Training and Evaluation Outline Report

Status: Approved
15 Sep 2015
Effective Date: 23 Sep 2020

Task Number: 10-CO-0003

Task Title: Prepare Petroleum Laboratory for Certification

Distribution Restriction: Approved for public release; distribution is unlimited.
Destruction Notice: None
Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the CASCOM, Fort Lee, Virginia foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	AR 200-1	ENVIRONMENTAL PROTECTION AND ENHANCEMENT	Yes	No	
	AR 385-10	The Army Safety Program	Yes	No	
	AR 710-2	SUPPLY POLICY BELOW THE NATIONAL LEVEL	Yes	No	
	DOD 4140.25-M	DOD Management of Bulk Petroleum Products, Natural Gas and Coal Volumes I - IV	Yes	No	
	TM 10-6640-264-10	Technical Manual Operator's Manual for Petroleum Quality Analysis System-Enhanced (PQAS-E) NSN 6640-01-547-1760	Yes	No	
	TM 38-250	Preparing Hazardous Materials for Military Air Shipments {AFMAN 24-204; NAVSUP PUB 505; MCO P4030.19I; DLAI 4145.3 DCMAD1, CH3.4 (HM24)}	Yes	No	
	TM 4-43.31 (Revision, March 25, 2015)	Petroleum Laboratory Testing and Operations	Yes	Yes	

Conditions: The petroleum laboratory team/section/branch has received an operations order (OPORD) from higher headquarters (HQ) to prepare the petroleum laboratory for the annual certification or re-certification conducted by the Army Petroleum Center (APC). Unit operations are established in support of a higher HQ operational mission. Supported units are located in the area of responsibility and have primary access to main supply routes and external logistical support is limited. Operations are accessible to all supported and supporting customers/units and higher headquarters. Continuous digital and analog communications have been established. All applicable regulations, tactical standard operating procedures (TSOP), technical manuals (TMs), and field manuals (FMs), quality surveillance directives are on-hand as reference material. The unit elements have been provided guidance on rules of engagement for this mission. Threat capabilities include opposing forces which have the ability to gather information, interact with hostile force sympathizers, coordinate suicide bombings, set up improvised explosive devices, coordinate air support, and execute reinforced platoon/team operations in a chemical, biological, radiological, and nuclear (CBRN) environment. Mission, enemy, terrain and weather, troops and support available-time available and civil considerations (METT-TC) identified constraints must be considered. The petroleum laboratory team/section/branch is not likely to be attacked with hostile enemy fire or chemical agents. This task will be performed under all environmental conditions. All authorized petroleum analysis laboratory equipment is on hand and operational. All assigned personnel are available to conduct petroleum quality analysis testing during all day and night operations. Specified time constraints are identified in the operations order. The section has adequate time to prepare. Unit leaders are present in the area of operations. This task should not be trained in MOPP 4.

Standards: The petroleum laboratory team/section/branch prepares the petroleum laboratory for the annual certification conducted by the APC with the use of all available equipment and personnel within the specified time constraints in the mission OPORD and in accordance with (IAW) the approved Army standards identified in the Task Evaluation Criteria Matrix which is included in this task below, commanders guidance, applicable internal and external TSOPs, and approved Army regulations.

LEADER STATEMENT: An Army leader is anyone who by virtue of assumed role or assigned responsibility inspires and influences people to accomplish organizational goals. Leadership is not limited to or synonymous with an assigned duty, position, or given rank as it also manifests itself in both informal and collective forms. Informal leadership provides knowledge, experience, and technical expertise while collective leadership results through the combined effects and synergies of leaders at different levels and experience collaborating to achieve a common purpose. Informal and collective leadership can include positions with an expanded scope of responsibility, significance and operational / mission implications. Therefore, for

the purpose of training this task, Leaders are not only defined as officers, warrant officers, noncommissioned officers, and Army civilians but also include individuals who are Subject Matter Experts (SME) which possess the requisite knowledge and skill set to perform a particular task (i.e., conduct an operation, provide logistics, or operate specific equipment, etc.) at the tactical through strategic level as the situation and/or mission dictates.

Live Fire: No

Objective Task Evaluation Criteria Matrix:

Plan and Prepare			Execute						Assess	
Operational Environment		Training Environment (L/V/C)	Leaders Present at Training/Required	Present at Training/Required	External Eval	Performance Measures	Critical Performance Measures	Leader Performance Measures	Evaluator's Observed Task Proficiency Rating	Commander's Assessment
CO & BN										
Dynamic and Complex (4+ OE Variables and Hybrid Threat)	Night	IAW unit CATS statement.	>=85%	>=80%	Yes	>=91%	All	>=90%	**T**	**T**
			75-84%			80-90%		80-89%	**T-**	**T-**
Dynamic (Single Threat)			65-74%	75-79%	No	65-79%			**P**	**P**
	Day		60-64%	60-74%		51-64%	<All	<=79%	**P-**	**P-**
Static (Single Threat)			<=59%	<=59%		<=50%			**U**	**U**

Remarks: Task steps and performance measures are arranged in a logical order and are not intended to be interpreted as a “required order” for performance. These task steps and/or performance measures of collective task may not always be applicable to every unit. Prior to evaluation, coordination should be made between the evaluator, the unit itself, and the evaluated units' higher headquarters (if required) to determine the task step(s) and/or performance measure(s) that may be omitted and/or must be performed. Training begins with the execution of pre-combat checks and inspections. Training ends when designated training objectives for the particular training events or exercises are performed to Army standard. Unit leadership should conduct an after action report (AAR) to determine future training requirements for the unit.

Task Evaluation Criteria Matrix Definitions:

Static: Aspects of operational variables (PMESII-PT) needed to stimulate mission variables (METT-TC) are fixed throughout the unit's execution of the task.

Dynamic: Operational variables and Threat TTPs for assigned counter- tasks change in response to the execution of BLUFOR's task.

Complex: Requires a minimum of four (Terrain, Time, Military [Threat], and Social [Population]) or more operational variables; brigade and higher units require all eight operational variables (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single Threat: Regular, irregular, criminal, or terrorist.

Hybrid Threat: The diverse and dynamic combination of regular forces, irregular forces, terrorist forces, and/or criminal elements unified to achieve mutually benefitting effects.

To obtain a T or T- this task must be conducted in a dynamic and complex environment with 4 plus OE variables and a hybrid threat at night with 75% or more leaders present, greater than 80% of Soldiers present, receive a "GO" on 80% or more of the performance measures, ALL of the critical performance measures and at least 80% "GO" on the leader performance measures. Must be conducted during an external evaluation.

Task steps and measures were developed using the Plan, Prepare, Execute and Assess (PPEA) construct to reinforce the operations process and is implied throughout the T&EO as applicable.

Notes: REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS: You can help improve this collective task. If you find any errors, or if you would like to recommend any improvements to the procedures in this collective task, please let us know. The preferred method is to submit a DA Form 2028 (Recommended Changes to Publications and Blank Forms) with your recommended changes via email to usarmy.lee.tradoc.mbx.cascom-g3-collective@mail.mil. Your recommended changes will be reviewed, validated to ensure approved Army or joint doctrine supports your recommendation(s), implemented as applicable, and a reply will be furnished to you.

Safety Risk: Low

Task Statements

Cue: The petroleum laboratory team/section/branch has received an operations order (OPORD) from higher headquarters (HQ) to prepare the petroleum laboratory for the annual certification conducted by the APC.

DANGER

Failure to prepare the petroleum laboratory for certification jeopardizes the unit's ability to attain the annual laboratory certification required by Army doctrine. All Army petroleum testing laboratories must be certified annually to perform quality surveillance. The Army Petroleum Center certifies petroleum laboratories (tactical and base) through the Petroleum Laboratory Certification Program. Petroleum testing results received or provided from a petroleum laboratory that is NOT CERTIFIED or that has FAILED certification are NOT RELIABLE and should not be trusted. Petroleum testing should only be conducted at an APC certified laboratory. Laboratories must maintain of seventy percent accuracy for the combined total of all tests performed in accordance with the test protocol in order to remain certified.

WARNING

All Army Table of Distribution Allowances (TDA) and Table of Organization and Equipment (TO&E) laboratories which test petroleum products must be certified. All laboratories will be certified by the United States Army Petroleum Center (USAPC). Outside Continental United States (OCONUS) petroleum laboratories may be inspected by a military occupational skill (MOS) qualified 92L senior noncommissioned officer within their Atlantic Command (ACOM), Army Service Component Command (ASCC), Direct Reporting Unit (DRU), or by the APC when requested. Certification will include a review of facilities, equipment, methods, and personnel qualifications. Laboratories will not perform testing for the purposes of determining suitability or disposition of petroleum products unless they are certified. Certified petroleum laboratories must participate in a Department of Defense (DOD) correlation program identified by the certifying agency.

CAUTION

DO NOT wait until the last minute to prepare for the petroleum laboratory certification. Be proactive by conducting unit collective training that supports your mission. Contact the APC in advance to schedule your laboratory certification and request the certification checklist which identifies certification standards and/or additional requirements.

Performance Steps and Measures

NOTE: Assess task proficiency using the task evaluation criteria matrix.

NOTE: Asterisks (*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE	GO	NO-GO	N/A
+ 1. Commander, Petroleum Systems Technician, Petroleum Laboratory Supervisor, Platoon Leader, and/or Platoon Sergeant provide mission command for the petroleum laboratory personnel as they prepare for the petroleum laboratory certification.			
a. Track and maintain the approved petroleum laboratory certification letter and certificate that is signed by the APC Commander.			
b. Validate that all petroleum 92L laboratory personnel have received institutional training and possess proper certifications to conduct petroleum testing.			
c. Maintain documentation of collective training conducted in preparation for laboratory certification.			
d. Approve petroleum laboratory internal and external TSOP's.			
e. Maintain a memorandum citing the Chemical Inventory List and ensure that it is available in the laboratory.			
f. Ensure petroleum laboratory equipment is operational at all times.			
g. Ensure that the petroleum laboratory Federal Test Methods (FTM) and American Society for Testing and Materials (ASTM) are no more than four (4) years old and are kept in the laboratory at all times.			
+ 2. Petroleum Systems Technician, Petroleum Laboratory Supervisor, Platoon Leader, and/or Platoon Sergeant manage the petroleum laboratory administrative functions in preparation for certification.			
a. Maintain communications with the APC to remain informed about certification procedures or changes.			
b. Review the certification checklist from the APC and collaborate with laboratory personnel to determine shortfalls or to identify actions required to be taken prior to the actual certification.			
c. Ensure internal and external TSOP's are updated as required, implemented, and available for reference in the laboratory.			
d. Validate that all petroleum 92L laboratory personnel have received institutional training and possess proper certifications to conduct petroleum testing.			
e. Ensure to have the Chemical Inventory List memorandum signed by the commander available in the laboratory.			
f. Validate that laboratory equipment is operational, inspected, and properly calibrated.			
g. Ensure that non-mission capable equipment is identified and corrective actions have been taken in accordance with equipment TM, commercial off the shelf TM, and that supporting documents are available.			
h. Maintain a list of supported units and ensure that it is signed by the commander.			
i. Employ established laboratory safety procedures are in accordance with current doctrine and publications.			
j. Confirm that laboratory log books are maintained in the laboratory.			
k. Certify that any quality surveillance reports received with delivery documents are reviewed, filed, and on-hand.			
l. Enforce environmental stewardship protection program procedures to minimize exposure to chemicals.			
+ 3. Petroleum Laboratory personnel prepare laboratory for certification.			
a. Confirm that all petroleum 92L laboratory personnel have received institutional training and possess proper credentials to conduct petroleum testing in the laboratory.			
b. Confirm that all required collective training has been conducted and supporting documentation is maintained on file.			
c. Organize the storage area so that hazmat primary and secondary containers are in accordance with established transportation standards.			
d. Confirm that laboratory shelter place cards are properly installed, visible, and replaced when necessary.			
e. Maintain safety data sheets for each fuel, chemical, or hazardous material on hand.			
f. Ensure that the FTM and ASTM are in the laboratory at all times and are used when conducting petroleum testing.			
g. Maintain a copy of internal and external TSOP's in the laboratory at all times.			
h. Ensure that 2 years of historical files are available.			
i. Establish spill prevention control and countermeasures plan.			
j. Maintain digital pictures of laboratory equipment, datum plate, and hazmat storage and disposal areas.			
k. Check laboratory facilities.			
l. Perform preventative maintenance checks and services on laboratory equipment as required.			
m. Check petroleum laboratory interior components to ensure petroleum testing can be conducted.			
n. Validate that power cables are not damaged and available for use.			
o. Validate that the laboratory generator is properly grounded and operational as the primary power source to the petroleum laboratory.			

p. Validate that laboratory equipment/components are properly installed, available, and operational by testing a sample of aviation and diesel fuel to complete laboratory capability.			
q. Validate petroleum testing methods in accordance with current ASTM's.			
r. Ensure petroleum testing is in compliance with FTM and ASTM guidelines.			
s. Conduct correlation testing as required.			
+ 4. Petroleum Laboratory personnel conduct correlation sample testing to the Army Petroleum Center.			
a. Contact the APC to request certification.			
b. Request certification checklist.			
c. Submit checklist required information to the APC.			
d. Correspond with the APC to coordinate correlation sample requirements.			
e. Submit fuel sample and report deficiencies to the APC.			
f. Schedule annual inspection for certification.			
+* 5. Leaders manage administrative functions as appropriate, directed, or required.			
a. Conduct troop leading procedures.			
b. Manage composite risk management assessments.			
c. Provide logistics status reports to higher HQ IAW TSOP.			
d. Maintain communications with higher HQ IAW TSOP.			
e. Monitor before, during, and after preventive maintenance checks and services (PMCS) on organic equipment.			
f. Employ Physical Security Measures.			
g. Enforce operations security (OPSEC) procedures at all times.			
h. Enforce safety regulations and established unit’s internal and external TSOP’s.			
i. Ensure that all Army sites and operations attain and sustain 100 percent compliance with environmental laws and regulations in a climate of changing requirements to prevent a notice of violation or a fine for not complying with following host nation, local, state, federal, higher headquarters environmental directives and policies.			
j. Direct destruction of unit equipment to prevent enemy use as situations dictate.			
k. Ensure that all laboratory personnel are familiar with the PQAS-E TM foreign disclosure and limited TM release restrictions since the it is a restricted TM.			

Task Performance Summary Block										
Training Unit			ITERATION							
_____			1		2		3		4	
Date of Training per Iteration:										
Day or Night Training:			Day / Night		Day / Night		Day / Night		Day / Night	
			#	%	#	%	#	%	#	%
Total Leaders Authorized		% Leaders Present								
Total Soldiers Authorized		% Soldiers Present								
Total Number of Performance Measures		% Performance Measures 'GO'								
Total Number of Critical Performance Measures		% Critical Performance Measures 'GO'								
Live Fire, Total Number of Critical Performance Measures		% Critical Performance Measures 'GO'								
Total Number of Leader Performance Measures		% Leader Performance Measures 'GO'								
MOPP LEVEL										
Evaluated Rating per Iteration T, T-, P, P-, U										

Mission(s) supported: None

MOPP 4: Never

MOPP 4 Statement: This task is not intended to be performed in MOPP 4. However, if necessary during an unexpected interim chemical, biological, radiological, and nuclear (CBRN) situation, ensure personal protective measures have been taken before proceeding with any measure to protect or decontaminate equipment. Failure to observe this precaution may result in serious illness, injury, or death to personnel by CBRN agents. Perform immediate operational or thorough decontamination procedures in accordance with applicable equipment TM's, CBRN doctrine, and unit TSOP as the mission, resources, and tactical situation permits. The CBRN Specialist should test unit equipment for levels of contamination after the all clear signal has been given and prior to resuming mission operations.

NVG: Never

NVG Statement: Night vision goggles are not required to conduct this task. However, they may be required when conducting sustainment unit operations, during moment, or Soldier duties as assigned.

Prerequisite Collective Task(s): None

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	10-BN-0204	Conduct Battalion Petroleum Quality Surveillance Operations	10 - Quartermaster (Collective)	Approved
	10-CO-0235	Conduct Company Petroleum Quality Surveillance Operations	10 - Quartermaster (Collective)	Approved

OPFOR Task(s): None

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
1.	101-92L-4406	Validate Laboratory Operations.	101 - Quartermaster (Individual)	Approved
2.	101-92L-2315	Supervise Petroleum Quality Analysis System - Enhanced (PQAS-E) Operations	101 - Quartermaster (Individual)	Approved
2.	101-92L-3400	Direct Petroleum Laboratory Procedures	101 - Quartermaster (Individual)	Approved
3.	101-92L-2300	Supervise Petroleum Laboratory Testing Procedures.	101 - Quartermaster (Individual)	Approved

Supporting Drill(s): None

Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.3.3.3	Provide Petroleum Quality Assurance and Quality Surveillance

TADSS

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. It is the responsibility of all Soldiers and Department of the Army civilians to protect the environment from damage. Army personnel must take care of the environment; that is, practice environmental stewardship. All operations conducted on Army installations will comply with federal, state, local and host-nation environmental requirements and Army regulations. Army personnel will sustain compliance at all sites in the US and abroad, establishing good relationships with communities and regulators.

Environmental risk management consists of the following steps:

a. Identify Hazards. Identify potential sources for environmental degradation during analysis of METT-TC factors. This requires identification of environmental hazards. An environmental hazard is a condition with the potential for polluting air, soil, or water and or destroying cultural and historical artifacts.

b. Assess the Hazard. Analyze potential severity of environmental degradation using the Environmental Risk Assessment. Severity of environmental degradation is considered when determining the potential effect an operation will have on the environment. The risk impact value is defined as an indicator of the severity of environmental degradation. Quantify the risk to the environment resulting from the operation as extremely high, medium, or low, using the environmental risk assessment matrixes.

c. Make Environmental Risk Decisions. Make decisions and develop measures to reduce high environmental risks.

d. Brief Chain of Command. Brief chain of command (to include installation environmental office, if applicable), on proposed plans and pertinent high-risk environmental matrixes. Risk decisions are made at a level of command that corresponds to the degree of risk.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will

complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine.
Leaders must verify the structural soundness of all training and evaluation plans from a safety viewpoint. Leaders must conduct training at levels consistent with the abilities of the Soldiers being trained. They must instill an awareness of individual safety in all subordinate leaders and Soldiers. Soldiers must constantly be alert for and avoid situations that may result in injury or death. Be aware of the following:

a. At the training site, leaders must establish training safety overview procedures. Safety procedures should emphasize the adherence to standards, consideration of environmental factors (for example wet bulb), risk assessment, and factors contributing to and aiding in the prevention of accidents. Responsible individuals must know how to balance the risks against the training requirements and monitor conditions for safety and health hazards (to eliminate or control them). Leaders must ensure the welfare of their soldiers in all situations.

b. Leaders must establish a buddy system for safety. Soldiers should maintain a safety watch on each other, with emphasis on individual safety training, and first aid responsibilities. All unsafe conditions and unsafe acts must be recognized and reported. Soldiers must be alert to human error and know the capabilities and limitations of the equipment and vehicles they use. Following the proper safety procedures preserves troop strength by preventing personnel losses through accidents.