5/28/2/8
PART 8

AUSTRALIAN ARCHIVES
ACCESS STATUS
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MARCH TO
MAY 1944

ORIGINAL

2/1 CHEMICAL WARFARE
LABORATORY

AUSTRALIAN WAR MEMORIAL
AWM2020.71.3649

AUSTRALIAN
WAR MEMORIAL

NOTICE OF FOLIO REMOVAL

AWM52 5/28/2/8
[Unit War Diaries, 1939-45 War] 2/1 Australian Chemical Warfare Laboratory, Royal Australian Engineers, Mar – May 1944

Restricted folios 1-2

The material to which this notice refers is wholly exempt under the following Section 33 (1) provisions of the Archives Act, 1983, as it contains:

(a) information or matter the disclosure of which under this Act could reasonably be expected to cause damage to the security, defence or international relations of the Commonwealth;

(e) (iii) information or matter the disclosure of which under this Act would, or could reasonably be expected to endanger the life or physical safety of any person.

Craig Berelle
Assistant Curator
Official Records

18 April 2019

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

18 MAY 1944

WAR DIARY or INTELLIGENCE SUMMARY

SECRET

Army Form C.2118 (adapted.)

(Erase heading not required)

Unit 2/1 Aust CW Laboratory RAE *Date and Time.—From* 1 Mar 44 *To* 31 Mar 44

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
ST John's Wood			Summary of events is covered by the following Appendices:-	
Brisbane Q'ld	1 Mar 44		Unit Routine Orders Part I - Serial No 65	Appx 1
	4 Mar 44		Unit Progress Report No 15 (4 Mar 44 - 10 Mar 44)	" 2
	4 Mar 44		Field Return Offrs Serial No 62/44	" 3
	4 Mar 44		Field Return OR's Serial No 62/44	" 4
	8 Mar 44		Unit Routine Orders Part I - Serial No 66	" 5
	11 Mar 44		Unit Progress Report No 16 (11 Mar 44 - 17 Mar 44)	" 6
	11 Mar 44		Field Return Offrs Serial No 63/44	" 7
	11 Mar 44		Field Return OR's Serial No 63/44	" 8
	15 Mar 44		Unit Routine Orders Part I - Serial No 67	" 9
	18 Mar 44		Unit Progress Report No 17 (18 Mar 44 - 24 Mar 44)	" 10
	18 Mar 44		Field Return Offrs Serial No 64/44	" 11
	18 Mar 44		Field Return OR's Serial No 64/44	" 12
	22 Mar 44		Unit Routine Orders Part I - Serial No 68	" 13

Govt. Printer, Brisbane

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

SECRET

WAR DIARY or INTELLIGENCE SUMMARY

(Erase heading not required)

Army Form C.2118 (adapted)

Unit 2/1 Aust CW Laboratory RAE Date and Time.—From 1 Mar 44 To 31 Mar 44

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St John's Wood	25 Mar 44		Unit Progress Report No 18 (25 Mar 44 - 31 Mar 44)	Appx 14
Brisbane Q'ld	25 Mar 44		Field Return Offrs Serial No 65/44	" 15
	25 Mar 44		Field Return OR's Serial No 65/44	" 16
	29 Mar 44		Unit Routine Orders Part I - Serial No 69	" 17

[signature] Major
Comd. 2/1 Aust. C.W. Laboratory RAE
4 May 44

Govt. Printer, Brisbane

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

RESTRICTED

GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

WAR DIARY
Vol 20 Page
Appx. 1

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

1 Mar 44 Part I Serial No 65

287. DUTIES

Orderly Officer -

To mount 0630 hrs, 1 Mar 44 — Next for duty, to mount 0630 hrs

Lieut GOLDSTONE — 8 Mar 44: WO II BUTLER

Orderly NCO -

To mount 0630 hrs,

1 Mar 44	Cpl Day
2 Mar 44	Cpl Corner
3 Mar 44	Sgt Kellick
4 Mar 44	Sgt Brunton
5 Mar 44	Sgt Goudy
6 Mar 44	L/Sgt Hamlyn-Harris
7 Mar 44	Sgt Smith

Sappers -	Mess Orderly -	Cook -	Steward -
1 Mar 44	Spr Dover		Spr Plummer
2 Mar 44	Spr Dowd		
3 Mar 44	Spr Shaw		
4 Mar 44	Spr Murray	Spr Barber	
5 Mar 44	Spr Dover (Mess Ord &		
6 Mar 44	Spr Allen gen dutyman)		
7 Mar 44	Spr Plummer		

288. SECURITY OF ARMS AND AMMUNITION

1. Recent losses of arms and ammunition indicate that personnel are not safeguarding valuable equipment.

2. Every Unit will forthwith arrange that all arms and ammunition of personnel proceeding on leave be stored and adequately guarded in the Unit "Q" Store.

3. No member will proceed on leave unless he has first returned any arms and ammunition on issue to him to Unit custody.

4. The same procedure will be adopted in the case of any member leaving camp on duty with regard to any arms which such member is not carrying with him on duty.

GRO Q.60/44

C.H.Bull Lieut
Adj 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 15

SECRET

WAR DIARY
Vol 20 Page
Appx. 2

2/1 Aust CW Laboratory RAE
G55/3/989
4 Mar 44

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Personnel
Cpl Kline A proceeded on leave.

(b) Constructional Projects Completed

D64 Section of Japanese Grenade Type 89 Yellow Band.

(c) Constructional Projects in Hand

D65 Cupboard for Amn and Explosives.
D66 Display shelving for enemy equipment.
D67 Stand attachment for Photomicrography.

(d) Works Completed

Cupboard for Officers Mess Gear.
Reconstruction of boiler flue.
Additional Officers quarters on verandah.

2. LABORATORY

(a) Personnel
No change

(b) Apparatus
No major items received.

3. PROJECTS

(a) Received
Nil

(b) Commenced
A38 Japanese Type 89 Grenade, Yellow and White Band (P1).
A39 Japanese Type 89 Grenade, Yellow band (P1).
A35 Japanese Smoke Generator Type 94A (P3).
A15 Japanese Experimental Self Projecting Smoke Generator (P2).

(c) Completed
A36 Japanese 1 Kg Smoke Generator (P).

(d) Nearing Completion
A 31 Japanese 50 mm Grenade Incendiary (completion was delayed by work on flame throwers fuels.)

4. LIAISON

(a) Sgt Kellick spent 28 Feb 44 to 1 Mar 44 with 2/6 Aust W/Shops and attended field trials of fuels for flame throwers.

(b) Lieut Bull, Lieut Goldstone, WO.II Butler and Sgt Brunton attended a field trial by the MEIU of some - items of Japanese equipment which have been examined in this Unit.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

MOBILE SECTION

The fitting of the hinged flap and locking bar attachment to the rear of the 3 ton machinery veh was completed by Q'ld L of C Area W/Shops.

The decarbonising and valve grinding of the petrol engines of both the charging and generating sets were completed.

Selection and photo copying of reports from Unit files is nearing completion.

Preliminary work on the identification of War Gases on the lines set out in "The Laboratory Identification of War Gases" has commenced. Some additional reagents are being prepared.

C. H. Bull Lieut for Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

FIELD RETURN OF OFFICERS

Army Form W.3008
(Adapted) (Page 1).
Revised Jan 1943

62 / 44 (Serial No.)

At 0600 Hrs. Saturday 4 / Mar 1944 2/1 Aust CW Laboratory RAE (Unit)
AIF
W.E. III / 31 / 1 . OFFRS. 6 O.R's. 25 plus OFFRS. - O.R's. 1 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED					ATTACHED ALLOWED BY W.E				
Rein'fts Required	Deficient W.E	Surplus to W.E	Posted Strength	DETAIL WE	Arm or Corps	Posted Strength	Surplus to W.E	Deficient W.E	Rein'fts Required.
				Lieut -Colonels					
NR	1			Majors 1					
2	4			Captains 4					
		2	3	Lieutenants 1					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S Offrs.					
				Civilians Counting as Offrs					
2	5	2	3	6					

DETAIL		A.I.F "A"	C.M.F	A.W.A.S	A.A.N.S	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	* *	TOTAL "A"
A.		3									3
E.(1)											
E.(2)											

Analysis of Part A to be shown here by ALL units. Only units notified in para 10 of instructions for compilation of form will complete Part E.(1) & E(2).

* Insert detail of higher ranks as necessary
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials	Unit From	Date.	CAUSE

OFFICERS QUITTED DURING WEEK.

Army No.	Rank	Name and Initials	Unit To.	Date	CAUSE

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO 2/1 Aust CW Laboratory (Unit) IS PARTICULARLY REQUESTED 4 / Mar / 1944.

Army No	Rank	Name and Initials	REMARKS [e.g. present whereabouts if known]
VX14147	Major	McALLESTER J C	Attached to LHQ

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W 3008
(Adapted) (Page 4)
Revised Jan., 1943

2/1 Aust CW Laboratory RAE Unit

Vol 20 Page 3

62/44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 4/Mar 1944 (Total to Agree with Columns 4 and 7 of Part A).

1 Substantive Rank and Higher Temporary Rank if Held	2 Army Number	3 Surname	4 Initials	5 Posting	6 Whether present with Unit (insert Yes or No)	7 If not present with Unit, state how employed	8 Date of Detachment
Lieut	NX112056	NEIL	J R B	Tech Offr (CW)	Yes		
Lieut	NX105276	BULL	C H	Chem Offr	Yes		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number	Name and Initials.	Unit	Date of Attachment.	Nature of Attachment.

4 Mar 44
Date of Despatch

C.H. Bull Lieut for Maj AOD
Signature of Commander

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (*Adapted*)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

62/44 (Serial No.)

At 0600 Hrs. Saturday 4 / Mar 194 4 2/1 Aust CW Laboratory RAE (Unit)

AIF

W.E. III/31/1. OFFRS. 6 O.R's. 24 + OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL. WE	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			4	Sergeants 4	see back				
		3	5	Corporals 2					
1	1		14	Troopers, Privates, etc. 16	AACC	1			
				Civilians counting as O.R.					
1 *	1	3	25 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	22 3		1				[redacted]	[redacted]		26
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To (Unit) is Particularly Requested. / /194

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
Vol 20 Page 4

2/1 Aust. CW Laboratory RAE Unit

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

62 /44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 4 Mar /194 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Rivetters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	–	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	–
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	–	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	–	Wireman				Clerk	1	1	–
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	–	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical)	1	1	–	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors							
Fitters, Railway Signal				Hatchman				Butchers				Chemist(d)	1	1	–
Fitters, Signals				Height Taker				Clerks (b)	1	1	–	COMS (c)	1	1	–
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Assists(c)	3	5	–
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Laboratory			
Mechanics, Instrument (Surgical)				Joiners				Concretors				Assist(a)	1	1	–
Mechanics, Radio				Lineman				Cooks				Drivers MT	3	3	–
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batman Dvr	1	1	–
Mechanics, Wireless				Lithographers				Despatch Riders				(ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batmen	2	1	1
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Orderly(a)	1	1	–
Pattern Maker				Masons				Driver Mechanics	1	1	–	General			
Pharmacist				Masseurs				Driver Tptn. Plant				Dutyman	1	1	–
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers				Attached			
Plumber	1	1	–	Moulders				Farriers				Cook	1	1	–
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	4	4	–	CARRIED FORWARD	5	5	–	CARRIED FORWARD	8	8	–	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	25	26 *	1

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

4 Mar 44
Date of Despatch

C H Buell Lieut Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) One Sgt and
Two Cpls, laboratory assistants
(Excess in lieu of Officer
deficiences; Attachment authorised
by LHQ 76913 of 11 May 43.

1 Spr filling the position of
Photographer Dry Plate (a)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 20 Page
Appx. 5

RESTRICTED GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

8 Mar 44 Part I Serial No 66

289. DUTIES

Orderly Officer -

To mount 0630 hrs, 8 Mar 44 — Next for duty, to mount 0630 hrs

WO II BUTLER — 15 Mar 44: Lieut NEIL

Orderly NCO -

To mount 0630 hrs,

8 Mar 44	Cpl Day
9 Mar 44	Sgt Kellick
10 Mar 44	Cpl Corner
11 Mar 44	S/Sgt Code
12 Mar 44	Sgt Brunton
13 Mar 44	L/Sgt Hamlyn-Harris
14 Mar 44	Sgt Goudy

	Sappers -	Mess Orderly -	Cook -	Steward -
8 Mar 44		Spr Dover		
9 Mar 44		Spr Shaw		
10 Mar 44		Spr Allen		
11 Mar 44		Spr Plummer		
12 Mar 44		Spr Murray (Mess Ord & gen dutyman)	Spr Barber	Spr Jones
13 Mar 44		Spr Dover		
14 Mar 44		Spr Worthington		

290. SECURITY - CENSORSHIP OF MAIL

(a) The lifting of franking requirements in certain circumstances is NOT to be interpreted as a slackening of security requirements in correspondence.

(b) Letters must still be posted through official Army channels.

(c) Base Censorship will disclose breaches of security and censorship regulations and disciplinary action will ensue.

291. ACF GOODS- ACKNOWLEDGEMENT OF -

The receipt of the following goods from the Australian Comforts Fund (Queensland) is hereby acknowledged:-

100 sheets	Writing Paper
2 pkts	Envelopes
1 doz	Magazines

C. H. Bull
Lieut
Adj 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 20 Page
Appx 6.

PROGRESS REPORT No 16

SECRET

2/1 Aust CW Laboratory RAE
G55/3/12
11 Mar 44

LHQ (for DMO(MO 7))

1. WORKSHOP

(a) Personnel
Sgt Brunton P W was admitted to 2/4 A.G.H. for treatment of malaria.

(b) Constructional Projects Completed

D65 Cupboard for Amn and Explosives.
D66 Display shelving for enemy equipment.

(c) Constructional Projects Commenced

D68 Printing Box - Photographic.

(d) Constructional Projects in Hand

D37 Shell agitation machine.

(e) Work in Hand

Repair to coupling of generator in machinery veh.

2. LABORATORY

(a) Personnel
No change

(b) Apparatus
No major items received.

3. PROJECTS

(a) Received
Nil

(b) Commenced

A 32 Fuze Percussion Type 88.

(c) Completed

A31 Japanese 50 mm Grenade Incendiary - Folio 44.
A37 Japanese 50 mm Mortar Shell - Smoke Folio 42 amended.

(d) Nearing Completion

C13 Benzidene - Gold Chloride Field Detector for Mustard.

4. LIAISON

Maj Trubshaw visited the unit on 9 Mar 44.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

5. MOBILE SECTION

A warning order (Q'ld L of C Area SD 663 of 9 Mar 44) for the movement of the section to NG was received on 9 Mar 44. No movement will take place before 11 Mar 44.

Q (Movt) HQ Q'ld L of C Area was contacted and all necessary infm concerning embarkation was obtained.

Issue of personnel eqpt and preparation of vehs for movt by sea has been completed.

Preliminary work on identification of War Gases has been stopped but will be resumed if date of movt is delayed.

C.H. Bull Lieut for Maj AOC.
Comd 2/1 Aust CW Laboratory RAE

Copy to War Diary.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

63/44 (Serial No.)

AIF At 0600 Hrs. Saturday 11/Mar/1944. 2/1 Aust CW Laboratory RAE (Unit)

W.E. III/31/1. OFFRS. 6 O.R's. 24 + OFFRS. ..... O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	WE	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			4	Sergeants 4)	see back				
		3	5	Corporals 2					
1	1		14	Troopers, Privates, etc. 16	AACC	1			
				Civilians counting as O.R.					
1 *	1	3	25 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail		A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A		A B 22	3	1				[redacted]	[redacted]		26
B(1)											
B(2)							[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
1	LHQ Gas School		

Part D. Description of Other Ranks Whose Return To ..... (Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
Vol 20

2/1 Aust CW Laboratory RAE Unit

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

63 / 44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 11/Mar/1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	–	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	–
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	–	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	–	Wireman				Clerk	1	1	–
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	–	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	–	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors							
Fitters, Railway Signal				Hatchman				Butchers				Chemist (a)	1	1	–
Fitters, Signals				Height Taker				Clerks (b)	1	1	–	COMS (c)	1	1	–
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				assists (e)	3	5	–
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Laboratory			
Mechanics, Instrument (Surgical)				Joiners				Concretors				assist (a)	1	1	–
Mechanics, Radio				Lineman				Cooks				Drivers MT	3	3	–
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batman Dvr	1	1	–
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batmen	2	1	1
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Orderly (a)	1	1	–
Pattern Maker				Masons				Driver Mechanics	1	1	–	General			
Pharmacist				Masseurs				Driver Tptn. Plant				dutyman	1	1	–
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers				Attached			
Plumber	1	1	–	Moulders				Farriers				Cook	1	1	–
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	4	4	–	CARRIED FORWARD	5	5	–	CARRIED FORWARD	8	8	–	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	25	26	1

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

11 Mar 44
Date of Despatch

C.W. Bull Lieut for Maj AOD
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) ~~xxxxxxxx~~ Three Cpls, laboratory assistants (Excess in lieu of Officer defiences; Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr filling the position of Photographer Dry Plate (a)

FIELD RETURN OF OFFICERS

Army Form W.3008
(Adapted) (Page 1)
Revised Jan 1943

...../..... (Serial No.)

At 0600 Hrs. Saturday 11 / Mar /194 4 2nd (Unit)

W.E. AIF / III / 31 / 1 . OFFRS. 6 O.R's. 25 plus OFFRS. ..... O.R's. ..... ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED					ATTACHED ALLOWED BY W.E				
Rein'fts Required	Deficient W.E	Surplus to W.E	Posted Strength	DETAIL	Arm or Corps	Posted Strength	Surplus to W.E	Deficient W.E	Rein'fts Required.
				WE					
				Lieut -Colonels					
NR	1			Majors 1					
2	4			Captains 4					
		2	3	Lieutenants 1					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S Offrs.					
				Civilians Counting as Offrs					
				6					
2	5	2	3						

Analysis of Part A to be shown here by ALL units. Only units notified in para 10 of instructions for compilation of form will complete Part E(1)& E(2).

DETAIL		A.I.F	C.M.F	A.W.A.S	A.A.N.S	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL
A.		"A" 3									
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary

** Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials	Unit From	Date.	CAUSE

OFFICERS QUITTED DURING WEEK.

Army No.	Rank	Name and Initials	Unit To.	Date	CAUSE

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED 11 Mar (194 2/1 Aust CW Laborat 4)

Army No	Rank	Name and Initials	REMARKS [e.g. present whereabouts if known]
VX14147	Major	McALLISTER J G	Attached to LHQ

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W 3008
(Adapted) (Page 2)
Revised Jan., 1943

2/1 Aust C/ Laboratory RAE ..... Unit

No 1 30 Page 7

63 44 ..... (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON ~~POSTED~~ STRENGTH

At 0600 Hrs. Saturday 11 ..... Mar /194 (Total to Agree with Columns 4 and 7 of Part A).

1 Substantive Rank and Higher Temporary Rank if Held	2 Army Number	3 Surname.	4 Initials	5 Posting	6 Whether present with Unit (insert Yes or No)	7 If not present with Unit, state how employed	8 Date of Detachment
Lieut	NX112056	NEIL	J R B	Tech Offr (CW)	Yes		
Lieut	NX105276	BULL	C H	Chem Offr	Yes		
Lieut	VX112210	GOLDSTONE	F A	Ammn Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number	Name and Initials.	Unit	Date of Attachment.	Nature of Attachment.

11 Mar 44
Date of Despatch

C.H. Bull Capt for Maj HoD
Signature of Commander

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

RESTRICTED GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

WAR DIARY
No 1 20 Page
Appx. 9

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

15 Mar 44 Part I Serial No 67

292. DUTIES

Orderly Officer -

To mount 0630 hrs, 15 Mar 44 Next for duty, to mount 0630 hrs

Lieut NEIL 22 Mar 44: Lieut BULL

Orderly NCO -

To mount 0630 hrs,

15 Mar 44	Sgt Smith
16 Mar 44	Sgt Goudy
17 Mar 44	Sgt Kellick
18 Mar 44	S/Sgt Code
19 Mar 44	Cpl Day
20 Mar 44	L/Sgt Hamlyn-Harris
21 Mar 44	Cpl Corner

Sappers -	Mess Orderly -	Cook -	Steward -
15 Mar 44	Spr Plummer		
16 Mar 44	Spr Jones		
17 Mar 44	Spr Allen		
18 Mar 44	Spr Dover	Spr Durran	Spr Jones
19 Mar 44	Spr Curtis		
20 Mar 44	Spr Plummer		
21 Mar 44	Spr Barber		

293. WIRELESS

The wireless may only be used during the following periods:-

Reveille	-	0800 hrs	
1230 hrs	-	1330 "	
1715 "	-	1815 "	)
2000 "	-	2215 "	) Work nights
1715 "	-	2215 "	Leave nights.

The wireless may be used in the kitchen at other times during the day, but must not be heard in the main hall.

294. VISITORS

(a) Ref Unit Instruction A1/9/410 of 27 Nov 43, "Visitors Unit Area".
(b) Attention is drawn to para 3 (c) which is amended to include the Offrs and Sgts messes.
(c) The invitation of visitors to meals on Sundays has recently been excessive causing an undue strain to be placed on Unit rations. Failure to comply with para 3 (c) of the above instruction will lead to curtailment of the privilege.

295. INVESTIGATING OFFICER

Lieut C H Bull is appointed investigating officer in connection with fuel deficiency recorded on AA. FG2 No 596873 L. A report in accordance with GRO 392/43 will be submitted to the Orderly Room by 20 Mar 44.

C.H. Bull Lieut
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 20 Page
Appx. 10

PROGRESS REPORT No 17

SECRET
2/1 Aust CW Laboratory RAE
G55/3/37
15 Mar 44

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Personnel
No change.

(b) Constructional Projects Completed
D68 Printing Box - Photographic.

(c) Constructional Projects Commenced
Nil.

(d) Constructional Projects in Hand
D37 Shell agitation machine.

(e) Works Completed
Housing for Fire Fighting equipment.
Table for kitchen.

2. LABORATORY

(a) Personnel
No change

(b) Apparatus
Several repaired items of glassware were returned from the glassblower.

3. PROJECTS

(a) Received
Nil.

(b) Commenced
Nil

(c) Completed
C13 Benzidene - Gold Chloride Field Detector for Mustard - Folio 45.

4. LIAISON

11 - 12 Mar 44. Capt W Wilkie, a former G3 (CW) visited the unit en route to LHQ Gas School.

17 Mar 44. Maj Trubshaw visited the unit in connection with the work on FT fuels.

5. MOBILE SECTION

Mob Sec is ready for movement and is maintaining contact with Movts Brisbane.
Work has been resumed on preparation of War Gas derivatives using the facilities of the main laboratory.

Maj
Comd 2/1 Aust CW Laboratory RAE

Copy to War Diary

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (*Adapted*)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

...../...../64 44 (Serial No.)

At 0600 Hrs. Saturday 18 Mar 4 /...../194..... 2/1 Aust CW Laboratory RAE (Unit)

W.E. III 31 1 /...../..... OFFRS. 6 O.R's. 24 + OFFRS. 1 O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
				W.Os. Class II. WE					
			1	Squadron or Company Quartermaster Sgts. 1					
			1	Staff Sergeants 1					
				Sergeants					
HR	1		3	Corporals 4					
		3	5	Troopers, Privates, etc. see back					
1	1		14	Civilians counting as O.R. 16	AACC	1			
*			*	Totals of cols. marked * should agree with details shown in Part E on Page 2. 24		* 1			

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F.	C.M.P. Under 19 Years	C.M.P. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A			B				[redacted]	[redacted]		
B(1)	A B 21	3	1							25
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
1	LHQ Gas School		

Part D. Description of Other Ranks Whose Return To 2/1 Aust CW Laboratory RAE (Unit) is Particularly Requested. 18/3/1944

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).
VX67755	Sgt	Brunton P W	2/4 Aust Gen Hospital

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE ..... Unit

No 1 30 Page

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

64 44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 18 Mar 44 / /194 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, E.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate				Saddlers			
Artificer, Engine								Predictor Numbers (a)	1	1	—	Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	—
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	—	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd'rs. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	—	Wireman				Clerk	1	1	—
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	—	Driver-Operator											
Fitters (Cyclc)	1	1	—	Drainers											
Fitters (Electrical) (a)				Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors							
Fitters, Railway Signal				Hatchman				Butchers							
Fitters, Signals				Height Taker				Clerks (b)	1	1	—	Chemist(d)	1	1	—
Grinder, Precision				Helio Operator				Clerks, Supply				Clerk (c)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Laboratory assists(c)	2	4	—
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Laboratory assist(a)	1	1	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				Drivers MT	3	3	—
Mechanics, Radio				Lineman				Cooks				Batman Dvr	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				ATTACHED BY W.E.			
Mechanics, Wireless				Lithographers				Despatch Riders				[illegible]			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batman	2	1	1
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Orderly(a)	1	1	—
Pattern Maker				Masons				Driver Mechanics				General duty men	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant	1	1	—				
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers				Attached Cook	1	1	—
Saw Doctors	1	1	—	Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	4	4	—	CARRIED FORWARD	5	5	—	CARRIED FORWARD	8	8	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	25	1*

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

18 Mar 44
Date of Despatch

C.H. Bull Lieut for Maj 4cD
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Two Cpls, laboratory assistants (Excess in lieu of Officer deficiences; Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr Filling the position of Photographer Dry Plate (a)

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

64/44 (Serial No.)

At 0600 Hrs. Saturday 18 M/194 4 2/1 Aust CW Laboratory RAE (Unit)

W.E. AIF ~~III~~ 31 1 OFFRS. 6 O.R's. 25+ OFFRS. O.R's. 1 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WE * *					
NR	1			Lieut.-Colonels					
2	4			Majors 1					
		2	3	Captains 4					
				Lieutenants 1					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
2	5	2	3	6					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	* *	TOTAL
A.		"A" 3									3
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary.
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO 2/1 Aust CW Laboratory RAE (Unit) IS PARTICULARLY REQUESTED. 18 M/194 4.

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).
VX14147	Major	McALLESTER J C	Attached to LHQ

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

No 1 20 Page

Appx 11

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Aust Cw Laboratory RAE Unit

/ (Serial No.) 64 44

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 18 Mar 4 /194. (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Lieut	NX112056	NEIL	J R B	Tech Offr (CW)	Yes		
Lieut	NX105276	BULL	C H	Chem Offr	Yes		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

18 Mar 44
Date of Despatch

C. H. Bull Lieut for Maj AOD
Signature of Commander

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

RESTRICTED

GRO 634/43

WAR DIARY
Vol 20 Page
Appx. 13.

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

22 Mar 44 — Part I — Serial No 68

296. DUTIES

Orderly Officer -

To Mount 0630 hrs 22 Mar 44 — Lieut Bull

Next for duty, to Mount 0630 hrs 29 Mar 44: Lieut Goldstone

Orderly NCO -

To Mount 0630 hrs,
22 Mar 44 Cpl Day
23 Mar 44 Cpl Corner
24 Mar 44 Sgt Kellick
25 Mar 44 L/Sgt McLaren
26 Mar 44 S/Sgt Code
27 Mar 44 L/Sgt Hamlyn-Harris
28 Mar 44 Sgt Goudy

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
22 Mar 44	Spr Dover		
23 Mar 44	Spr Worthington		
24 Mar 44	Spr Hohne		
25 Mar 44	Spr Allen		
26 Mar 44	Spr Murray	Spr Barber	Spr Dowd
27 Mar 44	Spr Jones		
28 Mar 44	Spr Dover		

297. APPOINTMENTS

Lieut C H Bull to be i/c CW Sec ---- 22 Mar 44
WO.II Butler P F to be i/c Chem Sec - (temporarily) - 22 Mar 44.

298. MESS COMMITTEE - MENS MESS

VX113521 Spr Durran M J, having resigned the office of President on 13 Mar 44, VX16207 Spr Murray W has now been elected President.

299. 1943 ARMY XMAS BOOK

1. As the demand for the 1943 Army Xmas Book ("Khaki and Green") has reached the maximum number that can be produced, further orders will not be placed by members.
2. Orders which have been received by the Officer-in-charge, Military History Section, or which are now in transit will be delivered in their turn as quickly as supplies can be obtained from the printer.
3. After orders now in transit have been received, the Officer-in-charge, Military History Section, will furnish to units which have placed orders a forcast of the dates of delivery of orders which have not yet been despatched.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

300. REPORTING OF ACCIDENTS

1. Where the driver of an army vehicle is concerned in an accident, he will forthwith report particulars of the accident to his unit by the most expeditious means available. This report will be made in all cases, irrespective of the amount of damage either to the army vehicle or to the other vehicle, person or property concerned in the accident.
2. The accident, if it involves damage however slight to any civilian vehicle, person or property, will be reported to a member of the police force or, if no member of the police force is at the scene of the accident, to the nearest police station.

GMO 483/44.

301. MECHANICAL VEHICLES - USE OF GEARS AS BRAKES

1. The practice of approaching at high speed and then changing down to a lower gear, while still at comparatively high speed, in order to obtain the necessary deceleration when slowing down for any purpose, e.g., stopping, entering gateways, negotiating corners etc., is still prevalent.
2. This practice, which is forbidden, produces excessive engine speeds, causes unnecessary strain on the vehicle transmission system and is a contributing factor to rapid tyre wear.

302. STATEMENT OF REGIMENTAL TRUST FUND

Credit Balance as at 21 Mar 44 ..... £6/9/9

C H Bull Lieut
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 18 SECRET

WAR DIARY 2/1 Aust CW Laboratory RAE
G55/3/75
Vol 20 Page
25 Mar 44
Appx. 14

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Constructional Projects Commenced:

D 69 3 safelight frames for photographer.

(b) Constructional Projects Completed:

D 70 Modification of vertical bandsaw for steel cutting.

(c) Works
Additional fittings have been installed in showers and latrines.
Work on a skylight for the hall has commenced. This will greatly improve lighting.
Repairs have been effected to wash up bench in laboratory.

2. LABORATORY

(a) Personnel
Lieut C H Bull has been appointed to CW Sec, WO.II Butler P F is i/c Chem Sec (Temporarily).
L/Sgt McLaren D S returned from LHQ Gas School (Course No28).

3. PROJECTS

(a) Received
Duplicates of a number of items already under examination were received from the Allied Enemy Equipment Board.
Other Items received which had not previously been examined by this unit were:-

A47 Japanese Rubber Wallet.
A48 Japanese Acetylene Flare.

(b) Commenced
B12 - Examination of Shell Chargings - B4 - Serial II.

4. LIAISON

20 Mar 44 - A new type Japanese Hooded Respirator and a 75 mm Shell containing rubber pellets and white phosphorus (presumably an incendiary) were received at 42 Chem Lab Coy. A description of the Respirator is att as Appx A to this report.

21 Mar 44 - During the morning WO Instructors from LHQ Gas School, and in the afternoon Capt G S Compton, were shown over the unit.

23 Mar 44 - Maj Trubshaw made a further visit to collect samples of fuels.

24 Mar 44 - Prof Parnell (Physics) - University of Q'ld was consulted with reference to construction of an electromagnetic device to measure the fall of a sphere in viscometry.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

5. MOBILE SECTION

The Mobile Section left by road for Sydney on 20 Mar 44. Lieut Hosking has been advised of various details by D/O letter.

6. MISCELLANEOUS

(a) Services of Lieut Ryan are urgently required. It would be appreciated if his movement could be expedited.

(b) Following items of interest have appeared in Sitreps from US sources:-

(i) "Land Activity 21/22 Mar - Admiralty Is - Nine additional cases of new gas masks have been captured in the vicinity of Lorengau".

(ii) "Air attacks 19 Mar - Keravia Bay - Possible Gas dumps fire started on shore of bay".

7. APPENDICES

... (a) Att as Appx A is a brief description of the Japanese Hooded Respirator viewed at 42 Chem Lab Coy.

... (b) Att as Appx B is an LHQ memo concerning Technical Training. Copies seem to have been distributed to most of LHQ but it is possible that DMO (MO7) may not have received one.

Maj
Comd 2/1 Aust CW Laboratory RAE

Copy to War Diary.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form [illegible]009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

65 44 (Serial No.)

At 0600 Hrs. Saturday 25 3 194 4 2/1 Aust CW Laboratory RAE (Unit)

Part of AIF W.E. 121 31 1. OFFRS. 40 O.R's. 20 OFFRS. (Queensland Detachment) O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	WE	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
	1		2	Sergeants 3					
		3	5	Corporals 2	see back				
1	1		12	Troopers, Privates, etc. 13	AACC	1			
				Civilians counting as O.R.					
1 *	2	3	21 *	Totals of cols. marked * should agree with details shown in Part E on Page 2. 20		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces. 10 N.Z. Forces.

Detail	C.M.F. A.I.F.	C.M.F. Under 19 Years	C.M.F. 19 Years and over	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	17	3	1				[redacted]	[redacted]		21
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To 2/1 Aust CW Laboratory RAE (Unit) is Particularly Requested. 25/3/194 4

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).
VX67755	Sgt	BRUNTON P W	2/4 Aust Gen Hospital

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

2/1 Aust CW Laboratory RAE ..... Unit

WAR DIARY

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

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App. 16

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 25 Mar /1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	-	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	-	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	-	Wireman				Clerk	1	1	-
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	-	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				Chemist (a)	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				Cons (c)	1	1	-
Fitters, Signals				Height Taker				Clerks (b)	1	1	-	Laboratory Assists(c)	2	3	-
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory Assist(a)	1	1	-
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Driver MT	1	1	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Batman Dr	1	1	-
Mechanics, Instrument (Surgical)				Joiners				Concretors				Batmen ATTACHED BY W.E.	2	1	1
Mechanics, Radio				Lineman				Cooks				Orderly(a)	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				General Dutyman	1	1	-
Mechanics, Wireless				Lithographers				Despatch Riders							
Millwrights				Machinists, Metal				Draughtsmen, Signals				ATTACHED			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Cook	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-				
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	7	7	-	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	21 *	1 *

NOTES.—(a) If rank other than private is involved give details on back. see Back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

25 Mar 44
Date of Despatch

Signature of Commander Maj

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3640

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Two Cpls, laboratory assistants (Excess in lieu of Officer deficiences; Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr Filling the position of Photographer Dry Plate (a)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

65 (W) (Serial No.)

AIF At 0600 Hrs. Saturday 25/3/194 4. 2/1 Aust CW Laboratory Unit (Unit)

Part of W.E. III 31 1. OFFRS. 4 O.R's. 20 + OFFRS. O.R's. 1 ATT. BY W.E. (Queensland Detachment)

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				*					
				*					
				Lieut.-Colonels					
			1	Majors 1					
1	3			Captains 3					
		2	2	Lieutenants					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
1	3	2	3	4					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).	DETAIL		A.I.P.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	* *	TOTAL.
	A.		A 3									3
	E.(1)											
	E.(2)											

* Insert detail of higher ranks as necessary.
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.
VX14147	Major	McALLESTER J C	HQ	19 Mar 44	~~OC Unit~~ detachment ceased

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

1 Aust CW Laboratory RAE Unit

Vol 20 Page 15 Appx. 65 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 25 3 /44. (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX144147	McALLESTER	J C	OC	Yes		
Lieut	VX105276	HILL	CH	Chem Offr	Yes		
Lieut	VX112210	GOLDSTONE	F A	Ammo Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

25 Mar 44
Date of Despatch

Signature of Commander Maj

RESTRICTED

GRO 63/43

WAR DIARY
No 1 20 Page
Appx 17

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

Major J C McALLISTER, Commanding 2/1 Aust CW Laboratory RAE

29 Mar 44 Part I Serial No 69

303. DUTIES

Orderly Officer -

To mount 0630 hrs 29 Mar 44 Next for duty, to Mount 0630 hrs

Lieut Goldstone 5 Apr 44: Capt Bull

Orderly NCO -

To Mount 0630 hrs, 29 Mar 44 S/Sgt Code
30 Mar 44 Sgt Kellick
31 Mar 44 Cpl Day
1 Apr 44 Cpl Corner
2 Apr 44 L/Sgt McLaren
3 Apr 44 L/Sgt Hamlyn-Harris
4 Apr 44 Sgt Coudy

Sanners -	Mess Orderly and General Dutyman	Cook	Steward
29 Mar 44	Spr Dover		
30 Mar 44	Spr Dowd		
31 Mar 44	Spr Worthington		
1 Apr 44	Spr Hohne	Spr Barber	Spr Jones
2 Apr 44	Spr Allen		
3 Apr 44	Spr Jones		
4 Apr 44	Spr Dover		

304. AMENDMENT OF RO 214

RO 214 of 16 Nov 43 is amended, for a trial period of one week, to show:-

Parade	1300 hrs
Break	1500 - 1515 hrs
Stand down	1600 hrs.

The use to which the extra free time is put will determine the adoption or otherwise of these times on a permanent basis. All ranks should take every opportunity for exercise and sport.

305. HYGIENE

All ranks will ensure that dogs are not permitted to enter the hall or any of the prefabricated huts. Personnel handling food will avoid handling dogs.

306. INVESTIGATING OFFICER

Lieut F A Goldstone is appointed investigating Offr to report on tool deficiencies as per GRO 392/43.
Report to reach Orderly Room by 10 Apr 44.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

307. REVISED SYSTEM OF DRIVERS' ROUTINE MAINTENANCE FOR CARRIERS (ALL TYPES) AND "B" VEHICLES.

1. The system of Drivers' Routine Maintenance of carriers of all types and of "B" vehicles, prescribed by GRO G.70/1943 and by Mechanical Vehicle Training Pamphlet No.1 - "Drivers' Routine Maintenance - 1942", has been revised but will remain in operation until 31st March, 1944.

2. The revised system is set out in detail in DME Technical Instruction No. C19/22 of 25th January, 1944 (hereinafter called "the instruction"). The system will be adopted and put into operation on 31st March, 1944, in all respects except the use of new vehicle log books AAB 20A, AAB 20B and AAB 20C, which will be put into use later.

3. The present vehicle log book AAB 20 will continue in use until replaced by the new log books.

4. On and after 31st March, 1944, and until the new log books come into use, weekly maintenance and all group maintenance will be recorded and certified as completed on a temporary "Record of Drivers' Routine Maintenance" to be issued loose and used in conjunction with AAB 20.

5. On or shortly before 31st March, 1944, units will issue from their holding fresh forms of the appropriate type as under:-

To drivers - one per vehicle
To NCOs immediately responsible - one for each vehicle under their charge, according to type.

6. Drivers will keep the appropriate "Record of Drivers' Routine Maintenance" in the pocket of AAB 20 until it goes out of use and will make therein all entries provided for by the instruction.

7. NCOs immediately in charge of or responsible for vehicles will keep safely one "Record of Drivers' Routine Maintenance" of the appropriate type for every such vehicle and will make therein all entries prescribed by the instruction and carry out all prescribed inspections.

G.79/44

308. ADVANCES OR OVERDRAWALS OF PAY

A unit paying officer or pay representative will not make any payment that will cause the overdrawing of a member's pay book, except as set out hereunder:-

(a) A member whose paybook is overdrawn may be paid within the limit of the restricted drawing rate which has been endorsed in the pay book by a member of the AAPC.

(b) A formation paymaster or a depot paymaster may overpay a member to the extent of 75% of any estimated claim for travelling allowance on the written authority of the member's CO, and such overpayment will be adjusted by the member on payment of his claim for travelling allowance.

(c) A member proceeding on leave of more than 72 hours may be paid in advance against his credit earnings calculated to the date of expiration of such leave.

(d) A member may be paid in advance in special circumstances (for example, prior to embarkation or upon disembarkation) where such payment is authorized by instructions issued by LHQ. In exceptional circumstances, an advance against the security of deferred pay may be made where the necessary approval has been obtained in accordance with instructions issued by the Chief Finance Officer.

F.101/44

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

309. APPLICATION OF CLOTHES RATIONING TO THE ARMY.

Reports from the Director of Rationing indicate that his Deputy Directors in the various States are still receiving applications for clothing direct from individual members of the AMF. Such applications are contrary to CRO.422/1943 and will cease. Personnel placed in circumstances of extreme necessity will follow the procedure laid down in that order.

F.102/44

C.W.Bull Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY or INTELLIGENCE SUMMARY

SECRET

Army Form C.2118 (adapted.)

(Erase heading not required)

Unit 2/1 Aust CW Laboratory RAE *Date and Time.—From* 1 Apr 44 *To* 30 Apr 44

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St John's Wood			Summary of events is covered by the following Appendices:-	
Brisbane Q'ld	1 Apr 44		Unit Progress report No 19 (1 Apr 44 - 7 Apr 44)	Appx 1
	1 Apr 44		Field Return Offrs Serial No 66/44	Appx 2
	1 Apr 44		Field Return OR's Serial No 66/44	Appx 3
	5 Apr 44		Unit Routine Orders Part I - Serial No 70	Appx 4
	8 Apr 44		Unit Progress Report No 20 (8 Apr 44 - 14 Apr 44)	Appx 5
	8 Apr 44		Field Return Offrs Serial No 67/44	Appx 6
	8 Apr 44		Field Return OR's Serial No 67/44	Appx 7
	12 Apr 44		Unit Routine Orders Part I - Serial No 71	Appx 8
	15 Apr 44		Unit Progress Report No 21 (15 Apr 44 - 21 Apr 44)	Appx 9
	15 Apr 44		Field Return Offrs Serial No 68/44	Appx 10
	15 Apr 44		Field Return OR's Serial No 68/44	Appx 11
	19 Apr 44		Unit Routine Orders Part I - Serial No 72	Appx 12
	22 Apr 44		Selection of method of Determining Viscosities	Appx 13

Govt. Printer, Brisbane

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY or INTELLIGENCE SUMMARY

SECRET

Army F[illegible] C.2118 (adapted.)

(Erase heading not required)

Unit 2/1 Aust CW Laboratory RAE *Date and Time.—From* 1 Apr 44 *To* 30 Apr 44

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St John's Wood	22 Apr 44		Unit Progress Report No 22 (22 Apr 44 - 28 Apr 44)	Appx 14
Brisbane Q'ld	22 Apr 44		Field Return Offrs Serial No 69/44	Appx 15
	22 Apr 44		Field Return OR's Serial No 69/44	Appx 16
	26 Apr 44		Unit Routine Orders Part I - Serial No 73	Appx 17
	27 Apr 44		Examination of Enemy Clothing for possible protection against vesicant vapour.	Appx 18
	27 Apr 44		Folio 44 - Japanese 50 mm Grenade-Incendiary-Detailed Report	Appx 19
	29 Apr 44		Unit Progress Report No 23 (29 Apr 44 - 5 May 44)	Appx 20
	29 Apr 44		Field Return Offrs Serial No 70/44	Appx 21
	29 Apr 44		Field Return OR's Serial No 70/44	Appx 22
	27 Apr 44		Folio 45 - Benzidine - Gold Chloride Field Detector for Mustard Gas	Appx 23

[signature] Major
Comd. 2/1 Aust. C.W. Laboratory RAE
7 May 44

Govt. Printer, Brisbane

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 19

SECRET

2/1 Aust CW Laboratory RAE
G55/3/106
/ Apr 44

WAR DIARY
No 1 21 Page
Appx. /

WAR DIARY
No 1 Page
Appx.

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Personnel:-
Sgt Brunton P W returned from hospital after malaria treatment.

(b) Constructional Projects:-

(i) Commenced
D74 Test tube rack and box.

(ii) In hand
D37 Shell agitation machine.

(iii) Completed
D69 3 safelight frames for photographer
D71 Filing box for library
D72 Adapter for photographing small objects
D73 Camera tripod and platform.

(c) Works:-

(i) Commenced
Extension of orderly room.

(ii) In hand
Skylight in hall.

(iii) Completed
Extension of room in Officers quarters
Shelves in Workshop.

2. LABORATORY

(a) Personnel
Spr Dowd G commenced a course of training in glassblowing at 42 Chem Lab Coy. He will attend on one morning and one afternoon per week.

(b) Apparatus
Nil

(c) Fittings
Nil

(d) Projects

(i) Received
A case of samples of items of A/Gas eqpt in RSD was received from 31 Fd Ord Depot under authority of DOS memo B9763.

(ii) Commenced
Nil

(iii) Completed
Nil

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

ISON

28 Mar 44 Flamethrower trials at 2/6 Armd Regt WK/shops were attended.
A Japanese Rubber Tent captured in the Admiralty Is was viewed at 42 Chem Lab Coy. It is 8 ft square and 6 ft high, olive green in colour and fitted with celluloid windows.

5. No 5 (MOBILE) SECTION

The Mobile Section reappeared in Brisbane on 28 Mar 44. After a period in port they finally sailed on 31 Mar 44. It appears probable that Lieut Hosking may be on leave when they arrive. If this is correct, it would be appreciated if HQ NGF could be advised of the expected arrival, to ensure that the section is adequately provided for.

Maj
Comd 2/1 Aust CW Laboratory RAE

Copy to War Diary.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

2/1 Aust C. Laboratory / 66 RAE (Serial No.)

At 0600 Hrs. Saturday 1 / 4 / 1944 (Unit) (Queensland Detachment)

Part of W.E. AIF 31 / 1 OFFRS. 4 O.R's. 20 + OFFRS. ..... O.R's. 1 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	WE	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				*					
				*					
				Lieut.-Colonels					
			1	Majors 1					
1	2		1	Captains 3					
		1	1	Lieutenants					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
1	2	1	3	4					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
A.		A 3									3
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

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CW Laboratory RAE Unit

WAR DIARY
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66 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 1 4 4 /194. (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	NX105276	BULL	C H	Chem Offr	Yes		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

1 Apr 44
Date of Despatch

J C McAllester
Signature of Commander Maj

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

66 (Serial No.)

At 0600 Hrs. Saturday 1 4/194 4. 2/1 Aust CW Laboratory RAE (Unit) (Queensland Detachment)

Part of W.E. AIF 31 1 OFFRS. 4 O.R's. 20 OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL. VE	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
	1		2	Sergeants 3)	see back				
		3	5	Corporals 2)					
1	1		12	Troopers, Privates, etc. 3	AAOC	1			
				Civilians counting as O.R.					
1 *	2	3	21*	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail		C.M.F.			A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
	A.I.F.	Under 19 Years.	19 Years and over.								
A	17	3	1								21
B(1)											
B(2)											

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To (Unit) is Particularly Requested. 1/4/194 4

2/1 Aust CW Laboratory RAE

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).
VX67755	Sgt	BRENTON P W	2/4 Aust Gen Hospital

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Aust CM Laboratory RAE Unit

Army Form W.3009
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66/44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 1/4/1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Rivetters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	-	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	-	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd'rs. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	-	Wireman				Clerk	1	1	-
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical)	1	1	-	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors							
Fitters, Railway Signal				Hatchman				Butchers				Chemist (d)	1	1	-
Fitters, Signals				Height Taker				Clerks (b)	1	1	-	CWS (c)	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Assists (e)	2	3	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Laboratory			
Mechanics, Instrument (Surgical)				Joiners				Concretors				Assist (a)	1	1	-
Mechanics, Radio				Lineman				Cooks				Drivers MT	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batman Dvr	1	1	-
Mechanics, Wireless				Lithographers				Despatch Riders				Batman	2	1	1
Millwrights				Machinists, Metal				Draughtsmen, Signals				ATTACHED BY W.E.			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Orderly (a)	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-	General			
Pharmacist				Masseurs				Driver Tptn. Plant				Butyman	1	1	-
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers				Attached			
Plumber				Moulders				Farriers				Cook	1	1	-
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	7	7	-	Totals of columns marked * to agree with columns 4 and 7 and 1 and 10 of Part A. respectively.	21	21	1 *

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

See back

1 Apr 44
Date of Despatch

Signature of Commander Maj

L.H.Q. Press—411—8/43—312m.

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(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Two Cpls, laboratory assistants (Excess in lieu of Officer deficiences; Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr filling the position of Photographer Dry Plate (a)

RESTRICTED

GRO 634/43

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AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

5 Apr 44 Part I Serial No 70

310. DUTIES

Orderly Officer -

To mount 0630 hrs 5 Apr 44 — Next for duty, to Mount 0630 hrs

Capt Bull — 12 Apr 44: Lieut Goldstone

Orderly NCO -

To Mount 0630 hrs,
5 Apr 44 Cpl Day
6 Apr 44 L/Sgt McLaren
7 Apr 44 L/Sgt Hamlyn-Harris
8 Apr 44 Cpl Kline
9 Apr 44 Cpl Corner
10 Apr 44 Sgt Goudy
11 Apr 44 Sgt Brunton

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
5 Apr 44	Spr Hohne		
6 Apr 44	Spr Dover	Spr Barber	Spr Dowd
7 Apr 44	Spr Worthington	Spr Barber	Spr Jones
8 Apr 44	Spr Allen		
9 Apr 44	Spr Dover		
10 Apr 44	Spr Curtis		
11 Apr 44	Spr Shaw		

311. DUTIES

1. Veh 70133 is allotted to QM store with effect forthwith. It will be used for collection of rations and general duties, and may be used for other duties in an emergency, with the authority of an Officer. CQMS will be responsible for allocating driving and maintenance. As far as possible the QM store will be manned in the absence of vehicle.
Veh 76267 will be used for admin duties e.g. transport of mail and personnel etc.
The responsibilities of the Orderly NCO in regard to transport remain unaltered.

2. In the absence of WO Butler the duties of CSM will be divided between
S/Sgt Code - Parades and responsibilities of senior NCO
Sgt Goudy - Duties and rosters
L/Sgt McLaren - Training.

312. APPOINTMENTS

(a) L/Sgt McLaren D S
Cpl Corner G G
Spr Dowd G
are transferred from Chem Sec to CW Sec, 1 Apr 44.

(b) Lieut J G P Ryan is taken on strength and posted i/c of Chem Sec 7 Apr 44.

C. H. Bull
Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 20 **SECRET**

2/1 Aust CW Laboratory RAE

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G55/3/124

8 Apr 44

LHQ (for DMO(M07))

1. WORKSHOP

(a) Personnel:-
Cpl Kline returned from leave.

(b) Constructional Projects:-

(i) Commenced
Nil

(ii) In hand
D37 Shell agitation machine.

(iii) Completed
D74 Test tube rack and box
D75 Prepared Section - Japanese Generator - Project A15.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Construction of isolated hut for ashing B4 samples.
Skylight in hall
Sgts Mess fittings.

(iii) Completed
Extension of Orderly Room
Glass blowing stand
Installation of wall fan.

2. LABORATORY

(a) Personnel
Lieut J.G.P.Ryan reported for duty on 7 Apr 44 and was appointed i/c Chem Sec.
WO.II Butler proceeded on leave.

(b) Apparatus
Some additional items to be used in the estimations connected with shell sampling were received.

(c) Fittings
A ventilating fan was fitted into the wall of the H Lab.

(d) Projects

(i) Received
Nil

(ii) Commenced
Nil

(iii) Completed
Nil

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4. LIAISON

3 Apr 44 Capt Flaherty visited the unit.
Maj Trubshaw spent most of the week at the unit compiling his report on work done on flamethrower fuels.

4 Apr 44 Some ATIS Bulletins of CW Interest were obtained and will be forwarded separately.

5. No 5 (MOBILE) SECTION

No further news has been received.

6. MISCELLANEOUS

Very little infm of outside CW interest is being received. If overseas reports, or Innisfail reports could be made available they would assist in the general CW education of Technical personnel, and help to break the monotony of routine work.

Maj
Comd 2/1 Aust CW Laboratory RAE

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Army Form W.3008
(Adapted) (Page 1)
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FIELD RETURN OF OFFICERS

67 (Serial No.)

At 0600 Hrs. Saturday 8/4/1944 2/1 Aust CW Laboratory RAE (Unit)
(Queensland Detachment)

Part of AIF III 31 1 W.E. 1/7/1 OFFRS. 5 O.R's. 29 OFFRS. O.R's. ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WD * *					
			1	Lieut.-Colonels					
	2		1	Majors 1					
		2	2	Captains 3					
				Lieutenants					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	2	2	4	4					

Analysis of Part A to be shown here by ALL units. Only units notified in pars. 10 of instructions for compilation of form will complete Part E(1) & E(2).	DETAIL		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	* *	TOTAL.
	A.		A 4									4
	E.(1)											
	E.(2)											

* Insert detail of higher ranks as necessary.
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.
QX36411	Lieut	RYAN J.G.P.	LHQ Gas School	7 Apr 44	Authority: AMF List No 7 of Appointments Promotions et

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

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2/1 Aust. CE Laboratory RAE Unit

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67 /44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 8 /4 /194. (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLISTER	J C	OC	Yes		
Capt	NX105276	BULL	C H	Tech Offr CW	Yes		
Lieut	VX12240	GOLDSTEIN	F A	Amn Offr	Yes		
Lieut	QX36411	KEAN	J C P	Chem Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

8 Apr 44
Date of Despatch

D K Allester Lieut
Signature of Commander

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

67 14 (Serial No.)

At 0600 Hrs. Saturday 8/ 4/194 4 2/1 Aust CW Laboratory RAE (Unit)
(Queensland Detachment)

Part of AIF W.E. 171 31 1. OFFRS. 5 O.R's. 20+ OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL. WE	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3) see back					
		3	5	Corporals 2					
1	1		12	Troopers, Privates, etc 3	AACC	1			
				Civilians counting as O.R.					
1 *	1	3	22 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1*			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	A B 18 3		1				[redacted]	[redacted]		22
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To (Unit) is Particularly Requested. /194

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE ..... Unit

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67 Wks ..... Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 8 /4 /194 4 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	—	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	—
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	—	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	—	Wireman				Clerk	1	1	—
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	—	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	—	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors							
Fitters, Railway Signal				Hatchman				Butchers				Chemist (d)	1	1	—
Fitters, Signals				Height Taker				Clerks (b)	1	1	—	DCMS (e)	1	1	—
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory Assists (e)	2	4	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Laboratory Assist (a)	1	1	—
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Drivers MT	1	1	— ✓
Mechanics, Instrument (Surgical)				Joiners				Concretors				Batman Dvr	1	1	— ✓
Mechanics, Radio				Lineman				Cooks				Batmen	2	1	1
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				ATTACHED BY W.E.			
Mechanics, Wireless				Lithographers				Despatch Riders				Orderly (a) General	1	1	— ✓
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batyman	1	1	—
Operators, Excavator				Machinists, Wood				Drivers, H.T.							
Pattern Maker				Masons				Driver Mechanics	1	1	—				
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Attached Cook	1	1	— ✓
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	—	CARRIED FORWARD	4	4	—	CARRIED FORWARD	7	7	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	22	1

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

Date of Despatch

Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) One Sgt, two Cpls laboratory assistants (Excess in lieu of Officer deficiences: Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr filling the position of Photographer Dry Plate (a)

RESTRICTED

GSO 634/43

AUSTRALIAN MILITARY FORCES

ROUTING ORDERS

by

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

WAR DIARY

No 1 21 Page

Appx 8

12 Apr 44 Part I Serial 71

313. DUTIES

Orderly Officer -

To mount 0630 hrs 12 Apr 44 Next for duty, to Mount 0630 hrs

Lieut Goldstone 19 Apr 44: Lieut Ryan

Orderly NCO -

To Mount 0630 hrs, 12 Apr 44 Cpl Day
13 Apr 44 Cpl Kline
14 Apr 44 Sgt Kellick
15 Apr 44 Sgt Brunton
16 Apr 44 L/Sgt Hamlyn-Harris
17 Apr 44 L/Sgt McLaren
18 Apr 44 Sgt Goudy

Rappers -	Mess Orderly and General Dutyman	Cook	Steward
12 Apr 44	Spr Hohne		
13 Apr 44	Spr Bowd		
14 Apr 44	Spr Dover		
15 Apr 44	Spr Worthington		
16 Apr 44	Spr Dover	Spr Barber	Spr Jones
17 Apr 44	Spr Shaw		
18 Apr 44	Spr Curtis		

314. DISCIPLINE

1. OR's requiring to speak to an Officer who is in the mess will either use the telephone or knock at the outside door. The entrance via the kitchen will be used by kitchen staff only.

315. WORKING HOURS - VARIATION OF

1. Working hours for rank and file may be varied within reason by Officers in charge of sections. The Officer authorising any variation will be responsible that work does not fall behind as a result.

316. DRIVERS SMOKING WHILST VEHICLE IS IN MOTION

1. Cases have been noted of M.T. and M.T. drivers smoking whilst the vehicle they are driving is in motion.

2. This practice is dangerous in traffic, and drivers will not smoke whilst the vehicle they are driving is in motion.

3. Permission for a driver to smoke may be given by an Officer, on country roads, whilst outside the boundaries of cities and towns.

A.169/44

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

317. PERSONAL KITS DEPOSITED IN KIT STORES - FIRE RISK

1. "No inflammables, explosives or loot of any description will be deposited in any Kit Store."

2. A serious fire recently occured at [illegible] Kit Store and resulted in the total destruction of many thousands of kit bags and their contents, as well as the partial loss of many others.

3. Explosions which occured during the fire indicated that explosives had been deposited in many of the kits. Fire fighting measures were hindered by these explosions and the fire was thus enabled to spread, with resultant increase in the amount of destruction caused by the fire.

4. The loss of Government property and the personal loss suffered by many members of the Forces, by the destruction of their kit bags and contents, has been accordingly contributed and possibly wholly caused by those members who flagrantly disregarded instructions contained in the C.I.O. quoted.

5. Units will exercise special supervision to ensure that prior to the despatch of kit bags to Kit Stores, only permissible articles are contained in such kit bags and a Unit Order will be issued prohibiting the placing of inflammables, explosives, or loot of any description in any kit bag. Disciplinary action will be taken against any member of the Forces who disregards such Order.

S.160/44

318. TREATMENT OF DISCHARGED MEMBERS SUFFERING FROM MALARIA

1. It is possible that malaria may manifest itself for the first time after a member has been discharged.

2. By arrangement with the Repatriation Commission, in such cases, provided the member establishes his identity, e.g., by production of a discharge certificate, medical treatment will be made available forthwith at the expense of the Repatriation Department, pending determination of whether the malaria is attributable to the member's war service.

3. To obtain such treatment, the ex-member -

(a) if he resides in the metropolitan area of a capital city, should contact the local office of the Repatriation Department or apply to the Repatriation General Hospital; or
(b) if he resides outside the metropolitan area of a capital city, should apply to the nearest local Repatriation Medical Officer.

A.117/44

319. FIRST VICTORY LOAN - INSTALMENT SUBSCRIPTIONS

1. [illegible] M.111/1944 outlined the procedure for lodging applications for fully paid subscriptions to the First Victory Loan.

2. Arrangements have been made for paymasters to accept applications from members who desire to make instalment subscriptions.

3. A member desirous of making instalment subscriptions should complete the loan application form in duplicate and either lodge cash for the amount of the initial deposit, or (if sufficient credit is available in his pay book to cover the amount of that deposit) arrange a pay book debit.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. Where it is desired, a member may pay instalments by means of forms AF 131 (remittance of undrawn pay), or AF 131A (cash remittance). In either case the appropriate instalment docket (forwarded to the member by the Commonwealth Bank) must be attached to the remittance form.

5. A member will not be permitted to overdraw his pay book for the purpose of meeting his instalment subscriptions.

P.122/44

C.H.Bull Capt
Adjt 2/1 Aust GH Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 21 SECRET

2/1 Aust CW Laboratory RAE

WAR DIARY
Vol 21 Page
Appx. 9

G55/3/150

15 Apr 44

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Personnel:-
Spr Murray departed on leave.

(b) Constructional Projects:-

(i) Commenced
D76 Camera stand (heavy type)

(ii) In hand
D67 Stand attachment for photomicrography.

(iii) Completed
D37 Shell agitation machine
D77 Two special test tube stands with copper leads.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Skylight in hall

(iii) Completed
Sgts Mess fittings
A small temporary explosives magazine.

2. LABORATORY

(a) Personnel
No change

(b) Apparatus
Efforts are being made to complete stocks of quickfit apparatus. The bulk of FA 2/2135 held by DFO NSW L of C Area will be used for this purpose, as apparatus of this type is only available in Sydney.

(c) Fittings
Nil

(d) Projects

(i) Received
A49 Japanese Oxygen Producer - large - P2
A50 Japanese Anti Freeze Container - P2
A51 Japanese Anti Trg Discs (special and normal types) - P2
A52 Japanese 75 mm shell - Incendiary - P1

(ii) Commenced
A48 Japanese Acetylene Flare - P1

(iii) Completed
A35 Japanese Small Smoke Generator Type 94A-Folio 46.

(Advance copy despatched 11 Apr 44)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

3. LIAISON

12 Apr 44 Scientific Liaison Bureau were again contacted concerning the development of an electromagnetic method of measuring the fall of a sphere in viscometry.

13 Apr 44 Further infm has been obtained from ATIS Publications and will be fwded in due course.
Medical items will be passed also to Lt Col Gorrill.

14 Apr 44 Arrangements were made for Capt Fisher of LHQ to visit Lt Col Enz (USASOS), 105 Chem Proc Coy, RSD Redbank, and 4 Aust Armd Bde.

4. No 5 (MOBILE) SECTION

No further infm has been received.
Postal readdressing cards received indicate that the Section has arrived and is quartered with NGF Trg School.

5. MISCELLANEOUS

(a) The desirability of having a Gas treatment pannier in the laboratory has been emphasised recently. A separate application will be made for this.

(b) It would be appreciated if the WET Section, MGO Branch could be requested to expedite publication of Unit WET. (AAF.E2-74).

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

....62..44 (Serial No.)

At 0600 Hrs. Saturday 15/4/1944 2/1 Aust CW Laboratory (Unit)

Part of AIF W.E. III/34/4 OFFRS. 4 O.R's. 20 + OFFRS. O.R's. 1 ATT. BY W.E.
Queensland Detachment

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				*					
				*					
				Lieut.-Colonels					
			1	Majors 1					
	2		1	Captains 3					
		2	2	Lieutenants					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	2	2	4	4					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).	DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	• •	TOTAL.
	A.		4									4
	E.(1)											
	E.(2)											

* Insert detail of higher ranks as necessary.
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO .....(Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Arst CW Laboratory RAE Unit

No 1 21 Page

Appx 10

68 44 ...../.....(Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 15 4 /1944 (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	NX105276	Bull	C H	Tech Offr CW	Yes		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	Yes		
Lieut	QX36411	RYAN	J G P	Chem Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

15 Apr
Date of Despatch

[signature] Maj
Signature of Commander

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (*Adapted*)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

68 44 (Serial No.)

Part of AIF At 0600 Hrs. Saturday 15/4/1944. 2/1 Aust CW Laboratory RAE (Unit)
Queensland Detachment

W.E. III 31/1. OFFRS. 5 O.R's. 20 + OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	WE	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3)	see				
		3	5	Corporals 2)	back				
1	1		11	Troopers, Privates, etc. 13	AACC	1			
				Civilians counting as O.R.					
1 *	1	3	21 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F. A	A.I.F. B	C.M.P. Under 19 Years.	C.M.P. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	18	3		1				[redacted]	[redacted]		22
B(1)											
B(2)							[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To.....(Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE Unit Vol 21 Page

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Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

68 / 44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 15 / Apr / 1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	—	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	—
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	—	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	—	Wireman				Clerk	1	1	—
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	—	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	—	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				Chemist (d)	1	1	—
Fitters, Railway Signal				Hatchman				Butchers				CQMS (c)	1	1	—
Fitters, Signals				Height Taker				Clerks (b)	1	1	—	Laboratory			
Grinder, Precision				Helio Operator				Clerks, Supply				Assist(e)	2	4	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Laboratory			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Assists(a)	1	1	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				DriversMT	1	1	—
Mechanics, Radio				Lineman				Cooks				Batman Dr	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batmen	2	1	1
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Orderly(a)	1	1	—
Operators, Excavator				Machinists, Wood				Drivers, H.T.				General			
Pattern Maker				Masons				Driver Mechanics	1	1	—	Dutyman	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Attached			
Photowriter				Miners				Equipment Repairers				Cook	1	1	—
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	—	CARRIED FORWARD	4	4	—	CARRIED FORWARD	7	7	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	*22	*1

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

15 Apr 44
Date of Despatch

A Detmerer Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Three Cpls Laboratory assistants (excess in lieu of Officer deficiencies: Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr filling the position of Photographer Dry Plate (a)

RESTRICTED

GRO 63/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORD RS

BY

WAR DIARY
No 1 21 Page
Appx. 12

Major J C McAL ROTER, Commanding 2/1 Aust CH Laboratory RAE

19 Apr 44 Part I Serial No 72

320. DUTIES

Orderly Officer -

To Mount 0630 hrs 19 Apr 44 — Next for duty, to Mount 0630 hrs

Lieut RYAN — 26 Apr 44: Capt BULL

Orderly NCO -

To Mount 0630 hrs, 19 Apr 44 Sgt KELLICK
20 Apr 44 Sgt COULY
21 Apr 44 L/Sgt McLAREN
22 Apr 44 Cpl DAY
23 Apr 44 Cpl CONNER
24 Apr 44 L/Sgt HAMAMI-HARRIS
25 Apr 44 Sgt BRUNTON

Sweepers -	Mess Orderly and General Dutyman	Cook	Steward
19 Apr 44	Spr DOWD		
20 Apr 44	Spr JONES		
21 Apr 44	Spr DOVER		
22 Apr 44	Spr CHAW		
23 Apr 44	Spr DOVER	Spr BARBER	Spr JONES
24 Apr 44	Spr ROBIE		
25 Apr 44	Spr WORTHINGTON		

321. TIDINESS

There is insufficient attention being paid to tidiness of the area. The following points will be given immediate attention.

1. OFFICES

Documents and books will be kept tidy. Unit SO's paras 6 & 76 will be carefully observed. Ashtrays and rubbish boxes will be used in preference to the floor. Filing boxes will not be left open overnight.

2. LABORATORY

Benches will be kept cleared of apparatus not in use. Glassware for washing will be placed on wash up bench as soon as it is no longer required; periodical clearances at long intervals will be avoided as they dislocate unnecessarily the work of the laboratory assistant washing up. Sinks will be kept clean and clear of solid refuse. Hot plates will be kept clean and not left rusty and stained. Apparatus left out overnight will be kept to a minimum. Protective clothing will be hung at the north end of the laboratory when not in use. It will NOT be left in the library or on benches.

3 WORKSHOP

Will be cleared as far as possible at the conclusion of the days work. Equipment not in use will be returned to tool room or CH Store.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

GENERAL

Cigarette butts, matches, and other refuse are not to be thrown out of windows or scattered indiscriminately around the area.
No table or bench will be without a rubbish box and (if used by a smoker) an ash tray. These will be emptied regularly, the responsibilit for this resting with the user.
Salvage and constructional materials will be stacked under the hall.
Empty boxes, bottles, tins, drums etc will also be stored under the hal
The Orderly NCO will inspect the Area before 1000 hrs daily and take immediate action to have rubbish cleaned up and the area tidied general

322. RECREATIONAL AREA - MAINTENANCE

"Members of this Unit will not use the Tennis Courts on Wednesday, Thursday, or Friday of this week. The courts will be subjecte to an intensive program of reconditioning and cleaning of the surroundings under the direction of S/Sgt Cade who will detail personnel required for such work between 1600 and 1700 hrs on each of the three days named.
The Orderly NCO will endeavour to persuade outsiders not to use the Courts on those days, if such appears likely to occur.
The period 1600 - 1700 hrs each Friday will be reserved in future for maintenance and marking of Tennis Courts. The Orderly NCO will be responsible for obtaining directions for work needed from the CSM or A/CSM and will detail personnel necessary".

323. DUTY ROSTERS

Duties will not be exchanged after publication of RO's. Personnel desiring duties on particular days will apply before RO's are published.

L.H. Bull Capt
Adj 2/1 Aust CH Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
Vol 21 Page
Appx. 13.

TELEPHONES— F8989
F9482

St 8917

Australian Military Forces.

SECRET

Please quote this Number when replying.

G65	5	194

Address 2/1 Aust CW Laboratory RAE

Date 22 Apr 44

Liaison Officer
Scientific Liaison Bureau
Brisbane

Dear Sir

Your assistance is sought in the solution of a problem which has arisen during work at present being carried out by this Unit.

Several hundred samples of a toxic liquid are being checked with a British Specification, one requirement of which is that the viscosity shall lie within a particular range. The selection of the method of determining viscosities has presented some difficulties. The method at present employed will not enable the work to be completed in the time required. It is therefore hoped to devise a method to permit of more rapid determinations being made. For the purposes of reporting the work it is necessary to quote viscosities to an accuracy of 5% or better.

Unfortunately it is not possible to state the composition of the liquid at present, but it is not considered that knowledge of this is essential to the solution of the problem.

The physical characteristics of the liquid are best summarised as follows

Density :- 1.33 to 1.36 gn cm^{-3}
Colour :- dark red to brown
Opacity :- very high
Viscosity:- Normally 6 - 12 poise at 20°C. It is anticipated that some may be as high as 1000 poise.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

The liquid is thickened with chlorinated rubber which has a tendency to gel. For this reason, it may appear that the order of accuracy quoted for viscosities is not reasonable. However figures obtained in previous work have fulfilled their purpose.

The attached Appendix 'A' sets out the disadvantages of the method at present employed and describes in principle what is considered to be the most suitable method for the purpose.

The services of a Physicist with a good knowledge of electricity and radio, if available, should enable the circuit referred to in para 3 of Appendix 'A' to be designed. It is also desired that the apparatus be constructed, as facilities for this are not available in this Unit. Funds are available, if necessary, to the extent of say £50.

Yours faithfully,

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 21 Page
Appx. 14

PROGRESS REPORT No 22 SECRET

2/1 Aust CW Laboratory RAE

G55/3/195

22 Apr 44

LHQ (for DMO(MO7))

1. WORKSHOP

(a) Personnel:-
No change

(b) Constructional Projects:-

(i) Commenced
Nil

(ii) In hand
D67 Stand attachment for photomicrography.

(iii) Completed
D76 Camera stand - heavy type
D78 Section Japanese Flare.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Nil

(iii) Completed
Skylight in hall.
Installation of light outside workshop.

2. LABORATORY

(a) Personnel
Sgt Kellick O G left for Melbourne to study literature on flame thrower fuels.
Cpl Corner G G will follow him early next week to enable Sgt Kellick to hand over this work while in Melbourne.

(b) Apparatus
A consignment of "QUICKFIT" apparatus was received from Townson and Mercer in Sydney and two stirrers were received from Elliotts and Australian Drug Co.

(c) Fittings
Nil

(d) Projects

(i) Received
Nil

(ii) Commenced
Nil

(iii) Completed
C14 Thickened Fuels for Flame Throwers - Interim Report No 2 (Folio 48)
A15 Japanese Experimental Self-Projecting Smoke Generator (Folio 26)
A32 Japanese Type 88 D.A. Percussion Fuze (Folio 47)

Copy No 1 of Folio 48 despatched 20 Apr 44, Copy No 2 with Sgt Kellick.
Advance copies of Folios 26 and 47 forwarded herewith.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

LIAISON

15 Apr 44 A further flamethrower demonstration at 2/5 Aust Armd Regt Wk/shops was attended by Capt Fisher of LHQ and Unit representatives.

17 Apr 44 At 42 Chem Lab Coy new items of Japanese CW eqpt viewed were:-

(a) A type 93 No 3 respirator with modifications:-

(i) Valve holder of plastic material instead of metal
(ii) No embossed markings on top of container - date 18.3 (Mar 43) ink-stamped on bottom
(iii) Special lid in addition to rubber stopper for bottom inlet to container
(iv) Variation in charcoal (examination in progress)

(b) A Horse hood - of heavy rubberised cotton material with two large eyepieces of celluloid. A horse respirator is en route to 42 Chem Lab.

(c) A hood type cape, with two rectangular celluloid windows. Fabric is a fine light rubberised silk. Press-stud fasteners down the front. This may or may not be an Anti-Gas Item.
A copy of TES Report No 26 has been made for 42 Lab and infm on British Smoke Composition is being made available to them.

20 Apr 44 A Chemical Institute Lecture by Prof T.G.H.Jones on "The Chemistry of large molecules" was attended by members of the Unit.
Maj Trubshaw visited the Unit before leaving for Melbourne.

21 Apr 44 Mr Priest (SLB) visited the Unit to discuss problems arising from viscosity measurements.
Arrangements were made with Mr Metcalf at the University for X-Ray and metallographic examination of Japanese 50 mm and 75 mm shells.

4. No 5 (MOBILE) SECTION

(a) A progress report received indicates that the Mobile Section has commenced work. It is anticipated that the departure of Sgt Smith will cause a serious interruption until replacements arrive.

(b) The camera authorised for the Mobile Section is urgently required. Until items to be examined are photographed they cannot be opened or dismantled.

5. MISCELLANEOUS

(a) Ref Progress Report No 21 para 3. As it is not certain whether Aust CW Research Exptl Sec is still in a position to use such infm, items from ATIS publications will not be passed to them direct. It is recommended that Intelligence of a CW medical nature be recirculated by DMO (MO7)

(b) Early advice of the progress of the recently recommended Amdt to WE III/31/1 would be appreciated.

(c) Fan requirements have been supplied in part through a different channel.

(d) WET has been published. British WET's were of great use to this Unit - it is strongly recommended that copies of AAF E2-74 be sent overseas for infm of British Anti-Gas Laboratories.

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(e) Signals CWL 167,172,173,187 have been despatched during the week.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

...../..... (Serial No.)

At 0600 Hrs. Saturday 25/4/194 4 2/1 Aust CW Laboratory RAE (Unit)

Queensland Detachment

Part of W.E. AIF III 31 1 OFFRS. 4 O.R's. 20 + OFFRS. ..... O.R's. 1 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WE *					
				*					
				Lieut.-Colonels					
				Majors					
				Captains 1					
	2		1	Lieutenants 3					
		2	2	Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					

	DETAIL.	2	2	4	A.I.F.	C.M.F.	4 A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).	A.				A									
	E.(1)				4									4
	E.(2)													

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Bust CW Laboratory RAE ..... Unit

No 1 21 Page ..... 1 ..... (Serial No.) 59 44

Appx. 15

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 22 4 /194 4 . (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	CC	Yes		
Capt	NX105276	BULL	C H	Tech Offr CW	Yes		
Lieut	VX112210	GOLDSTONE	F A	Am Offr	Yes		
Lieut	QX36411	RYAN	J G F	Chem Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

25 Apr 44 .....
Date of Despatch

J C McAllester .....
Signature of Commander Maj

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

69/44 (Serial No.)

At 0600 Hrs. Saturday 22/4/1944. 2/1 Aust CW Laboratory RAE (Unit)

Part of AIF Queensland Detachment

W.E. 117/31/1. OFFRS. 5 O.R's. 20 + OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3)	see				
		3	5	Corporals 2)	back				
1	1		11	Troopers, Privates, etc. 13	AACC	1			
				Civilians counting as O.R.					
1 *	1	3	21 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces. 10 N.Z. Forces.

Detail	A.I.F.	C.M.P. Under 19 Years.	C.M.P. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	A B 18 3		B 1				[redacted]	[redacted]		22
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
1	LHQ		

Part D. Description of Other Ranks Whose Return To.....(Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust. CW Laboratory RAE Unit No 1 21 Page

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

69 44 Serial No.

APR 16

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 22 /4 /1944 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	-	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	-	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	-	Wireman				Clerk	1	1	-
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	-	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				Chemist (d)	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				CQMS (c)	1	1	-
Fitters, Signals				Height Taker				Clerks (b)	1	1	-	Laboratory			
Grinder, Precision				Helio Operator				Clerks, Supply				Assists (a)	1	1	-
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Laboratory			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Assist (e)	2	4	-
Mechanics, Instrument (Surgical)				Joiners				Concretors				Drivers MT	1	1	-
Mechanics, Radio				Lineman				Cooks				Batman Dvr	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batmen	2	1	1
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED RAE			
Wheelwrights				Machinists, Metal				Draughtsmen, Signals				Orderly (a)	1	1	-
Operators, Excavator				Machinists, Wood				Drivers, H.T.				General			
Pattern Maker				Masons				Driver Mechanics	1	1	-	Dutyman	1	1	-
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Attached			
Photowriter				Miners				Equipment Repairers				Cook	1	1	-
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	7	7	-	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	22 *	1 *

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

25 Apr 44
Date of Despatch

H.C. Sleeman Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

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(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Three Cpls Laboratory assistants (excess in lieu of Officer deficiences: Attachment authorised by LHQ 76913 of 11 May 43.

1 Spr filling the position of Photographer Dry Plate (a)

WAR DIARY

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Appx. 17

RESTRICTED

GEO 634/43

AUSTRALIAN [illegible]

ROUTINE ORDERS
by

Major J C McALLESTER, Commanding 2/1 East CW Laboratory RAE

26 Apr 44 Part I Serial No 73

324. DUTIES

Orderly Officer -

To Mount 0630 hrs 26 Apr 44 Next for duty, to Mount 0630 hrs

Capt Bull 3 May 44: Lieut Goldstone

Orderly NCO -

To Mount 0630 hrs,	26 Apr 44	Cpl Day
	27 Apr 44	L/Sgt McLaren
	28 Apr 44	Sgt Brunton
	29 Apr 44	L/Sgt McLaren
	30 Apr 44	Sgt Goudy
	1 May 44	L/Sgt Hamlyn-Harris
	2 May 44	Cpl Kline

Sampers -	Mess Orderly and General Dutyman	Cook	Steward
26 Apr 44	Spr Curtis		
27 Apr 44	Spr Dowd		
28 Apr 44	Spr Buchanan		
29 Apr 44	Spr Dover	Spr Barber	Spr Hohne
30 Apr 44	Spr Jones		
1 May 44	Spr Shaw		
2 May 44	Spr Worthington		

325. PUBLICATIONS

1. Two complete sets of Technical Intelligence Summaries will be kept in future - one bound in covers and one set of loose copies. The former should be left in the library and consulted there when required. Loose copies should be used when it is desired to use a summary for a period and returned to the library when no longer required.

2. One copy of Unit [illegible] is available for reference in the library.

326. DUTIES

1. When the front (glass) door of the hall is opened it must be bolted back and not left free to slam.

2. Lights must not be left on in unoccupied rooms etc. The orderly NCO should make frequent inspections to see that lights not required are extinguished. The light outside the workshop may be left on from nightfall until 'lights out.'

327. DUTIES

The following points are to be given attention:-

1. All personnel moving outside the Unit area on leave or on duty, whether during the day or at night, will wear correct headgear. Offrs & WO's, and Drivers (when driving a veh, but not otherwise) may wear caps. All other personnel will wear hats. Shorts will not be worn at night.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

2. Mixture of summer and winter dress are not to be worn. Non-regulation type garments, and items not a regular issue to members of this Unit in this area, will not be worn except as fatigue dress.

3. Attention is directed to Section IX of Unit SO's.

C. H. Bull

Capt

Adjt 2/1 Aust CW Laboratory AIF

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 21 Page
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TELEPHONES—F9482

St 8917

Australian Military Forces.

SECRET

Please quote this Number when replying.

G63	3	225

Address 2/1 Aust CW Laboratory RAE

Date 27 Apr 44

LHQ (for DMO(MO7))

EXAMINATION OF ENEMY CLOTHING FOR POSSIBLE PROTECTION AGAINST VESICANT VAPOUR

Receipt of LHQ SM 3850 of 15 Apr 44 is acknowledged; preliminary investigations have been completed on this subject and certain considerations have arisen which it is desired to bring to notice at this stage.

2. It is not considered that penetration or permeation tests would provide conclusive evidence that a garment had or had not been impregnated. Due to the length of time which would elapse between impregnation of a garment by the enemy, and its examination by 2/1 Aust CW Laboratory it would almost certainly suffer deterioration. It is possible that this deterioration may have proceeded to such an extent that the original impregnant is present on the cloth examined as the amide. A garment in this condition would give a negative result with tests depending on

(a) resistance to permeation by mustard vapour
or (b) extracting the impregnant and testing for available chlorine.

It is therefore intended to provide for extraction and identification of possible amides in the scheme of examination.

/3. The proposed...

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The proposed scheme consists of tests on the following lines:-

(a) Standard mustard vapour permeation test
(b) Extraction for
    (i) oil soluble impregnants
    (ii) water soluble impregnants
    (iii) amides
followed by the appropiate qualitative tests for available chlorine in the case of (i) & (ii) and for amide in the case of (iii).
The methods are discussed in detail below:

4. PERMEATION TEST

This is described in Appx C to 2/1 Aust CW Laboratory Folio 13. No information is available of a CDR mirror test as referred to in SM 3850; the CRI mirror test is employed only in the examination of impervious clothing as it involves placing a drop of liquid mustard directly on the fabric.

Circular pieces of clothing from one to two inches in diameter are suitable for this test. It is proposed to take 6 such samples from each item of clothing examined.

5. EXTRACTION TESTS

(a) For oil soluble impregnants

A sample of fabric about two inches square is extracted with hot benzene. The extract is then tested with a solution of potassium iodide acidified with acetic acid. The liberation of iodine indicates the presence of available chlorine in the extract and the probability of an oil soluble impregnant in the fabric. It is proposed to test in this manner 3 samples from each large piece of fabric received.

(b) For water soluble impregnants

A sample of similar size is extracted with hot water and the extract tested in a similar fashion to (a). The presence of available chlorine indicates the probability of a water soluble impregnant in the fabric. Three of these tests are proposed, to correspond with those carried out under (a) above.

(c) For amides

Negative results for the tests described in para 4 and sub-paras (a) and (b) of para 5 would not necessarily indicate that the fabric had not been impregnated. There remains the possibility of residual amide on the fibres, as outlined in para 2 above. It is therefore intended to extract a fresh sample of fabric with acetone in a Soxhlet apparatus. The extract is filtered if necessary and evaporated to dryness on a water bath. A crystalline residue might indicate that the fabric had been impregnated at some stage. Further tests would be needed to confirm the presence of an amide. It is proposed to carry out this procedure on 6 samples each about 2 inches square.

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6. FABRIC EXPENDED IN TESTING

Samples and quantities tested are best summarized as follows:-

Test	No of samples	Size of sample	Total area of fabric expended
Permeation	6	4 in^2	24 in^2
Benzene extraction	3	4 in^2	12 in^2
Water extraction	3	4 in^2	12 in^2
Acetone extraction	6	4 in^2	24 in^2

From these figures it will be seen that a total of 72 in^2 will be expended in testing. If samples are of a minimum area of 144 in^2, in the event of a positive result in any of the above tests there would still be at least 72 in^2 available for further tests. It is agreed that this should be preserved and that no attempt be made to extract the impregnant for identification until further quantities of such fabric are available. To ensure reliable identification of an unknown impregnant it would be desirable to have at least 30 grams of sample available. A freshly impregnated garment (knickers etc) on British standards, could be expected to yield a quantity of this order on extraction. As it is most improbable that garments would be received in good condition, several would be required to ensure availability of 30 grams of impregnant.

7. The reference in para 4 of SM 3850 to the necessity of returning decontaminated samples for examination elsewhere is not understood. The 2 in diameter sample used for permeation tests would hardly be of further value. Further, the fact that test papers impregnated with Impregnites B and E are used in the Permeation Cell might cause doubt to be attached to results of extraction tests on these samples. If confirmatory tests are required elsewhere, the residual 72 in^2 of fabric, referred to in para 6, would be available.

8. Your comments on the method of investigation outlined above would be appreciated.

..... 9. A list of Porton reports, required urgently to enable further study to be made of the Chemistry of Impregnants, is attached as Appx A.

[signature] Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPX A to 2/1 AUST CW LABORATORY G63/3/225

PORTON REPORTS URGENTLY REQUIRED

PR 1308 The Preparation of Impregnite B

PR 1326 The Preparation of Impregnite E

PR 1696 Notes on the Chemistry of the Impregnants

PR 1828 Preparation of Impregnite B

PR 1838 Alternative Impregnants

PR 1856 Preparation of Impregnite E

PR 1886 Investigation of New Impregnants

PR 1909 Investigation of New Impregnants Part II

PR 1972 Preparation of Imprggnites L & S

PR 1991 Preparation of Impregnite M

PR 2020 Review of New Impregnants

PR 2147 (+ addendum) Impregnite U

Ptn. Dept[1]
Report 41 Preparation of Impregnite E

" 199 Investigation of New Impregnants Part III.

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WAR DIARY
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WD

SECRET 2/1 Aust CW Laboratory RAE

FOLIO 44 G67/3/220

Copy No 19 27 Apr 44

JAPANESE 50 mm GRENADE-INCENDIARY

DETAILED REPORT

1. SOURCE

Captured in the LAE-SALAMAUA Area, Sep 43
Received from the Allied Enemy Equipment Board, Nov 43.

2. REFERENCES

A Preliminary Report on this projectile was published as Folio 39, 25 Jan 44. In Chemical Warfare Intelligence Bulletin No 21, 1 Oct 43 (USA), it is referred to as a "50 mm Incendiary Mortar Grenade". A similar projectile, containing a smoke filling instead of an incendiary composition, is described in LHQ CW Tech Notes No 7 as a "Mortar Smoke Bomb" or "Grenade Discharger Smoke Bomb".

3. DESCRIPTION

The grenade is packed in a close fitting container of 24 SWG tinplate which has pressed and soldered seams. Cardboard discs are fitted inside the base and lid of the container. A strip of adhesive tape seals the lid.

The grenade consists essentially of a brass case, hemispherical at the nose, containing the incendiary filling. The lower end of the case is closed by a base plate, into which screws a cylindrical propellant unit.

The main weights and dimensions are:-

Total weight of grenade	573 gms	(1.3 lbs)
Incendiary filling	315 "	(0.7 lbs)
Base plate	64 "	(2.3 ozs)
Brass case	102 "	(3.6 ozs)
Propellant unit	92 "	(3.2 ozs)
Overall length of grenade	150 mm	(5.9 in)
Diameter of brass case	49 "	(1.93 in)
Diameter of base plate	50 "	(1.97 in)
Total length of propellant unit	31 "	(1.2 in)
Diameter of propellant unit	26 "	(1.0 in)

The case is 22 SWG brass increasing to 18 SWG at the nose and is covered with clear lacquer. Four groups, each of 7 small circular holes passing through the case, are situated towards the base. Each group is covered with a disc of metal foil and a disc of tissue paper. The casing is firmly attached to the base plate by crimping of the brass and by three screws. There is no copper driving band.

The base plate is of aluminium alloy. It is pierced near its edge by two diametrically opposite holes which are lined with brass bushes containing delay pellets. The diameter of the pellets is 3.5 mms (0.14 in) and their length 15 mms (0.6 in). Between the inner surface of the base plate and the incendiary filling is a felt disc which is pierced by two holes opposite the delay pellets.

The ignition mixture pellets are immediately above the delay pellets and project about 5 mm into the main filling, with which they are in direct contact. It was erroneously stated in the preliminary report on this grenade that there were no ignition mixtures projecting into the main filling.

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The propellant unit consists of a steel casing which screws into the base plate and holds a cup of 31 SWG copper containing the propellant charge. Six gas escape ports pass through the sides of the steel casing. Into the base of the propellant unit screws a steel plug which holds a percussion cap. The plug is centrally pierced by a firing pin hole.

The lower compartment of the cap contains a detonating composition and connects by two small flash holes with the inner compartment which contains a black powder primer.

The inner surface of the plug is sealed with waxed paper and a centrally perforated steel disc separates the primer from the propellant charge.

Two keyholes are provided on the sides and on the base of the propellant unit.

4. MARKINGS

The mark of the Tokio Arsenal ⟐ is stamped on the base plate. On the nose, base plate and propellant unit is stamped a small Japanese character HI (ヒ), probably an inspection mark.

5. METHOD OF FUNCTIONING

The flash from the detonating composition passing through the flash holes in the percussion cap and ignites the black powder primer, which in turn ignites the propellant charge. The gases from the explosion of the latter burst through the copper cup and ports, propelling the grenade and igniting the delay pellets. These initiate the ignition pellets and incendiary filling.

6. ANALYSES

(a) Incendiary Filling

315 gms of a hard packed, grey powder.

X-Ray photographs and sectioning of the grenade show that there is a distinct line of demarcation between the upper and lower portions of the filling.

The composition of these two portions are:-

	Lower portion Per cent	Upper portion Per cent
Potassium nitrate	47.9	48.0
Aluminium powder	22.5	23.7
Wax + sulphur	20.2	19.4
Antimony sulphide	6.4	6.0
Moisture	0.7	0.8
Acid insoluble residue	0.9	1.2

The similarity between these analyses indicates that the apparent difference between the two portions is probably due to their being packed from two different batches.

In burning trials conducted with portions of the filling, the flame was easily extinguished by water. The heat of combustion was sufficient to melt the brass casing but did not appear to affect the aluminium base plate.

(b) Ignition Pellets

A silvery, grey powder of finer texture than the main filling.

	Per cent
Potassium nitrate	54.7
Aluminium powder	18.7
Wax + sulphur	16.5
Antimony sulphide	5.8

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(c) Delay Pellets

A dark grey, fine grained powder, packed very tightly and having the following approximate composition:-

	Per Cent
Wax + sulphur	45
Potassium chlorate	35
Carbon	15
Shellac	

The shellac is confined to the outer layers of the pellet.

(d) Propellant Charge

1.1 gms (17 grains) of grey brown, flake nitrocellulose, each flake being approximately 1 mm square. The charge only half fills the copper container.

(e) Primer

0.08 gms (1.2 grains) of a medium grained, black powder.

	Per cent
Potassium nitrate	74
Sulphur	11
Carbon (by difference)	15

6. APPENDICES

The following are attached:-

... Appx A. Drawing
... Appx B. Photographs.

Maj
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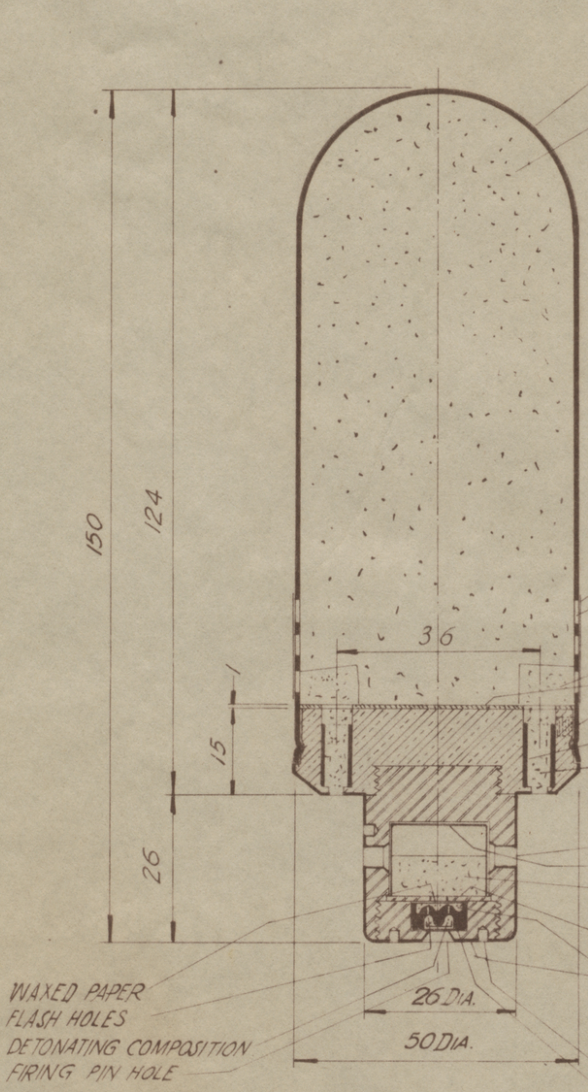
Distribution - List B

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX A TO FOLIO 44



BRASS CASE

INCENDIARY FILLING 315 gms.

Potassium nitrate	48%
Aluminium powder	23%
Wax + Sulphur	20%
Antimony Sulphide	6%
Moisture	0·8%
Acid insoluble residue	1%

METAL FOIL

GROUP OF SIX PORTS

IGNITION PELLET

Potassium nitrate	54·7%
Aluminium powder	18·7%
Wax + Sulphur	16·5%
Antimony sulphide	5·8%

FELT DISC

SCREWS

BRASS BUSHES

DELAY PELLET

Wax + Sulphur	45%
Potassium chlorate	35%
Carbon	15%
Shellac	

GAS ESCAPE PORTS

COPPER CUP

PROPELLANT CHARGE

1·1 gms. Nitrocellulose

STEEL DISC

STEEL PLUG

PRIMER - BLACK POWDER 0·8 gm

Potassium nitrate	74%
Sulphur	11%
Carbon	15%

KEYHOLES

PERCUSSION CAP

WAXED PAPER

FLASH HOLES

DETONATING COMPOSITION

FIRING PIN HOLE

50mm JAPANESE INCENDIARY GRENADE

DIMENSIONS IN MILLIMETRES

DRAWN K.H.H. TRACED K.H.H. CHECKED F.A.G. DATE 7 MAR. 44	SCALE FULL SIZE	2/11 AUST. C.W.L. LABORATORY R.A.E.	7 MAR. 44 DR. 23

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



Fig 1

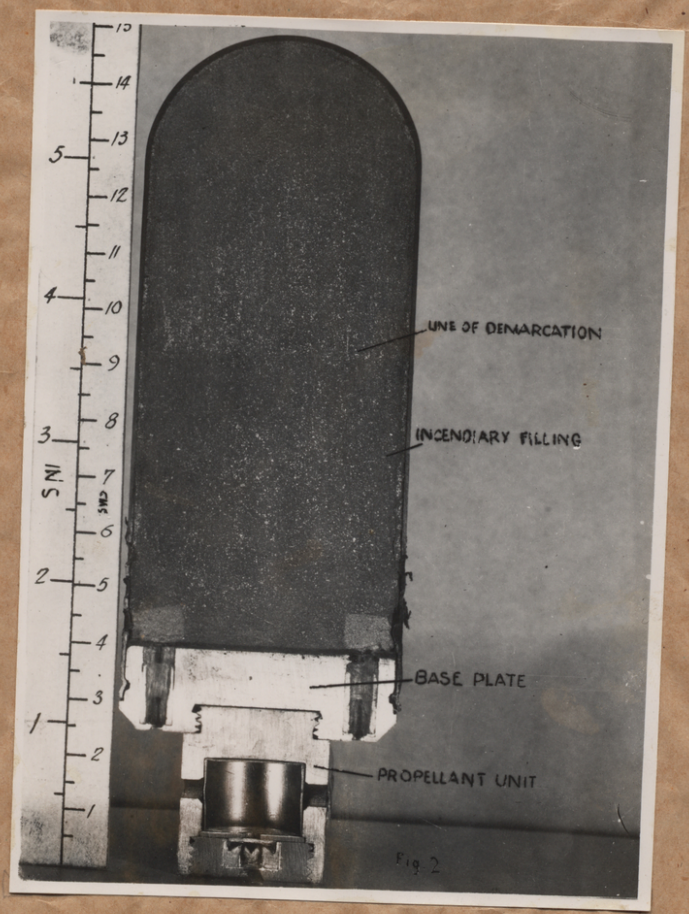


Fig 2

JAPANESE 50 mm GRENADE-INCENDIARY

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 23 SECRET

2/1 Aust CW Laboratory RAE

WAR DIARY G55/3/134.

Vol 21 Page

Appx. 20 29 Apr 44

LHR (for DMO(M07))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Constructional Projects:-

(i) Commenced
D79 Cupboard for Chemical Section office.

(ii) In hand
Nil

(iii) Completed
D67 Stand attachment for photomicrography.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Construction of isolated hut for ashing toxic samples.

(iii) Completed
Sand-bag walls around temporary explosives magazine
Painting of "H" laboratory with resistant paint
Installation of borrowed Air-compressor
Miscellaneous shelving.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Examination of Jap Acetylene Flare has been continued.
A check has been made of the metal of the igniter mixture container of the Jap 1 Kg Smoke Generator Model 4.
A preliminary examination of various detectors submitted for examination by 31 Fd Ord Depot has been carried out.

3. CW SECTION

(a) Personnel
VX122086 Spr Buchanan R N was taken on strength on 22 Apr 44 and allotted to CW Section. In civil life Spr Buchanan was studying Grade II Chemistry at Melb Tech College, and was working in ICI dyestuffs laboratory.
Cpl Corner GC left for Melbourne to join Sgt Kellick. LFD procedure delayed his departure till 28 Apr 44.

(b) Summary of work carried out during the week
Examination of B4 shell chargings has been continued. Data obtained to date on viscosity has indicated that it will be possible to calculate viscosity at $10^{o}C$ from an observed value at $20^{o}C$. Further work will be done to verify this.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. PROJECTS

(a) Received

C15 Investigation of Pocket Vapour detectors.
This project cannot be commenced until further information is received - signals CML 172 and 187 refer.
A further report which would be of use is NRL P 2219 of 22 Jan 44 concerning design operation and calibration of a chamber.

(b) Commenced

Nil

(c) Completed

A31 Jap 50 mm Grenade Incendiary - Folio 44 - List B
A36 Jap 1 Kg Smoke Generator Model 4 - Folio 43 - List B
C13 Benzidine - Gold Chloride Fd Detector for Mustard Gas - Folio 45 - List B.
Final copies completed 27 Apr 44. Now being distributed.

5. EQUIPMENT

(a) Major items received during the week

Nil

(b) Major items required to complete MET

Fortin Barometer
Analytical Balance
Stop Watch
Camera) for Mobile Section
12 volt fan)

(c) Items required additional to MET

Gas treatment pannier.
Camera suitable for photographing field trials - e.g. of flamethrowers.
Coir matting to reduce vibration in hall.

6. LIAISON

(a) Capt Halter, CO 42 Chem Lab Coy visited the Unit on 26 Apr 44. Various reports were exchanged and samples of American Impregnated clothing were made available to 2/1 Aust CW Laboratory for experimental work.

(b) Arrangements were made with 12 Fd Amn Depot for examination of a large quantity of Japanese 50 mm Mortar Shells stored there in an effort to obtain sufficient information to deduce the system adopted in marking this type of projectile.

(c) Scientific Liaison Bureau have passed a request to the National Standards Laboratory for assistance in viscometry problems.

7. No 5 (MOBILE) SECTION

No further reports received. Information from Lieut Hosking is to the effect that "there will be sufficient captured equipment to keep them pretty busy for the next few months".

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8. MISCELLANEOUS

(a) Letter 063/3/225, outlining the proposed scheme for examination of Japanese clothing for protection against vesicant vapour, was despatched on 28 Apr 44.

(b) Official confirmation is required of the advice given in 1943, that 2/1 Aust CW Laboratory was to be a field unit for Ordnance Accounting Purposes. It is understood that this decision was obtained from DOS by DMO(MO7) but no written confirmation has been received.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

70 / 44 (Serial No.)

At 0600 Hrs. Saturday 29 / 4 / 1944. 2/1 Aust C/W Laboratory RAE (Unit)
Queensland Detachment

Part of W.E. AIF III / 31 / 1. OFFRS. 4 O.R's. 20 + OFFRS. O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.					ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	DETAIL.	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3)	see back				
		3	5	Corporals 2)					
			12	Troopers, Privates, etc. 13	AACC	1			
				Civilians counting as O.R.					
*		3	22*	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	19 3		1				[redacted]	[redacted]		23
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
2	LHQ		

Part D. Description of Other Ranks Whose Return To.....(Unit) is Particularly Requested. ...../...../194

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE ..... Unit

No 1 21 Page

Appx. 31

Army Form W.3009 (Adapted) (Page 2) (Revised Jan., 1943)

70 44 / ..... Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 29/4/1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	1	1	-	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen	1	1	-	Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners	1	1	-	Wireman				Clerk	1	1	-
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical) (a)	1	1	-	Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				Chemist (a)	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				Cpns (c)	1	1	-
Fitters, Signals				Height Taker				Clerks (b)	1	1	-	Laboratory Assists (a)	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Laboratory Assist (c)	2	2	-
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Drivers MT	1	1	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Batman Dvr	1	1	-
Mechanics, Instrument (Surgical)				Joiners				Concretors				Batmen	2	2	-
Mechanics, Radio				Lineman				Cooks							
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies							
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Orderly (a)	1	1	-
Operators, Excavator				Machinists, Wood				Drivers, H.T.				General Dutyman	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-				
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Attached Cook	1	1	-
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	7	7	-	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	23 *	- *

See back

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

29 Apr 44 — *Date of Despatch*

J.D. Cleeland Maj — *Signature of Commander*

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Cpls

(b) Sgts

(c) S/Sgts

(d) WO.II

(e) Three Cpls Laboratory assistants (excess in lieu of Officer deficiences: Attachment authorised by LHQ 76913 of 11 May 43

1 Spr filling the position of Photographer Dry Plate (a)

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

...../..... (Ser[illegible] No.)

At 0600 Hrs. Saturday ...../...../194 2/1 Aust. Gr. Laboratory [illegible] (Unit)

29 4 4 Queensland Detachment

W.E. AI/...../..... OFFRS. ..... O.R's. ..... + OFFRS. ..... O.R's. ..... ATT. BY W.E.

Part of III 31 1 4 20 1

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				*					
				WE.*					
				Lieut.-Colonels					
				Majors					
			1	Captains 1					
	2		1	Lieutenants 3					
		2	2	Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	2	2	4	4					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
A.		A									4
E.(1)		4									
E.(2)											

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Aust Cw Laboratory Rgt Unit

No 1 21 Page 70 44 (Serial No.)

22

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 29 4 /194 4 (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	NX105276	BULL	C H	Tech Offr OW	Yes		
Lieut	VX112210	GOLDSTONE	F A	Ann Offr	Yes		
Lieut	QX36411	RYAN	J G P	Chem Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

29 Apr 44
Date of Despatch

[signature] Maj
Signature of Commander

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
Vol 21 Page
Appx. 23

SECRET

FOLIO 45

Copy No 20

2/1 Aust CW Laboratory RAE

G66/4/219

27 Apr 44

BENZIDINE - GOLD CHLORIDE FIELD DETECTOR FOR MUSTARD GAS

1. INTRODUCTION

This report deals with an examination of "A Field Detector for Mustard Gas" which is described in CDRE (India) Note 29/43. The complete text of Note 29/43 is appended for reference.

2. PREPARATION AND USE OF DETECTOR TUBES

The tubes were prepared by the method described in the original report.

Ten grams of silicagel, treated with 0.65 grams of gold chloride, is sufficient for approximately 50 tubes.

The benzene or monochlorbenzene was introduced into the tubes by means of a dropper. The original report describes a bottle fitted with cork bored to take the detector tube. It was found that after some usage, the benzene or monochlorbenzene contained in the bottle became contaminated by contact with the cork or tubes. The test is reliable only if the benzene or monochlorbenzene is pure.

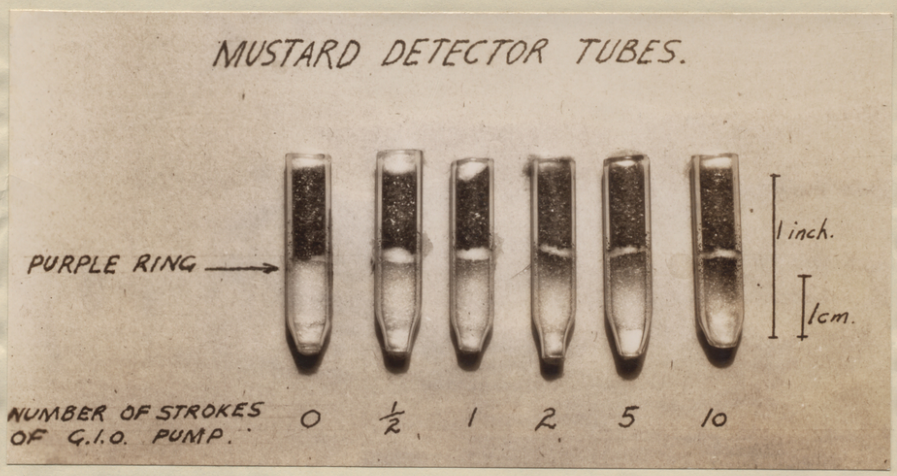
The cotton wool plug at the top of the tube is easily displaced. This can be prevented by slightly constricting the end of the tube.

The ring produced at the top of the lower layer of silicagel is red to purple in colour.

3. SENSITIVITY

The width of the coloured ring and intensity of the colour are indications of the amount of mustard gas passed into the tube.

This is shown in the accompanying photograph.



One drop of mustard (about 10 mgs) was placed on a piece of absorbent paper in an adaptor tube from a C.W.G.T. Air was drawn through this tube, then through the detector tube by means of a G.I.O. pump.

Under similar conditions, four or five strokes of the G.I.O. pump were required to give a positive S.D. test.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. STORAGE OF DETECTORS

After two months storage, not in an airtight container, the detectors were still effective. The gold chloride layer had become somewhat darkened and discoloured. The layer of silicagel coated with benzidine had darkened at the surfaces of contact with the cotton wool pads.

5. SELECTIVITY

Of the war gases tested, mustard, T724 and T773 gave a positive reaction. 'S' was not available. Dithiane, H sulphone and H sulphoxide are insufficiently volatile to give a positive reaction at room temperature (30° C) but did so when heated to their melting points.

A dark colouration, indistinguishable from the typical positive reaction colour, was obtained with coal gas and with exhaust gas from a petrol engine.

6. CONCLUSION

The detector described is considerably more sensitive than the S.D. test for the detection of mustard. The tubes are simple to prepare in a laboratory, stable on storage and convenient to handle.

7. APPENDIX

The following is attached:-

... Appendix A. The text of CDRE (India) Note 29/43.

Comd 2/1 Aust CW Laboratory Maj RAE

Distribution:-List B less Adv LHQ

(plus two copies for GHQ India)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

AUSTRALIAN WAR MEMORIAL

NOTICE OF FOLIO REMOVAL

AWM52 5/28/2/8
[Unit War Diaries, 1939-45 War] 2/1 Australian Chemical Warfare Laboratory, Royal Australian Engineers, Mar – May 1944

Restricted folios 1-2

The material to which this notice refers is wholly exempt under the following Section 33 (1) provisions of the Archives Act, 1983, as it contains:

(a) information or matter the disclosure of which under this Act could reasonably be expected to cause damage to the security, defence or international relations of the Commonwealth;

(e) (iii) information or matter the disclosure of which under this Act would, or could reasonably be expected to endanger the life or physical safety of any person.

Craig Berelle
Assistant Curator
Official Records

18 April 2019

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

SECRET

WAR DIARY or INTELLIGENCE SUMMARY.

(Erase heading not required.)

Army Form C. 2118. (adapted.)

Unit 2/1 Aust CW Laboratory RAE *Date and Time.—From* 27 Apr 44 *To* 31 May 44

Place.	Date.	Hour.	Summary of Events and Information.	Remarks and references to Appendices, Diaries, &c.
St John's Wood			Summary of events is covered by the following Appendices:-	
Brisbane	27 Apr 44		Folio 48 - Thickened fuels for flame throwers -	
			Interim report No 2.	Appx 1
	28 Apr 44		Folio 43 - Japanese 1 Kg Smoke Generator Model 4	Appx 2
	3 May 44		Unit Routine Orders Part I - Serial No 74	Appx 3
	6 May 44		Unit Progress Report No 24 (6 May 44 - 12 May 44)	Appx 4
	6 May 44		Field Return Offrs Serial No 71/44	Appx 5
	6 May 44		Field Return OR's Serial No 71/44	Appx 6
	10 May 44		Unit Routine Orders Part I -mSerial No 75	Appx 7
	11 May 44		Folio 47 - Japanese Type 88 D.A. Percussion Fuze	Appx 8
	13 May 44		Unit Progress Report No 25 (13 May 44 - 19 May 44)	Appx 9
	13 May 44		Field Return Offrs Serial No 72/44	Appx 10
	13 May 44		Field Return OR'S Serial No 72/44	Appx 11
	17 May 44		Unit Routine Orders Part I - Serial No 76	Appx 12

29 JUL 1944

L.

By Authority: L. F. JOHNSTON, Commonwealth Government Printer, Canberra.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

SECRET

Army Form C. 2[illegible]8
(adapted,)

WAR DIARY or INTELLIGENCE SUMMARY

(Erase heading not required).

H. 100M

Unit 2/1 Aust CW Laboratory RAE Date and Time.—From 27 Apr 44 To 31 May 44

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St John's Wood	18 May 44		Sampling and Analysis Chemical Chargings CW Weapons	Appx 13
Brisbane	20 May 44		Unit Progress Report No 26 (20 May 44 - 26 May 44)	Appx 14
	20 May 44		Field Return Offrs Serial No 73/44	Appx 15
	20 May 44		Field Return OR's Serial No 73/44	Appx 16
	24 May 44		Unit Routine Orders Part I - Serial No 77	Appx 17
	24 May 44		Folio 52 - Japanese Tenth Year Model Type 'A' Flare	Appx 18
	27 May 44		Unit Progress Report No 27 (27 May 44 - 2 Jun 44)	Appx 19
	27 May 44		Field Return Offrs Serial No 74/44	Appx 20
	27 May 44		Field Return OR's Serial No 74/44	Appx 21
	31 May 44		Unit Routine Orders Part I - Serial No 78	Appx 22
	31 May 44		Folio 26 - Japanese Experimental Self-projecting Smoke Generator	Appx 23

[signature] Major
Comd. 2/1 Aust. C.W. Laboratory RAE

12 July 44

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 22 Page
Appx 1

SECRET

2/1 Aust CW Laboratory RAE

Copy No 18

G61/6/223

Folio 48

27 Apr 44

THICKENED FUELS FOR FLAME THROWERS

INTERIM REPORT NO 2

1. INTRODUCTION

The work described in Folio 35 has been continued and the preparation of samples thickened with the following substances has been investigated.

(a) Aluminium stearate
(b) Aluminium oleostearate
(c) Vacuum Oil Coy Thickener
(d) "Lux" (flakes) and "Sunlight" Soap
(e) Sodium stearate
(f) Copper oleate and copper oleostearate
(g) Rubber and bitumen

This report deals with the laboratory preparation of samples; it is understood that the results of field trials of fuels thickened with the above substances will be reported by 4 Aust Armd Bde. For information, an extract of these results is attached as Appx A to the present report.

2. GENERAL

The percentage of thickener in the fuel is stated on a weight/volume basis. Thus "5% thickener" implies 5 gms of thickener to 100 ml of fuel which is for practical purposes equivalent to 5 lbs of thickener to 10 gallons of fuel. Liquids added to the fuel (e.g.cresol) are specified on a volume/volume basis (added liquid/fuel). The proportions of petrol to dieselene (P - D) are also specified on a volume/volume basis.

All mixing was performed in open containers. An amount equivalent to the fuel lost by evaporation was added to the final product to restore the original concentration. Rapid or vigorous stirring was effected with an electrically driven mechanical stirrer.

Where a peptising agent was required, cresol was used. Lysol (containing 50% cresol) and xylenol have proved effective. Phenol was successfully used with "Lux" or soap.

In each case, the viscosity of the product was observed to increase with increasing percentage of thickener. A range of samples was prepared for each thickener varying from thin fluids to stiff or firm gels. Any products stated to be satisfactory are those selected by 4 Aust Armd Bde as being suitable for trial purposes.

3. THICKENING AGENTS

(a) Aluminium stearate

The aluminium stearate used was a commercial product, an extremely fine white powder. It was not soluble in petrol or dieselene at room temperature, but when slowly stirred with dieselene at a temperature above 70°C, almost clear, elastic gels were formed. While still warm these could be mixed and diluted with petrol in any desired proportion. 4 - 6% aluminium stearate in petrol-dieselene mixtures from 25P - 75D to 75P - 25D gave suitable products.

The gels so formed, gradually deposited aluminium stearate and lost their elastic properties over a period of 6 - 48 hours. The mixtures containing a higher proportion of petrol retained their elasticity longer. All samples could however be regenerated to their former elastic state by reheating.

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AWM2020.71.3649

It was found that if a peptiser such as cresol was used, solvation of the aluminium stearate could be effected at a lower temperature. The aluminium stearate was vigorously stirred with petrol at room temperature for a few minutes. The temperature was then raised to 40 - 50°C, cresol was added and stirring continued (5-10 minutes) until the mixture became clear. None of the gels prepared in this fashion were stable for longer than 3-5 days and their viscosities did not appear to increase regularly with concentration of thickener. It is understood that a great deal of work has been performed elsewhere to standardise the methods and materials used to obtain uniform and stable aluminium stearate gels, but references to this work are not at present available.

(b) Aluminium oleostearate

A small sample of this received, was labelled as containing 40% water plus oleic acid. It was dried by heating in vacuo and yielded a brown to straw coloured granular product resembling Napalm in appearance.

The grains dispersed readily in petrol, yielding clear, viscous, elastic fluids in less than 20 mins at 40 - 50°C.

A second dried sample received, behaved in a fashion very similar to Napalm. A maturing period of several hours was necessary to obtain clear viscous elastic gels.

(c) Vacuum Oil Coy Thickener

This was itself a gel, stiff and elastic, brown in colour, with an aromatic odour, suggesting the presence of a peptising agent. It dispersed readily in petrol or dieselene, the process being accelerated by warming. At 40 - 50°C, the formation of a viscous, elastic, almost clear gel was complete in less than 30 minutes. At 25°C, the process took 2-3 hours. The gels while still warm could be diluted with further petrol or dieselene and remained stable over an observed period of several days.

This thickener must be used in an unusually high concentration (15 - 20%) to obtain a product of suitable viscosity.

(d) "Lux" (flakes) and "Sunlight" Soap

(i) Soap plus cresol:

It was found that "Lux" flakes or finely grated "Sunlight" soap could be induced to gel in petrol by the following method. The soap was vigorously stirred with petrol at room temperature for 10 - 15 minutes. A peptiser such as cresol was added and stirring continued for a further 10 - 20 minutes until the mixture began to gel. The temperature was then raised to 40 - 50°C and stirring continued for a further 5 minutes. The products so obtained were granular non-elastic gels, with a consistency when first formed somewhat similar to that of thick porridge.

In the course of 12 - 24 hours the majority of these set firmly and could no longer be poured. The gels are apparently stable in this state but if necessary can be broken down to any desired consistency by stirring in further petrol or dieselene.

If insufficient "Lux" or cresol were used, a proportion of free petrol remained in the product. The minimum amounts necessary to obtain a fairly homogeneous product appear to lie between 5% and 7% of "Lux" and 1% and 2% of cresol. Free petrol was not evident in the grated soap samples. Satisfactory products were obtained with 3 - 10% grated "Sunlight" soap and 1 - 4% cresol. The clarity and consistency of the product increased with the proportion of cresol used, as the degree of solvation of the soap effected by the peptiser was greater. Clarity and consistency were similarly increased by warming the product or by allowing to stand.

Apparently a small amount of water in the soap is necessary as dried and powdered soaps did not gel in petrol. "Lux" (flakes) contains approximately 5% water and "Sunlight" soap approximately 10%.

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(ii) Soap alone

In the absence of a peptising agent such as cresol, gels were formed from soap and petrol alone by prolonged stirring (30 minutes or more). The majority of the soap appeared to remain in suspension. Using 10 - 15% of soap, the gels formed tended to set more firmly on standing and the soap showed no tendency to settle out.

(iii) Soap plus water:

By adding a small amount of water to the mixture and stirring for 20-30 minutes, products similar to (ii) were obtained. The presence of additional water apparently reduces the amount of soap necessary, as satisfactory products which appeared to be stable over an observed period of several days were obtained using 7% soap - 3% water and 10% soap - 5% water. Dilute caustic soda solution and dilute acetic acid acted similarly to water but addition of small amounts of hydrochloric and sulphuric acids resulted in coagulation.

(e) Sodium stearate

The following mixture of Japanese origin was prepared and yielded a product of the same character as did "Lux"(flakes) and cresol.

	Per cent
Petrol	35
Kerosene	35
Alcohol	18
Sodium stearate	6
Stearic acid	1.5
Sodium silicate	0.5
Water	4

Similar products were obtained using sodium stearate, sodium silicate, cresol, water, petrol and dieselene.

(f) Copper oleate and copper oleostearate

The former was a dark green mass and the latter was received as a 1% solution. Evaporation of the solvent left a blue green mass. Neither of these two substances have so far been observed to exhibit any tendency to gel in petrol.

(g) Rubber and bitumen

The rubber used for the samples mentioned here, is known commercially as Smoked Sheet Rubber. The bitumen was labelled "85-25".

The rubber dispersed in cold petrol in 12 to 16 hours if stirred at intervals and more rapidly in a benzene - petrol mixture. Samples ranging from 4 to 10% rubber content were prepared. These were somewhat opaque, elastic, viscous fluids.

The following rubber - bitumen mixture was also prepared. It was a thick, black, viscous fluid.

Bitumen	17 parts by weight
Rubber	8 " " "
Kerosene	8 " " "
Petrol	67 " " "

Due to rubber shortage and to the difficulty of cleaning rubber and pitch from Flamethrowers these thickeners do not appear to be as favorably regarded as the metallic soaps.

4. VISCOSITY

As thickened fuels suitable for the purposes of 4 Aust Armd Bde were selected by inspection, measurements of viscosity have not been undertaken. P.W.D. Memorandum 270 describes a falling sphere method for comparing viscosities of thickened fuels; this method does not appear to be applicable to the firm, granular type of soap gel.

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5. DISCUSSION

The following discussion refers to the possible use under field conditions of thickened fuels, the preparation of which has been investigated in the laboratory.

The gels obtained may be conveniently didvided into two types, one a viscous, elastic type of gel formed using thickeners consisting mainly of aluminium soaps, such as Napalm, aluminium stearate, aluminium oleostearate and the Vacuum Oil Coy Thickener in petrol - dieselene. The second is a granular non-elastic type of gel obtained using sodium stearate, "Lux" (flakes) or soap. This type of gel has given excellent results in field trials.

Aluminium stearate gels prepared without a peptiser have been found to lose their elastic properties within 48 hours. In view of the results obtained in field trials with non-elastic gels, it is possible that aluminium stearate gels which have lost their elastic properties might still be suitable for firing. While estimation of the stability of any gel would best be performed by determination under controlled conditions of viscosity or consistency extending over a period, the gels formed from aluminium oleostearate, Napalm and Vacuum Oil Coy Thickener have appeared to be stable over an observed period of several days. The granular, non-elastic type of gel presents a new problem in that it tends to set more firmly on standing. Field trials indicate that the gels are suitable for firing in a "set" condition, but they can be broken down to any desired consistency by stirring in further petrol or dieselene.

To prepare aluminium stearate gels, the mixture must be heated. In the cases of the other thickeners tried, heat accelerates solvation but mixing could be efficiently performed under field conditions without the necessity for heating the mixture. The preparation of all types of thickened fuels examined, involves stirring. It is considered that the provision of something of the nature of a hand operated, butter-churn type of stirrer, capable of being clamped to the side of the mixing vessel, is most desirable under field conditions.

Napalm and possibly aluminium oleostearate thickened fuels are the only ones of those investigated that appear to require any considerable maturing time. In the case of Napalm, at least 12 hours at room temperature is required for the gel to mature to its final elastic state.

It is apparently desirable that a thickened fuel should possess a low viscosity - sensitivity to changes in temperature. Reports from other sources indicate that neither Napalm nor aluminium stearate thickened fuels are entirely satisfactory in this respect. No determinations of the sensitivity of other types of thickened fuels described in this report have yet been carried out.

Laboratory experiments in conjunction with observations on field trials, indicate that the presence of a thickener does not appear to affect materially ignition of the fuel.

6. APPENDICES

The following are attached:-

... Appx A. Results of Field Trials
... Appx B. Photographs illustrating properties of fuels.

H. Alcock
Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:
List B less Adv LHQ.

References:
P.W.D. Memoranda No's
270,288,312,326,327,328,
S.R.B. 690/2

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX A to 2/1 AUST CW LABORATORY FOLIO 48

Results of field trial held by 4 Aust Armd Bde, Southport area, 28 Mar 44. Photographs in Appendix B

Photo No	Fuel mix	Thickener	Diam of Nozzle	Nozzle Elevation	Pressure	Maximum Range	Remarks
	100 P	-	13/16"	15°	200 lbs	115 ft	All fuel burnt in air
	100 P	Napalm	13/16"	10°	230 lbs	237 ft	Small proportion of fuel burnt on target area
A & B	50 P - 50 D	Aluminium Stearate	13/16"	10°	255 lbs	208 ft	Majority of fuel burnt on target area. Fuel issued from nozzle in almost unbroken rod.
C	100 P	Lux plus Cresol	13/16"	10°	275 lbs	282 ft	A good proportion of fuel burnt on target area. Muzzle flash considerable.
D	25 P - 75 D	-	13/16"	10°	350 lbs	208 ft	Majority of fuel burnt in air.
E	100 P	-	13/16"	10°	320 lbs	115 ft	All fuel burnt in air.

Note: The Aluminium stearate mixture was prepared 3 days before the shoot and regenerated by heating 5 - 6 hours before being placed in gun. The Lux mixture contained approximately 10% Lux and 1% Cresol and was prepared by stirring these into cold petrol.
The temperature of each fuel was approximately 30°C immediately prior to firing. Compressed air was used as a propelling medium. Capacity of container 10 - 20 gallons per shot.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX B to 2/1 AUST GW LABORATORY FOLIO 48

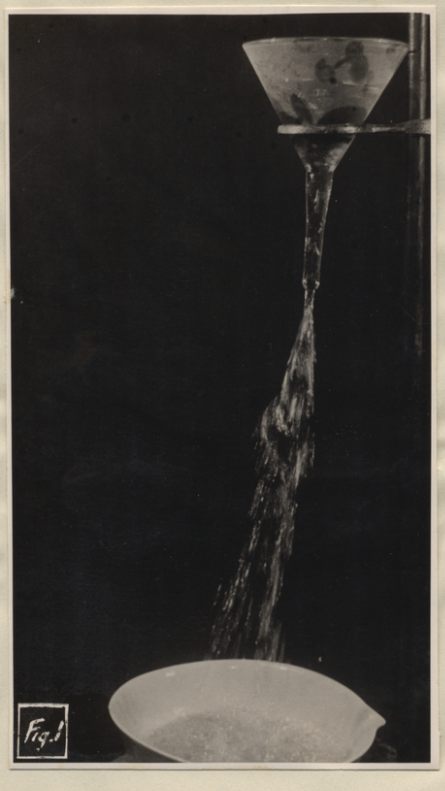

Fig I – Petrol



Fig 2 – Petrol thickened with aluminium stearate



Fig 3 – Petrol thickened with Lux.

The falling fuel is blown by a blast of air from a fan. The stream of petrol is broken up by the blast of air. The petrol thickened with aluminium stearate holds together in a tenuous strand, while the blobs of Lux-thickened fuel appear comparatively unaffected by passage through the air.

THICKENED FUELS FOR FLAME THROWERS

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX B to 2/1 AUST CW LABORATORY FOLIO 48





A,B. ALUMINIUM STEARATE IN PETROL

A. shows beginning of burst. In B can be seen the tenous strand of unburnt fuel and burning fuel falling towards the target area, at the end of the burst.



C. LUX IN PETROL

Target area is covered with burning fuel



D. 25 PETROL - 75 DIESELENE

Beginning of burst



E. PETROL ALONE

Fuel all burns in the air.

THICKENED FUELS FOR FLAME THROWERS

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Appx. 2

SECRET

FOLIO 43

Copy No 19

2/1 Aust CW Laboratory RAE

G67/1/226

28 Apr 44

JAPANESE 1 Kg SMOKE GENERATOR Model 4

1. SOURCE

Captured in the LAE - SALAMAUA Area, Sep 43.

Received for examination from the Allied Enemy Equipment Board Nov 43.

2. DESCRIPTION

(a) External Appearance.

The generator is cylindrical in shape and is painted on the outside with a clear lacquer. There is a label on the lid (i) and another on the side (ii) which were translated to read:-

(i) "1-Kg. Smoke Generator, Revision 4
Manufactured December 1940
Naval Technical Laboratory".

(ii) Use and Handling of 1-Kilogram Smoke Generator

I. Use

a. Remove Cap
b. Light match head by striking with scratch board within cap.

II. Precautions in use

a. Because of pyrotechnical emission, wear work gloves, and turn face away when igniting.
b. Do not subject to shocks until sufficient smoke is produced after ignition.
c. Do not shake up and down. There is danger of exudation of the carbon tetrachloride in the mixture if the smoke compound is strongly active.
d. Radius of smoke discharge is approximately 2 meters. Do not use smoke near inflammable objects because of the pyrotechnical discharge.
e. When producing smoke on ships, place in wash buckets.

III. Precautions in storage

a. Store in location of low temperature and humidity as much as possible."

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(b) Construction. (See Appendix B).

Total weight	1160 gm	(2 lb 9 oz)
Weight of filling	990 gm	(2 lb 3 oz)
Length	21.1 cm	(8 19/64 in)
Diameter	5.3 cm	(2⅛ in)

The generator is constructed of 29 SWG tinned iron and the seams are all rolled, pressed, soldered and heavily lacquered on the outside. On the top of the generator is a lid pressed out of the same material. There is evidence that the lid was originally sealed to the generator with adhesive tape. On removing the lid the wooden striker block is exposed. This block appeared to have been originally coated on the upper surface with a striker composition. The under surface of the striker block is recessed to fit over the match head which is protected by a cellophane pad.

On the top of the generator, beneath the striker block, are stamped the number "34" and the letter "A".

In the centre of the top of the generator is a hole, diameter 15 mm, which is surrounded by a slightly depressed shoulder. Into this hole, and resting on the shoulder, is pressed and soldered a lead alloy dome shaped container. In the centre of its upper convex surface is a small circular hole through which the match head protudes. The bottom of this container is enclosed by a layer of tissue paper, and the match head, which is approximately 7 mm long, extends down to this surface. Surrounding the match head in this container is the primer composition.

The ignition mixture is in a hemispherical tin container which is soldered into position under the match head and primer composition, and thus projects into the smoke mixture. On the side of the generator, near the top, are two oval smoke ports, 13 mm by 6 mm, which are sealed with tinned iron soldered on the outside.

3. SMOKE MIXTURE

The smoke mixture is grey and moist, smelling strongly of carbon tetrachloride.

Analysis showed the composition to be:-

	Per cent
Carbon tetrachloride) Hexachlorethane)	34.6
Zinc Oxide	36.7
Zinc	22.1
Zinc Chloride	1.2
Kieselguhr	5.4

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. MATCH HEAD

The match head is a dark greenish grey material weighing 0.3 gm.

Analysis gave the following approximate composition:-

Match Head	Per cent
Potassium Chromate	30
Antimony Trisulphide	50
Ferric Oxide (by difference)	20
Organic Binder	0.6

5. PRIMER COMPOSITION AND IGNITION MIXTURE

These have the same qualitative composition. The primer composition weighs approximately 0.3 gm and contains the following:-

	Per cent
Potassium Chlorate	42
Aluminium	29
Ferric Oxide	28
Organic Binder	0.8
Antimony Trisulphide	trace

The ignition mixture is tightly packed and weighs approximately 2.8 gms. In the mixture a red and a metallic powder can easily be distinguished.

Analysis showed a considerably lower percentage of potassium chlorate than in the primer composition:-

	Per cent
Potassium Chlorate	12.7
Aluminium	43.8
Ferric Oxide	43.0
Organic Binder	0.5
Antimony Trisulphide	trace

6. FUNCTIONING TRIAL

One generator was tested. For 4½ minutes a greyish white smoke was discharged, mainly escaping through the centre hole in the top. The oval smoke ports opened but appeared to become blocked periodically. The progress of the burning of the smoke mixture could be followed by a blackening of the outside of the generator.

7. APPENDICES

The following are att:-

.... Appx A. Comparison with results of earlier examinations.

.... Appx B. Drawing showing structure.

.... Appx C. Photographs.

[signature] Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: - List B.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX A TO 2/1 AUST CW LABORATORY FOLIO 43

JAPANESE 1 Kg SMOKE GENERATOR MODEL 4

The examination of this model has already been reported in:-

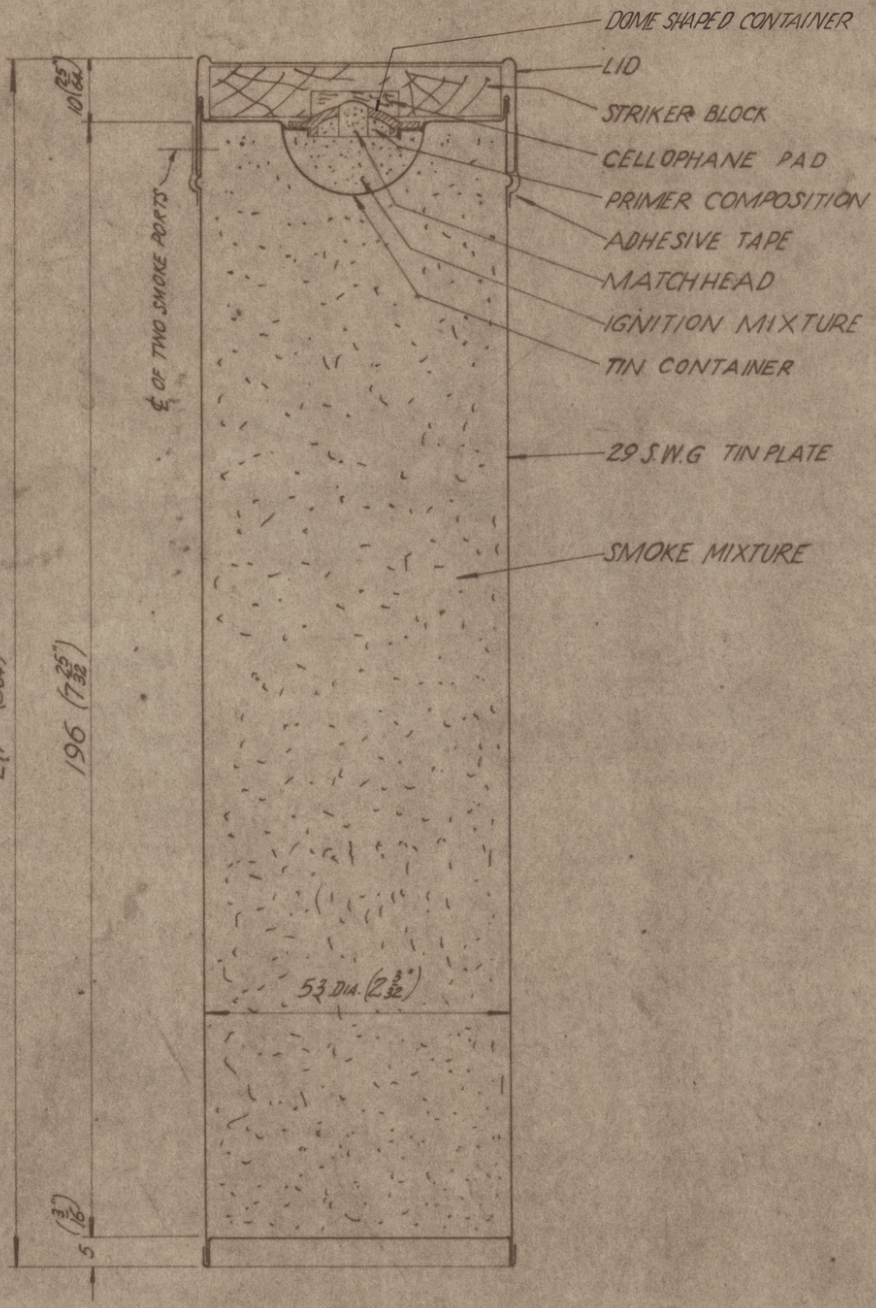
(a) 42nd Chemical Laboratory Company CMTR No 24 of 28 Dec 43
(b) CD (Australia) Report No 24 of 29 Mar 44

A table comparing the results of these examinations is set out hereunder:-

	42nd Chemical Laboratory Company CMTR No 24	CD (Australia) Report No 24	2/1 Aust CW Laboratory Folio 43
Date of manufacture	Dec 40	Dec 40	Dec 40
Total weight	880 gm	1074 gm	1160 gm
Weight of smoke filling	752 gm	936 gm	990 gm
Smoke mixture:-			
Carbon tetrachloride	35.7	32	34.6 (some HCE)
Metallic zinc	28.3	27	22.1
Zinc oxide	30.2	34	36.7
Zinc chloride	1.6	2	1.2
Inert material	4.2	5 (Kieselguhr)	5.4 (Kieselguhr)
Ignition mixture:-			
Aluminium	-	47	43.8
Ferric oxide	-	41	43.0
Potassium chlorate	-	12	12.7
Organic binder	-	-	0.5
Antimony trisulphide	-	-	trace
Primer composition:-			
Aluminium	-	37	29
Ferric oxide	-	32	28
Potassium chlorate	-	31	42
Organic binder	-	-	0.8
Antimony trisulphide	-	-	trace

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX B TO FOLIO 43.



JAPANESE 1Kg. SMOKE GENERATOR

MODEL 4

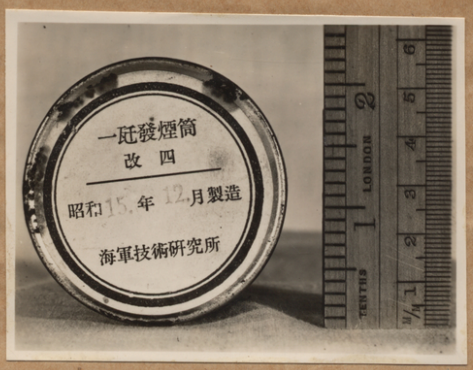
DIMENSIONS IN MILLIMETRES

DRAWN	KHH	SCALE	211 AUST. C.W. LABORATORY RAE.	3 MAR. 44
TRACED	KHH	FULL SIZE		Dr. 24
CHECKED	FAG			
DATE	24 FEB. 44.			

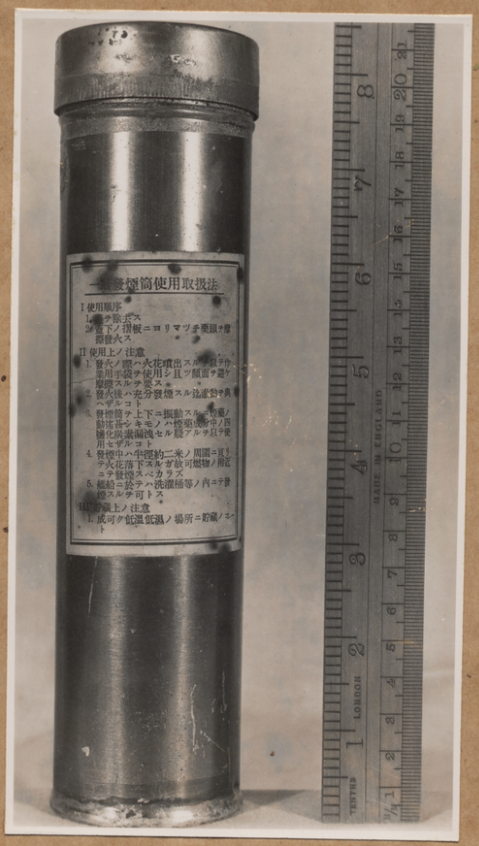
AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

2/1 AUST. C.W. LABORATORY R.A.E.

APPENDIX C to Folio 43



Top view



Side view

JAPANESE 1 Kg SMOKE GENERATOR MODEL4

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



2/1 AUST. C.W. LABORATORY R.A.E.



AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

RESTRICTED

ORO 63/43

AUSTRALIAN MILITARY FORCES

WAR DIARY

ROUTINE ORDERS

Vol 24 Page

by

Appx. 3

Major J C McALLISTER, Commanding 2/1 Aust CW Laboratory RAE

3 May 44 Part I Serial No 74

328. DUTIES

Orderly Officer -

To Mount 0630 hrs 3 May 44 Next for duty, to Mount 0630 hrs

Lieut Goldstone 10 May 44: Capt Smith

Orderly NCO -

To Mount 0630 hrs, 3 May 44 Cpl Day
4 May 44 Cpl Kline
5 May 44 L/Sgt McLaren
6 May 44 Sgt Coudy
7 May 44 Sgt Brunton
8 May 44 L/Sgt Hamlyn-Harris
9 May 44 S/Sgt Code

Bangers - Mess Orderly and General Dutyman Cook Steward

3 May 44 Spr Barber
4 May 44 Spr Dover
5 May 44 Spr Jones
6 May 44 Spr Holme
7 May 44 Spr Buchanan Spr Barber Spr Shaw
8 May 44 Spr Dover
9 May 44 Spr Curtis

329. APPOINTMENTS

1. Capt N D Smith is taken on strength 20 Apr 44 and is appointed Adjt 1 May 44.

2. Spr Buchanan R H is transferred from CW Sec to Chem Sec with effect from 2 May 44.

330. VERIFICATION OF METER READINGS

(a) Meter readers have been instructed to call at the Commandant's Office, Unit Headquarters or Local Orderly Room as the case may be, before reading meters.

(b) An N.C.O. will be instructed to accompany the meter reader and in addition to the record kept by the meter reader, reading will be recorded by the N.C.O. on a special Army Docket in triplicate which will be signed by the N.C.O.

(c) Two copies of this Docket will be handed to the meter reader.

(d) The original Docket will be attached to the claim when it is subsequently submitted for payment. The other copy may be retained by the Authority for record purposes.

(e) The remaining triplicate copy will be retained in the Docket Book by the Unit.

N D Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 24 SECRET

WAR DIARY 2/1 Aust CW Laboratory RAE

Vol 22 Page 055/3/264

Appx. 4. 6 May 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
D80 Machine for testing fabrics
D81 Reconditioning and assembly of Japanese flamethrower
D82 Reconditioning of Japanese Grenade discharger type 89.

(ii) In hand
A38,A39 Japanese 50 mm mortar shells - HE
A44 Japanese water filter - large type
A52 Japanese 75 mm shell - incendiary.

(iii) Completed
D79 Cupboard for Chemical section office.

(c) Works:-

(i) Commenced
Job 169 Painting of kitchen and messes.

(ii) In hand
Nil

(iii) Completed
Job 147 Isolated hut for ashing samples
Job 164 Reagent racks and two filing boxes
Job 168 Renewal of steel plate cover on open air stove.

2. CHEMICAL SECTION

(a) Personnel
Spr Buchanan has been transferred in from CW Sec.

(b) Summary of work carried out during the week
Project A48 Jap Acetylene Flare - Small type.
Draft report completed.
Project B16 Examination of various detectors from 31 F.O.D.
Project A38 Check for ammonium nitrate in filling from
Jap 50 mm ~~HE grenades~~ mortar shell. - HE.

3. CW SECTION

(a) Personnel
Spr Buchanan (see para 2(a))

(b) Summary of work carried out during the week
Project B12 Examination of B4 shell chargings is still in progress.
Project C15 Preliminary work on the light - sensitivity of impregnants has been commenced.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. PROJECTS

(a) Received
Nil

(b) Commenced
B13 Detectors Gas - Various (P2)
B16 Examination of Chemical Agent Detector Kit - M9 (P1)
In conjunction with:-
C15 Investigation of Pocket Vapour Detectors (P1)

(c) Completed
C14 Thickened Fuels for Flame Throwers - Interim Report . No 2 - Folio 48. List B.

5. EQUIPMENT

(a) Major items received during the week
Nil

(b) Major items required to complete WET
Fortin Barometer
Analytical Balance
Stop Watch
Camera } for Mobile Section
12 volt fan }

(c) Items required additional to WET
Gas treatment pannier
Camera suitable for photographing field trials
Coir matting.

6. LIAISON

(a) Supplies of CC-3 (from which CC-2 will be obtained) have been arranged with 42 Chem Lab Coy. Other US Impregnants are not available.

(b) An extract of ATIS Bulletin 765 has been obtained and forwarded under memo G67/8/261 of 5 May 44.
ATIS Enemy Publication 122 dealing with CW Eqpt of 51 Div has been received.

7. No 5 (MOBILE) SECTION
Advice is required on distribution of Mob Sec reports; the following is recommended:-

HQ 2/1 Aust CW Laboratory - 2 (one to be passed to LHQ for MO7)
HQ NG Force - as required for internal distribution.

It is recommended that NGF be advised on this matter.

8. MISCELLANEOUS

(a) Capt H D Smith reported on 29 Apr 44 and has taken up duties as Adjt.

(b) The following have been despatched to LHQ (for DMO(MO7)) during the week:-

Letter A 4/8/237 - Nomination for SME
" G57/4/249 - Folios required by LHQ
Signal CWL 254 - Photographer for Mobile Section
" CWL 256 - Detector specifications required
Letter G67/8/261 - Extract of ATIS Publication
" G66/4/265 - Chemicals required for detector research
Signal CWL 266 - Japanese respirators available.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

2/1 Aust CW Laboratory RAE Unit

WAR DIARY

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PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

Appx. 5

At 0600 Hrs. Saturday 6/5/1944. (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (Insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	WX35410	SMITH	N D	Tech Offr (CW)	"		
Capt	NX105276	BULL	C H	Chem Offr	"		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	"		
Lieut	QX36411	RYAN	J G P	Tech Offr (CW)	"		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

6 May 44
Date of Despatch

H Chesterman Maj
Signature of Commander

Truth—7/43.

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FIELD RETURN OF OFFICERS

.....71..44 (Serial No.)

At 0600 Hrs. Saturday 6/5/1944 2/1 Aust CW Laboratory RAE (Unit)

W.E. AIF III 31 1 / ..... OFFRS. 5 O.R's. 20 + OFFRS. - O.R's. 1 ATT. BY W.E.

Part of

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WE					
				•					
				•					
				Lieut.-Colonels					
			1	Majors 1					
	1		2	Captains 3					
		1	2	Lieutenants 1					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	1	1	5	5					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	• •	TOTAL.
A.		A 5									5
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary.
* * Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.
WX35410	Capt	SMITH N D	3 Aust Corps	29 Apr 44	Authority: LHQ memo 38120 of 18 Mar 44.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

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FIELD RETURN OF OTHER RANKS

71 / 44 (Serial No.)

At 0600 Hrs. Saturday 6 / 5 /194 4. 2/1 Aust CW Laboratory RAE (Unit)

Part of W.E AIF III / 31 / 1 OFFRS. 5 O.R's 20 + OFFRS. - O.R's 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.	WE	Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3					
		3	5	Corporals 2					
			12	Troopers, Privates, etc 13	AACC	1			
				Civilians counting as O.R.					
*		3	22 *	Totals of cols. marked * should agree with details shown in Part E on Page 2. 20		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces. 10 N.Z. Forces.

Detail	A.I.F.	C.M.P. Under 19 Years.	C.M.P. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	19		1				[redacted]	[redacted]		23
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
2	LHQ		
1	Q'ld L of C Area W/shops		

Part D. Description of Other Ranks Whose Return To.....(Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

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6 CW Laboratory RAE *Unit*

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 6 / May / 1944.

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners			
Armament Artificer Fitter			
Armament Artificer Fitter (Electrical)			
Armament Artificer Fitter (M.V.)			
Armament Artificer Fitter (A.F.V.)			
Armament Artificer Instrument			
Armament Artificer Radio			
Armament Artificer Signals			
Armament Artificer Wireless			
Artificer, Artillery			
Artificer, Engine			
Blacksmiths			
Bricklayers			
Cooks			
Cooks, Hospital			
Coppersmiths			
Dispensers			
Draughtsmen	1	1	-
Draughtsmen (Architectural)			
Draughtsmen (Engineering)			
Draughtsmen (Mechanical)			
Draughtsmen (Topographical)			
Electricians			
Electricians (M.V.)			
Electricians (Signals)			
Fitters	1	1	-
Fitters (Cycle)			
Fitters (Electrical)	1	1	-
Fitters (Gun)			
Fitters (Instrument)			
Fitters (M.V.)			
Fitters, Railway Signal			
Fitters, Signals			
Grinder, Precision			
Mechanics, Instrument			
Mechanics, Instrument (Signals)			
Mechanics, Instrument (Surgical)			
Mechanics, Radio			
Mechanics, Typewriter			
Mechanics, Wireless			
Millwrights			
Operators, Excavator			
Pattern Maker			
Pharmacist			
Photographer, Wet Plate			
Photowriter			
Plumber			
Saw Doctors			
Surveyors			
CARRIED FORWARD	3	3	-

Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.
Surveyors, Engineering			
Surveyors, R.A.A.			
Surveyors, Topographical			
Surveyors, Trigonometrical			
Toolmakers			
Turners			
Watchmakers			
Welders			
GROUP II.			
Armourers			
Axemen			
Bakers			
Bty. Comd'rs. Asst.			
Boilermakers			
Carpenters			
Carpenters and Joiners	1	1	-
Cooks			
Dental Mechanics			
Driver-Mech. (Eng. and Med.)			
Driver-Operator			
Drainers			
Electricians			
Electricians (Engineers)			
Fire Control Operators			
Gun Operator			
Hatchman			
Height Taker			
Helio Operator			
Instrument Operator			
Intelligence Duties			
Joiners			
Lineman			
Lineman, Signals			
Lithographers			
Machinists, Metal			
Machinists, Wood			
Masons			
Masseurs			
Mechanics, M.T.			
Miners			
Moulders			
Nurses, Trained			
Observation Post Assts.			
CARRIED FORWARD	4	4	-

Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.
Operating Room Assts.			
Operator, Keyboard			
Operator, Line			
Operator, Signal			
Operator, Switchboard			
Operator, Wireless			
Opticians			
Painters			
Panel Beaters			
Photographer, Dry Plate (a)	1	1	-
Predictor Numbers			
Printers			
Radiographers			
Riggers			
Sawyers			
Signallers			
Signwriters			
Telescope Identfn. Numbers			
Well Borers			
Wheelers			
Winchman			
Wireman			
Woodturners			
GROUP III.			
Battery Surveyors			
Butchers			
Clerks			
Clerks, Supply	1	1	-
Clerks, Technical			
Coach Trimmers			
Concretors			
Cooks			
Dental Clerk Orderlies			
Despatch Riders			
Draughtsmen, Signals			
Drivers, H.T.			
Driver Mechanics	1	1	-
Drivers Tptn. Plant			
Engine Hands, I.C.			
Equipment Repairers			
Farriers			
Fitters' Mates			
Gun Layers			
CARRIED FORWARD	7	7	-

Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
G.P.O. Assistants			
Hammermen			
Leather Stitchers			
Orderlies, Nursing			
Orderlies, Nursing Mental			
Plate Layers			
Rangetakers			
Rivetters			
Roughriders			
Saddlers			
Saddletree makers			
Shoemaker and Boot Repairer			
Stevedores			
Stokers, Staty. Engine			
Storemen, Technical			
Tailors	1	1	-
Textile Refitters			
Tinsmiths			
Vulcanizers			
Wagon Erectors			
Whitesmiths			
DETAILS OF NON-TRADESMEN.			
WO2 Chemist	1	1	-
S/Sgt COMS	1	1	-
Sgt Clerk	1	1	-
Sgt Lab assists	2	2	-
Cpl Lab assists	-	3	-
Lab assist	1	1	-
Gen dutyman	1	1	-
ATTACHED BY W.E.			
Orderly (b)	1	1	-
Driver MT	1	-	-
Batmen	2	2	-
Batman Dr	1	1	-
ATTACHED WE			
Cook Gp II	1	1	-
Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	*23	* -

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

Date of Despatch

Signature of Commander
Major
Comd. 2/1 Aust. C.W. Laboratory RAE

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Photographer:- Spr in lieu of Cpl

(b) Orderly:- Cpl in lieu of Spr

RESTRICTED

GRO 634/43

WAR DIARY

No 1 22 Page

Appx. 7

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

Major J C McALPSTER, Commanding 2/1 Aust CW Laboratory R/E

10 May 44 Part I Serial No 75

331. DUTIES

Orderly Officer -

To Mount 0630 hrs 10 May 44 Next for duty, to Mount 0630 hrs

Capt Smith 17 May 44: Lieut Ryan

Orderly NCO -

To Mount 0630 hrs, 10 May 44 Sgt Brunton
11 May 44 Sgt Coudy
12 May 44 L/Sgt McLaren
13 May 44 Cpl Kline
14 May 44 Cpl Day
15 May 44 L/Sgt Hamlyn-Harris
16 May 44 S/Sgt Codo

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
10 May 44	Spr Rohne		
11 May 44	Spr Buchanan		
12 May 44	Spr Dowd		
13 May 44	Spr Curtis		
14 May 44	Spr Dover	Spr Barber	Spr Jones
15 May 44	Spr Murrey		
16 May 44	Spr Shaw		

332. DRESS

Winter dress is now in order. OR's proceeding outside Camp area after 1700 hrs will wear service dress, if issued; Offrs will wear service dress Offrs' pattern unless on duty for which OR's pattern is more suitable.
Personnel leaving the unit on duty in the daytime should wear shorts or slacks with shirt (and pullover if desired); as service dress is difficult to replace in this area, OR's should reserve it for leave.

333. TELEPHONE

The switchboard will be switched 'ON' from 0800 hrs to lights out. The Orderly NCO will check that it is on at 0900 hrs daily and will also be responsible for connecting FP482 to Extension 4 at Meal times.

J A Smith Capt

Adjt 2/1 Aust CW Laboratory R/E

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
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Appx. 8

SECRET

FOLIO 47

Copy No 37.

2/1 Aust CW Laboratory RAE

G56/1/280

11 May 44

JAPANESE TYPE 88 D.A. PERCUSSION FUZE

1. SOURCE

One specimen, captured in the LAE - SALAMAUA area in Sep 43 was received in an unpacked condition in Nov 43; further specimens packed as described in para 2 were received in Feb 44 through the Allied Enemy Equipment Board.

2. APPEARANCE

(a) Fuze cylinder

The fuze is packed in a cylindrical tin-plate container having seamed and sweated joints and a screw lid sealed with adhesive tape.

(b) Fuze cover

The fuze is covered with green waxed paper tied with string and sealed neatly within two wooden blocks - a base block and a nose block. A waxed cardboard spacer holds these blocks tightly within the cylinder.

(c) Fuze

The fuze is conical shaped and rounded on the nose. A striker cap with a central steel rivet head projects from the nose. A double pronged safety pin with an attached loop of string enters the body. Below the body is a left hand fuze thread and a gaine. The fuze thread on several specimens examined had been damaged by counterpunching, rendering these fuzes unserviceable.
Japanese characters on the nose were translated to read - "Type 88" and those on the body "December 1941 (Showa 16) Tokyo Arsenal".
Weights and dimensions:-

Overall length	5.9 cms	(2 5/16")
Diameter of gaine	1.1 cms	(7/16")
Diameter of fuze thread	2.0 cms	(25 /32")
Pitch of fuze thread (left hand)	1.5 mm	(0.059")

Weight packed in tin container	134	gms	(4.7 ozs)
Weight of fuze without safety pin and string	73.1	"	(2.56 ozs)
Weight of safety pin and string	2	"	(0.07 ozs)
Weight of the disruptive detonator filling	0.780	"	(12 gr.)
Weight of gaine charge	0.899	"	(13.9 gr.)

(d) Components listed (for detail see Appendices A & B)

(i) Striker Assembly:-
Striker cap, slotted sleeve, striker, striker cap spring

(ii) Arming Assembly:-
Ferrule, winged washer, arming sleeve with three integral stirrup springs, arming collar in 4 sections, arming spring, double pronged safety pin.

(iii) Nose.

(iv) Body.
(The above components are of brass with the exception of the striker (hardened steel), the arming sleeve (copper - nickel alloy) and the safety pin (galvanised iron wire)).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(v) Detonating Assembly:-
Igniferous detonator plug (brass), igniferous detonator (with copper cup and lid), felt washer, detonator (with copper cup and lid), gaine (brass), and gaine charge.

3. ASSEMBLY

The striker and grooved sleeve of the striker assembly receive the following parts consecutively:-

The striker cap spring, ferrule, winged washer, arming sleeve with stirrup springs, four sections of the arming collar retained by the arming sleeve, and the striker arming spring.

This unit fits the cavity of the nose which screws into the body of the fuze. The safety pin is inserted through the upper cavity of the fuze body and prevents downward movement of the ferrule. The gaine screws into the body of the fuze. It receives the CE charge in the base, then the detonator (disruptive), a felt washer with a central hole and finally the screw threaded igniferous detonator plug. Two holes bored in the gaine at the top of the detonator cup lid enable the detonator to be removed.

4. ACTION

On acceleration (and consequent rotation) of the projectile, the striker assembly sets back on the four sections of the arming collar held against centrifugal force by the arming sleeve. At the same time the ferrule (and winged washer) sets back on the body straightening the three stirrup springs. The tips of the springs become latched in the internal groove of the ferrule. The movement of the ferrule compresses the arming spring. As acceleration ceases the compressed arming spring forces the winged washer, ferrule and striker assembly to their original position. The ferrule lifts the arming sleeve allowing the sections of the arming collar to fly to the periphery of the cavity.
On impact the freed striker impinges on and functions the igniferous detonator. The point of the striker is off centre to the flash hole of the igniferous detonator plug allowing the flash to initiate the second detonator. The consequent wave of the detonation initiates the CE and in turn the shell filling.

5. USE

This direct action percussion fuze is used to function the Japanese 50 mm Mortar Shell - HE, described in Folio 49. Boxes have been captured containing 20 shells and a corresponding number of the fuzes described.

6. APPENDICES

... Appx A. Detailed description of fuze components.

... Appx B. Drawing - Section of the fuze

... Appx C. Photographs - Container - Fuze - Sectioned fuze.

[signature] Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List A.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

APPENDIX A TO 2/1 AUST CW LABORATORY FOLIO 47

Detailed description of fuze components

Striker assembly

The striker cap has an external retaining flange at the bottom and a central hole in the top. The slotted sleeve is formed from an elongated tube having two diametrically opposite slots extending longitudinally from the bottom. A central hole similar to that of the striker cap is in the top. With the slotted sleeve assembled within the cap the upper end of the striker is inserted to its shoulder and is used as a rivet to secure this assembly.

Arming assembly

The ferrule is a sleeve with an upper internal flange (to retain the winged washer) and an internal groove towards the bottom end which is rounded on the inside.

The arming sleeve is a thin sleeve of a copper nickel alloy with the three stirrup springs equally spaced radially. They are stamped from the material of the spring and project from its side.

The four sections of the arming collar could have been manufactured by longitudinally cutting a brass bush. The spiral arming spring is stronger than the striker cap spring.

Nose

The nose is conical shaped and rounded on the top. Internally it is bored in three diameters forming two shoulders. At the bottom it is externally screw threaded to engage the body of the fuze. On the outside above this thread is a concentric groove. Two tommy holes diametrically opposite provide means of fixing.

Body

The profile is a continuation of the conical nose. It is separated into two cylindrical cavities by a platform containing a central aperture. The top of the upper cavity is internally screw threaded to engage the nose. On the outside of the bottom cavity is the fuze thread. On the inside this cavity is threaded to engage the gaine. Four holes above the platform receive the safety pin. Two tommy holes below the safety pin provide a means of fixing.

Detonator assembly

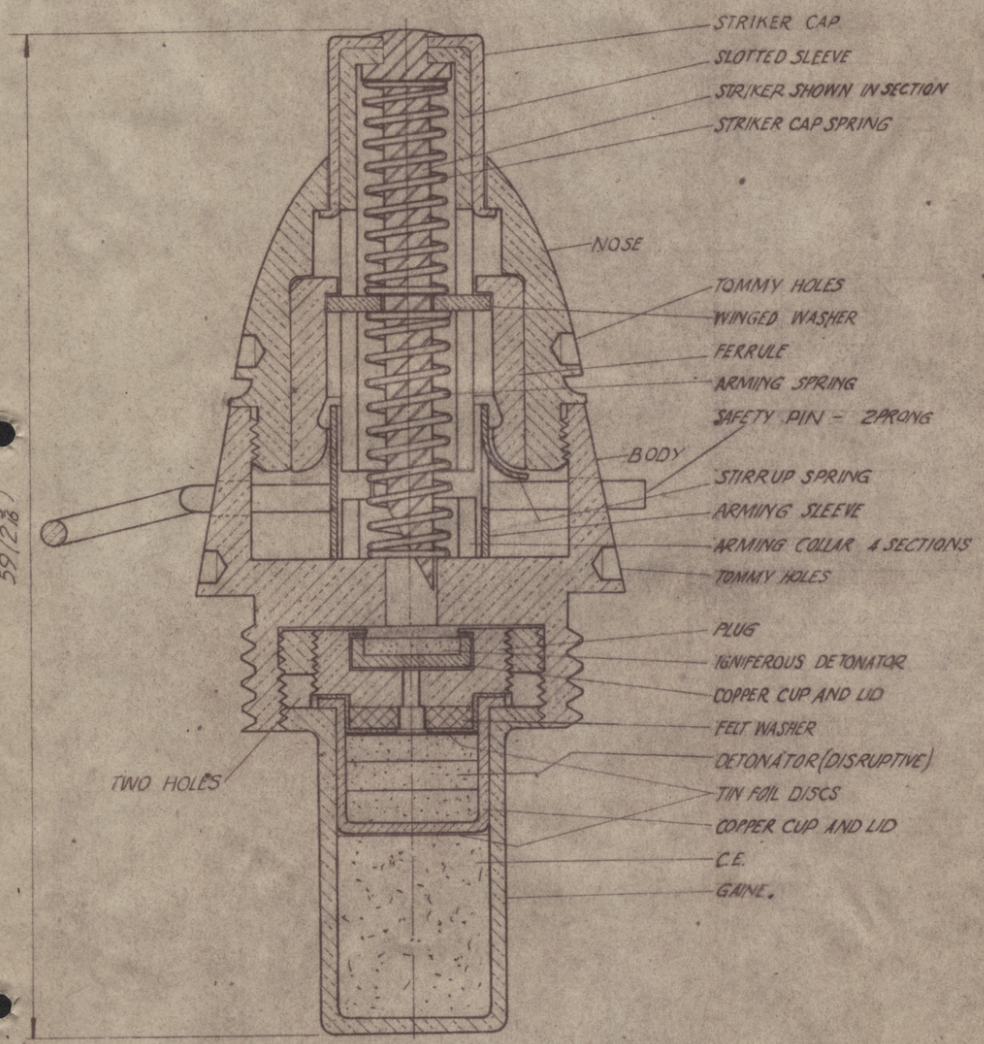
The igniferous detonator plug is externally screw threaded to engage the internal thread at the top of the gaine. The plug is centrally recessed on top to receive the igniferous detonator in the copper cup, and the fine gauge copper lid. Apparently the igniferous detonator is secured in this holder by flanging the top side with a die. The initiating agent of the igniferous detonator is a dark grey powder which gave positive tests for mercury and antimony. The powder is probably a mixture of mercury fulminate and antimony sulphide. The latter has the effect of prolonging the flame. The base of the plug which has a central flash hole is reduced in section to enter the countersunk detonator lid and compress the felt washer which in turn retains the detonator. The detonator cup lid has a central hole exposing a tin foil disc which covers the detonating composition contained in the detonator cup in three equal layers separated by paper discs. The composition of the layers consisted of an almost white powder of very fine texture. Tests indicated the powder to contain a mixture of mercury fulminate and potassium chlorate.

Weight of powder mixture 0.780 gms

The gaine charge of CE is contained in the gaine beneath another tin foil disc positioned below the detonator. The gaine charge consists of 0.899 grams of CE.

All screw joints are counterpunched in two places.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



JAPANESE TYPE 88 D.A. PERCUSSION FUZE

DIMENSIONS IN MILLIMETRES

DRAWN K.H.H. TRACED K.H.A. CHECKED P.A.G. DATE 29 MAR. 44	SCALE THREE TIMES FULL SIZE	APPENDIX 'B' TO FOLIO 47 2/1 AUST. C.W. LABORATORY R.A.E.	28 MAR. 44 DR. 26

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



Fig I

Fuze in cylinder



Fig II

One fuze in green waxed paper and a fuze withpaper removed

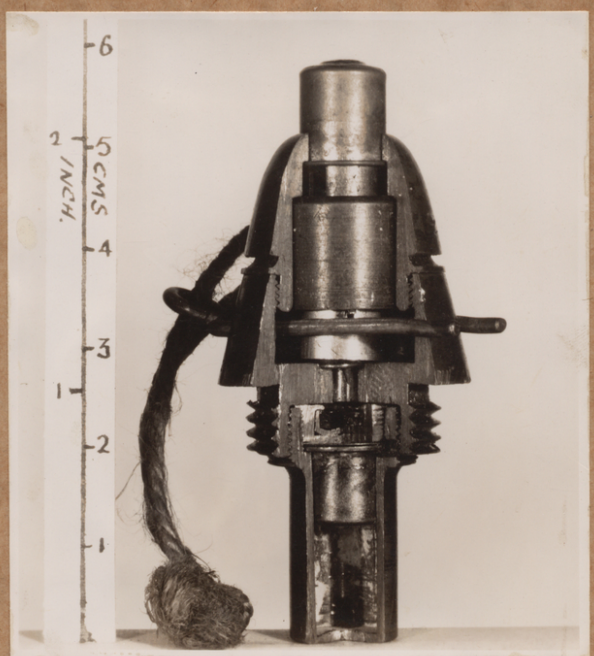


Fig III

A sectioned fuze with fillings removed

JAPANESE TYPE 88 D.A. PERCUSSION FUZE

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WAR DIARY

Vol 22 Page

Appx. 9

UNIT PROGRESS REPORT No 25 SECRET

2/1 Aust CW Laboratory RAE

G55/3/289

13 May 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
D84 Adapter for Leica Camera for copying documents.

(ii) In hand
A38,A39 Japanese 50 mm mortar shells - HE.
A44 Japanese water filter - large type.
A52 Japanese 75 mm shell - incendiary.
D81 Reconditioning and assembling Japanese flame thrower.

(iii) Completed
D82 Reconditioning of Japanese grenade discharger - type 89.

D83 Holder for Japanese grenade discharger - type 89 (for firing by remote control).

(c) Works:-

(i) Commenced
Nil.

(ii) In hand
Job 169 Painting of kitchen and messes.

(iii) Completed
Job 173 Shelving in workshop.
Job 174 Turnstile type drying rack for clothing.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project A48 Check analysis of calcium phosphide in Japanese Acetylene Flare - Small type.
Project B16 Examination of various detectors from 31 F.O.D.

Project A38 Identification of Metal of Caine container - Japanese 50 mm Mortar Shell.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

3. CW SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Examination if B4 shell chargings is still in progress. The sampling of those shell received which were not MK I has been completed and the final analysis are being carried out. A report on viscosity - temperature sensitivity of B4 chargings is being prepared. A method is being developed by which it is hoped to compare on a quantitative basis the light sensitivity of various impregnants. Some preliminary work has been done towards the isolation of the light decomposition products of impregnite U.

4. PROJECTS

(a) Received
A further case of samples of A/Gas equipment was received from 31 F.O.D. under authority of DOS memo B9763.

(b) Commenced
Nil

(c) Completed
Nil

5. EQUIPMENT

(a) Major items received during the week
Apparatus for steaming out bombs.
Reconditioned engine for Truck 15 cwt.

(b) Major items required to complete UNIT
As listed in Progress Report 24.

(c) Items required additional to UNIT
As listed in Progress Report 24.

6. LIAISON

(a) An interesting bubble method of viscometry was viewed at the Casco Glue Co, the visit being arranged through SLB.
(b) Capt Dying from UK Gas School visited the unit.
(c) Arrangements have been made to loan Japanese CW eqpt to the Gas School and obtain samples for them where possible.
(d) Supply of photographic materials has been investigated with 3 A.O.D. The procedure is now somewhat complicated and slow in operation.

7. No 5 (MOBILE) SECTION
The examination of the following Japanese equipment is nearing completion:-

Two water purifying outfits.
75 mm smoke shell
Tin of MK I decontaminating agent.

H.C. Leicester
Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (*Adapted*)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

2/1 Asst Cr Laboratory / 72 44 (Serial No.)

At 0600 Hrs. Saturday 13/5/1944. Queensland Detachment (Unit)

Part of AIF W.E. III/31/1. OFFRS. 5 O.R's. 20 + OFFRS. - O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
			3	Sergeants 3					
		3	5	Corporals 2					
			12	Troopers, Privates, etc. 13	AACC	1			
				Civilians counting as O.R.					
*		3	22*	Totals of cols. marked * should agree with details shown in Part E on Page 2. 20		1 *			*

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail	A.I.F.	C.M.P. Under 19 Years.	C.M.P. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	19 3		1				[redacted]	[redacted]		23
B(1)										
B(2)						[redacted]				

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.
2	LHQ		

Part D. Description of Other Ranks Whose Return To.....(Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE Unit

No 1 22 Page

Appx 11

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

72 / 44 Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 13 / 5 / 1944 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners			
Armament Artificer Fitter			
Armament Artificer Fitter (Electrical)			
Armament Artificer Fitter (M.V.)			
Armament Artificer Fitter (A.F.V.)			
Armament Artificer Instrument			
Armament Artificer Radio			
Armament Artificer Signals			
Armament Artificer Wireless			
Artificer, Artillery			
Artificer, Engine			
Blacksmiths			
Bricklayers			
Computors			
Cooks, Hospital			
Coppersmiths			
Dispensers			
Draughtsmen	1	1	–
Draughtsmen (Architectural)			
Draughtsmen (Engineering)			
Draughtsmen (Mechanical)			
Draughtsmen (Topographical)			
Electricians			
Electricians (M.V.)			
Electricians (Signals)			
Fitters	1	1	–
Fitters (Cycle)			
Fitters (Electrical)	1	1	–
Fitters (Gun)			
Fitters (Instrument)			
Fitters (M.V.)			
Fitters, Railway Signal			
Fitters, Signals			
Grinder, Precision			
Mechanics, Instrument			
Mechanics, Instrument (Signals)			
Mechanics, Instrument (Surgical)			
Mechanics, Radio			
Mechanics, Typewriter			
Mechanics, Wireless			
Millwrights			
Operators, Excavator			
Pattern Maker			
Pharmacist			
Photographer, Wet Plate			
Photowriter			
Plumber			
Saw Doctors			
Surveyors			
CARRIED FORWARD	3	3	–

Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.
Surveyors, Engineering			
Surveyor, R.A.A.			
Surveyors, Topographical			
Surveyors, Trigonometrical			
Toolmakers			
Turners			
Watchmakers			
Welders			
GROUP II.			
Armourers			
Axemen			
Bakers			
Bty. Comd's. Asst.			
Boilermakers			
Carpenters			
Carpenters and Joiners	1	1	–
Cooks			
Dental Mechanics			
Driver-Mech. (Eng. and Med.)			
Driver-Operator			
Drainers			
Electricians			
Electricians (Engineers)			
Fire Control Operators			
Gun Operator			
Hatchman			
Height Taker			
Helio Operator			
Instrument Operator			
Intelligence Duties			
Joiners			
Lineman			
Lineman, Signals			
Lithographers			
Machinists, Metal			
Machinists, Wood			
Masons			
Masseurs			
Mechanics, M.T.			
Miners			
Moulders			
Nurses, Trained			
Observation Post Assts.			
CARRIED FORWARD	4	4	–

Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.
Operating Room Assts.			
Operator, Keyboard			
Operator, Line			
Operator, Signal			
Operator, Switchboard			
Operator, Wireless			
Opticians			
Painters			
Panel Beaters			
Photographer, Dry Plate (a)	1	1	–
Predictor Numbers			
Printers			
Radiographers			
Riggers			
Sawyers			
Signallers			
Signwriters			
Telescope Identfn. Numbers			
Well Borers			
Wheelers			
Winchman			
Wireman			
Woodturners			
GROUP III.			
Battery Surveyors			
Butchers			
Clerks	1	1	–
Clerks, Supply			
Clerks, Technical			
Coach Trimmers			
Concretors			
Cooks			
Dental Clerk Orderlies			
Despatch Riders			
Draughtsmen, Signals			
Drivers, H.T.			
Driver Mechanics	1	1	–
Driver Tptn. Plant			
Engine Hands, I.C.			
Equipment Repairers			
Farriers			
Fitters' Mates			
Gun Layers			
CARRIED FORWARD	7	7	–

Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
G.P.O. Assistants			
Hammermen			
Leather Stitchers			
Orderlies, Nursing			
Orderlies, Nursing Mental			
Plate Layers			
Rangetakers			
Rivetters			
Roughriders			
Saddlers			
Saddletree makers			
Shoemaker and Boot Repairer			
Stevedores			
Stokers, Staty. Engine			
Storemen, Technical	1	1	–
Tailors			
Textile Refitters			
Tinsmiths			
Vulcanizers			
Wagon Erectors			
Whitesmiths			
DETAILS OF NON-TRADESMEN.			
WO2 Chemist	1	1	–
S/Sgt CQMS	1	1	–
Sgt Clerk	1	1	–
Sgt Lab Assts	2	2	–
Cpl Lab Assts	–	3	–
Lab Asst	1	1	–
Orderly(b)	1	1	–
~~ATTACHED BY W.E.~~			
Gen dutyman	1	1	–
Dvr MT	1	–	–
Batman Dvr	1	1	–
Batmen	2	2	–
ATTACHED WE			
Cook Gp II	1	1	–
Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	21	23	–

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

13 May 44
Date of Despatch

H Wesleeder Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Photographer :- Spr in lieu of Cpl

(b) Orderly :- Cpl in lieu of Spr

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

2/1 Aust CW Laboratory 72/44 (Serial No.)

At 0600 Hrs. Saturday 13/5/1944 ..... (Unit) Queensland Detachment

Part of AIF W.E. III/31/1 OFFRS. 5 O.R's. 20 + OFFRS. - O.R's. 1 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WE *					
				*					
				Lieut.-Colonels					
			1	Majors 1					
	1		2	Captains 3					
		1	2	Lieutenants 1					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	1	1	5	5					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
A.		A 5									5
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Aust CW Laboratory RAE *Unit*

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72/44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 13/5/1944. (Total to agree with Columns 4 and 7 of Part A.)

1 Substantive Rank and Higher Temporary Rank if Held.	2 Army Number.	3 Surname.	4 Initials.	5 Posting.	6 Whether present with Unit (insert Yes or No)	7 If not present with Unit, state how employed.	8 Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	VX35410	SMITH	N D	Tech Offr (CW)	Yes		
Capt	NX105276	BULL	C H	Chem Offr	Yes		
Lieut	QX36411	RYAN	J G P	Tech Offr (CW)	Yes		
Lieut	VX112210	GOLDSTONE	F A	Ammn Offr	Yes		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

13 May 44
Date of Despatch

J C McAllester Maj
Signature of Commander

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

AUSTRALIAN MILITARY FORCES WAR DIARY

ROUTINE ORDERS Vol 22 Page

by Appx. 12

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

17 May 44 Part I Serial No 76

334. DUTIES

Orderly Officer -

To Mount 0630 hrs 17 May 44 Next for duty, to Mount 0630 hrs

Lieut Ryan 24 May 44: Capt Bull

Orderly NCO -

To Mount 0630 hrs, 17 May 44 Sgt Kellick
18 May 44 Sgt Brunton
19 May 44 L/Sgt McLaren
20 May 44 S/Sgt Code
21 May 44 Cpl Kline
22 May 44 L/Sgt Hamlyn-Harris
23 May 44 Sgt Goudy

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
17 May 44	Spr Buchanan		
18 May 44	Spr Dowd		
19 May 44	Spr Holme		
20 May 44	Spr Shaw		
21 May 44	Spr Jones	Spr Barber	Spr Dover
22 May 44	Spr Curtis		
23 May 44	Spr Dover		

335. WIRELESS

The wireless set in the Sappers mess may be used only between the following times:-

0700 and 0800 hrs
1215 and 1300 hrs
1715 and 1815 hrs
2015 and 2200 hrs
1715 and 2200 hrs (leave nights only)

Sundays
0830 and 2200 hrs

Volume will be kept to a minimum at all times.
RO 293 is cancelled.

336. ROUTINE

The following will be observed in future:-

	Working Days	Sundays
Reveille	0630 hrs	0800 hrs
Roll call	0635 hrs	
Mess	0730 hrs	0830 hrs
Parade	0800 hrs	
Break	1000-1015 hrs	
Stand down	1215 hrs	
Mess	1220 hrs	1230 hrs
Stand to	1300 hrs	
Break	1430-1445 hrs	
Stand down	1600 hrs	
Leave parades	1700 hrs	
Mess	1730 hrs	1730 hrs
Stand to	1815 hrs) Work	
Dismiss	2015 hrs) nights	
Lights out	2200 hrs	2200 hrs

RO'S 214 and 304 are cancelled.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

337. TELEPHONE

1. The Orderly NCO will see that -
(a) the switchboard is switched 'ON' between 0800 hrs and lights out except during meals.
(b) F9482 is connected to extensions 2 and 4 during meals.

2. Numerous complaints have been received that inward calls are not being received or are not registering on the board.
All members using the switchboard must ensure that they understand fully the correct method of operating it.
RO 333 is cancelled.

338. TIDINESS

All working accomodation MUST be tidied at the conclusion of the days work. Documents must not be left on office tables but must be put away, 'protected' documents being put under lock and key.
The Orderly NCO will not issue a leave pass to a member without first inspecting his working accomodation and ensuring that it has been tidied.

339. BENCHES - LABELLING OF

Personnel allotted to laboratory benches are to obtain a name card from Amn Sec and affix it to the lighting post on the bench.
Amn Sec will ensure that all cards are of uniform appearance.

340. INSPECTION OF UNIT - VISITORS

Unit Instruction A1/9/410 of 27 Nov 43 and RO's 241 & 294 are cancelled. Unit SO's para 11 is amended to read -

11.

(a) Inspection

(i) No person, whether a member of the services or a civilian will be permitted to inspect the Unit or ant portion of it unless such inspection has been ordered by higher authority, or authorised by the OC.

(ii) Finance and other checking staffs will be permitted to inspect Unit records only in the presence of the CQMS or the Orderly Room Sgt, depending on the nature of the records.

(b) Visitors

(i) Persons visiting the Unit on duty should be invited to meals in the appropriate messes. The Orderly NCO will be notified and will advise the kitchen staff as early as possible of anticipated meal requirements.

(ii) Male members of the services and Allied forces may be invited to make social visits at any time not during working hours.

(iii) Ladies, whether members of the services or not, may be invited to make social visits on Sundays only, between 1000 hrs and the closing times of the messes entertaining them.

(iv) Persons making social visits will not be provided with meals unless the rationing situation has been discussed with the OM and his prior approval obtained.

(v) Except in the normal course of duty, no visitors will be permitted to enter working accomodation (laboratory, workshop, offices etc) without the approval of the OC.

341. TRAINING

The weekly training period, hitherto held from 0800-0830 hrs on Wednesdays, is suspended.

342. RATIONS - ISSUE OF

Commencing forthwith the CQMS, or/the storeman, the cook and the mess orderly for the day will rise 30 minutes before reveille for issue of rations.

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343. USE OF BENZOL PAINTS

Personnel using paints containing benzol (benzene) will wear respirators. Benzol vapour is POISONOUS and failure to take precautions when using it may lead to serious illness.

344. PREVENTION OF FIRES

1. The number of fires occuring, particularly in tented camps, has resulted in serious losses of equipment and is impeding our war effort. Many of these fires could have been prevented.

2. Particular attention will be paid to the following:-

(a) In buildings, &c., in which smoking is prohibited, notices to that effect will be displayed prominently, and the prohibition will be rigidly enforced.

(b) In no circumstances will authority be given for smoking in garages, forage barns or dumps, stables, magazines, in the vicinity of petrol or oil stores or in any other buildings in which inflammable materials are stored.

(c) Grass will be kept short in barrack areas hutments and camps.

(d) Special arrangements will always be made for the storage of petrol, oil and grease. Tins of sand will be kept available in such places, in addition to tins for oil waste, &c.

(e) Naked lights in tents will be kept carefully shielded; candles will be placed in approved holders.

(f) Great care will be exercised when tanks of vehicles are being replenished. Engines will be stopped and any petrol spilled will be immediately wiped up or liberally sprinkled with sand.

(g) Naked lights or hurricane type lamps will on no account be taken into or used in the vicinity of an inflammable liquid or material store or in power houses, nor will the use of such lamps be permitted when filling petrol tanks of vehicles at night where there are loose inflammable liquids.

(h) Existing and future heating facilities will comply with Standing Orders for Army Fire Services, Sections IV. and XI. Particular attention will be paid to the proximity of all heating facilities to such materials as sisal-kraft, fibreen, etc.

(i) The co-operation of all ranks will be obtained to prevent the careless throwing away of cigarette ends, pipe ashes or glowing matches from moving vehicles or in the vicinity of tents or in any place where there is danger of fire.

(j) Fires will not be lit for any purpose whatsoever in proximity of tents or huts except with the authority of a commissioned officer. That officer will ensure that such fires are subsequently extinguished. The possibility of change of wind and wind borne sparks will not be overlooked.

(k) Proper maintenance of all fire appliances, vide paras. 19 and 137 to 160, inclusive, of Standing Orders for Army Fire Services (Australia).

(G'ld L of C Area RO 762/43)

H.D. Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

MINUTE PAPER

DEPARTMENT OF THE ARMY

SECRET

SUBJECT: SAMPLING AND ANALYSIS CHEMICAL CHARGINGS CW WEAPONS

WAR DIARY
No 1 22 Page 13
Appx.

SECRET

2/1 Aust CW Laboratory RAE
G61/1/326
18 May 44

LHQ (for DMO(M07))

Reference LHQ Central Registry files 9/402/169 and 11/1/691.

1. It is proposed in future to report the results of this work on the lines set out below:-

(a) Source of shell
(b) Storage and sampling details.
(c) External appearance
- signs of leakage, pressure development, etc.
(d) Interior of shell, corrosion (photographs).
(e) Charging :-
(i) Appearance
(ii) Specific gravity
(iii) Melting or setting point
(iv) Viscosity
(v) Ash content
(vi) Water content
(vii) Acidity
(viii) Percentage of the essential constituent (H,PBAN)
(ix) Residue

(f) Discussion of condition of charging and correlation of facts - e.g. high ash content and extensive corrosion, high acidity and pressure development.

2. Certain of the details set out in para 1 may not be applicable in particular cases. Others may be submitted in the form of appendices, particularly where tabulated figures are concerned.

3. It is proposed to base certain determinations on methods set out in the following specifications:-

CWD	1194	HT 60/40
CS	1195B	HT 60/40 V - 6p.
CS	1324A	HT 60/40 V - 12p.
CS	1243	BBC
CS	1381	BBCV - 12p.
CS	1569	HB.

It is pointed out that these specifications are intended to manufacture and inspection. Information on methods of sampling and examination during storage is at present incomplete. Instructions governing the sentencing of defective shell have not been received, although a document (CDR2/W19649 of 10 Jan 44) concerning condemning limits is available. This document lists limits for "Percentage of active constituent", "Viscosity at 10°C", and "Tar, acidity, etc", but as it is apparently a British inter-departmental minute and not an official instruction it is recommended that the issue of official condemning limits for Australia be considered. Until these are available it is not intended to make any recommendation as to whether defective shell should be disposed of or retained.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. It is desired to draw attention to the difficulties involved in determination of viscosities as laid down in the specifications listed above. These require that viscosities be determined using a No 3 Ostwald viscometer. In view of the large number of shell to be sampled, conformity with this requirement would lengthen the time taken for this work to an unreasonable extent. It is therefore, proposed to employ the "falling sphere" method as recommended in CD (Australia) Note No 1, of 14 Jun 43. This would greatly reduce difficulties associated with cleaning and decontaminating the viscometer after each determination. In the case of very opaque chargings this method is impracticable and it is then proposed to use a Redwood viscometer standardized by the falling sphere method. Details of the Redwood viscometer used are contained in Porton Report 1788. Furthermore, to overcome certain disadvantages of the Redwood method it is intended to develop an electromagnetic method for timing the passage of the falling sphere. Arrangements for the design and construction of the apparatus required are in progress at present.

5. Furthermore it is noted that the specifications listed above require viscosities to be determined at 10°C. To date this requirement has been observed - e.g. in Folio 27 - "Examination of Shell Chargings - B4 - Serial 1". It is considered, however, that it would be preferable to determine viscosities at 20°C. This would overcome difficulties involved in maintaining a temperature of 10°C in carrying out determinations and would greatly reduce the time involved in examining a large number of samples. It is possible that the viscosity at 20°C would provide a better indication of the condition of the charging at the temperature at which the shell is likely to be fired.

To correlate viscosities at 20°C with figures obtained at 10°C in other countries it would be desirable to investigate the viscosity - temperature sensitivity of the chargings. This investigation is being reported in Folio 51.

6. (a) To summarize, the proposals involved above are:-

(i) Headings for reports, set out in para 1
(ii) Use of laboratory methods described in specifications governing manufacture until specifications governing routine sampling and examination during storage are available.
(iii) Use of falling sphere and Redwood viscometers instead of Ostwald type.
(iv) Determination of viscosities at 20°C instead of 10°C.

(b) For the sake of brevity, certain of the principles involved in (iii) and (iv) above have not been enlarged upon, but further details can be made available if required.

(c) Advice of your agreement or otherwise to the proposals set out would be appreciated.

7. The following reports may give further information on this subject but have not been obtainable to date.
Their early despatch to this Unit is recommended.

	MSL file
(a) S O 688 - An improved falling sphere viscometer	43/S/40
(b) Re-inspection of chargings in Chemical Weapons	44/G/8
(c) Inspection developments - CW weapons & chargings	43/G/211
(d) Randle methods (or similar title)	41/CC/15D

Of the above, (a) and (b) were requested in our signal CWL 134 of 11 Apr 44 but have not been received; (c) and (d) were not obtainable at MSL in Mar 44 but may now be available.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

UNIT PROGRESS REPORT No 26 Vol 22 Page _____ SECRET

Appx. 14 ~~2/1~~ Aust CW Laboratory RAE

G55/3/337

20 May 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
Spr Murray (fitter) returned from leave

(b) Projects:-

(i) Commenced
D87 Sectioning of 25 pr BE shell after sampling

(ii) In hand
Nil

(iii) Completed
D84 Adapter for Leica camera for copying documents
D85 Case for Mobile Section camera
D86 Ground glass screen adapter for Mobile Section camera.

(c) Works:-

(i) Commenced
Job 170 Library fittings

(ii) In hand
Nil

(iii) Completed
Job 162 Demolition of encroaching vegetation
Job 169 Painting of kitchen and messes
Job 176 Small table
Job 177 Painting of darkroom.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project B16 Examination of various detectors from 31 FOD has been continued
Project A45 Japanese Tube of Anti Dim Compound
Project A54 Preliminary examination of Jap Gas Satchel - Second type

3. CW SECTION

(a) Personnel
Sgt Kellick returned from LHQ on 15 May 44. and left for Mobile Section on 19 May 44

(b) Summary of work carried out during the week

Project B12 A report on viscosity-temperature sensitivity of BBCV has been completed - Folio 51 - Advance copies herewith.
The first report on the Routine Examination of shell chargings - B4 - Serial II is in preparation. Representative shell from those recently sampled are being sectioned for examination of corroded areas. In accordance with Landforces Signal 045476 no further Mk IX or Mk X shell will be sampled.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. PROJECTS

(a) Received

A53 Fourteen assorted items of Japanese clothing, for examination, for anti Vesicants, as per LHQ SM 3850, -P2
A54 Japanese Anti-Gas Satchel - Second type -P1
A55 Japanese Large Yellow Rubberised Bag -P1
A56 Japanese Anti-Gas clothing (impervious) Second type -P1

(b) Commenced
Nil

(c) Completed

A48 Japanese Acetylene Flare - Small Type - Folio 50
Advance copies despatched herewith.

5. EQUIPMENT

(a) Major items received during the week
Camera for Mobile Section
"Quickfit" all glass flowmeter with interchangeable orifices.

(b) Major items required to complete WET
Application is being made to L of C for controlled items.

(c) Items required additional to WET
Camera suitable for photographing field trials.

6. LIAISON

(a) ATIS have been contacted regarding document 7569 (SM 5055 refers)
(b) Advice has been obtained from Qld Govt Analyst on various analytical problems, contact being made through SLB.
(c) Duplicate items of captured equipment - 75 mm smoke and incendiary shells - have been obtained from 42 Chem Lab Coy.

7. No 5 (MOBILE) SECTION

(a) Mobile Section reports are being received through Moresby Base Sub Area. One copy of each will be forwarded to LHQ (for MO7).
(b) Qld L of C Area Stationery depot advise that "The War Gases" by Sartori was despatched to Mobile Section on 27 Apr 44.
(c) Further items of captured equipment under examination are:-
(i) Tenth year model type A flare
(ii) Signal flares type 93 4 cm - white trailing star - green comet.
(iii) 50 mm grenade, red body.

8. MISCELLANEOUS

(a) Jap Respirator Containers were despatched to MO7 via MFO on 13 May (Landforces Signal O 33891 refers).
(b) VX42591 Pte Sutton W has been interviewed and a report forwarded to HQ Qld L of C Area.
(c) Application has been made for renewal of finance authorities (A3/4/309).
(d) Position regarding design of viscometer by NSL has been advised in G65/5/315.
(e) Amdt 1 to Folio 44 has been issued (G67/3/319).
(f) The position regarding sampling of CW weapons is discussed in G61/1/326.
(g) Signal CWL 328 requesting various documents has been despatched.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (*Adapted*)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

...../...44 (Serial No.)

At 0600 Hrs. Saturday 20/5/1944 2/1 Aust CW Laboratory RAE (Unit)

Part of W.E. AIF 31 2 OFFRS. 5 O.R's. 22 + OFFRS. ..... O.R's. 2 ATT. BY W.E. Queensland Detachment

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I. WE					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
-	2		2	Sergeants 4					
-		3	5	Corporals 2	WE				
2	2		12	Troopers, Privates, etc. 14	AACC (2)	1	1	1	1
				Civilians counting as O.R.					
2 *	4	3	21 *	Totals of cols. marked * should agree with details shown in Part E on Page 2. 22		1 *		1	1 *

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces, 10 N.Z. Forces.

Detail		A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
		A B		B							
A		18 3		1							22
B(1)											
B(2)											

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To ..... (Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust CW Laboratory RAE ..... Unit

Vol 22 Page 73 /44 Serial No.

APR 16

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 20 / 5 /194 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Riveters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	2	1	1	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen				Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd'g. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)	1	1	-	Carpenters	1	1	-	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	Cpl 1	1	-	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical)				Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				WO2 Chemist	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				S/Sgt COMS	1	1	-
Fitters, Signals				Height Taker				Clerks	1	1	-	Sgt Clerk	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Sgt Lab Asste	3	1	HR
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Cpl Lab Assts	4	3	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Lab Asst	1	1	-
Mechanics, Instrument (Surgical)				Joiners				Concretors				Gen. Optician	1	1	-
Mechanics, Radio				Lineman				Cooks				ATTACHED BY W.E.			
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				M/C Orderly (b)	1	1	-
Mechanics, Wireless				Lithographers				Despatch Riders				Driver MT	1	-	1
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batmen	2	2	-
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Batmen Dvr	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-	Attached Cooks TG 2	2	1	1
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	8	7	1	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	22	3

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

20 May 44
Date of Despatch

A H Allester Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

Unit

Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 5 /1944.

(a) Photographer :- Spr in lieu of Cpl

(b) Orderly :- Cpl in lieu of Spr

Details of Tradesmen. GROUP I.	A.V.	Reinforcements required	Present strength	Details of Tradesmen. GROUP I. (cont.)	A.V.	Present strength	Reinforcements required	Details of Tradesmen. GROUP II. (cont.)	A.V.	Present strength	Reinforcements required	Details of Tradesmen. GROUP III. (cont.)	A.V.	Present strength	Reinforcements required
Ammunition Examiners				Surveyors, Engineering				Operating Room Asstn.				O.R.O. Assistants			
Armament Artificer				Surveyors, Land				Operator, Line				Orderlies			
Armament Artificer (Electrical)				Topographical Surveyors				Operator, Telephone				Orderlies, Nursing			
Armament Artificer (M.V.)				Trigonometrical Surveyors				Operator, Switchboard				(Orderlies, Nursing)			
Armament Artificer (A.A.V.)				Toolmakers				Operator, Wireless				Medals			
Armament Artificer Armourers				Turners				Optician				Plate Layers			
Armament Artificer Boilermakers				Watchmakers				Painters				Rangefinders			
Armament Artificer Coppersmiths				Welders				Penal Section				Riveters			
Artillery Engineers				GROUP II.				Photographic, Dry Plate				Sculptors			
Assistants				Armourers				Predictor Numbers				Saddlers			
Blacksmiths				Artificers				Printers				Saddlers-Leather Makers			
Bricklayers				Bakers				Radiographers				Shoemaker and Boot Repairer			
Bricklayers (M.V.)				Boilermakers				Riggers				Shovelmen			
Bricklayers (Signals)				Boiler-Maker, (Iron and Steel)				Sawyers				Stoker, Stoker, Leading			
Bricklayers (Signals)				Driver-Operator				Signallers				Storeman, Technical			
Bricklayers (Cycle)				Drivers				Signalmen				Tailors			
Bricklayers (Electrical)				Electricians				Telegraph Identity Number				Textile Refitters			
Bricklayers (Gun)				Electricians (Emergency)				Wall Borers				Tinsmiths			
Bricklayers (Instrument)				Fire Control Operators				Welders				Vulcanizers			
Bricklayers (M.V.)				Gun Operator				Wireless Operators				Wagon Erectors			
Bricklayers, Railway				Mechanics				Wireless Operators (Signals)				Whitesmiths			
Bricklayers, Signals				Height Taker				Wireless Operators (Technical)							
Bricklayers, Precision				Helio Operator				Wireless Operators (Signals)							
Mechanics, Instrument				Instrument Operator				Wireless Operators (Technical)							
Mechanics, Instrument (Signals)				Intelligence Duties				Wireless Operators (Wireless Mechanics)							
Mechanics, Instrument (Technical)				Interpreters				Wireless Operators (Wireless Operators)							
Mechanics, Radio				Lineman				Coasts							
Mechanics, Typewriter				Lineman, Signals				Dental Mechanics							
Mechanics, Wireless				Lithographers				Driver-Mech. (Elec. and Mech.)							
Millwrights				Mechanics, Motor				Driver-Operator							
Operators, Excavator				Mechanics, Wood				Drivers							
Platoon Master				Messrs				Electricians							
Pharmacist				Messrs				Electricians (M.V.)							
Photographer, Still Plate				Mechanics, M.T.				Electricians (Signals)							
Polisher				Miners				Fitters							
Rule Dresser				Monitors				Fitters (Cycle)							
Surveyors				Nurses, Trained				Fitters (Electrical)							
				Observation Post Asstn.				Fitters (Gun)							
CARRIED FORWARD				CARRIED FORWARD				Fitters (Instrument)							
								Fitters (M.V.)							
								Fitters, Railway							
								Fitters, Signals							
								Fitter, Precision							
								Mechanics, Instrument							
								Mechanics, Instrument (Signals)							
								Mechanics, Radio							
								Mechanics, Typewriter							
								Mechanics, Wireless							
								Millwrights							
								Operators, Excavator							
								Platoon Master							
								Pharmacist							
								Photographer, Still Plate							
								Polisher							
								Rule Dresser							
								Surveyors							
								CARRIED FORWARD							

Totals of columns marked * to agree with columns 4 and 7, and 8 and 10 of Part A, respectively.

NOTES.—(a) If rank other than private is involved give details on back.
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Details Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in col. of the blank spaces on this page.

Date of Despatch

Signature of Commander

L.H.Q. Press (11—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

2/1 Aust CW Laboratory 73 44 (Serial No.)

At 0600 Hrs. Saturday 20 5/194 4. (Unit) RAE

Queensland Detachment

Part of AIF W.E. I/I 3/1 2. OFFRS. 5 O.R's. 22+ OFFRS. O.R's. 2 ATT. BY W.E.

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				* WE *					
				Lieut.-Colonels					
			1	Majors 1					
	1		2	Captains 3					
		1	2	Lieutenants 1					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	1	1	5	5					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
A.		A 5									5
E.(1)											
E.(2)											

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

No 1 22 Page

Appx 15

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

2/1 Aust CW Laboratory RAE ..... Unit

73.44 .... (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 20 5 /194 ..... (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
Major	VX14147	McALLESTER	J C	OC	Yes		
Capt	NX35410	SMITH	N D	Tech Offr (CW)	"		
Capt	NX105276	BULL	C H	Chem Offr	"		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	"		
Lieut	NX36411	RYAN	J G P	Tech Offr (CW)	"		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

20 May 44
Date of Despatch

[signature] Maj
Signature of Commander

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

RESTRICTED GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

WAR DIARY

No 1 22 Page

Appx. 17

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

24 May 44 Part I Serial No 77

345. DUTIES

Orderly Officer -

To Mount 0630 hrs 24 May 44 Next for duty, to Mount 0630 hrs

Capt Bull 31 May 44: Lieut Goldstone

Orderly NCO -

To Mount 0630 hrs 24 May 44 L/Sgt McLaren
25 May 44 Cpl Day
26 May 44 Sgt Goudy
27 May 44 L/Sgt McLaren
28 May 44 S/Sgt Code
29 May 44 L/Sgt Hamlyn-Harris
30 May 44 Cpl Kline

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
24 May 44	Spr Shaw	Spr Barber	
25 May 44	Spr Buchanan	Spr Barber	
26 May 44	Spr Dowd		
27 May 44	Spr Hohne		
28 May 44	Spr Dover	Spr Barber	Spr Jones
29 May 44	Spr Curtis		
30 May 44	Spr Murray		

346. ACF GOODS - ACKNOWLEDGEMENT OF

The receipt of the following goods from the Australian Comforts Fund (Queensland) is hereby acknowledged:-

50 writing sheets
2 pkts envelopes
1 bundle magazines

347. STATEMENT OF REGIMENTAL TRUST FUND

Credit Balance as at 24 Mar 44 ..... £10.9.7

348. HOT WATER SYSTEM

The Orderly NCO will see that the boiler fire is maintained and that arrangements are made to ensure that water is hot between Reveille and breakfast.

349. TIDINESS OF HUTS

The following points are to be given attention:

(a) One box or cupboard per man is permitted. This must have a cover or door and be kept tidy at all times.

(b) Greatcoat and SD may be hung at head of bed only if on hangers. Fittings and shelves, other than a towel rail at the head of the bed are not permitted.

(c) Bedding must be folded by 0800 hrs on each week day and all gear put away either in pack, kitbag etc, or in box. Greatcoat SD and towel are the only items which may be exposed.

[signature] Capt

Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
No 1 22 Page
Appx. 18

SECRET 2/1 Aust CW Laboratory RAE

FOLIO 52 G67/3/354

Copy No 19 24 May 44

JAPANESE TENTH YEAR MODEL TYPE 'A' FLARE

1. This item has been described in Folios 39 and 44 as a"50 mm Grenade - Incendiary". Further information received renders desirable further discussion on the probable intended use of the projectile.

2. The following is extracted from Mobile Section 2/1 Aust CW Laboratory Report No 11, describing two samples recovered in the HUON PENINSULA area in Mar 44.

> "Affixed to the lid of the tinplate container is a paper label bearing some indistinct Japanese Characters. Tech Offr (CW) 2 Aust Corps has advised that a translation of the characters is:-
>
> 'Tenth year model type 'A' flare. May 1939. Tokyo Arsenal'.
>
> and quoted a translators note that "flare" signifies "illuminating" and cannot be construed as "incendiary".

The composition of the main filling was found to be:-

	Per cent
Potassium nitrate	49
Aluminium	22
Antimony trisulphide	8
Sulphur, wax, charcoal (by difference)	21 "

3. In view of the above-quoted translation of the label, it would seem desirable to refer to this item as a flare rather than an incendiary grenade. Ingredients similar to those listed above, though not in the same proportions, have been found in the star composition of Japanese Signal flares (Folios 38 and 40).

4. It is possible however that the filling of the projectile under discussion would have considerable incendiary effect. It burns with an intense white flame and the four groups of ports in the brass body of the projectile would facilitate the emission of flames. The use of a filling of this type as an incendiary is suggested in part by the "Text Book of Explosives used in the Service" 1940, which states (p177) that an incendiary mixture should have either a very high temperature of combustion or a persistent flame effect. A typical composition for the filling of a "carcass" or incendiary bomb is quoted:-

	Per cent
Potassium nitrate	34
Sulphur	13.5
Resin	10
Antimony Sulphide	3.5
Russian tallow	3.5
Venice turpentine	3.5
Mealed powder	5
Aluminium powder	27

This does not burn at a very high temperature and the incendiary effect is dependent on the long flames produced.

5. It is therefore recommended that this item be referred to as a flare, in accordance with the Japanese Nomenclature on the label, but that the possibility of its use as an incendiary be borne in mind.

H Chesterman
Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:- List B

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

UNIT PROGRESS REPORT No 27 SECRET

WAR DIARY 2/1 Aust CW Laboratory RAE

No 1 22 Page C55/3/382

Appx. 19 27 May 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
Nil

(ii) In hand
D87 Sectioning of 25 pr B E shell after sampling
A44 Japanese Water filter - large type

(iii) Completed
A38 A39 Japanese 50 mm mortar shell H E.

(c) Works:-

(i) Commenced
Job 184 Repair and painting of roofing to prefabricated huts

(ii) In hand
Job 170 Library fittings

(iii) Completed
Job 183 Cupboard for rations in QM store

2. CHEMICAL SECTION

(a) Personnel
WO II Butler returned from leave 26 May

(b) Summary of work carried out during the week
Project A54 Investigation of the contents of Jap Gas Satchel has been continued.
Project A55 Preliminary examination of Jap rubberised fabric bag.
Project A45 Examination of Jap Anti Dim Compound has been completed.

3. CW SECTION

(a) Personnel
Capt Bull proceeded on leave prior to movement to HQ 3 Aust Corps.

(b) Summary of work carried out during the week
Project B12 Examination of shell chargings - B4 - Serial II has been completed.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

4. PROJECTS

(a) Received
Nil

(b) Commenced
A54 Japanese Anti Gas Satchel Second Type - P1
A55 Japanese Large Yellow Rubberised Bag - P1

(c) Completed
A36 Japanese 1 Kg Smoke Generator Model 4 - Folio 43 - Distributed on list B
A38,39 Japanese 50 mm Mortar Shell -HE - Folio 49 Advance copies herewith
A37 Japanese 50 mm Mortar Shell - Smoke - Folio 42 Advance copy re-drafted and resubmitted herewith
A31 Folio 52 giving further information on this project was distributed on List B on 24 May 44.

5. EQUIPMENT

(a) Major items received during the week
Gas treatment pannier
Mine detector circuit.

(b) Major items required to complete MET
Arrangements have been made for release of motor cycle.

(c) Items required additional to MET
Coir matting
Camera suitable for photographing field trials.

6. LIAISON
(a) Efforts are being made to obtain a photographer from GDD Authority has been received for the posting but only NCO's are available.
(b) Prof Jones (Univ of Qld) has been contacted for advice on chemical problems.
(c) Capt Murtagh & Lieut Hosking visited the Unit on 25 May 44.
(d) Arrangements are being made with L of C and Postal authorities to expedite mail. It is hoped to receive Direct Bag mail by DRLS and other mail through Ashgrove West PO which will then be used as Unit address. Delays of 6 days have been occuring.

7. No 5 (MOBILE) SECTION
(a) Mobile Section Reports 8-12 incl have been forwarded under cover of G57/4/356.
(b) Sgt Kellick is still held in 13 Aust Pers Staging Camp at Townsville. Milbase Brisbane have agreed to signal NGF asking further for Air priority.

8. MISCELLANEOUS
(a) Porton Memoranda 3 & 7 have been returned under cover of G57/4/338.
(b) Advice is required on disposal of personal kit left by Capt King (Sig CWL 345).
(c) Topsec 1666 has been received from LHQ Gas School.
(d) Various impregnants etc are still needed. Signal CWL 350 refers. 5 gms of S-461 were received from MSL on 26 May 44.
(e) Authority for return of Mk IX & X Shell is needed (Sig CWL362).
(f) Advice is requested of the time taken for mail despatched "Direct Bag" to reach LHQ.

Maj
Comd 2/1 Aust CW Laboratory RAE

Copies to:-
No 5 (Mobile) Section
War Diary (3)
File

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1943)

FIELD RETURN OF OFFICERS

....7/....1 (Serial No.)

At 0600 Hrs. Saturday ...27/...3/194 4 2/1 Aust CW Laboratory MAE (Unit)

W.E. AIF III 31 2 OFFRS. 5 O.R's. 22+ OFFRS. ..... O.R's. 2 ATT. BY W.E.

Part of

PART A.—POSTED STRENGTH, SURPLUS OR REINFORCEMENTS REQUIRED.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Rein'fts Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Rein'fts Required.
				WE *					
				Lieut.-Colonels					
			1	Majors 1					
	1		2	Captains 3					
		1	2	Lieutenants 1					
				Quarter-masters					
				A.A.N.S and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					

Analysis of Part A to be shown here by ALL units. Only units notified in para. 10 of instructions for compilation of form will complete Part E(1) & E(2).

DETAIL.		A.I.F.	C.M.F.	A.W.A.S.	A.A.N.S.	A.A.M.W.S.	CIVIL.	R.A.N.	R.A.A.F.	**	TOTAL.
A.		A									5
E.(1)		5									
E.(2)											

* Insert detail of higher ranks as necessary.
** Personnel belonging to a category not provided for in the analysis will be shown in this Col. Particulars will be shown, e.g., 20 U.K. Forces; 10 N.Z. Forces.

PART B.—PARTICULARS OF OFFICERS JOINED OR QUITTED DURING WEEK.

OFFICERS JOINED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit From.	Date.	CAUSE.

OFFICERS QUITTED DURING WEEK.

Army No.	Rank.	Name and Initials.	Unit To.	Date.	CAUSE.

PART C.—DESCRIPTION OF OFFICERS WHOSE RETURN TO ..... (Unit) IS PARTICULARLY REQUESTED. ...../...../194.....

Army No.	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

Army Form W.3008
(Adapted) (Page 2)
(Revised Jan., 1943)

~~11 Aust Gen Laboratory Hall~~ Unit

No 1 22 Page 74/44 (Serial No.)

Appx. 20

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 27/5/194 (Total to agree with Columns 4 and 7 of Part A.)

1	2	3	4	5	6	7	8
Substantive Rank and Higher Temporary Rank if Held.	Army Number.	Surname.	Initials.	Posting.	Whether present with Unit (insert Yes or No)	If not present with Unit, state how employed.	Date of Detachment.
jor	VX14147	McALLESTER	J C	OC	Yes		
pt	WX35410	SMITH	N D	Tech Offr (CW)	"		
pt	NX105276	BULL	C H	Chem Offr	"		
cut	VX112210	GOLDSTONE	F A	Amn Offr	"		
cut	CX36411	RYAN	J G P	Tech Offr (CW)	"		

PART E.—NOMINAL ROLL OF OFFICERS ATTACHED FROM OTHER UNITS.

Substantive Rank and Higher Temporary Rank, if Held.	Army Number.	Name and Initials.	Unit.	Date of Attachment.	Nature of Attachment.

May 44
Date of Despatch

[signature]
Signature of Commander Maj

Truth—7/43.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

Army Form W.3009 (Adapted)
(Page 1)
(Revised Jan., 1943.)

FIELD RETURN OF OTHER RANKS

74 44 (Serial No.)

At 0600 Hrs. Saturday 27 5 /194 4. 2/1 Aust CW Laboratory RAE (Unit)

Part of W.E. AIF III 31 2 OFFRS. 5 O.R's. 22 OFFRS. Queensland Detachment O.R's. 1 ATT. BY W.E.

Part A. Posted Strength, Surplus or Reinforcements Required.

1	2	3	4	5	6	7	8	9	10
W.E. EXCLUDING ATTACHED.				DETAIL.	ATTACHED ALLOWED BY W.E.				
Reinfts. Required.	Deficient W.E.	Surplus to W.E.	Posted Strength.		Arm or Corps.	Posted Strength.	Surplus to W.E.	Deficient W.E.	Reinfts. Required.
				W.Os. Class I.					
			1	W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
	2		2	Sergeants 4					
		3	5	Corporals 2					
2	2		12	Troopers, Privates, etc. 14	AACC (2)	1		1	
				Civilians counting as O.R.					
2 *	4	3	21*	Totals of cols. marked * should agree with details shown in Part E on Page 2.		1 *		1	1 *

Analysis of Part A to be shown here by ALL units. Only units notified in para. 7 of instructions for compilation of this return will complete analysis of Part B(1) and B(2).

* * Personnel belonging to a category not provided for in the analysis will be shown in this Col Particulars will be shown, e.g., 20 U.K. Forces. 10 N.Z. Forces.

Detail		A.I.F.	C.M.F. Under 19 Years.	C.M.F. 19 Years and over.	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A		18	3	1							22
B(1)											
B(2)											

Part B. Other Ranks Attached from Other Units.

Number of O.Rs.	Unit to which they belong	Number of O.Rs.	Unit to which they belong

Part C. Other Ranks Included in Part A Detached to Other Units.

Number of O.Rs.	Unit to which detached.	Number of O.Rs.	Unit to which detached.

Part D. Description of Other Ranks Whose Return To ..... (Unit) is Particularly Requested. ...../...../194.....

Army No	Rank.	Name and Initials.	REMARKS (e.g., present whereabouts if known).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY

2/1 Aust Cin Laboratory RAE ..... Unit

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April 44

Army Form W.3009
(Adapted) (Page 2)
(Revised Jan., 1943)

74 44 ..... Serial No.

PART E. Detail of Present Strength and Reinforcements required as shown in Part A of Army Form W.3009 at 0600 Hours Saturday 7 /5 /194 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reints. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reints. Required.
Ammunition Examiners				Surveyors, Engineering				Operating Room Assts.				G.P.O. Assistants			
Armament Artificer Fitter				Surveyors, R.A.A.				Operator, Keyboard				Hammermen			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (M.V.)				Surveyors, Trigonometrical				Operator, Signal				Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers				Operator, Switchboard				Orderlies, Nursing Mental			
Armament Artificer Instrument				Turners				Operator, Wireless				Plate Layers			
Armament Artificer Radio				Watchmakers				Opticians				Rangetakers			
Armament Artificer Signals				Welders				Painters				Rivetters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate (a)	2	1	1	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Staty. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	-
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen				Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd'rs. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)	1	1	-	Carpenters	1	1	-	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	Cpl 1	1	-	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters	1	1	-	Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical)				Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Battery Surveyors				W02Chemist	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				S/Sgt Cooks	1	1	-
Fitters, Signals				Height Taker				Clerks	1	1	-	Sgt Clerk	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Sgt Lab			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Tests	5	1	NR
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Cpl Lab			
Mechanics, Instrument (Surgical)				Joiners				Concretors				Tests	-	3	-
Mechanics, Radio				Lineman				Cooks				Lab Asst	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Gen Dutyman	1	1	-
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				M/C Orderly			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(b)	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-	Driver MT	1	-	1
Pharmacist				Masseurs				Driver Tptn. Plant				Batmen	2	2	-
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Batman Dvr	1	1	-
Photowriter				Miners				Equipment Repairers				Attached			
Plumber				Moulders				Farriers				Cook TCII	2	1	1
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	3	-	CARRIED FORWARD	4	4	-	CARRIED FORWARD	8	7	1	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24 *	22 *	3 *

NOTES.—(a) If rank other than private is involved give details on back. see back
(b) Authorised trades or specialists not included in list will be added as required in spaces provided.
(c) Where A.W.A.S. and/or A.A.M.W.S. personnel are desired show details on back.
(d) Where replacement not desired note accordingly on return by insertion of N.R. in col. "Reints. Required."
(e) Where any request or notation is made on back of form, the words "See Back" should be written in one of the blank spaces on this page.

27 May 44
Date of Despatch

Signature of Commander Maj

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(a) Photographer:- Spr in lieu of Cpl

(b) Orderly: Cpl in lieu of Spr

RESTRICTED

GRO 634/43

AUSTRALIAN MILITARY FORCES

WAR DIARY

ROUTINE ORDERS

Vol 22 Page

by

Appx. 22

Major J C McALLESTER, Commanding 2/1 Aust CW Laboratory RAE

31 May 44 Part I Serial No 78

350. DUTIES

Orderly Officer -

To Mount 0630 hrs 31 May 44 Next for duty, to Mount 0630 hrs

Lieut Goldstone 7 Jun 44: Capt Smith

Orderly NCO -

To Mount 0630 hrs 31 May 44 Sgt Goudy
1 Jun 44 Cpl Day
2 Jun 44 L/Sgt McLaren
3 Jun 44 Cpl Day
4 Jun 44 Cpl Kline
5 Jun 44 L/Sgt Hamlyn-Harris
6 Jun 44 S/Sgt Code

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
31 May 44	Spr Hohne		
1 Jun 44	Spr Dowd		
2 Jun 44	Spr Murray		
3 Jun 44	Spr Curtis		
4 Jun 44	Spr Buchanan	Spr Barber	Spr Dover
5 Jun 44	Spr Dover		
6 Jun 44	Spr Allen		

351. NOISE

Due to the echo caused on telephones, whistling and singing in the hall are to be avoided.

352. TROOPS CARRIED AS PASSENGERS IN ARMY VEHICLES

Personnel will not be permitted to travel in Military Vehicles other than in a sitting position on the floor or on seats provided.

2. It will be the responsibility of the officer, NCO or Soldier in charge of personnel being transported in Army Vehicles to see that the standing Orders for the Operation and Maintenance of Mechanical Vehicles para 40 (d), and instructions issued to the driver in regard to the carrying of personnel are adhered to.

3. Any departure authorised by the Officer, NCO or Soldier in charge of the party will be endorsed on the driver's work ticket.

Qld L of C Q185/44 .

J A Smith 6 Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

WAR DIARY
Vol 22 Page
Appx. 23

SECRET

FOLIO 26

Copy No 37

2/1 Aust GW Laboratory RAE

G67/1/487

31 May 44

JAPANESE EXPERIMENTAL SELF-PROJECTING SMOKE GENERATOR

1. SOURCE

Two specimens captured in the SALAMAUA area in Aug 43, were received for examination from Chief Technical Officer (GW) LHQ in Sep 43.

2. EXTERNAL APPEARANCE

The generator is cylindrical with top and bottom end caps which are sealed with adhesive tape. It is painted grey and stamped in purple on the top is the large Japanese character 天 (translated - "TOP"). A wire ground spike is attached to the cylinder and slides through a metal guide bracket. One of three generators subsequently received from the Allied Enemy Equipment Board has an outer sheet metal collar soldered around the barrel immediately above the bottom end cap. The external dimensions of this generator are identical with those of the "Japanese Self-Projecting Smoke Candle - Type 99" (Folio 14) from which it can be distinguished however by the colour and the absence of Japanese characters on the side.

3. PHYSICAL EXAMINATION

Length	20.5	cms	(8 1/16")
Diameter	5.1	"	(2")
Gross weight	690	gms	(1 lb 8.4 ozs)
Weight of projectile	402	"	(14.2 oz)
" " propellant	9.2	"	(0.3 oz)
" " ignition mixture	2.5	"	(0.1 oz)
" " smoke mixture	240	"	(8.5 oz)

For descriptive purposes the generator may be divided into three main parts: the barrel, the propellant unit, and the projectile.

(a) Barrel

The outer casing, constructed of 17 S.W.G. sheet steel, is flanged at the bottom and has one longitudinal welded seam. It functions in a similar manner to a mortar barrel and the 8 S.W.G. ground spike provides the means by which the generator is positioned before firing. The end caps are pressed out of 29 S.W.G. tin plate and sealed with adhesive tape which appears to have been heavily lacquered. A white deposit on and adjacent to the adhesive tape suggests that a white paint may have been used.

(b) Propellant Unit

Retained beneath a cardboard disc in the bottom end cap is a wooden striker block which has the striker composition on a flattened portion of the edge. Stamped on the edge of this block is the Japanese marking ㊀. A wooden block retains the matchhead, safety fuze and propellant charge and this is glued and tacked into the base of the barrel. On removing the bottom end cap the matchhead, which is protected by tin foil and a cotton wool pad, is exposed. The matchhead and safety fuze are contained in a brass tube, 5 mm diam, which is fitted into a horizontal hole near the base of the block. The wooden block is recessed on the top to hold a 31 S.W.G. metal cup filled with the propellant charge of black powder which is retained in the cup by a thin paper diaphragm. The propellant charge is in contact with the propellant fuze through a vertical hole which coincides with small holes in the propellant cup and fuze container.

Three cardboard discs with central holes partition the projectile from the propellant charge.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

(c) Projectile

The outer casing surrounding the 26 S.W.G. metal smoke mixture container is of cardboard approximately 4 mm thick and, at the base, is glued and tacked on to the shoulder of a wooden block. The cardboard cylinder is enclosed at the top by a smaller wooden disc.

The base block of the projectile is strengthened with a lacquered brass collar. The smaller ignition fuze is inserted vertically through the centre of this block and projects slightly into a groove cut into the upper surface. This groove provides an escape for the smoke and leads to the one smoke port in the cardboard.

The smoke mixture container, 11.7 cms ($4\frac{5}{8}$") long and 4.1 cms ($1\frac{5}{8}$") diam, is separated from the base block by a cardboard backed felt spacer. This container consists of a tin plate cylinder with a longitudinal rolled and soldered seam. Pressed caps are soldered onto the top and the bottom, and the whole is lacquered on the inside.

Soldered centrally on the bottom cap, and projecting into the smoke mixture, is a 38 S.W.G. cylindrical brass ignition mixture holder. The bottom exposed end of the ignition mixture is thinly coated with a black powder primer composition. The projectile is held firmly inside the barrel by cardboard packing.

4. ANALYSES

(a) Matchhead

The matchhead is a greenish grey material weighing 0.4 gm, in which were identified:-

Sodium
Potassium
Chlorate
Chromate
Antimony sulphide
Sulphur

(b) Propellant charge

The propellant charge is black powder and analysis showed the composition to be:-

	Per cent
Potassium nitrate	73.9
Sulphur	9.6
Moisture	1.0
Charcoal (by difference)	15.5

(c) Ignition mixture

The ignition mixture is a powder metallic in appearance and has the following composition:-

	Per cent
Potassium nitrate	52.0
Aluminium metal	22.6
Sulphur	16.2
Antimony trisulphide	6.7
Potassium chlorate	1.6

(d) Smoke mixture

The smoke mixture is a grey powder smelling strongly of HCE. Analysis showed the composition to be:-

	Per cent
Hexachlorethane	47.0
Zinc dust	16.2
Zinc oxide(oxygen by difference)	35.2
Zinc chloride	1.6

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649

5. PREVIOUS REPORTS

The examination of this type of smoke generator has previously been reported in CD (Australia) Report No 8 of 20 Sep 43 and in 42nd Chemical Laboratory Company CMTR No 24 of 28 Dec 43. No outstanding deviations from the details given in the above reports have been observed in the specimens described in this Folio. A higher percentage of Zinc oxide is possibly an indication of deterioration of the smoke composition.

6. DISCUSSION

The "Experimental" Self projecting Smoke Generator exhibits definite constructional differences from the "Type 99" (Folio 14) The length of fuze between the match head and propellant is shorter, and the weight of propellant (9.2 gm) is approximately half that employed in the "Type 99" (18 gm). The most notable difference lies in the construction of the projectile in that a cardboard cylinder lined with tinplate is used, compared with a sheet metal cylinder in the "Type 99". The total weight of the "Experimental" model is little more than half that of the "Type 99".

7. APPENDICES

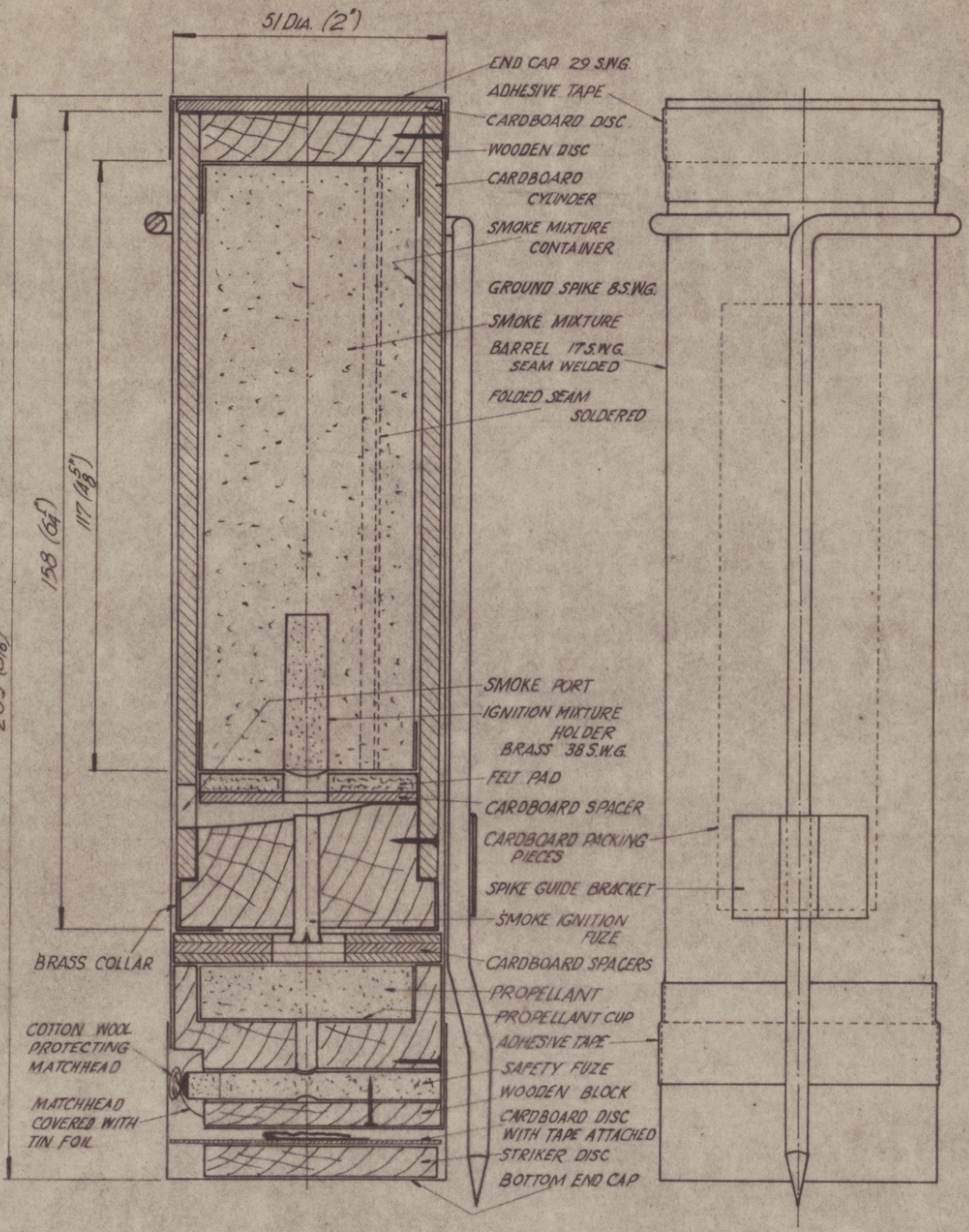
The following are attached:-

... Appx A. Drawing
... Appx B. Photographs

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:- List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



JAPANESE EXPERIMENTAL SELF-PROJECTING

SMOKE GENERATOR

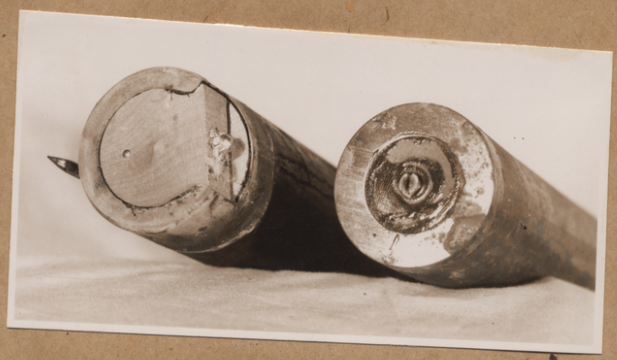
DIMENSIONS IN MILLIMETRES

DRAWN K.H.H. TRACED K.H.H. CHECKED F.A.G. DATE 18 APR. 44	SCALE FULL SIZE	APPENDIX 'A' TO FOLIO 26 211 AUST. C.W. LABORATORY R.A.E.	12 APR. 44.	DR. 28

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649



Projectile Generator



Generator-Bottom and cap removed. Projectile

JAPANESE EXPERIMENTAL SELF-PROJECTING SMOKE GENERATOR

AUSTRALIAN WAR MEMORIAL AWM2020.71.3649