

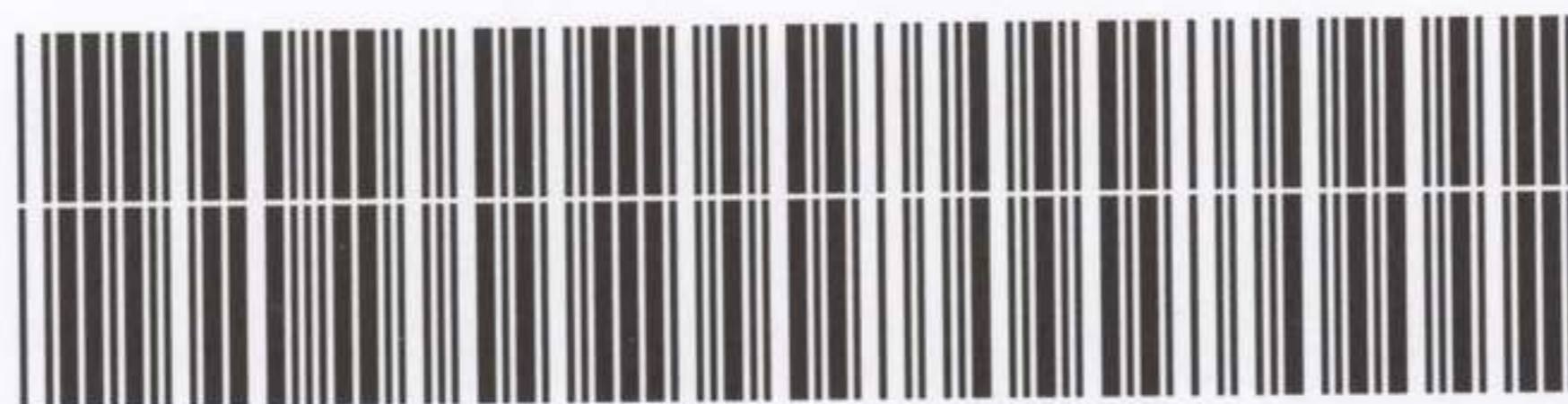
**AWM4**  
**Australian Imperial Force unit war diaries,**  
**1914-18 War**

Engineers

**Item number:** 14/24/22

**Title:** 5th Field Company, Australian  
Engineers

January 1918



AWM4-14/24/22



# WAR DIARY

or

## INTELLIGENCE SUMMARY.

(Erase heading not required.)

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.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Romarin	Jany 1st to 15th		<p>No 1 Section loading and transporting R.E. Material to forward dumps; also wiring Support Line.</p> <p>No 2 Section, clearing, deepening, widening and revetting Support Line; also raising parapet and parados and gasproofing dugouts and shelters on left Brigade sector.</p> <p>No 3 Section on clearing of main drains and Rabeques and Warnave Rivers.</p> <p>No 4 Section on clearing, deepening, widening and revetting of front line and right supports; also raising and thickening parapets and parados and gasproofing dugouts and shelters on right battalion sector.</p> <p>On 2nd instant Captain J. G. BURNELL proceeded to SUIPPES, where he was attached to a French Field Company for ten days. Report attached.</p>	
"	16th to 20th		<p>No 1 Section took over the work of clearing, deepening, widening and revetting of front line and right supports; also raising and thickening parapets and parados, from No 4 section. The work of dismantling and rebuilding of dugouts and digging of new trenches was also undertaken.</p> <p>No 2 Section continued on work as from 1st to 15th instant</p> <p>No 3 Section on drainage.</p> <p>No 4 Section took over the work of loading and transporting R.E. Material to forward dumps</p>	
	21st to 22nd		<p>No 1 Section continuing on works as from 16th to 20th inst.</p> <p>No 2 Section took over the work of drainage of trench system from No 3 Section. Gas proofing dugouts and shelters.</p> <p>No 3 Section took over the work of clearing, deepening, widening and revetting support line; also raising and thickening parapets and parados.</p> <p>No 4 Section as on 16th to 20th instant.</p> <p>A good deal of labour has been diverted to general draining on account of heavy rains and snow flooding trenches.</p>	

*JLB.*



WAR DIARY

Army Form C. 2118. 81

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or  
INTELLIGENCE SUMMARY.

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Romarin	January 23rd to 27th		<p>No 1 Section took over the work of loading and transporting R.E. material to forward dumps, from No 4 Section. Nos. 2 &amp; 3 Sections as on 21st and 22nd. No 4 Section on clearing, deepening, widening and <del>work</del> revetting front line and right supports; raising and thickening parapets and parados and gasproofing dugouts. On the 27th Lieut. Engel and Corporal McGowan left with 7th A.I. Brigade Advance Party to secure billets for Company at <u>BAINGHEM</u>.</p>	
"	28th		<p>Work handed over to 11th Field Company, A.E. Copies of Works Reports, work in hand, List of dugouts in Trench System - including those gasproofed and those needing gasproofing, Notes on present condition of trenches, drainage, etc. handed on to relieving Company.</p>	
"	29th		<p>The company has been on the usual trench works and has had only one casualty, No 3080 Cpl Mitchell. G.T. who was wounded while on duty in the line.</p> <p>The strength of the company which has been evenly maintained throughout the month was 8 Officers and 224 Other Ranks;.</p> <p>On the afternoon of the 15th inst, thaw and heavy rains set in and continued until the afternoon of the 17th inst. This caused a flooding of the trench system. The River Lys rose considerably and drains were unable to cope with water.</p> <p>As will be noticed from the attached weekly reports, the majority of the labor has since been directed towards the draining away of the flood waters. Many drains were found too small and were widened and deepened. Brick culverts were found to block the flow and drains had to be cut around them to allow a free passage of water. <del>xxxxxx</del> Culverts on the River Warnave were opened and water level lowered considerably. Trenches are now quite dry except in one or two</p>	

JWB



WAR DIARY

Army Form C. 2118.

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or INTELLIGENCE SUMMARY.

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Le Romarin	29th		places.	
"	30th		The transport moved out for Bainghem-le-comte with Lt Gray in charge and under Brigade arrangements. The night was spent at Strazeele. <del>in bivouac.</del>	
Strazeele.	31st		Transport moved from Strazeele to Renescure. One motor lorry moved direct from Le Romarin to Bainghem arriving 5-30 p.m. Main party moved per rail under Brigade arrangements to Lumbres and thence to Bainghem per Motor lorry, arriving at destination at 7-30 p.m.	

Johns Burnell. Capt.  
a/o.c. 5th Field Coy. A.E.



# WAR DIARY

OF

5th FIELD COMPANY  
AUSTRALIAN ENGINEERS,

FOR

January

1918.

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## LIST OF APPENDICES.

No.	Subject.
1.	Works Reports.
2.	Works Policy.
3.	Map of trench system.
4.	Aerial Photos.
5.	Movement Orders.
6.	Notes on a ten days stay with a French field company by Capt Burnell, with four sketches attached.

*John G. Burnell* capt,  
a/o.c., 5th Field Coy, A.E.



WEEKLY WORK S REPORT

APPENDIX

5th Field Company, A.E - For week ending 4th January 1918

Nature of work	Location	Progress as-to etc.
Rabeques Drain	C.13.b.5.5. to C.4.d.9.5.	Patrols have kept drain clear.
Drain- Smythe Ave to Rabeques and Warnave Rivers	C.9.b.7.3. C.1.a.1.0. to U.29.a.5.0.	
Drain- Loophole Farm- Front Line	U.22.d.1.1. to U.23.b.1.6.	
Drain- Le Gheer to Warnave River	U.28.a.9.1. to U.22.a.1.1.	
Ayr St to Warnave	U.27.a.3.1. to U.28.c.2.8.	
Drain- Monmouth Ave to Monmouth River	C.4.a.0.3. to U.27.d.10.8.	
Drain off Station Avenue Drains- Harnians- Suffolk Ave	) ) )	Patrols have kept drains clear.
Drain Rabaques River Suffolk Avenue	C.4.c.3.3. to C.3.b.9.1.	
Drain Long Ave to Lys	C.9.d.8.8. to C.9.c.8.3. to C;15.d.7.8.	
Drain Umpire Row to Railway	U.22.d.2.4. to U.23.b.2.7.	

TRENCH WORKS.

Front Line. The work of clearing and revetting the Front Line has been carried out by day and night parties at the following locations.

- U.23.b.8.2. to U.23.d.2.8. 270 yds of parapet built up.
- U.23.a.3.7. U.29.c.0.6. to U.29.a.4.3. 2 dugouts completed for Machine-gunners. 8'x8'x5'. Placed in 198 revetting panels, renewed 7 broken panels, 110 yds parapet raised.

Carrying :- Material from Le Gheer dump carried to Front Line at night bu party of 2 Sappers and 70 infantry.



## 81 Weekly Work s Report for week ending 4/1/'18

APPENDIX

Location	Remarks as to progress, etc.
View Lane - C.10.b.3.7. to C.10.b.6.7.	Trench deepened & widened for a length of 64 yds; 18 yds parapet built up; 31 yds revetted; 20 yds ready for revetment; laid 19 d/boards; 1 dugout removed to clear trench.
Napoo Avenue - C.10.b.1.6.	C.10.b.1.6. - 22 yds trench revetted; 38 yds deepened and widened; 45 yds parapet and 13 yds parados built up; laid 12 d/bas. duckboards.
Smyth Avenue - Long Avenue - C.10.a.2.5. to C.4.c.8.5.	8 yds trench revetted. 16 yd trench cleared, revetted and sandbagged 127 yds firestep erected.
Station Redoubt - C.9.d.9.8.	150 yds cleared; 100 yds parapet built up and thickened.
Monmouth Avenue - C.4.c.3.9. to C.4.a.1.3.	90 yds trench cleared; 73 yds parapet built up; d/boards in T-heads dug up and relaid on be bearers - 46 yds.
Suffolk Avenue - U.28.c.2.9.	60 yds firestep completed.
New Support - U.28.c.3.4. to U.28.c.7.9.	54 yds revetted; 180 yds parapet built up; 145 yds drain cleared; 55 yds trench cleared; 25 yds trench widened 1'; completed 140 yds firestep.
Una Avenue - C.4.b.4.5.	30 yds firestep erected 15 yds trench cleared
Umpire Support - U.23.a.1.7 to U/22.d.4.6.	161 yds revetted; 38 yds widened and deepened; 297 yds cleared; 109 yds d/boarded; 30 yds parapet raised.
" U.28.b.1.3.	150 yds new wire erected and 100 yds old wire repaired.
" C.4.a.1.6. to U.28.b.0.5?	2 rows of 800 yds double apron wire fence erected; 300 yds of old strengthened and repaired.
Umpire Reserve - U.23.c.7.9.	Completed accomodation for 70 men.
Umpire Drive South - Umpire Row. - U.22.c.6.5.	30 yds parapet built up. 45 yds trench cleared and widened.
Careless Avenue - C.10.b.5.8.	6 yds trench cleared.

Carrying Parties - 118 O.R's carrying and transporting R.E. Material from Motor Car Corner and Le Gheer Dumps to Support Line.

Transporting R.E. Material from De Seule and Le Romarin Metal Siding to Motor Car Corner and Le Gheer R.E. Dumps.

Major  
C.C. 5<sup>th</sup> Field Company, A;E.



N<sup>o</sup>/

## WEEKLY WORKS REPORT

APPENDIX /

5th Field Company, A.E.

For week ending 11th January 18

Nature of work	Location	Remarks as to progress, etc.
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Drainage

Rabeques Drain	C.13.b.55.	to
	C.4.d.9.5.	
Drain - Smyth Avenue to Rabeques River	C.9.b.7.3.	
Warnave River	C.1.a.1.0.	to
	U?29.a.5.0.	
Drain - Loophole Farm to Front line	U.22.d.1.1.	to
	U.23.b.1.6.	
Drain- Le Gheer to Warnave River	U?28 a.9.1.	to
	U.22.a.1.1.	
Ayr street to Warnave	U.27.a.3.1.	to
	U.28.c.2.8.	
Drain - Monmouth Avenue to Monmouth River	C.4.a.0.3.	to
	U.27.d.10.8.	
Drain off Station Av.)		
Drains -Harnians - )		
Suffolk Avenue )		
Drain - Rabeques River- Suffolk Avenue	C.4.c?3.3.	to
	C.3.b.9.1.	
Drain & Long Avenue to River Lys	C.9.d.8.8.	to
	C.9.c.8.3.	to
	C.15.d.7.8.	
Drain Umpire Row to Railway	U.23.d.2.4.	to
	U.23.b.2.7.	

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Trench Works

Front Line - The work of clearing, revetting and draining the front line has been carried out by day and night parties at the following locations.

Careless Avenue -	C.10.b.6?8.	Laid 11 d/boards.
Barkenham Avenue -	C.10.c.2.6.	45 yds fire-step erected.
O.G.T., off View Lane	C.10.b.4.6.	15 yds cleared.
New Trench off Barkenham Avenue	C.9.d.7.3.	Trench deepened and widened - length 86 yds. 50 yds parapet built up. raised & relaid 8 D:boards.

Support Line -

Widow's House Smyth Avenue Long Avenue	C.9.d.5.4.	6 gasproof doors fitted. 2 yds trench cleared.
	U.15.a.8.1.	34 yds cleared; 12 yds revetted;
to U.9.d.8.8.		31 yds fire-step completed; 12 feet trench widened;



81 Works Report for week ending 11th January 1918 - v (2)

Location Remarks as to progress, etc. APPENDIX /

Long Avenue (continued) 17 d/boards laid; built up 5 yds earth around strong point; 32 yds yds evacuated excavated for new strong point;

Station Redoubt - 80 yds cleared; 36 yds parapet built up; and thickened; 6 d/boards laid.

C.9.d.8.8. to C.10.c.0.7. Screen Avenue - 6 yds cleared.

Subsidiary Line - 5 dugouts gas-proofed.

C.15.a.4.9. Monmouth Avenue - 330 yds trench cleared; 198 yds parapet built up; 39 d/boards dug up and relaid on bearers; 70 yds fire-stop erected; T-heads fire-stepping completed.

C.4.c.7.4. to C.4.a.1.3. New Support - 56 yds trench revetted; 346 yds parapet built up; 65 yds trench cleared; completed 150 yds firestep; 192 yds parapet raised and thickened.

U.28.c.3.4. to U.28.a.7.0. Una Avenue - 14 d/outs gasproofed; 60 yds widened and deepened.

C.4.b.4.5. Umpire Support - 457 yds trench revetted; 228 yds widened and deepened; 876 yds cleared.

U.23.a.1.7. to U.22.d.4.6. Umpire Support - 280 yds parapetr raised; 50 yds traversed and revetted; 2 traverses revetted and d/boarded. 2 traverses widened and deepene for revetment; erected 2 steel shelters.

U.22.b.7.0. Umpire Support - 2 rows of 750 yds double apron wire fence erected and 2 rows of 150 yds old wire repaired and strengthened. Erected 290 yds double apron wire fence - 200 yds repaired and thickened.

U.22.d.8.8. to C.10.a.12. Umpire Drive South - 20 yds cleared; 26 yds revetted; 3 dugouts gasproofed.

U.22.d.4.6. Carrying Parties - Carrying and transporting R.E. Material from Motor Car Corner Dump and Le Gheer dump to Support Line.

Transporting R.E. Material from De Seule Dump and Le Romarin Metal Sidin dums to Motor Car Corner and Le Gheer R.E.Dumps.

Major

C.C. 5th Field Company, A.E.



(Copy)

## WEEKLY WORKS REPORT

APPENDIX

5th Field Company, A.D. - For week ending 18th January '18

Nature of work	Location	Remarks as to progress, etc.
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## Drainage -

Rabeques Drain	C.15.b.5.5. to	
Drain - Smyth	C.4.d.9.5.	
Avenue to Rabeques River	C.9.b.7.3.	
Warnave River -	C;1.a.1.0. to U.29.a.5.0.	
Drain - Loophole Farm to Front Line	U.22.d.1.1. to U.23.b.1.6.	
Drain - Le Gheer to Warnave River	U.28.a.9.1. to U.22.a.1.1.	
Ayr Street to Warnave	U.27.a.3.1. to U.28.c.2.8.	
Drain - Monmouth Avenue to Monmouth River	C.4.a.0.3. to U.27.d.10.8.	
Drain off Station Av )		
Drains - Harnians - )		
Suffolk Avenue )		
Drain - Rabeques River -	C.4.c.3.3. to	
Station Avenue	C.3.b.9.1.	
Drain - Long Avenue to River Lys	C.9.d.8.8. to C.9.c.8.3. to C;15.d.7.8.	
Drain - Umpire Row to Railway	U.22.d.2.4. to U.23.b.2.7.	

Trench Works - The work of clearing and revetting the front line and support line has been carried out by day and night parties at the following locations :-

Front Line

Advanced Post -	Excavations for 3 dugouts complete;
C.4.b.7.3. to	3 yds cleared; 3 yds widened and deepened
C.4.b.9.4.	2 dugouts dismantled and 1 rebuilt.
Ida Post -	Draining and repairing cupolas.
U.29.c.1.2.	
Kitty Post -	" " " "
U.29.a.3.3.	
Patrol -	Patrolling line and pumping dugouts.
O.G.T. - off View Lane -	20 yds new drain excavated; 30 yds old
C.10.b.4.5.	drain cleared.
View Lane -	
C.10.b.3.6. to	20 yds widened & deepened; 30 yds old drain
C.10.b.5.6.	widened & deepened; 20 yds new drain
	excavated.



WEEKLY WORKS REPORT. continued.

APPENDIX /

	Location	Remarks as to progress etc.
<u>SUPPORT LINE.</u>		
Harekau Ave	C.10.a.3.2.	20 d/boards laid on bearers, 14 d/boards raised and trench cleared, 6 additional yds trench cleared. Salvaged picks and shovels and made small dumps at various points.
Butchers Shop	C.10.c.5.9. to C.10.c.7.2.	New trench dug will allow passage of traffic.
New Trench off Barkenham Ave	C.19.d.7.4.	153 yds widened and deepened, 54 yds parapet built up, 60 yds d/boarded, 34 A Frames fitted in and 44 yds revetted.
" "	C.9.d;4.2.	22 yds trench widened and deepened, 110 yds parapet raised and thickened.
Carters switch	C.10.a.8.6.	Excavated dugout 9' x 6' x 5' for new right company H.Q.
Barkenham Ave	C.9.d.7.4.	10 yds d/boarded, raised d/boards and cut away floor of trench which drained 150 yds of flooded trench.
Long Avenue	C.4.c.8.3.	Cleared 9 yds trench.
" "	C.15.c.8.9.	Carried earth and built parapet for strong point, 6 yds d/boarded.
" "	C.15.d.1.4.	One side of new T head trench revetted and <del>3</del> d/boarded, 4 yds trench widened 8 yds revetted and d/boarded, 9 yds parapet thickened and levelled.
" "	C.15.b.2.8.	12 yds parapet raised and thickened, 4 yds d/boarded.
Una Support	U.28.b.2.6.	4 yds widened and deepened and revetted
" "	Nos 6 & 8 posts	19 yds revetted, 4 yds cleared, 6 yds widened.
" "	U.28.b.0.3.	Constructed temporary bridge across Warnave River, repaired and raised 38 yds d/boards.
" "	U.28. Central	30 yds d/boards raised, repaired and relaid.
Umpire Support	U.22.b.7.0.	136 yds cleared and 168 yds revetted, excavated for 10 steel shelters 9 of which completed, 109 yds parapet raised and thickened, partly cleared ground for shelters.
" "	U.23.a.1.7.	120 yds parapet raised and thickened.
" "	U.22.c.8.1.	Completed revetting repairs.
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GENERAL.

Owing to the wet weather it has been found necessary to carry out general drainage to the Front and Support Lines. This work has been carried out by day and night parties.



81

WEEKLY REPORT continued.

(3)  
APPENDIX /

Location	Remarks as to progress etc.
<u>Carrying parties.</u> - Carrying and Transporting R.E. material from Motor Car Corner and Le Gheer dumps to Support Line.	
<u>Loading and Transporting R.E. material.</u> From De Seule and Le Romarin Metal Siding Dumps to Motor Car Corner and Le Gheer R.E. Dumps.	
<u>Gas Proofing Dugouts and shelters.</u>	
Convent Lane	4 dugouts fitted with gas proof doors frames and sandbagged.
Widows House	4 gas proof frames fitted to dugouts, 2 dugouts gas-proofed and sandbagged. 42 blanket doors completed.
Umpire Reserve. R.A.P.	2 blanket gas-proof doors erected.
Convent Lane/	7 shelters fitted with curtains and rendered gasproof. 2 blanket doors and 2 windows fitted.
Widows House and Subsidiary Line	13 Gasproof doors and 19 windows fitted in dugouts.
Signal dugout	1 blanket door fitted.

Major.

O.C. 5th Field Coy. A.E.



(Copy)

APPENDIX /

81

No 1

WEEKLY WORKS REPORT

5th Field Company, A.E.

For week ending 25th January 1918

Nature of work	Location	Remarks as to progress, etc.
Rabeques Drain	C.13.b.5.4. to C.4.d.9.5.	
Drain - Smyth Avenue to Rabeques	C.4.b.7.3.	
Warnave River	C.1.a.1.0. to U.29.a.5.0.	
Drain - Loophole Farm to Front line	U.22.d.1.1. to U.23.b.1.6.	
Drain - Le Gheer to Warnave River	U.28.a.1.1. to U.22.s.1.1.	
Ayr Street - Warnave	U.27.a.3.1. to U.28.c.2.8.	
Drain - Monmouth Avenue to Monmouth River	U.27.d.10.8.	
Drain - off Station Aven)	8-4-8-5. to	
Drains - Harnians - Suffolk Avenue.	8-5-8-9-1.	
Drain - Rabeques River to Suffolk Avenue	C.4.c.3.3. to C.3.b.9.1.	
Drain - River Lys from Long Avenue	C.9.d.8.8. to C.9.c.8.3. to C.15.d.7.8.	
Drain from Umpire Row to Railway	U.22.d.2.4. to U.23.b.2.7.	

TRENCH WORKS -  
Front Line -

U.23.c.7.5.	30 yds parapet raised.
U.23.c.6.3.	50 yds parapet built up.
U.23.c.9.6.	50 yds parapet built up.
U.23.d.1.8.	30 yds d/boards raised.
U.28.c.9.4.	80 yds parapet built up.
U.28.d.9.3.	30 yds d/boards raised on bearers.
U.28.d.7.2.	16 yds d/boards raised and trench cleared.
U.29.a.3.3.	40 yds trench revetted.
U.29.c.1.3.	15 yds d/boarded.
U.29.c.0.7.	25 yds d/boards raised
U.29.c.1.7.	15 yds d/boarded.
U.29.c.1.3.	30 yds cleared, deepened & d/boards raised.
U.29.a.4.3.	Clearing drains.
U.29.a.4.4.	Clearing trench.
View Lane	40 yds new drain widened & deepened.
UnaTrench	18 yds d/boards raised & mud from beneath cleared.



Weekly Works Report for 25/1/18 - continued.

APPENDIX

Location	Remarks as to progress.
Una Trench	2 yds cleare & revetted; 20 yds deepened and d/boarded.
Cedilla Reserve	50 yds drain cleared.
Careless Avenue	40 yds drain widened & deepened.
View Lane	40 yds new drain widened & deepened; 50 yds trench cleared; 40 yds new drain excavated; 115 yds parapet built up.
Kiwi Street	55 yds drain cleared.

Support Line

The work and clearing and revetting and draining the support Line has been carried out by day and night parties at the following locations.

Long Avenue	Repairing parapet.
Flax Alley	20 yds cleared and drained, 10 yds d/boarded.
Una support	18 d/boards raised and repaired.
Una Alley	Cleare trench and raised d/boards.
Umpire Support	9 shelters erected, 30 yd trench cleared, 26 yds revetted, 6 firebays cleared & revetted.
Umpire Avenue	210 yds cleared & d/boarded, 200 yds D/boards raised & relaid, 6 yds cleared, 6 yds revetted, 2 splinter proofs 80% complete.

Witing -

C.15.c.8.9.

200 yds double apron fence erected, with single fence on outer line of pickets; 50 yds single apron fence alongside hedge at right end of Long Avenue.

Salvaging -

170 shovels, 189 picks, 1 length suction hose, 1 pump, 10 l.s. pickets, 10 m.s. pickets, 2 coils wire netting, 1 length camouflage, 142 coils barbed wire, 54 l.s. pickets, 26 s.s. pickets 300 a.i; pickets, 7 tracing tapes salvaged and placed in convenient dumps.

Gasproofing -

Monmouth Trench - 16 gasproof door frames fitted and 4 dugouts sandbagged.

Long and Monmouth Avenues	- 18 gasproof windows and 1 frame fitted.
Una Support	15 blanket doors fitted.
Umpire Drive South	- 1 blanket door fitted.
Ayr Street - B.H.Q.	2 window frames fitted and 7 blanketed. 7 gasproof blankets placed in.

P.T.O.



Gasproofing continued (3)

Umpire Reserve- R.A.P.	-	1	blanket gasproof door fitted.
Convent Lane	-	6	" " " "
Lancashire Farm	-	1	" " " "

Major

O.C. 5th Field Company, A.E.



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N<sup>o</sup> 1DUGOUTS AND SHELTERS

(Copy)

APPENDIX /

Fitted with Gasproof Doors -RIGHT BATTALION -

Location	Number	Accomodation	Remarks
Battalion H.Q.	2	30	
R.A. Post	1		Long Avenue
Subsidiary Line	17	68	
Long Avenue	22	90	Including Coy. H.Q., Officers' dugout, Signallers' dugout Company H.Q.
Pridham Avenue	2	10	
Glasgow Redoubt	2	10	
Widow's House	10	40	
Monmouth Trench	17	66	
Surrey Farm	2	30	
Lys Farm	3	15	
Cecil Lane	1	5	Company H.Q.
<b>Totals</b>	<b>79</b>	<b>364</b>	

LEFT BATTALION -

Location	Number	Accomodation	Remarks
Battalion H.Q.	1	40	
Convent Lane	19	65	Includes Coy. H.Q., Signallers' dugout, R.A. Post Company H.Q.
Una Support	16	75	
Lancashire Support Farm	1	6	Company H.Q.
Umpire Drive South	4	15	Company H.Q.
Dorothy Dugout	1	19	Concrete dugout for Post 28
Gas Guard	1	10	U.29.a.4.3.
<b>Totals</b>	<b>43</b>	<b>241</b>	

Major

O.C. 5th Field Company, A.E.



N<sup>o</sup> 25th A I BRIGADE AREA.

APPENDIX 2

Drainage System- Le Touquet and Pont Rouge Sector.

There are three main drains- the Lys, Warnave and Rabecques.

The watershed between the Lys and Rabecques is, approximately, along Long Avenue from Milk Run to Screen Avenue; along Screen Avenue to Great Northern Railway.

System "A".

Drain 1a has a very good fall and should be widened. Drain 2a is for part way a box culvert, and in times of heavy rainfall holds up water. This box drain should be done away with. Drain 3a wants cleaning out. The system is very important as Long Avenue is not revetted. If looked after these drains should carry away all rainfall.

System "B".

This system requires frequent patrol, owing to blocks caused by minenwerfers. All drains running freely. From Long Avenue water falls to Lys and also to Rabecques from culvert near Napoo Trench. Side drains off Napoo Trench and View Lane require frequent attention owing to banks falling in.

System "C".

This system comprises Rabecques River and its tributaries from Long Avenue and Smythe Avenue.

There is not very much fall in the side drains; these are nearly always in good order.

On the left the Warnave takes all the side streams and is unable at present (in times of flood) to take all the water, thus tending to flood Una Support. Since removing vegetation and a sandbag culvert used by Artillery at U.27.c.2.2. a large improvement has been made and the silt is being carried away. Where it crosses Cheshire Avenue the box culvert is too small to carry flood waters and should be removed. All the brick culverts on the Warnave are too small and excavations have been made around side of each to take the water away. The culverts between Una Support and Front Line have been removed and water level lowered a great deal.

System "D".

This system drains Pleogsteert Road, Fusilier Loop and Ayr Street. All these drains are running freely except for a little silting in places.

System "E".

This system drains Suffolk Avenue and Convent Lane. E1 requires deepening to a depth of 2 feet and widening.

E 2 requires constant attention. E3 from Flax Alley requires widening.

System "F".

F1 is a good drain and being an old German one is revetted but requires patrolling. It drains Le Gheer corner to O.G.1 and has a

P.T.O.



APPENDIX 2

(2)

good fall.

System "G".

This drain is revetted; but has been damaged by shell fire and requires constant patrol.

The plank drain from Una Avenue near Hatty's Post running into Warnave is always in good order.

Major.

O.C. 5th Field Coy. A.E.



26/1/18

N<sup>o</sup> 2

5th A.I. BRIGADE AREA.

Works handed over to 11th Field Coy. RIGHT BATTALION SECTOR.

Location	Remarks.
Long Avenue - strong point at C.15.c.8.9.	Parapet to be completed and duckboarding.
View Lane C.10.b.6.7.	Patrol drain early; afterwards drainage and clearing out towards Careless Avenue; also building parapet where low.
Careless Avenue. C.10.b.8.9.	Draining and clearing trench.
Kiwi St. C.4.d.4.8.	Drainage.
Una Trench C.4.b.5.1. to C.4.b.6.7.	Three drains to be kept running; trench to be cleared and revetted where necessary.
Flax Alley. U.28.c.5.3.	Drainage and clearing.
Brigade Area	putting Gas-proof doors on all dug-outs and shelters.
Carrying from Motor Car Party varied according to requirements. Corner to Reserve Farm and Station Dumps.	

Works in hand but on which work has been temporarily suspended.

Location	Remarks.
T-head in Long Ave C.15.b.14.	Old trench to be dug and revetted- connecting to Long Avenue.
New Trench off Barkenham Avenue C.9.d.7.4. to C.9.d.6.2.	Revetting and D/boarding to be completed. parapet to be raised and thickened, unrevetted portion to be widened and deepened.
Station Redoubt C.9.d.9.3.	D/boarding to be completed.
Harekau Avenue C.10.d.3.2.	New communication trench around Butchers shop to be revetted, drained and parapet raised.
Barkenham Avenue. C.10.c.6.6.	Right Company Headquarters- new dugouts to be excavated.
View Lane. C.10.b.4.5.	Old German dugout to be pumped dry & cleaned out.



5th A.I. Brigade Area - continued (2)LEFT BATTALION SECTOR

Location	Remarks
Front Line - U.23.d.1.8. to U.23.b.1.0. U.23.c.8.3. to U.23.c.8.5.	Parapet to be raised and thickened. " " "
U.29.c.0.5. to U.29.c.1.7.	" " "
U.29.a.4.5. to U.23.b.2.4.	Revetment with panels to be completed.
Post at U.29.a.6.4.	To be completed and wired.
Umpire Drive South. U.23.c.3.9. to U.23.c.9.6.	Parapet to be raised and trench traversed; firesteps and firebays to be completed
Front Line -	Fire-steps and fire-bays to be completed.
Umpire Support -	Firebays to be revetted and fire-stepped; splinter proof shelters to be erected; parapet to be built up.
Una Support -	Fire-bays to be revetted; shelter latrines to be erected; general repairs.
-----	
<u>Proposed works -</u> Front Line -	Extending front line - U.23;b.224. to left, to join up with left Brigade.
	Caledonian Railway to be joined - U.28.c.8.1. to lines at U.22.a.5.1.
Una Support - U.22.d.2.2.	Old German trench to be filled in to improve field of fire.
New Support Line - U.28.a.7.0.	Shelters, T-heads and latrines required. Old German trenches to be filled, to improve field of fire.
Amen Corner - C.4.c.7.4.	Old German trenches to be filled, to improve field of fire.

P.T.O



Proposed works continued - (3)

Location

Remarks

Wiring-Support Line  
& Front Line

The Support Line requires tactical wiring for all Vickers guns. Front line wire requires thickening.

Gasproof doors.

Shelters in Brigade area require gas-proof doors. Gasproof doors also required in Artillery dugouts - 14th and 15th Batteries, A.F.A.

-----

Major

O.C. 5th Field Company, A.E.

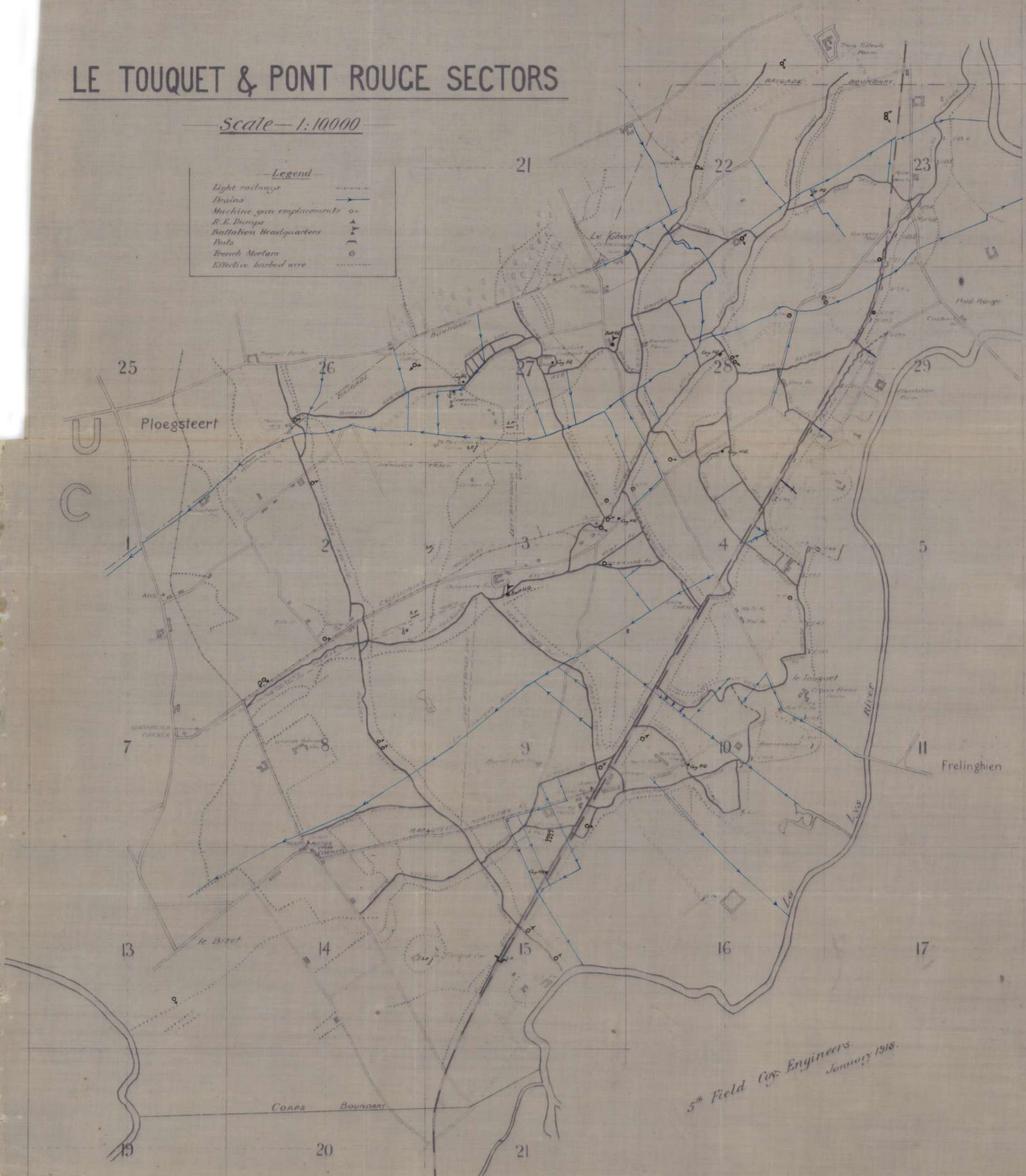


# LE TOUQUET & PONT ROUGE SECTORS

Scale—1:10000

**Legend**

Light railways	—+—+—
Drains	—>—>—>
Machine gun emplacements	○
R.E. Dumps	△
Battalion Headquarters	□
Posts	○
Trench Mortars	○
Effective barbed wire	—•—•—•—



5th Field Coy. Engineers.  
January 1918.



LIST OF AEROPLANE PHOTOGRAPHS.

69b	190	28/12/17.	69b	220	28/12/17.	4a	595	3/1/18.
"	221	"	"	262	"	69b	394	6/1/18.
"	019	18/12/17.	"	263	"	"	018	18/12/17.
"	030	26/12/17.	"	049	4/12/17.	"	263	28/12/17.
"	256	28/12/17.	"	045	6/1/18.	"	214	"
"	051	6/1/18.	"	214	28/12/17.			

.....









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APPENDIX 4

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APPENDIX





APPENDIX





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APPENDIX

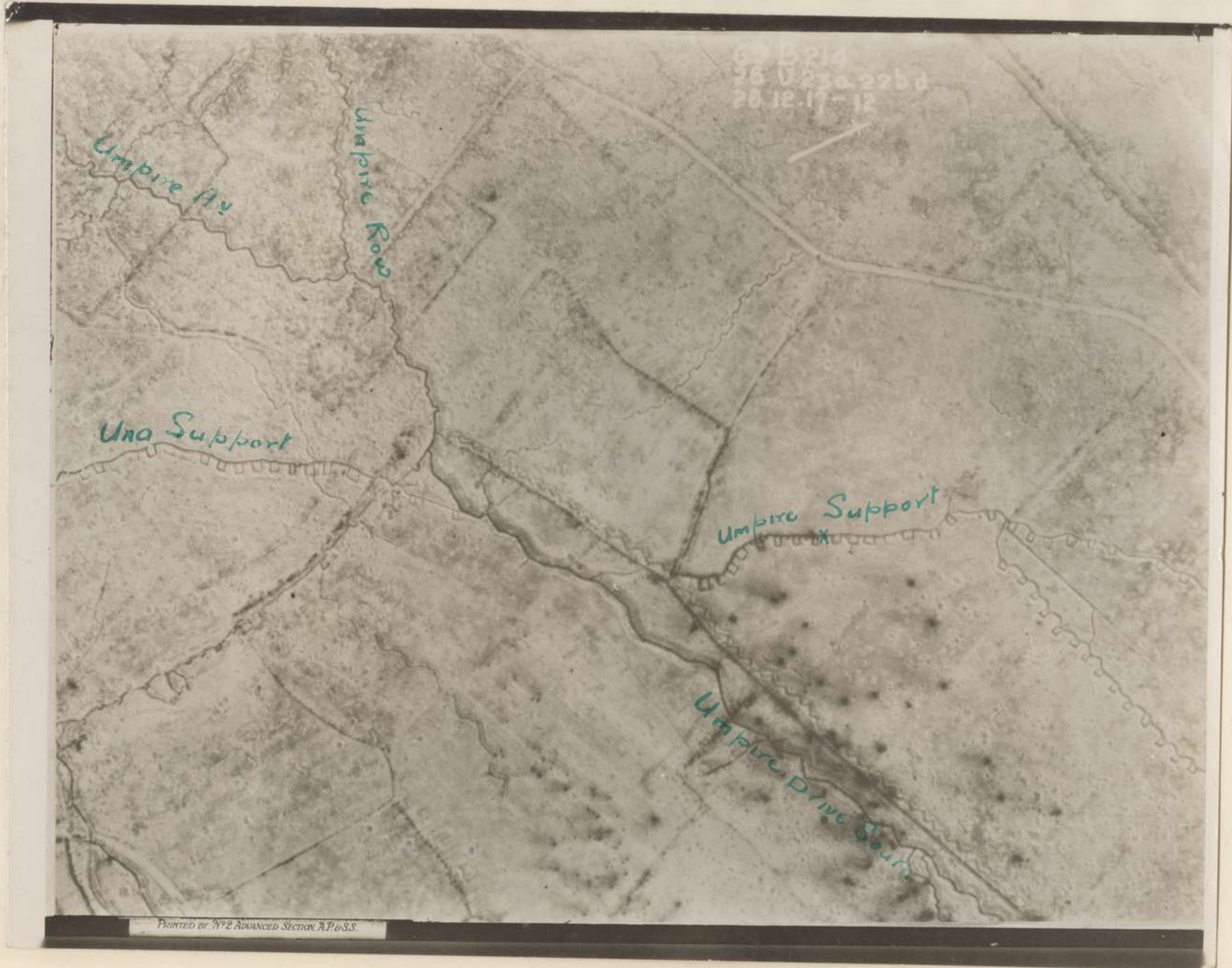
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*Opposition 430*





*Appendix 4*



No 44

5th  
AUSTRALIAN  
FIELD ENGINEERS.  
No.....  
Date.....

31

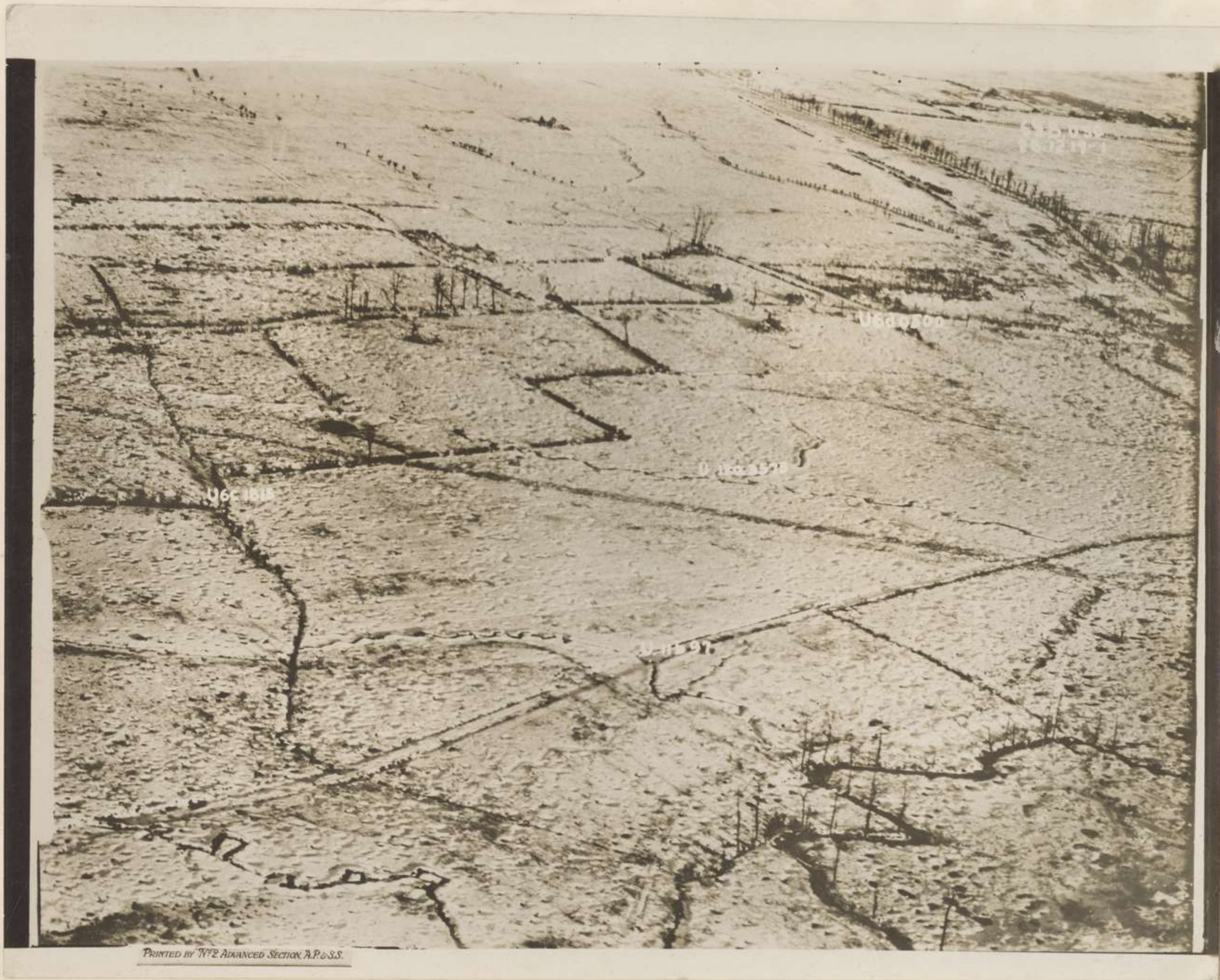


Appendix 4



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*Appendix 4*





*Appendix 4*  
34



No 7.

5th AUSTRALIAN FIELD ENGINEERS.
No.....
Date.....

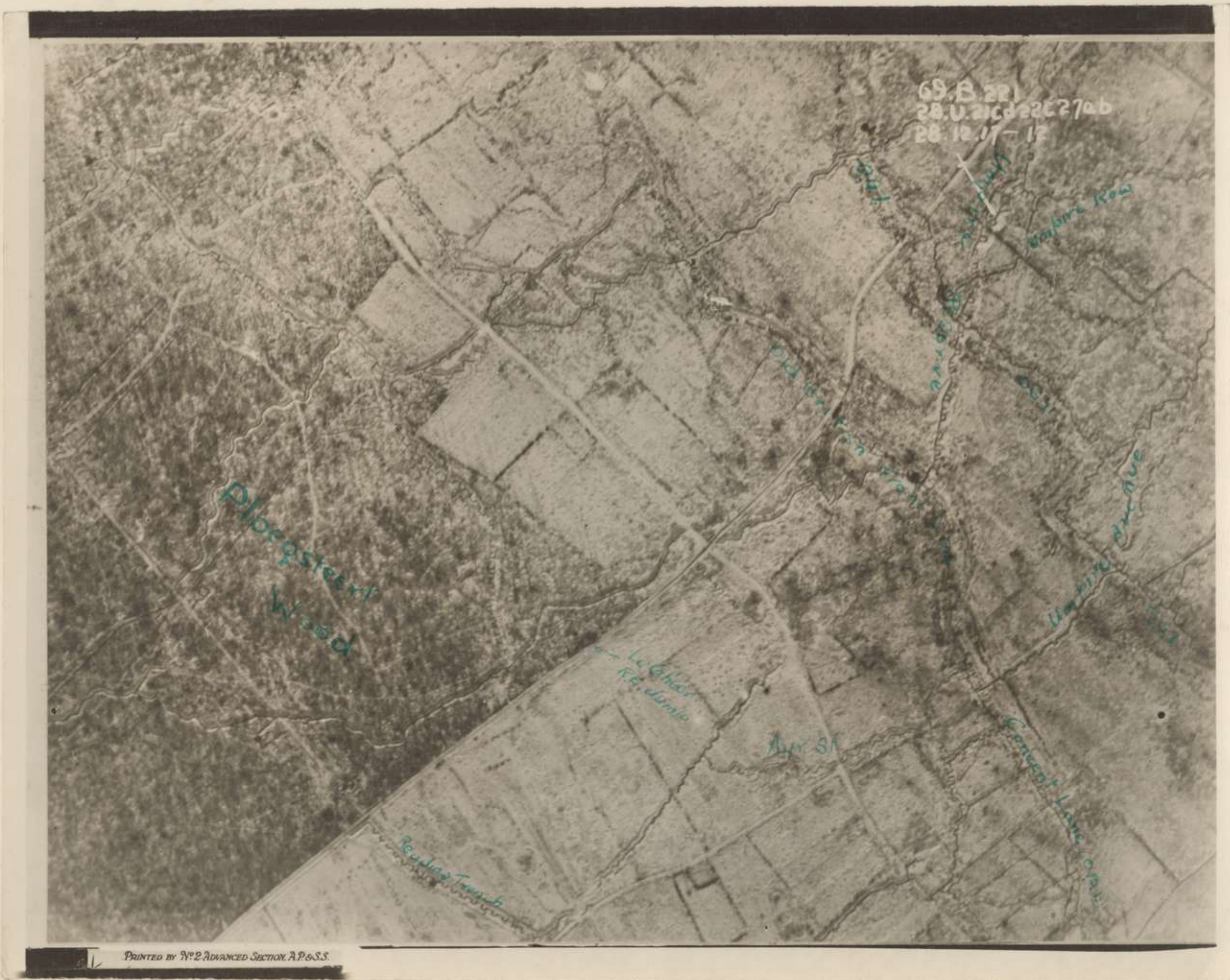
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Appendix 4





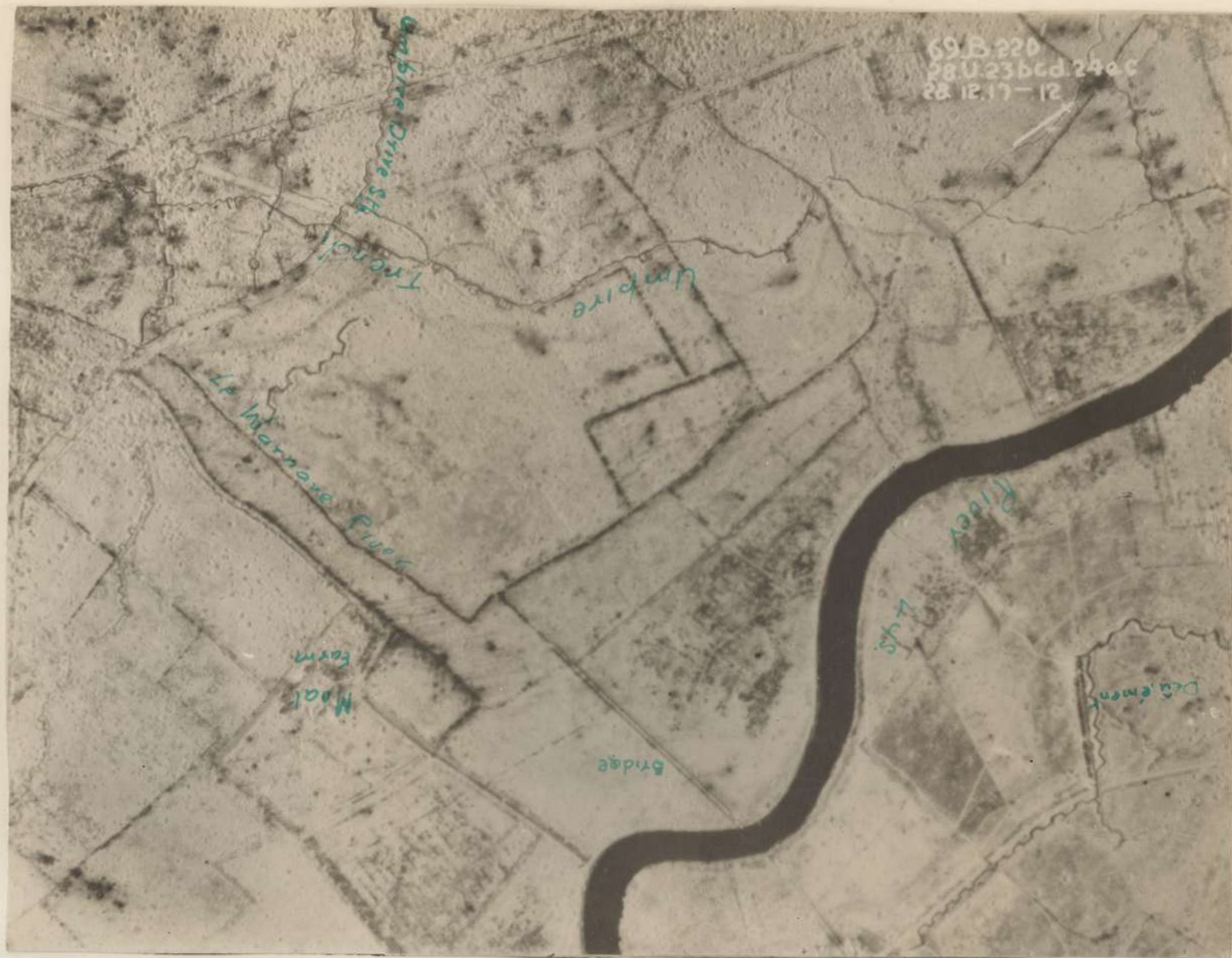
*Colophon 4*







Appendix 4







*Alpha position 4*

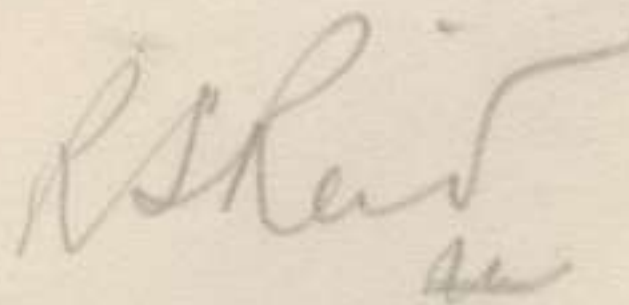


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APPENDIX 5

5th Field Company, A.E.Order No 65, dated 26/1/'18Reference maps :- Hazebrouck 5a and Calais 13

1. Field Companies of the 3rd Australian Division will relieve the Field Companies of the 2nd Australian Division, between the 27th and 28th January 1918.
2. The 5th Field Company will be relieved by the 11th Field Company. Relief to be complete by 2 P.M., 28th instant.
3. When relieved the 5th Field Company will move with 5th A.I. Brigade Group to new area.
4. Billeting parties will be sent by 7th A.I. Brigade lorry on 27th instant. Bicycles to be taken. Lieut Engel and 1 N.C.O. will act as billeting party, and they will report to 7th A.I. Brigade Headquarters at 8 a.m., 27th instant. Bicycles to be taken.
4. The 5th Field Company will be at BAINGHEM.  
and will entrain on 31<sup>st</sup> inst.
5. Handing-over receipts, in duplicate, will be forwarded to Divisional Engineer Headquarters, together with certificates that Camps have been left in a sanitary condition. D  
D.E., H.Q. will close at RAVELSBURG at 10 a.m. on 29th instant and re-open at same hour and date at Chateau COLEMBERT.
6. Local maps to be handed over to relieving Company.
7. Gum boots to be handed over to relieving Company and receipt obtained in duplicate.



Major

O.C. 5th Field Company, A.E.



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N<sup>o</sup> 55th Field Company, A.E.

APPENDIX 5

Order No b6 - dated 28th January 1918

1. Personnel 5th Field Company will entrain at de Kennebeke at 13.18, on 31st January 1918. Troops will arrive at entraining station at 12.38. Major L. G. FUSSELL is Brigade entraining officer. Troops will not enter station yard until authorised by R.T.O. On arrival at detraining station the station yard will be cleared in shortest time.
2. Messcart and watercart in charge of Lance Corporal MARRINER, will proceed by omnibus train to ~~WIZERNES~~ from BAILLEUL West Station at 17.30 - 31/1/1918. Transport will report three hours before departure of train. Captain R.I. Dowden, 20th Battalion is entraining officer. 1 Company of the 20th Battalion is available for loading and unloading at ~~WIZERNES~~ *WIZERNES* <sup>g.s.b.</sup>
3. A guide will report at 5th A.I. Brigade Headquarters at 8 a.m. to guide motor lorry to Company Lines. Cooks gear will be taken by it to de Kennebeke.
4. Transport, less messcart and watercart, will proceed by road, under Brigade transport officer, according to following table:-
  - 15th Company, A.A.S.C.
  - 17th Battalion
  - 18th "
  - 19th "
  - 20th "
  - 5th A.M.G. Company
  - 5th A.L.T.M. Battery
  - B.H.Q. & Signal Section
  - 22nd M.G. Company.
  - 5th Field Company, A.E.
  - 5th Field Ambulance.
5. - Head of transport will pass starting point X-roads at S.27.b.O.1 at 10 a.m. 30th instant.  
5th Field Company Transport will move out from WEKA Lines at 8.45 a.m.
6. Dress - Full-marching order. Personnel will carry one blanket.
7. Remaining blanket and 24 hours ration will go by motor transport direct to BAINGHEM. at 8.30 a.m. 31st instant.
8. Motor transport will convey personnel from LUMBRES to BAINGHEM on arrival.

*R. S. R. J.* Major

O.C. 5th Field Company, A.E.



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No 6

APPENDIX 6

Notes on a Ten Days Stay with a French Field Company,  
January 4th - 14th 1918, by Captain J. G. BURNELL M.C.,  
5th Field Company Engineers, A.I.F.

In the Field

21st January 1918.

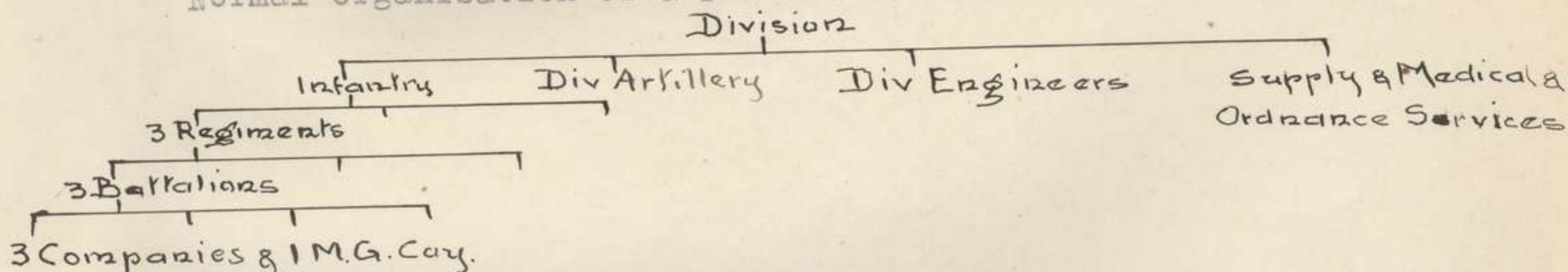


## (1) APPENDIX 6

In accordance with instructions, I proceeded to Epernay on the 4th inst, meeting enroute Capt. Halley. of the 61st Field Coy R.E. and and Interpreter. We were met by a car which took us first to CHALONS-SUR-MARNE, and then some fifteen kilometres forward to a hutted camp near SUIPPES, where we found the headquarters of the Field Company, with whom we stayed the next ten days.

We messed with the O.C. and generally accompanied him around the work his company was doing- the construction of a strong second line of defences some seven kilometres in rear of the present front line. Three visits were made to the front line trenches in and near AUBERIVE, and the various Engineer dumps in the sector were inspected.

Normal organisation of a French Division is as follows :-



Divisional Engineers consist of :-

Headquarters with Division.

2 Field Companies.

1 Park Company.

There are no Pioneers.

Divisional Engineers are commanded by a Major ( Commandant du Genie de Division), who corresponds to our C.R.E. With him is a Lieutenant and about 4 draftsmen and clerks.

The main divisional dump is run by the Park Company (Compagnie de Parc du Division), which generally supplies one or two Sappers or N.C.O's to look after any Advanced Divisional Dumps.

Establishment of a Park Company is as follows ;-

Lieutenant of the Reserve O.C. †

Two detachments - (1) W.O. Accountant & 13 Sappers.  
(2) 32 Drivers.

Eight large four wheeled wagons.

Forty eight horses.

The wagons carry a reserve of Engineer tools, cordage, bridging and explosive stores when on the march. When in the Park, those suitable are employed carting stores.



(2) APPENDIX 6

Establishment of a Field Company. - 4 Officers, 218 O.R. as follows :-

- 1 Captain - mounted.
- 3 Lieutenants - mounted. ) Each commanding a section.
- 1 Adjutant (1st class W.O.)

The company is divided into 4 sections. Each section consists of 1 Officer and 48 other ranks, including one stretcher bearer, per section, and is divided into 2 half sections, each commanded by a Sergeant. Each half section is in turn divided into two squads, each commanded by a Corporal. In addition, there are three or four Maitre-ouvriers per section, men equivalent in rank to a Lance Corporal, but selected principally for their skill as tradesmen. A third sergeant per section without definite command, is available for special work with Infantry, etc.

In addition the company has :-

- 1 Sergeant Fourrier, responsible for company stores.
- 1 " provisionnement, responsible for the rationing of the company.
- 2 Buglers.
- 1 Dispenser.
- 1 Bootmaker.
- 1 Tailor.
- 1 Cyclist.

Drivers - Two mounted Corporals.  
14 Drivers- 2 as mounted orderlies.

Horses. - ( 4 for Officers.  
7 saddle horses ( 2 for mounted Corporals.  
( 1 for Orderlies.  
22 Draught horses.

Vehicles. 10 including,  
4 section tool-carts.  
1 for Cordage & Bridging gear.  
1 for Miners tools and explosives.  
1 Luggage and ration wagon.  
1 travelling kitchen.  
2 four wheeled wagons for baggage, rations and Officers gear.

Each company manages usually to secure in addition a water cart and one or two additional light vehicles. The two fourwheeled vehicles are arranged for two horses each always. The other vehicles are provided with shafts, so that one horse can draw them on good roads and easy gradients; a second horse can be attached when required. All the vehicles are of comparatively light construction and driven from the seat.



## (3) APPENDIX 6

Tools carried are fewer than with us, and of the rougher kind - shovels, picks, mattocks, saws, axes, billhooks, hammers, levels, squares, rules and augers. No exploders, grindstones or pumps or hosing are carried.

Total weight of melanite carried - 836 lbs, including 88 lbs in each Section toolcart.

Each Company carries 10 water-proof covers, each capable, when filled with straw, of supporting four men in the water.

On the march each Sapper carries one tool in addition to his equipment. Tools so carried are as follows :-

52 picks	8 hammers
52 shovels	8 wire-cutters
32 axes	8 saws
16 sickles	

In the Company organisation, compared with our own, one remarks the absence of pontoons and water supply stores, and the fewer tools carried. This results in a greatly reduced number of drivers and a corresponding increase in the number of available sappers per section. The number of N.C.O's in a French Section is greater than is the case with us - an arrangement much in their favour, I think, especially when the sappers are employed with infantry. More definitely than with us, too, is each Corporal allotted to a given Squad, with which he always works and lives.

Sappers are armed with a light rifle, considerably shorter than the French infantry rifle.

A Section actually goes out on to the works from 28 - 30 strong.

#### The Work of a Field Company.

A Divisional Field Company in the line works under the Administration and Orders of the Commander of the Divisional Engineers, and in constant close touch with the Colonel commanding the Regiment, holding the Sector, very much as a British Field Company works with a Brigade under the orders of the C.R.E. Infantry working parties are normally obtained from the support battalion, and work in small parties with sappers constructing shelters, revetting, draining, etc. - and further back erecting hutting or stabling, etc.

The French organisation providing no special Tunnelling Companies, the Field Companies carry on any mining operations that are necessary, drawing labour as necessary from the Infantry to evacuate the spoil, etc.

In view of the French having no Pioneer Battalions and only two Field Companies per Division, the work of Engineers is naturally restricted to technical work which cannot be done by other labour. For such work as entrenching and wiring Sappers are only put with the Infantry as instructors for a few days if required. The French Infantryman is usually well trained in digging and wiring and in the construction of rough shelters.

Trenches being generally in good chalk stand, as a rule, unrevetted. Breaches are generally repaired with gabions of pine. Occasionally wire netting of one inch square mesh is used behind wooden pickets - tied back. Trenches very generally duckboarded. Drainage to depressions or soak-pits sunk close alongside trenches.



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(4) APPENDIX 6

General.

Beyond the digging of a shelter trench near huts, no special provision against enemy aircraft bombs could be seen anywhere, nor could I learn of any proposals for same.

Interesting figures were given as regards the comparative weights of material for concrete shell-proof shelters and timbered and lagged deep dugouts in chalk for the same accommodation - 600 tons as against 20 tons.

The standard French hut accommodates about 100 men. A great trouble is experienced in warming so large a hut in cold weather.

Very general use is made of Chaine Hélice pumps about camps for raising drinking water from wells. They possess the great advantage of not being affected by heavy frosts in addition to being very easily installed and requiring little maintenance.

Engineer stores.

All arms draw on the approval of the Commander of Divisional Engineers. Divisional dumps keep a good stock of tools and hardware in addition to trench stores, and frequently have a couple of saws, a blacksmith and tinsmith shop, carpenters and paint shop.

The great bulk of stores are distributed by light railways, which are generally very good on the French front.

In the sector that we visited, the divisional dump- in charge of the divisional park company- normally forwards by light railway and small locomotive by day to an advanced divisional dump. The same trucks are then forwarded at nightfall by horse traction to battalion dumps. A sergeant of the divisional park company is in charge of this advanced divisional dump. He controls the forwarding of stores to battalions and has under his charge at the dump the drivers and horses required for this purpose. From battalion dumps the stores may be further forwarded by 40 c.m. or 60 c.m. line on man pushed trucks.

The distances of dumps from front line were -

- Advanced small dumps ..... 1 to 1.5 kilometres.
- Forward divisional dump ..... 4 kilometres.
- Main divisional dump ..... 9 do

The supply of stores to divisions by Corps, Army and Base is so similar to our own system as not to warrant detailing here.



Organisation of the Engineers -

Engineer Services as will be seen are almost <sup>all</sup> in the hands of Army.  
Broad gauge railway construction and operation is administered  
from General Headquarters.

60 c.m; light railways are built and operated by an organisation  
under the G.O.C. Artillery - a curious arrangement.

DIVISION - Major - Commanding  
Lieutenant  
About four clerks and draughtsmen.

Two Field Companies.  
One Park Company.

ARMY CORPS. - Colonel or Lieut-Colonel Commanding.  
1 Captain. - S.O., R.E.  
1 Administrative Officer.  
1 Stores Officer.

Two Field Companies - almost invariably loaned to  
C.R.E. Divisions.

One Company of bridge and pontooning stores - transport only

ARMY - Brigadier-General Commanding  
(a) 3 or 4 Companies of Territorial Engineers -  
usually put at the disposition of Corps.  
(b) 1 Electrical Company - for all large installations.  
(c) 1 Water Supply Company.  
(d) Bridge Equipment Companies - Drivers only.  
(e) 1 Company of Bridge Builders.  
(f) 1 Army Park Company.  
(g) A number of concreting Squads.  
Officers Commanding (b) and (c) are usually  
Civil Engineers in the Public Works Department,  
called up on Mobilisation.

ARMY ROADS DEPARTMENT -

Commanded by Lieut-Colonel, called up, on Mobilisation,  
from the Department of Roads and Bridges.

- (a) Certain Battalions of Territorial Infantry.
- (b) 2 - 3 Companies of road menders (Cantoniers)
- (c) 2 - 3 Companies of Lines of Communication Engineers.
- (d) Certain Companies of carters, drivers of motor  
transport and steam-rollers.



## (6) APPENDIX 6

Organisation of the Work of Constructing a Strong Second Line of Defence

On the Front visited we found the French constructing a strong second line of defence some seven kilometres in rear of the front line. The design of the works, and particularly the organisation of the labour for constructing them, impressed us as excellent.

The Higher Command having fixed approximately the position of the second line behind the present front line - a distance of about seven kilometres where we were - this whole second line was divided into Divisional sectors. Each division then prepares its scheme of defence for its own sector. Normally a divisional front will be held by two regiments in the line and one in reserve; each battalion in the line will have two battalions in the front and one battalion in supports. Battalions will hold the line with two companies in the front and support line and one company in close support, the fourth company suitably disposing its machine gunners. Boundaries for regiments, battalions and companies are fixed on the map. By doing this the location of command posts and communication trenches can then be settled on the ground, and the whole defence properly organised.

The defences consist primarily of three lines of trenches, all well wired. It is considered that the support trench should not be more than two hundred metres in rear of the front line trench, in order that its garrison may give quick and effective support to the front line. In siting these trenches the possession of good observation is always the chief consideration.

About 1 kilometre in rear of the support trench is a third trench.

Each company frontage has two communication trenches connecting the support and front line and each battalion frontage has one communication trench connecting the reserve line and support line.

Between the support and reserve lines a series of machine-gun positions with good tactical wiring has been constructed.

Usual type of wire formed by four rows of wooden pickets 4'6" long and spaced 2.50 metres, connected together with No 6 gauge plain wire and filled in with barbed wire. Low wire, unlikely to be picked out in an aeroplane photograph, is used to protect machine-gun positions and strong points.

The works are carried out in the following sequence :-

1. Trenches and communication trenches are dug to a depth of 0.50 metres.
2. Wire entanglements.
3. Construction of shelters.
  - (a) for observation posts.
  - (b) for machine-gunners.
  - (c) for command posts and personnel.
4. Excavation of communication trenches to full depth.
5. Excavation of trenches to full depth.

Simultaneously Regimental and Divisional Headquarters are being constructed in rear, and deep dugouts - usually to accommodate a company each - are being made in rear of the reserve line.

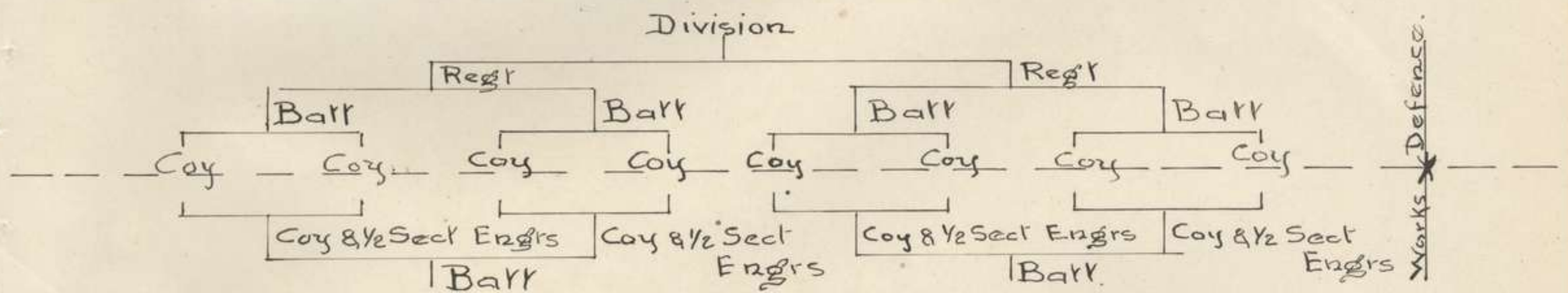


## (7) APPENDIX 6

Observation posts and machine emplacements are usually put some twenty to forty yards from a fire trench or communication trench - preferably the latter - and connected thereto by a deep tunnel.

Organisation of the work.

The diagram following shows, above the dotted line, the personnel allotted as garrison for a divisional sector, and below the dotted line, the personnel allotted for the work of constructing the second line of defences to be held by this garrison-



The Officer commanding each of the four companies employed, is responsible for the siting of all trenches, wiring entanglements, observation posts, machine-gun positions; shelters and command posts. The sappers are responsible for the construction of all O.P.'s and M.G. emplacements, command posts, and deep shelters, and have some of the personnel of the M.G. company of the battalion to assist them in this work. The exact design of these structures is mutually arranged between the company commander and the sapper Officer. For the execution and laying out of all other work, the company commander is entirely responsible.

The remaining companies of the two battalions on works were partially employed in the sector we visited assisting sappers to constructing Regimental and Divisional Headquarters in deep dug-outs.

To ensure uniformity and continuity of design and construction, each company is given a note book containing full general instructions as to how all work is to be done, sketches of strong points, etc, and order in which work is to be executed.

In the event of a hand over, this book, which is kept posted up as a works progress record, is handed over too.

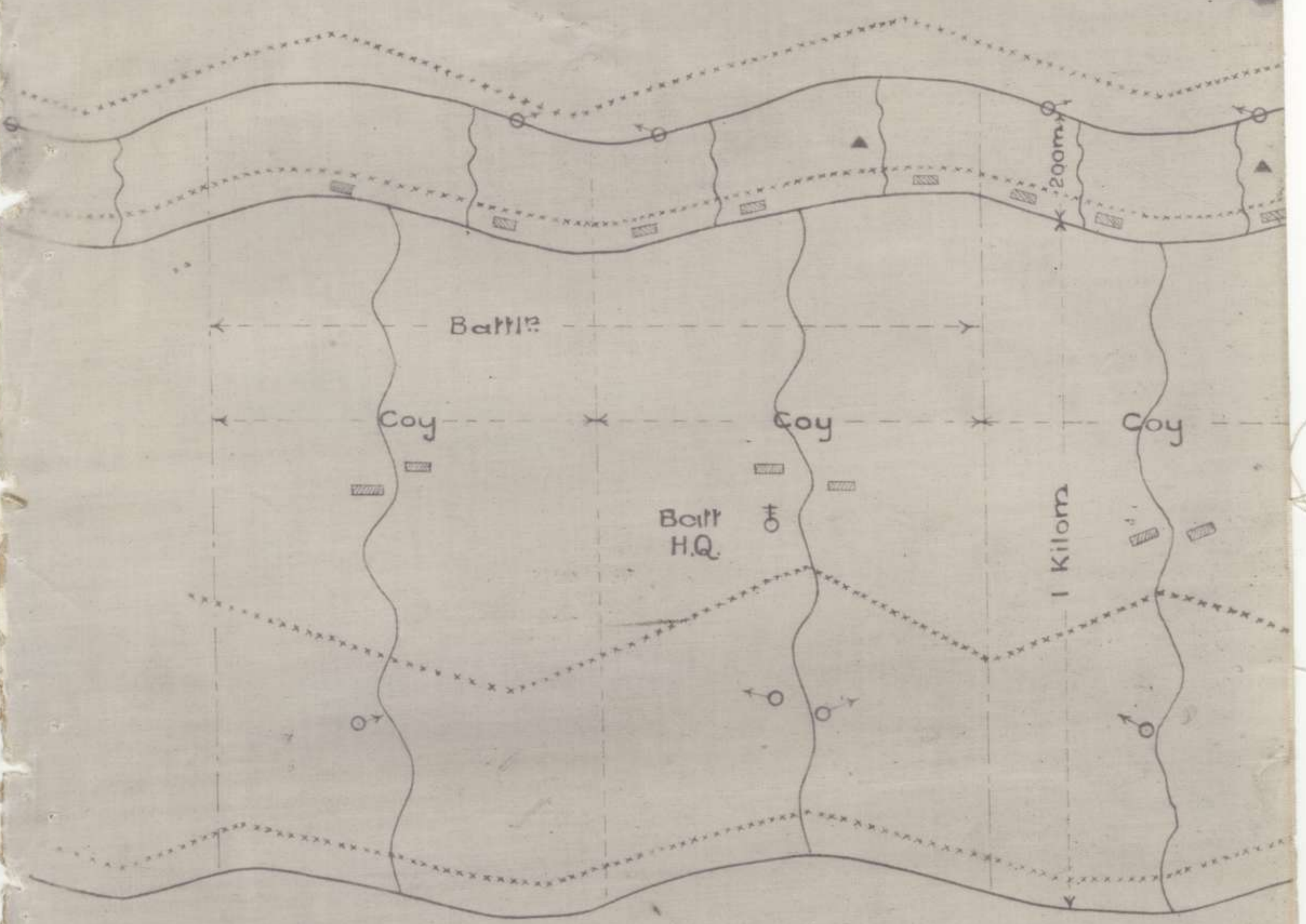
Generally speaking it appears that each company so engaged stays on this work until it is more or less finished. Frequent changes, at any rate, are not made.

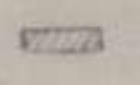
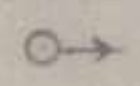

From this there results a continuity in policy and a real responsibility and interest in the work on the part of each company, and a surprising amount of work is done in a short time.

John G. Burnell Capt  
5<sup>th</sup> Field Coy. Engrs.



81  
No 76

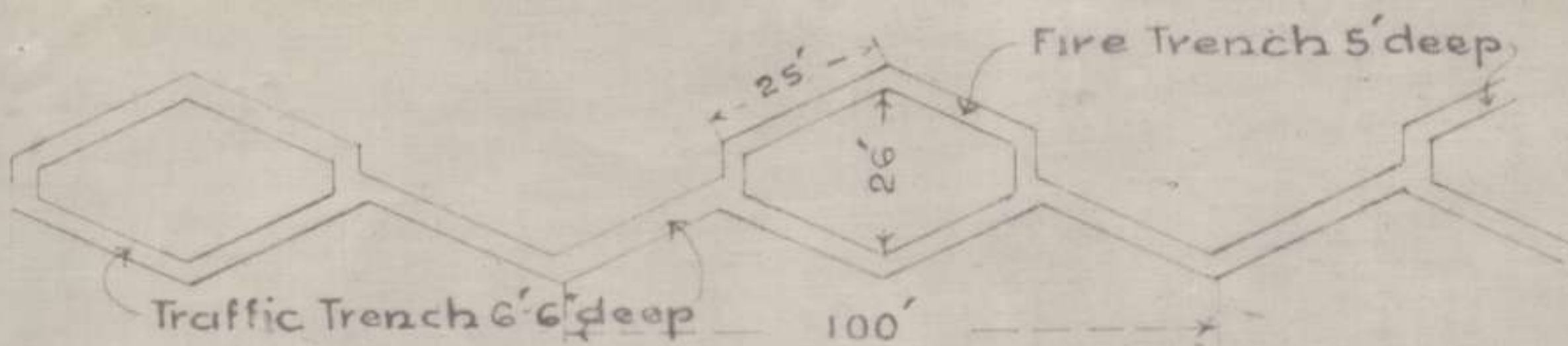


-  Platoon or 1/2 Platoon Dugouts.
-  Machine Guns
-  Observation Posts.

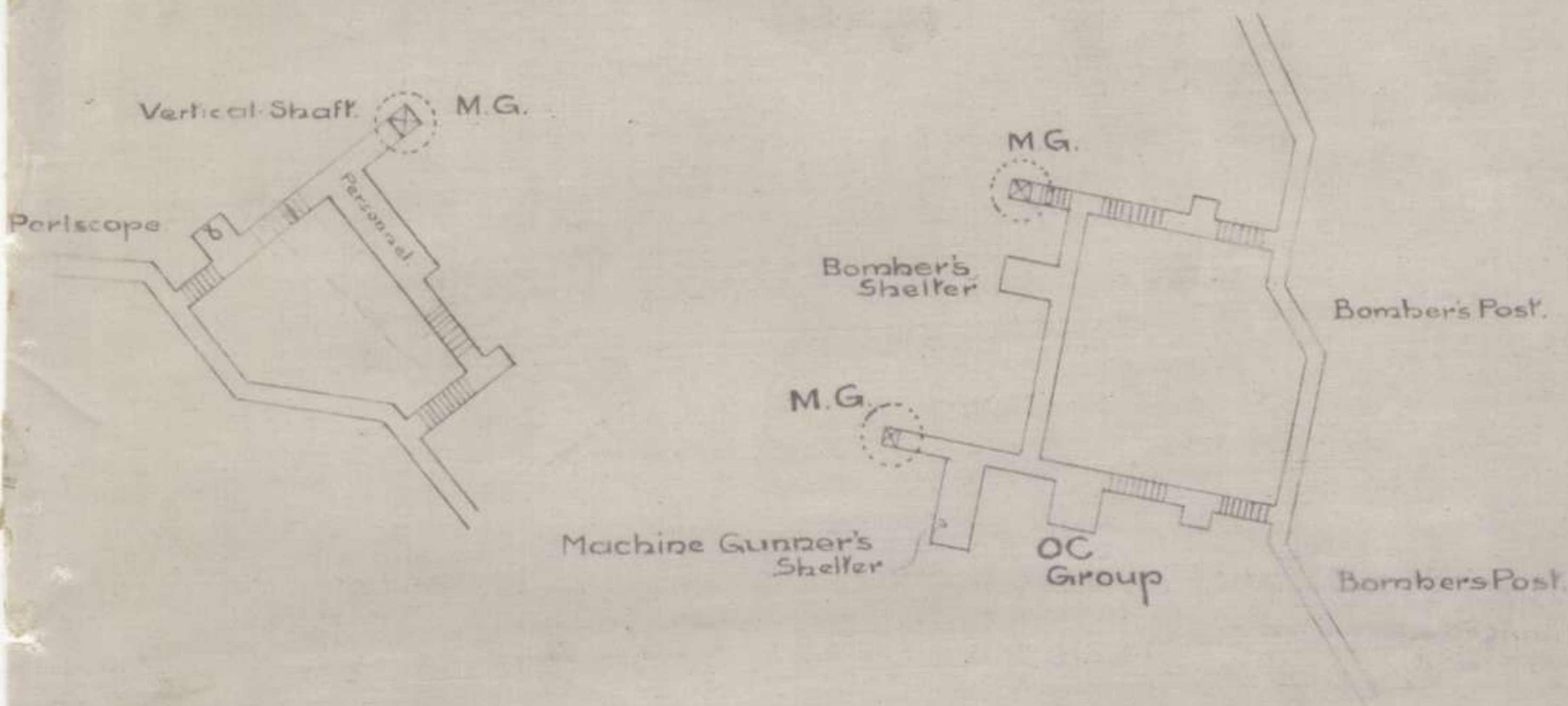
ORGANISATION OF DEFENCE LINE.

FIG 1





TRACE OF TRENCH FOR FIRE OR COMMUNICATIONS.



All shelters minimum head cover of 6.00m in chalk.

M.G. Shafts 1.04m in the clear

Mouth Camouflaged

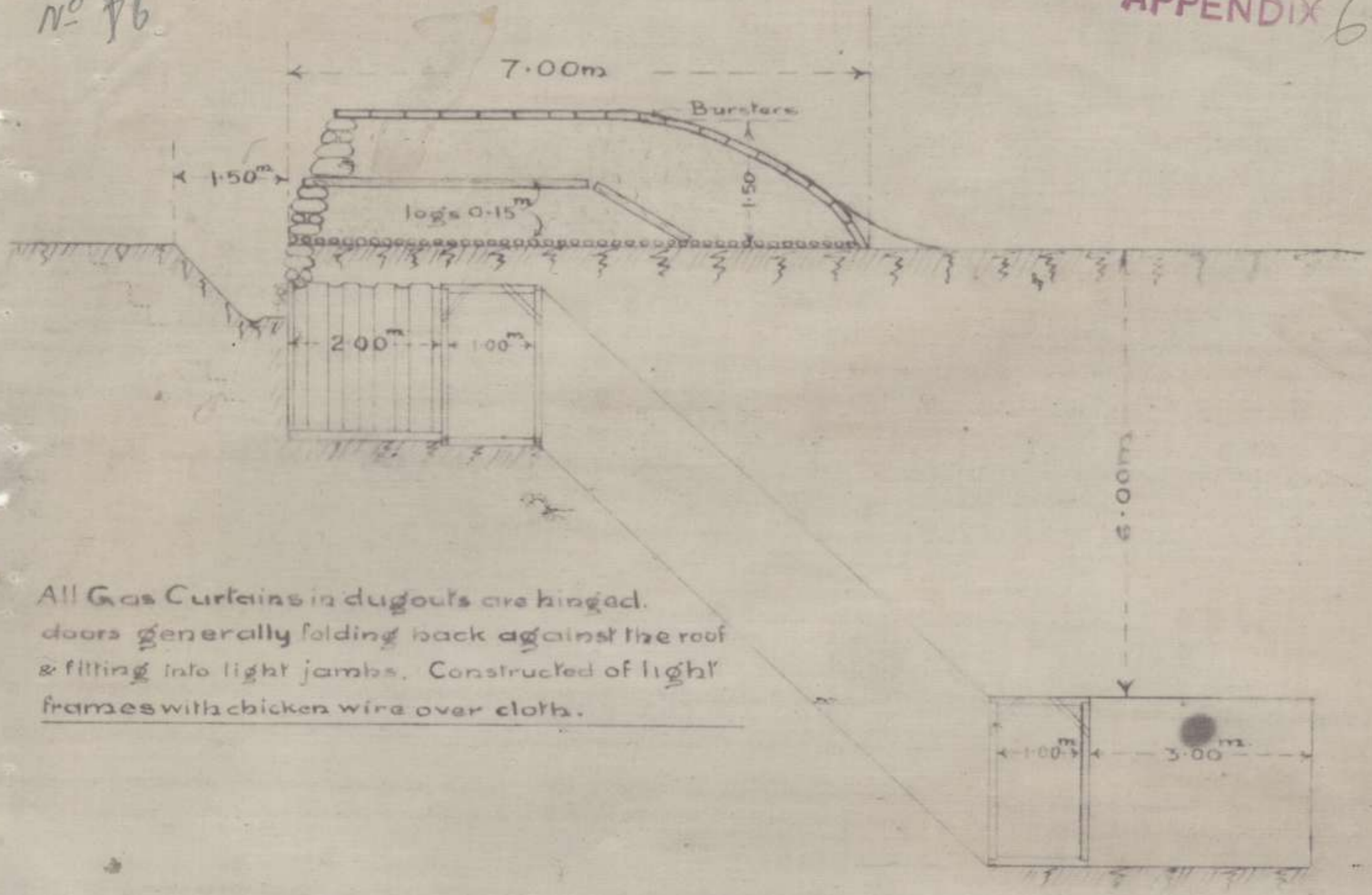
Open Emplacement cut to resemble shell hole.

EXAMPLES OF ORGANIZED POINTS OF RESISTANCE

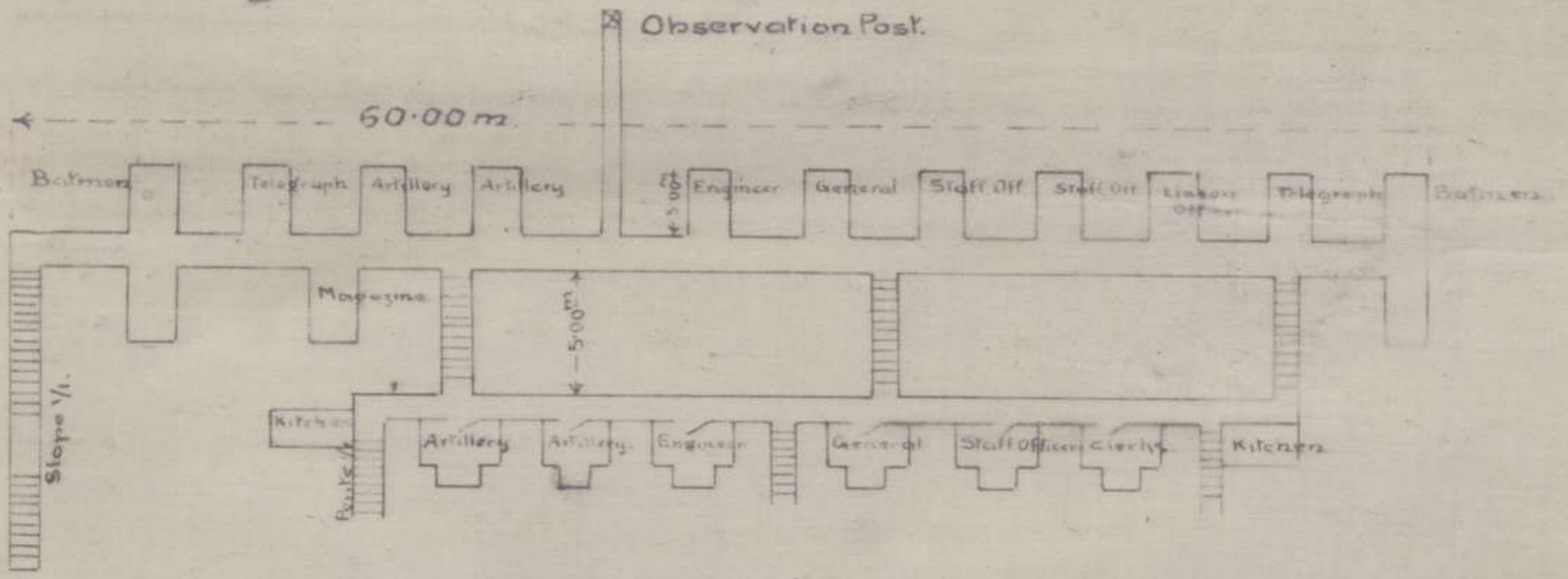
FIG 2



81  
No 76



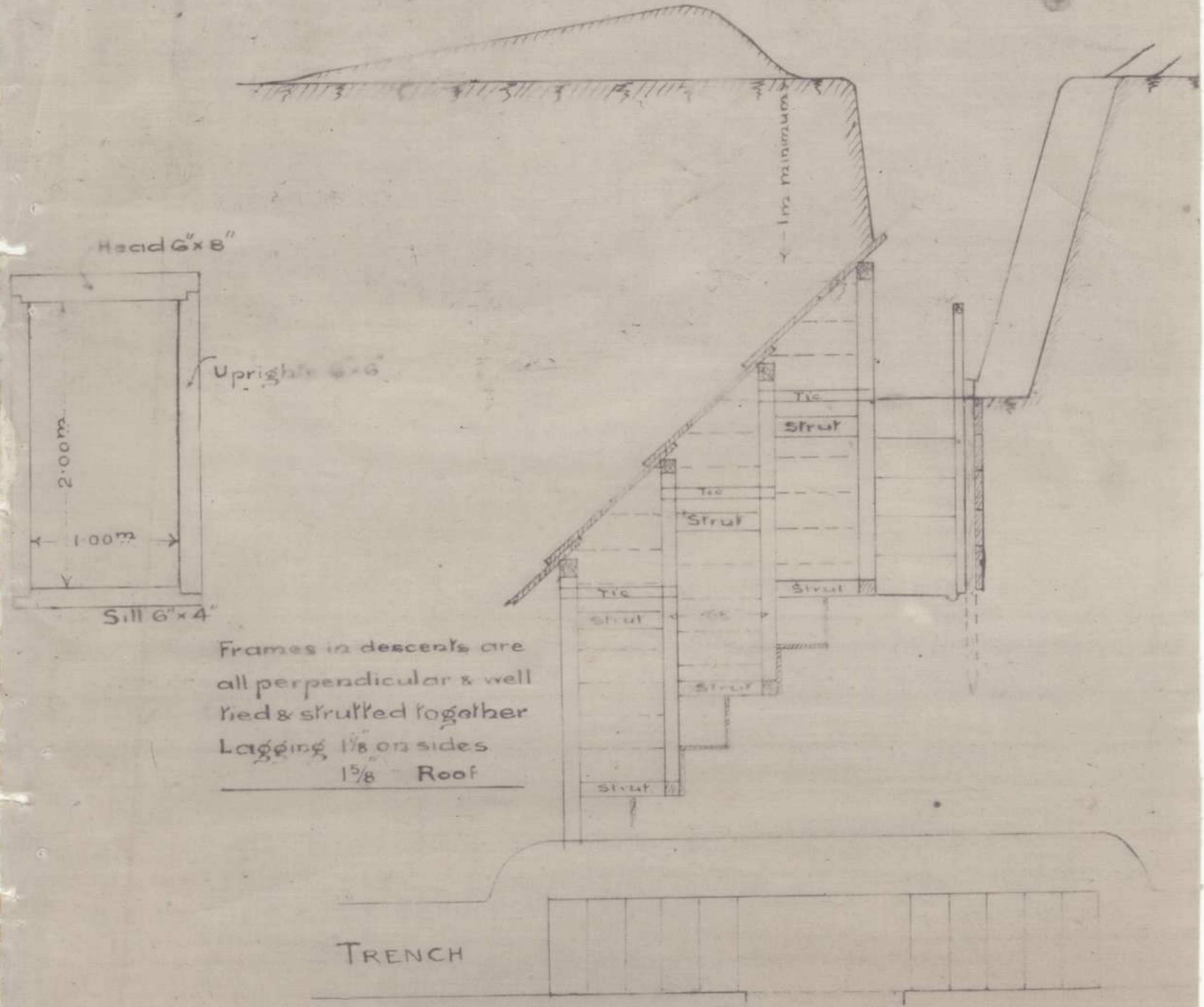
All Gas Curtains in dugouts are hinged doors generally folding back against the roof & fitting into light jambs. Constructed of light frames with chicken wire over cloth.



DIVISIONAL COMMAND POST

FIG 3





Frames in descents are  
 all perpendicular & well  
 tied & strutted together  
 Lagging 1 1/8 on sides  
 1 5/8 Roof

PLAN OF DUGOUT ENTRANCE

STAIRWAY FOR DEEP DUGOUTS.

FIG 4.