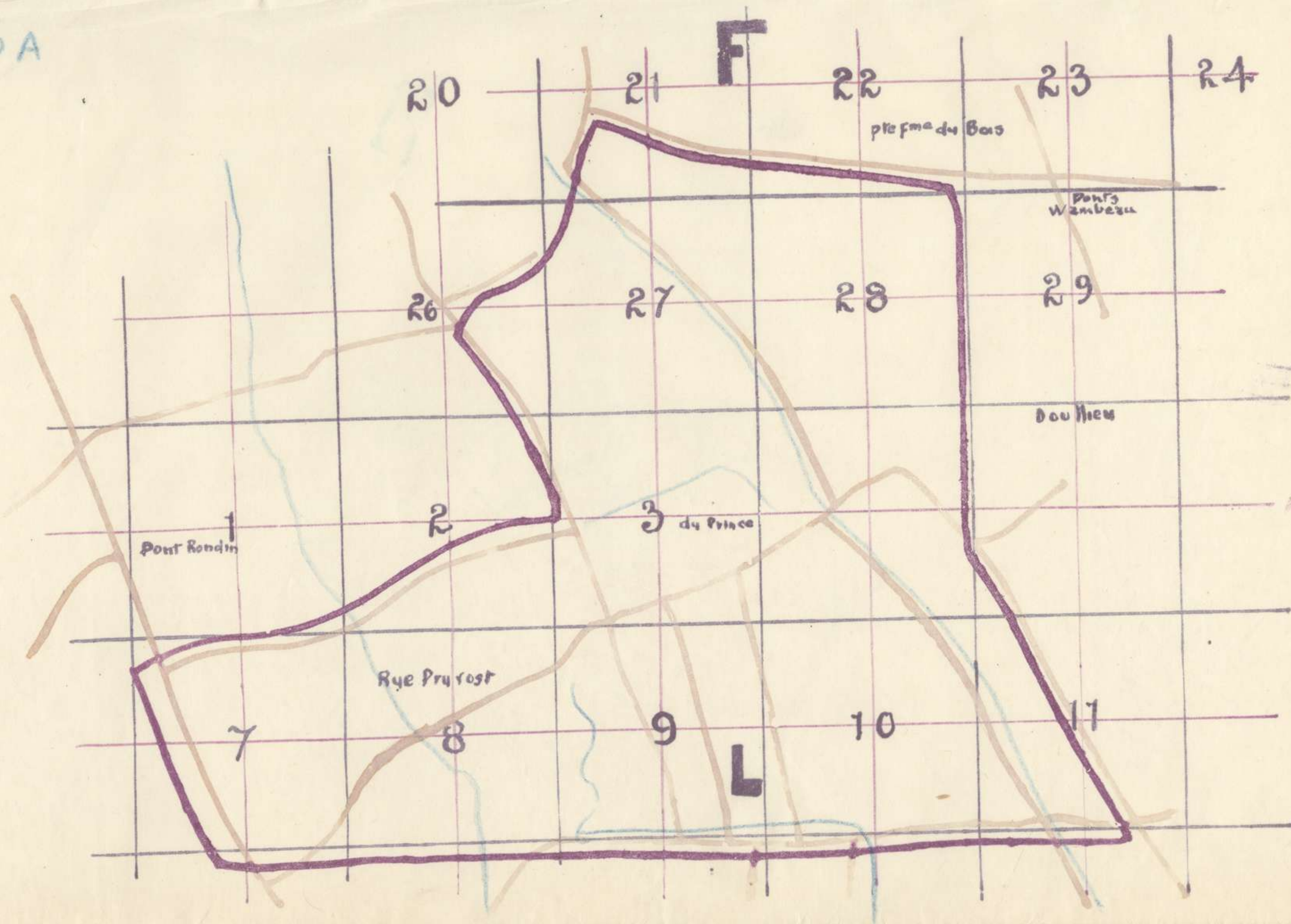
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APPENDIX

35

36A

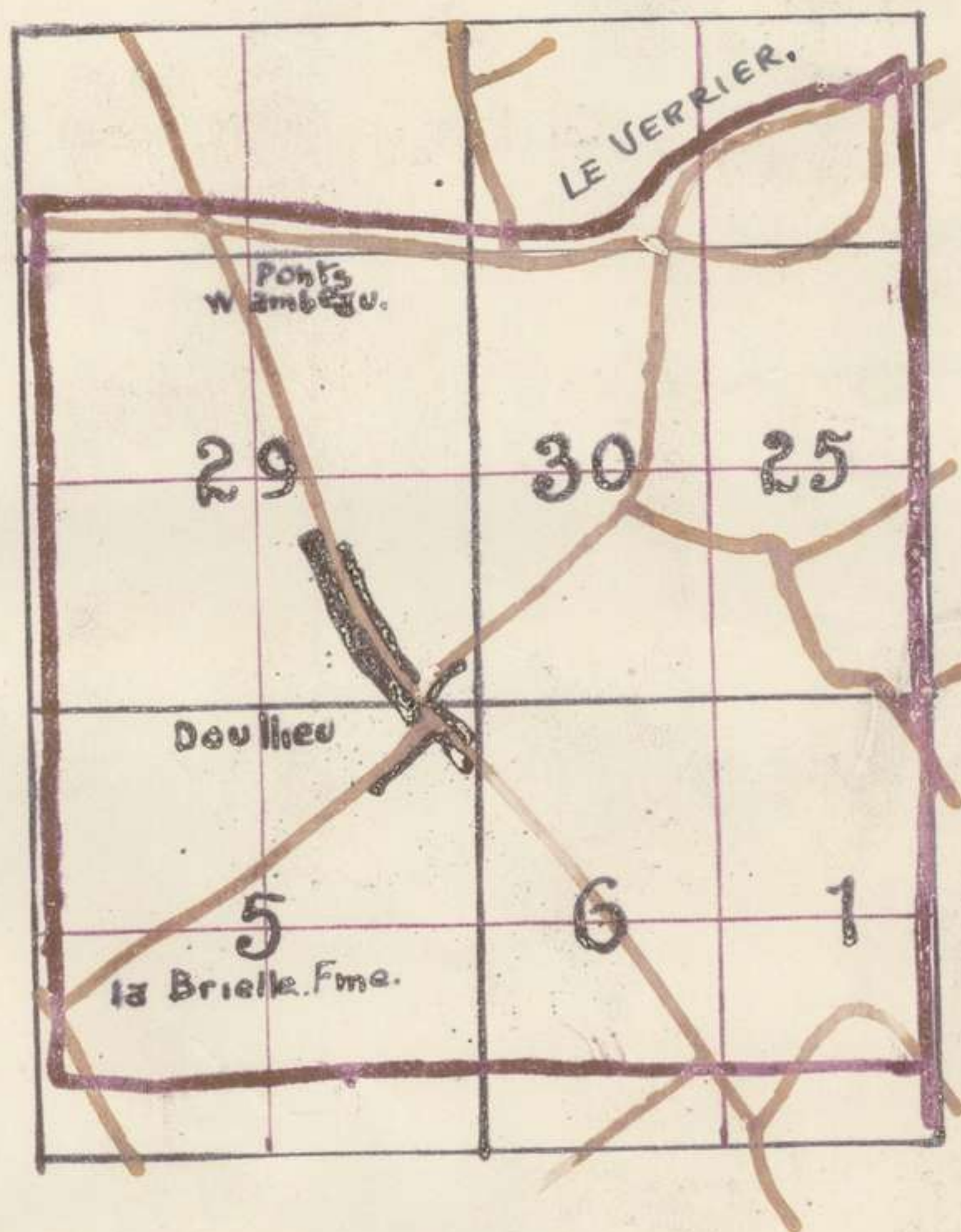
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APPENDIX

36

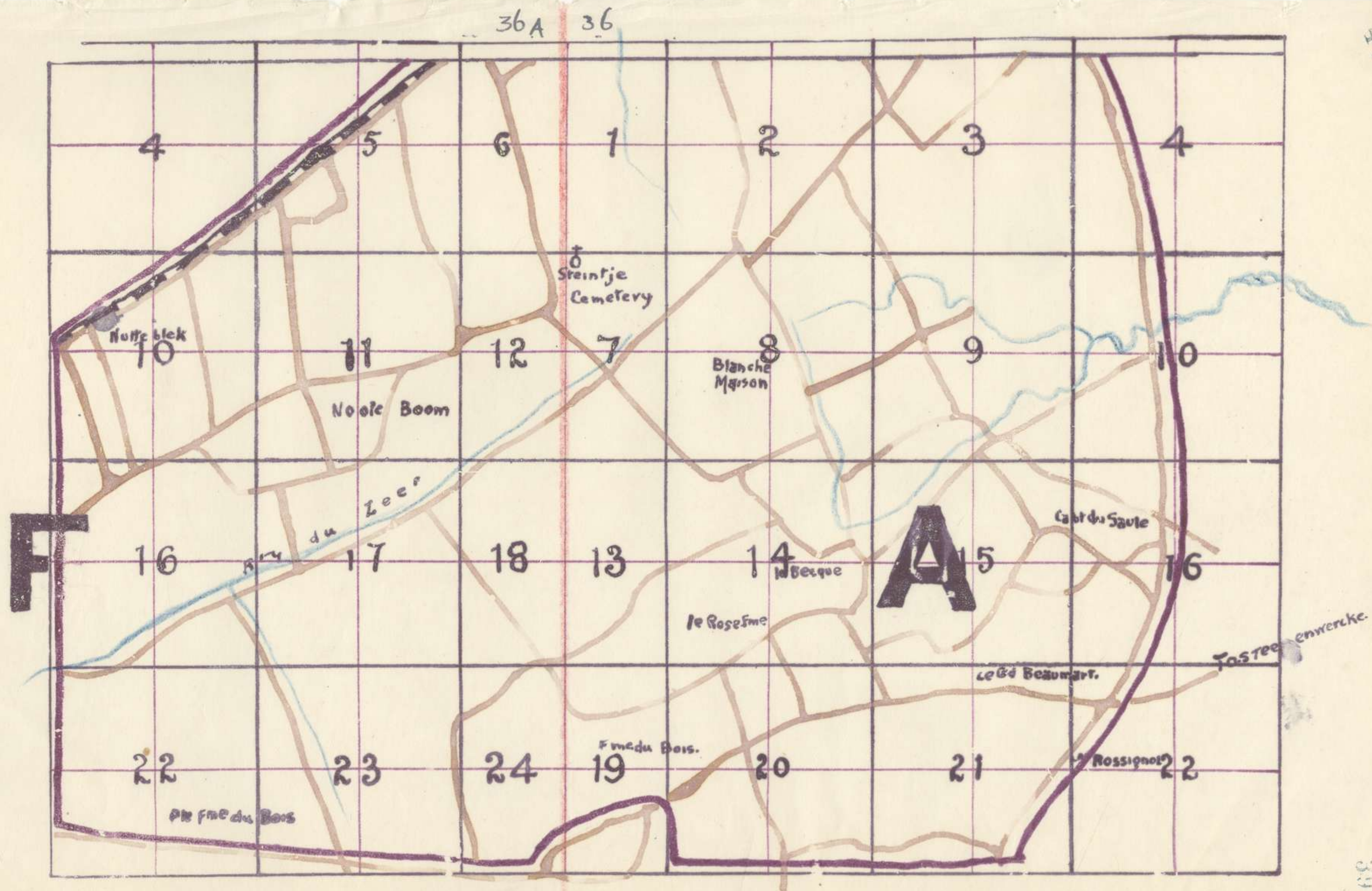
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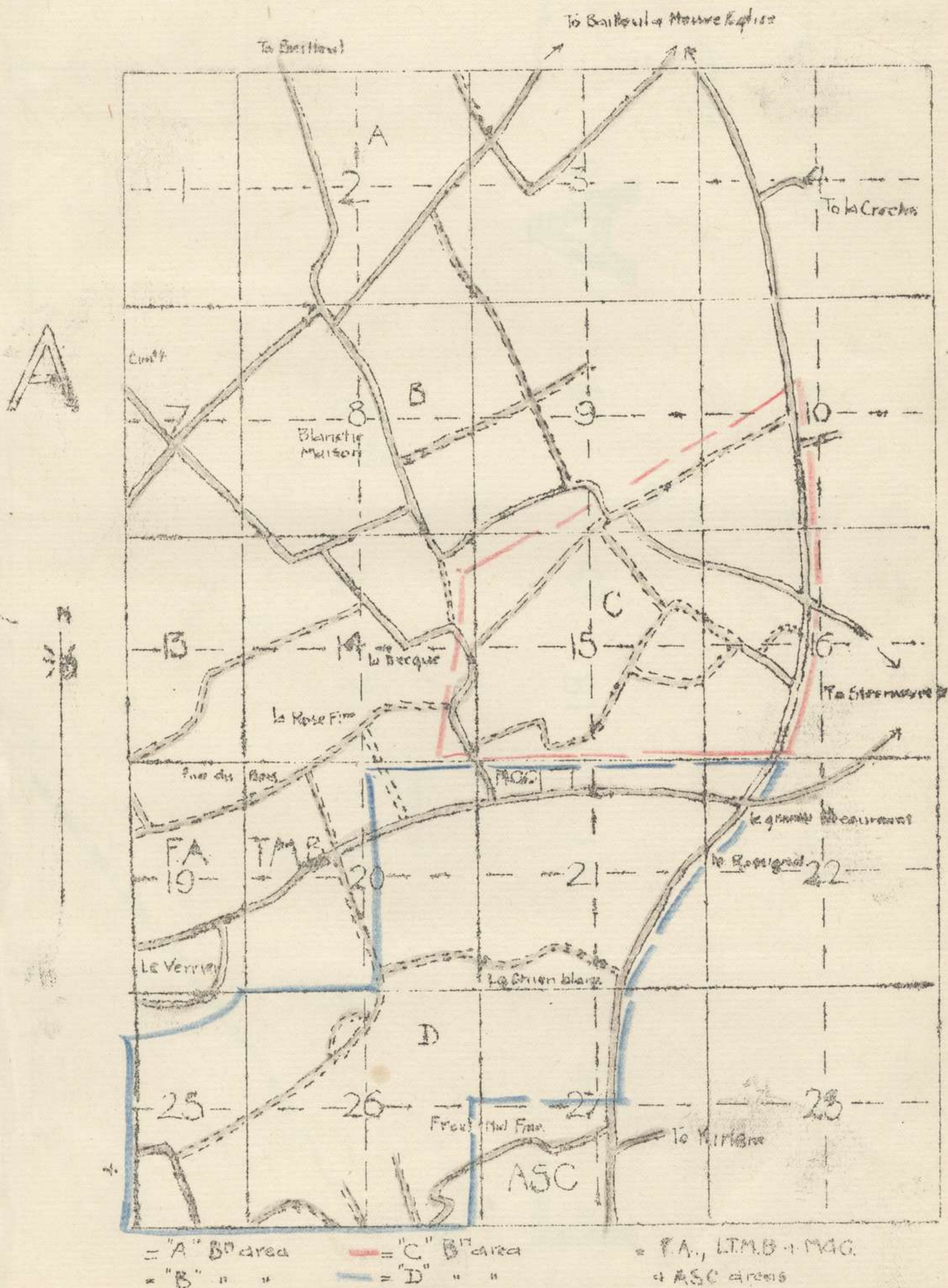
APPENDIX

RCDIG1013875





Horse troughs are marked in each tree and drinking water; for more can be obtained at S251586 Sheet 28; also at A.4872 Sheet 36 and also at Douliu.



Accommodation for No 2 Bde.
Scale - 1/20,000

Water troughs are marked in each area and drinking water for men can be obtained at Douliou.

Sheet 36

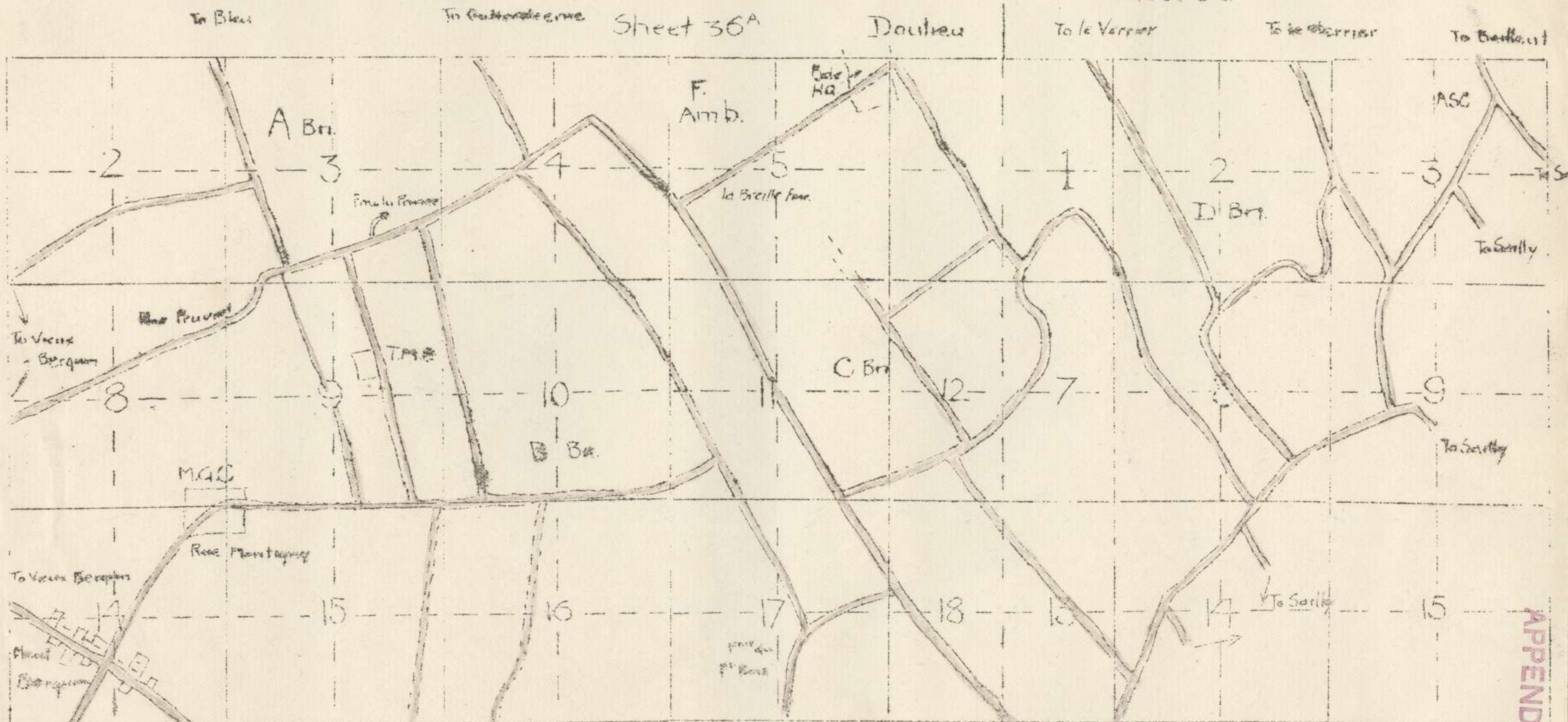
Sheet 36A

Douliou

To le Verrier

To le Verrier

To Berthelet



APPENDIX

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