

# Training and Evaluation Outline Report

**Status: Approved**

**21 Sep 2020**

**Effective Date: 07 Oct 2020**

**Task Number:** 10-EAC-5608

**Task Title:** Provide Technical Guidance for Bulk Petroleum Quality Surveillance Program

**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 Fort Lee, VA 23801 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 385-10	The Army Safety Program	Yes	No	
	ATP 3-34.5	Environmental Considerations	Yes	No	
	ATP 4-43	Petroleum Supply Operations	Yes	Yes	
	DOD 4140.25-M	DOD Management of Bulk Petroleum Products, Natural Gas and Coal Volumes I - IV	Yes	No	
	MIL-STD-3004-1	Quality Assurance for Bulk Fuels, Lubricants and Related Products (Part 1 of 2)	Yes	No	
	MIL-STD-3004-2	Quality Assurance for Packaged Fuels, Lubricants and Related Products (Part 2 of 2)	Yes	No	
	PAM 710-7	HAZARDOUS MATERIAL MANAGEMENT PROGRAM	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 4-43.31 (Revision, March 25, 2015)	Petroleum Laboratory Testing and Operations	Yes	No	

**Conditions:** The theater petroleum center has received an operations order (OPORD) from higher headquarters (HQ) to provide technical guidance for bulk petroleum quality surveillance program in the assigned area of operation IAW the mission order, guidance from higher HQs, tactical standing operating procedures (TSOP), approved Army and Joint publications, and approved Army standards outlined in the Task Evaluation Matrix criteria within the specified time frame.

Staff elements are established and are prepared to support the higher HQ operational mission. The brigade/group has primary access to main supply routes, external logistical support, and is accessible to all supported customer units. Mission execution information has been made available to staff planners (in hard copy or digital format on the network) and include engineer site analysis documents, updated staff estimates, the supported command operations plan/order with maps and overlays, command policies and procedures, and up-to-date sustainment related command guidance. The command HQs may be the senior logistics HQs in the theater/AO and is prepared to operate as such. Continuous digital and analog communication systems have been established and the staff has been provided the rules of engagement (ROE). Threat capabilities have been replicated and are described as full spectrum which include opposing forces with near-peer enablers that should include cyber, degraded space, electronic warfare (EW), integrated air defense, counter and precision fires, chemical, biological, radiological, nuclear (CBRN) environments, information warfare, and air threats. These conditions may cause chaos, fear, violence, fatigue, and complexity which require the integration of all warfighting functions across all domains against a peer threat. Soldiers must be prepared to operate in degraded or disrupted communication environments and identify mission, enemy, terrain and weather, troops and support, available time and civil considerations (METT-TC) factors. The enemy has long range strike capability and can be used against civilian infrastructure and resources which support military operations. All authorized equipment is on hand and operational. Unit personnel are available to conduct all day and night operations. The unit has adequate time to prepare and unit leaders are present. Some iterations of this task should be performed in MOPP 4.

**Standards:** The theater petroleum center (TPC) will Provide Technical Guidance for Bulk Petroleum Quality Surveillance Program within the specified time constraints in accordance with (IAW) ATP 4-43, the mission OPORD, with the use of all available equipment and assigned or assigned or attached personnel, applicable internal and external TSOP's, other approved Army and Joint publications and the standards identified in the Task Evaluation Criteria Matrix which is included in the task below.

**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 (For example, conduct an operation, provide logistics, or operate specific equipment, etc.) at the tactical through strategic level as the situation and/or mission(s) dictates.

**Live Fire:** No

**Objective Task Evaluation Criteria Matrix:**

Plan and Prepare		Execute					Assess		
Operational Environment	Training Environment (LV/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
BDE & Above									
Dynamic and Complex (All OE Variables and Hybrid Threat)	Night	>=85%	>=80%	Yes	80-90%	All	80-89%	T	T
		75-84%							
Dynamic and Complex (All OE Variables and Single Threat)	Day	65-74%	75-79%	No	65-79%	<All	<=79%	P	P
		60-64%	60-74%		51-64%				
Dynamic and Complex (<All OE Variables and Single Threat)		<=59%	<=59%		<=50%			U	U

Commander(s) or Unit Key Leader(s) will determine if training will be conducted under live, virtual, or constructive training environmental conditions using corresponding event types (for example, STT, STX, FTX, etc.) in order to facilitate the Crawl, Walk, Run methodology of training progression to support Unit Training Management (UTM) and recommended Combined Arms Training Strategy (CATS). All external evaluations (EXEVAL(s)) must be conducted in a live environment.

**Remarks:** Task steps and performance measures are intended to be arranged in a logical order. However, they are not intended to be interpreted as a “required order” for performance. Not every performance task steps and/or performance measures of collective task will 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 must be performed during the evaluation or identify performance steps/measures that do not apply to the unit and may be omitted and identified as N/A during the evaluation. However, when evaluating this task, only the CRITICAL performance steps and measures will be used to calculate the overall percentage total in the training evaluation criteria matrix.

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 Operational Environment (OE) Definitions:

Static—a static training environment has aspects of operational variables needed to stimulate mission variables that are fixed throughout the units’ execution of the task.

Dynamic—a dynamic training environment has operational variables and threat Tactics, Techniques, and Procedures (TTP) for assigned counter-tasks that change in response to the execution of friendly force tasks.

Complex—a complex training environment 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 to be replicated in varying degrees based on the task being trained.

Single threat—a single threat in a training environment is a conventional force, irregular force, criminal element, or terrorist force.

Hybrid threat—a hybrid threat in a training environment uses diverse and dynamic combination of conventional forces, irregular forces, terrorist forces, and criminal elements unified to achieve mutually benefitting effects.

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 Training & Evaluation Outline (T&EO) as applicable.

**Notes:** 1. DISRUPTED COMMUNICATION NETWORKS: Leaders need to be able to command their formations when communication networks are disrupted, while on the move, and without perfect situational awareness. Training to become proficient in the use of analog data tracking systems, voice communications, and unaided navigation techniques requires significant amounts of repetition, particularly when integrating all of the elements of combat power. Habitual relationships, practiced standard operating procedures, and the use of battle drills can mitigate some of the risk and friction inherent in lost situational awareness.

2. REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS: Feedback is welcome to help improve this collective task. If errors are found, or if someone would like to recommend improvements to the performance steps and 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 recommended changes via email to usarmy.lee.tradoc.mbx.cascom-g3-collective@mail.mil. Recommended changes will be reviewed, validated to ensure approved Army or joint doctrine supports recommendation(s), and implemented as appropriate.

**Safety Risk:** Low

<b>Task Statements</b>
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**Cue:** The theater petroleum center provides technical guidance to combatant commanders on bulk petroleum quality surveillance in the theater of operations.

**DANGER**

Failure to provide quality surveillance guidance to subordinate units may result in personal injury or death of petroleum laboratory personnel.

## **WARNING**

Be sure to warn petroleum laboratory personnel that safe and efficient petroleum laboratory operations depend on the observance of well-established safety practices and a thorough knowledge of testing procedures. The testing procedures often involve using equipment and materials that are potentially hazardous. Injury to personnel and damage to equipment by fire, chemicals, dangerous pressures and vacuums, or misuse of equipment can be avoided by alert and responsible laboratory technicians. Observe all warnings, safety precautions, and safety regulations. Strict observance of established safety, care, and handling procedures will allow laboratory personnel to perform their duties in a safe and hazard-free environment.

## **CAUTION**

Petroleum managers must caution laboratory personnel to make sure that they follow correct laboratory procedures, warnings, and do not attempt short cuts for they may result in personal injury or death.

**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
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**Plan**

- +\* 1. The commander/OIC exercises mission command to plan, prepare, execute, and assess the bulk petroleum quality surveillance program IAW mission orders, policies, and directives.
  - + a. Determine mission support requirements and subordinate, attached, and supporting units and their roles and responsibilities in relationship to OPLANS and directives.
  - b. Conduct mission analysis and develop facts and assumptions.
  - c. Determine reporting requirements from higher HQs and provide guidance to subordinate elements as required.
- + 2. Commander and Petroleum Manager(s) direct the establishment of a petroleum quality surveillance program.
  - a. Direct staff on proper petroleum quality surveillance program guidance, changes to the program, and directives from higher headquarters to all petroleum managers, petroleum laboratory, and fuel handlers as appropriate or directed.
  - b. Assist in planning the requirements needed to facilitate the quality surveillance program.
  - c. Monitor the quality surveillance program for fuels and lubricants furnished to users by the theater Army.
  - d. Verify adequacy of quality surveillance measures taken by fuel handlers at all levels.
- \* 3. TPC staff and petroleum managers use facts and assumptions to inform commander(s) on best courses of actions in order to support theater bulk petroleum operations.


**Prepare**

- + 4. Establish communication with higher headquarters, support agencies (Defense Logistics Agency-Aviation/Energy), subordinate or attached elements, and related staff sections IAW TSOP during degraded or disrupted communication environments as required.
- 5. Petroleum managers and staff section personnel coordinate all petroleum quality surveillance requirements in theater IAW guidance from higher HQs, policies, and directives.
  - a. Provide commander information on current petroleum operations and requirements.
  - b. Ensure approved quality surveillance program is IAW with commanders' directives, Army and Joint publications and host nation guidelines.
  - c. Provide technical guidance to subordinate commands on bulk petroleum quality surveillance when conduct petroleum laboratory operations.
  - d. Direct technical assistance for handling, storage, sampling and identification through quality surveillance testing.
  - e. Coordinate external petroleum surveillance requirements as necessary.
- 6. Petroleum manager(s) and staff establish system to conduct field inspections to identify quality surveillance problems.
  - a. Identify sources of potential contamination and deterioration of petroleum products.
  - b. Enforce procedures for the environmentally sound handling of petroleum products.


**Execute**

- + 7. Quality Surveillance/Safety Branch Petroleum Systems Technician(s) and/or Petroleum Managers oversee the establishment of the quality surveillance program.
  - a. Provide technical guidance for the quality surveillance program.
  - b. Forward final draft of quality surveillance program to commander for approval through the Support Operations Section.
  - c. Distribute quality surveillance procedures and health hazard directives to petroleum laboratories in the theater as they are received.
  - d. Provide advisory technical assistance to commander, military petroleum laboratories in the theater, joint forces, and host nation agencies.
  - e. Identify standard products requirements by reviewing product specifications and applicable directives.
  - f. Ensure subordinate units have all quality surveillance directives and published updates.
  - g. Monitor petroleum laboratory quality surveillance testing for compliance with current directives.
  - h. Ensure synchronization and coordination is maintained with area petroleum laboratory and supporting/subordinate units.
- + 8. Petroleum manager(s) assist Quality Surveillance personnel on operations during the quality surveillance base laboratory program.
  - a. Establish the petroleum quality surveillance program as directed.
  - b. Manage quality surveillance program at petroleum sites and facilities.
  - c. Provide technical guidance and assistance to petroleum laboratory operations in the area of responsibility.
  - d. Ensure petroleum laboratory personnel are following established procedures and safety directives for petroleum products to meet specific physical and chemical properties.


e. Monitor the work of the laboratory personnel of the base petroleum laboratory assigned to the section and to the laboratory branches in the petroleum pipeline and terminal operating battalions and petroleum supply battalions.

f. Provide oversight to laboratory personnel to ensure they follow correct laboratory procedures and avoid shortcuts during.

g. Ensure sampling and testing procedures for bulk and packaged products, reporting procedures, and disposition of off-specification petroleum products and performed IAW policies and procedures.

h. Ensure petroleum laboratories are maintaining appropriate fuel sample log to track quality surveillance requirements for storage tanks, facilities, refueling systems, vehicles, and bulk deliveries.

i. Monitor laboratory tests of petroleum products for quality surveillance compliance with test procedures.

j. Monitor procurement inspections of petroleum products procured in the battalion area.

+ 9. Petroleum managers assist the quality surveillance Officer-in-Charge (OIC) or Non-Commissioned Officer (NCOIC) and Petroleum Distribution Quality Surveillance Supervisor(s) consolidate data for the quality surveillance program and forward to higher HQs as required.

a. Ensure all laboratory personnel have the proper certifications and training to conduct petroleum testing.

b. Develop a quality control plan for the petroleum laboratory/facility IAW most current MIL-STD-3004.

c. Assist the Petroleum Systems Technician(s) as required.

d. Determine reporting procedures for supported units.

e. Inform higher headquarters when the petroleum quality surveillance branch is operational.

10. Direct subordinate commands on the distribution of bulk petroleum in theater.

11. Petroleum OIC/ NCOIC/ managers work with other petroleum subject matter experts (SMEs) when external, host nation, or logistics quality surveillance assistance is required.

12. Provide mission command for down trace to Petroleum Liaison Detachments and Petroleum Lab Teams assigned to operate in theater.

+\* 13. Theater petroleum staff and managers enforce Theater Bulk Petroleum Quality Surveillance IAW command guidance, local, state, and federal policies and procedures.

a. Enforce established petroleum laboratory safety procedures.

\* b. Ensure all petroleum personnel handling bulk fuels are trained and proficient when performing their assigned duties IAW applicable references and unit TSOP.

+\* c. Ensure theater petroleum managers and staff personnel maintain communication and coordination with applicable agencies (SAPO, JPO, DLA-A, DLA-E, Petroleum Lab Teams, Liaison Teams and other support elements).


**Assess**

+ 14. The TPC serves as liaison and coordinates bulk petroleum and alternate fuels for petroleum quality surveillance requirements between petroleum managers, supported units and host nation petroleum agencies when required.

a. Submit established liaison policies and procedures to the Petroleum Quality Surveillance and Safety Branch for inclusion in the quality surveillance program.

b. Provide direct coordination channels between supported units (USA, USAF, USMC, and USN forces ashore), host nation activities and the group for approved petroleum quality surveillance programs.

c. Facilitate coordination of environmental regulations and concerns among supported units, host nation units and higher headquarters.

d. Maintain records of ongoing and completed petroleum surveillance requirements.

+\* 15. Conduct after action reviews with staff, subordinate and supporting elements to assess current practices and make improvements in preparation for future operations.

a. Consolidate status reports and relay to higher HQs IAW TSOP, policies, and command guidance.

b. Continue to enforce operations security (OPSEC), safety, and quality surveillance IAW command guidance, federal, state, local, host-nation and TPC policies during day and night operations.

+ c. Maintain communications with higher HQs IAW TSOP, policies, and directives.


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:** Sometimes

**MOPP 4 Statement:** Some iterations of this task should be performed in MOPP4. At MOPP4, performance degradation factors increases planning completion times. Ensure to comply with commander's guidance and unit TSOP when conducting operations in MOPP gear. Chemical protective clothing ensemble and field protective mask restrict movement and activities. Wear MOPP gear only when threat forces have used CBRN weapons or are likely to do so. MOPP gear should be worn during CBRN training exercises. 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 in accordance with chemical, biological, radiological, and nuclear (CBRN) regulations.

**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
3.	10-EAC-5600	Inform Combatant Commands on Theater Bulk Petroleum Operations	10 - Quartermaster (Collective)	Approved
13.	10-EAC-5603	Enforce Theater Bulk Petroleum Quality Surveillance	10 - Quartermaster (Collective)	Approved

**OPFOR Task(s):** None

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
5.	101-23A-6007	Provide Technical Assistance in Planning Bulk Petroleum Support Operations	101 - Quartermaster (Individual)	Approved
7.	101-23A-0005	Establish Bulk Petroleum Quality Surveillance	101 - Quartermaster (Individual)	Approved
8.	101-92L-3406	Perform Quality Surveillance at Petroleum Facilities	101 - Quartermaster (Individual)	Approved
8.	101-23A-6003	Manage Petroleum Laboratory Operations	101 - Quartermaster (Individual)	Approved
9.	101-92L-3406	Perform Quality Surveillance at Petroleum Facilities	101 - Quartermaster (Individual)	Approved
9.	101-92L-4410	Plan Quality Surveillance Operations for Petroleum Facilities.	101 - Quartermaster (Individual)	Approved
14.	101-23A-7004	Provide Technical Assistance for Liaison Operations	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 measures. 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.