5/28/2/10
PART 10

AUSTRALIAN ARCHIVES
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JULY TO
AUGUST 1944

ORIGINAL

2/1 CHEMICAL WARFARE LABORATORY - R.A.E.

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APPOINTMENT: A50 4.8.89 DATE:
FILE REF: PC87-26767 AHSS

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY or INTELLIGENCE SUMMARY. SECRET

(Erase heading not required.)

Army Form C. 2118 (adapted.)

Unit 2/1 Aust CW Laboratory RAE *Date and Time.—From* 1 Jul 44 *To* 31 Jul 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	1 Jul 44		Unit Progress Report No 32 (24 Jun 44 30 Jun 44)	Appx 1
	1 Jul 44		Field Returns Offrs Serial 79/44	Appx 2
	1 Jul 44		Field Returns ORs Serial 79/44	Appx 3
	4 Jul 44		Trials of captured Japanese Equipment	Appx 4
	5 Jul 44		Unit Routine Orders Part I Serial 83	Appx 5
	6 Jul 44		Folio 50 Japanese Type 94 Navigation Flare	Appx 6
	6 Jul 44		Nomenclature & Classification of Captured CW Equipment	Appx 7
	7 Jul 44		Folio 42 Japanese 50 MM Mortar Shell Smoke	Appx 8
	8 Jul 44		Unit Progress Report No 33 (1 Jul 44-7 Jul 44)	Appx 9
	8 Jul 44		Field Returns Offrs Serial 80/44	Appx 10
	8 Jul 44		Field Returns ORs Serial 80/44	Appx 11
	10 Jul 44		Folio 58 Japanese Water Purifying Outfit-Alum-Sodium-Bicarbonate Type	Appx 12

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY or INTELLIGENCE SUMMARY.

SECRET

Army Form C. 21[illegible] (adapted.)

(Erase heading not required.)

Unit 2/4 Aust CW Laboratory RAE *Date and Time.—From* 1 Jul 44 *To* 31 Jul 44

Place.	Date.	Hour.	Summary of Events and Information.	Remarks and references to Appendices, Diaries, &c.
St. John's Wood	10 Jul 44		Folio 57 Japanese Type 93,4cm Self Projecting Signal Flares	Appx 13
Brisbane	10 Jul 44		Folio 54 Japanese Tube of Anti-Dim Compound	Appx 14
	12 Jul 44		Unit Routine Orders Part I Serial 84	Appx 15
	15 Jul 44		Unit Progress Report No 34 (8 Jul - 14 Jul 44)	Appx 16
	15 Jul 44		Field Returns Offrs Serial 81/44	Appx 17
	15 Jul 44		Field Returns ORs Serial 81/44	Appx 18
	15 Jul 44		Folio 49 Japanese 50 MM Mortar Shell HE	Appx 19
	19 Jul 44		Unit Routine Orders Part I Serial 85	Appx 20
	19 Jul 44		Folio 55 Japanese Large Yellow Rubberised Bag	Appx 21
	22 Jul 44		Unit Progress Report No 35 (15 Jul - 21 Jul 44)	Appx 22
	22 Jul 44		Field Returns Offrs Serial 82/44	Appx 23
	22 Jul 44		Field Returns ORs Serial 82/44	Appx 24
	26 Jul 44		Unit Routine Orders Part I Serial 86	Appx 25
	27 Jul 44		Folio 63 Japanese Screen	Appx 26

L.

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY or INTELLIGENCE SUMMARY

SECRET

Army Form C. 2118
(adapted,)

(Erase heading not required).

H. 1004M

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

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St John's Wood	27 Jul 44		Addendum 1 - Folio 2 Japanese "Gas Satchel"	Appx 27
Brisbane	29 Jul 44		Unit Progress Report No 36 (22 Jul - 28 Jul 44)	Appx 28
	29 Jul 44		Field Returns Offrs Serial 83/44	Appx 29
	29 Jul 44		Field Returns ORs Serial 83/44	Appx 30

Major
Comd 2/1 Aust CW Laboratory RAE
20 Oct 44

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

SECRET

UNIT PROGRESS REPORT No 32

WAR DIARY 2/1 Aust CW Laboratory RAE

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Appx. 1 1 Jul 44

LHA (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
Nil

(ii) In hand
A44 Japanese Water filter-section use
A58 Japanese Smoke Hand grenade - WP
D80 A fabric testing machine

(iii) Completed
D93 Sectioning of smoke hand grenade - WP.

(c) Works:-

(i) Commenced
Job 201 (see below)

(ii) In hand
Job 170 Library fittings

(iii) Completed
Job 194 Dark room ventilation
Job 200 Crockery shelves in Sgts Mess
Job 201 Repair of 7 tables (broken on delivery from Ordnance).

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project B 14 Further work on the examination of A/G Clothing has been carried out.

3. C/ SECTION

(a) Personnel
Spr Dowd resumed duty ex leave on the 24 Jun 44.

(b) Summary of work carried out during the week
Project C 14 Further tests on fuel thickening have been carried out.
Construction of a Claisen fractionating column has been completed.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. PROJECTS

(a) Received
A61 Jap Water Purifying Outfit P2
A62 Jap 75 mm Shell - Smoke P2
A63 Jap "Hoolamite" Carbon Monoxide Detector Outfit P1

(b) Commenced
A63 Jap "Hoolamite" Carbon Monoxide Detector Outfit

(c) Completed
Nil

5. EQUIPMENT

(a) Major items received during the week
16 tables (described by Ordnance as "Tables, kitchen"). These have fixed legs and one drawer each and will be more suitable than folding tables previously used.

(b) Major items required to complete MET
Nil

(c) Items required additional to MET
Camera for photographing field trials. Dealer holding till 8 Jul 44. Signal CML 518 refers.

6. LIAISON

(a) Unit was visited by Capt Morgan on 26 Jun 44, Capt Morgan is Staff Capt Enemy Eqpt MGO Branch LHQ.
(b) A request was received from LHQ Gas School to purchase two scales and two thermometers. The scales were not obtainable in Brisbane but the thermometers were despatched on 27 Jun 44.
(c) Capt Wilkie of LHQ Gas School visited the Unit on 30 Jun 44 and 1 Jul to obtain details of Japanese markings on eqpt.
(d) Lieut Hosking is being assisted in the procuring of stores for flamethrowers, and in the provision of facilities for laboratory experiments.
(e) Adv LHQ have asked for lecturers to be provided at a school for FS personnel. Details are being advised separately.

7. No 5 (MOBILE) SECTION

(a) Mobile Section reports have been forwarded as follows:-
No 13 dated 6 Jun 44 Japanese Type 93 Flares forwarded under G57/4/460 on the 17 Jun 44.
No 14 dated 3 Jun 44 Japanese 50 mm HE Grenade Shell forwarded under G57/4/460 on the 17 Jun 44.
No 15 dated 21 Jun 44 Japanese Type 94B Floating Smoke Generator forwarded under G67/1/494 on the 28 Jun 44.
No 17 dated 26 Jun 44 Japanese Screens forwarded under G57/4/523 on the 1 Jul 44.

8. MISCELLANEOUS

(a) The following documents have been returned to LHQ (for MO7):-
Under G57/4/498:- CD Aust Rept No 13
CDRE (Ind) " " 251
Liaison letter Y 15569
23 AGL Report "DRSA"
2 AGL Folios 204,205,198
Secret Documents Nos 1102/3
Under G57/4/522 1 AGL Report No 26
Under G57/4/524 2 AGL Folios -202,206,208,209.

(b) 3 Aust Div have advised that they are forwarding respirators with known histories for examination. Advice is required on the extent if any of examination to be carried out - Signal CML 516 refers.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1942)

FIELD RETURN OF OFFICERS

2/1 Aust Chemical Laboratory 79 (Serial No.)

At 0600 Hrs. Saturday 1 / 7 /194 4. (Unit)

AIF
Part of W.E. III/31/2. OFFRS. 5 O.R's. 24 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.				
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					
		1	2	Lieutenants 4					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	2	1	4	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 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 AWM2020.71.3651

1/1 Aust CW Laboratory AMF *Unit*

WAR DIARY

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

79 / 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

Appx.

At 0600 Hrs. Saturday 1 / 7 /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	Mc[illegible]	J C	OC	Yes		
Capt	VX35410	SMITH	M D	Tech Offr (CW)	Yes		
Lieut	VX112210	GOLDSTEIN	F A	Asst Offr	Yes		
Lieut	VX36411	RYAN	J G P	Tech Offr (CW)	No	Detach to [illegible] 20 Authority: [illegible] 050/52	Jun 44

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 Jul 44
Date of Despatch

Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

79 / 41 (Serial No.)

2/1 Aust C.W. Laboratory RAE

AIF At 0600 Hrs. Saturday 1 / 7 / 1944. (Unit)

Queensland Detachment

Part of W.E. III / 31 / 2. OFFRS. 5 O.R's. 5 + OFFRS. 22 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.				
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		1	Sergeants 4					
		3	5	Corporals 2					
2	2		12	Troopers, Privates, etc. 14	AACC	1		1	1
				Civilians counting as O.R.					
2 *	6	3	19 *	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.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	16	3		1				[redacted]	[redacted]		20
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 AWM2020.71.3651

WAR DIARY

No 1 24 Page

Appx 3

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 / /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	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	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				Cook W2	1	–	–
Fitters, Railway Signal				Hatchman				Butchers				Cook 1/Cl	1	1	–
Fitters, Signals				Height Taker				Clerks	1	1	–	Clerk Cat	1	1	–
Grinder, Precision				Helio Operator				Clerks, Supply				Lab Assts			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Cnle	3	3	–
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Lab Asst			
Mechanics, Instrument (Surgical)				Joiners				Concretors				Sgt	1	1	–
Mechanics, Radio				Lineman				Cooks				Conductress	1	1	–
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				M/Operator	1	1	–
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				Pte MT	1	1	–
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Batman Pte	1	–	1
Pattern Maker				Masons				Driver Mechanics	1	1	–	Batman	2	2	–
Pharmacist				Masseurs				Driver Tptn. Plant							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Attached			
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers				Cooks Pte	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	20	3

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 Jul 44
Date of Despatch

Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Details of Tradesman, GROUP I.	No.	Required	Present	Details of Tradesman, GROUP II. (cont.)	Required	Present	No.	Details of Tradesman, GROUP I. (cont.)	Required	Present	No.	Details of Tradesman, GROUP III. (cont.)	Required	Present	No.
Ammunition Examiner				Surveyors, Enlarging								O.R.O. Assistants			
Armament Artificer 1st Class				Surveyors, R.A.E.								Hammermen			
Armament Artificer 2nd Class				Surveyors, Topographical								Leather Pillchers			
Armament Artificer Fitter (Industrial)				Surveyors, Telecommunications								Orderlies, Nursing			
Armament Artificer Fitter (A.F.V.)				Toolmakers								Orderlies, Nursing Mental			
Armament Artificer Fitter (A.F.V.)				Operator, Switchboard								Plate Layers			
Armament Artificer Instrument				Operator, Wireless								Sanitationists			
Armament Artificer Radio				Turners								Shoemakers			
Armament Artificer Signals				Watchmakers								Shrivellers			
Armament Artificer Wireless				Welders								Stretcher-bearers			
Artificer, Artillery				Plaisters								Tent Erectors			
Artificer, Engine				Painters, Plain, Dry Plate								Saddlers			
Blacksmiths				Textile Workers								Saddlers, Leather makers			
Bricklayers				Tinsmiths								Shoemaker and Boot Repairer			
Bricklayers, Fire				Radiotelegraphers								Stewardesses			
Carpenters				Blacksmiths								Stokers, Hulk, Engine			
Coach, Hospital				GROUP II.								Storemen, Technical			
Compositors				Surveyors								Tailors			
Draughtsmen				Airmen								Textile Workers			
Draughtsmen (Aeronautical)				Bakers								Tinsmiths			
Draughtsmen (Electrical)				Bdr. Cond'g. Asst.								Vulcanizers			
Draughtsmen (Mechanical)				Boilermakers								Waron Erectors			
Draughtsmen (Topographical)				Carpenters								Whitesmiths			
Electricians				Coopers											
Electricians (A.F.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Rec. and Mod.)											
Fitters				Driver-Operator											
Fitters (Cycle)				Drainers											
Fitters (Electrical)				Electricians											
Fitter (Gun)				Electricians (Instrument)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (A.F.V.)				Gun Operator				Battery Servants							
Fitters, Railway Signal				Hairdressers				Butchers							
Fitters, Signals				Height Taker				Clerks							
Gunner, Wireless				Helio Operator				Clerks, Supply							
Mechanic, Instrument				Instrument Operator				Clerks, Technical							
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers							
Mechanic, Instrument (Surgical)				Joiners				Cooperators							
Mechanic, Radio				Lineman				Cooks							
Mechanics, Typewriter				Lineman, Signals				Dental Chief Orderlies							
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Mechanists, Metal				Draughtsmen, Signals							
Operators, Exchange				Mechanists, Wood				Drivers, H.T.							
Painters, Maker				Masons				Driver Mechanics	1	1	—				
Pharmacist				Masseurs				Driver Tptr. Plant							
Photogrammetric Plot Plate				Mechanics, M.T.				Engine Drivers, L.C.							
Photographer				Milners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD				CARRIED FORWARD	8	7		CARRIED FORWARD				Totals of columns marked * to agree with column 4 and †, and 7 and 10 of Part A, respectively.	4		30

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 mark accordingly on return by insertion of N.R. in col. "Status 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—11—8/11—313m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

MINUTE PAPER

Vol 24 Page
Appx 4

DEPARTMENT OF THE ARMY

SUBJECT: TRIALS OF CAPTURED JAPANESE EQUIPMENT

SECRET

2/1 Aust CW Laboratory RAE

G67/8/553

4 Jul 44

LHQ (for DMO(MO7))

It is proposed to conduct trials of items of Japanese CW and pyrotechnic equipment to supplement data obtained from laboratory examination. The following are available for trial:-

Serial	Item	No available for trial
1.	10 Kg Smoke generator	1
2.	Floating smoke generator Type 94B	2
3.	Self projecting smoke generator Type 99	12
4.	Experimental self projecting smoke generator	1
5.	Signal flares	
	(a) Black Dragon	1
	(b) White triple shooting star	3
	(c) Yellow Dragon	2
	(d) Green parachute star	2
	(e) Red parachute star	8
	(f) Green triple shooting star	5
	(to be fired from the 10 Year Type Flare Discharger)	
6.	(a) 1 Kg smoke generator model 4	1
	(b) 1 Kg " " " 6	1
	(c) 1 Kg " " " 7	1
7.	Small smoke generator Type 94 A	8
8.	10 Year Type Model A flare	4
9.	50 mm mortar shell - smoke	4
10.	" " " " HE	20
	(to be fired from Type 89 Grenade Discharger)	
11.	Small flame thrower Type 93	1
12.	75 mm incendiary shell	1
13.	75 mm smoke shell	1
	(to be fired from the 75 mm field and mountain guns if available).	

2. Although the 50 mm mortar shell - HE is not a CW or pyrotechnic item it is desired to fire this projectile for comparison with the 50 mm mortar shell - smoke.

3. A suitable period and location for the trials would be 26-27 Jul 44, in the CALOUNDRA Artillery range area. The necessary adminstrative arrangements can be made through HQ Qld L of C Area.

4. If this proposal is acceptable, it is recommended that an LHQ instruction be issued to Qld L of C Area, Adv LHQ, and interested branches at LHQ, to enable all concerned to send observers if desired. It is intended to advise US Army (CWS) and US Navy (MEIU) in Brisbane in case they desire to be represented.

Maj

Comd 2/1 Aust CW Laborat[illegible]

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

CONFIDENTIAL

GRO 63/43

Vol 24 Page 5

Appx [illegible]

ROUTINE ORDERS

by

Major J C [illegible], Commanding 2/1 Aust Ch Laboratory RAE

5 Jul 44 Part I Serial 83

365. DUTIES

To Mount 0630 hrs 5 Jul 44 Next for duty, to Mount 0630 hrs

Lieut Goldstone 12 Jul 44: Capt Smith

Orderly NCO -

To Mount 0630 hrs
5 Jul 44 Cpl Day
6 Jul 44 S/Sgt Code
7 Jul 44 L/Sgt McLaren
8 Jul 44 Cpl Corner
9 Jul 44 Cpl Kline
10 Jul 44 L/Sgt Hamlyn-Harris
11 Jul 44 Sgt Coudy

Hammers -	Mess Orderly and General Dutyman	Cook	Steward
5 Jul 44	Spr Buchanan		
6 Jul 44	Spr Dowd		
7 Jul 44	Spr Murray		
8 Jul 44	Spr Dover		
9 Jul 44	Spr Shaw	Spr Barber	Spr Allen
10 Jul 44	Spr Hehne		
11 Jul 44	Spr Curtis		

366. ROUTINE

Punctuality is not being observed in resuming work after breaks. More attention is to be paid to this.

J C Smith Capt

Adjt 2/1 Aust Ch Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

Vol 24 Page

Appx. 6

SECRET

2/1 Aust CW Laboratory RAE

FOLIO 50

G56/1/572

Copy No 47

6 Jul 44

JAPANESE TYPE 94 NAVIGATION FLARE

1. SOURCE

Captured in the SALAMAUA Area in Sep 43. Received for examination through the Allied Enemy Equipment Board on 24 Mar 44.

2. EXTERNAL APPEARANCE

(a) The specimen examined in detail was received in a slightly damaged condition. The flare is painted battleship grey and is a tin plate cylinder the nose end of which is hemispherical. This cylinder tapers away at the tail end to a short cylinder of smaller diameter. The tail is covered by a cap secured by a tear off strip terminating on a wire finger loop. A second tear off strip with a similar finger loop runs from approximately midway along the flare to the centre of the nose. Both tear-off strips had been partly removed. Four fins are soldered to the flare near the tail. Three of these fins were missing in the specimen examined.

(b) A second specimen received later revealed the following additional information:-

(i) Both wire finger loops are painted red.
(ii) There is a red arrow painted on each tear off strip to indicate the manner in which it should be removed.
(iii) A small label pasted to the body between two of the tail fins was translated as follows:-

"Type 94 Navigation Flare
Central Industrial Co Ltd
OMORI Factory
Manufactured 1940"

3. PHYSICAL EXAMINATION

Total weight of flare as received	709	gms	(1lb 9.0	ozs)
Correction for 3 missing tail fins	18	"	(0.6	ozs)
Overall length	30.0	cms	(11.8	ins)
Diam of body	7.0	"	(2.76	ins)
Diam of tail	3.5	"	(1.38	ins)
Length of tail fins	7.0	"	(2.76	ins)

The flare floated in water to a depth of approximately 20 cm. A detailed description of its construction is set out in Appx A.

4. ANALYSIS OF CONTENTS

The flare contained calcium carbide and calcium phosphide as described in Appx A.

(a) Calcium Carbide

As some decomposition of the carbide had occured presumably due to partial removal of the tear off strips, it was not possible to estimate the original yield of acetylene. A theoretical figure was obtained by expressing the total calcium in the charge as calcium carbide.

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Weight of charge	263 gm
Theoretical weight of carbide	240 gm
Theoretical yield of acetylene	84 litres at N.T.P.

(b) Calcium Phosphide

The impure calcium phosphide in the cylindrical containers and the wire mesh cylinder had undergone some decomposition. The weights of the charges were as follows:-

Total weight of calcium phosphide in the cylindrical containers 27.0 gm

Weight of calcium phosphide in the wire mesh cylinder 1.5 gm (approx).

5. METHOD OF FUNCTIONING

In this description the numbers refer to the drawing (Appx B).

The flare operates in water, the calcium carbide decomposing to form acetylene which is ignited by the spontaneously inflammable impure phosphine, liberated by the action of water on the calcium phosphide.

The two tear off strips (8) and (10) must be removed before the flare is dropped in water. Initial submersion in water causes the evolution of impure phosphine from the small charge of phosphide in the wire mesh cylinder (24) and this gas on ignition lights the acetylene liberated from the carbide after water has forced its way through the jet (13) in the nose and passed through the perforations in the tube (12). The acetylene escapes through the 3 small tapered jets (25).

Water also enters the cylindrical containers (21) and (22) through the tube (19). A small quantity also will probably enter through the jet (26) on initial submersion of the flare. The impure phosphine liberated passes out in a steady stream through the jet (26) and is available for the immediate reignition of the acetylene if it is extinguished e.g. by rough seas. It is suggested that this charge of phosphide is in two containers to increase the time during which phosphine is liberated. Pressure of gas from reaction with the phosphide in the lower container would prevent water from rising for some time to the level of the hole in the upper container and little decomposition of the charge in the latter would occur till the charge in the former was nearly expended.

A fairly constant pressure of acetylene is probably maintained by control of the amount of water entering the carbide through the jet (13). This control appears to be governed by the gap between the base of the small tube (14) and its seating round the jet (13) in the following manner:-

When the flare is first immersed in water the external water pressure lifts the tube (14) and the water flows in through the gap formed. When the pressure inside the flare becomes greater than the external pressure the tube (14) is forced down and the gap consequently almost closed. A triangular notch at the base of the tube (14) allows some water to be forced out of the flare. When the pressure drops the water pressure outside lifts the tube (14) and water again enters.

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6. DISCUSSION ON PROBABLE USE

This flare is a navigation marker and may be used by aircraft flying over the sea at night, for the following reasons:-

(a) The tail fins are probably designed for stability in flight through the air.

(b) The presence of the small charge of phosphide in the tail suggests that the flare is intended initially to be submerged entirely before floating vertically with 20 cm of its length immersed, which would occur if the flare were dropped from the air.

(c) Navigation markers working on the same principle are in use by the RAAF.

7. APPENDICES

The following are attached:-

... Appx A. Detailed Description

... Appx B. Drawing

... Appx C. Photographs

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:- List A
plus 10 extra copies to LHQ

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX A to 2/1 AUST CW LABORATORY FOLIO 50

JAPANESE TYPE 94 NAVIGATION FLARE

DETAILED DESCRIPTION

1. The following description should be read in conjunction with the drawing (Appx B).

Unless otherwise stated the flare is of soldered tinplate construction and is built up as follows:-

2. The nose section (1) is pressed from 23 SWG, is hemispherical in shape and is soldered to the lower body section (2) with 5 mm overlap. This section is 23 SWG with a longitudinal pressed and soldered seam. There is an external swaging at each end of the section. This section is soldered to the upper body section (3) with 7.5 mm overlap. The upper body section is of 26 SWG with a longitudinal pressed and soldered seam. This is soldered with 4 mm overlap to the lower tail section (4) of 25 SWG which is cone shaped and also has a pressed and soldered seam. This is soldered to the upper tail section (5) which is cylindrical in shape and has a similar longitudinal seam. This section also has an external swaging near each end. The tail is closed by a cap (6) and annular brass liner (23) which are soldered to the upper tail section (5). The cap (7) is attached to the cap (6) by the tear off strip (8).

3. Internally the flare is built up as follows:-

A cup shaped piece of heavy galvanised iron (11) is soldered into the nose and acts as a weight to ensure that the flare floats vertically. A cylindrical tube (12) penetrates the weight, centrally and is soldered to the nose. This tube has a number of small perforations throughout its length and at the nose end covers a small jet (13) through which water can pass when the tear off strip (10) is removed. The tube (12) contains a smaller cylindrical tube (14) open at the nose end and closed at the other. There is a small triangular notch in the circumference of the tube at the open end. The tube (14) is free to move vertically through approximately 4 mm its vertical movement being controlled by a wire stop pin (15)

4. About 3 cm from the top of the tube (12) is soldered a wire mesh disc (29 SWG) (16). It is suggested that this mesh was originally intended as a rough diaphragm to retain in the nose section the bulk of the calcium carbide which surrounds the tube (12). Damage to the flare probably caused the diaphragm to be bent back as shown in the drawing and section photograph (Appx B & C). This hypothesis is confirmed by later examination of a second specimen in which the diaphragm was flat.

5. A strip of 27 SWG (17) is soldered diametrically across the body and serves as a support for the cylinder (18) and also to strengthen the flare. A thin tube (19) about 3mm in diameter runs from an opening covered by the tear off strip (10) through an opening in cylinder (18) and is soldered to this and to the strip (17). This tube is closed at the upper end but 2 small holes in the wall of the tube permit the entry of water to the cylinder (18). The latter is constructed of 31 SWG with a pressed and soldered seam and is soldered at one end to the support (17) and at the other with 3 mm overlap to a cylinder of smaller diameter (20) which runs to the tail of the flare.

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6. The cylinder (18) contains two small cylindrical containers (21) and (22) which are soldered together and made from 31 SWG with a pressed and soldered seam. Each contains a charge of calcium phosphide. The cylinders are connected to cylinder (18) by a small hole in the wall of each. These permit the entry of water from (18) to the phosphide charge.

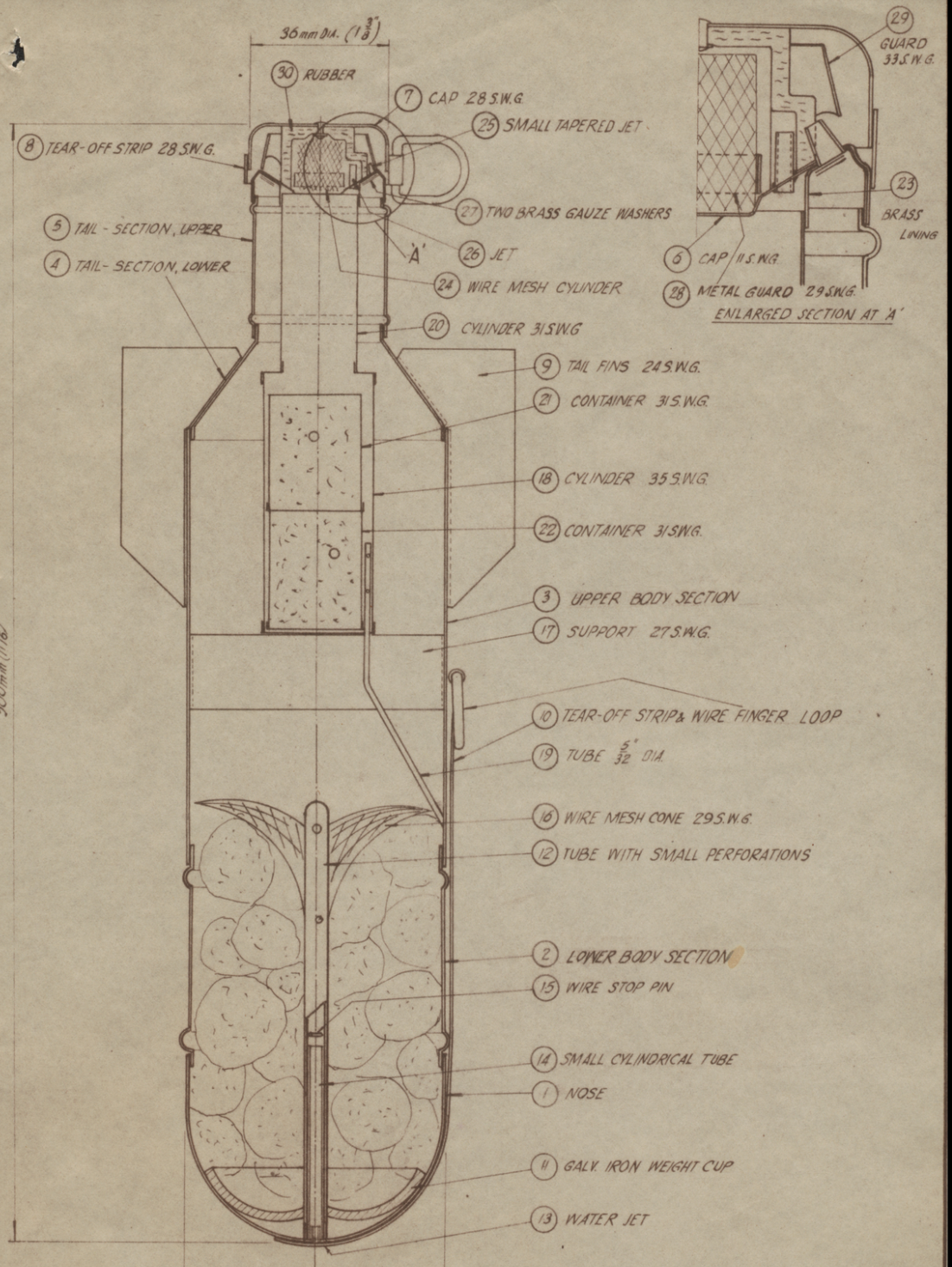
7. The cylinder (20) is made of 31 SWG with a pressed and soldered seam and is soldered at the top to an annular brass liner (23) with 4 mm overlap. This lining is soldered to the metal of tail section B(5) and serves to support the cap (6) which has a pressed indentation in the centre for holding a wire mesh cylinder (24) which was filled with about 1.5 gms of Calcium Phosphide.

8. Three small tapered jets (25) are equally spaced around the perimeter of the cap (6) and these allow the escape of gas from the interior of the flare. The central portion of the cap (6) is penetrated by a jet (26) which leads into the cylinder (19).

9. Two washers of brass gauze (27) are fitted in the annular space directly beneath the brass lining. They are designed to function on the Davy safety Lamp principle and prevent the burning gases from striking back into the interior of the flare. The wire mesh cylinder (24) is protected by a circular metal strip (28) and a perforated guard (29).

10. The cap of the flare (7) has a rubber cover (30) riveted to its inner surface. This is designed to fit over the wire mesh cylinder and is so shaped that the jet (26) is also covered.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651



NOTE
All Joints & Seams are Soldered unless otherwise stated.
Tinplate used unless otherwise stated.

JAPANESE ACETYLENE FLARE - SMALL TYPE

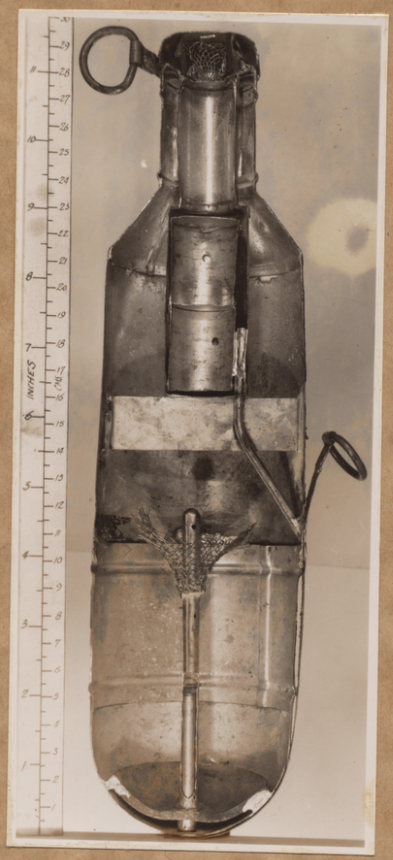
TYPE 94 NAVIGATION FLARE

DRAWN K.H.H. TRACED K.H.H. CHECKED F.A.G. DATE 17 MAY 44.	SCALE 3/4 FULL SIZE	APPENDIX B TO FOLIO 50 2/11 AUST. C.W. LABORATORY R.A.E.	12 MAY 44 DR. 29

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651



External view



Sectional view

JAPANESE TYPE 94 NAVIGATION FLARE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

MINUTE PAPER

No 1 24 Page
Appx. 1

DEPARTMENT OF THE ARMY

SECRET

SUBJECT: NOMENCLATURE AND CLASSIFICATION OF CAPTURED CW EQUIPMENT

2/1 Aust CW Laboratory RAE

G67/8/571

6 Jul 44

LHQ (for DMO(MO7))

With reference to SM 4834 of 8 May 44, and HQ USASOS CWS Intelligence Summary No 7, the following comments are submitted.

2. The grouping and classification of items listed in the above summary are logical and the nomenclature is correct according to US practice. However, the names given to certain of the items, while in themselves explanatory, do not accord with the Ordnance vocabulary terms for comparable items of British equipment.

3. It is considered that, for the purposes of reporting by this Unit, British vocabulary should be adhered to. The following major deviations from our terminology are noted in CWS Summary No 7:-

"Gas Mask"	for	"Respirator"
"Canister"	for	"Container"
"Tear Gas"	for	"Lachrymatory"
"Vomiting Gas"	for	"Sternutatory" or "Toxic Smoke"
"Decontaminating Agent"	for	"Decontaminant"
"Can"	for	"Tin"
"Pouch"	for	"Wallet"
"Decontaminating Suit"	for	"Anti Gas Clothing"
"HTH"	for	"High grade Bleach"

4. The term candle is used to describe all generators, while it is understood that in British terminology, only small training generators have been referred to as candles. The term generator is preferred for all Japanese items.

5. In the case of glass HCN and incendiary grenades, since no parallel British weapon is available for comparison, the adoption of the descriptive term "frangible grenade" is favoured.

6. With reference to CW Intelligence Bulletin No 28 Part II, it is not recommended that the existing nomenclature which appears in brackets in para A, should be departed from. The statement in para C, that "the physiological effect of a war gas often is determined by concentration rather than by the type of gas" would seem to complicate the issue unnecessarily. Furthermore, discussion along the lines of para C must surely cause doubts to be cast on the legality of our use of white phosphorus. Reports of casualties from phosphorus burns in Burma illustrate this.

7. The identification of captured CW equipment in the field might be simplified by the publication of classification charts, on as wide a distribution as possible. A specimen of the type of chart suggested is attached as Appx A.

8. Your comments on the foregoing would be appreciated.

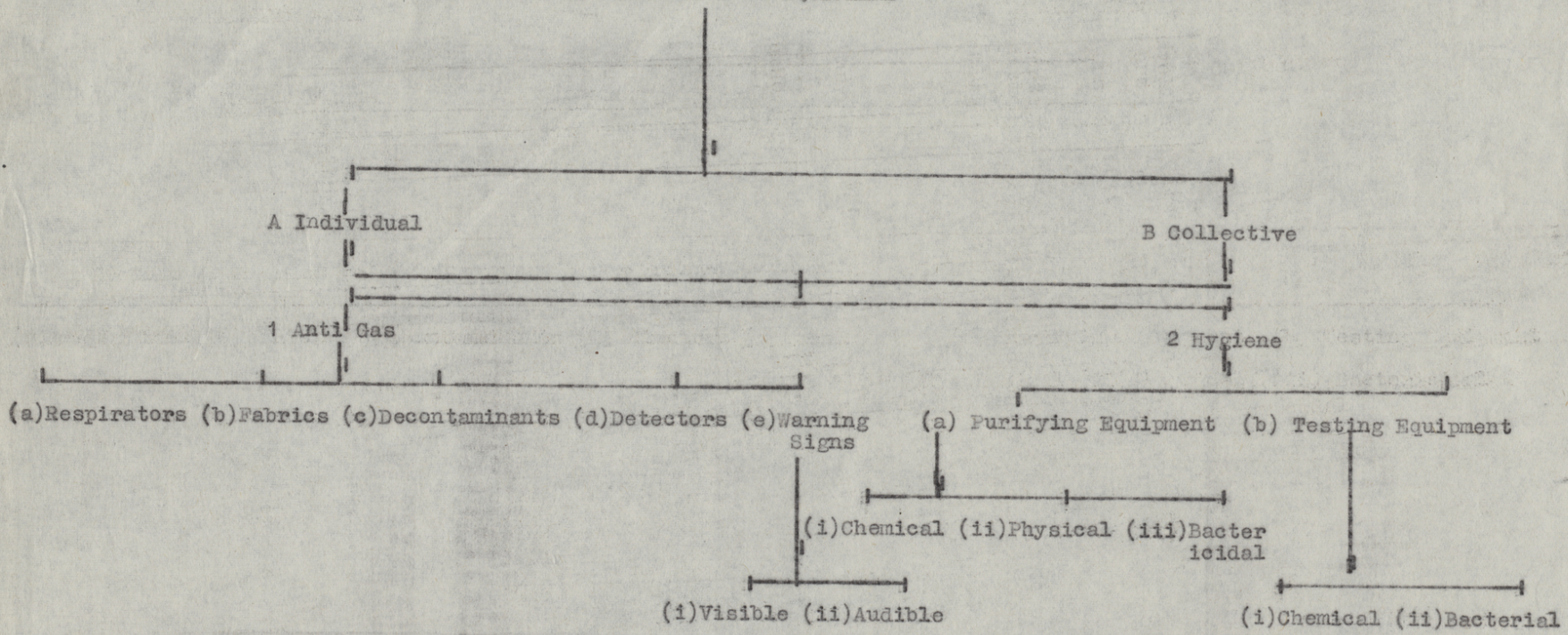
Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

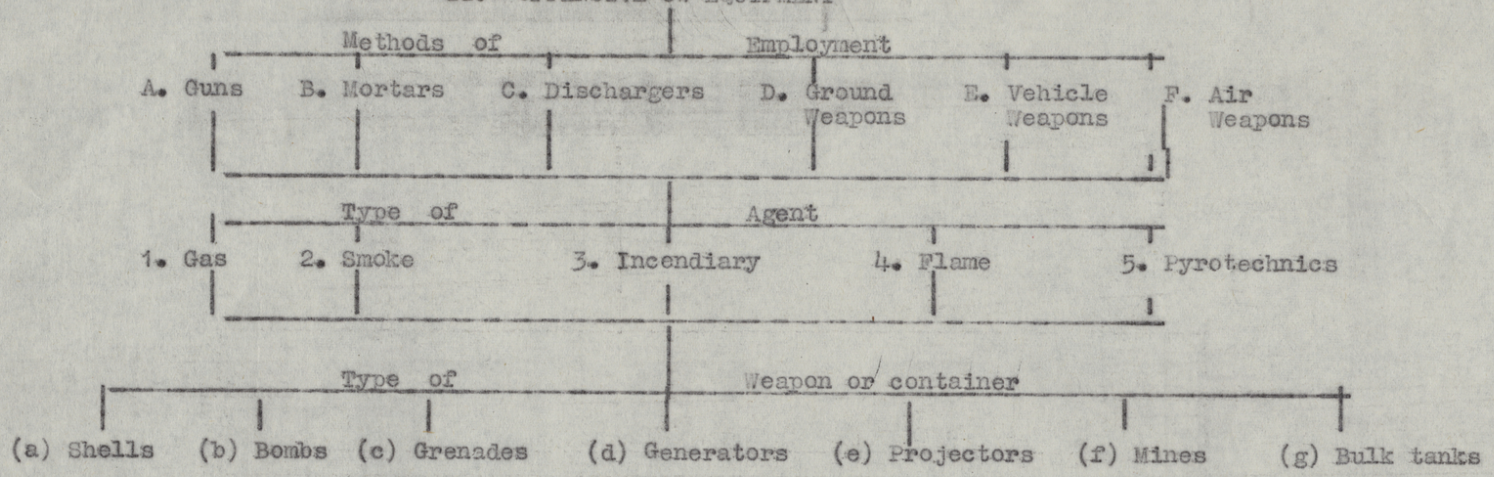
CLASSIFICATION OF CAPTURED CW EQUIPMENT

I. PROTECTIVE CW EQUIPMENT
II. OFFENSIVE CW EQUIPMENT

I. PROTECTIVE CW EQUIPMENT



II. OFFENSIVE CW EQUIPMENT



DEFINITIONS TENTATIVELY ADOPTED:-

(a) Shell -A projectile which owes its stability in flight to axial rotation produced by a driving band.
(b) Bomb -A projectile which owes its stability in flight to axial rotation produced by a tail or fins.
(c) Grneade - A projectile which has no stability in flight.
(d) Generator - A weapon which disperses a CW agent by thermal methods.
(e) Projector - A weapon which disperses a CW agent by the application of pressure.
(f) Mine - A weapon which disperses a CW agent by explosion.
(g) Bulk tank - A weapon from which a CW agent is dispersed by flow under gravity.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
Vol 14 Page
Appx 8

SECRET

2/1 Aust CW Laboratory RAE

FOLIO 42

G67/3/578

Copy No 37

7 Jul 44

JAPANESE 50 mm MORTAR SHELL - SMOKE

1. SOURCE

Three specimens captured in the LAE - SALAMAUA area in Sep 43 were received through the Allied Enemy Equipment Board on 19 Nov 43.

2. INTRODUCTION

The shell is a small calibre fixed ammunition fired from a rifled barrel as in the Type 89 Grenade Discharger. It is nose fused using the Type 89 Small Time Fuze which has been reported in Folio 37. The method of propulsion features holes in the base of the shell for the escape of gases from the ignited propellant. The design provides for the ignition and base ejection in mid air of a smoke case containing a zinc-hexachlorethane filling.

3. WEIGHTS AND DIMENSIONS

Total weight (with fuze hole plug)	850	gms	(29.75	ozs)
Weight of fuze	168	gms	(5.93	ozs)
Weight of black powder in primer	0.35	gm	(0.012	ozs)
Weight of propellant (NC powder)	3.5	gms	(1.22	ozs)
Weight of ignition mixture	1.7	gm	(0.06	ozs)
Weight of smoke mixture	102	gms	(3.57	ozs)
Weight of smoke container (empty)	60	gms	(2.1	ozs)
Length without fuze hole plug	11.2	cms	(4.42	ins)
Length fuzed	15.6	cms	(6.15	ins)
Calibre	50.0	mms	(1.969	ins)
Diameter at front band	4.968	cms	(1.957	ins)
Diameter in rear of front band	4.900	cms	(1.930	ins)
Diameter of driving band	4.964	cms	(1.955	ins)
Diameter at base of propellant unit holder	4.966	cms	(1.956	ins)
Width of driving band	1.540	cms	(0.606	in)
Thickness of shell wall	0.031	cms	(0.116	in)

4. APPEARANCE

(a) Markings:-

(i) Distinguishing marks:-
Shell painted black
Red ring on tip, signifying "filled"
Two white bands 0.8 cms wide one in rear of the shoulder the other in front of the driving band.

(ii) Stencilling:-
Various characters were stencilled between the two white bands. Indecipherable figures probably indicating date of filling, and the Japanese character 'KE' indicating 'Smoke' were noted.

(iii) Serial number:-
Stamped on the shell wall, on the head, on the driving band and on the propellant unit adapter. Specimens examined were numbered 465 C6605 and B5106 respectively.

AUSTRALIAN WAR MEMORIAL
AWM2020.71.3651

(b) External Characteristics:-

The shell has a head of low CRH. A slotted and flanged fuze hole plug of red-brown plastic material screws into the head. A copper driving band 1.540 cms wide is located with its centre line 1.3 cms from the base, which is perforated and covered with waxed paper. Front and rear bands are formed on the shell. It should be noted that the use of the term band in this case refers to portions of increased diameter of the projectile, and should not be confused with the bands painted around the body which are described under "markings". The grub screw heads of four equally spaced shearing pins are visible just forward of the driving band, although partly concealed by the paint of the white band. A pair of diametrically opposite keyway slots are recessed on the tip; another pair are visible at the rear band.

5. COMPONENTS LISTED

(a) Propellant unit which incorporates:-
- Propellant unit adapter
- Driving band
- Five twist pins
- Percussion primer (brass) - percussion cap - magazine
- Propellant holder (copper)
- Propellant (NC powder)

(b) Shell unit which incorporates:-
- Base plate
- Shell walls
- Head

- Baffle plate
- Circular steel supports
- Support disc (in two halves)

Smoke case with:-
- Primed cotton cambric disc
- Ignition mixture in flanged cup
- Smoke composition
- Aluminium cup and string attaching it to the smoke case.

6. PROPELLANT UNIT

The propellant unit adapter is a steel cup internally threaded to engage the base of the shell unit. It is reduced on the side to hold the flush copper driving band which on assembly is retained by the base plate. Five twist pins, engaging corresponding recesses in the upper section of the driving band and in the adapter, prevent relative rotation. In the side of the adapter opposite the lower portion of the driving band is located a ring of eight equally spaced ports each 5 mm in diameter and sealed on the outside by a peripheral strip of tinfoil. Eight corresponding holes also 5 mm in diameter, and a central and tapered firing pin aperture in the base of the adapter are sealed on the inside and on the outside by a covering of waxed paper. A central recess inside the base of the adapter is sealed with a disc of tinfoil and receives the brass primer. The primer is formed with an anvil and two flash holes below which is a recess to receive the percussion cap. This on assembly is retained by the inner shoulder of the firing pin aperture. The flash holes lead to a primer magazine containing granular black powder. Six slots sealed on the outside by varnished paper are cut in the upper portion of this magazine, the top of which is covered and sealed by a varnished cardboard disc. A circular paper tube containing the propellant (NC powder) is encased in the propellant holder which consists of a 34 SWG copper cup and lid. A central flanged hole in the cup allows it to assemble over the primer thus exposing the propellant to the slots in the latter. All internal surfaces of the propellant unit adapter are varnished.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

7. SHELL UNIT

The propellant unit adapter screws on to a reduced section of the steel base plate and butts against an exposed flange which forms the rear band. A large rounded cavity in the front surface of the base plate conforms with the external surface of the aluminium cup. The shell wall of 3.1 mm thickness is machined to fit the side of the base plate above the flange. This joint is secured by four shearing pins which have grub screw heads. The front end of the shell wall is externally threaded to receive the steel head, the rear portion of which forms the front band. The steel head has a left hand fuse thread and is machined internally to engage the baffle plate which is 3 mm thick and pierced by four holes 2 mm in diameter. Both the tip of the head and flange of the base plate are recessed to form keyway slots.

The baffle plate is separated by a narrow millboard washer from two supports formed by cutting a steel sleeve longitudinally. These bear on the support disc which is cut diametrically into two halves. These in turn bear on the base plate. A central hole 16 mms in diameter permits the 50 cm length of string leading from the centre of the aluminium cup to be connected to a wire loop attached to the bottom of the smoke case. The case, of pressed brass construction, has a swaging near the front to support a rimmed brass diaphragm lid with a central hole surrounding six equally spaced 5 mm smoke ports covered with tin foil. A brass disc with corresponding holes is positioned resting on the the rim of the diaphragm and retained by lugs from the end of the smoke case. Attached to its inner side is a cotton cambric disc primed with gunpowder on the rear side. A flanged zinc cup with a central hole covered with tin foil is sweated by the rear side of the diaphragm and contains the ignition mixture with an inner core of black powder. Smoke composition in the smoke case surrounds the flanged cup.

8. ANALYSES

(a) Smoke composition -

	Per cent
Hexachlorethane	40.5
Zinc dust	4.5
Zinc oxide (oxygen by difference)	48.5
Zinc chloride	6.5
Iron	trace

The sample examined appeared to be in good condition but it would not burn to give smoke. This is in agreement with the high zinc oxide figure which indicates deterioration of the composition.

(b) Ignition mixture -

	Per cent
Potassium nitrate	42.5
Sulphur	33.5
Aluminium	17
Antimony trisulphide	5

(c) Black powder in primer -

	Per cent
Potassium nitrate	71.5
Charcoal (residue)	20.5
Sulphur	7
Moisture	1

9. METHOD OF FUNCTIONING

The propellant is ignited via the percussion cap and magazine charge of the primer. The generated gas pressure bursting the copper cup extends into the discharger chamber and, transmitted to the base plate, imparts acceleration to the complete shell. Simultaneously this pressure extending through the ports in the propellant unit adapter, engraves the driving band (mainly the lower portion due to its lighter section) into the rifling grooves thereby applying rotation to the projectile as well as a "gas check" action.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

The time fuze is initiated by the shock of discharge of the projectile, and operates after the set time interval in mid air. The flash from the fuze magazine passes through the holes in the baffle plate and ignites the primed disc. This in turn initiates the ignition mixture and hence the smoke composition. At the same time the pressure built up between the fuze and the baffle plate is transmitted to the base plate via the steel supports and the split support disc. The 4 grub screw pins are sheared off and the base plate and propellant unit adapter are forced off. At the same time the smoke case is ejected with the aluminium cup attached. The split in the support disc enables it to fall free in two halves without fouling the string.

10. REFERENCES

This item has previously been reported by 42 Chemical Laboratory Company in CMTR 25 of 18 Jan 44. No important differences from that report have been observed in specimens described in this Folio.

11. DISCUSSION

Some features of the design of the shell are unusual and it is neatly but heavily constructed. The steel supports would prevent the smoke case from being crushed during ejection, when the pins fixing the base plate are sheared. Once ejected the aluminium cup apparently comes into play. It is improbable that it would appreciably retard the fall but it should steady the container so that the fall is more nearly vertical.

The intended use of this projectile is uncertain. The small quantity (102 gm) of smoke composition would not enable the shell to be used efficiently for smoke screening. Its use for observation or signalling purposes is more probable. If burst above the jungle canopy it could possibly be employed to indicate targets for air support.

12. APPENDICES

The following are attached:-

... Appx A. Drawing of shell

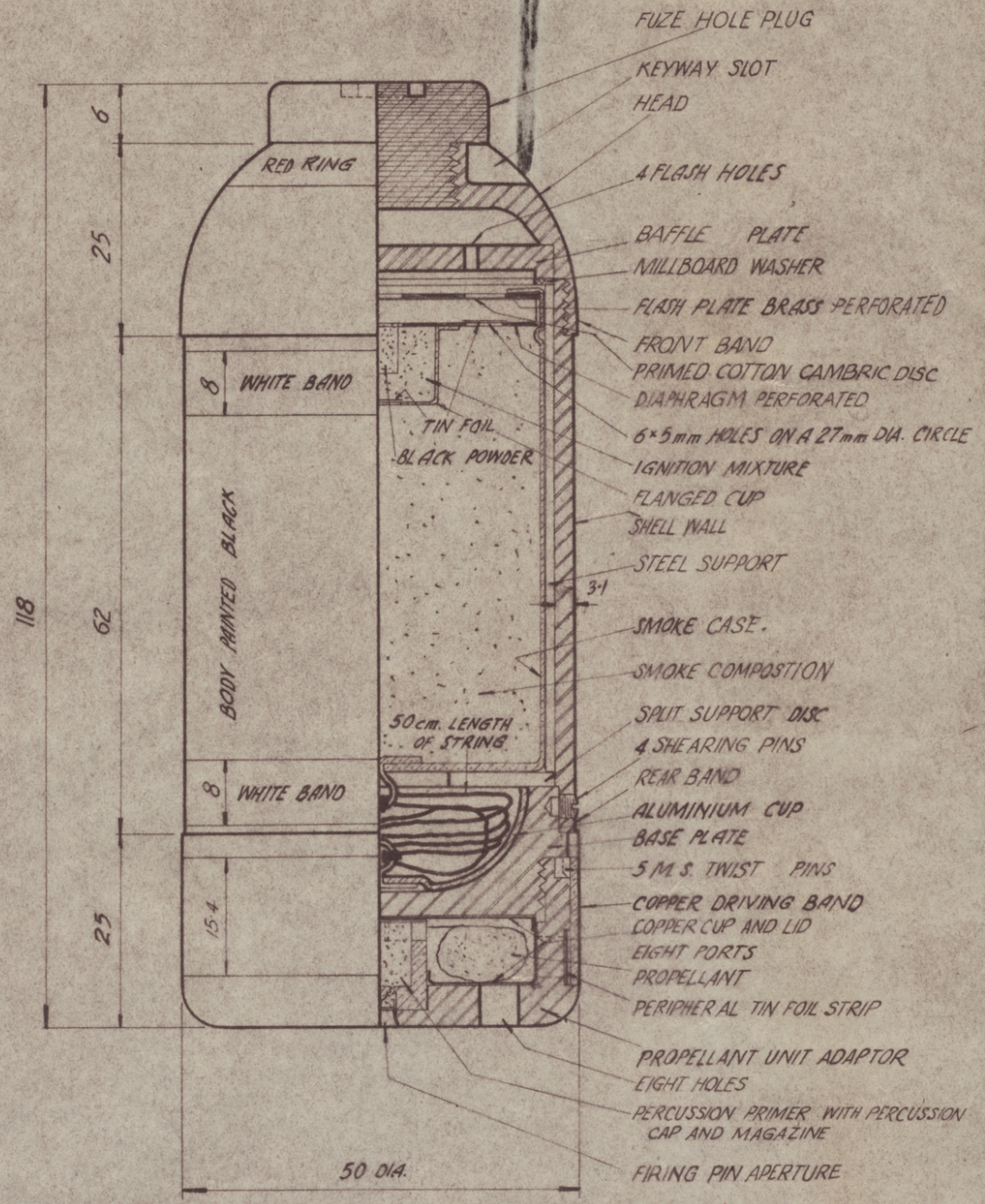
... Appx B. Photographs of shell and a prepared section.

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

Distribution:- List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX 'A' TO FOLIO 42



JAPANESE 50mm. MORTAR SHELL-SMOKE

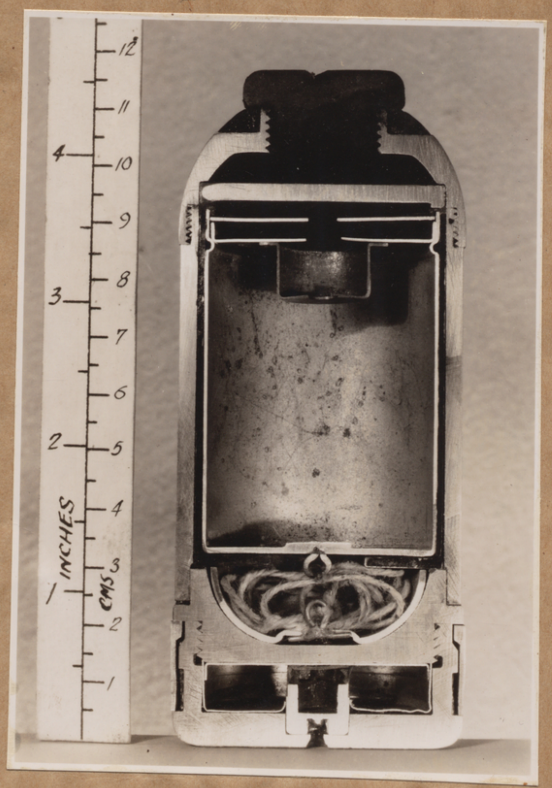
DIMENSIONS IN MILLIMETRES

DRAWN K.H.H TRACED K.H.H CHECKED F.A.C. DATE 24 MAY 44	SCALE 1/2" TO 1 INCH	2/1 AUST. C.W. LABORATORY R.A.E.	16 FEB. 44 DR. 19

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651



External view



Sectional view

JAPANESE 50 mm MORTAR SHELL-SMOKE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

UNIT PROGRESS REPORT No 33 SECRET

2/1 Aust Chemical Laboratory RAE

G55/3/582.

8 Jul 44.

WAR DIARY

No 1 24 Page

Appx. 9

LHQ (for MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
A52 Japanese 75 mm shell-incendiary
D94 Sectioning Japanese shell-incendiary
D95 Bend saw adjustment gauge
D96 Fittings for charging Japanese flame thrower Type 93
D97 Filing cupboard for Library

(ii) In hand
A44 Japanese Water filter - section use
A58 Japanese hand grenade - HE

(iii) Completed
A80 A fabric testing machine
D94 As above
D95 As above

(c) Works:-

(i) Commenced
Job 202 Sliding shutter between office and library
Job 205 Repair of kitchen table
Job 206 Repair of boiler fittings to boiler (500 lbs).

(ii) In hand
Job 170 Library fittings

(iii) Completed
Job 202 As above
Job 205 As above

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project A 55 Penetration tests carried out on rubberized bag.
Project B 13 Further work on Paint, Gas Khaki No 2.

3. CW SECTION

(a) Personnel
Lieut Rosamon reported for duty 7 Jul 44. The position of his transfer was discussed with Capt Fisher who brought further information on the subject. A reply to this will be submitted to LHQ (for MO7).

(b) Summary of work carried out during the week
Tests carried out on the fuel thickening properties of Aluminium oleate.
Construction of pyrex Liebig condenser completed.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. PROJECTS

(a) Received
A64 Japanese Type 93 4 cm Self Projecting Flares
(reproduction of Mob Sec report No 13) P2

(b) Commenced
Nil

(c) Completed
A 35 Japanese Small Smoke Generator Type 94
Folio 46 distributed on List B.
A37 Japanese 50mm Mortar Shell - Smoke
Folio 42 distributed on List A.

5. EQUIPMENT

(a) Major items received during the week
Two bins with pedal operated lids for receiving contaminated swabs.

(b) Major items required to complete UNIT
Fortin barometer - collection to be arranged by Lt Ryan in Sydney.

(c) Items required additional to UNIT
Coir Matting - receipt of THQ 91641 of 5 Jul 44 is acknowledged.
Camera for field trials - receipt of Landforces 054286 of 6 Jul 44 is acknowledged.

6. Liaison
Details of FWD standard ball drop viscosity measurement for flamethrower fuels was supplied to 42 Chem Lab Coy.

7. No 5 (MOBILE) SECTION
(a) No movement order has been received yet but NGP have advised that movement will be effected soon after 30 Jun 44.
(b) Report No 16 dated 27 Jun 44 - Japanese 1kg Smoke Generator Model 6 has been forwarded under C67/4/527 of 1 Jul 44.

8. MISCELLANEOUS
The following memos etc have been submitted to HQ (for HQ7) on the dates shown:-
(a) C26/2/531 - 2 Jul 44 - Transport for Mobile Section
(b) 31/2/532 - 2 Jul 44 - Direction of mail
(c) A4/1/533 - 2 Jul 44 - Transfer Cfn Dwyer
(d) C67/4/550 - 5 Jul 44 - Penetration times - rubber bag
(e) C67/8/553 - 5 Jul 44 - Trials of captured equipment
(f) A4/8/556 - 5 Jul 44 - Possible Chemists for Army
(g) A1/9/558 - 6 Jul 44 - Unit Standing Orders
(h) C67/8/571 - 6 Jul 44 - Nomenclature of Captured Eqpt.

Maj
Comd 2/1 Aust C. Laboratory

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 19..)

FIELD RETURN OF OFFICERS

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

At 0600 Hrs. Saturday...../...../194.... .....(Unit)

W.E...../...../..... OFFRS.....O.R's.....+ 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.
				*					
				*					
				Lieut.-Colonels					
				Majors					
				Captains					
				Lieutenants					
				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.											
	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 AWM2020.71.3651

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/ (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday / /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.

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.

Date of Despatch

Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

80/44 (Serial No.)

At 0600 Hrs. Saturday 8/7/1944 2/1 Aust CW Laboratory RAE (Unit)

Part of W.E. AIF ~~11/1~~ ~~3/2~~ 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.				
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					
				W.Os. Class II.					
NR	1			Squadron or Company Quartermaster Sgts. 1					
			1	Staff Sergeants 1					
				Sergeants					
NR	3		1	Corporals 4					
		3	5	Troopers, Privates, etc. 2					
2			12	Civilians counting as O.R. 14	AACC	1		1	1
2*	4	3	19*	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	A.I.F. B	C.M.F. Under 19 Years.	C.M.F. 19 Years and over. B	A.W.A.S.	A.A.M.W.S.	CIVIL	R.A.N.	R.A.A.F.	* *	TOTAL.
A	16	3		1							20
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 AWM2020.71.3651

WAR DIARY

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

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

80 /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 8 /7 /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	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	1	1	-	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	-	NR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters Opl (d)	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				OSM WO2(e)	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				CMS S/Sgt	1	1	-
Fitters, Signals				Height Taker				Clerks	1	1	-	Clerk Sgt (b)	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Lab assts Sgts (c)	3	3	-
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Photographer Cpl (e)	1	1	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Lab asst Spr	1	1	-
Mechanics, Instrument (Surgical)				Joiners				Concretors				ATTACHED BY W.E.			
Mechanics, Radio				Lineman				Cooks				MO Orderly(f)	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Batman Dr	1	1	-
Mechanics, Wireless				Lithographers				Despatch Riders				Ovr M?	1	1	-
Millwrights				Machinists, Metal				Draughtsmen, Signals				Batmen	2	1	1
Operators, Excavator				Machinists, Wood				Drivers, H.T.				Gendutymen	1	1	-
Pattern Maker				Masons				Driver Mechanics	1	1	-				
Pharmacist				Masseurs				Driver Tptn. Plant				Attached AACO			
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Cooks	2	1	1
Photowriter				Miners				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers							
CARRIED FORWARD	3	2	-	CARRIED FORWARD	4	3	-	CARRIED FORWARD	7	5	1	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	20 *	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.

Date of Despatch

Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) 1 Sgt filling the position of CSM (WO2)

(b) 1 L/Sgt filling the position of Clerk (Sgt)

(c) 1 L/Sgt and 2 Opls filling the positions of Lab assts (Sgts)

(d) 1 Spr filling the position of Fitter (Opl)

(e) 1 Spr filling the position of Photographer (Opl)

(f) 1 Opl filling the position of Orderly

WAR DIARY

Vol 24 Page

Appx 12

SECRET

AUSTRALIAN MILITARY FORCES

2/1 AUST CW LABORATORY RAE	
FOLIO 58	Copy No 19
G56/1/594	10 Jul 44

JAPANESE WATER PURIFYING OUTFIT-ALUM-SODIUM BICARBONATE TYPE

1. INTRODUCTION

One specimen, captured in the HUON PENINSULA area in Feb 44, was received for examination by the Mobile Section, 2/1 Aust CW Laboratory from HQ New Guinea Force on 10 Apr 44. The text of Mobile Section Report No 8 is set out hereunder.

" 2. DESCRIPTION

The outfit, as received, consisted of a brown coloured cylindrical canister with lid, the whole made from 28 SWG galvanised iron. The inside was unpainted. The canister was in two portions, each with a small brass plate bearing Japanese characters on it. The upper compartment was empty, while in the lower was a white crystalline powder in a brown paper wrapping.

Weight of Container	390 gms	(14 ozs)
Weight of Contents	840 gms	(1 lb 14 ozs)
Length of Container	36.9 cms	(14 17/32ins)
Max.diameter of Container	8.5 cms	(3 11/32 ins)

(a) The Container

The lid had been pressed from a sheet of metal,and was 8.5 cms in diameter at the base and 1.5 cms high. On an outward swaging near the top was a 0.3 cm wide knurled band. The lower edge was rolled back on the outside. Three L-shaped internal grooves 0.1 cm deep enabled the lid to be slipped on over 3 small projections approximately 0.3 cms by 0.25 cm, 0.7 cm from the top of the upper compartment. The lid was then fixed in position by turning it clockwise for approximately 1.3 cms.

The upper compartment was 17.3 cms long and its base slipped on outside the top of the lower compartment for approximately 3.5 cms. The top of the upper compartment bore an inrolled edge, while at the base it was rolled back on the outside. A bottom was provided by a disc soldered in position from below and 3.5 to 3.8 cms from the lower end. It lay within the lowermost swaging. Situated 1.4 cms from the top of the compartment was a 0.3 cm wide outward swaging against which the base of the lid fitted. A 0.7 cm wide outward swaging occured 5.6 cms below this, while another was 5.3 cms below the previous one. The brass label was 9.3 cms from the top of the compartment and diametrically opposite a longitudinal folded and pressed seam soldered on the inside for an inch or more each end.

The top of the lower compartment was inrolled in a similar manner to that of the upper. Four 0.7 cm wide outward swagings were present, the first 3.4 cms from the top, the remainder 4.1 cms apart. The brass plate was 9.7 cms from the top and again diametrically opposite the seam. The base was attached by means of a folded and pressed seam and not soldered.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(b) The Contents

The brown paper which enclosed the white powder was 24.5 cms by 27 cms. It was coarsely torn along one edge. The white powder appeared crystalline, and was somewhat lumpy suggesting the presence of moisture. Its solution was ~~strinely~~ strongly alkaline to litmus. Analysis showed it to consist of:-

	Per cent
Sodium Bicarbonate	74.3
Sodium Carbonate	11.1 (anhydrous)
Moisture	14.6

3. MARKINGS

The two brass plates were each 2 cms by 3 cms. Around the edges was a 0.2 cm - 0.3 cm wide raised margin. The central portion was sunken slightly and painted with black enamel. The Japanese characters were raised and unpainted. Translations were:-

Label on top compartment - "burnt alum"
Label on bottom compartment "sodium bicarbonate"

4. MISSING COMPONENTS

In a field report by the Tech Offr (CW) HQ NG Force dated 14 Oct 43, a similar outfit captured at SALAMAUA in Sep 43 was described. A brown paper bag containing 1 lb 2 oz of alum was mentioned from the top compartment as well as 1 lb 13 ozs of Sodium bicarbonate in a similar bag in the lower compartment, there was "also a small tin plate measure with a press-on lid. Inside the measure are 8 packets of white absorbent papers, 1 3/8" long and 9/16" wide. They are evidently a type of test paper but their function is not known ..." The height and diameter of the measure were given respectively as $2\frac{1}{8}$" and $1\frac{5}{8}$".

5. METHOD OF USE

No instructions as to method of use or quantities required were found with the outfit. Alum is commonly employed for coagulating colloidal particles, thus inducing them to "settle out". Clay suspensions and organic matter would thus be precipitated from water. Sodium bicarbonate reacts with alum forming aluminium hydroxide, an insoluble gelatinous material which in settling would also tend to bring down suspended matter with it. The papers may feasibly be impregnated with some indicator to show when sufficient bicarbonate had been added. The function of this outfit would appear to be more to clarify water, rather than sterilise it, although many bacteria would probably settle out with other suspended material.

(sgd) J.R.B. Neil
Lt
OC Mobile Section "

6. APPENDIX

Attached as Appx A are copies of illustrations from Mobile Section Report No 8.

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:- List B

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651





"Burnt Alum"



"Sodium Bicarbonate"

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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Appx. 13.

SECRET

AUSTRALIAN MILITARY FORCES

2/1 AUST CW LABORATORY RAE	
FOLIO 57	Copy No 37
G67/3/618	10 Jul 44

JAPANESE TYPE 93, 4 cm SELF PROJECTING SIGNAL FLARES

1. INTRODUCTION

Two specimens, captured in the HUON PENINSULA area in Mar 44, were received for examination by the Mobile Section, 2/1 Aust CW Laboratory from HQ New Guinea Force on 28 Apr 44. The text of Mobile Section Report No 13, describing these items, is reproduced below.

2. DESCRIPTION

As one of the samples, a triple white shooting star, was received intact, it is described in some detail first. Any differences shown by the second, a green parachute flare which was incomplete and had been opened, are given later.

(a) Triple White Shooting Star

The main weights and dimensions are:-

Total weight	262 gms
Weight of Projectile	100 gms
Weight of each Flare Pellet	18.5 to 18.6 gms
Length Overall	18.2 cms
Length of Projectile	9.3 cms
Diameter Overall	4.4 cms
Diameter of Projectile	4.1 cms

Further details are given in the text and the diagram in Appx A.

(i) The Projector

The metal cylinder which served both as container and "barrel" was constructed from approximately 28 SWG tinned iron. It had a neat, tightly-pressed, hooked seam soldered down the outside and more lightly within. The cylinder was coated with a clear golden varnish both inside and out. On the outside was a white paper label 11.4 cms long and 6.0 cms wide. The top was closed by means of a disc of thin white cardboard, which was retained in position by a 3.0 cms wide strip of brown paper. The upper portion of the paper had been fringed to a depth of 1.3 cms by a series of cuts approximately 0.5 cm apart. The entire portion was glued around the outside of the metal cylinder forming a band 1.7 cms wide, while the fringed portion was folded in and glued to the top of the disc. To cover the fringe a circular piece of brown paper was glued over it. The top covering of the projector was coated thickly with paraffin wax, which also extended down the sides for an average distance of 2.5 cms.

Within the upper end of the metal cylinder was a 3.0 cms wide piece of thin white cardboard folded to form a spacer triangular in section. Separating the spacer from the top of the projectile was a thin white cardboard disc.

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The lower portion of the projector appeared to have been dipped into paraffin wax to a depth of 4.0 cms. Holding the slip-on cover at the base in position was a 3.0 cms wide brown paper band and beneath this was a 1.2 cms wide strip of cotton tape. The slip-on base was pressed from the same material as the cylinder and was 2.25 cms long. Its removal showed the lower end of the cylinder to have four broad triangular teeth approximately 2.1 cms long. A more or less U-shaped length of safety fuse wrapped in brown paper along one arm, a wad of cotton waste and an octagonal striker block wrapped in brown paper were also apparent.

Six 1.0 cm long tacks through the cylinder held in place a turned wooden block 3.3 cms long, its base just showing below the apices of the gaps between the teeth. The top of the block was covered by a piece of glued-on waxed paper and contained a charge of black powder in a depression 1.15 cms deep and 3.0 cms in diameter. Through the central axis of the block was a 0.5 cm diameter hole containing portion of the safety fuse. Across the base was a radial groove 0.6 cm wide and deep. The fuse was held in the groove by two tacks about half way along it. Opposite the end of the groove was a similar sized opening cut out of the metal cylinder at the apex of one of the gaps between the teeth.

The upper end of the safety fuse was in contact with the charge in the wooden block. A thin brass tube 1.5 cms long and containing the match head in one end, was crimped on to the lower end of the fuse. A 0.2 cm diameter gas port covered by a strip of 0.5 cm wide waxed paper was present in the tube opposite the gap between the match head and end of the safety fuse.

Above the wooden block were two discs, each with a 1.5 cm diameter hole in the centre. The one was of thin white cardboard, the upper of coarse brown felt 0.6 cm thick. The base of the projectile rested upon the felt disc.

The wooden striker block was 0.55 cm thick and eight sided. It appeared to a 2.0 cms square with the four corners cut off to form additional short sides. Through the centre was a 1.3 cms diameter hole. The four longer sides were covered with red phosphorus and abrasive.

(ii) <u>The Projectile</u>

Several layers of thin white card, compressed together, formed the approximately 2.75 cms thick tubular body of the projectile. The outside was covered by a layer of pale brownish paper. The top was closed in a similar manner to the projector, with first a circular piece of brown paper, then a 2.6 cms wide strip of the same material, the entire portion of which formed a 1.4 cms wide band, and finally a white cardboard disc. In addition, however, was a 0.2 cm thick disc of brown cardboard which fitted in to the top of the projectile and was glued to the lower surface of the white disc.

A turned wooden block was fitted in to the lower end of the tubular body of the projectile. It was held in position by means of glue and five 1.0 cm long tacks. Covering the junction of the lower portion of the block and cardboard tube as well as the heads of the tacks was a 2.1 cms wide band of brown paper. Through the central axis of the block was a 0.5 cm diameter hole containing a length of delay fuse, notched at the lower end, which projected for 0.5 cm below the base of the block. To the top of the block was glued a circular piece of waxed paper, beneath which was a charge of black powder in a depression 1.7 cms diameter and approximately 0.3 cm deep. A channel of the same depth ran out from the margin of the depression, where it was 0.9 cm wide, to the edge of the block, where it was 1.4 cms wide. The waxed paper was glued to the base of this channel to prevent the charge from escaping into it.

Glued longitudinally to the inside of the body of the projectile were two tight rolls of brown paper, approximately 0.5 cm in diameter and 5.7 cms long, one to each side of the channel in the top of the wooden block. Measured around the inside wall of the projectile the rolls were approximately 3.5 cms apart.

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Resting on top of the wooden block was a thin white cardboard disc 2.9 cms in diameter and above this a brown felt disc of the same diameter and 0.3 cm thick. Next were the three flare pellets separated by two brown felt discs the same as the previous one. The flare pellets were approximately 1.65 cms long and 2.8 cms in diameter. The top one was the heavist, weighing 18.63 gms, the bottom one the lightest, weighing 18.50 gms, while the middle one weighed 18.58 gms. They appeared to have a coating of fine black powder around the sides and base. The pellets consisted of a compressed dark grey powder. Analysis showed the composition to be:-

	Per cent
Potassium nitrate	63
Antimony trisulphide	12
Charcoal	5
Sulphur and Resinous Material	20

One of these flare pellets, ignited while resting on a piece of galvanised iron, burnt for approximately 10 seconds.
Above the flare pellets was a thin white cardboard disc separated from the top plug by a pad of cotton waste.

(iii) The Igniter and Propellant Systems

After removal of the base cover, the cotton waste and striker block, and bending the fuse so that it extends straight out from the radial groove in the base of the turned wooden block and through the prepared gap in the metal cylinder, the projector would be fixed in the desired position in the ground by means of the basal teeth.

Igniting the match head with the friction striker, the safety fuse would in turn be ignited and finally explode the charge in the projector, which would expel the projectile and simultaneously ignite its delay fuse. While in flight the charge within the projectile would be exploded, thus expelling and igniting the three flare pellets. The function of the two paper rolls within the projectile would appear to be to prevent the flare pellets and their associated discs from lying on top of the channel in the top of the wooden block. A passage is thus kept clear through the channel and up between the rolls for the flash from the explosion of the charge to ignite the pellets laterally.

The main details of fuses and charges are:-

Length of safety fuse (excluding match head)	approx	7.5	cms
Time elapsing from striking of match head to ignition of charge in projector	approx	12	secs
Weight of granular black powder charge expelling projectile		5.08	gms
Length of delay fuse in projectile		2.4	cms
Burning time of delay fuse in projectile	approx	2	secs
Weight of granular black powder charge expelling flare pellets		0.67	gms

(b) Green Parachute Flare

The weights and dimensions are:-

Total weight (as received)	247	gms
Weight of Projectile (not quite complete)	85	gms
Weight of Flare	36	gms
Weight of Parachute and cords	5	gms
Length Overall	18.3	cms
Length of Projectile	9.3	cms
Diameter overall	4.4	cms
Diameter of Projectile	4.1	cms

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(i) The Projector

The metal cylinder was identical with that in the previous flare and bore a similar sized label. The lacquer coating had practically worn off, giving it a more silvery appearance compared with the other flare. The method of closing the top of the projector appeared to have been the same although only the cardboard disc and the entire portion of the brown paper band remained. This was held on by means of a slip-on lid approximately 2.0 cms long while at the base was a similar sized slip-on cover. Whether any or both of these originally belonged is obscure. They were both shorter than the base cover in the previous flare. Within the upper portion of the cylinder was a spacer made from a 2.6 cms wide piece of brown cardboard folded to be ⅄ shaped in section. Below it was a thin brown cardboard disc, beneath which was the top of the flare.

Inside the base of the projector, the striker block was missing, although the arrangement of the fuse and construction and attachment of the turned wooden block were as in the previous flare. Above the wooden block were the cardboard and felt discs, the only difference being that in this case the former was brown and the latter white.

(ii) The Projectile

Layers of thin brown cardboard in this projectile formed the tubular body. The top had been opened and only the thick brown cardboard disc remained. The wooden block and delay fuse were the same as in the previous flare, except for the absence of the channel at the top of the block. The charge was also missing.

As the flare received had already been opened the internal arrangement within the projectile shown in the sketch in Appx A, was taken largely from a report dated 30 Mar 44 and prepared by Tech Offr (CW), 2 Aust Corps. The cardboard disc with no central hole shown above the charge appears to be incorrectly placed. It is doubtful whether the flare would be ignited by the explosion of the charge with any certainty. As the sample was received, the card was placed between the parachute and the cotton waste pad. This seems to be a more reasonable place for it, but since the raffia binding around the flare was mixed in with the parachute cords and the charge was missing, little significance can be attached to the position the disc then occupied. Perhaps an additional cardboard disc with a central hole, normally present above the charge, was missing.

The felt pad below the flare was white. The cotton waste pad above the parachute consisted of pieces of cotton seed coat with short fibres attached to them. This feature may further warrant a cardboard disc being present above the parachute.

(iii) The Parachute and Flare

The parachute had been cut from a sheet of green dyed tissue paper, was octagonal in outline, and had a side of approximately 17 cms. The distance between any two parallel sides was approximately 42 cms. The parachute cords were tied to the centres of strips of the same green tissue paper approximately 6.6 cms long and 1.6 cms wide, which were in turn firmly glued to the upper surface of the parachute at the corners in a V-shaped fashion.

The eight silk parachute cords, approximately 0.50 cms in diameter, had a pinkish tinge and were 60 cms long to their attachment at the lower end to a white cotton cord. The cotton cord was approximately 40 cms long to the top of the flare and 0.125 cm in diameter. Around the lower 13 cms of this cotton cord was twisted a piece of asbestos cord approximately 0.25 cm in diameter. The two junctions between the three types of cord were covered by white tissue paper. Immediately above the flare the cotton and asbestos cords were knotted. Passing through the knot were two 8.3 cms long pieces of cord, one of asbestos, the other of cotton.

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The former was glued down the sides of the flare, while the latter was partly split into its three strands and these spread out and also glued down the sides of the flare, the central strand at each end lying beside the asbestos cord.

As the parachute had been disturbed no observations can be made on method of folding. However, in the report previously mentioned it was stated to be in eight folds.

The flare was approximately 3.5 cms long and 3.1 cms in diameter. Glued to the top of the flare pellet was a thick brown cardboard disc. A piece of brown paper with fringed top was wrapped around the flare pellet in the form of a tube and the fringe had been folded in on top of the cardboard disc and glued down. The fringe had been made by removal of triangular pieces instead of simple cuts. On the top was a circular piece of brown paper. The base of the flare pellet was uncovered. The flare pellet was blackish in colour and appeared to have a layer of black powder over the base. Analysis showed the composition of the pellet to be:-

	Per cent
Barium chlorate	81
Charcoal	11
Resinous material	8

(iv) <u>The Igniter and Propellant Systems</u>

These systems were practically the same as those in the previous flare, except that the flare pellet was ignited at the base base instead of laterally. The match head failed to ignite the safety fuse and in consequence no burning time can be given.

The black powder charge expelling the projectile weighed only 4.74 gms, while as previously mentioned the charge in the projectile was missing. The delay fuse on the projectile again burnt for approximately 2 seconds.

3. MARKINGS

No translations could be obtained. Those given below are taken from the report by Tech Offr (CW), 2 Aust Corps.

(a) <u>Triple white Shooting Star</u>

The large white paper label on the metal cylinder, with four single black lines enclosing the Japanese characters, was in good condition. It is stated to read:-

"Trailing Star. Three white stars.
Type 93 4 cm Manoeuvre Signal Flare
For short distance night use
Colour of flare: white
Altitude: 80 metres
Visible in daytime 1500 metres away
Visible in night time 5000 metres away
Effective for two years. Made in 1937".

At the top of the projector on the brown paper disc was the character "7". The side of the projectile had 3 Japanese characters arranged vertically, and the same as the largest on the outer label, believed to read "Three white stars". Further around is the letter "W" and near it "12.2.6 T". The letter "W" also occurs on both top and bottom of the projectile.

(b) <u>Green Parachute Star</u>

The label on this flare was rubbed off in patches and appeared to have four double lines, the outer one thicker, surrounding the Japanese characters.

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It is stated to read:-

"Green comet

For long distance night use
Colour of flare: Green with green parachute
Altitude: 80 metres
Visible in daytime 3000 metres away
Visible in night time 8000 metres away
Effective for two years. Made in 1939".

The projectile had what appeared to be a single large complex Japanese character, while to the right of it were 4 smaller ones in a vertical line. Further to the right was the letter "W".

4. NOTES

The presence of charcoal in both of these flare compositions appears to be the main difference from those in the 50 mm signal flares, described in 2/1 Aust CW Laboratory Folios 38 and 40. The longer safety fuse than in the case of the Type 99 self-projecting smoke generator is probably necessitated by the lower end of the projector itself being pushed into the ground instead of having a spike attachment.

The arrangement whereby the triple shooting star pellets are ignited laterally is not met with in the similar 50 mm signal flares.

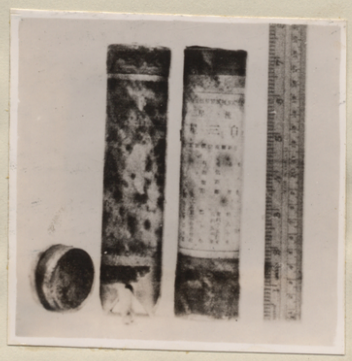
(Sgd) J.R.B. Neil
Lt
OC Mobile Section"

5. APPENDIX

... Attached as Appendix A are copies of illustrations from Mobile Section Report No 13.

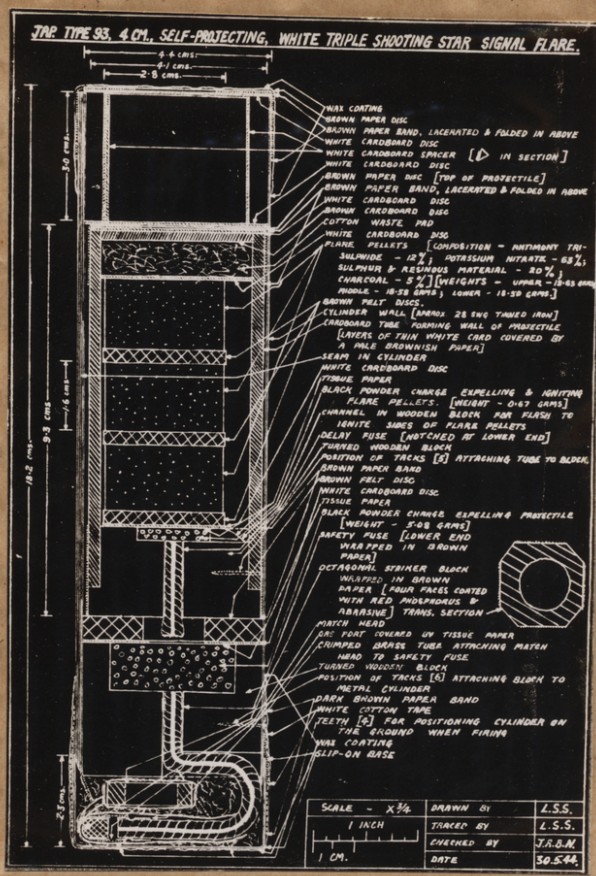
Maj
Comd 2/1 Aust CW Laboratory RAE

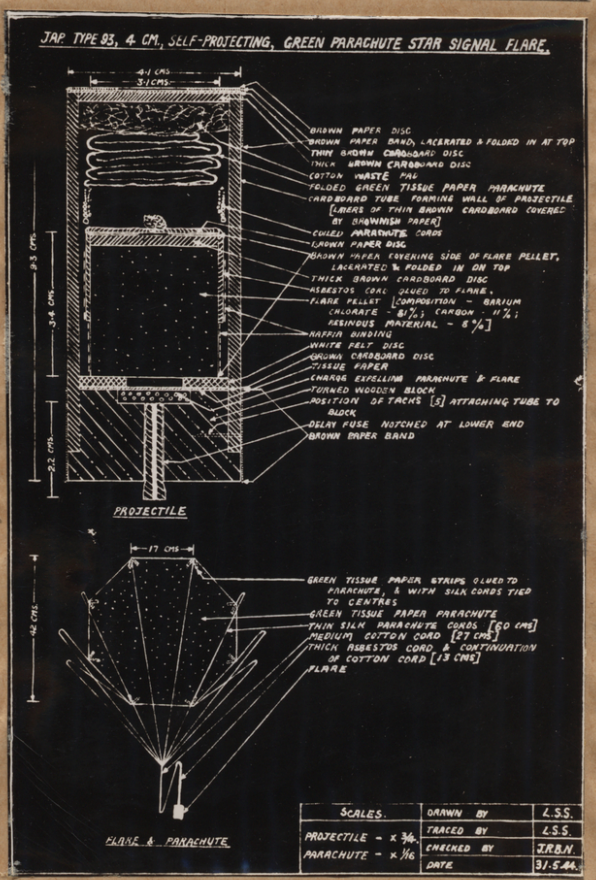
Distribution:- List A.



PHOTOGRAPH OF FLARES

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651





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SECRET

FOLIO 54

Copy No 37

2/1 Aust CW Laboratory RAE

G63/1/593

10 Jul 44

JAPANESE TUBE OF ANTI-DIM COMPOUND

1. SOURCE

One sample in good condition, from equipment captured in NG in Dec 43, was received for examination through the Allied Enemy Equipment Board in Jan 44. Reference has been made to this item in LHQ CW Technical Notes No 7, page 39.

2. DESCRIPTION

The outfit weighs 8.7 gms and consists of a corked tin plate tube containing the Anti-Dim compound. A piece of cotton gauze, 30 cm long and 12 cm wide, is folded four times, rolled round the tube and secured by a piece of cotton thread.

The tube is 5 cm long and 1.3 cm in diameter and is open at one end. It is made from 34 SWG tinplate with a longitudinal pressed and folded seam. The base of the tube is pressed onto the body. The tube is painted green externally and is stamped in black with directions for use of the compound. These were translated as follows:-

> "Directions for use of Anti-Dim Compound:-
> Wipe inside of eyepiece clean and spread a small quantity of this compound on it. Rub it with a cloth so that it is uniformly transparent".

The open end of the tube is fitted with a cork to the lower surface of which is attached the stick of anti-dim. A thin piece of wood set in the compound with about 5 mm of its length projecting into the cork is used to hold the stick and the cork together. The stick of anti-dim weighs about about 1.9 gms, is wrapped in cellophane and is about 7 mm in diameter and 3.5 cm in length. It is a yellow translucent solid, giving a solution in water which lathers. It is precipitated from solution by the addition of sodium chloride or calcium hydroxide. Positive tests were obtained for sodium, potassium, and glycerine. The anti-dim compound is therefore a soap containing some free glycerine.

3. APPENDIX

The following is attached:-

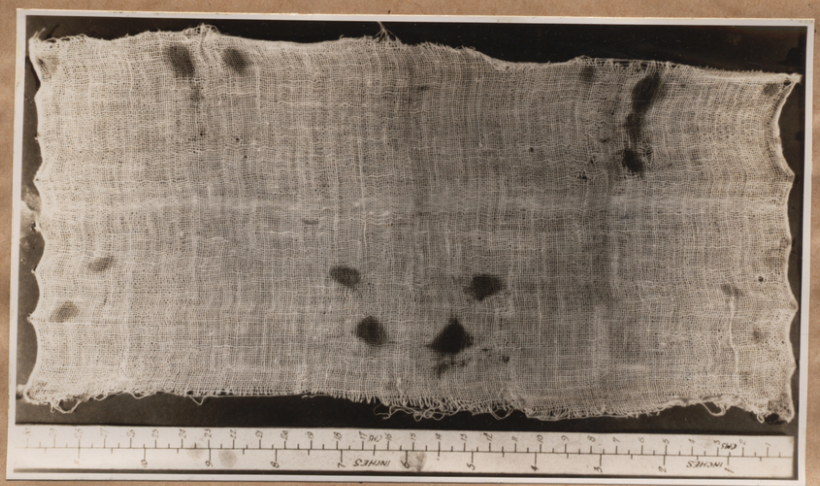
... Appx A. Photographs

H W Allen Maj
Comd 2/1 Aust CW Laboratory RAE

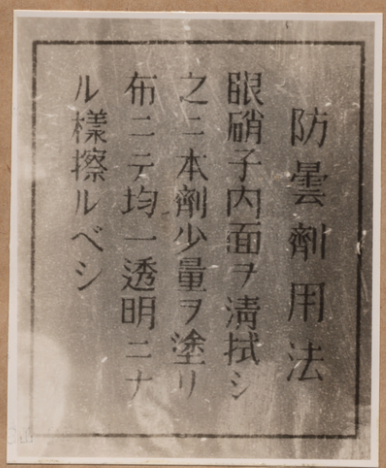
Distribution: List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651





Cotton Gauze



'Directions for use' on tin plate tube

JAPANESE TUBE OF ANTI-DIM COMPOUND

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

RESTRICTED

GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

WAR DIARY
Vol 24 Page
Appx. 15

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

12 Jul 44 Part I Serial 84

367. DUTIES

To Mount 0630 hrs 12 Jul 44 Next for duty, to Mount 0630 hrs

Capt Smith 19 Jul 44: Lieut Ryan

Orderly NCO -

To Mount 0630 hrs
12 Jul 44 Cpl Day
13 Jul 44 Cpl Corner
14 Jul 44 Sgt Goudy
15 Jul 44 S/Sgt Code
16 Jul 44 L/Sgt McLaren
17 Jul 44 L/Sgt Hamlyn-Harris
18 Jul 44 Cpl Kline

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
12 Jul 44	Spr Allen		
13 Jul 44	Spr Dowd		
14 Jul 44	Spr Curtis		
15 Jul 44	Spr Murray		
16 Jul 44	Spr Buchanan	Spr Barber	Spr Hohne
17 Jul 44	Spr Dover		
18 Jul 44	Spr Shaw		

368. APPOINTMENTS

1. Lieut E.M.Roseman is taken on strength 8 Jul 44 and is appointed to CW Section.

369. STATEMENT OF REGIMENTAL TRUST FUND

2. Credit Balance as at 12 Jul 44 ..... £12/1/4

W Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

SECRET

UNIT PROGRESS REPORT No 34 — 2/1 Aust CW Laboratory RAE

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Vol 34 Page
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055/3/640

15 Jul 44

LHQ (for DMO(NG7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
A62 Japanese 75 mm shell - smoke

(ii) In hand
A52 Japanese 75 mm shell - incendiary
A58 Japanese 50 mm grenade - smoke
D97 Filing cupboard for library

(iii) Completed
A44 Japanese section use Water Filter
D96 Fittings for charging Japanese Flame Thrower Type 93

(c) Works:-

(i) Commenced
Job 209 Stand for mercury cleaning apparatus
Job 210 Additional bench and sink

(ii) In hand
Job 170 Library fittings

(iii) Completed
Job 206 Repair of fittings to boiler (500 lbs)
Job 209 As above

2. CHEMICAL SECTION

(a) Personnel
Lieut Ryan returned from detachment to LHQ, 14 Jul 44

(b) Summary of work carried out during the week
Project A46 Further work was carried out on Jap Type 93 Small Flame Thrower ignition cartridges
Project A58 Analyses of delay pellet and cappings completed

3. CW SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project C14 Further tests carried out on the fuel thickening properties of Aluminium Oleate
Project C15 Further work on investigation of pocket vapour detectors. Design of dynamic chamber under way.
Glass column for mercury cleaning completed.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. [illegible]

(a) Received

A65 Japanese [illegible]creen P2
(Reproduction of [illegible]ob Sec Report 17)
A66 Japanese Type 94 B Floating [illegible]moke Generator P2
(Reproduction of [illegible]ob Sec Report 15)
A67 Japanese 1 Kg Smoke Generator Model 6 P2
(Reproduction of [illegible]ob Sec Report 16)
A68 Japanese Type 99 Small Air Compressor for Flamethrowers P2

(b) Commenced

Nil

(c) Completed

A2 Japanese Gas Satchel - Addendum No 1 to Folio 2
Advance copies despatched 14 Jul 44
A45 Jap Tube of Anti Dim Compound - Folio 54 - Dist List A
(Despatched 12 Jul 44)
A60 Type 98 Corps Use Respirator Tester - Folio 59 -
Advance copies herewith
A61 Japanese Water Purifying Outfit - Alum Sodium Bicarbonate Type
Folio 58. Dist List B herewith.
A63 Jap Hoolamite Carbon Monoxide Detector Outfit - Folio 60
Advance copies herewith.

5. EQUIPMENT

(a) Major items received during the week
ater Bath (electric) for laboratory
Fortin barometer

(b) Major items required to complete [illegible]
Nil

(c) Items required additional to [illegible]
No change

6. [illegible]

(a) Identification of Explosives has been discussed with 42 Chem Lab Coy. Maj Halter is on leave and Capt McDaniel is in command in his absence.
(b) Further efforts have been made to complete [illegible] through allocation section of GHQ.
(c) [illegible] Bulletin 12/42 and Enemy Publication 149 have been received. These should contribute greatly to our knowledge of Japanese C[illegible].

7. No 5 ([illegible]) [illegible]

(a) Preparations for movement were largely completed by 30 Jun 44.
(b) Arrangements have been with Adv [illegible] for Mobile Section to rejoin Unit HQ on return to Mainland.

8. [illegible]

The following memos etc have been despatched to [illegible] (for [illegible]) on the dates shown:-

(a) CML 583 8 Jul [illegible] Arrival of Lt Doorman
(b) CML 591 11 Jul 44 Request for 1 CML report 15
D/C 609 12 Jul 44 Lt Col Carter
(c) CML 611 12 Jul 44 Thickened fuels
(d) 057/4/619 14 " 44 Return of reports on loan
(e) 057/1/620 14 " 44 Application for textbook on Explosives
(f) CML 623 14 Jul 44 Viscometer from NSL
(g) CML 627 14 Jul 44 Thickened fuels
(h) 42/1/636 15 " 44 Release of Chemicals.

[signature]
Maj
Comd 2/1 Aust C[illegible] Laboratory [illegible]

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 19[illegible])

FIELD RETURN OF OFFICERS

81 / 44 (Serial No.)

At 0600 Hrs. Saturday 15 / 7 /194 4. 2/1 Aust CW Laboratory RAE (Unit)

Part of AIF 111 31 2 W.E. / / . 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.
				*					
				*					
				Lieut.-Colonels					
			1	Majors 1					
	2		1	Captains 3					
		2	3	Lieutenants 1					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	2	2	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.		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.
VX16045	Lieut	ROSEMAN E M	RAE 1 Aust Army		
			Troops	7 Jul 44	Authority: LHQ memo 63902 of 11 May 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).

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

2/1 Aust GW Laboratory RAP Unit No1 24 Page

Appx 17

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

81 /44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 15 / 7 /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 O	OC	Yes		
Capt	WX35410	SMITH	N D	Tech Offr (GW)	Yes		
Lieut	VX112210	GOLDSTONE	F A	Amn Offr	Yes		
Lieut	QX36411	RYAN	J G P	Chem Offr	Yes		
Lieut	VX16045	ROSEMAN	E M	Tech Offr (GW)	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 Jul 44
Date of Despatch

J O McAllester Maj
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

81/ [illegible] (Serial No.)

2/1 Aust C/W Laboratory RAE

At 0600 Hrs. Saturday 17/7/1944. Queensland Detachment (Unit)

Part of AIF W.E. III/31/2. 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.				
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					
NR	1			W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
NR	3		1	Sergeants 4					
		3	5	Corporals 2					
2			12	Troopers, Privates, etc. 14	AAOC	1		1	1
				Civilians counting as O.R.		1		1	1
2 *	4	3	19 *	Totals of cols. marked * should agree with details shown in Part E on Page 2.		*			*

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	16	3		1				[redacted]	[redacted]		20
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 AWM2020.71.3651

WAR DIARY

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

No 1 24 Page

18

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

81 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 /7 /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	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	1	1	-	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	-	NR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters	Cpl 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				CSM 102(a)	1	1	-
Fitters, Railway Signal				Hatchman				Butchers				CQMS S/Sgt	1	1	-
Fitters, Signals				Height Taker				Clerks	1	1	-	Clerk Sgt (b)	1	1	-
Grinder, Precision				Helio Operator				Clerks, Supply				Lab assts			
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Sgts (c)	3	3	-
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Photographer			
Mechanics, Instrument (Surgical)				Joiners				Concretors				Cpl (c)	1	1	-
Mechanics, Radio				Lineman				Cooks				Lab asst (c)	1	1	-
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				ATTACHED BY W.E.			
Mechanics, Wireless				Lithographers				Despatch Riders				MC Orderly (1)	1	1	-
Millwrights				Machinists, Metal				Draughtsmen, Signals							
Operators, Excavator				Machinists, Wood				Drivers, H.T.							
Pattern Maker				Masons				Driver Mechanics	1	1	-	Batman Dvr	1	1	-
Pharmacist				Masseurs				Driver Tptn. Plant				Dvr MT	1	1	-
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Batmen	2	1	1
Photowriter				Miners				Equipment Repairers				Dendutyman	1	1	-
Plumber				Moulders				Farriers				Attached RACC			
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers				Cooks	2	1	1
CARRIED FORWARD	3	2	-	CARRIED FORWARD	4	3	-	CARRIED FORWARD	7	5	1	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	20 *	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.

11 44
Date of Despatch

Worcester Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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, \ /194 .

(a) 1 Sgt filling the position of CSM (/C2)

(b) 1 L/Sgt filling the position of Clerk (Sgt)

(c) 1 L/Sgt and 2 Cpls filling the position of Lab assts (Sgts)

(d) 1 Spr filling the position of fitter (Cpl)

(e) 1 Spr filling the position of Photographer (Cpl)

(f) 1 Cpl filling the position of Orderly

Details of GROUP I.	W.A.	Present Strength	Reinforcements Required	Details of GROUP II. (contd.)	W.A.	Present Strength	Reinforcements Required	Details of GROUP III. (contd.)	W.A.	Present Strength	Reinforcements Required
Ammunition Examiners				Surveyors, Engineering							
Armament Artificer Fitter				Surveyors, R.A.A.							
Armament Artificer Fitter (Electrical)				Surveyors, Topographical							
Armament Artificer Fitter (M.V.)				Tricotomotrical Surveyors							
Armament Artificer Fitter (A.F.V.)				Operator, Signal				Orderlies, Nursing			
Armament Artificer Instrument				Operator, Wireless				Packers			
Armament Artificer Medic				Turners				Pilots Layers			
Armament Artificer Signals				Watchkeeper				Rangefinders			
Armament Artificer Wireless				Welders				Riveters			
Artificer Artillery				Paint Sprayers				Roughriders			
Artillery Engine				Photographer, Dry Plate				Saddlers			
Blacksmiths				Predictor Numbers				Saddlery makers			
Bricklayers				Printers				Shoemaker and Boot Repairer			
Carpenters				Radiographers				Stevedores			
Cooks, Hospital				Riggers				Stokers, Slate, Engine			
Coppersmiths				GROUP II.				Storemen, Technical			
Dispensers				Armourers				Tailors			
Draughtsmen	—			Asdic				Textile Refitters			
Draughtsmen (Amphibious)				Blacksmiths				Tinsmiths			
Draughtsmen (Technical)				Boilermakers				Vulcanizers			
Draughtsmen (Mechanical)				Bricklayers				Wagon Erectors			
Draughtsmen (Engineering)				Carpenters	—			Whitesmiths			
Electricians				Carpenters and Joiners							
Electricians (M.V.)				Cooks	—						
Electricians (Signals)				Dental Mechanics							
Fitters	—			Driver-Mech. Tpsn. and Mcd.)							
Fitters (Cycle)				Driver-Operator	—						
Fitters (Electrical)				Drivers							
Fitters (Gun)				Electricians							
Fitters (Instrument)				Electricians (Engineers)							
Fitters (M.V.)				Fire Control Operators				DETAILS OF NON-TRADESMEN.			
Fitters, Railway				Gun Operator				GROUP III.			
Fitters, Signals				Battery Surveyors							
Fitters, Wireless				Butchers							
Orderlies, Provost				Clerks	—						
Mechanics, Instrument				Clerks, Supply							
Mechanics, Instrument (Signals)				Clerks, Technical							
Mechanics, Instrument (Surgical)				Coach Trimmers							
Mechanics, Radio				Conductors							
Mechanics, Typewriter				Cooks							
Mechanics, Wireless				Dental Clerk Orderlies				ATTACHED BY W.E.			
Millwrights				Despatch Riders							
Operators, Excavator				Draughtsmen, Signals							
Pattern Maker				Drivers, M.T.							
Pharmacist				Driver Mechanics							
Photographer, Wet Plate				Driver Tpts. Plant							
Photowriter				Engine Hands, L.C.							
Plumber				Mechanics, M.T.							
Saw Doctors				Equipment Repairers							
Surveyors				Farriers							
				Fitters, Motor							
				Nurses, Trained							
				Gun Layers							
CARRIED FORWARD	—			CARRIED FORWARD	—			CARRIED FORWARD			
		Totals of columns marked * to agree with columns 4 and 7, A. respectively.				Totals of columns marked * to agree with columns 4 and 7, 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. "Reinis. 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

I.H.Q. Press—111—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
No 1 24 Page
Appx. 19.

SECRET

FOLIO 49

Copy No 19

2/1 Aust CW Laboratory RAE

G67/3/635

15 Jul 44

JAPANESE 50 mm MORTAR SHELL - H.E.

1. SOURCE

Two specimens, captured in the LAE - SALAMAUA area in Sep 43 were received in Nov 43; further specimens packed as described in para 3 were received in Feb 44 through the Allied Enemy Equipment Board.

2. INTRODUCTION

The shell is a small calibre fixed ammunition fired from a rifled barrel as in the Type 89 Grenade Discharger. It is nose-fuzed using the Type 88 D.A. Percussion fuze which has been reported in Folio 47. Having the same method of propulsion it is similar in many other features of design to the 50 mm Mortar Shell - Smoke, described in Folio 42. Specimens examined were classified into two main types:-

A.- Nose filled shell
B.- Base filled shell

Variations in construction between these two types are set out in para 8 below. Variations in markings are tabulated in Appx A. A similar Navy mortar shell filled H.E. is distinguished from the Army shell by the maroon painted body and the absence of distinguishing bands. Army shell only are described in this report.

3. PACKING

Packing consisted of a neatly fitting heavy type brown paper bag, longer than the shell, enabling the top to be rolled down. A strip of a lighter paper gummed to both sides of the flattened top seals the bag. Boxes have been recovered containing twenty shells and a corresponding number of fuzes.

4. APPEARANCE

The shell, which is painted black has a head of low C.R.H. Different specimens have been obtained marked as follows:-

(a) One yellow band only, 8 mm in width, painted centrally around the body.
(b) One yellow band, 8 mm in width to the rear of the shoulder and one white band of similar width around the lower portion of the body in front of the driving band.
(c) Yellow and white bands as in (b) and an additional similar yellow band 1.7 cms in front of the white band.

Of shells bearing marking (b), all but one were found to be base filled. Of 60 shells bearing marking (a), 55 were base filled and 5 were nose filled. (See table in Appx A).

All specimens had a flanged fuze-hole plug of either a black or brown plastic material; seven of 174 shells examined had plugs of a zinc - aluminium alloy.

A copper driving band 1.540 cms wide is located with its centre line 1.3 cms from the base. The base is perforated and in some specimens was covered with waxed paper. Front and rear bands are formed on the shell as described in para 8.

The only external distinctions between base and nose filled shells are:-

Nose filled:-	Two diametrically opposite keyway slots on the tip	Screwed joint on the body near the shoulder.
Base filled:-	Two diametrically opposite keyway slots above the driving band	Screwed joint on the body near the base

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

5. WEIGHTS AND DIMENSIONS

	Single yellow band	One yellow band one white band	Two yellow bands one white band
Weight unfuzed without fuze hole plug	742 gms (26.0 ozs)	737 gms (25.8 ozs)	748 gms (26.2 ozs)
Weight of fuze without safety pin and string	73.1 gms (2.56 ozs)	n.v.	n.v.
Weight of propellant	2.62 gms (40 gr)	2.55 gms (39 gr)	2.58 gms (39.5 gr)
Weight of shell filling	129 gms (4.52 ozs)	132 gms (4.62 ozs)	136 gms (4.76 ozs)
Length without fuze hole plug	11.2 cms (4.42 ins)	n.v.	n.v.
Length fuzed	14.5 cms (5.72 ins)	n.v.	n.v.
Calibre	50.0 mms (1.969 ins)	n.v.	n.v.
Diameter at front band	4.968 cms (1.957 ins)	4.958 cms (1.953 ins)	4.966 cms (1.956 ins)
Diameter to rear of front band	4.931 cms (1.942 ins)	n.v.	n.v.
Diameter at rear band	4.968 cms (1.957 ins)	n.v.	4.961 cms (1.954 ins)
Diameter of driving band	4.968 cms 1.957 ins)	n.v.	4.966 cms (1.956 ins)
Diameter at base of propellant unit holder	4.966 cms (1.956 ins)	4.971 cms (1.958 ins)	n.v.
Width of driving band	1.540 cms (0.606 ins)	n.v.	n.v.
Thickness of walls	3.4 mms (0.14 ins)	n.v.	n.v.

(n.v. signifies no variation from the figure quoted in column (i)).

Weight of plugs -
plastic plug - 10 gms (0.35 ozs)
alloy plug - 34 gms (1.2 ozs).

6. COMPONENTS LISTED

(a) Propellant unit which incorporates:-

Propellant unit adapter
Driving band
Five twist pins
Percussion primer (brass) - percussion cap - magazine
Propellant holder (copper)
Propellant (N.C. powder)

(b) Shell unit which incorporates:-

Base plate, walls and head
Flanged gaine container
Fuze hole plug
H.E. filling (T.N.T.)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

7. PROPELLANT UNIT

This is identical with that of the "50 mm Mortar Shell Smoke" and is described in para 6 of Folio 42.

In the case of the H E shells, some were found to have the holes in the base of the propellant unit adapter sealed by portion of the packing bag remaining after removal of the bag.

The internal surfaces of the propellant unit adapter were varnish ed in some specimens and in others were painted black.

8. SHELL UNIT

(a) Base filled shell

The wall (thickness 3.4 mms) and head are of one piece which is formed with a "front band" at the shoulder. The bottom end of the cylindrical wall is internally screwthreaded to engage three threads of the base plate which is concave on the front surface to a depth of 10 mms. Two diametrically opposite slots are cut in the exposed surface of the base plate for the purpose of receiving a fixing key. This surface of the base plate forms the rear band of the shell. The head is increased in sectional thickness to form a left hand fuze hole thread. The fuze hole plug is flanged and slotted on top, and beneath its thread it extends as a "former" into the flanged gaine container. The gaine container is constructed of 28 SWG metal - copper in some specimens, aluminium alloy in others. When the plug is removed this container is supported by the surrounding compressed charge of T.N.T. The portion of T.N.T. filling the concave cavity of the base plate is precast.

(b) Nose filled shell

The construction of this type differs from the base filled type in the following features:-

(i) The wall (thickness 3.4 mms) and base plate are of one piece with the 'rear band' formed in the same position as that of the base filled shell.

(ii) The wall is internally screw-threaded below the shoulder to engage the external thread of the head. The 'front band' is formed by the bottom edge of the head and is similarly positioned to the corresponding 'band' of the base filled shell.

(iii) Two diametrically opposite keyway slots are located at the top.

(iv) The T.N.T. surrounding the gaine container in the head of the shell is precast.

9. METHOD OF FUNCTIONING

The propellant is ignited via the percussion cap and magazine charge of the primer. The generated gas pressure bursting the copper cup extends into the discharger chamber and, transmitted to the base plate, imparts acceleration to the complete shell. Simultaneously this pressure extending through the ports in the propellant unit adapter, engraves the driving band (mainly the lower portion due to its lighter section) into the rifling grooves thereby applying rotation to the projectile as well as a "gas check" action. On impact and functioning of the fuze the T.N.T. is detonated by the adjacent gaine charge of the fuze thus causing fragmentation of the shell.

10. APPENDICES

The following are attached:-

... Appx A. Markings
B. Explosive filling
C. Drawing - Sections of each type
D. Photographs of shells and sections

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List B
plus 10 copies for SO Enemy Equipment.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX A to 2/1 AUST CW LABORATORY FOLIO 49

TABLE OF MARKINGS

Column 1 Markings	Column 2 On base filled shell	Column 3 On nose filled shell	Column 4 Remarks
Distinguishing marks			
(a) Shell painted	Black	Black	Copper driving band not painted
(b) Ring painted on tip	Red	Red	Indicates the shell is filled
(c) Bands approx 8 mms in width	1. One yellow to rear of shoulder One white to front of driving band or ii. 2 yellow and one white or iii. as for column 3	One central yellow	The second yellow band in ii. column 2 is 37 mm to the front of the driving band. (The 50 mm Mortar shell-smoke has two white bands located as in 1. column 2)
Stencilling			
(a) In white and 15 mms high on rear portion of shell body.	As an example "17 10 Ø" indicates the date - Oct 42 - and possibly the place of filling as Nagoya Ordnance Branch depot.	A similar stencilling as for column 2.	May not appear on some shells. Dates on specimens examined varied from Dec 1937 to Nov 1942.
(b) In white and 10 mms high on front portion of shell body	"+" & " - " symbols as weight markings	As for column 2.	Japanese Ammunition handling Regulation ATIS publication 62 gives limits of these symbols.
Stampings			
(a) Serial number of shell	For example "7720"	For example "4965"	Appears on lower portion of the body and often repeated on other components.
(b) Japanese characters to the front of the location of the white band	Examples. Part translation of shell with i. Central yellow band 'Nov 1940' or '1 Jan 1940' ii. Yellow and white band '1 Feb 1939 Osaka Arsenal' iii. Two yellow one white bands "Feb 1940".	Examples. Part translation of shell with i. Central yellow band 'May 1942 Osaka Arsenal'. ii. Yellow & white band 'Mar 1940'	

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX A to 2/1 AUST CW LABORATORY FOLIO 49

MARKINGS-50 mm MORTAR SHELL - H E

1. Altogether 174 shells were inspected and no other variations in distinguishing bands were discovered. From these shells no relationship could be found between:-

(a) The distinguishing bands and the method of filling.
(b) The distinguishing bands and the date in the stampings.
(c) The method of filling and the date in the stampings.

2. Table of shell inspected

Total 174

- central yellow band - 60
  - nose filled - 5
  - base filled - 55
- one yellow band - 112
  - one white band
    - nose filled - 1
    - base filled - 111 - 29 had waxed paper on base
- two yellow bands - 2 - base filled
  - one white band

7 shells had alloy fuze hole plugs.

3. Each type of shell had the same:-

(a) Weight of propellant
(b) Shell filling
(c) Purity of T.N.T. as indicated by observing the melting point.

APPENDIX B to 2/1 AUST CW LABORATORY FOLIO 49

EXPLOSIVES

1. Insufficient sample of the percussion primer cap composition was obtained for analysis.

2. Analysis of the granular black powder of the primer magazine gave the following composition.

	Per cent
Potassium nitrate	71.5
Charcoal residue	20.5
Sulphur	7
Moisture	1

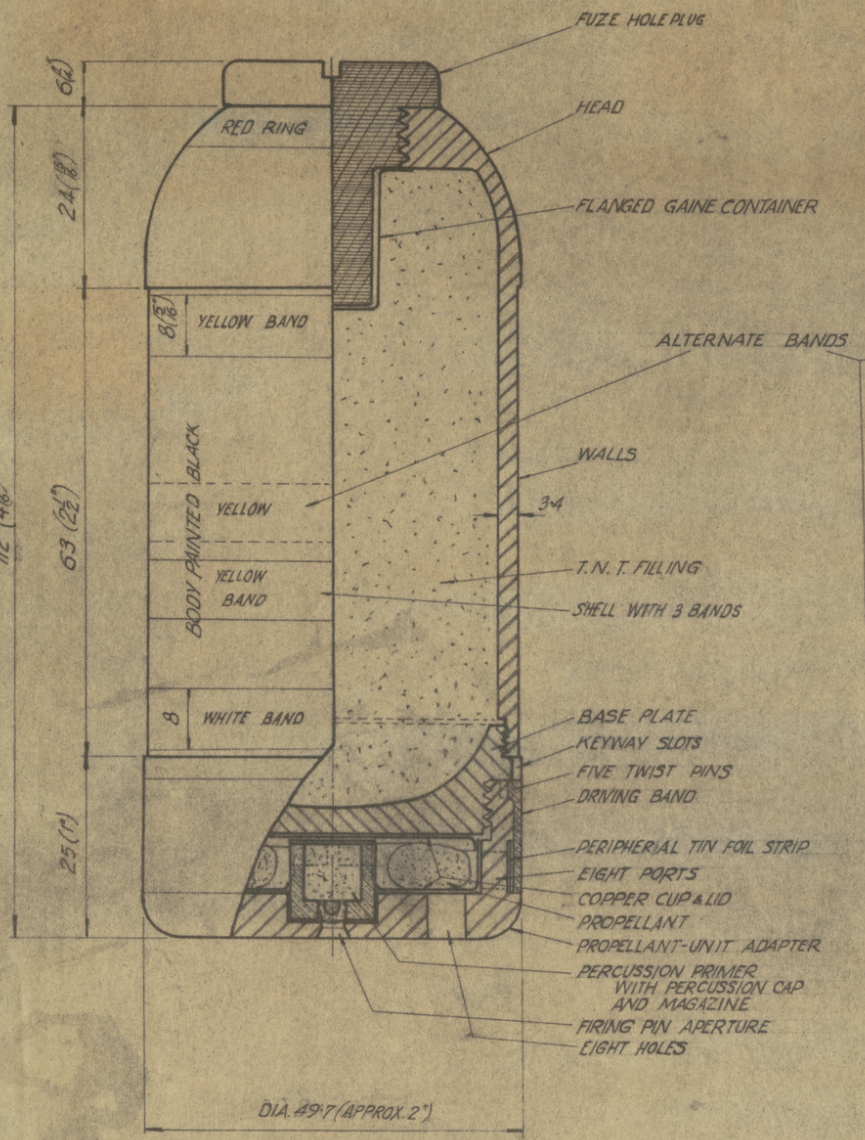
(Weights of this charge 0.35 gms (5.5 gr)).

3. The propellant consists of Nitrocellulose powder in the form of flakes which are various shades of green and approximately 0.9 mms square and 0.1 mm thick.

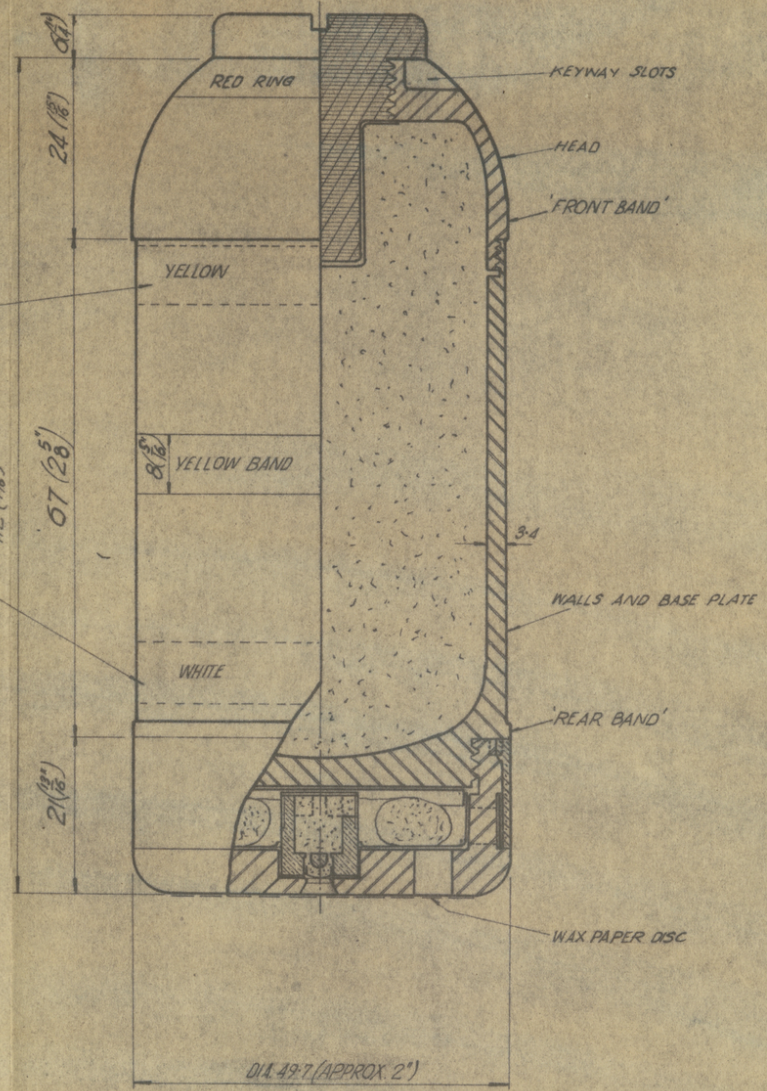
4. The shell filling, consisting of a pale yellow crystalline solid, was identified as a high grade T.N.T. equivalent to trotyl grade I.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX 'C' TO FOLIO 49



BASE FILLED SHELL



NOSE FILLED SHELL

JAPANESE 50mm. MORTAR SHELL – H.E.

DIMENSIONS IN MILLIMETRES

DRAWN K.H.H. TRACED K.H.H. CHECKED F.A.G. DATE 17 MAY 44	SCALE 1½ TIMES FULL SIZE	2/1 AUST. C.W. LABORATORY R.A.E.	11 MAY 44	DR. 25

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651



Base-filled shell - section



Nose-filled shell - section



Shell in paper packing bag | One yellow | One yellow, One white | Two yellow, One white

SHELL WITH VARIOUS BANDS

JAPANESE 50 mm MORTAR SHELL - H.E.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

RESTRICTED

GRO 634/43

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

WAR DIARY
No 1 24 Page
Appx 20

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

19 Jul 44 Part I Serial 85

370. DUTIES

Orderly Officer

To Mount 0630 hrs 19 Jul 44 Next for duty, to Mount 0630 hrs

Lieut Ryan 26 Jul 44: Lieut Goldstone

Orderly NCO -

To Mount 0630 hrs 19 Jul 44 S/Sgt Code
20 Jul 44 Cpl Kline
21 Jul 44 Cpl Corner
22 Jul 44 Cpl Day
23 Jul 44 Cpl Corner
24 Jul 44 S/Sgt Code
25 Jul 44 Cpl Kline

Sappers -	Mess Orderly and General Dutyman	Cook	Steward
19 Jul 44	Spr Shaw		
20 Jul 44	Spr Dowd		
21 Jul 44	Spr Buchanan		
22 Jul 44	Spr Jones		
23 Jul 44	Spr Murray	Spr Barber	Spr Allen
24 Jul 44	Spr Hohne		
25 Jul 44	Spr Wirth		

371. BOUNDS

The kitchen is out of bounds at all times to personnel not actually on duty therein.
The practice of obtaining entry to the hall via windows etc after lights out will cease forthwith. The side door will be bolted from the inside at lights out. Personnel authorized to enter the hall after lights out will use the front door.
The doors leading to the kitchen from the outside and from the Sgts mess will be locked at the conclusion of work after the evening mea Entry to the kitchen via the Officers mess is not permitted except for the kitchen staff.

372. ACF GOODS - ACKNOWLEDGEMENT OF -

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

1 bundle magazines
1 cards
2 pkts envelopes
2 blotters
50 sheets of writing paper.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

373. ISSUE OF UNIT REPORTS

(a) The reintroduction of accountancy for protected documents necessitates reduction to an absolute minimum of the number of copies of reports held in the Unit.
(b) The issue to sections of unnumbered spare copies will cease and all copies already issued given a number or withdrawn.
(c) Three advance copies only will be prepared - No's 1 & 2 are despatched to [illegible]: No 3 is retained by the ORS until final copies are issued and then destroyed.
(d) One spare copy of the final issue of a report may be issued to a section by the ORS and the fact noted by him on the file copy.

J.D. Smith Capt
Adjt 2/1 Aust [illegible] Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
Vol 24 Page
Appx. 21.

SECRET

FOLIO 55

Copy No 37

2/1 Aust CW Laboratory RAE

G63/3/661

19 Jul 44

JAPANESE LARGE YELLOW RUBBERISED BAG

1. SOURCE

One specimen captured in the HOLLANDIA area in NEW GUINEA was received from Lt-Col H. Carington Smith of UKALS through GSI (a) Adv LHQ on 16 May 44.

2. DESCRIPTION

(a) The total weight of the bag is 415 gms and it is 104 cms in length.

(b) It is made of rubberised fabric which is yellow on the outside and slate coloured on the inside. The base is rectangular measuring 25 cms by 17 cms and consisting of two layers of this fabric. The large piece of material forming the body of the bag is cemented with rubber solution with about 3 cms overlap all round, between these two layers.

(c) The body of the bag has a longitudinal seam with 3 cms overlap, the seam being sealed by two strips of lighter fabric each 3 cms wide one being on the outside and the other on the inside of the bag. The material used for these strips is yellow on one side and grey on the other and rubber solution has been used for sealing the strips over the seam. At the top of the bag the material has been folded in to form a hem 2 cms wide.

(d) A piece of cotton tape 2 cms wide and 91 cms length is fixed to the outside surface about 15 cms from the top by a reinforced pad of fabric 7 cms by 6 cms. The tape is used for tying up the neck of the bag. Immediately above this pad is stamped the mark ✡.

(e) An inner lining of lighter rubberised fabric which is grey externally and slate coloured internally extends from the top of the bag to a depth of 36 cms where it is joined to the bag by a 3 cms strip of the same material as used for sealing the seam described above. A Japanese character stamped in red on this strip is apparently an inspection mark. The single longitudinal seam of this lining has 3 cms overlap. There is a hem 2 cms deep at the top of the lining, which is also fitted with a length of tape 75 cms long in the same manner as described above. It is used for securing the top of the lining thus forming a second seal for the contents of the bag.

3. EXAMINATION OF FABRIC

There are 3 types of rubberised fabric, the material used for the bag itself, the material used for the lining, and the material used in strips for sealing the seam and joining the lining to the bag. In none is there any indication of a casein layer.

Details of the fabric are as follows:-

(a) The fabric of which the bag is made is in 5 layers:-

(i) Yellow rubber
(ii) Silk
(iii) Grey rubber
(iv) Silk
(v) Slate coloured rubber

The weight of the fabric is 0.0296 gm/cm^2 (0.0606 lb/ft^2).

The bursting strength as determined by an apparatus based on the Mullens testing machine is 220 lbs/in^2.

(b) The lining material is in 3 layers:-

(i) Grey rubber
(ii) Silk
(iii) Slate coloured rubber.

The weight of this fabric is 0.0202 gm/cm^2 (0.0414 lb/ft^2).

The bursting strength is 120 lbs/in^2.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) The fabric used for covering the seam and fixing the lining to the bag is in 3 layers:-

(i) Yellow rubber
(ii) Silk
(iii) Grey rubber

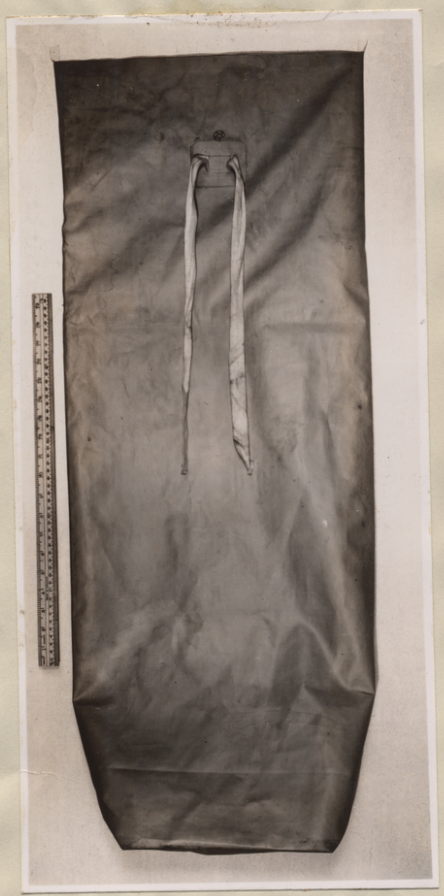
4. PENETRATION TESTS

Penetration tests with mustard on one sample only from each of fabrics (a) and (b) above gave the following times:-

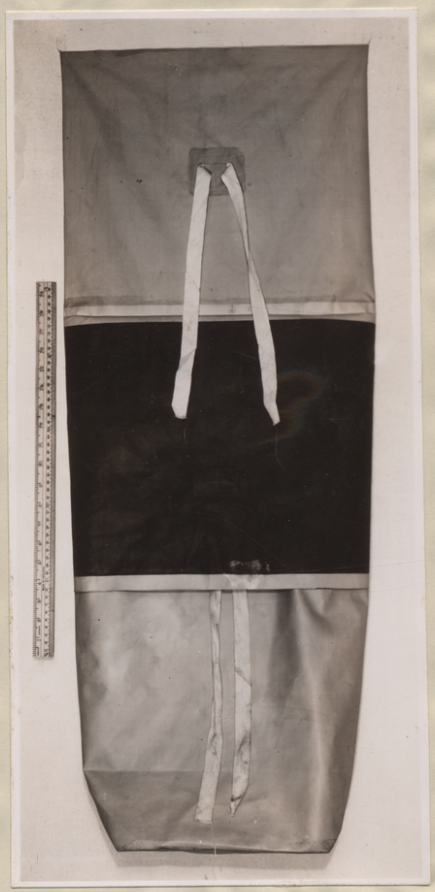
Fabric (a)	9 mins
Fabric (b)	4 mins

5. DISCUSSION ON USE

It is understood that this article of equipment is used for dropping supplies for recovery from water. In view of its low resistance to vesicants it is suggested that it would not be suitable for carriage of contaminated clothing.



External view



View showing lining

J.M. Alexander Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

UNIT PROGRESS REPORT No 35 SECRET

WAR DIARY 2/1 Aust C/W Laboratory RAE

No 1 34 Page G55/3/676

Appx. 22 22 Jul 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
Spr Curtis proceeded on leave 20 Jul 44.

(b) Projects:-

(i) Commenced
D98 Six stools for laboratory
D99 Galvanised iron float for Japanese Type 94B Floating Smoke Candle
D100 Adapter for compressed air cylinder
D101 Ten bushes to adapt .38 cartridges for use in Jap Flamethrower.

(ii) In hand
A52 Japanese 75 mm shell-incendiary
A62 Japanese 75 mm shell-smoke.

(iii) Completed
A58 Japanese 50 mm grenade-smoke
D98 As above
D99 As above
D100 As above

(c) Works:-

(i) Commenced
Job 213 Renewal and repair of door and window fittings.

(ii) In hand
Nil

(iii) Completed
Job 213 As above.

2. CHEMICAL SECTION

(a) Personnel
L/Sgt McLaren proceeded on 24 days leave 19 Jul 44.

(b) Summary of work carried out during the week
Project A53 Work has been completed on this project and a report is being compiled
Project A55 Bursting tests were carried out on the fabric of the bag. The report is now complete.

3. CW SECTION

(a) Personnel
Lt Roseman proceeded on 24 days leave 17 Jul 44.

(b) Summary of work carried out during the week
Project C14 Further tests were carried out on the fuel thickening properties of aluminium oleate.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. PROJECTS

(a) Received
A53 Examination of Jap Clothing for Anti Vesicants - Two further samples from Hollandia have been received.

(b) Commenced
A65 Japanese Screen (Reproduction of Mob Sec Report)

(c) Completed
A38,A39 Japanese 50 mm Mortar Shell Folio 49. Copies as per List B plus 10 for SO Enemy Eqpt despatched this day.
A44 Japanese Section Use Water Filter - Ishii Type - Folio 61 Advance copies despatched herewith
A48 Japanese Type 94 Navigation Flare Folio 50. Copies as per List A plus 10 to LHQ, despatched this day.

5. EQUIPMENT

(a) Major items received during the week
Nil

(b) Major items required to complete WET
Nil

(c) Items required additional to WET
No change

6. LIAISON
(a) Useful data on the identification of explosives has been obtained from 42 Chem Lab Coy by Lt Ryan.
(b) University has been contacted regarding preparation of acetophenone. (This is required as a solvent for S461).
(c) Captured Enemy Equipment is being loaned to LHQ Gas School on 22 Jul 44 for display to Students at current course.
(d) Caloundra Artillery Range has been viewed and found to be eminently suitable for trials. There is a stretch of water available for trial of floating smoke candles and flares. A fortnights' notice is desirable to reserve the range.

7. No 5 (MOBILE) SECTION

(a) A warning order was received on Jul 11 for movement to Australia. Date of movement or port of disembarkation in Australia has not yet been advised. Personnel and vehicles are in NG Details Depot awaiting movement.
(b) VX148335 Spr Wirth H E arrived on 17 Jul 44. He will be trained and trade tested at Unit HQ for posting to Mobile Section as photographer.

8. MISCELLANEOUS
(a) Signals despatched during the week were:-
CWL 667 - Classification of Folios
CWL 668 - Obtaining delivery of viscometer.
(b) A memo G61/6/672 of 21 Jul 44 has been submitted in reply to SM7237 - Thickened fuels for flamethrowers.
(c) LHQ 95282 of 12 Jul 44 listing trade tests for Laboratory Assistant Trade Group I, has been received. It is proposed to recommend an amdt to WE to convert both the present laboratory assistant, and the general dutyman (non tradesman) to Trade Group I.

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OFFICERS

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

At 0600 Hrs. Saturday...../...../194.... .....(Unit)

W.E...../...../..... OFFRS.....O.R's.....+ 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.
				*					
				*					
				Lieut.-Colonels					
				Majors					
				Captains					
				Lieutenants					
				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.											
	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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WAR DIARY

[illegible] Unit No 1 24 Page

Appx. 23.

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

[illegible]/44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 22/7/194[illegible] (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	McCLLISTER	J C	OC	Yes		
Capt	[illegible]35410	SMITH	N D	Tech Offr (OR)	Yes		
Lieut	VX112210	[illegible]	F A	Ann Offr	Yes		
Lieut	[illegible]36411	RYAN	J O F	Chem Offr	Yes		
Lieut	VX16045	[illegible]	[illegible]	Tech Offr (OR)	Yes	(on leave)	

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.

22 Jul 44
Date of Despatch

[signature]
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

82/44 (Serial No.)

2/1 Aust Ch Laboratory RAE

At 0600 Hrs. Saturday 22/7/1944 (Unit)

Queensland Detachment

AIF Part of III 31 2 W.E. ...../...../..... 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.				
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.					
NR	1			W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
NR	3		1	Sergeants 4					
		3	5	Corporals 2					
1			13	Troopers, Privates, etc. 14	AACC	1		1	1
				Civilians counting as O.R.					
1 *	4	3	20 *	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	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							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. ...../...../194.....

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

Army Form W.3009
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2/1 Anat Chl Laboratory AIF ..... Unit Vol 34 Page ——
APPX 24

82/..... 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 22/7/194 .

Details of Tradesmen. GROUP I.	W.E.	Posted Strength.	Reinfs. Required.	Details of Tradesmen. GROUP I. (cont.)	W.E.	Posted Strength.	Reinfs. Required.	Details of Tradesmen. GROUP II. (cont.)	W.E.	Posted Strength.	Reinfs. Required.	Details of Tradesmen. GROUP III. (cont.)	W.E.	Posted Strength.	Reinfs. 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				Rivetters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate	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	1	1	—	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	—	TR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters Cpl	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				Gun Pos(a)	1	1	—
Fitters, Railway Signal				Hatchman				Butchers				Gun p/sgt	1	1	—
Fitters, Signals				Height Taker				Clerks	1	1	—	Clerk sgt	1	1	—
Grinder, Precision				Helio Operator				Clerks, Supply				(b)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Lab assts			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				sgts(a)	3	3	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				photographer			
Mechanics, Radio				Lineman				Cooks				Cpl (a)	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				lab asst	1	1	—
Mechanics, Wireless				Lithographers				Despatch Riders							
Millwrights				Machinists, Metal				Draughtsmen, Signals				ATTACHED BY W.E.			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(a) Cpl(a)	1	1	—
Pattern Maker				Masons				Driver Mechanics	1	1	—	Batman Cpl	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant				Cpl MO	1	1	—
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Batman	2	1	1
Photowriter				Miners				Equipment Repairers				Conductorman	1	1	—
Plumber				Moulders				Farriers				Stretcher			
Saw Doctors				Nurses, Trained				Fitters' Mates				Bearer			
Surveyors				Observation Post Assts.				Gun Layers				Cooks	3	1	1
CARRIED FORWARD	3	2	—	CARRIED FORWARD	4	3	—	CARRIED FORWARD	7	6	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	21*	2*

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.

22 Jul 44
Date of Despatch

A.H. Glenister
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) 1 Sgt filling the position of CSM (Sgt)

(b) 1 t/Sgt filling the position of Clerk (Sgt)

(c) 1 t/Sgt and 2 Cpls filling the positions of Lab Assts (Sgts)

(d) 1 Spr filling the position of fitter (Cpl)

(e) 1 Spr filling the position of Photographer (Cpl)

(f) 1 Cpl filling the position of Orderly

WAR DIARY

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Appx. 25

by

Major J [illegible] Mc [illegible], Commanding 2/1 Aust CW Laboratory RAE

26 Jul 44 Part I Period 86

175.

Orderly Officer

To Mount 0630 hrs 26 Jul 44 Next for Duty, to Mount 0630 hrs

Capt Smith 2 Aug 44; Lieut Ryan

Orderly NCO -

To Mount 0630 hrs 26 Jul 44 Cpl Day
27 Jul 44 Cpl Corner
28 Jul 44 S/Sgt Code
29 Jul 44 A/Sgt Henlyn-Harris
30 Jul 44 S/Sgt Code
31 Jul 44 Cpl Kline
1 Aug 44 Cpl Corner

Runners - Mess Orderly and General Outsman	Cook	Steward
26 Jul 44 Spr Allen		
27 Jul 44 Spr Bond		
28 Jul 44 Spr Holme		
29 Jul 44 Spr Buchanan		
30 Jul 44 Spr Murray	Spr Barber	Spr Shaw
31 Jul 44 Spr Firth		
1 Aug 44 Spr Jones		

175. TRANSPORT ORDERS

When checking C2's at the end of the day the Orderly NCO will obtain the signature of the Officer concerned on C2's covering transport of an Officer on duty. This signature should appear in the last column of the C2 opposite the last journey involved.
On the back of C2's drivers will use the names of Military establishments rather than place names.

J D Smith Capt

Adjt 2/1 Aust CW Laboratory RAE

WAR DIARY
No 1 24 Page 26.

SECRET

AUSTRALIAN MILITARY FORCES

2/1 AUST CW LABORATORY RAE	
FOLIO 63	Copy No 17
G56/1/681	27 Jul 44

JAPANESE SCREEN

1. SOURCE

This item was captured in the HUON PENINSULA in Apr 44 and was received for examination by the Mobile Section 2/1 Aust CW Laboratory from HQ New Guinea Force. The text of Mobile Section Report No 17 is reproduced below.

" 2. DESCRIPTION

The screen consists of a slightly damaged rectangular piece of gauze, approx 15.5 cms long and 5.5 cms wide, stitched onto a beading.

The gauze is woven from threads approx 0.5 mm in diameter and is hemmed. Beyond the observation that they appear to be cotton rather than woollen material, the fibres comprising the threads could not be identified. The threads are coated with a firm black substance, which imparts some rigidity to the gauze. The rectangular apertures are approx 1.5 mms long and 0.5 mm wide, with the long side parallel to that of the screen.

The beading, approx 0.8 cm square in cross section, is made from what appears to be coarse felt and is brownish in colour.

Stitched onto each corner of the beading are four woven cords approx 18 cms in length and again brownish in colour. The material comprising these cords appears to be cotton but identification was not possible. The cords, only three of which were complete on the specimen received, are bound at the end to prevent unravelling.

Hot aqueous, alcoholic and benzene extractions were carried out on the material of the gauze but no soluble component was found.

3. FUNCTION

Two similar items, stated to have been found in a Japanese Respirator haversack have been described in CD (Australia) Report No 9 of 23 Sep 43. This report noted two possible functions. Firstly, it could be used as a form of eyeshield to give protection from glare or, secondly, it could be fitted over the eyepieces of the respirator to eliminate reflection. Against the former possibility it was pointed out that the cords are too short to tie behind the head and that it was unlikely they were intended to be looped behind the ears. This report also quoted a note by the Chemical Liaison Officer USAFFE that they may be used similarly to Australian eyeshields.

The presence of the thick felt beading suggests the possibility of the screen being intended to fit closely to the face rather than over the eyepieces of a respirator. Militating further against the latter possibility is the fact that the gauze is too narrow by approx 2 cms with types 95 and 99 Japanese Army respirators and by approx 3 cms with type 93 Nos 2 and 3 Naval - to cover the eyepieces.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

From the dimensions of the gauze apertures and the absence of any anti-vesicant impregnant, the use of this item to give protection to the eyes against droplets of blister gas is not likely.

It is concluded that the most feasible use is as a form of eyeshield to give protection from glare. Its exact function however, remains a matter of some speculation.

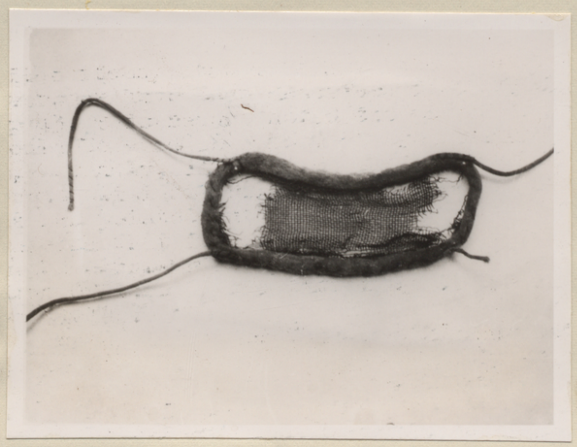
(Sgd) J.R.B. Neil
Lt
OC Mobile Section "

4. ILLUSTRATION

A reproduction of a photograph from Mobile Section Report No 17 is set out below.

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List B



PHOTOGRAPH - JAPANESE SCREEN

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

No 1 24 Page

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SECRET

FOLIO 2

Copy No 27

2/1 Aust CW Laboratory RAE

G63/4/682

27 Jul 44

JAPANESE "GAS SATCHEL" - ADDENDUM 1.

1. A translation of a fragment from Japanese mimeographed booklet provides additional information on this item.

2. References are to paragraphs in Folio 2 - G63/4/302 of 11 Mar 43.

(a) The equipment is designated "Type 96 Gas Detector for Patrols".
(b) Para 2. The satchel is constructed of linen thinly coated with rubber.
(c) Para 4. The conclusion as to use as warning signs is confirmed.
(d) Para 5. The tape is described as "Marking tape".
(e) Para 6. No mention is made of absorbent paper in the translation.
(f) Para 7. This is described as "Fire Rope". It is cut into suitable lengths, and lighted for use as markers at night.
(g) Para 8. The papers are referred to as "Phosgene Detector Papers" and the mode of packing in sets of 5 in red parchment paper is described.
(h) Para 9. Powder is referred to as Testing Powder. It is to be sprinkled on suspected ground. Blister gas liquid is indicated by "smoke and flame". The contents of one tin can be sprinkled for a distance of 20 metres in a straight line. This agrees with the assumption made in Para 14.

3. An explanatory note in the translation states - "The Detector Set for Patrols is, as a rule, carried by vehicles or horses, but, in certain cases of urgency, each patrol is issued one set. Under certain circumstances the contents may be distributed among the patrol members".

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

Distribution: List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WEEKLY PROGRESS REPORT No 36

WAR DIARY

No 1 34 Page

Appx. 28

2/1 Aust [illegible] Laboratory [illegible]

055/3/704

29 Jul 44

[illegible] (for [illegible])

1. [illegible]

(a) Personnel:-
Capt F A Goldstone left for [illegible] on 25 Jul 44.

(b) Projects:-

(i) Commenced
D102 Construction of a table lamp
D103 Alteration to Shell Agitation machine (to take 6" low)
D105 .38 Cartridges for flame thrower, ignition.

(ii) In hand
A52 Jap 75 mm shell-incendiary
A62 " " " " smoke
C15 Drawings for gas chamber.

(iii) Completed
D102 As above
60 Drawings for Japanese respirator tester.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Repair petrol tank of Dodge vehicle.

(iii) Completed
Issue of new type log books (A.F 20\)
Installation of new parts in Cvt veh.

2. CHEMICAL [illegible]

(a) Personnel
No change

(b) Summary of work carried out during the week
53 A draft report on the examination of Jap Clothing for Anti-vesicants has been completed.
A preliminary examination has been carried out on 4 items of A/Gas Eqpt received from GHQ (SW) 3 Aust Div.
A lecture on "Jap Anti-Gas Eqpt and Water Purification Eqpt" has been given at [illegible] School by Lt Ryan.

3. C[illegible]

(a) Personnel
No change

(b) Summary of work carried out during the week
C14 Further tests on the fuel thickening properties of Aluminium Oleate have been carried out.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. [illegible]

(a) Received
Nil

(b) Commenced
A57 Japanese 1 Kg Naval Smoke Generator Model 6. Reproduction of Mobile Section Report.

(c) Completed
A55 Japanese Large Yellow Rubberised Bag - Folio 55 - Distributed on List A
A64 Japanese Type 93, 4 cm Self Projecting Signal Flares - Folio 57 - Distributed on List A.

5. [illegible]

(a) Major items received during the week
Nil

(b) Major items required to complete [illegible]
Photographic maintenance issues, particularly Velox and Bromide paper; are behind hand. Stocks are practically nil. Efforts to rectify so far unsuccessful. Double weight Bromide paper, unsuitable for reports, has been received instead of single weight.

(c) Items required additional to [illegible]
As listed in Progress Report 33.

6. [illegible]

(a) Future work to be carried out on thickened fuels has been discussed with Lt Hosking and a proposal will be submitted to [illegible] (for MO7).
(b) Further photographs of flamethrower trials have been supplied to Maj Trubshaw, and advice given on breathing problems in closed-in tanks.

7. No 5 ([illegible]) [illegible]
No further information has been received.

8. [illegible]
The following signals and memos have been submitted during the week:-
(a) CML 678 Nomenclature of captured equipment
(b) 057/5/683 Extract from ATIS publication
(c) CML 688 Request for further Aluminium oleate
(d) 031/2/670 Direction of Mail
(e) 057/5/671 Forwarding ATIS Survey Publication 155
(f) CML 698 Notification of date for Trials of Jap Dept
(g) [illegible] file copy of AM5505 is returned herewith.

[illegible] Maj
Coml 2/1 Aust C[illegible] Laboratory [illegible]

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OFFICERS

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

At 0600 Hrs. Saturday...../...../194.... .....(Unit)

W.E...../...../..... OFFRS.....O.R's..... + 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.
				*					
				*					
				Lieut.-Colonels					
				Majors					
				Captains					
				Lieutenants					
				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.											
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 AWM2020.71.3651

1 ..... Unit

WAR DIARY

Vol 24 Page 29 Appx.

Army Form W.3008
(Adapted) (Page 2)
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...../..... (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday ...../...../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.
					No		

Army Form W.3009 (Adapted)
(Page 1)
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FIELD RETURN OF OTHER RANKS

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

AIF

Part of III 31 2 5 22 - 2 Queensland Detachment

At 0600 Hrs. Saturday...../...../194..... .....(Unit)

W.E...../...../..... OFFRS.....O.R's.....+ 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. 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.
NR	1			W.Os. Class I. 1					
			1	W.Os. Class II. 1					
				Squadron or Company Quartermaster Sgts.					
NR	3		1	Staff Sergeants 4					
		3	5	Sergeants 2					
1			13	Corporals 14	AACC	1		1	1
				Troopers, Privates, etc.					
1	4	3	20	Civilians counting as O.R.					
*			*	Totals of cols. marked * should agree with details shown in Part E on Page 2.		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	17 A	3 B	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. ...../...../194.....

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

Unit No 1 24 Page

Appx. 30

Army Form W.3009
(Adapted) (Page 2)
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/ 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 / /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				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			
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen				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				Wireman							
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters				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							
Fitters, Railway Signal				Hatchman				Butchers							
Fitters, Signals				Height Taker				Clerks							
Grinder, Precision				Helio Operator				Clerks, Supply							
Mechanics, Instrument				Instrument Operator				Clerks, Technical							
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers							
Mechanics, Instrument (Surgical)				Joiners				Concretors							
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							
Operators, Excavator				Machinists, Wood				Drivers, H.T.							
Pattern Maker				Masons				Driver Mechanics							
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				CARRIED FORWARD				CARRIED FORWARD				Totals of columns marked * to agree with columns 4 and 7, and 1 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. "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 AWM2020.71.3651

Army Form W.3009
(Adapted) (Page 3)
(Revised Jan., 1943)

Unit .....

Serial No. .....

PART E. Detail of Present Strength and Reinforcement required as shown in Part A of Army Form W.3009 at 0900 Hours, Saturday, 1st / 1944.

Details of Tradesmen, GROUP I.	A.W.	Reinforcement Required	Reinforcement Provided	Details of Tradesmen, GROUP I. (cont.)	Reinforcement Required	Reinforcement Provided	A.W.	Details of Tradesmen, GROUP II. (cont.)	Reinforcement Required	Reinforcement Provided	A.W.	Details of Tradesmen, GROUP III. (cont.)	Reinforcement Required	Reinforcement Provided	A.W.
Ammunition Examiner				Surveyor, Engineering				Operating Room Asst.				G.P.O. Assistants			
Armament Artificer				Surveyor, R.A.A.				Operator, Keyboard				Hammermen			
Fitter				Surveyors				Operator, Line				Leather Stitchers			
Armament Artificer Fitter (Electrical)				Surveyors, Topographical											
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								Pyrotechnician Numbers				Saddlery-ware makers			
Blacksmiths								Painters				Shoemaker and Hood Repairer			
Bricklayers								Radiographers				Stevedores			
Carpenters								Riggers				Riders, Stalp, Engine			
Cooks, Regtal				GROUP II.				Sawyer				Storemen, Technical			
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers				Axemen				Signwriters				Textile Refitters			
Draughtsmen				Bakers				Telescope Identification Numbers				Tramsmiths			
Draughtsmen (Architectural)				Bdy. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Mechanical)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Shipbuilding)				Carpenters				Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians				Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Engr. and Mod.)											
Fitters				Driver-Operator											
Fitters (Cycle)				Drivers											
Fitters (Electrical)				Electricians											
Fitters (Gun)				Electricians (Engineers)											
Fitters (Instrument)				Fire Control Operators				GROUP III.				DETAILS OF NON-TRADESMEN.			
Fitters (M.V.)				Gun Operator				Railway Surveyors							
Fitters, Railway Signal				Hatchmen				Builders							
Fitters, Signals				Height Taker				Clerks							
Grinder, Precision				Helio Operator				Clerks, Supply							
Machinist, Instrument				Instrument Operator				Clerks, Technical							
Machinist, Instrument (Optical)				Intelligence Duties				Coach Trimmers							
Machinist, Instrument (Surgical)				Joiners				Conductors							
Mechanics, Radio				Lineman				Cooks							
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies							
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Manhunists, Metal				Draughtsmen, Signals							
Operators, Excavator				Manhunists, Wood				Drivers, H.T.							
Patters, Maker				Masons				Driver Mechanics							
Pharmacist				Masseurs				Driver Typn. Plate							
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.							
Polisher/Filer				Millers				Equipment Repairers							
Plumber				Moulders				Farriers							
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Asst.				Gun Layers							
CARRIED FORWARD				CARRIED FORWARD				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 one of the blank spaces on this page.

Date of Despatch .....

Signature of Commander .....

L.H.Q. Press—11—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY or INTELLIGENCE SUMMARY

SECRET

Army Form C. 2118
(adapted,)

(Erase heading not required).

H. 100M

Unit 2/1 Aust CW Laboratory RAE Date and Time.—From 1 Aug 44 To 31 Aug 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	2 Aug 44		Unit Routine Orders Part I Serial No 87	Appx 1
	5 Aug 44		Unit Progress Report No 37 (5 Aug 44-11 Aug 44)	Appx 2
	5 Aug 44		Field Returns Offrs Serial No 84/44	Appx 3
	5 Aug 44		Field Returns ORs Serial No 84/44	Appx 4
	5 Aug 44		Folio 53- Examination of Shell Chargings-B4-Serial 11	Appx 5
	9 Aug 44		Unit Routine Orders Part I Serial No 88	Appx 6
	10 Aug 44		Folio 59 - Japanese Type 98 Respirator Tester(for Force use)	Appx 7
	12 Aug 44		Unit Progress Report No 38 (12 Aug - 18 Aug 44)	Appx 8
	12 Aug 44		Field Returns Offrs Serial No 85/44	Appx 9
	12 Aug 44		Field Returns ORs Serial No 85/44	Appx 10
	14 Aug 44		Trials of Captured Japanese Equipment	Appx 11
	14 Aug 44		Folio 66 Examination of Japanese Clothing for Anti-vesicants	Appx 12

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY or INTELLIGENCE SUMMARY SECRET

Army Form C. 2118 (adapted,)

(Erase heading not required).

H. 100M

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

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices, Diaries, &c.
St. John's Wood	16 Aug 44		Unit Routine Orders Part I Serial No 89	Appx 13
Brisbane	19 Aug 44		Unit Progress Report No 39 (19 Aug 44 - 25 Aug 44)	Appx 14
	19 Aug 44		Field Returns Offrs Serial No 86/44	Appx 15
	19 Aug 44		Field Returns ORs Serial No 86/44	Appx 16
	21 Aug 44		Movement Order 4/44	Appx 17
	23 Aug 44		Unit Routine Ordrs Part I Serial No 90	Appx 18
	25-26 Aug 44		Trials of Captured Japanese Equipment - Caloundra	
			25-26 Aug 44- Unit Duties	Appx 19
	23 Aug 44		Unit Routine Orders Part I Serial No 90	Appx 20
	26 Aug 44		Unit Progress Report No 40 (26 Aug - 1 Sep 44)	Appx 21
	26 Aug 44		Field Returns Offrs Serial No 87/44	Appx 22
	26 Aug 44		Field Return ORs Serial No 87/44	Appx 23
	30 Aug 44		Unit Routine Orders Part I Serial No 91	Appx 24
	30 Aug 44		Time Table of Technical Classes and Night Leave Roster	Appx 25

Major
Comd. 2/1 Aust C.W. Laboratory R.A.E.
20 Oct 44

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

RESTRICTED

GRO 634/43

WAR DIARY

No 1 25 Page

Appx. 1

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

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

2 Aug 44 Part I Serial 87

376. DUTIES

Orderly Officer

To Mount 0630 hrs 2 Aug 44 Next for duty, to Mount 0630 hrs

Lieut Ryan 9 Aug 44; Capt Smith

Orderly NCO -

To Mount 0630 hrs 2 Aug 44 Cpl Day
3 Aug 44 Cpl Corner
4 Aug 44 Cpl Day
5 Aug 44 Cpl Kline
6 Aug 44 L/Sgt Hamlyn-Harris
7 Aug 44 L/Sgt Hamlyn-Harris
8 Aug 44 S/Sgt Code

Sappers -	Mess Orderly	Cook	Steward
2 Aug 44	Spr Firth		
3 Aug 44	Spr Dowd		
4 Aug 44	Spr Buchanan		
5 Aug 44	Spr Murray		
6 Aug 44	Spr Hohne	Spr Barber	Spr Jones
7 Aug 44	Spr Allen		
8 Aug 44	Spr Shaw		

377. PROMOTIONS ETC

The following promotions etc are promulgated:-

RX168311 L/Sgt McLaren Rank of Cpl Confirmed 28 Jul 42
Authority DRO 136817

VX112210 Lt F A Goldstone to be T/Capt 20 Jul 44
Authority LHM 100464.

378. ACF GOODS - ACKNOWLEDGEMENT OF -

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

1	bundle magazines
4	blotters
1	tennis net and bracket
3	pkts of envelopes
100	sheets of writing paper.

379. RE REFERENDUM

1. Members of the A.M.F.

(a) May attend meetings in uniform
(b) Will not address meetings
(c) Will not take part in processions or demonstrations
(d) Will not undertake canvassing or the distribution of literature or cards.

2. Special leave will not be granted to members in connection with the Referendum Campaign.

L of C A.318

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

380. ADMINISTRATION

1. The appointment or promotion of a N.C.O. or W.C.O. takes effect from the date notified in the Routine Order Part II. authorising the appointment or promotion or, if no date is so notified, from the date of the order.

2. A CO may inform a member that a recommendation for his promotion has been submitted but, in such event, will also inform him that such promotion will not take effect until promulgated in Routine Orders Part II.

3. Except as provided in para 4 hereof, rank will not be assumed or badges of rank worn until the order authorizing the appointment or promotion has been promulgated in Routine Orders Part II.

4. In cases of operational necessity or emergency, if the promotion of a member has been approved by a formation commander pursuant to CRO A 187/44, the CO may approve of the member wearing the badges of the higher rank forthwith, pending promulgation of the promotion in Routine Orders Part II. Notwithstanding this approval, the wearing of such badges will not entitle the member to the pay and allowances of such higher rank unless and until the promotion is so promulgated.

J.B.Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WEEKLY REPORT No 37 SECRET

WAR DIARY
Vol 35 Page
Appx. 2.

2/1 Aust CW Laboratory RAE
G55/3/751
5 Aug 44

MD (for DMO(NO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
D104 Shell opening tool for 6" How HE Shell
D106 Paddle type mixer.

(ii) In hand
Nil

(iii) Completed
D103 Alterations to shell agitation machine
D105 .38 Cartridges for flamethrower ignition

(iv) Drawings completed
DRG 33 Jap 75 mm Smoke shell (W.P.)
DRG 34) Gas chamber (code name "digester")
DRG 35)

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Repair petrol tank of Dodge vehicle
Repair brakes of CVT vehicle

(iii) Completed
Generator repaired and battery re-charged in Ford vehicle.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
B17 The examination of Trousers Anti-Gas Light has been completed.
A62 Investigation is being carried out on explosive fillings of the exploder and burster charges in Jap 75 mm Smoke Shell. The metal of the gaine container has also been analysed.
A53 Examination for anti-vesicants in further material from Jap clothing has been commenced.

3. CW SECTION

(a) Personnel
Spr Dowd commenced 4 days leave on the 4 Aug 44.

(b) Summary of work carried out during the week
C14 Further tests on thickened fuels have been carried out.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

4. PROJECTS

(a) Received
Project A67 has been incorporated in A57
Project A68 is renumbered A67

(b) Commenced
A53 Examination of further samples of Japanese Clothing for anti vesicants

(c) Completed
B11 Examination of Shell Chargings - B4 - Serial I - Folio 27
Distributed on List A plus 5 to LH
B12 Examination of Shell Chargings) B4 - Serial II - Folio 53
Distributed on List A plus 5 to LH
B17 Examination of Trousers Anti-Gas Light - Folio 67
Advance copies forwarded herewith
A2 Jap Gas Satchel - Addendum 1 to Folio 2
Distributed on List A
A53 Examination of Jap Clothing for Anti Vesicants - Folio 66
Advance copies forwarded herewith.

5. EQUIPMENT

(a) Major items received during the week
CDAM has been received from 1 Aust AAD

(b) Major items required to complete MET
Advice has been received from Capt Coldstone that photographic maintenance situation is being adjusted.

(c) Items required additional to MET
Camera for field trials
Coir matting
Aluminium oleate
Aluminium stearate

6. AVIATION

(a) Lectures have been given at FS School by Capt Smith and Maj McAllester.
(b) Capt Milkie from LH Gas School has been attached pending movement South for transfer to R of O
(c) Capt Hosking left for 1 Aust Corps 30 Jul 44.

7. No 5 (MOBILE) SECTION

No further advice has been received. Adv LHQ state that Mobile Section have not left NG, yet all mail for the section is being directed to Unit HQ. Some clarification of this anomaly is desirable.

8. MISCELLANEOUS

The following signals and memos have been submitted during the week:-

(a)	G57/4/705	30 Jul 44	Return of reports on loan
(b)	G67/8/706	30 Jul 44	Lecture precis
(c)	D/O 716	1 Aug 44	Lt Col Carter
(d)	G61/6/717	1 Aug 44	Thickened fuels for Flamethrowers
(e)	G67/8/719	1 Aug 44	Captured Jap Mgpt for AMRD, MR
(f)	GWL 722	1 Aug 44	Application for second cook
(g)	GWL 725	1 Aug 44	Photographic materials
(h)	G55/1/733	2 Aug 44	Amendment to ME
(i)	G57/5/740	3 Aug 44	Extract from ATIS Bulletin 1290
(j)	G57/4/737	4 Aug 44	Standard distribution lists
(k)	G66/8/747	4 Aug 44	A/C Equipment from 3 Aust Div.

Maj
Cond 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 1[illegible]

FIELD RETURN OF OFFICERS

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

At 0600 Hrs. Saturday 5/ 8 /194 . (Unit)

W.E. / . OFFRS. 5 O.R's. 22 + 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.
				* *					
			1	Lieut.-Colonels 1					
	1		2	Majors					
		1	2	Captains 3					
				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.		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 AWM2020.71.3651

WAR DIARY

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

[illegible]/1 Aust. CW Laboratory RAE Unit

No 1 25 Page 3

84/44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

Appx.

At 0600 Hrs. Saturday 5/8/1944 (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)	Yes		
Capt	VX112210	GOLDSTONE	F A	Amn Offr	No	Detach to LHQ Auth: Landforces A66099	25 Jul
Lieut	QX36411	RYAN	J G P	Chem Offr	Yes		
Lieut	VX16045	ROSEMAN	E M	Tech Offr (CW)	No	On leave	7 Jul

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.

5 Aug 44
Date of Despatch

[signature] Maj
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

84/44 (Serial No.)

At 0600 Hrs. Saturday 5/8/1944 2/1 Aust CW Laboratory RAE (Unit)

Part of AIF III 31 2 W.E. ..../..../.... 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.					
NR	1			W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
NR	4			Sergeants 4					
		3	5	Corporals 2					
1	1		13	Troopers, Privates, etc. 14	AACC	1		1	1
				Civilians counting as O.R.					
1 *	6	3	19 *	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		A 17 B 2		B 1				[redacted]	[redacted]		20
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 AWM2020.71.3651

WAR DIARY

2/1 Aust Cr Laboratory RAE Unit 461 25 Page 4 Appx.

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

84 4 /..... 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 / 8 /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				Rivetters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate	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	1	1	—	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	—	NR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters Cpl	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				CSM WO2	1	—	Nil
Fitters, Railway Signal				Hatchman				Butchers				CQMS S/Sgt	1	1	—
Fitters, Signals				Height Taker				Clerks	1	1	—	Clerk Sgt			
Grinder, Precision				Helio Operator				Clerks, Supply				(a)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Lab asstg			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Sgts (b)	3	3	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				Photographer			
Mechanics, Radio				Lineman				Cooks				Cpl (c)	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Lab asst	1	1	—
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				MC Orderly			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(c)	1	1	—
Pattern Maker				Masons				Driver Mechanics	1	1	—	Batman Dvr	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant				Dvr MT	1	1	—
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Batman	2	1	1
Photowriter				Miners				Equipment Repairers				Gendutyman	1	1	—
Plumber				Moulders				Farriers				Attached AACC			
Saw Doctors				Nurses, Trained				Fitters' Mates							
Surveyors				Observation Post Assts.				Gun Layers				Cooks	2	1	1
CARRIED FORWARD	3	2	—	CARRIED FORWARD	4	3	—	CARRIED FORWARD	7	6	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24 *	20 *	2 *

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.

5 Aug 44
Date of Despatch

Signature of Commander Maj

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) 1 Sgt filling the position of Clerk (Sgt)

(b) 1 L/Sgt and 2 Cpls filling the position of Lab assts (Sgts)

(d) 1 Spr filling the position of Fitter (Cpl)

(c) 1 Spr filling the position of Photographer (Cpl)

(e) 1 Cpl filling the position of Orderly

EXAMINATION OF SHELL CHARGINGS - B4 - SERIAL II

1. SOURCE

Twenty one 25 pdr B E shell Charged B4, two from each of ten lots and one from an eleventh lot were received from 1 Aust Base Ammunition Depot, Albury, on 15 Mar 44. The history sheets of these shells are summarised and their markings are tabulated in Appendix A.

2. CONDITION OF SHELL

Externally all of the shells were in good condition. Some showed slight rusting at the base but there was no indication of leaking. No release of pressure was observed on removing the charging hole plug.

Four shells whose chargings were abnormally lumpy were sectioned, (see Fig I below). Shell 11-412 showed deep corrosion of the walls; the striated appearance may be connected with the machining of the shell during manufacture. Shell 40-625 showed corrosion over a large irregular area. Shell 124-814 showed extensive pin-holing of the varnish, this condition possibly being the forerunner of that found in shell 40-625. Shell 79-526 showed no corrosion on the walls but the base of the piston was extensively corroded. A fifth shell, 40-965, whose contents appeared fairly normal was sectioned and showed only slight corrosion of the piston.

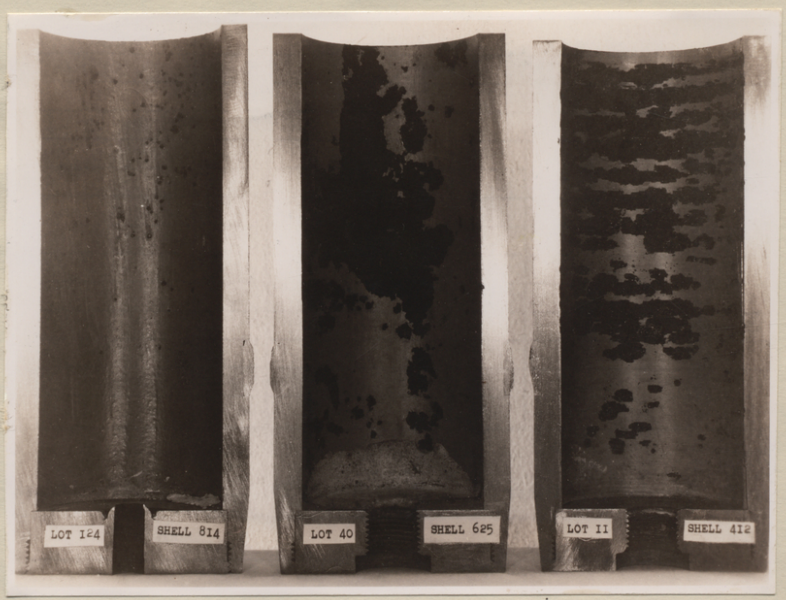


Fig I - Shell Sectioned to show corroded areas.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

3. SAMPLING AND ANALYSIS

Sampling of the shell was commenced on 11 Apr 44. The shells were opened in batches of four and the analyses were carried out during the subsequent three days.

Analysis of the chargings gave the following results:-

Lot No	Shell No	Fe_2O_3 %	Acidity %	PBAN corr	Density gm/cc 10°C	Viscosity Poise 10°C	Remarks
11	412	0.83	-	-	-	-	semi solid
40	625	0.30	0.5	38.9	-	-	large rubbery lumps
40	965	0.07	0.6	56.6	1.360	15.8	-
41	28	0.62	0.67	55.1	1.355	14.9	-
41	551	0.13	0.6	53.6	1.365	16.5	-
42	680	0.19	0.95	56.5	1.345	15.1	-
42	862	0.36	0.27	51.2	-	-	lumpy
45	602	0.28	0.5	59.1	1.340	7.46	-
45	608	0.22	0.85	56.6	1.335	6.75	-
75	114	0.11	0.89	55.9	1.355	-	-
75	206	0.03	3.0	50.0	-	-	lumpy
76	651	0.10	1.0	58.3	1.355	-	-
76	930	0.18	0.96	60.4	1.365	-	uneven
77	317	0.24	1.2	53.1	-	-	lumpy
77	434	0.2	1.08	54.5	1.360	-	tended to gel at 10°C
79	490	0.31	1.39	54.2	1.365	-	uneven flow
79	526	0.11	0.88	54.2	1.360	-	uneven flow
89	58	0.58	1.11	53.7	-	-	lumpy
89	456	0.27	1.29	57.6	-	-	lumpy
124	814	0.12	1.2	53.6	-	-	lumpy
124	929	0.09	1.04	31.9	-	-	large rubbery lumps

Some sediment settled out in all samples. This was in most cases a powder, as previously described in Folio 27, but in lots 11,75,76 and 77 and in one shell of lot 40 there was a thick rubbery suspension which settled to the bottom only very slowly. Where no viscosity figure is given the sample was either initially very lumpy or would only flow intermittently through the viscometer.

4. DISCUSSION OF RESULTS

In these results there appears to be no relationship between acidity and viscosity or PBAN content, nor between viscosity and time of storage. It is noted that of the two shells of lot 40, one was in fairly normal condition while the other contained large lumps of rubbery matter and had a low PBAN content. Furthermore of the two shells of lot 124, one had a normal PBAN content while in the other the PBAN figure was significantly low; the two samples were however similar in all other respects. On the basis of the serviceability limits set out in CDR2/W19649 of 10 Jan 44, only one of the shell examined-412 of Lot 11 - would merit rejection, the charging of this being semi-solid. All other chargings had a PBAN content above 30% and the viscosity, where it could be determined, in all cases lay within the limits of 6 to 1000 poise. The chargings in the shell examined from lots 75, 76 and 77 could be described as "about half full of solid".

5. APPENDICES

The following are attached:-

... Appx A. Summary of History Sheets and Shell Markings
... Appx B. Methods of sampling and analysis.

H McAlexander
Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List A
plus 5 extra copies to LHQ.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX A to 2/1 AUST CW LABORATORY FOLIO 53

SUMMARY OF HISTORY SHEETS AND SHELL MARKINGS

1. HISTORY SHEETS

Lot No	Place and Date filled	Date received Albury	Quantity in Stock
11	R 4/42	-	3
40	R 1/42	12/42	994
41	R 1/42	4/43	1006
42	R 1/42	4/43	998
45	R 1/42	12/42	1034
75	R 2/42	12/42	998
76	R 3/42	12/42	994
77	R 4/42	12/42	286
79	R 4/42	8/42	210
89	R 2/42	12/42	994
124	R 5/42	4/43	1002

Remarks common to all sheets:-

Station or Unit	1 BAD Albury
Weapon	Shell QF 25 pr Chem plgd
Varnished or Unvarnished	Var
Charging	B4

2. SHELL MARKINGS

Charging Data (stencilled)		Shell Casing Data (Impress stamped)			
Lot No	Shell No	Mark	Manufacturer	Lot No	Date
11	412	IIID	TS	319	9/41
40	625	VID	TS	360	11/41
	965	VID	TS	146	11/41
41	28	VID	PSK	30	9/41
	551	VID	PSK	195	/41
42	680	VID	PSK	54	9/41
	962	VD	TS	48	10/41
45	602	VID	TS	48	10/41
	608	VID	TS	49	10/41
75	114	VID	TS	70	11/41
	206	VIC	TS	98	12/41
76	651	VIID	TS	230	/41
	930	VIID	TS	226	8/41
77	317	VID	TS	397	12/41
	434	VD	TS	30	/41
79	490	VID	TS	9	12/41
	526	VID	TS	11	11/41
89	58	VID	-	289	12/41
	456	VID	PSK	257	11/41
124	814	VD	XZ	232	9/41
	929	VD	TSI	274	/41

Markings common to all shells:-

Red filling ring round head of shell

Black band, with 25 pr B4, 10171 B.E. and Lot No stencilled in white.

Green disc 10171 stencilled in black above driving band along with Lot No and Shell No.

Date of filling as shown in history sheet summary.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX B to 2/1 AUST CW LABORATORY FOLIO 53

METHODS OF SAMPLING AND ANALYSIS

1. SAMPLING

Immediately prior to being sampled the shells were rolled for half an hour at 120 revolutions per minute on a special rolling machine. In order to stabilise the shell on the rollers it was necessary to remove the charging hole plug and replace it with another plug to which was attached a flat circular disc. After being rolled this plug with plate attached was removed and about 500 cc of the charging was withdrawn under suction provided by a Beecox pump. The samples were collected and stored in stoppered hydrometer jars of approximately 550 cc capacity.

2. ANALYSIS

As far as possible samples for the determination of PBAN, ash, acidity, viscosity and density were taken from the hydrometer jars on the same day as the shell was opened. In other cases the bulk sample was agitated by inverting the stoppered jars before the smaller samples were taken.

Ash. Approximately 10 gm samples were carefully heated over a bunsen flame until free of volatile matter. The completely charred samples were then freed of organic matter by heating to dull red heat in a furnace. This treatment gave a lead-gray coloured ash in which the iron was estimated as ferric oxide. The ash was fused with potassium bisulphate till completely dissolved, cooled and taken up in dilute sulphuric acid. In no case was there an obvious precipitate of lead sulphate at this stage. Aliquot portions were taken, the iron reduced with stannous chloride and titrated with dichromate after removing the excess stannous chloride with excess mercuric chloride.

PBAN and Acidity. The PBAN was estimated by the method outlined in Appendix C to Folio 27. The acidity was determined by extracting a 10 gm sample with 50 ml water, a 25 ml aliquot being titrated with N/10 sodium carbonate using congo red paper externally. This method, which is much simpler, was found to give results comparable with those obtained by the method previously used.

Density and Viscosity. These were estimated by the methods described in Appendix C to Folio 27.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

RESTRICTED GRO 634/43

AUSTRALIAN MILITARY FORCES WAR DIARY

ROUTINE ORDERS Vol 25 Page ———

by Appx. 6 ———

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

9 Aug 44 Part I Serial 88

381. DUTIES

Orderly Officer

To Mount 0630 hrs 9 Aug 44: Next for duty, to Mount 0630 hrs

Capt Smith 16 Aug 44 Lieut Ryan

Orderly NCO -

To Mount 0630 hrs	9 Aug 44	Cpl Kline
	10 Aug 44	Cpl Corner
	11 Aug 44	Cpl Corner
	12 Aug 44	Cpl Kline
	13 Aug 44	Cpl Day
	14 Aug 44	L/Sgt Hamlyn-Harris
	15 Aug 44	S/Sgt Code

Sappers -	Mess Orderly	Cook	Steward
9 Aug 44	Spr Hohne		
10 Aug 44	Spr Dowd		
11 Aug 44	Spr Murray		
12 Aug 44	Spr Jones	Spr Barber	
13 Aug 44	Spr Allen	Spr Arnett	Spr Wirth
14 Aug 44	Spr Buchanan		
15 Aug 44	Spr Shaw		

382. MESSES

Alcoholic liquor will be consumed in the Unit area only in the places set aside therefor, namely the Officers and Sergeants messes and the Sprs canteen.

383. VISITORS

Attention is directed to Unit SO's - visitors are NOT permitted to enter working accomodation.

J Smith Capt

Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
Vol 25 Page
Apprx 7

RESTRICTED

AUSTRALIAN MILITARY FORCES

2/1 AUST CW LABORATORY RAE	
FOLIO 59	Copy No 37
G63/1/765	10 Aug 44

JAPANESE TYPE 98 RESPIRATOR TESTER (FOR FORCE USE)

1. SOURCE

Found, abandoned, in MADANG area May 44. Received for examination from Enemy Equipment Section, GSI(a) Adv LHQ on 9 Jun 44.

2. GENERAL

This tester consists of two units - Part I for testing the facepiece and Part 2 for testing the container and connecting tube. Each part is housed in a varnished wooden box of approximate dimensions 33 cm x 25 cm x 22 cm gross weight 6 kg. Part I, as received was incomplete while Part 2 was complete.

3. DESCRIPTION - PART I

(a) This outfit, which weighs 6.5 kg complete, consists of:-

(i) carrying case
(ii) dummy head *
(iii) ammonium carbonate container *
(iv) coupling tube *
(v) pressure gauge
(vi) foot pump
(vii) reagent container
(viii) tube of indicator
(ix) spare parts

Only the items marked * have been received but a complete outfit has been inspected.

(b) The Dummy Head, weight 1.26 kg, consists of a pressed and riveted aluminium alloy form, 2.5 mm thickness, approximately ing in size and shape to the human head (fig 1). The base has two steel lugs for fitting into sockets attached to the inside of the lid of the case when set up for use. On the front of the head is riveted a printed aluminium plate bearing complete instructions for use. The base also has three slots of appropriate widths to allow the passage of the pressure tube, the gauge tube and the facepiece connecting tube. Riveted to the inside of the base is an annular steel disc, 1.5 mm thickness, fitted with two butterfly nuts to lock the ammonium carbonate container in position. The correct position for the edges of the correctly fitted facepiece is indicated by a 1 mm black line visible, in part, in fig 1.

(c) The Ammonium Carbonate Container, weight 380 gms, is in three parts:-

(i) The Base (2, fig 1) is a plastic moulding, 11.5 cm maximum diameter having three spigots for the attachment of the three tubes referred to in (b) above and a central peninsula shaped funnel with a recess at the far end, threaded to receive the ammonium carbonate receptacle, and forming the connection between the pressure tube and the receptacle. The base is threaded near its periphery to receive the cover (8, fig 1). The slots for engagemant with the butterfly nuts are visible in the photograph.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(ii) The Cover (8, fig 1) is a black plastic moulding 9 cm. in diameter and 8.8 cm high. The top of the cover has a central opening, 3.2 cm. diameter, onto which is crimped a framework 12.5 cm. high constructed of aluminium wire 2 mm. diameter. This framework prevents collapse of a rubber reservoir (9, fig 1) 11 cm. high by 7.7 cm. diameter, attached to the base of the framework and forming with it an airtight joint, whose function is to damp out the pulsations of the foot pump. Undue distention of the reservoir is prevented by the net bag (10, fig 1). Airtight seal between the base and cover is obtained by the use of a rubber gasket (3, fig 1). The cover bears the inscription 'ammonium carbonate container'.

(iii) The Receptacle (4-7, fig 1) is a plastic container 7.5 cm. diameter 7.0 cm. high consisting of a body (4, fig 1) having a threaded boss on the underside to screw into the threaded hole in the 'peninsula' in the base (2, fig 1), a perforated septum, just visible in the photograph, a felt filter (5, fig 1) and a perforated lid (6, fig 1). The latter is held in place by two flat steel spring clips (7, fig 1).

(d) The Coupling Tube (1, fig 1) is a 135 cm. length of 7 mm. internal diameter rubber tube 1.5 mm. wall thickness armoured with 1 mm. diameter steel wire.

(e) Airflow is from bellows through coupling tube to receptacle (4, fig 1) where ammonia is picked up from the contained ammonium carbonate, through the perforated lid (6, fig 1), into the cavity of the cover (8, fig 1) and thence through the facepiece connecting tube to the interior of the facepiece. Pressure is also fed to the pressure gauge through tube (11, fig 1). The functioning of the equipment depends on the visible reaction between ammonia vapour and phenolphthalein. A condensed translation of instructions is included in Appendix "A".

4. DESCRIPTION - PART 2

(a) This part, whose function is the testing of the container, gross weight 6.6 kg., consists of:-

(i) carrying case
(ii) pump
(iii) air pressure control valve
(iv) pressure gauge
(v) connecting tube
(vi) standard resistance
(vii) connecting screw
(viii) spare parts (not received).

(b) The Carrying Case is of varnished wood 32 cm. x 25 cm. x 22 cm. outside dimensions (figs 2 & 3). The outside of the lid bears the inscription "Type 98 Respirator Tester For Force Use" Part 2. Three handles are fitted to the top: one is for hand carrying and two for the attachment of carrying straps (fig 3). Two rotatable brass half wing nuts engage the slots of two brass hasps to fasten the lid. On the lower right hand side is an aperture for the insertion of the pump handle and at the top of the left hand side is an aperture for the operating crank handle (fig 3), labelled "OPEN ------CLOSED". Let flush into the back of the case is a depressed metal disc 11.5 cm. diameter (1, fig 8), having at its centre a knurled knob (2, fig 8) marked "DECREASE---- INCREASE". This knob is normally covered by a hinged circular cover, visible in fig 3, labelled "ADJUSTING SCREW". On the top of the case is an oval plate, not shown in the photographs, bearing the marking:-

"Manufactured 1939
No.4529 KYO
Japan Chemical Coy".

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Inside the case, lower right (fig 2), are two metal plates inscribed:-

"STANDARD RESISTANCE"

"CONNECTING SCREW"

The case is partially divided by a central partition on which is mounted the pressure gauge (fig 2). Beneath the gauge platform is mounted the air pressure control (fig 4).

(c) The Pump visible in figs 2 and shown at 'A' (fig 4) is illustrated in various stages of assembly in figs 5-7. It is a machined diecast cylindrical structure 10.3 cm. diameter 9.0 cm. deep. It consists of a gear driven, eccentrically mounted rotor with centrufugal sealing by four plastic vanes sliding in slots in the rotor. The rotor is driven by a three train gear with an overall ratio of 9.1 with ball bearings in the last two stages (fig 6). Air is drawn in through an opening in the pump casing ('A' (fig 7), not visible in the photograph) and is delivered to the pressure regulator through a short connecting tube (B fig 4) attached to (B fig 7). (C fig 7) is a safety valve consisting of a spring loaded mica disc on a metal seating. It blows at about 3" water gauge. (D fig 7) is the square shaft for attachment of operating handle and (E fig 7) is a raised portion to accomodate the ball bearing for the second gear shaft.

(d) The Pressure Regulator (C fig 4) and shown in section in fig 8, is connected to the pump by a 6.5 cm length of corrugated rubber tube 2.0 cm. effective diameter (B fig 4). It has a cylindrical diecast body 7.5 cm. diameter 6.8 cm. deep with an integrally cast channel (F fig 4) connecting the two pressure chambers. It is fitted internally with two diaphragms and two valves. The diaphragm (4 fig 8), which is exposed on its outer side to the atmosphere, consists of a concentrically corrugated plastic disc, 0.2 mm. thickness, attached by a threaded shaft (3 fig 8) to a conical rubber valve head (5 fig 8). This shaft has a flattened end which engages with the knurled knob (2 fig 8) referred to in para 4 (b) above. The second diaphragm (8 fig 8) consists of two thicknesses of plastic similar to (4 fig 8) connected by a shaft of fixed length (6 fig 8) to an alluminium disc (7 fig 8). Attached to the top face of the regulator by a machined metal to metal joint is a spring loaded rubber seating valve (D fig 4), shown in section at (13 fig 8), terminating in a spigot to which is attached a standard connecting tube (E fig 4). A small spigot (H fig 4) 3.0 mm. diameter provides for connection to the pressure gauge. The valve is operated by the cam (10 fig 8) on the control shaft (G fig 4 & 9, fig 8) bearing on the forked lever (11 fig 8) thus raising the valve head (13 fig 8) off its seat.

(e) The Pressure Gauge is a simple aneroid capsule (as distinct from hollow spring) type of crude manufacture. The translation of the markings, visible in fig 2, ignoring curvature is:-

" Resistance -

S R
T E
A S
N I
D S
A T
R A
DNN
C
E

Resistance -

Airtight Test
Pressure Range

Type 91
Type 95 Type 87
Allowable Airflow Resistance
PRESSURE GAUGE."

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

On the lower portion of the face appear the following which are normally obscured by the cover.

Chemical Engineering Co. No. 4536 Mark -- Manufactured Dec 1939

On test the gauge had the following characteristics: (inches of water)

Type 95	3/4"	-	1 3/16"
" 91	1 5/16"	-	1 3/8"
" 87	1 3/16"	-	1 5/8"
Airtight	1 11/16"	-	1 13/16"
Standard Resistance	15/16"		

(f) The Standard Resistance (A fig 2) is a metal cylinder 4.5 cm. long 2.9 cm. diameter. Its progressive structure is a portion 1.8 cm. long acting as a spigot for attaching the connecting tube, a septum perforated by a central hole 8.0 mm. diameter, a portion 2.1 cm. long pierced by six peripheral holes 1.0 cm. diameter and a portion 0.6 cm. long, 3.2 cm. outside diameter threaded 1.0 mm. pitch for screwing into a threaded mounting flange inside the carrying case.

(g) The Connecting Screw (B fig 2) is a metal cylinder 3.5 cm diameter, 2.0 cm. long having on one end a spigot for receiving the connecting tube and on the other a 1.2 cm. length, 2.7 cm.diameter, threaded 1.5 mm. pitch. The threaded portion screws into a threaded mounting flange below the Standard Resistance in the carrying case.

(h) A translation of instructions for use is set out in Appendix "A".

5. FUNCTIONING

It was not possible to submit the equipment to functioning trials as Part I lacked bellows, pressure gauge and chemicals and in Part 2 the Pressure Control Valve could not be restored to working order. The intention, however, is clear. Part I, by means of applied pressure and the visible reaction between the chemicals supplied, would give a visual indication of any leaks in the facepiece and their location.
Part 2, similarly would indicate leaks in the container and also whether the airflow resistance lay within allowable limits. This would apparently constitute a basis for condemning faulty containers.

6. COMMENTS

The whole equipment is well constructed and well finished; operation is simple and indication is positive thus permitting its use by non-technical personnel.

7. APPENDICES

The following are attached:-

... Appx A. Instructions for use Part I and Part 2

... Appx B. Illustrations

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

APPENDIX A TO 2/1 AUST CW LABORATORY FOLIO 59

JAPANESE TYPE 98 RESPIRATOR TESTER (FOR FORCE USE)

INSTRUCTIONS FOR USE - PART I

1. The dummy head is mounted on the open lid of the box and the pressure gauge on the upper right hand side of the box. Place the foot pump on the floor and connect the air tube to the ammonium carbonate container.

2. Half fill the reagent container with clean water and dissolve about 0.5 gm. of the indicator in it, using the container cover as a measure. Take several pieces of clean white cloth, large enough to cover the entire facepiece, soak them in the reagent and wring out.

3. Remove outlet valve from facepiece, close outlet port with stopper provided, fit facepiece to dummy head and connecting tube to spigot in base.

4. Cover the facepiece with the damp prepared cloth and operate foot pump until needle of gauge lies within area marked "Pressure Limit" in red characters.

5. Leakage is indicated by red colour appearing on white cloth.

6. Repeat test for connecting tube.

INSTRUCTIONS FOR USE - PART 2

7. The lid is removed and the valve crank and pump handle fitted.

8. The end of the connecting tube is closed with a plug and the pump brought up to speed - 80-100 rpm. The needle of the meter should lie within the limits of the blue lettered area "Airtight Test". Still turning the handle, close the on-off valve. The needle should remain within the area.

9. If the airtight test is satisfactory the plug is removed and the connecting tube attached to the Standard Resistance. With the pump supplying air the adjusting screw is turned in the appropriate direction until the meter needle lies along the line "Standard Resistance" in red letters (which coincides with the lower limit for the type 91 container).

10. The connecting tube is fitted to the container to be tested directly or by means of the connecting screw, according to the type of container.

11. With the inlet plugged the container is tested for airtightness as described in 8 above.

12. With the inlet unplugged the container is tested for airflow resistance. With the handle turning at 80-100 rpm. the needle should lie within the area appropriate to the type of container under test.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651



Fig 1

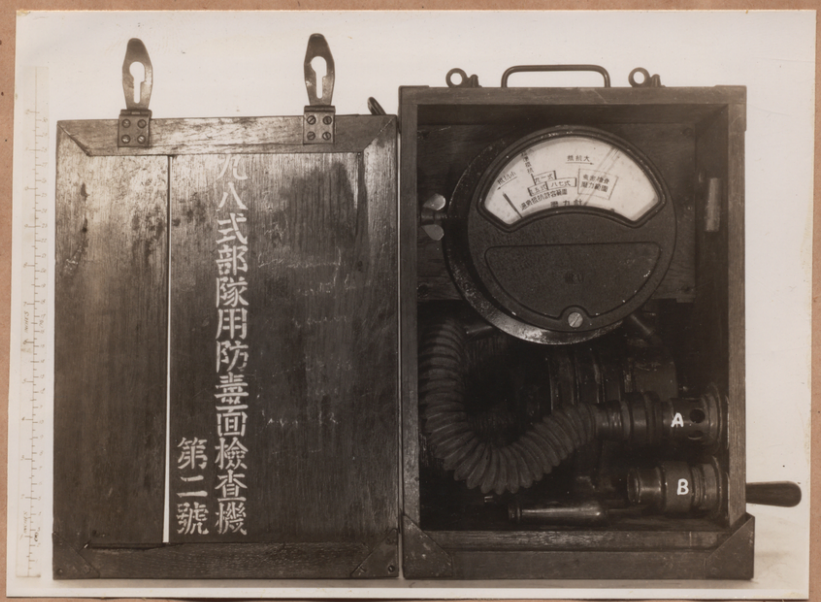


Fig 2

JAPANESE TYPE 98 RESPIRATOR TESTER (FORCE USE)

AUSTRALIAN WAR MEMORIAL
AWM2020.71.3651

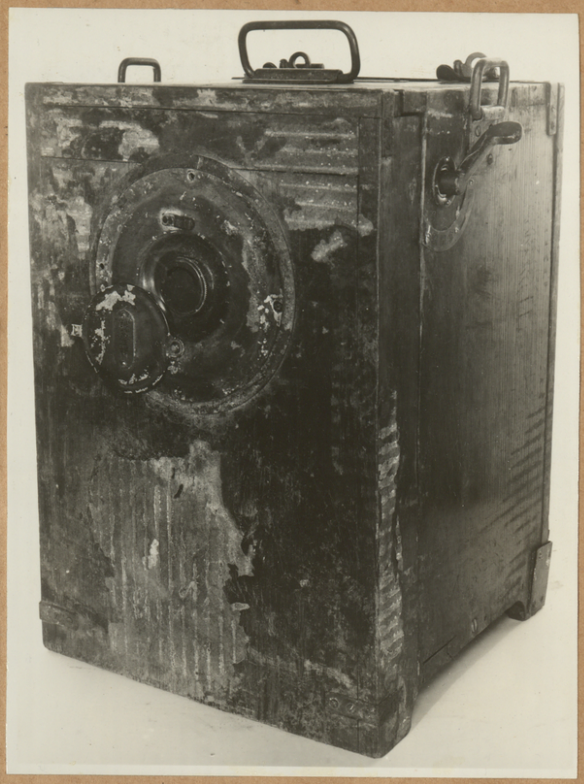


Fig 3

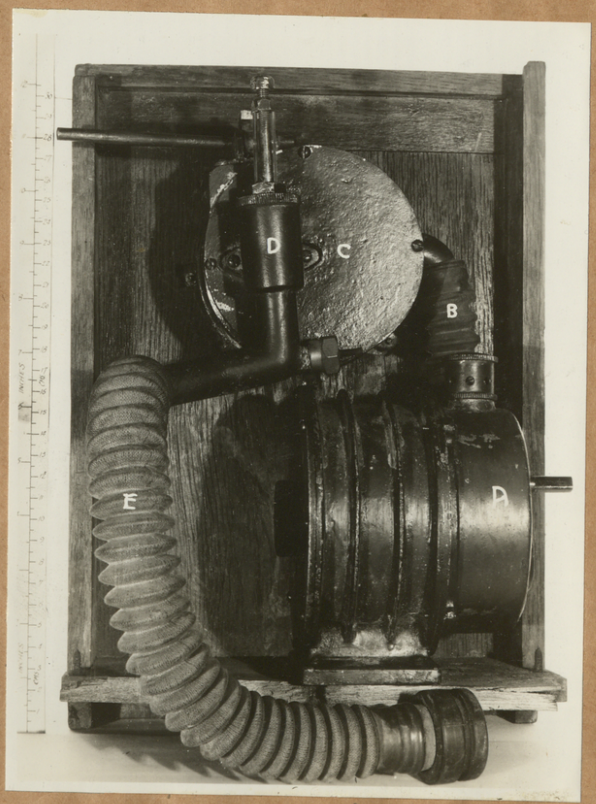


Fig 4

JAPANESE TYPE 98 RESPIRATOR TESTER (FORCE USE)

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

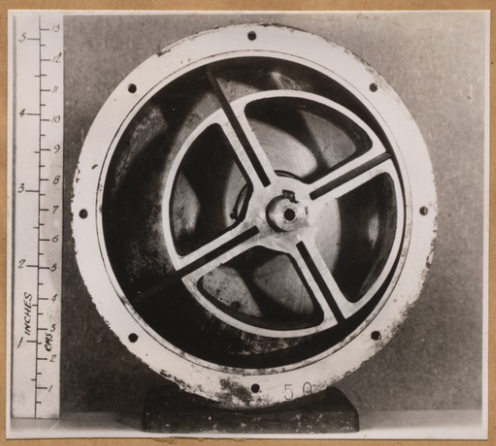


Fig 5

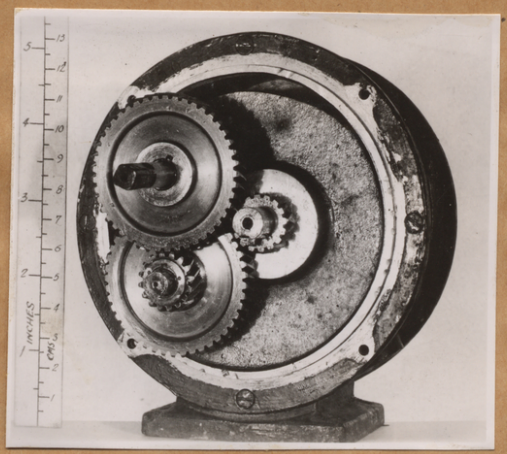


Fig 6



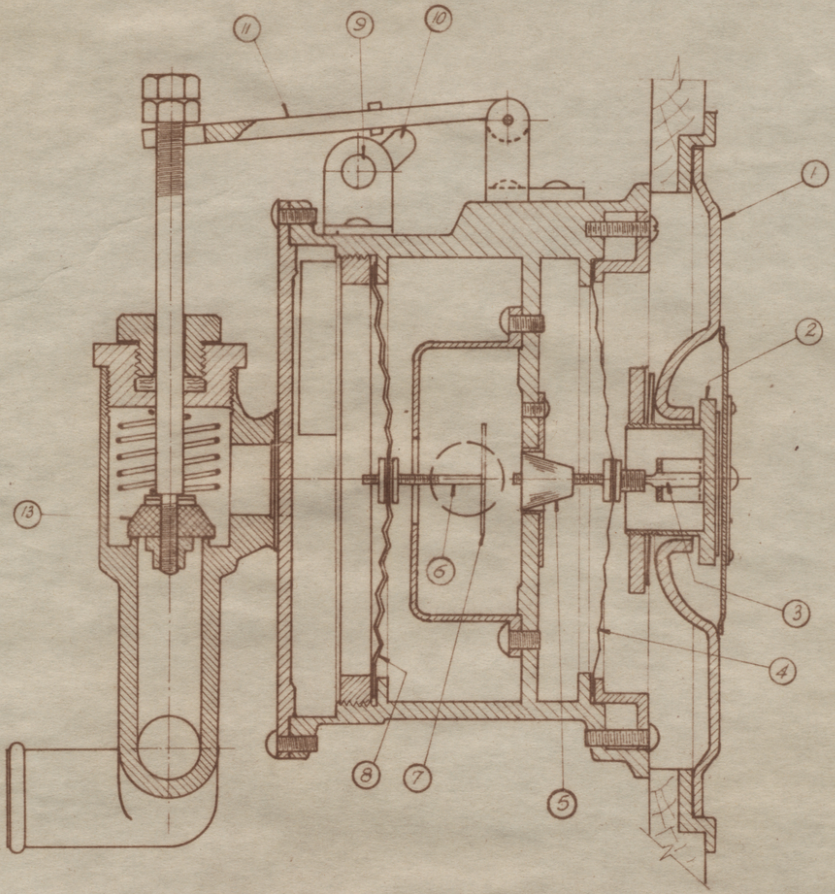
Fig 7

JAPANESE TYPE 98 RESPIRATOR TESTER (FORCE USE)

AUSTRALIAN WAR MEMORIAL
AWM2020.71.3651

APPENDIX B TO FOLIO 59

PAGE 4



HALF SECTION THRO' PRESSURE REGULATOR

Fig. 8.

JAPANESE TYPE 98 RESPIRATOR TESTER

DRAWN K.H.H TRACED K.H.H. CHECKED G.G.C. DATE 10-8-44	SCALE FULL SIZE	2/1 AUST. C.W. LABORATORY R.A.E.	24 JUL. 44. DRG. 32

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

UNIT PROGRESS REPORT No 38

SECRET

WAR DIARY

Vol 25 Page

Appx. 8

2/1 Aust CW Laboratory RAE

G55/3/ 783

12 Aug 44

LHQ (for DMO(M07)

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
D107 Alteration to acid syphon
D108 Installation of electric motor to operate "Paddle type mixer".

(ii) In hand
D221 Shell opening tool for 6" How HE Shell.

(iii) Completed
D106 Paddle type mixer
D107 As above.

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Repairs to petrol tank of Dodge vehicle.

(iii) Completed
Repair of brakes of Cvt vehicle
Fitting of new main leaf in rear spring on Ford vehicle.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
A53 Examination of Jap clothing for Anti-Vesicants has been continued
A56 Examination of Jap Anti-Gas clothing (Second Type) has been commenced.
A62 Examination of bursting charge of Jap 75 mm Smoke Shell has been continued.

3. CW SECTION

(a) Personnel
Spr Dowd resumed duty ex leave 9 Aug 44.

(b) Summary of work carried out during the week
B18 Apparatus for determination of m.p. of Y chargings completed.

4. PROJECTS

(a) Received
Nil

(b) Commenced
A56 Examination of Jap Anti-Gas Clothing (Second Type).

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(c) Completed
A58 Japanese 50 mm Grenade-Smoke - Folio 62
Advance Copies herewith
A60 Japanese Type 98 Respirator Tester for Force Use - Folio 59
Distributed on List A
A65 Japanese Screen - Folio 63 - Distributed on List B.

5. EQUIPMENT

(a) Major items received during the week
The camera applied for in our C35/1/273 of 7 May has been issued to us from 7 Aust BOD. In view of para 2 of DGR Minute B 46079 of 17 Jul 44 this is most surprising. If the appropriate action is taken to amend WET and provide 5" x 4" film this camera will be quite suitable for the purpose required.

(b) Major items required to complete WET
Nil

(c) Items required additional to WET
Aluminium oleate
Aluminium stearate.

6. LIAISON

Reference query from Maj Lines (received via Lt Col Carter) the delays in photographic maintenance supplies are due to the procedure whereby indents go through 3 AOD to CPO and stores are issued from 3 BOD through 3 AOD. Urgent requirements are not obtainable in Queensland - stocks do not appear to be carried in depots and local purchase is seldom approved.

7. No 5 (MOBILE) SECTION

Mail is being redirected to Mobile Section C/o Moresby Base Sub Area. Work on preparation of derivatives of war gases is dependent on Mob Sec who have carried out all work on this in the past.

8. MISCELLANEOUS

(a) The following have been submitted during the week.
C57/4/757 7 Aug 44 Reports required
C.M. 758 7 Aug 44 Publications (reply received)
C.M. 770 11 Aug 44 Transfer of Lt Ryan to RAE (CW)
C.M. 772 11 Aug 44 Return of Capt Coldstone

(b) Work on pocket vapour detector is suspended pending completion of chamber and return of Lt Roseman.

Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Page 1)
(Revised Jan., 19[illegible])

FIELD RETURN OF OFFICERS

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

At 0600 Hrs. Saturday 12/8/194[illegible]. .....(Unit)

W.E...../31/2. OFFRS. 5 O.R's. 22 + OFFRS. 2 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.
				*					
				*					
				Lieut.-Colonels					
			1	Majors 1					
	1		2	Captains					
		1	2	Lieutenants 2					
				Quarter-masters					
				A.A.N.S. and A.A.M.W.S. Offrs.					
				Civilians Counting as Offrs.					
	1	1	5	5					

	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.
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.		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 AWM2020.71.3651

WAR DIARY

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

[illegible] Aust Ch Laboratory RAE Unit

No 1 25 Page

Appx 9

85 / 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 12 / 8 / 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)	Yes		
Capt	VX112210	GOLDSTONE	F A	Amn Offr	No	Detach to LHM Auth: Landforces A66099	25 Jul
Lieut	WX36411	RYAN	J G P	Chem Offr	Yes		
Lieut	VX16045	ROUSMAN	E M	Tech Offr (CW)	No	On leave	17 Jul

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.

12 Aug 44
Date of Despatch

[signature]
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

85/44 (Serial No.)

At 0600 Hrs. Saturday 12/8/1944 (Unit) 2/1 Aust CW Laboratory RAE Queensland Detachment

Part of AIF III 31 2 5 22 - 2

W.E. ...../...../..... OFFRS. ..... O.R's. ..... + 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.				
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.
				WE					
NR	1			W.Os. Class I. 1					
				W.Os. Class II.					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
NR	4			Sergeants 4					
		3	5	Corporals 2					
1	1		13	Troopers, Privates, etc. 14	AACC	1		1	1
				Civilians counting as O.R.					
1 *	6	3	19 *	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		17 2		1							20
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 AWM2020.71.3651

WAR DIARY

2/1 Aust CW Laboratory RAE Unit Vol 25 Page ——— Appx. 10

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

85 / 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 12 / 8 /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	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	1	1	—	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	—	NR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters Cpl	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				CSM 302	1	—	NR
Fitters, Railway Signal				Hatchman				Butchers				C.Q.M.S. S/Sgt	1	1	—
Fitters, Signals				Height Taker				Clerks	1	1	—	Clerk Sgt			
Grinder, Precision				Helio Operator				Clerks, Supply				(a)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Lab assts			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Sgts (b)	3	3	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				Photographer			
Mechanics, Radio				Lineman				Cooks				Cpl (c)	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Lab asst	1	1	—
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				MC Orderly			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(e)	1	1	—
Pattern Maker				Masons				Driver Mechanics	1	1	—	Batman Dvr	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant				Batmen	2	1	1
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Conductymen	1	1	—
Photowriter				Miners				Equipment Repairers				Attached			
Plumber				Moulders				Farriers				AACC			
Saw Doctors				Nurses, Trained				Fitters' Mates				Cooks	2	1	1
Surveyors				Observation Post Assts.				Gun Layers				Dvr MT	1	1	—
CARRIED FORWARD	3	2	—	CARRIED FORWARD	4	3	—	CARRIED FORWARD	7	6	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A respectively.	24 *	20 *	2 *

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.

12 Aug 44
Date of Despatch

Signature of Commander Maj

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) 1 Sgt filling the position of Clerk (Sgt)

(b) 1 L/Sgt and 2 Cpls filling the position of Lab Asstts (Sgts)

(c) 1 Spr filling the position of Photographer (Cpl)

(d) 1 Spr filling the position of Fitter (Cpl)

(e) 1 Cpl filling the position of Orderly

WAR DIARY
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SECRET

AUSTRALIAN MILITARY FORCES

Telephones: F8989
F9482

2/1 Aust CW Laboratory RAE

G67/81/790

14 Aug 44

TRIALS OF CAPTURED JAPANESE EQUIPMENT

1. Functioning trials of various items of captured Japanese equipment are to be conducted by this Unit under authority of LHQ (Signal 070313 of 10 Aug 44).

2. Details of the items to be subjected to trial and the proposed schedule are set out in the attached Appendix A.

3. It is intended to carry out the trials at the CALOUNDRA artillery range on 25-26 Aug 44, both dates inclusive.

4. As signal flares will be fired during the trials, it would be appreciated if the necessary notification to observation posts etc, of all services could be made by HQ Qld L of C Area.

5. Addressees are invited to send observers to all or portion of the trials, if desired. It should be noted that the trials are for the purpose of technical investigation of the weapons concerned, and are not demonstrations.

6. The trials will be conducted in the area between BATTERY HILL TRIG and CURRIMUNDI CREEK. Observers should proceed to POINT 94 at 317730 (ref map CALOUNDRA 1:63360) for directions.

7. Observers should bring a cut lunch on each day and should make arrangements for evening meal if remaining to view flares on evening of 25 Aug 44.

8. It is requested that the names of observers who will attend be notified to this Unit by 21 Aug 44.

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:-

	Copy No's
LHQ (for DMO(MO7))	1-4
Adv LHQ (for GS(Int))	5-8
HQ Qld L of C Area (for GS)	9
HQ Qld L of C Area (for GS(Int))	10
LHQ Gas School	11
MEIU No 1 US Navy	12
Chief Chemical Officer USASOS APO 501	13-14
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AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

SECRET

APPX A to G67/81/790
2/1 Aust CW Laboratory RAE

SCHEDULE OF TRIALS OF CAPTURED JAPANESE EQUIPMENT

Date	Time (hrs)	Weapon	Serial No	Projectile etc	Remarks
25 Aug 44	1030	Smoke generators	1	10 Kg Naval	
			2	1 Kg Naval Model 4	
			3	1 Kg Naval Model 6	
			4	1 Kg Naval Model 7	
			5	Type 94A Large	
			6	Type 94A Small	
			7	Type 94B Floating	Improvised float to be used
			8	Type 98 Medium Toxic	
			9	Type 99 Self projecting	
			10	Experimental Self projecting	
			11	Frangible smoke grenade	
	1400	Type 89 Grenade Discharger (rifled bore)	12	50 mm mortar shell-smoke	Airburst
			13	50 mm mortar shell-HE	Ground burst
	1530	Model 41 Regimental Gun	14	75 mm Incendiary shell	To be exploded at rest unless gun becomes available
		Type 94 Mountain Gun	15	75 mm Smoke shell	To be exploded at rest unless gun becomes available
	1900	"10 year" Flare discharger (smooth bore)		Signal flares:-	
			16	White triple shooting star	
			17	Green triple shooting star	
			18	Green parachute star	
			19	Red parachute star	
			20	Tenth Year model type 'A' flare	
			21	Yellow dragon	
26 Aug 44	1030	Ditto	22	Black dragon (daylight signal flares)	
	1100	Type 93 Small Flamethrower	23	Thickened fuel	
			24	Unthickened fuel	
	1500	Smoke generators	25	Miscellaneous	Not Japanese Trials of own experimental items

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
No 25 Page
Appx 12

SECRET

AUSTRALIAN MILITARY FORCES

2/1 AUST CW LABORATORY RAE	
FOLIO 66	Copy No 37
G63/3/796	14 Aug 44

EXAMINATION OF JAPANESE CLOTHING FOR ANTI-VESICANTS

1. SOURCE

The following articles of Japanese clothing were received for examination through GSI(a) Adv LHQ on 18 May 44.

Tunics, khaki	5
Trousers, khaki prs	2
Shorts, khaki prs	1
Raincoat, khaki with hood	1
Blouses, naval, white	4
Mittens, khaki prs	1

All the fabrics were made of cotton. To prevent undue mutilation of the garments it was necessary to restrict the examination to a 12 inch square of cloth from each garment except the mittens from which a piece 4 inches by 3 inches was removed.

2. METHOD OF EXAMINATION

(a) Permeation Test.

This test was carried out with mustard vapour in accordance with the procedure detailed in Appx C to 2/1 Aust CW Laboratory Folio 13. Six pieces of cloth each 2 inches square were tested from each garment except the mittens, in which case only one sample was tested.

(b) Extraction Tests.

(i) For oil soluble impregnants:
Three samples of fabric each 2 inches square from each garment with the exception of the mittens, from which one sample was used, were extracted with hot benzene. The extract was then tested with a solution of potassium iodide acidified with acetic acid. The liberation of iodine would indicate the presence of available chlorine in the extract and the possibility of an oil soluble impregnant in the fabric.

(ii) For water soluble impregnants:
A similar number of samples were extracted with hot water and the extract tested for available chlorine as above. A positive test would indicate the probability of a water soluble impregnant in the fabric.

(iii) For amides:
Negative results from the above tests would not necessarily indicate that the fabric had not been impregnated. There remains the possibility of residual amide on the fibres due to the deterioration of the original impregnant. Accordingly 5 samples, each 2 inches square from each garment except the mittens were extracted in Soxhlet extractors with acetone. The extract was evaporated to dryness on a water bath. A crystalline residue might indicate that the fabric had been impregnated at some stage and further tests could be carried out to confirm the presence of an amide.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

3. RESULTS OF EXAMINATION

(a) Permeations Tests.

The times obtained ranged from 1 minute in the case of coarse fabrics to about 4½ minutes in the case of finely woven fabrics. These times are normal for unimpregnated cloth and the clothing offered no further resistance to penetration by mustard vapour.

(b) Extraction Tests.

All the tests for oil and water soluble impregnants were negative. No significant residues were obtained from the acetone extractions.

4. CONCLUSIONS

From the results obtained it was concluded that it was unlikely that any impregnating process designed to raise its resistance to mustard vapour, had ever been carried out on the clothing examined.

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution: List A

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

WAR DIARY
No 1 25 Page
Appx. 13

by

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

16 Aug 44 Part I Serial 89

384. DUTIES

Orderly Officer

To Mount 0630 hrs 16 Aug 44 Next for duty, to Mount 0630 hrs

Lt Ryan 23 Aug 44 Capt Smith

Orderly NCO -

To Mount 0630 hrs 16 Aug 44 Cpl Corner
17 Aug 44 S/Sgt Code
18 Aug 44 Cpl Day
19 Aug 44 Cpl Kline
20 Aug 44 S/Sgt Code
21 Aug 44 Sgt Hamlyn-Harris
22 Aug 44 Cpl Day

Happers	Mess Orderly	Cook	Steward
16 Aug 44	Spr Rohne		
17 Aug 44	Spr Murray		
18 Aug 44	Spr Wirth		
19 Aug 44	Spr Dowd		
20 Aug 44	Spr Dever	Spr Barber	Spr Buchanon
21 Aug 44	Spr Shawn		
22 Aug 44	Spr Allen		

385. VACANCIES FOR STAFF CADETS

Applications are invited for admission by way of Normal Entry to the Royal Military College, Duntroon (25 vacancies). Successful candidates will enter the College early in 1945 and, on graduation, will be appointed to the Australian Staff Corps.
Forms of application and particulars of eligibility, examinations, etc., may be obtained from the Orderly Room.

A.346/44

386. PERSONNEL - RUBBER TRADE

1. Personnel who were associated with the rubber trade in civilian life are required for posting to new Units being raised for work in that connection.

2. Particulars as shown hereunder of such personnel who are at present serving in units under command HQ Qld L of C Area will be forwarded to this HQ by the 20 Aug 44.

No., rank, name, trade classification, trade group, unit, civilian trade.

A.347.44

387. ACF GOODS - ACKNOWLEDGEMENT OF -

The receipt of the following goods from the Australian Comforts Fund (Queensland) is hereby acknowledged:
1 bundle of magazines
3 pkts of envelopes
50 sheets of writing paper.

J C Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

AT PROGRESS REPORT No 39 SECRET

WAR DIARY
Vol 25 Page
Appx. 14

2/1 Aust GW Laboratory RAE
G55/3/808
19 Aug 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
No change

(b) Projects:-

(i) Commenced
D109 Cleaning and assembly of Jap 75 mm 'Model 41' Regimental Gun
D110 Construction of light-proof box to enable film slides to be changed in the field.

(ii) In hand
D104 Shell opening tool for 6" How BE Shell.

(iii) Completed
Nil

(c) Works:-

(i) Commenced
Nil

(ii) In hand
Nil

(iii) Completed
Repairs to Petrol tank on Dodge vehicle
Repairs to wiring on Ford vehicle.

2. CHEMICAL SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
A56 Examination of Jap Jacket Anti-Gas has been completed and a report is being prepared. Preliminary examination has been carried out on Jap Trousers Anti-Gas.
D17 Following receipt of LHQ comments on Folio 67 some further work has been carried out.

3. GW SECTION

(a) Personnel
Lt Roseman resumed duty ex leave 17 Aug 44.

(b) Summary of work carried out during the week
C14 Preparation of fuels for trial of Japanese flamethrower.

4. PROJECTS

(a) Received
C13 Benzidine Gold chloride detector - further work as per SM 8348.

(b) Commenced
Nil

(c) Completed
A53 Examination of Jap clothing for Anti-Vesicants Folio 66- Distributed on List A.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

5. EQUIPMENT

(a) Major items received during the week
Sufficient photographic materials have been received to restore supply situation.

(b) Major items required to complete WET
Nil

(c) Items required additional to WET
Aluminium oleate
Aluminium stearate

6. LIAISON
(a) 42 Chem Lab Coy have made available considerable quantities of Japanese equipment for inclusion in trials.
(b) MEIU have been contacted for literature on smoke.
(c) CSAM has been provided for smoke trials by 4 Aust Armd Bde. Ground bombs and a rear smoke emitter for tanks were successfully tried.
(d) Visit received from Lt Col Baker (COO 1 Aust BAD) and Capt Fisher (IOO for Qld) and problems of Chemical Amn discussed.

7. No 5 (MOBILE) SECTION
(a) Moresby Base Sub Area advise (signal received today) 3 OR's ETD 24 Aug; 1 offr 1 OR and vehs later.
(b) Following telephone advice from Maj Lines, possibility of air travel for Sgt Kellick and Spr Durran has been investigated at Adv LHQ, who cannot act without request from Qld L of C Area or LHQ. In view of (a) above no further action is being taken.

8. MISCELLANEOUS
The following have been submitted during the week:-
(a) G67/82/775 of 12 Aug 44 - Corrigenda to Jap eqpt publication
(b) CWL 776 of 12 Aug 44 - Folios 60 & 61. Reply received.
(c) CWL 777 of 12 Aug 44 - for AD2 re US first aid kit.
(d) CWL 778 of 12 Aug 44 - Jap eqpt suitable for AMLO ME.
(e) G67/82/790 of 14 Aug 44 - Circular re Trials of Jap eqpt.

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Pa[illegible])
(Revised Jan., 194[illegible])

FIELD RETURN OF OFFICERS

2/1 Aust Cw Laboratory RAE 86 / 44 (Serial No.)

At 0600 Hrs. Saturday 19 / 8 / 194 44 (Unit)

Queensland Detachment

Part of W.E. AIF III 31 / 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 AWM2020.71.3651

WAR DIARY

2/1 Aust CW Laboratory Rgt Unit No 1 25 Page

Appx 15

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

86 / 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 19 / 8 /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)	Yes		
Capt	VX112210	GOLDSTONE	F A	Amn Offr	No	Detach to LHQ Auth: Landforces A66099	25 Jul
Lieut	QX36411	RYAN	J G P	Chem Offr	Yes		
Lieut	VX16045	ROSEMAN	E H	Tech Offr (CW)	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.

19 Aug 44
Date of Despatch

[signature] Maj
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

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

19 8 4

AIF At 0600 Hrs. Saturday...../...../194.....(Unit)

Part of III 31 2 5 22 Queensland Detachment

W.E...../...../..... OFFRS.....O.R's.....+ 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. 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.
NR	1			W.Os. Class I. 1					
				W.Os. Class II.					
			1	Squadron or Company Quartermaster Sgts. 1					
NR	4			Staff Sergeants 4					
		3	5	Sergeants 2					
1	1		13	Corporals 14	AACC	1		1	1
				Troopers, Privates, etc.					
				Civilians counting as O.R.					
1 *	6	3	19 *	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		16 3		1							20
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 AWM2020.71.3651

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

WAR DIARY

No 1 — 25 Page 16

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

86 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 19/8/1944.

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	1	1	—	Saddlers			
Artificer, Engine								Predictor Numbers				Saddletree makers			
Blacksmiths								Printers				Shoemaker and Boot Repairer			
Bricklayers								Radiographers				Stevedores			
Computors								Riggers				Stokers, Stat'y. Engine			
Cooks, Hospital				GROUP II.				Sawyers				Storemen, Technical	1	1	—
Coppersmiths				Armourers				Signallers				Tailors			
Dispensers	1	1	—	Axemen				Signwriters				Textile Refitters			
Draughtsmen				Bakers				Telescope Identfn. Numbers				Tinsmiths			
Draughtsmen (Architectural)				Bty. Comd's. Asst.				Well Borers				Vulcanizers			
Draughtsmen (Engineering)				Boilermakers				Wheelers				Wagon Erectors			
Draughtsmen (Mechanical)				Carpenters	1	1	—	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	—	NR	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Mcd.)											
Fitters Cpl	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				CSM WO2	1	—	N.
Fitters, Railway Signal				Hatchman				Butchers				C/MS S/Sgt	1	1	—
Fitters, Signals				Height Taker				Clerks	1	1	—	Clerk Sgt			
Grinder, Precision				Helio Operator				Clerks, Supply				(a)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				Lab Assts			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				Sgts (b)	3	3	—
Mechanics, Instrument (Surgical)				Joiners				Concreters				Photographer			
Mechanics, Radio				Lineman				Cooks				Cpl (c)	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				Lab Asst	1	1	—
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				MO Orderly			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(c)	1	1	—
Pattern Maker				Masons				Driver Mechanics	1	1	—	Batman Dvr	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant				Dvr MT	1	1	—
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				Batman	2	1	1
Photowriter				Miners				Equipment Repairers				Gendutyman	1	1	—
Plumber				Moulders				Farriers				Attached			
Saw Doctors				Nurses, Trained				Fitters' Mates				RAMC			
Surveyors				Observation Post Assts.				Gun Layers				Cooks	2	1	1
CARRIED FORWARD	3	2	—	CARRIED FORWARD	4	3	—	CARRIED FORWARD	7	6	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	20 *	2 *

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.

19 Aug 44
Date of Despatch

D.K. Colleston Maj
Signature of Commander

L.H.Q. Press—411—8/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(b) 1 L/Sgt and 2 Opls filling the position of Lab Assts (Sgt)

(c) 1 Spr filling the position of Photographer (Cpl)

(d) 1 Spr filling the position of Fitter (Cpl)

(e) 1 Spr filling the position of Orderly

WAR DIARY

Vol 25 Page

Appx. 17

Confidential

Copy No 29

2/1 Aust CW Laboratory RAE

Q41/1/813

21 Aug 44

MOVEMENT ORDER No 4/44

1. Enemy equipment trials will be held on the CALOUNDRA Artillery Range on 25 and 26 Aug 44 under authority of LHQ Signal 070313 of 10 Aug 44.

2. Schedule of trials has already been notified to HQ's and Units concerned - G67/81/790 of 14 Aug 44 (not to all addressees) refers.

3. Detail of personnel, vehicles and loads are shown in the attached movement table. Allocation of vehicles and times of movement will be rigidly observed.

4. Personal gear will consist of 4 blankets, groundsheet, messing gear, respirator, clothing and toilet gear. Pack and haversack but NOT kitbag may be taken. Palliasses and beds will NOT be taken.

5. Advance party in charge of S/Sgt Code will establish camp on 23 Aug 44 in the vicinity of high ground overlooking DICKEY BEACH and between TOOWAY and BUNBUBAH CREEKS. (Map Ref 325726 CALOUNDRA one inch sheet).

6. Cooking will be in charge of Spr Barber on 23-25 Aug and Pte Arnett on 26-28 Aug 44 (all dates incl). Spr Shimmin and Spr Dover will assist in preparation and service of meals. Rations will not be supplied to observers attending trials who are not on ration strength. Hot water should be made available to such personnel if possible.

7. Personnel will not proceed into CALOUNDRA township on leave unless correctly dressed (service dress after sunset) and in possession of leave pass.

8. Tents are allocated to:- Office (1), Stores (1), Rations (1) Offrs (2), Sgts (1), Sprs (2), Offrs Mess (1) Sgts Mess (1).

9. Sunday 27 Aug 44 will be observed as rest day for personnel not required for duty.

10. The range area will not be occupied other than on 24, 25 and 26 Aug 44.

11. Return of all vehicles and stores is to be completed on 28 Aug 44 even if double running is necessary.

12. Speed limits will be carefully observed by drivers of all vehicles. S/Sgt Code will act as transport NCO for all vehicles operating from CALOUNDRA (vide Unit SO's para 41).

13. Copies of this instruction will be distributed by addressees to their subordinates.

Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:-	Copy No's
HQ 2 Aust L of C Sub Area	1
Ammunition Section	2-7
Chemical Section	8-10
CW Section	11-13
Adjt	14
CQMS	15-20
ORS	21-26
File	27
War Diary	28-29
Spares	30-35

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

2/1 AUST CW LABORATORY RAE MOVEMENT TABLE 23-28 AUG 44

Serial	Date	Depart hrs	Veh & Driver	Personnel	Stores	From	To	Remarks
1	Wed 23 Aug 44	1000	15979 Spr Murray	S/Sgt Code	Cooking gear Tents Accom stores Tools	St John's Wood	Caloundra	To proceed in convoy with serial 2
2	Wed 23 Aug 44	1000	76267 Spr Barber	L/Sgt McLaren Spr Allen Spr Dowd Spr Wirth Spr Buchanan	Personal gear	St John's Wood	Caloundra	Advance party to prepare camp
3	Wed 23 Aug 44	1300	15979 Spr Murray	-	-	Caloundra	St John's Wood	Veh returns empty
4	Thu 24 Aug 44	0800	15979 Spr Murray	Capt Goldstone	75 mm gun Jap weapons & stores for trial	St John's Wood	Caloundra	To proceed in convoy with serial 5
5	Thu 24 Aug 44	0800	70133 Cpl Kline	Cpl Corner Spr Worthington Spr Shimmin Spr Curtis	Personal gear	St John's Wood	Caloundra	
6	Thu 24 Aug 44	1800	70133 Spr Allen	-	Rations for Friday	Caloundra	St John's Wood	Veh returns
7	Fri 25 Aug 44	0730	70133 Spr Allen	Lt Ryan L/Sgt H-Harris Spr Shaw Spr Hohne Spr Dover	Personal gear	St John's Wood	Caloundra	To arrive before 1030 hrs

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Serial	Date	Depart hrs	Veh & Driver	Personnel	Stores	From	To	Remarks
8	Fri 25 Aug 44	0800	16997 Spr Jones	Maj McAllester Capt Smith MO7 rep(s)	Personal gear	St John's Wood	Caloundra	To arrive before 1030 hrs
9	Fri 25 Aug 44	2000	16997 Spr Jones	Maj McAllester L/Sgt H-Harris Spr Shaw Spr Barber	Personal gear Rations for Saturday	Caloundra	St John's Wood	
10	Sat 26 Aug 44	0830	16997 Spr Jones	Maj McAllester Lt Roseman Cpl Day Pte Arnett	Personal gear	St John's Wood	Caloundra	
11	Sat 26 Aug 44	1600	-	MO7 rep(s) Lt Roseman	-	Caloundra	St John's Wood	Tpt to be arranged with other Units
12	Mon 28 Aug 44	1400	16997 Spr Jones	Maj McAllester Capt Smith Spr Dover	Personal gear	Caloundra	St John's Wood	
13	Mon 28 Aug 44	1800	70133 Spr Allen	Capt Goldstone Cpl Corner Spr Shimmin Spr Curtis Spr Dowd Spr Worthington	Personal gear	Caloundra	St John's Wood	To move in convoy with Serials 14 and 15
14	Mon 28 Aug 44	1800	76267 Cpl Kline	Lt Ryan L/Sgt McLaren Cpl Day Spr Wirth Spr Buchanan Pte Arnett	Personal gear	Caloundra	St John's Wood	

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Serial	Date	Depart hrs	Veh & Driver	Personnel	Stores	From	To	Remarks
15	Mon 28 Aug 44	1800	15979 Spr Murray	S/Sgt Code Spr Hahne	Accom stores gun etc	Caloundra	St John's Wood	Second journey (if required) to be completed same day.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

AUST No 1 [illegible] Page 25

Appx 18

by

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

23 Aug 44 — Part I — Serial 90

388. DUTIES

Orderly Officer

To Mount 0630 hrs 23 Aug 44 Next for duty, to Mount 0630 hrs

Lt Roseman 30 Aug 44 Capt Goldstone

Orderly NCO -

To Mount 0630 hrs 23 Aug 44 Cpl Corner
24 Aug 44 Cpl Day
25 Aug 44 Cpl Day
26 Aug 44 L/Sgt Hamlyn-Harris
27 Aug 44 L/Sgt Hamlyn-Harris
28 Aug 44 L/Sgt Hamlyn-Harris
29 Aug 44 L/Sgt McLaren

Hampers	Mess Orderly	Cook	Steward
23 Aug 44	Spr Hohne	Pte Arnett	Spr Dover
24 Aug 44	-	Pte Arnett	Spr Dover (~~Evening Mess~~ only)
25 Aug 44	-	Pte Arnett	Spr Dover (Morning Mess only)
26 Aug 44	Spr Shaw	Spr Barber	-
27 Aug 44	Spr Shaw	Spr Barber	-
28 Aug 44	Spr Shaw	Spr Barber	Spr Dover (Evening meal)
29 Aug 44	Spr Buchanan	Pte Arnett	Spr Dover

For those on duty in Unit Area on Sunday 27 Aug 44 the following Tuesday 29 Aug 44 will be observed as a rest day.
L/Sgt Hamlyn-Harris will be in charge of camp Saturday 26 Aug 44 in the absence of all Offrs at Caloundra.

389. [illegible] TION OF RO's

The Orderly Room copy of Unit RO's will be circulated and initialled by all appointments shown on the circulation stamp irrespective of whether they receive a copy or not. All ranks are responsible for ascertaining matters affecting them in RO's each Tuesday evening or on the morning parade on Wednesday.

390. SUMMER DRESS

1. Summer dress will be taken into wear on 1 Sep 44.

2. In cases where localities or climatic conditions render such necessary, C.O's at their discretion may authorise the wearing of winter dress in lieu of summer dress, provided that all members of a Unit are dressed alike.

A.351/44

J.A.Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
Vol 25 Page
Appx 19

SECRET

TRIALS OF CAPTURED JAPANESE EQUIPMINT

CALOUNDRA 25 - 26 Aug 44

UNIT DUTIES

1. DIRECTION

Director of trials:- Capt Goldstone
Assistants:- Cpl Kline
Spr Murray
Spr Curtis
Spr Dowd
L/Sgt McLaren (Gunnery only)
Cpl Corner (Flamethrower only)

2. RECORDING

Chief Recorder:- Lt Ryan
Assistants:- L/Sgt McLaren
Cpl Corner

Duties:- Recording performance of weapons etc on pro formas supplied, as required by director of trials.

3. PHOTOGRAPHY

Chief Photographer:- Spr Worthington
Assistant:- Spr Wirth
Recorders:- Spr Hohne
Spr Buchanan

One recorder will be attached to each photographer and will record every photograph taken on proformas supplied. Spr Hohne will chalk up title of each item on blackboard for use by cinematographer.

4. CANVASSING

Chief Canvasser:- Capt Smith
Assistants:- Lt Roseman (Saturday)
L/Sgt Hamlyn-Harris (Friday)
Cpl Day (Saturday)
Spr Shaw(Friday)

Duties:- Obtain opinions on functioning of each item from representatives of LHQ, Adv LHQ, Gas School, Qld L of C Area, IOO,MEIU, US Army. Record in detail and submit reports to director of trials.

5. CAMP DUTIES

Camp Quartermaster:- S/Sgt Code
Cooks :- Spr Barber, Pte Arnett, Pte Nicholls
Assistants :- Spr Allen
Spr Shimmin
Spr Dover

Guide for visitors:- Spr Jones (on m/c).

H Roseman
Maj
Comd 2/1 Aust CW Laboratory RAE

Distribution:

One copy each all ranks.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY
Vol 25 Page
Appx 20

[illegible]

by

Major J C [illegible], Commanding 2/1 Aust CW Laboratory RAE

23 Aug 44 Part I Serial 90

308. [illegible]

Orderly Officer

To Mount 0630 hrs 23 Aug 44 Next for duty, to Mount 0630 hrs

Lt Roseman 30 Aug 44 Capt Goldstone

Orderly NCO -

To Mount 0630 hrs 23 Aug 44 Cpl Corner
24 Aug 44 Cpl Day
25 Aug 44 Cpl Day
26 Aug 44 L/Sgt Hamlyn-Harris
27 Aug 44 L/Sgt Hamlyn-Harris
28 Aug 44 L/Sgt Hamlyn-Harris
29 Aug 44 L/Sgt McLaren

Dangers	Mess Orderly	Cook	Steward
23 Aug 44	Spr Bolme	Pte Arnett	Spr Dover
24 Aug 44	-	Pte Arnett	Spr Dover (~~Evening Meal~~ duty)
25 Aug 44	-	Pte Arnett	Spr Dover (~~Morning Meal~~ duty)
26 Aug 44	Spr Shaw	Spr Barber	-
27 Aug 44	Spr Shaw	Spr Barber	-
28 Aug 44	Spr Shaw	Spr Barber	Spr Dover (Evening meal)
29 Aug 44	Spr Buchanan	Pte Arnett	Spr Dover

For those on duty in Unit Area on Sunday 27 Aug 44 the following Tuesday 29 Aug 44 will be observed as a rest day.
L/Sgt Hamlyn-Harris will be in charge of camp Saturday 26 Aug 44 in the absence of all Offrs at Caloundra.

309. [illegible]

The Orderly Room copy of Unit RO's will be circulated and initialled by all appointments shown on the circulation stamp irrespective of whether they receive a copy or not. All ranks are responsible for ascertaining matters affecting them in RO's each Tuesday evening or on the morning parade on Wednesday.

310. [illegible]

1. Summer dress will be taken into wear on 1 Sep 44.

2. In cases where localities or climatic conditions render such necessary, C.O's at their discretion may authorise the wearing of winter dress in lieu of summer dress, provided that all members of a Unit are dressed alike.

A.331/44

J.S. Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

UNIT PROGRESS REPORT No 40 WAR DIARY SECRET

Vol 25 Page

Appx. 31

2/1 Aust CW Laboratory RAE

C55/3/831

26 Aug 44

LHQ (for DMO(MO7))

1. AMMUNITION SECTION

(a) Personnel:-
Capt F A Goldstone returned from LHQ on 22 Aug 44.
Spr Curtis returned from leave 21 Aug 44.

(b) Projects:-

(i) Commenced
Nil

(ii) In hand
Trials of Captured Japanese Equipment

(iii) Completed
D109 Cleaning and assembly of Jap 75 mm Model 41 Regimental Gun
D110 Construction of a light-proof box to enable film slides to be changed in the field.

2. CHEMICAL SECTION

(a) Personnel
L/Sgt McLaren returned from leave 20 Aug 44

(b) Summary of work carried out during the week
Project A56 Examination of Japanese Anti-Gas Clothing (second type) has been continued
Project A62 Examination of Primer from Cartridge Case Jap 75 mm W.P. shell has been carried out.
" D109 Examination of liquid from recoil system Jap 75 mm gun & preparation of similar liquid for replacement.

3. CW SECTION

(a) Personnel
No change

(b) Summary of work carried out during the week
Project C15 } Compilation of data
" B16 }
Project B18 Shell Sampling; Compilation of methods - preparation of apparatus
Project C14 Fuel Thickeners; Survey of reports - preparation of batches for trial (Caloundra

4. PROJECTS
No change. All available personnel engaged on preparations for movt to Caloundra for trials.

5. EQUIPMENT

(a) Major items received during the week
Aluminium oleate 1 lb sample

(b) Major items required to complete WET
Nil

(c) Items required additional to WET
Aluminium stearate no longer required
Other thickeners will have to be used for trials of Jap flamethrower.

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6. LIAISON

(a) MEIU have made available Japanese equipment for inclusion in trials.

(b) 42 Chem Lab Coy have provided information on constitution of and solvents for, impregnants.

(c) Adv LHQ have arranged to fire 70 mm Battalion gun and 70 mm Barrage Shell in conjunction with trials.

(d) Arrangements have been made for Capt Mumford to view trials en route to LHQ Gas School.

7. No 5 (MOBILE) SECTION

Advice received that no expected date of movt of vehs can be given. Section have been requested to notify any cancellation of the expected movt of 3 OR's on 24 Aug 44.

8. MISCELLANEOUS

(a) A replacement for S/Sgt Code has been nominated by DRO and it is expected that he will arrive this week-end. Movement of S/Sgt Code is expected to take place on or about 31 Aug 44, after handover as required by GRO 293/44 has been completed.

(b) Signal CWL 818 concerning a reference in CD Board Abstracts was despatched on 23 Aug 44.

H C Leeston
Maj
Comd 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

Army Form W.3008
(Adapted) (Pa[illegible]1)
(Revised Jan., 1[illegible])

FIELD RETURN OF OFFICERS

2/1 Aust CW Laboratory R[illegible] 87/44 (Serial No.)

AIF At 0600 Hrs. Saturday 26/8/1944. (Unit)

Queensland Detachment

Part of W.E. II/31/2 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 AWM2020.71.3651

2/1 Aust Ch Laboratory Unit

WAR DIARY

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Appx.

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

87 / 44 (Serial No.)

PART D.—NOMINAL ROLL OF OFFICERS ON POSTED STRENGTH

At 0600 Hrs. Saturday 26/8/1944 (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	VX35410	SMITH	N D	Tech Offr (CW)	Yes		
Capt	VX112210	GOLDSTONE	F A	Amn Offr	Yes		
Lieut	VX36411	RYAN	J G P	Chem Offr	Yes		
Lieut	VX16045	ROSEMAN	E H	Tech Offr (CW)	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.

Date of Despatch

J McAllester Maj
Signature of Commander

a.w. 10m bks 10/43

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

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

FIELD RETURN OF OTHER RANKS

87/4 (Serial No.)

2/1 Aust Cr Laboratory RAE

At 0600 Hrs. Saturday 2/ 9/194 4 (Unit)

Queensland Detachment

Part of W.E. 171 3/ 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.				
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					
RR	1			W.Os. Class II. 1					
			1	Squadron or Company Quartermaster Sgts. 1					
				Staff Sergeants					
RR	4			Sergeants 4					
		3	5	Corporals 2					
1	1		13	Troopers, Privates, etc. 14	AMC	2			
				Civilians counting as O.R.					
1*	6	3	19	Totals of cols. marked * should agree with details shown in Part E on Page 2. 22		2 *			*

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	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.....(Unit) is Particularly Requested. ...../...../194.....

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

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

WAR DIARY

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

[redacted] Unit Vol 25 Page [illegible]
APR 13.
67/[illegible] 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 / /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				Riveiters			
Armament Artificer Wireless								Panel Beaters				Roughriders			
Artificer, Artillery								Photographer, Dry Plate	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			
Coppersmiths				Armourers				Signallers				Tailors	1	1	—
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	1	1	—	Winchman				Whitesmiths			
Draughtsmen (Topographical)				Carpenters and Joiners				Wireman							
Electricians	1	—	ER	Cooks				Woodturners							
Electricians (M.V.)				Dental Mechanics											
Electricians (Signals)				Driver-Mech. (Eng. and Med.)											
Fitters Cpl	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				[illegible]	1	—	NR
Fitters, Railway Signal				Hatchman				Butchers				[illegible]	1	1	—
Fitters, Signals				Height Taker				Clerks	1	1	—	[illegible]	1	1	—
Grinder, Precision				Helio Operator				Clerks, Supply				(a)	1	1	—
Mechanics, Instrument				Instrument Operator				Clerks, Technical				[illegible]			
Mechanics, Instrument (Signals)				Intelligence Duties				Coach Trimmers				[illegible] (b)	3	3	—
Mechanics, Instrument (Surgical)				Joiners				Concretors				[illegible]			
Mechanics, Radio				Lineman				Cooks				Cpl (c)	1	1	—
Mechanics, Typewriter				Lineman, Signals				Dental Clerk Orderlies				[illegible]	1	1	—
Mechanics, Wireless				Lithographers				Despatch Riders				ATTACHED BY W.E.			
Millwrights				Machinists, Metal				Draughtsmen, Signals				[illegible]			
Operators, Excavator				Machinists, Wood				Drivers, H.T.				(c)	1	1	—
Pattern Maker				Masons				Driver Mechanics	1	1	—	[illegible]	1	1	—
Pharmacist				Masseurs				Driver Tptn. Plant				[illegible]	1	1	—
Photographer, Wet Plate				Mechanics, M.T.				Engine Hands, I.C.				[illegible]	1	1	—
Photowriter				Miners				Equipment Repairers				[illegible]	2	1	1
Plumber				Moulders				Farriers				[illegible]	1	1	—
Saw Doctors				Nurses, Trained				Fitters' Mates				[illegible]			
Surveyors				Observation Post Assts.				Gun Layers				[illegible]			
CARRIED FORWARD	3	2	—	CARRIED FORWARD	4	3	—	CARRIED FORWARD	7	6	—	Totals of columns marked * to agree with columns 4 and 7, and 1 and 10 of Part A. respectively.	24	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.

26 Aug 43
Date of Despatch

[signature]
Signature of Commander

L.H.Q. Press—202—5/43—312m.

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(a) 1 Sgt filling the position of Clerk (Sgt)

(b) 1 L/Sgt and 2 Cpls filling the position of Lab asstn (Sgts)

(c) 1 Spr filling the position of Photographer (Cpl)

(d) 1 Spr filling the position of Fitter (Cpl)

(e) 1 Cpl filling the position of Orderly

CONFIDENTIAL

ORO 63/43

WAR DIARY

Vol 25 Page

Appx. 24

AUSTRALIAN MILITARY FORCES

ROUTINE ORDERS

by

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

30 Aug 44 Part I Serial 91

391. DUTIES

Orderly Officer

To Mount 0630 hrs 30 Aug 44 Capt Goldstone

Next for duty, to Mount 0630 hrs 6 Sep 44 Capt Smith

Orderly NCO -

To Mount 0630 hrs 30 Aug 44 S/Sgt Code
31 Aug 44 Cpl Day
1 Sep 44 L/Sgt McLaren
2 Sep 44 Cpl Kline
3 Sep 44 Cpl Corner
4 Sep 44 L/Sgt Marlyn-Morris
5 Sep 44 S/Sgt Millard

Sappers -	Mess Orderly	Cook	Steward
Sat 2 Sep 44	Spr Allen	Pte Arnett	Spr Dover
Sun 3 Sep 44		Pte Nicholls	Spr Barber

392. PENAL REGISTERS

1. An employee of the Brisbane City Council was recently killed by an explosion which occured in a city sewer.

2. It is imperative that petrol which has been used for cleaning purposes, and cleaning fluids with explosive properties, even in th smallest of quantities, be not disposed of through sewers. The vapo generated from even a small quantity of petrol might create an explosion sufficiently violent to bring fatal results similar to that which recently occured..

Qld L of C RO A375.

393. CONSERVATION OF RUBBER - SYNTHETIC TYRES

1. The critical rubber situation and the necessity for obtaining the maximum service from tyres has been stressed from time to time. The further deterioration of the situation, necessitating the introduct of tyres of synthetic construction, renders it imperative that greater care than ever be exercised in the use and maintenance of all tyres, whether of synthetic or natural rubber construction.

2. Synthetic tyres are far more susceptible to failure through abuse than tyres constructed from natural rubber. All concerned will therefore -

(a) exercise the utmost care to avoid -
overloading
underinflation
hard braking and fierce acceleration
high speeds
bumps and other causes of severe impact;

(b) check wheel alignment frequently and correct irregularities promptly;

(c) rotate tyres regularly;

(d) remove stones and flint from tyres during unit maintenance;

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

(e) submit tyres for replacement at the correct stages for recapping; and

(f) submit damaged tyres for repair without delay.

4. Formations and units will ensure that prompt disciplinary action is taken where breaches of this order occur.

GRO O.302/44

394. COMMONWEALTH WAR LOANS

1. Approval has been given for members of the AMF to subscribe to Commonwealth Loans by making an allotment of portion of their pay to the Commonwealth Bank. Amounts received by the bank under the allotment will be credited to a special account in the member's name and interest will be allowed thereon at the rate borne by the bonds selected for purchase by the member. As often as funds in the account accumulate to the extent of £10, the bank will purchase a £10 Commonwealth Treasury Bond on behalf of the member.

2. Where a member desires to subscribe in accordance with the provisions of this order, he will sign an allotment, in the form WF 12, of the daily amount (in even shillings) he wishes to contribute for the purchase of Treasury Bonds, the name of the allottee being shown as "Commonwealth Bank of Australia ..... Branch" (with the insertion of the name of the capital city of the member's state of enlistment). The member will, at the same time, sign a printed notification to the bank, a copy of which is set out in the appendix to this order. Forms of notification may be obtained from unit pay representatives.

3. Bonds will be held by the Commonwealth Bank at the capital city of the member's state of enlistment for safe custody on behalf of the member. In the case of members enlisted in the Northern Territory or in New Guinea, bonds will be held by the Commonwealth Bank at Adelaide and Brisbane, respectively.

4. Where a member is discharged or cancels his allotment, the special account will be closed and any balance remaining therein will be credited to the member's bank account or paid to him, whichever he desires.

GRO F303/44

Smith Capt
Adjt 2/1 Aust CW Laboratory RAE

AUSTRALIAN WAR MEMORIAL AWM2020.71.3651

TIME TABLE OF TECHNICAL CLASSES and NIGHT LEAVE ROSTER

NAME	MON	TUES	WED	THURS	FRID
L/Sgt Hamlyn-Harris	Camp	Leave	Org Chem II	Ind Inorg Chem IV	Biol
L/Sgt McLaren D.S.	"	Inorg Chem III	Org Chem I	Work	Leave
Cpl Day P.A.	Account	Account	Work	Work	Leave
Spr Allen P.	Work	Wool Class	Leave	Wool Class	Work
Spr Dowd G.	Inorg Prac II	Leave	Org Chem I	Work	Geol I
Spr Hohne K .H.	Work	Engineering	Work	Engineering	Leave

During the August vacation there will be no change in the nights on which leave passes will be issued unless written application is made otherwise.

Terms:- 1st 1 Feb-8 Apr 2nd 11 Apr-17 Jun 3rd 19 Jun- 9 Sep 4th 11 Sep-16 Dec

Vacations
2 wks - 14 Aug - 26 Aug
6 wks into next year from 16 Dec 44.

Examinations
Classes Cease on 13 Nov (approx)
Examinations 13 Nov to 16 Dec (approx)

J.D.Smith Capt
Adjt 2/1 Aust Ch Laboratory RAE

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