

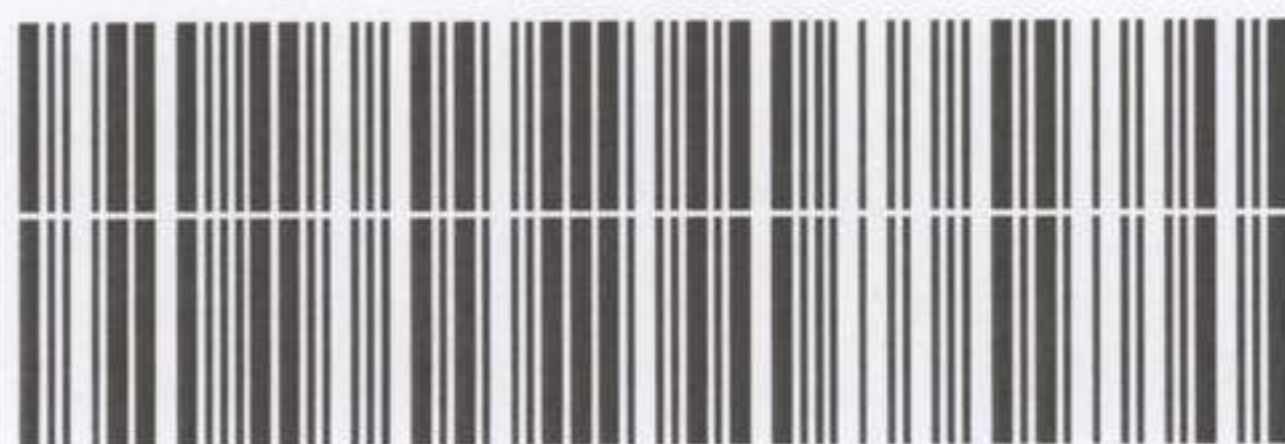
AWM4
Australian Imperial Force unit war diaries,
1914-18 War

Tunnelling & Survey

Item number: 16/4/2

Title: 3rd Australian Tunnelling Company

June 1916



AWM4-16/4/2

WAR DIARY
OR
INTELLIGENCE SUMMARY.
(Press heading not required.)

Summaries are contained in F. S. Regs. Part II.
and the Staff Manual respectively. Title pages
will be prepared in manuscript.
Date



Summary of Events and Information

Remarks and
References to
Appendices

Confidential

War Diary
of
3rd Aust. Tunn. Coy.
for
June 1916.

Compiling Officer *J.B.S.*

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WAR DIARY or INTELLIGENCE SUMMARY.

Army Form C. 2118.

(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.

Summary of Events and Information

Remarks and
references to
Appendices

Place

Date

Hour

*War of 1914-1918
The Great War
for
June 1916*

Confidential

Confidential Officer

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WAR DIARY
or
INTELLIGENCE SUMMARY.
(Erase heading not required.)

3rd Tunnelling Coy.

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Summary of Events and Information

Remarks and
references to
Appendices

Place	Date 1916.	Hour	Summary of Events and Information	Remarks and references to Appendices
	June 1.		Strength of the Company 14 Officers 352 O.R. ^s . B.E.F. attacked 3 Officers 102 O.R. ^s .	
			During June the Sign Post Lane System was abandoned and allowed to fill with water, as no signs of hostile mining had been heard. The clay bed was very thin & wet & tailed out towards the enemy's lines. This course was decided on after consultation with the Controller of Mines, ^{First Army} & General Staff of 61 st Division.	
			During June Defensive Mining was carried ^{out} on the whole of our front, which included the Red Lamp Salient, Winchester, Duckshill and Colvin.	
			The work averaged 400 ft. of driving per week in all faces. Listening played an important part in the work for the month.	
	June 9.		At Red Lamp Salient one crater at (Sheet 36 S.W.1. N.13d. 92-96) was blown by us. to smash an enemy gallery which was rapidly approaching our workings.	
	June 20		Started to sink a shaft at Mauguissait between Colvin & Winchester, for a defensive mining system, as we thought the enemy was working towards a strong M.G. position at the point of the Mauguissait Salient. We anticipated trouble & reported it to the 285 th Coy. R.E.	
	June 29.		On this date the 39 th Division B.E.F. attacked the enemy's position at Boar's Head.	
	30		A party of 2 Officers & 18 O.R. ^s of the 3 rd Aust. Tug. Coy. had been instructed to try to form a crater a communication trench between a British & an enemy sap by means of exploding a push pipe ^{4 to 5' below surface of GERMANS LAND.} This work was done with difficulty owing to the nature of the shattered ground, but on completion, the charge in the push pipe was exploded, and the resulting crater extended through the British Parapet for half the distance & was of considerable use to the Field Company who completed the trench. The Infantry attack on this occasion was not successful. The work of the Push Pipe was carried out under heavy fire & intensive bombardment. The resulting crater was 60 ft. long, 20 ft. wide & 10 ft. deep.	
			An appreciative letter was received from G.S. 39 th Division. add page	

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WAR DIARY OR INTELLIGENCE SUMMARY.

(Erase heading not required.)

3rd Tunnelling Coy.
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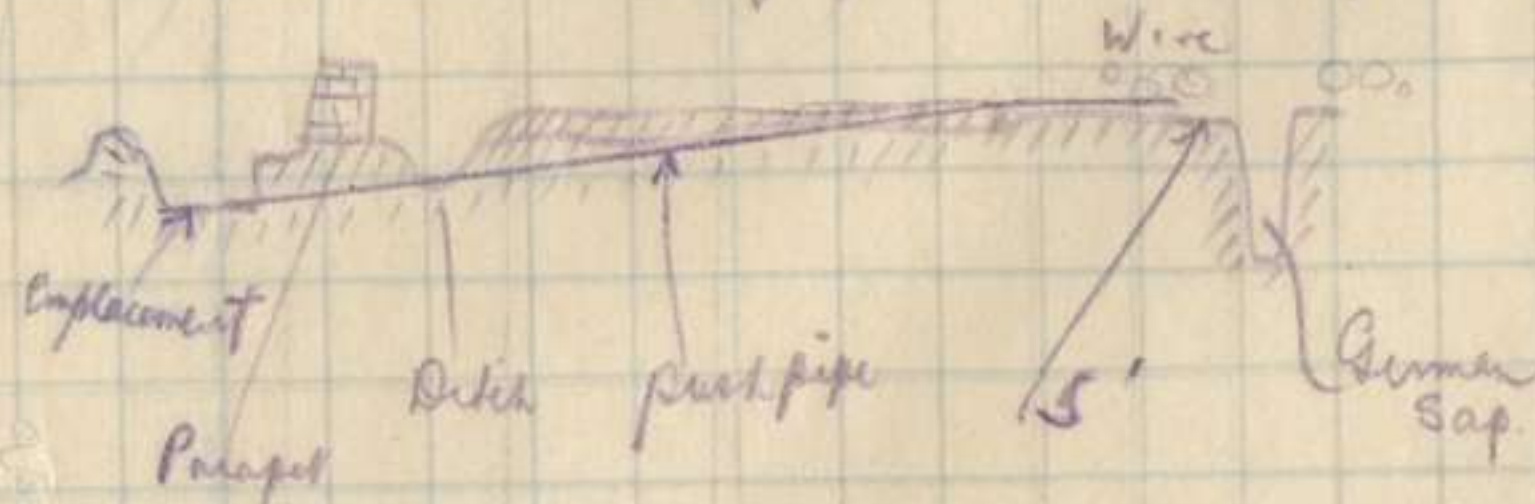
3rd
AUSTRALIAN
TUNNELLING COY.
Army Form C. 2118.
No. 356
Date

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
	1916			
	June 30.		<p><u>COMPANY ORDERS</u> 15:- 5 O.R.s reported back to Hd. Qrs. from Proto School.</p> <p>" 23:- List giving personnel of Company's Proto Staff, consisting of 1 Officer, 2 N.C.O.s & 8 O.R.s.</p> <p>" 31:- Lieut J. Thompson & 60 O.R.s of the 1st Reinforcements marched into billets from Hagelhouck on 26/6/16.</p> <p>" 34:- 1056 Sapper H.M. Kelly was killed in action 26/6/16.</p> <p>" 35:- 2nd Lieutenants A.L. Kennedy, A.C. Morris, O.R. Howie, G.T. Brawshaw, H.V. Seale, J.O.O. Mc Ardell & W.W. Graninger promoted Lieutenants A.I.F. Order No 61 of 24/6/16.</p> <p><u>CORRESPONDENCE</u>:- Original letter from Major L.J. Coulter to Controller of Mines, 1st Army, re Push Pipe Blow (with a copy) } Appendix 1.</p> <p>Letter from Major Coulter to C. of M. re Push Pipe Blow on 28/6/16. } " 2.</p> <p>Letter from Lieut Priestman to G.O.C. 116th Inf. Brigade re same Blow. }</p> <p>Copy of letter from Major Coulter to M. Kelly, sympathizing on death of his } " 2a.</p> <p>Son, Sapper N.H. Kelly, killed in action.</p> <p>Report on material at various Dumps on the Sector by W.O. Robertson } " 3</p> <p>Letter from 61st Division re stores held by Unit } " 4</p> <p>Sample of Boche Question Form, used in case of prisoners } " 5</p> <p>Translations of German Mining Officers' Diaries } " 6.</p> <p>Added Appendices 7, 8 & 9.</p>	

Appendix 1.

Report on Push Pipe Blow Contd

Our counter parapet was reached successfully. On examination after the blow I found that the pipe had come to its surface 40 ft from the end & the end of pipe was under Becker's wire 5 ft from his sap.



I attempted with the aid of some infantry to detach the pipe sticking out but was unable. I considered destroying it with a charge but the R.E. working party & a number of wounded men ^{in vicinity} delayed this.

The level of ram was frequently checked & in future I would depress ram slightly.

I am unable to account for the incomplete detonation as all 'Ammonal' canisters bulged i.e. no air spaces.

Becker's wire was already cut by the artillery. I may say that the only part of the intended crater was blown but this was particularly useful as it thoroughly breached our parapet, at same time throwing a lip which protects the sap. I estimate it reduced work on communication trench by 50%.

WAR DIAR or LIGENCE SUMMARY

(Erase heading not required)

Summary of Events

Appendix 1.

Controller of Mines
Adv. First Army

Re Push Pipe Blow

30/6/16

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The pipe was pushed 154 ft in 3 hours actual pushing time i.e. 11.45 pm - 2.45 am. The difficulties were many but chiefly due to (1) soft nature of ground made it impossible to have a hole in which to place the new pipe previous to inserting it in ram so that whole apparatus had to be tipped & pipe forced down.

(2) windlass broke inside ram broke & as there was no time to spare each pipe had to be forced in, pushing back the piston, which was slow & arduous work.

(3) Just prior to concluding the push both pumps gave trouble when final pipe was only $\frac{1}{2}$ in hole. We had therefore to cut out the ground & tear up ram & complete charge. This was under heavy shell fire as our intensive bombardment had started & Becker's reputation likewise.

The charge was 2 lbs Ammonal per foot. The mine was fired @ scheduled time viz 2.56 am & formed a crater about 60 ft long - 20' wide & 10' deep. The whole charge did not detonate.

APPENDIX

No. 1

3.

Rept Pipe cont.

Appendix. 1.

With regard to pipe showing above surface.
I should say that to obtain it the enemy must
necessarily use mechanical means & being
so close to our sap would be heard &
fired at.

The ^{new} end of pipe remaining could be found
& fired which should detonate the
whole of existing pipe, should this not
interfere with tactical considerations at
the spot.

L. Bouvier Mlyn
O.P. 3 May 16

The Controller of Mines,

Advanced First Army/

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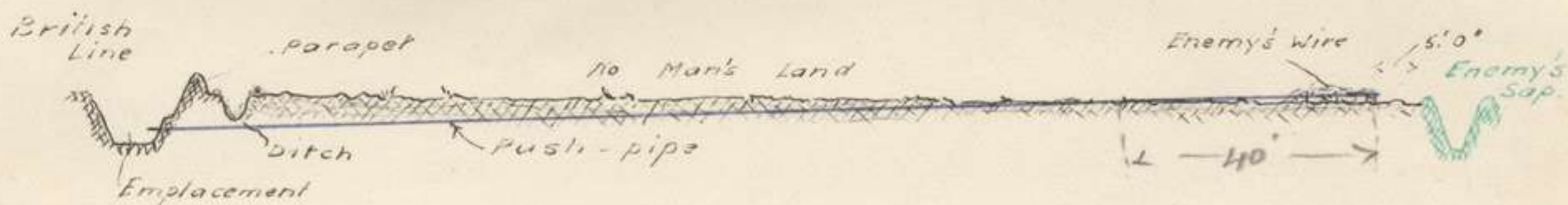
APPENDIX 1. 5.

re PUSH PIPE BLOW 30/6/16.

The pipe was pushed 154 ft in 3 hours actual pushing time i.e. 11.45 p.m. to 2.45 a.m. The difficulties were many but chiefly due to:-

1. Soft nature of ground made it impossible to have a hole in which to place the new pipe previous to inserting it in ram so that whole apparatus had to be lifted and pipe forced down each time
2. Windlass inside ram broke and as there was no time to spare for repairs each pipe had to be forced in, pushing back the piston, which was slow & arduous work.
3. Just prior to concluding the push both pumps gave trouble when final pipe was only half in hole. We had therefore to cut out the ground & tear up ram & complete charging, this was under heavy shell fire as our intensive bombardment had started and Boche retaliation likewise.

The charge was 2 lbs. Ammonal per foot. The mine was fired at scheduled time viz. 2.56 a.m. & formed a crater about 60ft long 20ft wide & 10ft deep. The whole charge did not detonate. Our parapet was breached successfully. On examination after the blow I found that the pipe had come to the surface 40ft from the end and the end of pipe was under Boche's wire 5ft from his sap.



I attempted with the aid of some infantry to detach the pipe sticking out, but was unable to do so, I considered destroying it with a charge but the R.E. working party & a number of wounded men in vicinity debarred this. The level of ram was frequently checked and in future I would depress ram slightly. I am unable to account for the incomplete detonation as all ammonal canisters butted i.e. no air spaces. Boche wire was already cut by the artillery, I may say that though only part of the intended crater was blown yet this was particularly useful as it thoroughly breached our parapet at same time throwing a lip which protects the sap. I estimate it reduced work on communication trench by 50%.

With regard to pipe showing above surface, I should say that to obtain it the enemy must necessarily use mechanical means, and being so close to our sap would be heard and fired on. The near end of pipe remaining could be found and fired which should detonate the whole of existing pipe, should this not interfere with tactical considerations at the spot.

L. J. Coulters
Major,

30/6/16.

O.C. No. 3 Australian Mining Company. R.E.

Appendix 2

Co G O.C.
116th Infantry Brigade

Re Duck-pipe blow.

The mine was fired by me at exactly
1 hr 51 minutes after Zero.
The resulting crater had the following
dimensions.
60 ft long x 20 ft wide by about 10 ft deep.

The detonation of the charge was not complete,
despite the fact that every second charge of Explosive
contained a loose detonator and every fourth
and fifth charge were connected by a short
piece of instantaneous fuse and a detonator.
The ground had been very much cut up
by shell fire and the pushing was very
easy so much so that when the pipe
came to the surface, which it did about
40 ft from the end and reached about
5 ft from the enemy parapet, the pressure
did not drop appreciably and the exposure
of the pipe was not detected.
The softness and broken nature of
the ground are responsible in my
opinion for the depth of the crater
formed.

Appendix 2

The Controller of Mines
Advanced Aust Army

Re Trench blow at ³⁵⁶
Duckhill
28/6/16

The new crater has now been fixed as
can be seen from accompanying sketch.
Map Ref M 36 a 5.3-2.
The crater is under Rocks were elongated
& looks as if an attempt will be made
to join up with Duck's Bill main crater.
The blow did some damage to his
parapet.

Lt Colouter Major
D.P. 173 Aust Hq Coy RE

APPENDIX 2

6.

Appendix 2a

Dear Mr Kelly

I deeply regret having to advise you that your son M.H. Kelly was killed in action at about midday on the 27th June 1916. He was struck by a rifle grenade & lived only a few minutes, being barely conscious. His remains were brought out & buried in a British Cemetery, the location of which I shall be able to inform you of later.

The last rites were performed by Rev. Father Ruggins.

In the course of time I hope to be able to send you a photo of his last resting place.

He was a good lad & he worked hard & singlemindedly & was making a good soldier.

Again sympathizing with you in your loss.

I am
Yours sincerely

Leslie J. Coalter Major.

P.S.

I trust his effects have reached you. They were sent via the usual channels.

✓

Appendix 2.

The nose of the ram was slightly depressed when starting to push to prevent as far as possible the pipes coming to the surface and the level of the ram was checked during the progress of the push.

Russ Susan Lene
Hth Section
No 3 Australian Tunnelling
Coy. R.E.

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APPENDIX 2

27

✓

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REPORT ON MATERIAL AT VARIOUS DUMPS.

APPENDIX 3. 8.

COLVIN &
DUCK'S BILL.

In inspecting the dumps as per instructions by Captain West, I found that the Duck's Bill dump on the right hand side of the road fairly clear, although there seems to be a fair amount of timber which has the appearance of having laid there for some time. Colvin dump on the left hand side of the road is in a shockingly congested state, there being from 1 to 2 lorry loads of material lying there of all kinds, main lateral timber predominating (of which there must be fully 50 or 60 pairs of legs) flooring boards of which there has been a strong demand for at the mill lie there in fair quantities, and I would respectfully suggest that some steps be taken to either move this stuff into the various shafts or have same returned to Headquarters as undoubtedly it is providing good firewood supply for the surrounding units, and in view of a tour passed there by any of the controlling Staff might cause complications.

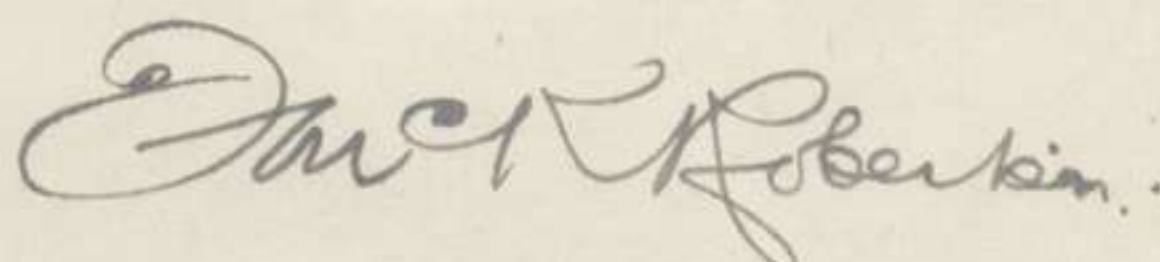
WINCHESTER.

This dump is the clearest of all, and only the current amount of material is lying there.

RED LAMP.

Here again is a congestion of timber, there being a tremendous lot of lateral timber lying there. In addition to this, there is a supply of special made caps & sills which were sent in for urgently by a special messenger on the 27th inst.

There seems to be a great tendency to overlook the carrying in of this material by the ingoing shifts, otherwise, there must be a great want of discretion in the ordering of the timber for the job then in hand, or the ~~one~~ ~~one~~ ~~one~~ one to follow in the immediate future.



Warrant Officer.

30/6/16.

Cap. W. G. St.
Adjutant

James [illegible]

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Australian Army

A very large number of stores for which transport is not provided are being drawn by units on account of the conditions peculiar to trench warfare.

Much is also being accumulated in the way of special kit and many units are in possession of articles which serve to add to the comfort of the men, or contribute to their amusement during the continuance of the present form of warfare.

It is fully recognized that these stores are with units, and when a relief, or move to another part of the line takes place, transport will be provided.

But the possibility of a return to a more mobile form of warfare must always be borne in mind, and a very definite distinction must be made between the stores and baggage that can be carried now, and for which transport would be available in the latter case.

You should therefore arrange for frequent practice in loading transport by the units under your command: loaded wagons should be very strictly inspected to see that nothing beyond what is permitted by the load tables of the unit is being carried.

The results of these inspections should be reported to this office.

C. J. Martin

D.H.Q.

Lieut-Colonel.

22nd June 1916.

A.A. & Q.M.G. 61st Division.

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APPENDIX 5^{10.}*Appendix 5.*
Fragebogen für Gefangene

Vom Gefangenen auszufüllen.

1. Write the number of your batl. here Schreiben Sie hier die Nummer Ihres Batls.	
2. Write the number of your division here Schreiben Sie hier die Nummer der Division	
3. Which batls. are on your right ? Welche Batlne. sind rechts ?	
on your left ? links von Ihnen ?	
behind you ? hinter Ihnen ?	

Die Angaben sind unter Beifügung von Ort und Zeit der Gefangennahme vom Truppenteil, der den Gefangenen gemacht hat, oder vom Lazarett, in das sie eingeliefert worden sind, sofort durch Fernsprecher an die Division bzw. Gruppe(I^c) zu geben.

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S.S. 465.]

la/14783.

*(Translation of a German Document.)***GERMAN MINING OFFICER'S DIARY.**

CAPTURED AT FRICOURT, JULY, 1916.

NOTE BY GENERAL STAFF.

The mining area covered by the following diary, captured at FRICOURT in July, was the TAMBOUR DU CLOS—known to the enemy as the FRICOURT WEST Sector. During the present year, mining has been commonly undertaken at great depths—down to water level of about 120 feet below surface. From the mining standpoint the sector was one of many difficulties. The deeper chalk was very hard and required boring and blasting; pumping was necessary from deep shafts; enemy miners were active and efficient; surface control and the disposal of spoil were seriously affected by the artillery and trench mortar bombardments to which this pronounced salient was frequently subjected.

GENERAL STAFF (Intelligence),
GENERAL HEADQUARTERS.

September, 1916.

(TRANSLATION OF A GERMAN DOCUMENT.)

GERMAN MINING OFFICER'S DIARY.

CAPTURED AT FRICOURT. JULY, 1916.

Oct. 1915.

25th Mining activity continues. Sounds of mining continue in f4, f5, b3, b4, and g1.

26th No change.

27th Same as 26th October. K Gallery has been started. Lt. Bischoff has been here.

28th Mining continues in f4, g2, g1, b3 and b4. The enemy is otherwise quiet.

29th g1 was fired at 7.30 a.m. with good surface and underground results. We bombarded the "Kniewerk" (Tambour) heavily. No sounds of mining to be heard.

30th No sounds of mining. The English are shelling the "Ziegelei" (brickworks) and Chateau.

31st But little enemy activity, otherwise quiet. Lt. Hertz was here.

Nov. 1st The English blew at 4.15 a.m. by b3 and i. No damage done. A small crater was formed. His Excellency Parvel visited the trenches.

2nd Great enemy mining activity. From 7 a.m., 3 N.C.O's and 24 men, in the afternoon 3 N.C.O's and 16 men were working on the new galleries. The following work was commenced to-day :—

f6—inclined shaft.

l—in the southern area. Shaft.

m—between h and e.

n—from the dug-out between Communication Trenches 10 and 11.

Heavy rain prevented work in the open.

3rd Lt. Weber relieved. Gallery 2 is begun to the left of the entrance to the southern sap. Gallery m is commenced to the right of e Gallery. Both were commenced as inclined shafts. The enemy is working hard throughout the mining area.

4th Gallery c has been charged with 1000 kg. and is ready to be fired. Gallery f4 is charged with 3000 kg. Pioneer dug-out has been holed through to Gallery c—d. Considerable enemy mining activity.

5th e2 and e1 were simultaneously fired at 6 a.m. The English fire trench and niches were destroyed, and the saps behind were knocked in. The enemy was very quiet after the blow. A new crater was formed. Our own galleries were not damaged: slight gas in e. Few sounds of mining heard during the day; towards the evening the enemy resumed his regular work at two places. Tamping completed in Gallery f4. g1 is being cleared out. In the middle of b—c Gallery, the inclined shaft c2 has been commenced

6th In g mine a new shaft "g" has been started. The gallery to "b" has been opened up further, and cleared out. Mining sounds mainly on the right wing. The relief by the 104th Pioneer Company begins to-day. Depot men relieved. A new trench mortar emplacement will be started at night in Communication Trench No. 12.

7th The 2 Sections of Herser and Franke were relieved by the two sections of the 104th Pioneer Coy. (Spallek and Warnke). N.C.O. Feilbauer, 104th Pioneer Coy., relieves N.C.O. Doupper. Great mining activity on the part of the enemy on the right wing. Trench mortars fired at the craters during the night.

Nov. 8th Esslinger, Holz and Steinruell's sections relieved by 3 groups of the 104th Pioneer Coy. 9 a.m. prayers in the new cemetery, the Regimental Commander being present. 4 p.m. Gallery F4 was fired; a new crater was formed. F6 remained untouched, but F5 on the contrary, was crushed in. Our artillery fired well immediately after the blow.

Owing to the heaviness of the atmosphere, no work could be done in the gallery, which was ventilated.

A direct hit from the hostile artillery, near the entrance to Gallery g, smashes the hand ventilator and a few rifles.

Enemy mining active on the right wing. Otherwise quiet.

- 9th Sections of Rothfuss, Hahn, Mauz and Haas relieved by sections of the 104th Pioneer Coy. Rothfuss will go as relief to the quarry. Mining distinct on the right wing; otherwise quiet. The continuation of the Fricourt Trench from the Collani Trench to Pioneer Trench marked out.
- 10th Vice-Sergeant-Major Rauneck relieved by Vice-Sergeant-Major Holzmann, 104th Pioneer Company.
- 6.10. Enemy blew in the vicinity of g Shaft. No casualties. Gallery undamaged. Firing resumed at 7 p.m. with trench mortars (Erdmörser).
- 11th Enemy blew at 5.45 in the neighbourhood of Gallery d2, and between Galleries e, d3 and h. One man was slightly crushed in the arm. Gallery undamaged. Water and gas in d2 Gallery. Will be pumped out and ventilated. Lieut. Hagedorn, 104th Pioneer Coy. 8 and 9.30 o'clock trench mortar activity.
- 12th Gallery b-c holed through. Gallery d3 charged with 5000 kg. Only occasional sounds of mining heard.
- 13th Nothing to report. Little enemy mining.
- 14th Normal enemy mining activity. Trench mortar fire.
- 15th Normal enemy mining activity throughout the whole mining area, which continues during night.
- 16th Enemy mining stopped in the morning, but was heard again in the afternoon on the left wing. Two trench mortar batteries firing at night from emplacements on the left wing.
- 17th Great mining activity on the part of the enemy, particularly noticeable in the front of Galleries d2, h1, h3, and f6.
- 18th Mining activity as on the 17th. The mining section change shift. At L and U, shaft chambers completed and galleries started. Enemy blew at 3.50 p.m.; half-left in front of Gallery d2. Mine system not damaged.
- 19th Accumulation of water in d2 on account of English blow, which hinders us in driving this gallery further. Enemy active throughout the whole mining area in the morning, only heard on the left wing in the afternoon. Trench mortars fire at 6 o'clock four rounds.
- 20th 6.45 a.m. Enemy blew in front of d3-h3, but without damaging us. At 8 o'clock—trench mortars fire four rounds. Chamber being made at d2, work difficult owing to continually rising water.
- 21st Enemy continues to work over the whole front, particularly from the direction of U. Clear mining sounds can be heard a long way off. In Gallery b-c it has been established that the sounds are originating from the north side of the gallery. Gallery d2 charged. Ten microphones and one listening apparatus installed.
- 22nd D2 ready for firing. Gallery d-c strutted 9 a.m. Enemy still working in front of d2. Gallery h4 commenced midday.
- 23rd 8 a.m. d2 (charged with 2225 kg.) fired. As far as could be ascertained three days later, the enemy was crushed in here, as no further sounds of mining could be heard. Two minutes before firing four trench mortar shells were fired.
- 24th Little enemy underground activity. 2 trench mortars fired from 9 p.m. to 12.30 a.m. Lieut. Hagedorn relieved.
- 25th Enemy activity slight throughout the front. Enemy quickly approaching d1, d2, and right of f6-f4. Trench mortars fired from 6 p.m. to 12 midnight.
- 26th Mining to-day more active. O Gallery commenced. Our trench mortars retaliated 4 times, each firing one round.

- Nov. 27th The company receives 40 infantrymen as reinforcements, of whom 2 groups are stationed in Fricourt, for the purpose of improving the defences of the "Heckenstellung." Increased mining activity during the day. Lively artillery fire in the afternoon, which was supported on our part by 6 trench mortars.
- 28th Same mining activity, in the usual places. After firing a mine at "La Boisselle" the enemy fired in front of d3 - h3 without damaging us.
- 29th Medium mining activity except in front of h3. In front of tamping at d3 the enemy's working is to be heard. Also intense working in front of g 3.
- 30th Private Scheunicke was killed by a stray shot on the road in front of Fricourt, this morning. Normal mining activity in the whole mining area.
- Dec. 1st Enemy fired at 5 p.m. between T-B3-B4 on the high level without doing us any damage. Medium mining activity before the blow in the centre and left of mining area.
- 2nd With the exception of a few hours in the morning, complete quiet throughout mining area.
- 3rd Generally speaking, the enemy has recommenced his mining activities, except that he is working remarkably little in certain places, for example in front of h1 - h2. During the day the enemy was heard using a boring machine. During the night of the 3/4th, he blew 3 shots some distance away in order to loosen the rock.
- 4th Enemy activity in the morning noticeably slight. At 1 p.m. enemy blew in front of G3, reaching as far as the old transversal F. No damage was done. We consequently blew H1 and H2 at 6 p.m. As the charge was only 2,200 and 3,000 kg. no surface disturbance was noticed. Afterwards 6 trench mortars fired. A newly arrived Albrecht trench mortar was installed in the "Tunnelweg."
- 5th Enemy quiet throughout the mining area. A new gallery, h5, has been started. Enemy quiet in front of H1 and H2.
- 6th Enemy activity again greater.
- 7th It slackens down at night, but the enemy works moderately during the day. The old Gallery H 2 has been reopened. In front of H1 - H2 the enemy appears to be doing re-opening work a long way away. Enemy activity stopped in front of F6.
- 8th Lt. von Guisten is relieved.
- Gallery h5 has been stopped. Gallery n will not be driven any further. Fairly heavy enemy mining activity during the day, little at night. Enemy again working near F6. In the "Heckenstellung" Trench, to the left of "Tunnelweg" Trench, new dug-outs have been started. 4 galleries could not be worked during the night on account of the lack of light. Pioneer Lishk slightly wounded in the hand by a rifle bullet.
- Vice-Sergeant-Major Hohmann relieves Vice-Sergeant-Major Schmidt.
- 9th Normal mining activity, otherwise nothing to report.
- 10th On the whole, lively enemy activity, otherwise nothing to report.
- 11th Very active mining on the part of the enemy. Distinct sounds of mining in front of H3, to the left and right of C2 and to the right of G3. The length of the listening period has been fixed at 30 minutes. An Alarm (?) apparatus has been fixed in the galleries which starts working at commencement of these listening periods.
- A new dug-out is being constructed in the "Heckenstellung." During the listening pause at 11 o'clock, a shot was heard near C2, also sounds of drilling. Enemy is trying to push forward quickly through the hard rock.
- 12th Very heavy enemy mining activity during the listening time in the morning, very little during the afternoon. In H3 an experimental hole was blown to loosen the rock, with good results. The artillery observer on the "Lehmgrubenhöhe" reports sounds of mining in his dug-out; these are also supposed to have been heard during two listening pauses made by the infantry.
- 13th During listening time from 3.30-4, no sounds of mining could be heard from the artillery dug-out on the "Lehmgrubenhöhe." Great mining activity in the course of the day shown by the enemy. Lively artillery and trench mortar duel on the right front in the afternoon. In Gallery H3 the charge chamber was excavated.
- 14th Nothing heard during the listening times. 3 enemy shots were heard during the night near Galleries C2 & i. Fairly heavy hostile mining activity. Lively artillery and trench mortar duel on the West front during the afternoon.

- Dec. 15th Little enemy mining activity, otherwise nothing to report.
- 16th Very great enemy mining activity throughout the mining area. Enemy blew at 9.40 p.m. near H3 without damaging us. In Gallery H3 itself a few sets in front of the charge chamber were crushed in. The enemy could be heard distinctly working. There was no gas in the gallery; work was immediately recommenced. The concussion caused by the blow was very strong which suggests a big charge having been used. No disturbance of the surface could be found. Enemy was very quiet after firing. No casualties.
- 17th Fairly great mining activity. Enemy shots were again heard. Nothing further to report.
- 18th Very great enemy mining activity. The top part of "Tunnelgraben" has been put in order and trench boards put down similar to those in the "Heckenstellung." Nothing to report.
- 19th Fairly heavy enemy mining activity. Chamber is being finished in H3, and the charging begins at 11 a.m. (10,000 kg.) Nothing to report.
- 20th Throughout the day great enemy mining activity. Tamping in progress in H3.
- 21st Galleries H3 and D3 blown at 9.05 and 9.15 a.m. Immediately after firing H3, a second explosion followed; probably the enemy's charge was detonated by ours. A big column of flame was seen on the surface. Much gas was generated in the gallery. Lieut. Hertz relieved.
- 22nd Weak enemy mining activity; he is only working a few faces.
- 23rd Activity same as on 22nd inst. Enemy blew at 6.15 p.m. half-right in front of L. After the blow great quantities of gas penetrated through an old crushed in gallery to L, the face of which was also crushed in. Pioneer Buettner was gassed or crushed. His corpse was recovered.
- N.C.O. Sheya, Pioneers Sowade and Baumann, and Privates Otto and Burkhardt of the 10th Coy, 111th Regt. got burns very probably through a bomb exploding in the trench to which these men ran from L.
- Immediately after the explosion the enemy opened trench mortar fire on our trenches and particularly on the exit from L Shaft. At 10.40 the enemy blew again, half-right in front of F. He crushed in the face and 5 sets (frames). No casualties as the face had already been vacated.
- 24th Enemy's mining activity somewhat greater than during the previous 2 days. In the afternoon the Albrecht trench mortar, lately erected in the Tunnel trench, was registered on the right half of the mining sector. Continuous firing by the Lanz mortar, and all other trench mortars from 10.30 p.m. to midnight, on the craters, whereby the enemy's machine gun mounted there, on a high position, was silenced.
- 25th Enemy mining activity principally on the right wing during the morning, in the afternoon principally on the left wing.
- 26th Enemy working hard on the right wing. Several shots heard in front of F. The enemy is apparently active with cutting machines in front of D2. Nothing heard on the left wing.
- In the afternoon right wing quiet.
- On the left wing, on the other hand, the enemy was active; half-right in front of D3, to left and right of H4; in front of M and L, and half-right in front of F6, faint knocking was heard.
- In the afternoon there was a heavy artillery and machine gun bombardment, lasting for several hours, on the Fricourt mining area. Began work on dug-outs for mens' kitchens and explosive store.
- 27th Great enemy mining activity especially on the right wing in front of B3 and C2, the same half-right from M, and low to the left of L, 3 shots were heard here during the night. Light trench mortar fire on the craters commencing at 10.45 p.m., as according to information from the infantry, much work was being done there, especially in front of H3 and D3. Pioneer Menzel was severely wounded on his way from the gallery to the dug-out in the Ziegeleiweg by three pieces of shrapnel in the head at 10.15.
- 28th Little enemy mining activity. The enemy blew at 4.30 p.m. to the left of H4. Most of the gallery was crushed owing to the strength of the blow. Pioneers Werner and Christoph were both killed.
- There was a simultaneous blow to the left of C2, by which Pioneer Regulla and Private Trewher who were working in the branch gallery, were crushed with the gallery.
- D2 was crushed by this blow, which was as strong as the other one.
- Heavy artillery fire on the front line trench and "Tunnelweg" after the blow.
- The artillery shells discharged a gas smelling like sulphur or phosphorus.

- Dec. 29th Fairly strong enemy mining activity throughout the mining area. In the afternoon the enemy's crater positions were bombarded with 150 rounds of 21 cm. shells. Trench mortars and Lanz trench mortars fired at night.
- 30th Enemy's mining activity somewhat slacker. Two shots were heard during the day and two at night, half-right of L and H3. At 4.30 p.m. the enemy blew to the left of F6. The only damage throughout the mining area was a few slightly crushed frames in F6. Some gas was forced into L by the explosion. The enemy was heard at work at all his working faces 10 minutes before the blow. Gallery F has been charged with 4,900 kg. of explosive.
- 31st Normal enemy mining throughout the area.
Gallery F was blown at 8.30 p.m. A crater of from 12 to 15 metres diameter is visible. The artillery and trench mortars fired on the enemy crater positions 5 minutes after the blow. Very little retaliation.
1916.
Jan. 1st Normal enemy mining activity. Gallery G3 is being charged.
- 2nd Charging of G3 with 8000 kg. has been completed. Enemy working normally.
- 3rd Lieutenant Hagedorn relieved. Normal enemy mining activity. Several shots again heard.
- 4th Very little enemy mining on the right wing, but normal in the centre and on the left. Gallery G3 was fired at 4.30 p.m. It probably had a very strong underground effect. The galleries were not damaged, but strong gas collected in G Shaft and L Gallery. Heavy enemy artillery followed immediately after the blow. Artillery and medium trench mortar retaliation. No casualties.
It was subsequently seen that several frames in L were crushed and powerful gas present.
- 5th Normal enemy mining activity. G.3, i, d3 and H will not be worked during the day until further notice. Otherwise nothing to report.
- 6th Gallery f6 is being charged. Gas burst into f6 suddenly at 4 p.m. The pioneers engaged in the charging were overcome. They were all rescued and recovered fairly quickly except two men who were sent to a Casualty Station, and immediately put under medical care. They regained consciousness after a time, and quickly recovered. The charging was not continued. Gallery L cannot be worked on account of heavy atmosphere. A new gallery r (V?) was started on the left wing of the mining area. Enemy's mining activity in general fairly lively.
- 7th Enemy mining fairly hard during the day. The enemy's patrols attempted to enter our trench at 2 a.m. but were repulsed.
- 8th Enemy's mining activity is fairly lively especially on the left wing. The gallery f6 will be charged with 120 Zentners (1 Zentner = 100 lbs.). Heavy artillery firing on crater area, from 6 to 7 p.m. Gallery recommenced.
- 9th Normal enemy mining activity during the day. Several shots were heard on the left wing during the afternoon, otherwise nothing to report.
- 10th The charging and tamping of f6 is complete, and mining activity on the part of the enemy in front of f6 is very energetic and distinct. Very great enemy mining activity noticeable throughout the mining area.
- 11th Great activity on the part of the enemy. b3 will be charged with 1500 kg. A branch gallery will be run out to the left of Shafts U and C.
- 12th Enemy working hard in front of all the usual galleries, in particular at f6. Heavy artillery fire on the position in the afternoon. Pioneer Zimmer was wounded in the thigh by shrapnel. A new gallery "S" has been started in the direction of the old d Gallery in the "Material Sappe."
- 13th Great mining activity of the enemy particularly at f6 and l, otherwise nothing to report.
- 14th Everywhere usual enemy mining activity especially at f6—l, where very great activity is in progress. Three shots fired by the enemy were reported during the listening pause at 11.5 p.m. in the centre of the mining area.

- Jan. 15th Nothing heard throughout the mining area during the 4.30 p.m. listening time. The enemy blew at 4.50 a.m. in the vicinity of G3 to d3 without however doing the slightest damage. The galleries were all intact and no casualties were caused. Enemy was very quiet after the blow. As a fairly high flame was visible during the blow, one is led to believe that the enemy's mine had a surface effect which agrees with the fact that there was very little shaking of the ground after the blow. 110th Regt. relieved by 99th Regt. This relief affected the mining, as the haulage gang of the first shift were absent. Normal work was resumed at 2 p.m.
- 16th Throughout the day during the listening pauses there was complete silence on the right wing. The enemy also worked there intermittently during the night. The trench mortar battery in Comm. Trench 12 was destroyed by the enemy's artillery, the mortars themselves being badly damaged. The enemy's crater area was fired on from 11.30 p.m. to 12.30 a.m. The enemy eventually replied energetically with H.E. and shrapnel. For the time being work has been stopped at n2, H2 and d3.
- 17th Great enemy mining activity throughout the mining area. Gallery H3 has been charged with 5,000 kg. and the tamping has been started. The trench mortars that were damaged by enemy fire in the Comm. Trench 12 have been reconstructed.
- 18th The enemy is mining actively in the centre and southern mining area but very little in the northern area, and stops completely at times. The charging and tamping of Gallery H3 has been completed. Vice-Sgt.-Maj. Laube has been relieved.
- 19th Irregular enemy mining work; on the right wing he occasionally stops completely. The charging of Gallery K with 6,000 kg. commenced at 2. The enemy blew to the right of Gallery L at 10 p.m. The right hand posts of the last 24 frames were crushed in. No gas appeared. No casualties. In the night a shaft was sunk for a trench mortar position in "The Jaeger-sappe." The trench mortars fired 7 shells and also 30 rifle grenades at the enemy positions behind the crater area.
- 20th Irregular enemy mining, but somewhat stronger than the day before. The tamping has been commenced in K Gallery, nearly 25 metres having been completed. At 10 p.m. the newly installed Albrecht trench mortar fired on the crater area and the enemy's trenches.
- 21st Irregular enemy mining activity. He is still to be heard at F6. K Gallery was reported to be ready for firing at 9 a.m. At 11 a.m. the charged Galleries F6, H3, B3 & K were fired, firstly F6 & B3 and immediately after H3 & K. F6 formed a large crater. The face of Gallery O was blown in, in spite of careful strutting. In Gallery P gas came through the crevices in the rock, and according to the men there, streamed out with a whistling noise. Gallery P is at a distance of 60 metres from the face at F6. No result was noticeable on the surface from the firing of H3 & B3, but K, on the contrary, formed a mound of earth on the surface. After the blow our trench mortars and Albrecht mortars fired a few rounds on the crater area and the enemy trenches. Our artillery also fired a few H.E. and shrapnel shells. The enemy replied about a quarter of an hour after the blow with comparatively weak artillery and trench mortar fire. It was discovered in the afternoon that Galleries N1 & N2 were blown in from the face to the branch by the blow at K. A new branch gallery was commenced from the right of the junction.
- 22nd. Enemy mining actively in front of C Shaft and in M Gallery. He has also been noticed again to the left of L. From G2 gallery G3 has been commenced; water has penetrated the ⁵gallery. Streams of water are also appearing in K & L, caused through the explosion. Two saps are being run out to the crater formed by F6 and connected in front by a trench (by order of the infantry). The trench mortars fired 15 rounds on the enemy's trenches. An enemy trench mortar was discovered close to the T-werk (Purfleet) trenches, and 10 trench mortar shells were fired at it. Pioneer Nylz was wounded at 6 p.m. in the upper arm by a splinter from a rifle grenade.
- 23rd Enemy is working in the same manner as the day before. A few shots were heard in front of H Shaft. Work has been stopped in G2 and M2. From half-right of N Shaft a branch gallery (Flankenstollen) has been started. In connection with the site for the new galleries in rear, work on the necessary communication trenches has commenced.
- 24th One can no longer hear the enemy near C. Work in our C Gallery has been stopped. Sounds of mining heard to the left of O. Sounds of work in the crater in front of H were reported during the afternoon. The Albrecht trench mortars fired into the crater. Work on entrance trenches to U and H has been continued. Vice-Sgt.-Maj. Hilterhaus has been relieved.
- 25th Little enemy mining activity especially in the northern area. Gallery H is being chambered and prepared for firing. The trenches leading to V and W are being dug. U and H are being deepened. The infantry detachments have been strenghtened by two groups for each shift. The explosive dug-out on the village road has been finished.
- 26th The chamber at H was finished at 5 p.m. The charging began at 6. Little enemy mining activity, especially on the right wing. Single shots have been heard. The first sets are being placed in new gallery.

- Jan. 27th Gallery H was ready for firing shortly before 11. The mine arranged to be blown at 11 o'clock did not fire. Both sets of leads gave a deflection on the galvanometer. An exploder brought from the 2nd Company, 13th Pioneers, also failed to fire the charge. It is ascertained that the fault lies in the joints on the detonators. The removal of the tamping was commenced at 2 o'clock.
- 28th The sandbag tamping was removed as far as the charge in Gallery H by 6 a.m. A new primer box has been fixed. At 7 o'clock the tamping was commenced and finished at 4.45 p.m. Gallery H was blown at 5 o'clock. No crater was formed. There was artillery and trench mortar fire immediately after the blow by both sides. The enemy is working more actively in the centre and on the south of the mining area. Several shots have been heard. Vice-Sergeant-Major Stiller has been relieved. At 10.30 p.m. a large flame shooting up from the English trenches in the direction of H Shaft was noticed by the sentries and Corporal Marcyoschek.
- 29th Enemy working actively on both sides of Galleries O and L. He has also been noticed at times in front of C Gallery. M is being reopened, and new frames are being set up in H Gallery. W has been commenced. Pioneer Nowak of the mining group was wounded by a rifle grenade.
- 30th Lieutenant Feilhauer relieved. Enemy mining active on the left wing (south). Little artillery activity during the day on account of fog, but the enemy fired heavy spherical trench mortar shells and rifle grenades.
- 31st Enemy working actively on the left flank, but only occasionally on the right flank. The entrance of a great deal of water has caused work to be stopped at the faces of G1 and G2. The enemy mining area was bombarded in the afternoon with 21 cm. mortar shells. Our trenches were greatly damaged by the enemy's trench mortar fire.
- Feb. 1st Light enemy mining activity on the right wing, but was normal on the left wing. There is a great deal of water at faces of G and H, so that pumping out the water interfered with mining progress. Trench mortars have been set up in Tunnel Trench.
- 2nd The same enemy mining activity as on 1/2/16. Machinery dug-out commenced in the "Tunnelgraben."
- 3rd Very slight enemy mining activity. The enemy blew at 12 noon, half-left in front of L Gallery, without damaging our mining system. No casualties. No gas in the galleries. Some surface effect was noticed, but no new crater was visible. One dug-out in the "Heckenstellung" has been finished. Pioneer Weber was slightly wounded in the arm by a bomb splinter.
- 4th Great enemy mining activity, especially in front of the right of O., and to the half-right of N. We are informed that the men's kitchen can be used from the 7th inst. onwards.
- 5th Medium enemy mining activity over the whole mining area. Two newly-installed trench mortars were registered at 6 o'clock. Pioneer Schulte of the Depot Section was wounded in both thighs by two machine gun bullets, whilst unloading the stores wagon.
- 6th The same enemy activity as on 5/2/16. On the left of L, and about 10 metres past the face, sounds of the enemy drilling were heard. Chambering of L has been commenced.
- 7th Enemy mining activity on the right wing is more active and regular than formerly. Enemy heard working 20 to 25 metres in front of N2.
The chamber in L Gallery has been completed. Dimensions 2 x 2 x 2 metres. The charging of 6925 kg. took 3 hours 55 minutes: about 30 metres of the gallery were tamped in 12 hours.
- 8th The enemy mining activity in the morning was the same as formerly. Gallery L was fired at 11.30 a.m. with good underground effect as far as could be ascertained. No crater formed. The chamber was about 32 metres deep. The last 5 or 6 frames at a depth of 25 metres in P Gallery were slightly crushed, and there was a comparatively large accumulation of water.
- 9th Except for a few indistinct knocks, the enemy was inactive throughout the mining area. The connecting trenches from Shaft S to Shaft V and a connecting trench to the "Jaeger Sappe," for the purpose of sinking a new shaft on the right wing, were commenced in the night with the help of two infantry groups.
- 10th Little enemy mining activity. A new shaft has been commenced on the right wing in Jaeger Sappe.
- 11th Enemy mining activity slight at various places throughout the area.

Feb. 12th Lieut. Hagedorn relieved. Slight and irregular enemy mining throughout the mining area. Pioneer Schwede was wounded in the head through an accident in S Gallery. A Lanz trench mortar was blown up by an enemy H.E. shell at 6.50 p.m.

13th Vice-Sergeant-major Knopp relieved. Irregular work by the enemy; south and north sectors no work at all.

14th Little enemy mining activity. Nothing heard in the northern area. Sounds of mining half-left of H and O. Distant knocking was heard in a few galleries.

15th Similar enemy mining activity to that of yesterday. The connecting trench between Gallery U and the Tunnelweg has been completed.

16th Enemy working regularly half-left from H5. Occasional mining sounds near C and P. Galleries K and R, respectively 35 and 33 metres deep, are approaching the water level. These galleries will be driven horizontally. Wooden sump boxes are being let into the floors of these galleries to clear the accumulating water. A branch gallery is being driven to the left of L gallery.

17th Enemy particularly active half-left of H5, he is also to be heard from P. He is occasionally heard to the right or left of O. He is working irregularly half-left of M. Gallery S has reached the water level at a depth of about 33 metres. It is being driven forward horizontally. Water buckets have been fixed up.

18th Enemy particularly active in front of P and R, and occasionally before O. Complete quiet in the northern area. Water in gallery H1 was cleared and work resumed during the night.

19th Enemy blew at 9 a.m. in front of Gallery P. The first 5 metres of the gallery were crushed. Damage was done to the faces of H1 and H2. No casualties. There was an increased accumulation of water in Gallery P after the blow. The lower portion of the gallery is completely under water. There was heavy artillery and trench mortar fire after the blow.

Enemy has ceased work in front of Gallery R, the driving of this gallery has therefore been temporarily suspended. Vice-Sergeant-Major Hilterhaus relieved.

20th Little enemy mining activity. Working only heard in front of O, R, H5, and M, occasionally. Absolute silence in the northern area.

21st Enemy was heard in front of R, H5 and M during the morning listening time. He was not heard anywhere during a special listening pause.

22nd Again complete inactivity on the part of the enemy. Only a few isolated knocks. "Stand to" was ordered at 6 o'clock owing to the enterprise against the Kniewerk (Tambour). The attack commenced at 7. 1 N.C.O. and 15 men took part from the 104th Pioneer Company.

Pioneer Brumme killed.	
Pioneer Ikillek, missing.	
Corporal Eckermann	
Lance-Corporal Nowozin	
Pioneers Berger	} Wounded.
" Wuneziers	
" Chlebusch	
" Popeschuva	

"Stand down" was given for the pioneers at 1.30 a.m.

23rd Enemy working harder. This is noticeable in front of Galleries M and R, and to the right of H. Occasionally noises were heard at O and L.

Pioneer Chlebusch has not been brought in, he must therefore be classed as "missing." Vice-Sergeant-Major Stiller relieved.

24th Enemy's mining activity again slackened down. Only knocking sounds at long intervals can be heard.

25th Very little enemy mining activity. Only at a few galleries are sounds of knocking at a distance to be heard. No steady work can be distinguished.

26th Lt. Feilhauer relieved. The enemy is working to the right of M, otherwise he is quiet throughout the mining area.

27th No steady working on the part of the enemy throughout the mining area. Occasional knocks were heard half-right of D2, and half-right of R.

- Feb. 28th Vice-Sergeant-Major Laube relieved by Hilterhaus. The enemy is working harder; distant work can be heard at K, half-left of G1 and to the left of M and O.
- 29th Distinct enemy working heard half-right of G1. Distinct blows were also heard half-left of G1 and half-right of G2.
- Mar. 1st Extremely slight enemy mining activity. Distinct working could be heard half-right of G1. Medium work was heard half-right of L Gallery. Pioneer Hacazin was wounded on the right side of the chest by a shell splinter.
- 2nd Enemy could be heard working at a distance, half-left of Gallery R, straight ahead of W, half-right of O. Medium enemy activity was heard half-right of G1.
- 3rd Very slight enemy activity and at times work completely stopped. He is working at a distance of about 30 metres from L, at re-opening work on his gallery that was crushed in by the firing of L. Enemy also heard to the left of O.
- 4th Quiet throughout the mining area. In Gallery K, work was resumed as the enemy was again working moderately, half-left.
- 5th All quiet in the mining area.
- 6th Nothing to report in the mining area.
- Lance-Corporal Reumer and Pioneers Albrecht and Liss were slightly wounded by accident (explosion of a denotator that they were trying to remove from the fuze of a trench mortar shell).
- 7th Enemy working to the left of G, half-right (practically straight ahead) of P, at a distance of 15-20 metres. Otherwise nothing to report.
- 8th The enemy is working with double blows (Doppelschlaege) in front of P, and to the left of G1.—Distance, 15 metres.
- 9th Regular enemy blows on the left of G1, also sounds of charging.
- 10th Vice-Sergeant-Major Hilterhaus relieved by Stiller. The enemy have stopped work to left of G1 since mid-day.
- 11th Lt. Hohmann relieved. The enemy has confined his work to faces in front of P; i.e., to the left of G and to the left of H. In front of P blows are regular at times.
- 12th Situation the same as yesterday. The water level has risen and made work in S, U, W, V and X2 difficult.
- 13th The mining sounds in front of G ceased in the afternoon. Heavy enemy trench mortar fire in the afternoon, particularly on the right wing of the crater positions. The entrances to T and U shafts were blown in by direct hits. The following casualties at U:—Pioneers Kokott and Hodzik, killed; Under-Officer Mazioschk, slightly gassed; Pioneers Raspers, Mussmann and Summa, wounded; Gippert, Schneider, and Hirt of the attached infantry, wounded.
- 14th Enemy working actively, but with great care, about 10 metres to the left of G. Another face towards L is being worked for the purpose of deceiving us. On account of the small distance away (8 to 10 metres), a comouflet—charged with 1,300 kg. is being prepared for G1. During the day heavy enemy trench mortar fire on the front line trenches.
- 15th Enemy was working till mid-day to the left of G1, and has restarted work in front of N.
- 16th The charge in G1 was fired at 8.50 a.m., the enemy being at work at the time. The charge had such a strong effect that the uprights (legs) in G2, about 14 metres away, were crushed in. The calculation of the charge was for a distance of 10 metres. Everything was quiet on the left wing of the mining area during the afternoon, but new sounds of mining were discovered in front of C1 and C2.
- 17th Light and distant knocking was heard half-right of L in the morning. From 12 to 1.30 "stand to" ordered. All work stopped. Complete quiet in the mining area during the afternoon.
- 18th Slight enemy mining activity. Only slight work heard occasionally in front of N and M. Somewhat stronger half-left of P. Continual intense artillery and trench mortar fire. An Albrecht mortar in the "Jaegersappe" destroyed.

- Mar. 19th Enemy working hard half-left of P. The direction of the face of P has been altered to half-left, towards the centres of the old chambers of G3 and L. The blown-in gallery L is being salvaged further in order to serve as a higher advanced face to P. Trolley lines (haulage track) in U completed. Work is being continued on the trolley lines in V and P. The electric power plant has been set up in the Tunnelgraben.
- 20th The enemy continues to work at the salvaging of their crushed-in gallery in front of G. Also working occasionally on the right wing in front of N and C.
- 21st Slight enemy mining in front of C and N, also more active mining half-right of L. The direction of the blown-in gallery F has been changed half-left. Reconstruction of the new Albrecht trench mortar emplacements was commenced at night.
- 22nd Nothing to report in the mining area.
- 23rd Enemy working more actively throughout the mining area. The enemy fired at 11.15 p.m., and crushed face of L to its point of intersection with L 1. Pioneer Franke and Private Stumpf, of the 3rd Coy., 111th Regiment, were crushed with the gallery. Lance-Corporal Slomkowski was badly gassed; he was brought out of the gallery, but died shortly afterwards at the ambulance station. Wehrmann and Kohl, 4th Coy., 111th Regiment, were slightly gassed, as was Under-Officer Wehner during rescue work. Private Habricht, belonging to the infantry detailed for rescue work, died from gas poisoning, and Private Wacker, 4th Coy., 111th Regiment, was slightly gassed. The enemy fired heavy gas shells and H.E. shells at the front trenches after the blow.
- 24th Very weak enemy activity on front of C, G and X. The crushed-in face is being reopened.
- 26th Lt. Hagedorn relieved. Sounds of mining heard in Galleries F, C, K and N. A few enemy knocks were heard in front of O, and sounds of mining in front of F, C, K and N. The body of Private Stumpf was brought out of Gallery L in the evening.
- 27th Knocking sounds heard on the right wing of the mining area. No regular work heard. Pioneer Franke's body brought out of Gallery L in the morning.
- 28th Frequent but irregular work was heard in front of Galleries C and N. Occasional sounds of mining to half-right of Gallery P.
- 29th On the right wing of the mining area, occasional sounds of mining heard in front of Gallery C; at Galleries K and N, sounds of knocking. Knocks heard at Gallery P. The enemy appears to be salvaging the gallery blown in at L, on 23rd. At 7.30 a.m., the relief of half of our men by the 2nd Company, Bavarian Pioneer Regiment took place.
- 30th Enemy's activity the same as yesterday.
- 31st Enemy works occasionally in front of C at a distance of 15-20 metres. Sounds of knocking heard in Galleries K and N. Sounds of working half-left of Gallery H5 at a distance of 15 metres. Occasional work near Gallery R. Enemy continues to salvage in front of L.
- Apr. 1st Enemy working with frequent stops on the right wing, in front of C and to the right of K. Enemy continues to salvage in front of L.
- 2nd Vice-Sergeant-Major Hilterhaus relieved. Same enemy mining activity as yesterday.
- 3rd On the right wing of the mining area the enemy is working in front of C and to the right of K. The work is frequently stopped. 3 shots were heard during listening time in the afternoon in Galleries M, R and P. Sounds of working in front of L.
Lance-Corporal Hoffman and Pioneer Cygan were slightly wounded by rifle grenades. Hoffman was sent back to the company and Cygan sent to the field hospital at Flers. At 7.30 a.m. the relief of the Bavarian groups that came in on the 29th of the 3rd., by the 2nd relief subsections took place.
- 4th No sounds of enemy mining on the right wing of the mining area. Knocks heard during some of the listening times. Enemy working hard on front of Galleries H and P, and regularly in front of Gallery L.
- 5th Enemy working about 10-12 metres away from H1. This gallery, which was formerly full of water, is dry again, probably on account of the enemy pumping. A start is made at 2 o'clock with charging the gallery with 2000 kg. The enemy is working with pauses in front of L. There is only slight enemy activity on the right wing of the mining area.
- 6th H1 was ready for firing at 1 p.m. and was fired at 1.15 p.m. No crater formed. Enemy was heard working from Gallery W before the blow. Whole mining area was quiet after the blow. The pumping out of air in Gallery W was commenced at 2 p.m. Pioneer Backhaus went down to the far end of the gallery against orders and was badly gassed. Privates

Hauser and Schneider, Pioneer stretcher bearer Gotz and Corpl. Kappelmeier went to his rescue, the two last with rescue apparatus. Privates Hauser and Schneider and Corpl. Kappelmeier were so badly gassed that they had to be carried to the hospital dug-out. Pioneer Backhaus was brought out dead. Infantrymen Gotz and Friedrich of the 2nd Coy., 111th Regiment, who had been placed by Kappelmeier as listening sentries at the entrance to H5, when found, were dead.

- April 7th Enemy fairly inactive. Lt. Krieg has come to the position to learn mine warfare.
- 8th The 2nd Company, Bavarian Pioneer Regt., takes over the mining area from the 104th Pioneers after having been instructed since 29/3/16 by the latter. Lt. Knorr relieves Lt. Feilhauer. The enemy seems to be salvaging his crushed-in gallery: 30-40 metres to the right of O a few knocks have been reported.
- 9th Enemy working at some distance in front of W and X.
- 10th Sounds of distant mining in front of P & R reported.
- 11th Nothing to report in the mining area. After the gas engine and dynamo were set going, electric drilling took place for the first time in S Shaft.
At 7 p.m. Lt. Knorr relieved by Lt. Krieg.
- 12th Enemy again working in part of the faces of P W & R. Distance calculated to be 35-40 metres. As he is working in two separate galleries it is almost impossible to draw correct conclusions as to distance. A patrol enterprise has been arranged by the 110th Regt. at 8 o'clock, and "Stand to" has been ordered in Fricourt-West. Work was therefore stopped from 7.40 to 10.30 p.m.
- 13th Enemy activity as yesterday. Gallery T has been stopped for the time being as it is fairly far out.
- 14th Enemy mining activity seems to have increased. Slight sounds of mining were heard in front of O, R & W, and a few shots were heard at most of the faces during the listening time from 3.30 to 4 p.m. Gallery N is being driven out further. Gallery R, which is full of water at the face will be driven 2.50 metres higher. A blow was felt at 5 p.m., but was one of our blows on Hill 110 near the Corps boundary.

DIARY ENDS.

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(Translation of a German Document).

GERMAN MINING OFFICER'S DIARY,
CAPTURED AT FRICOURT, JULY, 1916.

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24.

(Translation of a German Document).

GERMAN MINING OFFICER'S DIARY,
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(Translation of a German Document).

GERMAN MINING OFFICER'S DIARY, CAPTURED AT FRICOURT, JULY, 1916.

- 10-4-16 Lt. Wendler arrived in the trenches of Hill 110 in order to learn Mine warfare, likewise Sergt-Major Birkmann and Ensign Berger.
- 11-4-16 The first four sub-sections of the Company relieve four sub-sections of the 2nd Reserve Coy., 13th Pioneer Battalion, and will be so arranged that each shift will consist of one-third of the Pioneers from Bavaria and two-thirds from Württemberg
- 12-4-16 A further four sub-sections of the Company relieve four shifts of the 2nd Reserve Coy., 13th Pioneer Battalion.
- 13-4-16 _____
- 14-4-16 _____
- 15-4-16 Lt. von Horstig with N.C.O.'s Rothenberger and Zeh relieve Lt. Wendler, so that they also can be instructed by an officer of the 2nd Reserve Coy., 13th Pioneer Battalion, in Mine warfare.
- 16-4-16 Two sub-sections of the Company relieved. Evening—heavy artillery fire.
- 17-4-16 Four sub-sections of the Company relieve the first four sub-sections of the Company. The men will first be instructed in underground work and then listening methods.
- 18-4-16 Two further sub-sections of the Company relieve two sub-sections of the 2nd Reserve Coy., 13th Pioneer Battalion.
- 19-4-16 Nothing important happened. Normal mining activity.
- 20-4-16 Enemy blew at 6.30 p.m. between Galleries 22 and 23, no important damage to neighbouring galleries.
- 21-4-16 Lt. von Horstig with N.C.O.'s Rothenberger and Zeh relieved by Lt. Wendler with N.C.O.'s Birkmann and Bauer.
- 22-4-16 12th Coy., 111th Reserve Infantry Regt. relieved by 4th Coy., 111th Reserve Infantry Regt. Trench mortars fire on English sandbag dump. Otherwise nothing new. Progress of work normal.
- 23-4-16 N.C.O. Dohner wounded slightly this afternoon by shrapnel fragment in the shoulder. Taken to dressing station of the I/111 and from there to the hospital at Flers.
- 24-4-16 Normal mining activity, otherwise nothing new.
- 25-4-16 Very good firing by an enemy battery on the flank with shrapnel. Infantry Pioneer Rizzi (2/111) was wounded in the sexual organ. The Coy. relieves the remaining pioneers of the 2nd Res. Coy., 13th Pi. Batn. Normal mining activity.
- 26-4-16 In accordance with Regimental orders the company took over the control and manning of Hill 110 at 12 noon. The following are on duty: Lt. Wendler, N.C.O.'s Rothenberger and Bauer, 19 mining sub-sections, 1/4 Depot sub-section (Depotgruppe) in the trench, 1/4 Depot sub-section in the Mametz trench. At Workings 35, 36, 23, 30, 34a and Shafts 7, 31b, 1m, 1o, 38, 22a, 22b, 12 sub-sections work, with shifts of 8 hrs. At Workings 37, 39, 40, 24b and the newly commenced Working 41, there are 7 gangs that relieve each other. 52 men of I/111 are continually employed hauling, with 3 shifts (of 8 hrs.). Lt. Heintel of the 2nd Res. Coy., 13th Pi. Batn. is attached to advise the Pioneer Officer in charge for a further 5 days.
- The enemy in some places is 15-16m. distant, but does not work nearer, so that Workings 27a, 1m, 1o, 24a, 29, shaft 7, 30, face 33, 33a, 22b, appear in danger. The enemy mining activity is fairly slight on the right wing and middle of the mine field, but more marked on the contrary, on the left wing. The Quarry was shelled, at times very heavily by the artillery and trench mortars. Amongst these some 24cm. shells.
- 27-4-16 Capt. Schaechterbe, commanding the pioneers, came to the trenches this afternoon, also Lt. Bauer; the enemy's position was discussed and also the best counter measures. Normal mining activity. Heavy firing on Fricourt between 6 and 7 p.m. The crater blown by the enemy on the 20th was investigated during the night of the 27th/28th April.
- 28-4-16 Fine
Weather. Enemy mining activity normal. Heading No. 30 will discontinue work on account of the proximity of the enemy, as stated before. Between B trench and 1 sap a new working, 41, has been commenced. Preparations for the proposed blow for the 30th have been commenced. "Stand to" was ordered on the night of the 28th/29th as "Moritz" announced an enemy enterprise for 1.45. Work was therefore stopped at 12 o'clock and everyone in the mining area placed in the mine entrances. Unfortunately the preparations for charging 1m were interrupted by this. The night passed quietly all the same.
- 29-4-16 Fine
Weather. The 30 men detailed for the charging of 1m are filling sandbags with 5,000 kg. of explosive and are taking it to 1m gallery. The charging commenced at 9.10 a.m. The charge was in place at 10.30 and the tamping immediately commenced. On account of the changing of shifts, and the fact that our men engaged in the Thüringer sap to pass in sandbags had to stop work on account of our artillery firing on the enemy's front trenches, a delay of one hour was caused, and the tamping was not finished till 3.30. Enemy mining activity was regular. Work was stopped in Shaft 35, as it is probably in danger if the enemy blows 22b or 33a; therefore Shaft 36 was worked in double shifts with reliefs every four hours.
- 30-4-16 Very fine
Weather. Normal enemy mining activity. The enterprise of the 111th R.I.R. was arranged at 8.30 p.m. 1m was blown at 8.45. Our artillery fire was answered by extremely heavy retaliation almost immediately, so that our patrols, held in readiness, could not advance. During the remaining part of the night "Stand to" was ordered. The night passed quietly. The work, with the exception of 39 and 24, was resumed at all workings. 1o, 39, 24 were continuously ventilated. At 11 o'clock at night the clock was put forward to 12 o'clock.
- 1-5-16 Fine
Weather. The following was ascertained with regards to the firing of 1m. Our own galleries that were in danger, 27a and 1o, were undamaged, as they had been strutted. Only the first two top sills of 1o, that is roughly on the same level as 1m were cracked. It can be assumed, if this effect on 1o be borne in mind, that the three faces of the enemy lying much nearer, and certainly not lower than 1o, were probably blown in for a considerable length. A new crater has been formed.

The mining activity of the enemy was noticeably small.

In the listening period, 9 to 9.30 a.m., nothing was heard at any face.

The day passed unusually quietly. Only in the evening, 11.30, gas shells of heavy calibre were seen from the entrance of the Pioneer Officers' dug-out. To the right, at the back of 22a, the enemy were located at about 12-15m. distance.

It is not at all clear how the enemy, at a considerable depth (35m.), can work his way past our workings without being noticed.

2-5-16 Lt. von Horstig relieves Lt. Wendler.

Fine It is quiet during the day. Normal enemy mining activity. The enemy is very close to 22a and will probably blow shortly. The enemy's artillery activity is very great at certain times, especially at midday and at night between 10 and 12 o'clock. One infantryman and one pioneer from the hauling gang wounded.

Weather. 3-5-16 Rainy Little enemy mining activity; the enemy's artillery and trench mortars occasionally active.

Weather. 4-5-16 Little mining activity on enemy's part throughout the whole mining area. Normal activity in our mines. Lively trench mortar activity. In the night one man from the haulage gang fell down the shaft incline on account of a trench mortar round falling close to shaft 31. Pioneer Naeral damaged his spine by falling down the crater of this mine. Both will be sent to Neu-Trockengraben (New-Dry trench). A regular fatigue will be started for the mining gang during the rest time, of one hour per day, for work in Trench B and in the quarry.

Weather. 5-5-16 Slight enemy mining activity. Our mining continues normally. A new branch gallery has been commenced half-left from Gallery 34a for listening purposes (the enemy has been heard there very close), and also in order to destroy a part of the enemy's position. Medium artillery and trench mortar activity. Enemy aircraft flying very low over the trenches interrupt the haulage work and the traffic in the trenches, as they immediately direct the firing where they see traffic.

6-5-16 Slight enemy mining activity throughout the mining area. Normal mining on our part. Slight artillery and trench mortar activity on both sides.

Weather. 7-5-16 Weak enemy mining activity. Normal work in our mines. Work was stopped in Workings 22b, 24a and 34a, as in the past days, from 5-10 p.m., on account of danger to the men. "Stand to" was ordered towards evening, all work was stopped except Workings 22b, 24a and 34a. The pioneers and haulage gangs were placed in the mine entrances. On receiving the report that the enemy had removed his wire obstacles at 3 o'clock, heavy fire was directed against this part from our position. The report proved false and the night passed quietly. Very little artillery and trench mortar activity during the day.

Weather. 8-5-16 Slight enemy mining activity, our work normal. Careful observation of the enemy on the right of Gallery 22a, and also the report of the infantry of the transport of cases through the enemy's trenches leads one to believe that the enemy has charged his gallery at that spot. A "Stand to" was decided upon for the infantry in the evening; our work was not stopped. The night passed quietly. Remarkably little artillery and trench mortar activity.

Weather. 9-5-16 Slight enemy mining activity, our work normal, with the exception of 34a, where work was stopped, as the Regiment ceased to be interested in the blowing up of the enemy's trench. This has quite fallen in anyway, and the high sandbag erection at this spot would no longer be effected by the blow.

Our own and enemy artillery activity, medium. The construction of the dug-out in the communication trench is being carried out by 1 Mining Sub-section and 1 new Sub-section from to-day. To-night "Stand to." All work stopped except at Workings 22 and 24. The men were placed in the mine entrances.

At 12.30 a.m. our artillery opened a heavy fire.

Weather. 10-5-16 Little enemy mining activity. Our mining and also the new dug-out were continued. To meet the enemy heard on the left of Gallery 27a, a branch gallery has been run out. 2.45 a.m. the enemy fired simultaneously in the Fricourt West area and to the left of 23rd I.R. on the hill. No damage was done in our area. The pioneer officer, one N.C.O. and the M.O. have gone to investigate the Gallery 2b crushed by the enemy's blow, and worked by the 1st Company, Bavarian Pioneer Regt., the M.O. to assist in the rescue work. At times artillery and T.M. activity. In reply to the report to the battalion that the mining work is being delayed on account of the frequent orders to "Stand to," the Adjutant of 1st Battalion, 11th R.I. Regiment, stated verbally that in future a special order would be issued when the pioneers were required to stand to and that, in that case, either the Pioneer Officer or his Sergeant-Major must stand to during the night, but not both.

Weather. 11-5-16 Little enemy mining activity, ours continues normally; work recommenced in Gallery 34a. Medium artillery and T.M. activity. The overhead cover, 3 m. in length, as a protection against enfilade fire was recently completed near Gallery 1 and similar work has been begun near Gallery 39.

All six entrances to the pioneers' dug-outs in the "Fischerweg" commenced.

Weather. 12-5-16 Lt. von Horstig will be relieved by the Acting Officer (Offizier Stellvertreter) Birkmann as Pioneer Officer, the N.C.O. Rothenberger will be relieved by N.C.O. Buttner.

Weather. Slight enemy activity in the morning, more lively towards noon, enemy continually at work to the left of Gallery 34. Enemy only occasionally at work by 22ab and 27a. Very little artillery, rifle or machine gun fire on the part of the enemy. Pioneer Herkel was wounded by falling rock in Gallery 32. (Is in a dug-out in Mametz).

Preparations were made for the blow that will be necessary shortly in Gallery 34.

13-5-16 Enemy more active on the left wing, less activity on the right.

Enemy continually at work by Gallery 34. The preparations for the firing of this gallery continue.

14-5-16 Battalion order dated 13/5, notifies that the sandbag wall will be fired on by Mortars and T.M.s from 6 o'clock this morning, and the whole position including Saps, first line trench, as well as the Pioneer Officers' dug-out, from Crater No. 1 to Sap 3, must be vacated by all troops. Work could only be recommenced at 11 o'clock (Wendler relieves Offizier Stellvertreter Birkmann and acts as Pioneer Officer, and will take over the supervision).

15-5-16 Normal enemy mining activity. Enemy 10m. to the left of 34 and only works there short periods, but is heard working regularly half-left and straight ahead. Chambering commenced in 34 (for 10,000 kg.=12 cu.m.). To the right and left of 27a branch galleries driven, as the enemy is trying to get close to the face. The dog-legging of galleries 32, 38, 39, 36 has been commenced.

The barricade and trench work has been commenced at the quarry, also the building of dug-outs.

16-5-16 The position of 34a becomes dangerous as the enemy on the left has ceased work, and one has to expect a blow. The men have been temporarily withdrawn. It appears essential to continue chambering, otherwise the enemy on the left can continue to drive forward towards the face, and also by a blow there is great possibility of destroying three enemy galleries. A volunteer squad consisting of

N.C.O. Keilwitz.

Infantry Pioneer Hartung.

" Schmidt, Heinrich.

" " Rehhauser.

Pioneer Buhler.

" " Stolz.

" Schedel.

" " Hanser.

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- is working, in continual danger to their lives, in reliefs of four pairs in Gallery 34a. Working continues with breaks straight ahead and half-left. The remainder of the mining activity is normal.
- 17-5-16 The chamber in 34a was finished at 2 p.m. The sandbags filled with explosive are being taken to Shaft 41, those for tamping to Sap 2. Firing leads have been laid, haulage apparatus erected, thereby concluding all necessary preparations for the charging of Gallery 34a. Nothing heard on the left. A new explosive dug-out has been commenced which will be connected to Gallery 36. A safety brake-shoe apparatus has been introduced that will stop the trolley from running back (should the rope break), thereby protecting the men working at the face.
- 18-5-16 From 2.30 a.m., "Stand to" was ordered, as from information received from "Moritz," enemy patrol enterprises were to be expected.
- The charging of 34a was commenced in the evening, as the enemy must certainly have expected us to charge this morning, and very probably has already charged his gallery. The slightest carelessness might have led to quite considerable losses. The enemy half-left and straight ahead still work, though only occasionally. Otherwise normal mining activity on both sides.
- 19-5-16 The enemy fired at 3.45 to the left of 34a as was to be expected, with an unusually large charge. Thanks to the careful methods adopted we had no casualties. Gallery 30 remained completely intact on account of the strutting put in for safety. Gallery 34a is probably crushed in as far as the dog-leg. The possibility still remains that the lower part of the gallery has held up better.
- It is remarkable to find that the microphone and firing leads are still intact. The enemy blew up his own position, although he had probably a long time previously left it. The newly-formed crater stretches from our position to the English sandbag barricade.
- The salvage work was commenced as early as 12 noon. Work was stopped in 24. The enemy's mining activity was not normal until mid-day.
- 20-5-16 2.30 a.m. concentrated T.M. fire on the officers' dug-out and surroundings, probably caused by the new works erected near the sandbag barricade. The mess room (Tagesraum) was badly damaged. No casualties. Our mining activity was normal and that of the enemy particularly small, only 3 enemy faces being worked.
- Two sub-sections are permanently detailed for the construction of a position in the quarry; they will act as a reserve for any urgent work that may be necessary in the mining area.
- 21-5-16 The enemy was again heard 12-15m. to the left of 33e. A chamber has been started. A new explosive dug-out has been started and connected to Gallery 40; similarly in Galleries 27, 33 and 34; these should ensure sufficient storage room for explosives.
- 22-5-16 Lt. von Horstig relieves Lt. Wendler.
- Fine Weather. Work is in progress at Galleries 22e, 27a, 30, 32, 33b, 34a, 36, 38, 40, 41, 39. The repair work in Gallery 30 has been stopped as the men are needed in other places. The salvage work in 34a makes good progress; new timber is put in for a distance of 3m. per day. A new sap for stores has been commenced for Gallery 34.
- Slight artillery and T.M. activity.
- 23-5-16 The enemy fired a camouflet to the left of Gallery 24 at 3.50 a.m. The amount of earth thrown up was very small, as was also the gas discharged, which only appeared $\frac{1}{2}$ hour later. No casualties, and no damage to the trench. Gallery 24 and Shaft 7, between which the explosion occurred, emitted a small amount of gas, but 2 hours later one was able to enter. Gallery 24b is slightly crushed at the 32m. mark at a depth of 33m. No 7 Gallery the same at the 30m. mark at a depth of 36m. The faces can be easily restored. The work at the chambering of 33b has been continued more speedily, otherwise the workings were normal. Slight artillery and T.M. activity during the day.
- 24-5-16 The chambering of Gallery 33b is being further accelerated as the behaviour of the enemy leads one to believe that he intends blowing in our working, with his face on the left, in order to drive forward the gallery that lies about 15m. to the right of the face. As a blow is to be expected at any moment, the work is extraordinarily dangerous and calls for great courage and extreme devotion to duty on the part of N.C.O. Uaerdlein and 10 men who are correctly and quickly finishing the work. The men's names are:—
- N.C.O. Uaerdlein, Pioneers Winter, Hans, Bohser, Mich, Umpfling, Adam, Faber Franz, Roll, Otto, Terras Fritz, Mart, Streit, Alfred Rudolph, Soback, Alois.
- Quiet during the day, our artillery and trench mortars fired in the evening, the enemy retaliated heavily. Normal mining activity on our part, the enemy is working very little.
- The workings are the same as usual.
- 25-5-16 The chamber of Gallery 33b may be ready by 5 o'clock. The enemy has ceased work near Gallery 33b and it is feared he will blow before us. Preparations for charging were commenced at 1 o'clock. At 2 o'clock the placing of the charge of 10,000 kg. was commenced.
- Rainy Weather. This was finished at 3.30, and at 8.30 the tamping was finished.
- At 10.30 the charge was ready for firing and the strutting of 33a and the dog-leg of the gallery was completed.
- The firing took place at 1 a.m.
- An undulating earth-tremor was felt.
- Quiet during the day as our Artillery and T.M.s are not firing by request. After the blow the enemy fired a long time with Artillery and T.M.s. During the afternoon the men from Galleries 38, 32, 27, 40, 41 and 36 gave a hand with the charging. Otherwise work continued normally. Very little enemy mining activity.
- 26-5-16 Fine Weather. The workings are the same as yesterday; at Gallery 7 work has been resumed; to start with, the repairing of the crushed face. Slight enemy mining. Medium Artillery and T.M. activity.
- 27-5-16 Fine Weather. Our work continues normally. The enemy has been located midway between Shafts 7 and 24 about 20-25m. away. There is no other work being done by the enemy in the mining area. The enemy is evidently employing new tactics at this point. He crushed in our faces at 7 and 24 Shafts with his high level blow of the 23rd inst., and is now trying to push forward his low level gallery. Therefore 7 Gallery is being worked with a larger number of men.
- I/111 are being relieved by the II/111. Occasional intense artillery and T.M. fire.
- 28-5-16 Our work continues normally. At Gallery 33a the clearing out of the added branch gallery has commenced.
- Very fine Weather. Intense Artillery and T.M. activity particularly between 10 and 11 p.m. The enemy at work again throughout the whole mining area.
- The entrance to 31 has been injured by a shell. (Infantryman Martin Popp, 4/110, thereby lightly wounded in upper part of arm.)
- 29-5-16 In the morning Regimental Commander Colonel Lehmann visited the trenches. Work progressing normally. Gallery 7 has been cleared as far as the former face, and will be driven with a slight bend to the right, towards the enemy heard in that direction. Occasional intense Artillery and T.M. activity during the day, particularly at 10 p.m. Night quiet.
- Very fine Weather. Evening, Rain.

- 30-5-16 6 a.m. Heavy enemy bombardment of Mametz Wood. Slight Artillery and T.M. activity during the day, but intense at night, especially from 9 to 11 o'clock and 2 to 3 o'clock. Work continues normally. Galleries 7 and 34a make slow progress on account of the surface water entering. The enemy is working half-right of 7 as usual with breaks. Otherwise enemy working regularly.
- 31-5-16 Enemy working regularly in centre of area, but not on either wing. Our work progresses normally. The enemy is working in front of 7 and 24; it is probable that he is chambering and is somewhat to the right in front of 7, about 15m. away. Our work progressings lowly here on account of water.
- 1-6-16 Artillery and T.M. activity intense on our part. Enemy retaliated strongly.
- Fine Our artillery opened fire several times during the day and night, which resulted in intense retaliation from the enemy; this caused considerable delay in the excavation of the sap for stores.
- Weather. A report will be sent to the battalion with regard to this.
- Work has been stopped at Galleries 32 and 36 as these have been driven out far enough. A chamber has been started at Gallery 30. A dog-leg bend has been started at Gallery 35. Otherwise work normal. The men were withdrawn from Galleries 27 and 7 during the night as the enemy had ceased work in both places.
- 2-6-16 Work continues normally. Gallery 42 has been started 25m. to the left of Gallery 41.
- Fine The enemy is gradually working closer to Gallery 7. As Gallery 37 is in danger, preparations for firing were commenced during the night. Our artillery active during the day. The enemy replied at 6.30 p.m. with heavy fire on the Quarry, front and support trenches.
- Weather. N.C.O. Leitz here received such a bad head wound that he died 1½ hrs. later. Pioneer Meisel was badly wounded in the right arm and leg; N.C.O. Baumgartner wounded in shoulder blade.
- Heavy trench mortar fire on the Quarry, otherwise night passed quietly.
- 3-6-16 At the commencement of the early morning shift, the sandbags filled with explosive over night were brought to Gallery 7 and the firing leads put in. At 7.15 the charging of the gallery with 4,000 kg. commenced. Tamping commenced 10.30, charge ready for firing at 4.30. Gallery 37 has been well strutted. The mine was fired at 1 a.m. in connection with heavy artillery fire. After this, work resumed its normal proportion. It was noticed from the microphone introduced into the charge, that before the blow the enemy were working, as has been usual lately, slowly and warily. Half-left of Gallery 7 the enemy worked hard continually. After the blow it was quiet on both sides; the enemy certainly had casualties.
- Weather. At 2.50 a.m. there was a big enterprise by the 110th Infantry Regiment.
- Artillery and T.M. activity slight during the day.
- 4-6-16 Fine weather. Acting Officer Birkmann relieves Lieut. von Horstig. Gas appeared in 37 and 41 Galleries in consequence of the blow at 7 Gallery, light cases of gassing occurred at both places. The enemy to the right of 37 has been driven back slightly on account of the blow. 37 is therefore being got ready for firing.
- 5-6-16 Extremely severe artillery activity during the night, likewise T.M. and M.G. Pioneer Eberlein was taken ill and taken to the Trockengraben area.
- Cloudy. 6-6-16 Extremely severe enemy artillery activity. Pioneer Bleicher badly wounded in the thigh. Work in Galleries 7 and 37 recommenced.
- Rainy. 7-6-16 Both ours and enemy mining activity normal. The preparations for the firing of Gallery 37 makes progress. Small artillery and T.M. activity.
- Fine. 8-6-16 Preparations for firing Gallery 37 continue. Enemy still working regularly, other enemy mining activity normal. Artillery and M.G. normal.
- Rainy. 9-6-16 Work continues normally. At 12 noon, charging of 37b commenced. At 3 the charge was finished and tamping commenced. Acting Officer Birkmann convinced himself that the enemy were still at work at 12 noon. Certain noises lead one to believe that the enemy is either charging or getting ready to do so. Our charging was therefore accelerated and reported ready for firing at 6 o'clock. Otherwise nothing of importance.
- Morning, Rain. 10-6-16 1.15 a.m., Gallery 37 was fired. The concussion was very great. It is also reported from several sources that immediately after the first detonation a second followed, which possibly can be accounted for by the enemy's gallery also being charged. On investigation our own mine system showed no damage. The enemy sandbag wall opposite 34 was so shaken by the blow that it partially collapsed. The remaining work continued normally. Artillery particularly active to-day.
- Afternoon, Fine. P.M., Storm. 11-6-16 Work proceeding normally. Gallery 30 was worked to-day. As the dug-outs in "Fischerweg" must be rapidly finished, a third sub-section was put on to this work.
- Fine. Private Breckl, 8/111, was wounded in Gallery 37 by falling rock and taken to the "Trockengraben." Artillery and T.M. activity slight. Pioneer Duercher, 1st Res. Coy., Pioneer Regt., wounded (shin-bone) and sent to "Trockenweg." Pioneer Jos. Schmidt was wounded in Gallery 40 through the haulage rope breaking and was also sent to "Trockenweg."
- Enemy artillery and trench mortar activity was so great that work in the trenches was impossible.
- 12-6-16 Enemy artillery particularly inactive, practically only rifle grenade fire during the day. The enemy mining activity is again to-day also very small, it has lessened very much in the last few days.
- Rain. On our side the ventilation of Gallery 34 has commenced, other work continuing normally.
- 13-6-16 Usual activity in mining area. Enemy working very little. According to the orders of ——— the chambers of Galleries 21, 22, and 23 must be got ready for firing.
- Rain. According to a "Moritz" report, an enemy enterprise is to be expected to-night. The necessary precautionary measures were therefore taken. Artillery activity comparatively small.
- 14-6-16 Artillery and trench mortar activity very small. Regular work resumed and the enlarging of the chambers of Galleries 22a and 23 commenced, otherwise nothing in particular. Very little enemy working. At 6.30 a.m. the enemy blew about 100m. to the left of the Corps boundary. No damage to us. The night passed quietly.
- Cloudy. 15-6-16 The enemy only working at 3 places in the whole mine area.
- Our mine continues normally. Gallery 23 has been strutted for safety in case of a blow in the neighbouring gallery. The dog-leg in Gallery 34 is completely destroyed by the last blow, a new dog-leg has therefore been commenced 2m. from it.
- Little artillery fire. Night passed quietly.
- 16-6-16 Normal work. Little enemy work. It has been noticed for some few days, that men in the enemy's lines opposite the Company's boundary on the right, have been carrying filled sandbags to a certain point and piling them there. The possibility exists that he is mining there. The listening reports throw no light on this.
- Fine. Medium artillery and T.M. activity. During the night, from 10.30 to 12, great T.M. and shell fire on the front and support trenches.
- 17-6-16 Our work continues normally. From 7.30-8 a.m. a "listen" was made on the right wing and in the dug-outs on the left wing of the neighbouring Company on the right. Nothing was heard. By means of "intersections" with a compass (*Busole*), it was ascertained that the sandbags

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- are being accumulated in the enemy's trench exactly to the left of Gallery 8. Probably the enemy has re-opened a mine already known there. In the evening the chambering of Gallery 22a was stopped and the driving of a gallery from Gallery 41 to Gallery 7 commenced. The enemy is working only in two places throughout the mining area, and at these only irregularly. Medium artillery and T.M. activity, occasionally intense at night.
- 18-6-16 Very fine. The men attached from the 110th Regiment returned to their regiment, the work has therefore been contracted. The trench and dug-out sub-sections will be split up, otherwise our mining activity is normal. The enemy continues to work little, but a little more than the last few days. Medium artillery and T.M. activity during the day, somewhat more at night. No special events.
- 19-6-16 Fine. On account of the change of men and the preparations for charging Gallery 21, the work in Galleries 40 and 41 has been temporarily suspended, so that now the following seven places are working:—Gallery 7, 21 (chamber), 30, 33b, 34, 37 and 42. These workings progress regularly. Weak enemy mining activity and only in the centre of the area. Occasional severe artillery and T.M. activity.
- 20-6-16 Dull. Work proceeding regularly at same places as yesterday. The enemy is working half-left and half-right towards Gallery 30. Therefore a 6-cu.m. chamber has been started. The chamber of Gallery 21 is 18-cu.m., therefore sufficiently large. 15,000 kg. of explosive is being put into sandbags and the tamping material being got ready. Weak enemy mining activity. Artillery and T.M. activity slight during the day, somewhat greater at night.
- 21-6-16 Fine. The men from Galleries 37, 40, 41, 24, and the two dug-out building sub-sections have been sent to charge Gallery 21. Gallery 21 will be charged with 15,000 kg. and tamped a length of 20m. The midday shift will resume normal work in the following Galleries:—7, 30, 33b, 37, 34, 40. Explosive storeroom at Gallery 40, 41, and 42. Otherwise quiet. The enemy is only working in three or four places. Our work proceeds normally.
- Very slight Artillery and T.M. activity.
- 22-6-16 Cloudy, Stormy. Very little enemy mining activity; ours continues normally. Remarkably slight enemy Artillery and T.M. activity. Numerous airmen encircle our positions from dawn till dark.
- 23-6-16 The enemy has practically stopped working. He is approaching Gallery 30 from both sides. The newly-driven dog-leg of Gallery 34 is in danger from the right hand enemy face, Gallery 30 is therefore being prepared for firing. The chamber, which has already been well started, will be enlarged to 6.5 cu.m. before this evening to receive a charge of 5,000 kg. In the night the explosive will be filled in sandbags and the sandbags for tamping brought here.
- 24-6-16 Fine. As early as 5 o'clock the enemy poured heavy T.M. shells in the middle of the Battalion Sector, all the trenches and the ground in rear being swept with heavy fire. Towards evening the firing increased. The enemy heavy artillery fired also. Only after midnight till 9 a.m. was there a pause in the firing. The Quarry position is greatly damaged by T.M. fire. The charge is now being put in Gallery 30 and tamped. The blow which was arranged for 1 a.m. has been postponed by order.
- 25-6-16 The enemy Artillery and T.M. fire is continually getting heavier, particularly towards Fricourt, the enemy's heavy artillery is pouring shells into the positions. The newly-built dug-out in Fischerweg has been blown in by a heavy shell, N.C.O. Scholl and Pioneer Holber being buried. Pioneer Holber died a few hours later, Scholl died almost immediately afterwards. 1 Pioneer and one 1 Infantry Pioneer were also buried. The enemy's fire increases at dusk but continues medium throughout the night. T.M. shells fall only from time to time on the Quarry; it remains fairly immune from shells, most of them falling beyond.
- 1 a.m. Gallery 30 was fired.
- 26-6-16 Fine. 5 a.m. enemy artillery fire grew more intense. From 7 o'clock onwards it gradually grew still more intense and reached its maximum towards 11.30. The Pioneers in the Quarry, about 5 sub-sections, were detailed as blocking parties for No. 1 Sap, Gallery 7, Thuringian and Gallery Saps, Galleries 1m and 24, and, in addition, for the defence of Galleries 1, 31, 37 and 39. 1½ sub-sections remained at the disposal of the Pioneer Officer. At 12.30 p.m. a report came from the listening gang that the enemy were making a gas attack. Everyone was ordered to "Stand to." The enemy discharged gas 6 times in the Sector "Häusergruppe—Hill 110," apparently chlorine.
- Only a small amount of gas reached the position. At one time an enemy raiding party seemed to try and leave their trenches, but were driven back with machine gun fire. This fire continued with the same severity till 2.30. An infantry attack did not follow. Medium artillery fire on the whole position from 2.30-7. Fire slackened from 8-10 p.m. so much that we were able to carry N.C.O. Werth, who was wounded by shrapnel in both hands, in right thigh and right side of face through A trench to the "Trockengraben." Moderate bombardment of the position from 11 p.m.—4 a.m.
- Losses in the Regimental Sector: 6 killed, 2 wounded, 3 gas poisoning.
- 27-6-16 A.M., Raining, P.M., Fine. From 5 a.m. enemy's firing continued to increase in intensity and reached its maximum at 5.45 a.m. All the blocking parties were reinforced on receiving the information that the enemy was attacking and discharging gas, and everything was made ready for defence. No gas was noticed on the hill, but a thick smoke cloud lay over it and even penetrated the mine entrances. It might have been smoke or clouds veiling an attack, or smoke from the shells, or the smoke from the fires lit at the entrances of the dug-outs. An infantry attack did not follow. Our artillery put a strong curtain fire on the enemy's trenches; many rounds from the field guns and howitzers fell short and into our trenches. We continually fired green flares but it was a long time before they were understood. The artillery wire is broken by shell fire, and the light signal station damaged. The enemy fire commenced to slacken at 6.30, between 7 and 9 all was quiet, from then the enemy's fire gradually increased, and this time he fired heavy shells and T.M.s at the position. No casualties were caused in this sector in the battalion. Gas came over the middle of the Regimental sector on our left, but nothing happened. Medium firing continued till 1 o'clock.
- Towards 3 o'clock it was so quiet that men in Shaft 1c came up from the deep to the upper levels. It remained like this until dusk set in, then the enemy's fire became more intense; far off to the right very heavy firing could be heard. As the regiment expected an enemy attack during the night, everything was in readiness, but it remained fairly quiet until about 5 o'clock when the enemy increased his fire. Towards 6 o'clock the whole hill was covered with thick clouds and opposite the Sector Station—Häusergruppe—Hill 110, the enemy discharged gas that smelt like chlorine, but the pressure in the gas cylinders is too low and the wind too weak for the men occupying the trenches to be much affected. The gas was not noticeable on the hill. I garrisoned my Sector from Sap 2 to the Thuringer Sap as strongly as possible as soon as the artillery fire lifted. The clouds dispersed about 10 o'clock but nothing happened. About 12 o'clock the enemy's artillery fire again became heavy, particularly further to the left. A large number of heavy trench mortars fell in the quarry. This fairly heavy firing continued till later than 2 o'clock, until it finally subsided at 8 p.m. Medium firing on the position during the night.
- 28-6-16 Rain. Towards 3 o'clock it was so quiet that men in Shaft 1c came up from the deep to the upper levels. It remained like this until dusk set in, then the enemy's fire became more intense; far off to the right very heavy firing could be heard. As the regiment expected an enemy attack during the night, everything was in readiness, but it remained fairly quiet until about 5 o'clock when the enemy increased his fire. Towards 6 o'clock the whole hill was covered with thick clouds and opposite the Sector Station—Häusergruppe—Hill 110, the enemy discharged gas that smelt like chlorine, but the pressure in the gas cylinders is too low and the wind too weak for the men occupying the trenches to be much affected. The gas was not noticeable on the hill. I garrisoned my Sector from Sap 2 to the Thuringer Sap as strongly as possible as soon as the artillery fire lifted. The clouds dispersed about 10 o'clock but nothing happened. About 12 o'clock the enemy's artillery fire again became heavy, particularly further to the left. A large number of heavy trench mortars fell in the quarry. This fairly heavy firing continued till later than 2 o'clock, until it finally subsided at 8 p.m. Medium firing on the position during the night.
- 29-6-16 Rain. Moderate fire throughout the morning chiefly from small calibre guns, the enemy's heavy guns are very nearly worn out. It is almost impossible to recognise the trenches. The fire was

greatly increased during the afternoon, and towards 5.30 the whole hill was covered by thick smoke clouds. Our artillery put curtain fire on the Sector Hill 110—right boundary of the regiment. The enemy artillery has practically ceased fire but nothing happens. There-upon medium firing commenced, that as usual practically ceased from 8.30 to 10.30. During the night our artillery occasionally opened intense fire on the enemy positions. Otherwise the night passed quietly. Entrance to Shaft 31 damaged by shell fire.

30-6-16 Prisoners from a division south of the Somme have said that the general Franco-British offensive will commence to-day at 8 o'clock. Early everything is quiet. At 9 o'clock the enemy commenced violent artillery fire particularly in the region of La Boisselle. Quieter again at 11 o'clock. Apparently the enemy recognises that our trench garrison is not yet beaten and commences to-day (on the 6th day of the bombardment) the same tactics over again. He attempts to blow in the dug-outs in the back trenches with large calibre shell (up to 30.5 cm.), and attempts to do this to those in the 1st line trenches with heavy spherical trench mortar shells. At the same time he makes traffic through the trenches impossible by means of shrapnel, and, by shelling the ground in rear and all communication trenches, prevents supplies being brought up; but so far sufficient supplies, except water, have been got forward during the inevitable pauses in the firing. We and the two neighbouring companies use the water from Shaft 10, but it is bad and smells. Early in the afternoon the enemy's trench mortar and artillery fire is medium, but well directed by the airmen. The entrance to Shaft 7 has been damaged by trench mortar fire, likewise the observation post over Shaft 31 by a heavy shell. Pioneer Buschmann has been slightly wounded by shrapnel in the right shoulder and thigh, in the Quarry.

INSTRUCTIONS FOR SETTING UP LISTENING APPARATUS.

THE APPARATUS COMPRISES.

1. A Box of instruments in leather case with shoulder strap.
 2. An iron rod one foot long with a corkscrew end & vice handle, carried in a special frog in belt.
 3. A coil of twin insulated wire.
- In setting up the apparatus the operations must be performed in the following manner:-

1. Screw the iron rod vertically into the ground, at the spot selected until it is firmly held.
2. Take the cylindrical metal box from the instrument case & screw it on to the top of the iron rod. This box contains the detector.
3. Attach one pair of ends of the coil of twin wire to the terminals "A" & "B" at the base of the metal box.
4. Unscrew the clamping screw "C" about $\frac{1}{2}$ inch.
5. Unscrew the clamping screws "D" & "E" about a turn or two.

NOTE! In unclamping it is absolutely essential that "C" should be ~~unclamped~~ unscrewed before "D" & "E" are touched; in clamping that "D" & "E" should be screwed on before "C" is touched.

6. Attach the other pair of ends of the coil of twin wire to that pair of the six terminals in the instrument case nearest the front of the box.

The apparatus is now ready for use, but when the receivers are applied to the ears it is necessary that the small red button on one of them should be pressed down.

The detector, instead of being screwed to the rod fixed in the ground, may be attached to the rod of the boring machines. For the purpose of this attachment the casting which clamps on the boring rod & into which the cylindrical metal box may be screwed, is carried in the instrument case.

In dismantling the apparatus the operations are:-

1. Screw home the clamping screws "D" & "E".
2. Carefully screw "C" until the end of the screw comes up, with a gentle pressure against the detector inside.
3. Remove the wires from the terminals.
4. Unscrew the cylindrical metal box from it's support. If tightly attached the spanner carried on the lid of the instrument case should be used.
5. Replace the metal box & the receivers in the instrument case & see that the lid of the wooden box closes (wood to wood).

NOTE! See that the clamp for the boring rod & the spanner are in the instrument case and in moving off that the short iron rod & the coil of wire are not left behind.

In active service the apparatus should be constantly tested by trying it with it's aid, surface picking about 100 to 150 feet away can be detected. But on no account is the metal box containing the detector to be opened or any adjustment attempted in connection with any part of the apparatus.

If there is the slightest suspicion that the instrument is not working properly the apparatus should be at once returned to the Battalion Headquarters.

Accidents will of course happen. Serious consequences will not ensue if the matter is immediately reported & the instrument returned to Battalion Headquarters. On the other hand, it must be remembered that unreported damage to the apparatus may lead to loss of life.

June 1912

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THE APPARATUS COMPRISES.

1. A box of instruments in leather case with shoulder strap.
2. An iron rod one foot long with a corkscrew end & vice handle, carried in a special frog on belt.
3. A coil of twin insulated wire.

In setting up the apparatus the operations must be performed in the following manner:-

1. Screw the iron rod vertically into the ground, at the spot selected until it is firmly held.
2. Take the cylindrical metal box from the instrument case & screw it into the top of the iron rod. This box contains the detector.
3. Attach one pair of ends of the coil of twin wire to the terminals "A" & "B" at the base of the metal box.
4. Unscrew the clamping screw "C" about $\frac{1}{2}$ inch.
5. Unscrew the clamping screws "D" & "E" about a turn or two.

In unclamping it is absolutely essential that "C" should be unscrewed before "D" & "E" are touched; in clamping that "D" & "E" should be screwed home before "C" is touched.

6. Attach the other pair of ends of the coil of twin wire to that pair of the six terminals in the instrument case nearest the front of the box.

The apparatus is now ready for use, but when the receivers are applied to the ears, it is necessary that the small red button on one of them should be pressed down.

The detector, instead of being screwed to the rod fixed in the ground, may be attached to the rod of the boring machines. For the purpose of this attachment the casting which clamps on the boring rod & into which the cylindrical metal box may be screwed, is carried in the instrument case.

In dismantling the apparatus the operations are:-

1. Screw home the clamping screws "D" & "E".
2. Carefully screw "C" until the end of the screw comes up with a gentle pressure against the detector inside.
3. Remove the wires from the terminals.
4. Unscrew the cylindrical metal box from it's support. If tightly attached the spanner carried on the lid of the instrument case should be used.
5. Replace the metal box & the receivers in the instrument case & see that the lid of the wooden box closes (wood to wood).

NOTE!

See that the clamps for the boring rod & the spanner are in the instrument case & in moving off that the short iron rod & the coil of wire are not left behind.

In active service the apparatus should be constantly tested by trying, if, with it's aid surface picking about 100 to 150 feet away can be detected. But on no account is the metal box containing the detector to be opened or any adjustment attempted in connection with any part of the apparatus.

If there is the slightest suspicion that the instrument is not working properly the apparatus should be at once returned to Battalion Headquarters. Accidents will of course happen. Serious consequences will not ensue if the matter is immediately reported and the instrument returned to Battalion Headquarters. On the other hand, it must be remembered that unreported damage to the apparatus may lead to loss of life.

THE APPARATUS COMPRISES.

1. A Box of instruments in leather case with shoulder strap.
 2. An iron rod one foot long with a corkscrew end & vice handle, carried in a special frog in belt.
 3. A coil of twin insulated ~~of~~ wire.
- In setting up the apparatus the operations must be performed in the following manner:-

1. Screw the iron rod vertically into the ground, at the spot selected until it is firmly held.
2. Take the cylindrical metal box from the instrument case & screw it on to the top of the iron rod. This box contains the detector.
3. Attach one pair of ends of the coil of twin wire to the terminals "A" & "B" at the base of the metal box.
4. Unscrew the clamping screw "C" about $\frac{1}{2}$ inch.
5. Unscrew the clamping screws "D" & "E" about a turn or two.

NOTE! In unclamping it is absolutely essential that "C" should be ~~unclamped~~ unscrewed before "D" & "E" are touched; in clamping that "D" & "E" should be screwed on before "C" is touched.

6. Attach the other pair of ends of the coil of twin wire to that pair of the six terminals in the instrument case nearest the front of the box.

The apparatus is now ready for use, but when the receivers are applied to the ears it is necessary that the small red button on one of them should be pressed down.

The detector, instead of being screwed to the rod fixed in the ground, may be attached to the rod of the boring machines. For the purpose of this attachment the casting which clamps on the boring rod & into which the cylindrical metal box may be screwed, is carried in the instrument case.

In dismantling the apparatus the operations are:-

1. Screw home the clamping screws "D" & "E".
2. Carefully screw "C" until the end of the screw comes up, with a gentle pressure against the detector inside.
3. Remove the wires from the terminals.
4. Unscrew the cylindrical metal box from it's support. If tightly attached the spanner carried on the lid of the instrument case should be used.
5. Replace the metal box & the receivers in the instrument case & see that the lid of the wooden box closes (wood to wood).

NOTE! See that the clamp for the boring rod & the spanner are in the instrument case and in moving off that the short iron rod & the coil of wire are not left behind.

In active service the apparatus should be constantly tested by trying if with it's aid, surface picking about 100 to 150 feet away can be detected. But on no account is the metal box containing the detector to be opened or any adjustment attempted in connection with any part of the apparatus.

If there is the slightest suspicion that the instrument is not working properly the apparatus should be at once returned to the Battalion Headquarters.

Accidents will of course happen. Serious consequences will not ensue if the matter is immediately reported & the instrument returned to Battalion Headquarters. On the other hand, it must be remembered that unreported damage to the apparatus may lead to loss of life.

ALL MESSAGES TO BE PRECEDED AND COMPLETED BY OFFICERS INITIALS.

At completion of message V.E. to be sent.

Numbers represented by letters in alphabetical order. But preceded by Z.Z. and followed by M.M.

C O D E .

I want advice can you come.	A.Z.
Yes.	O.
No, carry on.	O.C.
I must blow soon shall I await you.	O.O.O.
I must blow at once.	O.I.
I want timber.	T.
I want bags.	B.
I want explosives.	S.D.
Hostile blow in front.	F.
Hostile blow right.	R.
Hostile blow left.	L.
No casualties.	C.
Casualties.	Y.

SAMPLE MESSAGE.

I must blow soon, shall I await for you, send
explosives 700 lbs.

G.T.C. O.O.O. S.D. Z.Z. G.J.J. M.M. V.E. G.T.C.

Not- To be Memorised
To be taken to the Trenches

3rd Aust. Inf. Coy. - Private Code
June 1916 -

10/10/1917

10/10/1917

10/10/1917

10/10/1917

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10/10/1917

SUMMARY OF WEEKLY MINING REPORTS.

APPENDIX 935.

For 4 Weeks Ending June 28th 1916.

(Note. No attempt is made in these summaries, compiled for record of strength, mine footages and blows, to discriminate between the conditions of work, surface activity, demands for silent progress, variations in fatigue parties, and other factors which influence the relative efficiencies of Units.)

Coy.	Average Strength of Coy.	Average No. of Faces Advanced	Total Footage	Total Footage per man per week.	- REMARKS -
<u>- SECOND ARMY. CLAY MINES -</u>					
177	971	9	975	.95	1 British, 1 Enemy Mine.
3rd. Can:	733	7	746	.25	1 British Camouflet.
2nd. Can:	397	13	144	.14	1 British Camouflet, 2 weeks only. Work lost in enemy attack
1st. Can:	499	6	558	.97	Preparatory work. New sectors.
250	668	3	630	.93	3 Enemy mines.
171	728	6	1535	.53	
1st. Aust.	487	3	327	.31	2 weeks only. Getting established in new area.
2nd. Aust.	652	5	477	.18	1 British, 3 Enemy mines.
<u>- FIRST ARMY. CLAY MINES -</u>					
3rd. Aust:	456	13	1190	.65	1 British, 1 Enemy mine.
254	593	11	755	.39	6 British, 2 Enemy mines. Heavy water difficulties.
251	693	38	2730	.98	12 British, 8 enemy mines. Largely in chalk.
<u>- FIRST ARMY. CHALK MINES -</u>					
170	843	24	1988	.84	5 British, 4 Enemy mines.
180	621	25	3124	.85	10 British, 11 Enemy mines.
253	537	31	3226	1.49	7 British, 9 Enemy mines.
258	516	21	1587	.76	2 Enemy mines.
173	681	34	3174	1.16	9 British, 4 Enemy mines.
255	535	16	1704	.79	2 British, mines. 3 sections only
23rd. Divn.	380	13	1535	1.00	1 British Mine
255	141	7	506	.89	1 Section only, attached to 176 Co 2 British Mines,
176	856	24	1839	.53	5 British 1 Enemy mines.
182	372	23	947	.65	

SUMMARY OF WEEKLY MINING REPORTS.

APPENDIX 9.36

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For 4 Weeks Ending July 26th 1916.

(Note. No attempt is made in these summaries, compiled for record of strength, mine footages and blows, to discriminate between conditions of work, surface activity, demands for silent progress, variations in fatigue parties and other factors which influence the relative efficiencies of Units.)

Coy.	Average Strength of Coy.	Average No. of Faces Advanced.	Total Footage	Total Footage per man per week.	REMARKS..
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- SECOND ARMY. CLAY MINES -

177	912	12	1619	.44	
3rd Can.	636	6	546	.31	1 British camouflet.
2nd Can.	427	5	687	.40	
1st Can.	543	6	690	.31	1 Enemy mine.
250	651	4	839	.32	
171	665	4	1087	.40	
1st Aust.	581	10	1240	.53	
2nd Aust.	665	6	717	.36	3 British, 3 Enemy mines.

- FIRST ARMY. CLAY MINES -

3rd Aust.	541	12	736	.45	1 British mine.
257	407	4	118	.14	2 British mines.
254	591	11	903	.38	2 British, 1 Enemy.
251	671	26	2422	.92	15 British, 6 Enemy mines.

- FIRST ARMY. CHALK MINES -

170	620	30	2560	1.03	10 British, 5 enemy mines.
180	646	28	3059	.79	17 British, 7 enemy mines.
253	518	34	2863	1.38	9 British, 6 enemy mines.
258	530	20	1560	.75	3 British, 1 enemy mines.
173	651	36	3584	1.37	18 British, 9 enemy mines.
255	737	35	3550	1.21	4 British, 2 enemy mines.
23rd Divn.	357	10	258	.72	
176	824	26	2078	.63	1 British, 7 enemy mines.
182	458	22	1263	1.07	1 Enemy mine.

SUMMARY OF WEEKLY MINING REPORTS FOR FIVE WEEKS
ENDING 30th. AUGUST 1916. -----

(N o t e :

No attempt is made in these summaries compiled for record of strength, mine footages, and blows, to discriminate between conditions of work, surface activity, demands for silent progress, variations of fatigue parties, and other factors which influence the relative efficiencies of Units.)

<u>Compy.</u>	<u>Average Strength of Coy..</u>	<u>Average No. of Faces advanced.</u>	<u>Total Mine Footage</u>	<u>Total footaga footage per man per week</u>	<u>R E M A R K S . Mines fired &c.</u>
<u>SECOND ARMY. CLAY MINES.</u>					
177	1004	17	2692	.53	Also about 1200' of work in dugouts, experimental galleries &c.
2nd. Can.	447	13	1955	.80	1 British, 1 enemy mine & also about 400' in dugouts deep emplacements
3rd. Can.	693	8	1512	.43	3 British 2 enemy mines ^c
1st. Can.	619	6	1277	.41	1 enemy mine also about 250' in dugouts &c.
250	654	3	876	.33	During latter part of period Coy. gradually changed from Ming. to Deep Dugout work.
171	625	3	1252	.40	1 British 1 enemy mine Considerable dugout & Spoil
1st. Aust	525	5	925	.35	Also dug-out work equivalent about 1100'.
2nd. Aust.	699	8	1153	.33	3 British 1 enemy mine Scattered area.
<u>FIRST ARMY. CLAY MINES.</u>					
3rd. Aust.	514	7	458	.17	Heavy work in shaft preparation &c new sector
257	551	10	1067	.37	5 British 3 enemy mines Shaft sinking preparations
254	535	9	1132	.42	3 British 1 enemy mine. New shafts & reclaiming.
251	652	27	4347	1.33	5 British 4 enemy mines Largely in chalk. Also heavy reclamation work.

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SUMMARY OF WEEKLY MINING REPORTS FOR FIVE WEEKS
ENDING 30th. AUGUST 1916. -----

(N o t e :

No attempt is made in these summaries compiled for record of strength, mine footages, and blows, to discriminate between conditions of work, surface activity, demands for silent progress, variations of fatigue parties, and other factors which influence the relative efficiencies of Units.)

Cmpy.	Average Strength of Coy..	Average No. of Faces advanced.	Total Mine Footage	Total footage per man per week	R E M A R K S . Mines fired &c.
<hr/>					
<u>SECOND ARMY. CLAY MINES.</u>					
177	1004	17	2692	.53	Also about 1200' of work in dugouts, experimental galleries &c.
2nd. Can.	447	13	1955	.80	1 British, 1 enemy mine & also about 400' in dugouts deep emplacements
3rd. Can.	693	8	1512	.43	3 British 2 enemy mines
1st. Can.	619	6	1277	.41	1 enemy mine also about 250' in dugouts &c.
250	654	3	876	.33	During latter part of period Coy. gradually changed from Ming. to Deep Dugout work.
171	625	3	1252	.40	1 British 1 enemy mine Considerable dugout & Spoil
1st. Aust	525	5	925	.35	Also dug-out work equivalent about 1100'.
2nd. Aust.	699	8	1153	.33	3 British 1 enemy mine Scattered area.
<hr/>					
<u>FIRST ARMY. CLAY MINES.</u>					
3rd. Aust.	514	7	458	.17	Heavy work in shaft preparation &c new sector
257	551	10	1067	.37	5 British 3 enemy mines Shaft sinking preparations
254	535	9	1132	.42	3 British 1 enemy mine. New shafts & reclaiming.
251	652	27	4347	1.33	5 British 4 enemy mines Largely in chalk. Also heavy reclamation work.

SUMMARY OF WEEKLY MINING REPORTS FOR FIVE WEEKS
ENDING 30th. AUGUST 1916.

(N o t e :

No attempt is made in these summaries compiled for record of strength, mine footages, and blows, to discriminate between conditions of work, surface activity, demands for silent progress, variations of fatigue parties, and other factors which influence the relative efficiencies of Units.)

Compy.	Average Strength of Coy..	Average No. of Faces advanced.	Total Mine Footage	Total footage per man per week	R E M A R K S . Mines fired &c.
<u>SECOND ARMY. CLAY MINES.</u>					
177	1004	17	2692	.53	Also about 1200' of work in dugouts, experimental galleries &c.
2nd. Can.	447	13	1955	.80	1 British, 1 enemy mine & also about 400' in dugouts deep emplacements
3rd. Can.	693	8	1512	.43	3 British 2 enemy mines
1st. Can.	619	6	1277	.41	1 enemy mine also about 250' in dugouts &c.
250	654	3	876	.33	During latter part of period Coy. gradually changed from Wing. to Deep Dugout work.
171	625	3	1252	.40	1 British 1 enemy mine Considerable dugout & Spoil
1st. Aust.	525	5	925	.35	Also dug-out work equivalent about 1100'.
2nd. Aust.	699	8	1153	.33	3 British 1 enemy mine Scattered area.
<u>FIRST ARMY. CLAY MINES.</u>					
3rd. Aust.	514	7	458	.17	Heavy work in shaft preparation &c new sector
257	551	10	1067	.37	5 British 3 enemy mines Shaft sinking preparation
254	535	9	1132	.42	3 British 1 enemy mine. New shafts & reclaiming.
251	652	27	4347	1.33	5 British 4 enemy mines Largely in chalk. Also heavy reclamation work.

APPENDIX 940. Summary of Weekly Mining Reports. For 5 Weeks ending 30th August 1916.

(Note! No attempt is made in these summaries, compiled for record of strength, mine footages & blows, to discriminate between conditions of work, surface activity, demands for silent progress, variations of fatigue parties & other factors which influence the relative efficiencies of Units).

Coy.	Average Strength of Coy.	Average no. of Faces Advanced.	Total mine Footage	Total Footage per man per week.	Remarks mines fired, etc.
<u>Second Army. Clay Mines.</u>					
177	1004	17	2692	.53	Also about 1200' of work in dugouts, experimental galleries etc.
2 nd Can.	447	13	1955	.80	1 British, 1 Enemy mine. Also about 400' in dugouts, deep emplacements, etc.
3 rd Can.	693	8	1512	.43	3 British, 2 Enemy mines.
1 st Can	619	6	1277	.41	1 Enemy mine. Also about 250' in dugouts, etc.
250	654	3	876	.33	During latter part of period, Company gradually changed from mining to deep dugout work.
171	625	3	1252	.40	1 British, 1 Enemy mine. Considerable dugout & special work.
1 st Aust.	525	5	925	.35	Also dugout work equivalent about 1100'.
2 nd Aust.	699	8	1153	.33	3 British, 1 Enemy mine. Scattered area.
<u>First Army. Clay Mines.</u>					
3 rd Aust.	514	7	458	.17	Heavy work in shaft preparations, etc. New Sector.
257	551	10	1067	.37	5 British, 3 Enemy mines. Shaft sinking preparations.
254	535	9	1132	.42	3 British, 1 Enemy mines. New shafts and reclaiming.
251	652	27	4347	1.33	5 British, 4 Enemy mines. Largely in chalk. Also heavy reclamation work.

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APPENDIX

S H E E T 2.

SUMMARY OF WEEKLY MINING RETURN FOR FIVE WEEKS ENDING
30th. AUGUST 1916.9.
41.

Cmpy	Average Strength of Coy.	Average No. of Faces advanced.	Total Mine Footage	Total footage per man per week	R E M A R K S . Mines fired &c.			
FIRST ARMY. CHALK MINES.								
170	623	34	4831	1.55	6	British,	10	enemy mines
180	702	25	2422	.69	3	"	8	" "
253	509	24	3528	1.38	2	"	1	" "
258	609	30	3077	1.00	1	"	1	" "
173	702	43	5311	1.51	6	"	9	" "
255	717	27	3986	1.11	2	"		
176	841	33	3856	.93	3	"	3	" "
188	503	24	3368	1.34	1	"	2	" "

THIRD ARMY. CHALK MINES.								
172	435	15	3578	1.64	3	"	2	" "
175	336	14	2564	1.52	1	"	2	" "
256	271	20	2575	1.89	Area changed during period.			
185	434	13	3295	1.51				
184	524	26	3733	1.42				
New Zea.	332	23	3824	2.30				1 enemy mine.
181	430	12	2264	1.31	4 weeks only area changed during the period.			

RESERVE AND FOURTH ARMIES. CHALK MINES.								
252	325	17	3464	2.12	8 enemy mines.			
174	335	9	1962	1.16	New area taken over			
179		6	938					

(N.B. Reserve and Fourth Army Companies, viz: 252nd. 174th., 179th., 178th, and 183rd. are actively employed in connection with offensive operations. Their work is partly in galleries, as above, and partly in dugouts, push-pipe operations, well sinking, reclaiming timber, and other miscellaneous duties.)

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APPENDIX

SHEET 2.

SUMMARY OF WEEKLY MINING RETURN FOR FIVE WEEKS ENDING
30th. AUGUST 1916.9.
42

Cmpy	Average Strength of Coy. of Coy.	Average No. of Faces advanced.	Total Mine Footage	Total footage per man per week	REMARKS.			
					Mines fired &c.			
FIRST ARMY. CHALK MINES.								
170	625	34	4831	1.55	6	British,	10	enemy mines
180	702	25	2422	.69	3	"	8	" "
253	509	24	3528	1.38	2	"	1	" "
258	609	30	3077	1.00	1	"	1	" "
173	702	43	5311	1.51	6	"	9	" "
255	717	27	3986	1.11	2	"		
176	841	33	3856	.93	3	"	3	" "
188	503	24	3368	1.34	1	"	2	" "

THIRD ARMY. CHALK MINES.

172	435	15	3578	1.64	3	"	2	" "
175	336	14	2564	1.52	1	"	2	" "
256	271	20	2575	1.89	Area changed during period.			
185	434	13	3295	1.51				
184	524	26	3733	1.42				
New Zee.	332	23	3824	2.30				1 enemy mine.
181	430	12	2264	1.31	4 weeks only area changed during the period.			

RESERVE AND FOURTH ARMIES. CHALK MINES.

252	325	17	3464	2.12	8 enemy mines.			
174	335	9	1962	1.16	New area taken over			
179		6	938					

(N.B. Reserve and Fourth Army Companies, viz: 252nd. 174th., 179th., 178th. and 183rd. are actively employed in connection with offensive operations. Their work is partly in galleries, as above, and partly in dugouts, push-pipe operations, well sinking, reclaiming timber, and other miscellaneous duties.)

APPENDIX 2. IX 9.
43.

SUMMARY OF WEEKLY MINING RETURN FOR FIVE WEEKS ENDING
30th. AUGUST 1916.

Cmpy	Average Strength of Faces of Coy.	Average No. of Faces advanced.	Total Mine Footage	Total footage per man per week	R E M A R K S . Mines fired to.			
FIRST ARMY. CHALK MINES.								
170	623	34	4831	1.55	6	British,	10	enemy mines
180	702	25	2422	.69	3	"	8	" "
253	509	24	3528	1.38	2	"	1	" "
258	609	30	3077	1.00	1	"	1	" "
173	702	43	5311	1.51	6	"	9	" "
255	717	27	3986	1.11	2	"		
176	841	33	3856	.93	3	"	3	" "
188	503	24	3368	1.34	1	"	2	" "

THIRD ARMY. CHALK MINES.								
172	435	15	3578	1.64	3	"	2	" "
175	336	14	2564	1.52	1	"	2	" "
256	271	20	2575	1.89	Area changed during period.			
185	434	13	3295	1.51				
184	524	26	3733	1.42				
New Zea.	332	23	3824	2.30				1 enemy mine.
181	430	12	2264	1.31	4 weeks only area changed during the period.			

RESERVE AND FOURTH ARMIES. CHALK MINES.								
252	325	17	3464	2.12	8 enemy mines.			
174	335	9	1962	1.16	New area taken over			
179		6	938					

(N.B. Reserve and Fourth Army Companies, viz: 252nd. 174th., 179th., 178th. and 183rd. are actively employed in connection with offensive operations. Their work is partly in galleries, as above, and partly in dugouts, push-pipe operations, well sinking, reclaiming timber, and other miscellaneous duties.)

Coy.	Average Strength of Coy.	Average No. of Faces Advanced.	Total Mine Footage.	Total Footage per man per week.	Remarks. (Mines fired, etc.)
— First Army. Chalk Mines. —					
170	623	34	4831	1.55	6 British, 10 Enemy mines.
180	702	25	2422	.69	3 " 8 " "
253	509	24	3528	1.38	2 " 1 " "
258	609	30	3077	1.00	1 " 1 " "
173	702	43	5311	1.51	6 " 9 " "
255	717	27	3986	1.11	2 " "
176	841	33	3856	.93	3 " 3 " "
188	503	24	3368	1.34	1 " 2 " "
— Third Army. Chalk Mines. —					
172	435	15	3578	1.64	3 British, 2 Enemy mines.
175	336	14	2564	1.52	1 " 2 " "
256	271	20	2575	1.89	Area changed during the period.
185	434	13	3295	1.51	
184	524	26	3733	1.42	
New Zea.	332	23	3824	2.30	1 Enemy mine.
181	430	12	2264	1.31	4 Weeks only, Area changed during period.
— Reserve & Fourth Armies. Chalk Mines. —					
252	325	17	3464	2.12	8 Enemy mines
174	335	9	1962	1.16	New area taken over.
179	-	6	938	-	

(N.B. Reserve Army & Fourth Army Companies, viz:— 252nd, 174th, 179th, 178th & 183rd, — are actively employed in connection with offensive operations. Their work is partly in galleries, as above, and partly in dugouts, push-pipe operations, well-sinking, reclaiming timber and other miscellaneous duties.)