### **Training and Evaluation Outline Report**

Status: Approved 29 Mar 2021 Effective Date: 29 Mar 2021

Task Number: 05-PLT-5308

Task Title: Test Pipeline System

**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 MSCoE 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 ID Reference Name		Primary	Source Information
	ATP 3-34.40	General Engineering (http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp3_34x40.pdf)	Yes	No	
	ATP 4-43	Petroleum Supply Operations	Yes	Yes	
	ATP 5-19	RISK MANAGEMENT, with change 1 dated 8 Sep 2014	Yes	No	

**Conditions:** After completing or repairing a section of coupled pipeline, the element is directed to test the pipeline system to ensure there are no flaws, leaks or obstructions in the pipeline. A Tactical Standing Operating Procedure (TACSOP), order or directive with guidance is provided to assist the element in conducting the test. All necessary equipment and personnel are available. Pipeline plans and specifications are available. Depending upon availability, the test will either be conducted with water or with fuel. Work site security is provided.

Note: The Commander must still determine at what level of training they would want the element to perform. Crawl, walk or run. This can only be determined after consideration as to the units training level.

The Commander prior to evaluating an element in the conduct of the task must determine if it will be conducted in a Live, Virtual, or Constructive environment, additionally it must also be determined which condition as described below that the element will conduct the task. The selection made for this task is at a trained level of proficiency. The commander must determine which of the environments below will best suit the unit and the proficiency level at which the unit is. When conducting crawl or walk level training units should not increase the intensity until the unit has achieved the standards and then unit trainers should include variables that increase proficiency in all conditions.

Note: The condition statement for this task is written assuming the highest training conditions reflected on the Task Proficiency matrix required for the evaluated unit to receive a "fully trained" (T) rating.

Note: Condition terms definitions:

Dynamic Operational Environment: Three or more operational and two or more mission variables change during the execution of the assessed task. Operational variables and threat Tactics, Techniques, and Procedures (TTPs) for assigned counter-tasks change in response to the execution of Blue Forces (BLUFOR) tasks.

Complex Operational Environment: Changes to four or more operational variables impact the chosen friendly COA/mission. Brigade and higher units require all eight operational variables of Political, Military, Economic, Social, Infrastructure, Information, Physical environment, and Time (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single threat: Regular, irregular, criminal or terrorist forces are present.

Hybrid threat: Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements all unified to achieve mutually benefiting effects.

This task should not be trained in MOPP 4.

**Standards:** The element tests the pipeline system according to specifications, technical references, orders, plans and unit TACSOP of the individual components. Identifying and repairing any flaws, leaks, discrepancies and obstructions, no later than the time specified in the directive.

Live Fire: No

## **Objective Task Evaluation Criteria Matrix:**

Plan	an and Prepare Execute			Ass	ess																	
Operations Environme		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												
Dynamic (Single Threat)			>=85%	>=80%	Yes	>=91%	All	>=90%	т	Т												
Threat)		IAW	75-84%	>=00%	ß	80- 90%		All	All	All	All	All	80-	T-	T-							
	Day	IAW unit CATS statement.	65-74%	75-79%		65- 79%		89%	P	Р												
Static (Single Threat)		ent.	60-64%	60-74%	No	51- 64%														700/	P-	P-
			<=59%	<=59%		<=50%	<all< td=""><td>&lt;=79%</td><td>U</td><td>U</td></all<>	<=79%	U	U												

Remarks: None
Notes: None
Safety Risk: Low

**Task Statements** 

Cue: None

# **DANGER**

Leaders have an inherent responsibility to conduct Risk Management to ensure the safety of all Soldiers and promote mission accomplishment.

## **WARNING**

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

## **CAUTION**

Identifying hazards and controlling risks across the full spectrum of Army functions, operations and activities is the responsibility of all Soldiers.

### **Performance Steps and Measures**

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

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

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STEP/MEASURE	GO	NO-GO	N/A
+* 1. The element leader conducts troop leading procedures.			
+ a. Computes the test pressures that are necessary from the elevation features.			
+ b. Coordinates support requirements as needed.			
(1) Ensures repair kits are available.			
(2) Ensures fire suppression equipment is available near the testing site when using fuel.			
(3) Ensures tank vehicle, drums, tools, and materials to dig and line a pit are available in case a ection must be drained when using fuel.			
* 2. The element leader conducts detailed project planning. Determines the following (as a minimum):			
+ a. Segments to be filled and tested.			
+ b. The fill sequence and monitoring plan.			
+ c. The test pressure at pump stations or other locations.			
+ d. The shut-in/block-in sequence to isolate test segments.			
e. Communication and reporting requirements.			
+ 3. The element prepares to test the pipeline system.			
+ a. Positions personnel at each critical station throughout the test section (for example, walking atrol, pump station operators, valve turners).			
b. Performs a radio test for communications status.			
+ c. Opens all valves in the segment to be tested.			
+ d. Verifies scraper launcher assemblies and scraper receiver assemblies are installed, serviced and operational.			
+ e. Inspects pre-calibrated pressure gauges on both the launchers and receivers.			
f. Gives status reports of checks to element leader and dispatcher.			
+ 4. The element tests the pipeline system.			
+ a. Takes all commands from the dispatcher.			
+ b. Primes the pump in accordance with manufacturer's instructions with fluid to be pumped for the est.			
+ c. Brings the mainline pumps on line.			
+ d. Inserts the scraper in the launcher assembly after about 3,000 gallons have been pumped at the rescribed rate of flow.			
+ e. Launches the scraper when directed by the dispatcher.			
+ f. Maintains contact with the scraper by using a walking patrol.			
+ g. Isolates the line by slowly closing the launcher, receiver or gate valve as soon as the scraper eaches the end of the test section, and notifies dispatcher of scraper's arrival.			
+ h. Increases the discharge pressure of the initiating pump to the desired test pressure in ccordance with equipment specifications.			
+ i. Closes off the test section at the initiating pumping station using the launcher assembly or a gate alve as soon as pressure builds up to the desired level.			
+ j. Decreases the discharge pressure of the initiating unit and takes it off line.			
+ k. Inspects the test section and marks and reports leaks to the element leader and dispatcher.			
(1) Tries to eliminate small leaks by shaking the joint at the coupling.			
(2) Shuts down pumping station if a large leak is discovered, repairs it temporarily with an vercoupling-leak clamp and resumes testing.			
+ I. Repairs and retests the line until it meets the required specifications.			
+ 5. The element drains all test media, water or fuel, from the system if it is incompatible with the articular intended fuel before placing the tested system into service.			
Note: If possible, the unit should flush the line several times with clean fresh water and pipeline cleane sed to test the system.	rs before plac	ing into operation	if salt wat
+ 6. The element cleans up all fuel spills in accordance with local environmental laws and unit standing perating procedure (SOP), if fuel was used to test the system and the tactical situation permits.			
7. The element leader submitted status reports to higher headquarters (HO) in accordance with unit			

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+ 7. The element leader submitted status reports to higher headquarters (HQ) in accordance with unit SOP.

Task Performance Summary Block										
Training Unit			ITERATION							
				2		3			4	
Date of Training pe	r Iteration:									
Day or Night Tr	aining:	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: None

NVG: Never

NVG Statement: None

Prerequisite Collective Task(s): None

# **Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
1.	71-CO-5100	Conduct Troop Leading Procedures	71 - Mission Command (Collective)	Approved
2.	05-CO-5001	Perform Project Management	05 - Engineers (Collective)	Approved
7.	05-CO-0018	Conduct Report Procedures	05 - Engineers (Collective)	Approved

## OPFOR Task(s):

Task Number	Title	Status
71-CO-8502	OPFOR Execute an Ambush	Approved
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

### Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
	052-238-1208	Inspect Underwater Pipeline Systems	052 - Engineer (Individual)	Approved
	052-239-3030	Read Construction Prints	052 - Engineer (Individual)	Approved
	052-239-3036	Supervise the Installation of Pipelines	052 - Engineer (Individual)	Approved
	052-248-1013	Install a Coupled Pipeline	052 - Engineer (Individual)	Approved
	052-248-1014	Repair a Coupled Pipeline	052 - Engineer (Individual)	Approved

### Supporting Drill(s): None

#### Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.7.2.6	Construct Petroleum Distribution Systems

#### **TADSS**

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

### **Equipment (LIN)**

LIN	Nomenclature	Qty
W48759	Tool Kit Pipefitters: 2-12 to 4 Inch Pipe	1
T60081	Truck Cargo: 4x4 LMTV W/E: M1078	1
A79381	Antenna Group: OE-254()/GRC	1
W65884	Tool Kit, Supplement, Pipeline Pump Sta, 4, 6, and 8 Inch	1

#### 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.

**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.