

**STRATEGIC PETROLEUM RESERVE  
ENTERPRISE CHANGE PROPOSAL**



**ECP Header**

<b>ECP #:</b>	<input type="text" value="EC-2017-000067"/>	<b>Title:</b>	<input type="text" value="St. James 42in Smart Pig Modifications"/>		
<b>In Process Status:</b>	<input type="text" value="Open"/>	<b>Overall Status:</b>	<input type="text" value="APPROVED"/>	<b>Work Status:</b>	<input type="text" value="RRB Hold"/>
<b>Expiration</b>	<input type="text"/>				
<b>Initiator:</b>	<input type="text" value="Christopher Vedros"/>	<b>Created Date:</b>	<input type="text" value="Oct 4, 2017"/>	<b>Approver:</b>	<input type="text" value="Janet Robert"/>
<b>Approval Date:</b>	<input type="text" value="Oct 26, 2017"/>				
<b>Class of Change:</b>	<input type="text" value="Class I"/>	<b>Change Type:</b>	<input type="text" value="Engineering Change"/>	<b>Priority:</b>	<input type="text" value="Routine"/>
<b>ROM Estimate:</b>	<input type="text" value="1246000.00"/>				
<b>Basis for Change:</b>	<input type="text" value="To Fix"/>	<b>Change Ranking:</b>	<input type="text" value="2B - DD MUST OPERATE - DEFICI"/>		
<b>Key Impl Factors:</b>	<input type="text" value("&lt;180d"=""/>	<b>Risk:</b>	<input type="text" value="High"/>		
<b>PAN Numbers:</b>	<input type="text" value="SJ-M/O-4661;"/>				
<b>Sites:</b>	<input type="text" value="SJ-St. James;"/>				

(in USD)

**Description**

<b>Title:</b>	<input type="text" value="St. James 42in Smart Pig Modifications"/>
<b>Problem/Existing Configuration:</b>	Sugarland is a DOE facility that is leased by SPLC. The lease expires at EOY 2019. The lease restoration requirements include pressure testing Dock 1 42-inch Line to 150% of 150 PSIG, which is 225 PSIG. Due to internal corrosion concerns and prior LOPCs, a smart pig run on the underground portion of the line was selected prior to pressure testing, to validate asset integrity and identify any repairs prior to pressure testing. The line is currently laid in inhibited water. Additionally, there is currently a stuck cleaning pig in the line which will be removed by pushing with another pig.
<b>Proposed Solution:</b>	Install temporary pigging equipment per the attached schematic to run multiple pigs, including a 42" x 36" smart pig. The pig will be pushed by inhibited water from the firewater line via a new 20" x 12" tap. Water will be routed to the 6" stripper line and into an idled tank, where it will be conditioned by a CETCO unit prior to discharge to environment. All changes temporary except for added flange set on 42" by River Road, and added tap on 20" firewater line, also by River Road. - CETCO configuration not known at this time, to be designed per 5TG-008 - Temporary Piping. - All pig trap temporary piping to be designed to B31.4 with ANSI Class 150 flanges (MOP 285 PSIG). - Existing relief system on the firewater line limits pressure to 150 PSIG. Additionally, the 10,000 GPM P-3 Firewater pump deadhead pressure as measured on May 10, 2017 is 140 PSIG. = Minimum required smart pig velocity of 0.33 feet per second (FPS) equates to 1,375 gallons per minute (GPM) in 42" pipe. - 6" stripper line to tank velocity at 1,375 GPM = 17.8 FPS. - Setting 30 FPS as a temporary maximum velocity (taken from 5TG-002) during these activities equates to 2,325 GPM, which is 30 FPS in 6# pipe and 0.56 FPS in 42" pipe. - Tank scheduling plan will be needed, including desired tank level. NOTES: 1. The entire cost for this effort will be funded by Shell. 2. The only permanent change will be flanges left in the line after temporary pig launching equipment is removed.
<b>Driving Requirements &amp; Justification:</b>	Smart pig of the underground portion of Sugarland's Dock 1 42-inch Crude Pipeline will verify asset integrity and be used to determine repair locations prior to pressure testing to 225 PSIG.
<b>Risk:</b>	If this ECP is not implemented, the 42" Dock Line can not be inspected by smart pig, and cannot be returned to service.

**SAP Task Package List**

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Task Package #	Description	PAN #	SPR Task #	Resp. Engg.	Project Lead	Created By	Created On	Changed By	Changed On
TSK-800004866	St. James 42in Smart Pig	SJ-M/O-4661	SJ-M/O-4661	Lillian Wilson	Christopher Vedros	Marion Brown	Dec 20, 2017	Marion Brown	Dec 20, 2017

**Affected Configuration Items**

Ref. Doc. #	FLN #	ELN #	FLN Status	Site	Service	Equipment Area	Equipment Function

**TBL Documents**

Ref. Doc. #	SAP Task Package #	SRP Draw/Spec #	Category	Status	Created By	Created On	Changed By	Changed On

**Reference Documents**

Ref. Doc. #	Description	Task Package #	Status	Created By	Created On	Changed By	Changed On
MCD-900037160	PCCB Minutes for December 12, 2017		AT - Active	Marion Brown	Dec 13, 2017	Marion Brown	Dec 13, 2017

STRATEGIC PETROLEUM RESERVE  
**CONFIGURATION CHANGE AFFECTED REPORT**



"TO BE COMPLETED BY TECHNICAL REVIEW PROCESS, ENGINEERING AND CONFIGURATION MANAGEMENT ORGANIZATION DEFINED PROCESS"

ECP #:  REV.  Change Classification  Class I  Class II  FT

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