



Leading by Learning from Our Customers: Five Ways to Improve STO Management

July 15th, 2020

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Prometheus Group

- Founded in 1998
- Headquartered in Raleigh, NC, USA
- 11 global offices
- Integrated and intuitive software
- Partnerships with industry leading companies



TOP 6

Oil & Gas



TOP 6

Chemical



TOP 6

Pulp & Paper



TOP 6

Mining & Metals



TOP 6

Utilities

SAP® Certified
Integration with SAP® S/4HANA



ORACLE® Gold
Partner



Key Customers

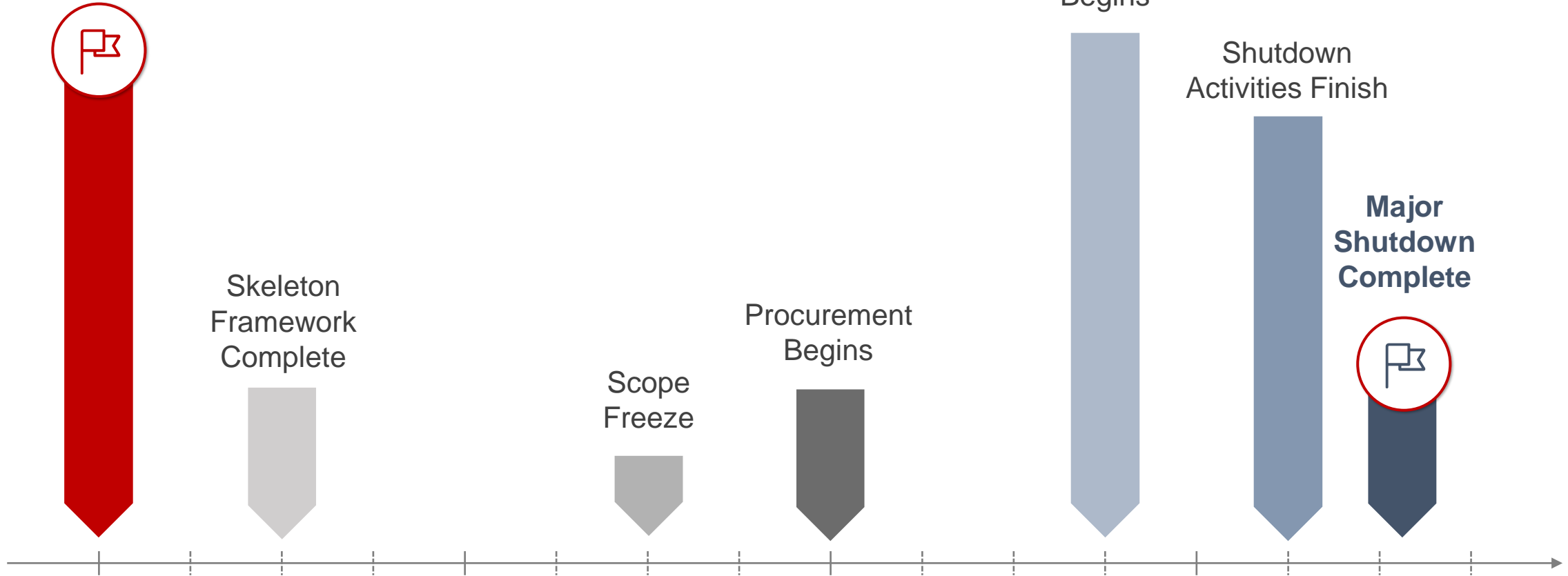


The Prometheus Platform



The Timeline of an STO Event

Begin Planning
20XX Shutdown



Communication is Key

- Successful communication between different disciplines and departments starts far in advance of the shutdown
 - Inform everybody of what the plan is
 - Set expectations of roles & responsibilities
- Communication doesn't have to be verbal
 - Hand motions
 - Banners
 - Signals & color coding
- Embrace technology to streamline communication



Keep One Single Point of Truth



- Multiple departments, each using own systems of record
 - What is the “Master System of Record?”
 - How is integration between systems achieved?
 - Is integration bi-directional?
- Does the single point of truth remain consistent across all phases of the STO?





Interactive Session

Digitalization and the Mobile Worker

- Digital transformation and Mobility are the dominating trends in Maintenance & STO
- Focus on user adoption is paramount to successful mobile implementations
- **Real-time** and **accurate** status overview and information updates of the STO event





Interactive Session

Focus on the Future

- Capture and gather knowledge and information to use in future events
 - Update task lists/job plans
- Leverage **templating** capabilities in supporting software
- Analyze STO performance and gain actionable insight for future events
- KPIs and Analytics you get out are only as good as the data you put in





Interactive Session



Roser Integration on the Prometheus Platform

Planning from Activities Library

STO Planner

staging.docker-roser.prometheusgroup.com/sto/worklist/view/7/Activities

Overview Scope Work package QAQC Inspection Materials Execution Configuration Admin

Stephen Taylor staylor Stephen Turnaround

Edit work package: 87-0045-0003 / 7

Scope information UDF Plann

Copy activities from...

Sequence Number Activity

Discipline


Add activities from library

Group	Code	Description	Main Phase	Sub Phase	Discipline	Memo
> Insulation (2)						
> Scaffolding (2)						
	1600	Place scaffolding	F0 Pre TAR	11 Pre_sd	Scaffolding	
	9000	Remove scaffolding	F6 Post TAR	85 Post_sd	Scaffolding	
> Production (3)						
> General (1)						
	2180	Area block	F3 TAR	22 Open/Remove	General	
> Mechanical (14)						

Activities that will be added:

Code	Description	Main Phase	Sub Phase	Discipline	Memo
1600	Place scaffolding	F0 Pre TAR	11 Pre_sd	Scaffolding	
9000	Remove scaffolding	F6 Post TAR	85 Post_sd	Scaffolding	

Cancel Save



Intelligent Estimates from Collective Database

STO Planner x +

← → ↻ ⓘ Not secure staging.docker-roser.prometheusgroup.com/sto/worklist/view/7/Activities

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Overview Scope Work package QAQC Inspection Materials Execution Configuration Admin

Stephen Taylor staylor Stephen Turnaround

← Edit work package: 87-0045-0003 / 7

Updating Data...

Scope information UDF Planning Tasks Comments Attachments Change Log Costs Activities

Copy activities from... Add library activities Add activity Add resource Promote to template Calculate durations

Sequence Number Activity Activity memo Location

001 Place scaffolding

Code	Resource	Resource memo	Circumst...	Contractor	Number of workers
Scaffolder	Scaffolder				1

002 Internal transport > CY

Code	Re...	Re... me...	Cir...	Co...	of	ho... per	Cal... ho...	Total ho...
3M...	Me...				1	0	0	0

003 Cleaning bundle (CY)

Code	Re...	Re... me...	Cir...	Co...	of	ho... per	Cal... ho...	Total ho...
Cle...	Cle...				1	0	0	0
Cle...	Cle...				1	0	0	0

> 004 Cleaning valve(s)

> 005 Cleaning parts (CY)

> 006 Remove scaffolding

Activity details: *Cleaning bundle (CY)*

Sequence Number Description Discipline

3 Cleaning bundle (CY) Cleaning

Activity memo

Main Phase Sub Phase

F3 TAR 32 Cleaning at yard

Hours

Total hours Duration

0 8

Location

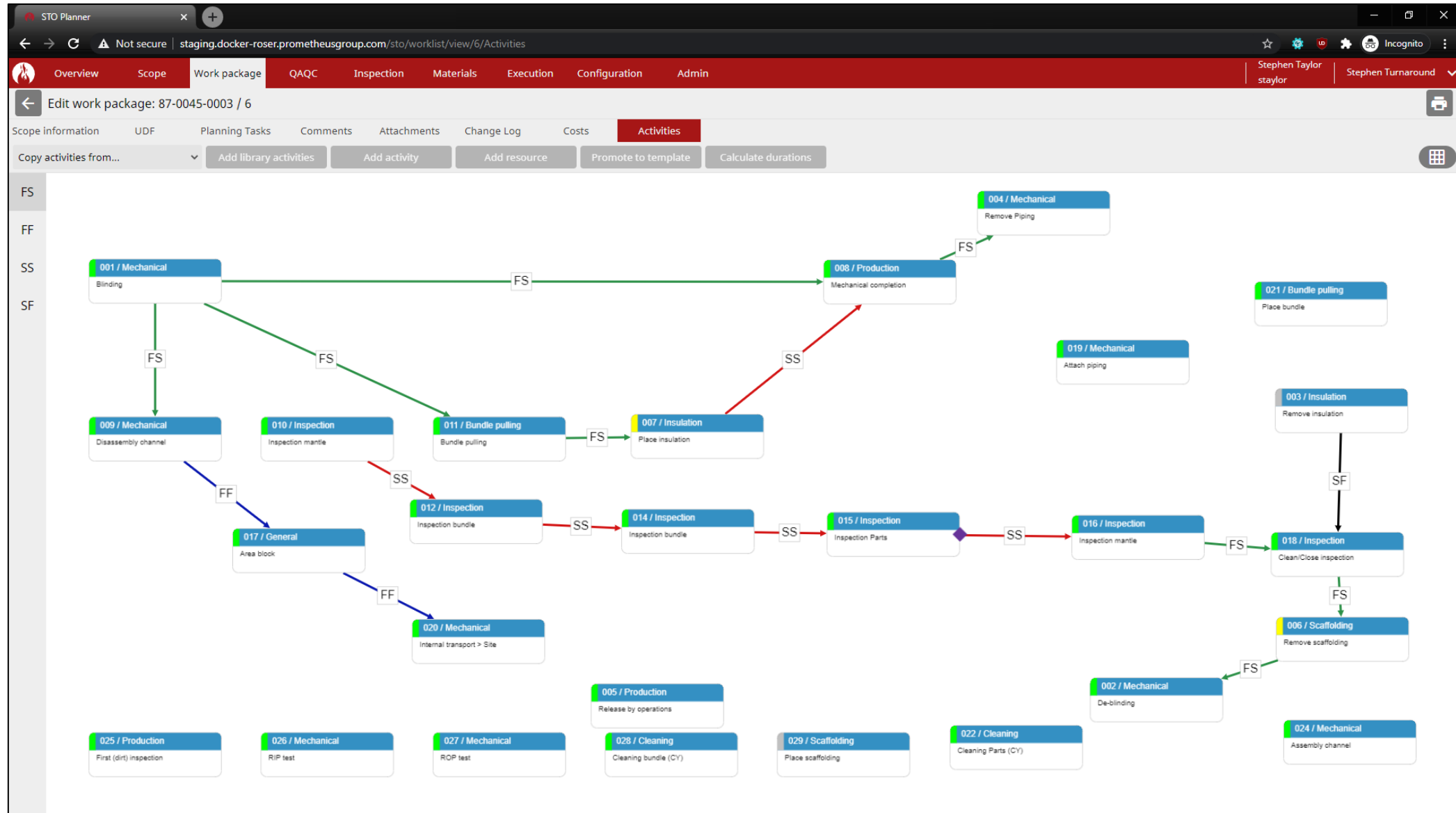
Location Location Memo

Elevation (m)

0



Flexible and Intuitive Logic Builder



Streamlined Execution Tracking

STO Planner

← → ↻ ⓘ Not secure staging.docker-roser.prometheusgroup.com/sto/execution

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OverviewScopeWork packageQAQCInspectionMaterialsExecutionConfigurationAdmin

primaveraData ↻

Activity ID	Project Id	Description	Planned Start Date	Planned Finish Date	Remaining Duration	% Complete	Actual Start Date	Actual Finish Date
290	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
291	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
292	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
591	STOManager	Remove insulation	08/13/2019	08/13/2019	8	0%		
592	STOManager	Overhaul valve(s)	08/13/2019	08/13/2019	8	0%		
285	STOManager	Library activity 1	08/13/2019	08/13/2019	1.5	0%		
286	STOManager	Library activity 2	08/13/2019	08/24/2019	129.5	0%		
287	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
288	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
289	STOManager	Activity Description	08/13/2019	08/13/2019	0	0%		
604	STOManager	Place scaffolding	08/13/2019	08/13/2019	8	0%		

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GeneralRelationshipsMaterials

Activity ID
291

Planned Start Date
2019-08-13T06:30:00.000+0000

% Complete
0

Project ID
STOManager

Planned Finish Date
2019-08-13T06:30:00.000+0000

Actual Start Date

Description
Activity Description

Remaining Duration
0

Actual Finish Date



Material Availability Coordination

STO Manager

sto-na.prometheusgroup.com/sto/mac/components

Overview

Scope

Worklist

Packages

Inspection

MAC

Configuration

Admin

Miyan Nagib
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ST Fall 2021 Shutdown

Components

MN_COMP_MAC - USER

Drag here to set row groups

Material #	Mat. Description	MAC Status	Status Text	Work Order	PR #	Reservation # ↓	Phase	Promised Delivery Date	Date Required	PO #
400-432	SCREW BOLT	<div><div></div><div></div><div></div></div>	Warning: Total required greater than total stock	7067050	0010014154	278681	TAR	12/02/2018	10/10/2019	
2179	VLV,RLF,SS, FNPT, 3/8", MNPT, 1...	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067048		278679	TAR		10/01/2020	
2275	1" CHECK VALVE	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067048		278679	TAR		10/01/2020	
	MV Relay	<div><div></div><div></div><div></div></div>	Warning: No goods receipt and delivery date has n...	7067047	0010015396	278678	TAR	10/04/2020	10/05/2020	4500017623
100-500	BEARING CASE	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067047		278678	TAR		10/05/2020	
	MV Relay	<div><div></div><div></div><div></div></div>	Warning: No goods receipt and delivery date has n...	7067047	0010015396	278678	TAR	10/04/2020	10/05/2020	4500017623
	Transformer Relay	<div><div></div><div></div><div></div></div>	No Purchasing Doc. associated with component	7067047	0010015401	278678	TAR	10/04/2020	10/05/2020	
	Trip Unit	<div><div></div><div></div><div></div></div>	Warning: No goods receipt and delivery date has n...	7067047	0010015400	278678	TAR	10/04/2020	10/05/2020	4500017622
	Fuse	<div><div></div><div></div><div></div></div>		7067047	0010015399	278678	TAR	10/04/2020	10/05/2020	4500017625
	Breaker Box	<div><div></div><div></div><div></div></div>	Warning: No goods receipt and delivery date has n...	7067047	0010015398	278678	TAR	10/04/2020	10/05/2020	4500017624
	Heat Resistant Cradle	<div><div></div><div></div><div></div></div>		7067046	0010015404	278677	PRE-TAR	11/24/2019	11/25/2019	4500017627
	Gearbox Replacement	<div><div></div><div></div><div></div></div>		7067046	0010015402	278677	PRE-TAR	11/24/2019	11/25/2019	4500017627
	Copper housing case	<div><div></div><div></div><div></div></div>	Delivery date has passed, but there is no indication...	7067046	0010015405	278677	PRE-TAR	11/24/2019	11/25/2019	4500017626
	Transformer Relay 480V	<div><div></div><div></div><div></div></div>		7067046	0010015403	278677	PRE-TAR	11/24/2019	11/25/2019	4500017627
M-1000	Motor, electrical pump 250KW	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036	0010014205	278667	TAR	07/30/2013	04/17/2020	
100-100	CASINGS	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067036	0010013830	278667	TAR	03/31/2011	04/17/2020	
102-600	Support base	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067036		278667	TAR		04/17/2020	
350-120	Paint	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036		278667	TAR		04/17/2020	
100-500	Bearing case	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036		278667	POST-TAR		04/17/2020	
2275	1" Check Valve	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067036		278667	PRE-TAR		04/17/2020	
2004	RELAY, ELECTRICAL	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036	0010014920	278667	TAR	05/11/2016	04/17/2020	
400-400	Electronic	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036		278667	TAR		04/17/2020	
400-522	Adjustment nut	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067036		278667	TAR		04/17/2020	
400-432	Screw bolt	<div><div></div><div></div><div></div></div>	Warning: Total required greater than total stock	7067036	0010014154	278667	TAR	12/02/2018	04/17/2020	
102-600	Support base	<div><div></div><div></div><div></div></div>	Warning: Material is available, but not withdrawn	7067036		278667	TAR		04/17/2020	
350-120	Paint	<div><div></div><div></div><div></div></div>	Material not available to withdraw	7067036		278667	POST-TAR		04/17/2020	

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Rows: 218





Questions?



PROMETHEUS GROUP

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