



U.S. DEPARTMENT OF ENERGY

STRATEGIC PETROLEUM RESERVE
PROJECT MANAGEMENT OFFICE
NEW ORLEANS, LOUISIANA

QUARTERLY PROGRAM REVIEW

1st QUARTER FY 2024

(10/1/23 thru 12/31/23)

FEBRUARY 21, 2024

QUARTERLY PROGRAM REVIEW

WEDNESDAY, FEBRUARY 21, 2024

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U.S. DEPARTMENT OF ENERGY
STRATEGIC PETROLEUM RESERVE

QUARTERLY PROGRAM REVIEW

WEST HACKBERRY, LOUISIANA
FEBRUARY 21, 2024

WEDNESDAY, FEBRUARY 21, 2024

DOE ONLY
2:45 p.m. - 3:45 p.m.

WEDNESDAY, FEBRUARY 21, 2024

DOE ONLY

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PROJECT MANAGER'S OPENING REMARKS

**PROGRAM OFFICE
HIGHLIGHTS**

SAFETY MOMENT

Who's In Your Krewe?

- Think about your Krewe - the people that make up your team, your group, your work unit, your division.
- Do you have who you need and what you need to fulfill the mission safely and successfully?
- Let's talk about Integrated Safety Management (ISM) in the context of your Krewe.
- There are 7 Guiding Principles. We will focus on the first four.
- They are awesome as is, but let's use plain language to transform them into a tool we can use to answer our ultimate question.

Who's In Your Krewe: ISM Guiding Principles

- 1. Line Management Responsibility for Safety:** Does our line manager/supervisor take responsibility for safety (on some level)? Do we ever hear them talk about it? Does safety ever come up when they're talking about their job or the Krewe's job? Do they ever go beyond talking and take actions that reflect those responsibilities?
- 2. Clear Roles and Responsibilities:** Do we (my Krewe members and I) know who's supposed to be doing what? Do we have it all covered? Have we checked to make sure there aren't any gaps? Do others inside and outside of our division know who does what? Is there something we can do to make sure that it's clear to others what we do?
- 3. Competence Commensurate with Responsibility:** Do I/we have all the knowledge, the training, and the resources to do our jobs well? If there's something I don't know or information I don't have, does someone else in my Krewe have it, or do I have the means to close that gap promptly? Do we know who to go to when the information or the resource we need is outside of our group? Are we incorporating the right people in the right things? Are we incorporating people from other divisions that have a stake in that responsibility or a piece of that pie? Are we communicating, collaborating, and sharing information that can help us successfully meet that responsibility?
- 4. Balanced Priorities:** Is everything that we're responsible for getting attention? Is the attention based on something solid, like risk or severity of hazards or impact to the mission? In your Krewe, how are the responsibilities balanced among team members? Is that balance working for you, for your Krewe, for the mission? Have resources been allocated effectively to address our priorities....safety, programmatic, and operational?

Who's In Your Krewe: Beyond ISM

- Outside of ISM, on a basic human level...

1. Do I like the people in my Krewe?

2. Do the people in my Krewe have integrity? Do I trust them to speak freely without filtering?

3. Can we accomplish our mission and our tasks without competing?

4. Can we share our work and ideas without feeling like we have to keep them close to the vest?

5. Do we make each other better?

6. Do we elevate each other's ideas and accomplishments?

7. Do we celebrate each other's wins and take on losses as a team?

U.S. DEPARTMENT OF
ENERGY

Office of
Cybersecurity, Energy Security,
and Emergency Response



Life Extension 2

February 21, 2024

Life Extension 2

Federal Project Director

- Accomplishments
- Project Status
- Outage Schedule and Progress
- Project Look-Ahead
- Subproject Total Project Cost (TPC) and CD-4 Dates Post-Baseline Change Proposal (BCP) Approval
- External Independent Review (EIR) Major Findings and Status
- Earned Value Management System Surveillance Review
- LE2 Contracting Plan/Quilt
- LE2 Construction Flash Report
- LE2 Obligation and Cost
- LE2 Estimate-at-Completion Reconciliation
- LE2 Obligations and Cost
- Management Reserve and Contingency Summary
- LE2 Descoped Work Packages

Life Extension 2

Federal Project Director

- Micro-seismic Wells
- Bryan Mound Site
- Big Hill Site
- Bayou Choctaw Site

U.S. DEPARTMENT OF
ENERGY

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Cybersecurity, Energy Security,
and Emergency Response



Life Extension 2 Federal Project Director

February 21, 2024

Accomplishments

- Completed Milestones:

Description	Level	Baseline	Actual Finish	Variance (days)
BC-LE-1759 GC Complete Helical Pile Installation	3	10/31/2023	9/19/2023	42
BH-LE-1735K Final SSIC Pack and Ship	3	11/17/2023	10/17/2023	31

- External Independent Review to Rebaseline BM, BH, and BC via Baseline Change Proposal-01
 - Completed (May-September 2023)
 - Seven Major Findings; one reduced to a finding; all 6 closed
 - 14 Findings 6 closed; 8 remain open
 - Corrective Actions for 25 Negative Observations in progress
 - Project Management Risk Committee Date on October 31, 2023, received endorsement from PM
 - Energy System Acquisition Advisory Board on November 29, 2023, received approval of new Performance Measurement Baseline from the Under Secretary of Department of Energy, David Turk
 - The signed Root Cause Analysis for the SPR Life Extension Phase 2 Project Exceeding Critical Decision 2/3 Approved Cost and Schedule Parameters has uploaded to max.gov on December 18, 2023.

Accomplishments

- FPDs continue to work on/submit higher-level certification packages with applications pending for PMCDP FPD Level 2 for [REDACTED] and [REDACTED]
- FPDs have achieved a minimum of 80 Continuous Learning Points to maintain current FPD certification levels.
- [REDACTED], Site Federal Project Director for the Bryan Mound subproject has attained his Federal Acquisition Certificate-Contracting Officer Representative (FAC-COR) Level 1 on December 8, 2023.
- [REDACTED], Acting Federal Project Director, completed FCR 400, Advanced Contracting Officer's Representative training on December 6, 2023.
- [REDACTED] Acting Federal Project Director and [REDACTED], Deputy Federal Project Director received their FAI FAC-COR Level 2 certifications on January 29, 2024.

Project Status

- Critical Decision (CD-3), Approve Start of Construction, execution in progress at all sites
 - General Contracts (GC) at BM and BC, outage in progress
 - FFPO has requested 44-day extensions to the Level 2 milestones for both BM and BC outage windows due to excessive heat (BM and BC) and underground obstructions (BC).
 - March 1, 2024, is the baseline date
 - Bryan Mound Tank job:
 - Brine Tank, BMT-1 coating repair: Bids are in review, expected award by March 2, 2024
 - Crude Oil Tank, BMT-4 final tank work activities are in progress
 - Bryan Mound Levee Crossing: Successful work package near completion
 - Big Hill: Physical Protection Upgrades: Slop Oil Tank and Raw Water Settling Pond in progress
 - Big Hill General Contractor; working on 6 out of 16 Construction Work Areas independent of outage
 - Subcontractor Recovery Plans for BC General Contract, BM General Contract, and BH Physical Security are in place.

Outage Schedule/Progress



Bayou Choctaw (01/15/24)

Planned Outage Progress = 97.7%;
Actual Progress = 84.3%. Variance from plan: **-13.4%**

Construction productivity was limited for several months due to extreme heat and subsequent mitigations. Additionally, unknown underground interference led to schedule delays.

To meet the Outage completion date, the subcontractor has initiated a 12 days on, 2 days off work schedule and worked a night welding shift from October-December. In January, welders returned to days and electrical work went to two shifts (Day/Night) to perform a large volume of cable pulls for two weeks.

Current plan:
All work will be performed on Day Shift.

With the recovery plan in place, FFPO should complete the Outage window by April 29, 2024.

Bryan Mound (01/15/24)

Planned Outage Progress = 99.8%;
Actual Progress = 74.0%. Variance from plan: **-25.8%**

Construction productivity was limited for several months due to extreme heat and subsequent mitigations. Additionally Welding efficiency and subcontractor provided material delays have hampered progress. Additionally, unknown underground interference has necessitated the need for significantly more excavation and extended schedule Durations.

1. Current Plan is to extend the outage window out thru September 30, 2024; complete additional subsystems in the current outage.
2. Complete System 23 with a different construction subcontractor; move System 31 into the outage window which was originally scheduled out of the window will now be executed at end of BM outage window.

Project Look-Ahead

- Level 1 Baseline Change Proposal-01
 - Resolve 8 Findings by March 1, 2024
 - Address 25 Negative Observations
 - Implement new Performance Management Baseline (January 2024)
- Earned Value Management System (EVMS) Environmental Assessment (EA)
 - Kick-off December 5, 2023
 - EA Interviews the week of January 29, 2024

Baseline Change Proposal Cost and CD-4 Date Change Summary

Site	Previous TPC	Delta (CD-2/3 and BCP-01)	Scope Change	TPC BCP-01
Big Hill (BH)	\$457M	+ \$213M	No change	\$607M
Bryan Mound (BM)	\$315M	+ \$33M	Remove Physical Protection (\$27M)	\$348M
Bayou Choctaw (BC)	\$355M	+ \$14M	Remove Physical Protection and Degas Plant Fabrication (\$43M)	\$369M

Site	Previous Baseline CD-4	BCP-01 CD-4
Big Hill (BH)	February 2025	January 2027
Bryan Mound (BM)	May 2025	October 2025
Bayou Choctaw (BC)	February 2025	March 2025

2023 External Independent Review (EIR) Findings

Finding Number	Description	Status	Details
F 1.1	Deferred Scope basis and process was not documented	Scope Deferral decision basis description was included in the Project Execution Plan (PEP)	Closed
F 1.2	DOE contracting understaffed	Justification for additional FTEs has been submitted to Oak Ridge	Oak Ridge reviewing justification
F 1.3	SPR LE2 Communications Plan update	Updated, with DOE FPD for final review	Pending
F 1.4 (MF 1.3)	Hire FPD	Job posting closed; reviewing certificates; RFP to hire PM consultant in progress	
F 2.1	The P6 schedule Integrated Master Schedule (IMS) failed health metrics	Acumen Fuse is used to perform schedule health analysis as well as training for FFPO Project Controls	Closed
F 2.2	Risk Mitigation activities are not being identified in the P6 IMS	FFPO developed a process to update the risk activities in the IMS and trained the Project Controls team and is executing the plan	Open

2023 External Independent Review (EIR) Findings

Finding Number	Description	Status	Details
F 2.3	All Schedule Margin (SM) duration is not directly linked to the schedule risk analysis performed and documented in the risk registers	FFPO defined the process to establish and document the use of SM and conduct training to manage the program	Closed
F 2.4	P6 IMS dates for subcontractor integration did not align between the P6 IMS and the subcontractor Schedule of Values	FFPO defined the process to perform integration of subcontractor SOV and conduct focus training	Open
F 2.5	FFPO BC Scheduler vacancy	FFPO hired 2 individuals for this position, and both left the project; vacancy remains open	Closed
F 3.1	GC Underground Piping installation is occurring substantially slower than expected at BM	FFPO to adequately represent the risk at BM and BH since it is the same GC	Open

2023 External Independent Review (EIR) Findings

Finding Number	Description	Status	Details
F 3.2	Level I, II, III Technical, Performance, and Design Criteria documents are in draft and not approved	FFPO is working to finalize	Remains open until Design Criteria is signed off
F 4.1	Big Hill Material handling and storage procedures and monitoring was deficient	FFPO executed and completed a contract to restack the HDPE piping	Closed
F 5.1	Systems to calculate Planned Value, Earned Value, Actual Cost were misaligned	Over Target Budget/Over Target Schedule will not be utilized; Level 1 BCP approval allows re-baseline of PMB	March 1, 2024 completion
F 5.2	FFPO did not complete the Comprehensive Estimate at Completion (CEAC) of LE2 Project	CEAC was completed September 30, 2023	Closed

2023 Earned Value Management System Surveillance Review

- Earned Value Management Surveillance by PM-30, Office of Project Controls, began on September 5 through October 6, 2023; out-brief on October 26, 2023.
 - Seven Corrective Action Requests
 - One Discrepancy Report
 - Corrective actions are forecasted to be resolved by March 2024

2023 Earned Value Management System Surveillance Corrective Action Requests (October 2023)

No	Process Area	Description
1	A) Organizing	Lack of Integration between the cost and schedule systems
2	C) Budgeting and Work Authorization	Overall Performance Management Baseline lacks realism
3	D) Accounting Consideration	Actual Cost Work Performed not aligned with how performance was taken for the work
4	F) Analysis and Management Reporting	FFPO is not following its process for analysis and management reporting
5	G) Change Control	Budget Logs and Baseline Change documentation do not include the necessary approvals and information for effective control
6	H) Material Management *	Big Hill subproject has one incomplete work package with two activities identified as High Dollar Value
7	I) Subcontract Management	The Work Breakdown Structure (WBS) for each subproject at the Control Account Level do not specifically identify subcontract work scope beyond general references in the WBS Dictionary
8	J) Risk Management	Risk Integration issues across the three SPR LE2 subprojects

* Discrepancy Report – does not require a Corrective Action Request

LE2 Contracting Plan/Quilt

Big Hill

Task	Current Qtr. Oct. - Dec. 23	Previous Qtr. Jul. - Sep. 23
Potable Water Contractor	-	Complete
Wedge Gate Barriers Installation	-	Complete
Road Contractor	-	Complete
Lyd. Improvement / Material Handling / Temp. Pwr. Parking / Pipe Offloading	-	Complete
CSSC Install	-	Complete
HDPE Pipe - Long Term Storage*	-	Complete
Nederland Terminal / Valve Actuators Replacement	In Progress	In Progress
General Contractor	In Progress	In Progress
Physical Protection Installation Contractor	In Progress	In Progress
Slop Oil Tank	In Progress	In Progress
Pigging Settling Pond	In Progress	In Progress
Security Syste, Integration Contractor (SSIC)	In Progress	In Progress
Hillebrandt CO Pipeline Replacement	To be Awarded	To be Awarded
Distribution System & Pipeline Upgrades	To be Awarded	To be Awarded
Offsite Pipeline General Contractor	To be Awarded	To be Awarded

Bryan Mound

Task	Current Qtr. Oct. - Dec. 23	Previous Qtr. Jul. - Sep. 23
Early Works Contractor	-	Complete
Entry Portal Works Contractor	-	Complete
General Contractor	In Progress	In Progress
Tank Contractor	In Progress	In Progress
Levee Crossing Contractor	In Progress	In Progress
Security Syste, Integration Contractor (SSIC)	In Progress	In Progress
Drilling Contractor	To be Awarded (in Consent)	To be Awarded

Bayou Choctaw

Task	Current Qtr. Oct. - Dec. 23	Previous Qtr. Jul. - Sep. 23
Early Works Contractor	-	Complete
Barrier Installation Contractor	-	Complete
Blast Resistant Buildings Install	-	Complete
Bridge Contractor	-	Complete
East / West Bridge Access Work	-	Complete
InSAR Installation	-	Complete
Security Syste, Integration Contractor (SSIC)	In Progress	In Progress
CSSC Install	In Progress	In Progress
General Contractor	In Progress	In Progress
DCS / SIS	In Progress	In Progress
Roads Maintenance*	In Progress	In Progress
BRB Removal (at end of LE2)*	Awarded	Awarded
Drilling Contractor	To be Awarded (in Consent)	To be Awarded

Drilling Contractor for BC and BM was awarded on January 31, 2024

West Hackberry

Task	Current Qtr. Oct. - Dec. 23	Previous Qtr. Jul. - Sep. 23
Site Prep Contractor	-	Complete
Wedge Gate Barriers Installation	-	Complete

Legend

Green: Awarded
Blue: To Be Awarded
Red: Complete

LE2 Construction Flash Report as of January 14, 2024

Work Package	Planned Value	Actual Value	Variance	Mechanical Complete Date (Forecast/Actual)	End of Period of Performance
BC-LE-1759, General Contractor*	98.82%	85.07%	-13.75%	April 15, 2024	April 29, 2024
BC-LE-1723B, Contractor Security Screening Checkpoint	100%	97.86%	-2.14%	February 9, 2024	March 31, 2024
BH-LE-1767 - General Contractor	27.46%	17.17%	-10.29%	March 25, 2025	August 1, 2025
BH-LE-1735 - Big Hill Security Installation*	78.22%	56.97%	-21.25%	September 6, 2024	September 17, 2024
BM-LE-1706C - RW Intake P/L Levee Crossing	99.50%	99.90%	0.40%	January 31, 2024	April 30, 2024
BM-LE-1768 - General Contractor*	89.30%	62.60%	-26.70%	February 20, 2025	March 27, 2025
BM-LE-1779 - Tank Contractor	100.00%	97.75%	-2.25%	May 14, 2024	May 21, 2024

*Recovery plans are in place for BC-LE-1759, General Contractor; BH-LE-1735, Big Hill Security Installation, and BM-LE-1768, General Contractor

LE2 Obligations and Cost

Work Breakdown	Obligations (\$000)	Actual Costs through FY24-1 st qtr. (\$000)
Design (Title I and II)	\$114,512	\$86,424
Bryan Mound *	\$193,055	\$162,398
West Hackberry	\$128,262	\$33,997
Bayou Choctaw *	\$254,353	\$188,188
Big Hill *	\$279,579	\$155,232
FFPO General (LOE)	\$147,429	\$145,884
FFPO Fee	\$36,198	\$32,381
DOE	\$13,892	\$13,565
Vali Cooper International	\$10,181	\$9,918
Infinity (DOE Support Services Contractor)	\$4,230	\$4,229
Chenega (DOE Support Services Contractor)	\$1,844	\$1,825
US Army Corps of Engineers (BH Land Acquisition)	\$4,043	\$145
Management Reserve	\$38,470	**\$0
DOE Contingency	\$96,511	**\$0
Subtotal	\$1,322,560	\$834,186
Budget	\$1,421,024	\$1,421,024
Total Remaining/Uncosted	\$98,464	\$586,838

*Title III Engineering are included in the subproject obligations/costs

**Actual costs are not charged to undefined scopes. MR and Contingency represents undefined known unknowns and uncertainties not defined scopes

December 31, 2023

LE2 Estimate at Completion Reconciliation

Estimate at Completion Reconciliation (\$M)	Bryan Mound	Bayou Choctaw	Big Hill	West Hackberry	LE 2 Total
Current Approved FFPO Budget At Complete (BAC)	\$293	\$308	\$510	\$97	\$1,208
Subtotal Pending BCPs	\$0	\$0	\$0	\$0	\$0
Subtotal Forecast Change Documents (FCDs)	\$15	\$2	\$24	\$0	\$41
<i>Undocumented Variance (Net underrun)</i>	<i>(\$6)</i>	\$2	\$3	<i>(\$10)</i>	<i>(\$11)</i>
Latest Estimate At Completion (Dec 23)	\$303	\$311	\$537	\$87	\$1,238
				<i>FFPO Fee</i>	\$45
				<i>DOE</i>	\$22
				<i>Vali Cooper International</i>	\$10
				<i>Infinity (DOE Support Services Contractor)</i>	\$4
				<i>Chenega (DOE Support Services Contractor)</i>	\$2
				<i>US Army Corps of Engineers (BH Land Acquisition)</i>	\$4
<i>Management Reserve Availability</i>	\$8	\$31	\$18	\$10	\$67
<i>Contingency Availability</i>	\$14	\$0	\$16	\$0	\$30
Total LE2 - Cost	\$324	\$342	\$571	\$97	\$1,421

December 31, 2023 data

Management Reserve and Contingency Summary

Management Reserve & Contingency Utilization (\$M)		Original Baseline CD-2/3 Approval	Approved BCPs	Pending Level 1 BCP	Forecast Changes Post Level 1 BCP	Available Amount
Bayou Choctaw	Management Reserve	\$35	(\$1)	\$0	(\$3)	\$31
	Contingency	\$15	(\$15)	\$0	\$0	\$0
Bryan Mound	Management Reserve	\$32	(\$14)	\$0	(\$10)	\$8
	Contingency	\$15	(\$1)	\$0	\$0	\$14
Big Hill	Management Reserve	\$36	\$9	\$0	(\$27)	\$18
	Contingency	\$13	\$3	\$0	\$0	\$16
West Hackberry	Management Reserve	N/A	N/A	N/A	\$10	\$10
	Contingency	N/A	N/A	N/A	\$0	\$0
Total LE2	Management Reserve	\$103	(\$6)	\$0	(\$30)	\$67
	Contingency	\$43	(\$13)	\$0	\$0	\$30

*\$10M underrun from West Hackberry to be distributed to the other three baselined subprojects or stays with WH for CD-2/3.

LE2 Descoped Work Packages

Work Package Number	Title	Description	Plan forward	Latest Estimate performed in FY24
BM-LE-1705	LE2 Physical Protection Lighting and Closed-Circuit Television System Upgrades at BM	Physical Protection Upgrades	Budget Request TBD	\$ 54,333,058
BC-LE-1723	LE2 Physical Protection Lighting and Closed-Circuit Television System Upgrades	Physical Protection Upgrades	Budget Request TBD	\$ 31,303,572
WH-LE-1715	LE2 Physical Protection Lighting and Closed-Circuit Television System Upgrades	Physical Protection Upgrades, includes Construction and Security Integrator	In FY 2024 Budget Request, pending OMB approval	\$ 59,760,175
WH-LE-1715B	WH-LE 2 CONTRACTOR SECURITY SCREENING CHECKPOINT	Installation of the Screening Check Point	Budget Request TBD	\$ 5,364,731
WH-LE-1770	LE 2 WH General Contract	9 work packages rolled into one GC package	Budget Request TBD	\$ 130,297,299
WH CD-3E	WH Long Lead Procurement	Long lead procurement to order the long lead materials for the LE2 WH General Contract and Physical Protection	Budget Request TBD	\$ 31,190,460
WH-LE-1707	WH Brine Disposal Well Drilling		Budget Request TBD	\$ 21,218,000
BC-LE-1726J	Degas Plant Fabrication	Degasification Plant	Budget Request TBD	\$ 51,475,429
BM-LE-1786	Degas Plant Installation	Degas 3 Plant Install	Budget Request TBD	\$ 36,233,360
BM-LE-1786A	LE2 BM Degas 3 Plant - Site Modifications	Degas Site Modifications at BM	Budget Request TBD	\$ 30,047,232
BM-LE-1786B	LE2 BM Degas 3 – General Contractor Support	Degas Site Prep	Budget Request TBD	\$ 959,838
BC-LE-1726L	LE2 Degas Operator Training Simulator (DOTS) Package Government Furnished Property	Degas Training Simulator	Budget Request TBD	\$ 1,579,769
Support	Support Cost of WH General Contractor and Brine Disposal Wells, BM Degas Plant and WH, BC and BM Physical Protection.	Includes Project Management, Environmental, Health and Safety, Quality Assurance, Procurement, Title III Engineering and Project Controls.	Budget Request TBD	\$ 49,013,580
Total Estimated Cost of the Descoped Tasks				\$ 502,776,503
			Management Reserve and Contingency 30%	\$ 150,832,951
Total Estimated Cost of the Descoped Tasks + MR & Contingency				\$ 653,609,454

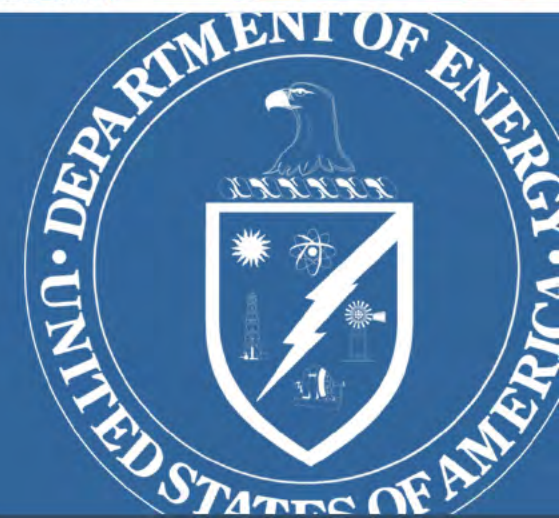


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Microseismic Wells

February 21, 2024



Microseismic Wells

Agenda:

- Project Scope and Cost
- Project Status
- Contracting Quilts

Project Scope/Cost

- Total Project Cost (TPC) \$19,805,052

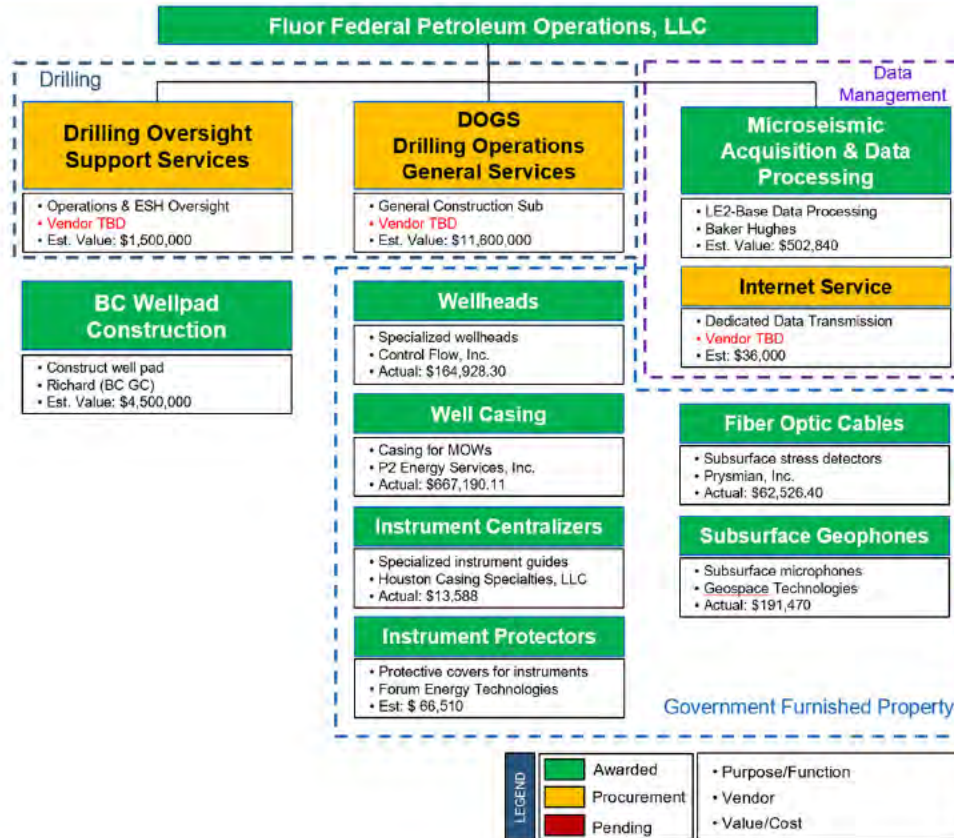
<ul style="list-style-type: none"> ◆ Drilling (DOGS + Oversight) <ul style="list-style-type: none"> – \$13,100,000 ◆ Construction (BC Pad) <ul style="list-style-type: none"> – \$4,500,000 ◆ Govt Furnished Property <ul style="list-style-type: none"> – \$1,166,212 ◆ Data Management <ul style="list-style-type: none"> – \$538,840 <p>TOTAL: \$19,805,052</p>
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Scope
<ul style="list-style-type: none"> ◆ 2 Wells in LE2 Drilling Program <ul style="list-style-type: none"> – 2 Microseismic Observation Wells (MOW) at BM and BC – Deferred 2 WH Brine Disposal Wells ◆ Construction <ul style="list-style-type: none"> – BC Wellpad Construction by BC GC – BM site prep by DOGS ◆ Drilling <ul style="list-style-type: none"> – DOGS: well drilling & completion – Oversight: 24/7 on-site reports to FFPO ◆ Government Furnished Property <ul style="list-style-type: none"> – Well construction materials – Specialized instrumentation and equipment ◆ Data Management <ul style="list-style-type: none"> – Processing: data processing, analysis, reporting and alarms – Internet Service: Data Systems sub for dedicated data transmission – Costs transfer to Base after calibration and testing; LE2 costs shown next slide

MOW Project Status

- Update project schedules and costs for EVMS and CMCRs after DOGS subcontract award. Coordinate drilling schedule with BM and BC construction schedules and Site Operations.
- Complete drilling procurements so field execution can start early CY 2024. BC well first, BM second.
- Consent package submitted to DOE on 30-NOV-23 (with CMCR milestone). DOE comments and questions.
- Procure Drilling Oversight Support Services subcontract in parallel with DOGS
- Complete Internet Services subcontract procurements.
- Awarded Microseismic Data Acquisition and Processing subcontract. Planning integration discussions underway.

MOW Contracting Quilts



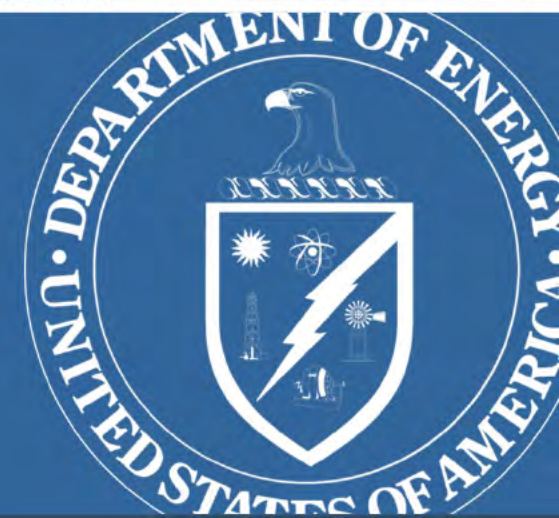


U.S. DEPARTMENT OF
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Bryan Mound Site

February 21, 2024



Bryan Mound Site

Agenda:

- Project Summary
- Project Scope
- Construction Schedule (next 36 months)
- Construction Milestones
- Detailed Progress Reports
- 90-Day Look-Ahead Schedule
- Budget
- Variance Explanation
- Construction Management Oversight

Bryan Mound Project Summary

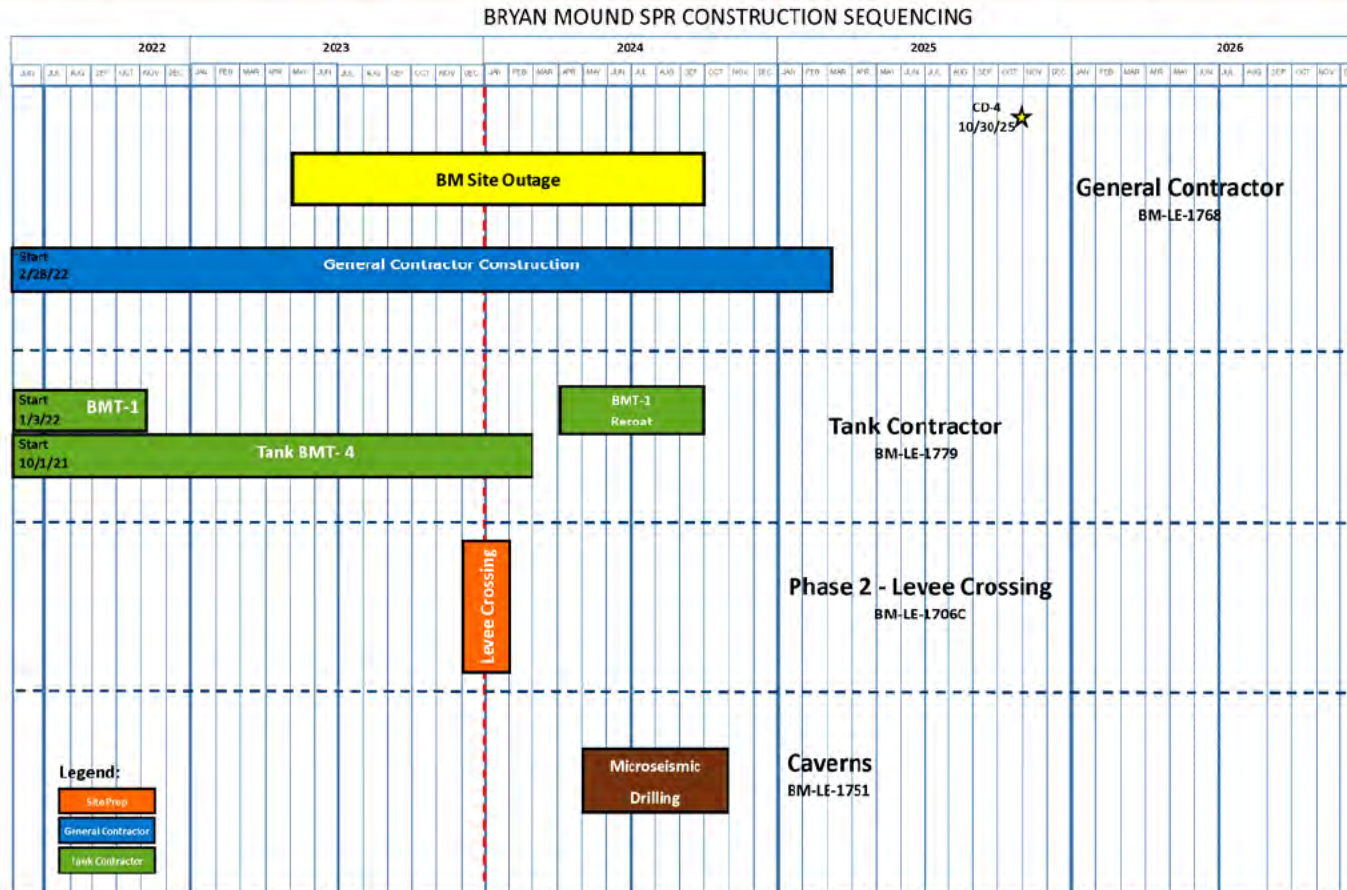
- Total Project Cost (TPC) \$348M per BCP-01
- CD-4 Completion Date: October 2025, per BCP-01
- Major Scope: Replace Actuators on Meter Skid, Refurbish Brine and Crude Oil Tanks, Brine, Crude Oil, Firewater and Raw Water System Piping Upgrades
- Key Performance Parameters (KPPs):
 - 1- Raw Water Withdrawal Rate: 1,545 MBD
 - 2 - Sustained Drawdown Rate: 1,500 MBD
 - 3 - Site Fill Rate: 225 MBD

Bryan Mound Project Scope

General Contractor	Tank Contractor	RWIS Pipeline Levee Crossing Package
<ul style="list-style-type: none"> - Crude Oil System Upgrades - Replace Actuators on Meter Skid Valves - Replace Below Grade Fire Water Header - Raw Water System Upgrades and RWIS Fire Water Pumps - IN PROCESS 	<ul style="list-style-type: none"> - Brine System Upgrades - Refurbish Brine Tank BMT-1 - Replace Crude Oil Tank BMT-4 - IN PROCESS 	<ul style="list-style-type: none"> - Replace the Raw Water Intake 36" Pipeline - Levee Crossing with 42" Pipeline - Replace the Pig Launcher for the 42" Pipeline - IN PROCESS
Site Preparation / Early Works	Physical Protection*	
<ul style="list-style-type: none"> - Demolish Degas II Foundations - LE2 Site Preparation / Construction Laydown Area - COMPLETE 	<ul style="list-style-type: none"> - Replace Perimeter Detection System - Upgrade Outdoor Security Lighting - Replace Closed Circuit Television System - Removed From Scope via BCP-01 	

* Deferred Scope – Pending approval of Baseline Change Proposal (BCP)-01

Bryan Mound Construction Schedule



Bryan Mound Construction Milestones

Work Package	Work Package Name	Contract Award	Mobilization	Mechanical Completion	Turnover
A.02.80.01	BM-LE-1768, General Contractor	21-Dec-21 (A)	03-Jan-22 (A)	01-Mar-25 (F)	1-Jun-25 (F)
A.02.81.01	BM-LE-1779, BM Tank Contractor	24-Jun-21 (A)	07-Oct-21 (A)	30-Apr-24 (F)	19-Jul-24 (F)
A.04.97.01	BM-LE-1706, BM RWIS Levee Crossing	08-Mar-21 (A)	16-Jun-21 (A) 01-Apr-22 (A)	31-Jan-24 (F)	1-Apr-24 (F)
A.04.65.01	BM-LE-1751G, Microseismic Monitoring Well	1-Feb-24 (F)	TBD	TBD	TBD

A = Actual
F = Forecast

Bryan Mound Progress

BM-LE-1768, General Contractor (GC) Package

- GC Construction Contract awarded on December 21, 2021, and is 60% actual progress versus 85% planned as of December 3, 2023.
- Mobilization began in January 2022
 - Due to Presidentially-directed oil sales, the April 2022 - January 2023 scheduled shutdown window was impacted/delayed
 - The contractor continues performing rescheduled, non-shutdown related activities
 - The shutdown window started on May 1, 2023, and is milestone to complete on March 1, 2024
- Two 3,500 HP crude oil injection pumps, final piping, electrical and instrumentation remains
- Replaced all four raw water intake pump motors and discharged piping and valves
- Installation of the 42-inch raw water intake pipeline and associated fire water piping continues
- Site outage work areas are 70% actual progress versus 90% planned as of December 15, 2023 – outage work currently forecasted to be completed by September 30, 2024
- March 1, 2024; Level 2 milestone will be missed

Bryan Mound Progress

Site Outage Work Area



Bryan Mound Progress



BM-LE-1779, Tank Contractor Package

- Awarded June 24, 2021, and 98% actual progress versus 100% planned as of December 3, 2023.
- BMT-1 Brine Tank – Final Failure Analysis for the coating was completed and bids for re-coating are being solicited. The tank was turned over to Operations on November 14, 2022, for Cavern Maintenance.
- BMT-4 Crude Oil Tank – The hydrotest and final internal coating is complete.

Bryan Mound Progress

BM-LE-1706C, Raw Water Pipeline – Levee Crossing – 87% actual progress versus 88% planned as of December 3, 2023.

- Phase 1: Complete
- U.S. Army Corps of Engineers (USACE) 408 permits: Approved
- Phase II: Construction started, levee road was returned to service, and the scope is on schedule for mechanical completion on January 31, 2024.



LE2 Look-Ahead – Bryan Mound (1 of 2)

Activity ID	Activity Name	Remaining Duration	Start	Finish	2024			
					Jan	Feb	Mar	Apr
Bryan Mound								
Construction								
General Contractor								
Firewater Pumphouse								
BM-C-FW-1060	FW Pumps (Sys 25) - Test & Turnover FW Pumps	39	03-Nov-23 A	27-Feb-24				
RWIS Structural Repairs								
BM-C-RWIS-1140	RWIS Infra (Sys 25) - Test & Turnover of Flush Water/Sparging Sys piping, Strainers, etc	39	18-Dec-23 A	26-Feb-24				
Firewater Pumphouse								
BM-C-FW-1050	FW Pumps (Sys 25) - Install & Connect New (2) Re/urb (1) FW Pumps, Piping, Elec, I&C	39	04-Sep-23 A	26-Feb-24				
BM-C-FW-1070	FW Pumps (Sys 25) - Reconnect & Test Sprinkler Sys, Close Pads, Remove Scaffolding	13	09-Feb-24	27-Feb-24				
Crude Oil Injection System								
BM-C-COP-1050	COInj (Sys 21) - Perform Mechanical Equipment Function Test	11	04-Sep-23 A	17-Jan-24				
BM-C-COP-1120	COInj (Sys 21) - Test & Turnover System	107	05-Sep-23 A	31-May-24				
Transfer Pump Header								
BM-C-TPH-1010	Xfr Pump Header (Sys 23) - Excavate & Demo Piping / Install Plugs on existing transfer line	18	08-May-23 A	26-Jan-24				
BM-PN-TPH-1030	Field Pipe Fabrication - Transfer Pump Header (Sys 23) - Phase 2	24	05-Jan-24	08-Feb-24				
Crude Oil Launcher & Headers								
BM-PN-COH-1030	Field Pipe Fabrication - Crude Oil Header (Sys 32) - Phase 2	3	05-Sep-23 A	04-Jan-24				
BM-C-COH-6570	Crude Oil Headers (Sys 32) - COR-015 - SCN-102 - Addition of 3 Tons Steel	5	05-Sep-23 A	08-Jan-24				
BM-C-COH-1045	Crude Oil Headers (Sys 32) - MOV Change due to Vendor Data (BCP-22-103)	13	29-Dec-23 A	19-Jan-24				
BM-C-COH-1040	Crude Oil Headers (Sys 32) - Site Prep, Install Fdn for Platforms/MOVs, Backfill & Compact - North Area	21	02-Jun-23 A	31-Jan-24				
BM-C-COH-1080	Crude Oil Headers (Sys 32) - Backfill, Compact, & Civil Work	39	15-Nov-23 A	26-Feb-24				
BM-C-COH-1060	Crude Oil Headers (Sys 32) - Install Supports & Platforms	60	09-Nov-23 A	26-Mar-24				
BM-C-COH-1010	Crude Oil Headers (Sys 32) - Site Prep, Install Fdn for Platforms/MOVs, Backfill & Compact - South Area	64	03-Oct-23 A	01-Apr-24				
BM-C-COH-1070	Crude Oil Headers (Sys 32) - Install New Piping, Supports, Instruments & Touchup (A/G & U/G)	127	02-Oct-23 A	28-Jun-24				
BM-C-COH-1000	Crude Oil Headers (Sys 32) - LOTO / Hydroexcavate & Identify Demo/Decom & Plug Pipe	144	26-May-23 A	24-Jul-24				
Tank Headers								
BM-C-TH-1000	Tank Header (Sys 22) - LOTO / Demo / Decom / Plug Pipe	47	01-Mar-23 A	07-Mar-24				
BM-C-TH-1020	Tank Header (Sys 22) - Install New Valves & Instruments	46	22-Jan-24*	25-Mar-24				
BM-C-TH-1010	Tank Header (Sys 22) - Install New Pipe & Supports / NDE	87	02-Oct-23 A	02-May-24				
BM-C-TH-1030	Tank Header (Sys 22) - Backfill, Compact, & Civil Work	91	05-Sep-23 A	08-May-24				
BM-C-TH-1040	Tank Header (Sys 22) - Test & Turnover System	92	08-Nov-23 A	09-May-24				
RWIS 42" Pipeline								
BM-C-RWPL-1010	42" RW PL (Sys 24) - Excavate & Install New Line (E-W) - Jack & Bore	11	15-May-23 A	17-Jan-24				
BM-C-RWPL-1030	42" RW PL (Sys 24) - Install New RW Pig Receiver (CSA, Mech, Piping, IE)	41	01-Aug-22 A	28-Feb-24				
BM-C-RWPL-1040	42" RW PL (Sys 24) - Excavate & Install New Line - RW & Brine (E-W North of Tanks)	41	15-Aug-22 A	28-Feb-24				
BM-C-RWPL-1050	42" RW PL (Sys 24) - Backfill, Compact & Civil Work	78	21-Oct-22 A	19-Apr-24				
Raw Water Intake Valves								
BM-C-RW-1050	RWIS Moton (Sys 25) - Test & Turnover System	33	02-Oct-23 A	16-Feb-24				
Meter Skid Area								
BM-C-MET-1010	Meter Skid (Sys 20) - LOTO / Install Actuators	24	05-Sep-23 A	05-Feb-24				
BM-C-MET-1020	Meter Skid (Sys 20) - Test & Turnover System	10	23-Jan-24	05-Feb-24				
North Sour CO Header								
BM-PN-NC-1010	Field Pipe Fabrication - N Sour Covers - Phase 2	30	08-Jan-24*	19-Feb-24				
BM-C-NSH-1005	N Sour Header (Sys 28) - Demo / Decom / Plug Pipe	90	20-Feb-24	25-Jun-24				
BM-C-NSH-1000	N Sour Header (Sys 28) - LOTO	209	12-May-23 A	24-Oct-24				
North Sour Covers 6, 101-105 & 111								
BM-C-NC-1000	N Sour Cover 5 (Sys 3) - LOTO	128	03-Oct-23 A	01-Jul-24				

LE2 Look-Ahead – Bryan Mound (2 of 2)

Activity ID	Activity Name	Remaining Duration	Start	Finish	2	2024			
						Jan	Feb	Mar	Apr
BM-C.NC-1010	N Sour Cavern 5 (Sys 3) - Install New Piping, Valves, Structural, Fire Prot. & I/E	136	02-Oct-23 A	12-Jul-24					
West Sweet CO Header									
BM-PN.WC-1010	Field Pipe Fabrication - W Sweet Caverns - Phase 2	9	05-Sep-23 A	12-Jan-24					
BM-C.WSH-1010	W Sweet Header (Sys 31) - Install New CO Pipe & Valves	160	02-Oct-23 A	15-Aug-24					
BM-C.WSH-1005	W Sweet Header (Sys 31) - Demo / Decomm / Plug Pipe	191	05-Sep-23 A	30-Sep-24					
BM-C.WSH-1000	W Sweet Header (Sys 31) - LOTO	192	03-Oct-23 A	01-Oct-24					
West Sweet Caverns 114-116									
BM-C.WC-1030	W Sweet Cavern 115 (Sys 18) - Install New Piping, Valves, Structural, Fire Prot. & I/E	147	12-Oct-23 A	29-Jul-24					
South Sour CO Header									
BM-PN.SC-1000	Field Pipe Fabrication - S Sour Caverns - Phase 1	9	17-Apr-23 A	12-Jan-24					
BM-C.SSH-1005	S Sour Header (Sys 29) - Demo / Decomm / Plug Pipe	19	05-Jan-24*	01-Feb-24					
BM-C.SSH-0640	S Sour Header (Sys 29) - COR-007 - SCN-101 - Instrument Revisions	15	24-Jan-24*	13-Feb-24					
South Sour Caverns 1, 107-110 & 112									
BM-C.SC-1050	S Sour Cavern 108 (Sys 11) - Install New Piping, Valves, Structural, Fire Prot. & I/E	104	20-Oct-23 A	28-May-24					
BM-C.SC-1060	S Sour Cavern 109 (Sys 12) - LOTO	161	19-Jun-23 A	16-Aug-24					
BM-C.SC-1080	S Sour Cavern 110 (Sys 13) - LOTO	164	02-Oct-23 A	21-Aug-24					
BM-C.SC-1100	S Sour Cavern 112 (Sys 15) - LOTO	108	02-Oct-23 A	21-Aug-24					
East Sweet CO Header									
BM-C.ESH-1000	E Sweet Header (Sys 30) - LOTO	14	05-Sep-23 A	22-Jan-24					
BM-C.ESH-1010	E Sweet Header (Sys 30) - Install New CO Pipe & Valves	41	14-Aug-23 A	28-Feb-24					
BM-C.ESH-1005	E Sweet Header (Sys 30) - Demo / Decomm / Plug Pipe	47	14-Aug-23 A	07-Mar-24					
BM-C.ESH-1020	E Sweet Header (Sys 30) - Install New FW Pipe & Valves	30	01-Feb-24	13-Mar-24					
East Sweet Caverns									
BM-PN.EC-1000	Field Pipe Fabrication - E Sweet Caverns - Phase 1	2	20-Mar-23 A	03-Jan-24					
Tank Contractor									
BMT4		38	06-Nov-23 A	23-Feb-24					
BMT-T4-A2150	BM TC Install Mixers, Instruments, I&E Bulks	10	06-Nov-23 A	16-Jan-24					
BMT-T4-A2170	BM TC Remove Mats, Grading, Ring Wall Repair, Sidewalks, Final grade	19	21-Nov-23 A	29-Jan-24					
BMT-T4-A2180	BM TC BMT-4 Commissioning / Startup	8	22-Jan-24	31-Jan-24					
BMT-TC-A5000	BM TC Final Submittals	30	12-Jan-24	23-Feb-24					
Levee Crossing									
CBM-RW2-1080	Phase2 - 42" and FW Piping	7	01-Dec-23 A	10-Jan-24					
CBM-RW2-1090	Phase2 - E&I MV, Instrument & FO Wiring incl. Grounding	9	07-Dec-23 A	12-Jan-24					
CBM-RW2-1100	Phase2 - E&I Testing and Check-out	1	16-Jan-24	16-Jan-24					
CBM-RW2-1110	Phase2 - Service testing & NDE	1	17-Jan-24	17-Jan-24					
CBM-RW2-1120	Phase2 - Sloped Paving on Levee, Final Sitework & Barries	2	18-Jan-24	19-Jan-24					
CBM-RW2-1150	Phase2 - Final Submittals	32	30-Jan-24	13-Mar-24					

BM Subproject Budget

P6 WBS (CA)	CCTA Task Number	Work Package Name (CCTA)	Contract Status	Current Baseline	Award Value	Current Contract Value	EAC	Variance (Award-EAC)	Note
01.A.02.83	BM-LE-1764	BM Early Works - Laydown Area Preparation	Completed	\$ 2,575,000	\$ 2,558,501	\$ 2,596,207	\$ 2,596,207	\$ (37,706)	
01.A.02.83	BM-LE-1706C	Raw Water Intake Pipeline - Levee Crossing	Awarded	\$ 3,599,268	\$ 3,580,090	\$ 3,722,594	\$ 3,722,594	\$ (142,504)	
01.A.02.81	BM-LE-1779	BM Tanks Contract	Awarded	\$ 19,256,535	\$ 17,988,368	\$ 19,786,073	\$ 21,938,860	\$ (3,950,492)	EAC Includes BMT-1 Recoating, not currently included in contract price
01.A.02.80	BM-LE-1768	BM General Contract	Awarded	\$ 133,850,898	\$ 112,924,789	\$ 129,758,029	\$ 138,666,894	\$ (25,742,105)	EAC Includes incentive not currently included in contract price
01.A.02.65	BM-LE-1751D	Microseismic Observation Wells LE2 and Base	To Be Awarded	\$ 9,116,939	\$ -	\$ -	\$ 8,225,993	\$ (8,225,993)	
01.A.02.97	BM-LE-1760	New Entry Portal at Southwest Gate Construction	Completed	\$ 4,681,292	\$ 4,353,360	\$ 4,666,829	\$ 4,666,829	\$ (313,469)	
01.A.02.97	BM-LE-1705	Physical Protection, Lighting and CCTV System Upgrades	To Be Awarded	\$ -	\$ -	\$ -	\$ -	\$ -	Scope Deferred
01.A.02.97	BM-LE-1705K	Security Systems Integrator	Awarded	\$ 4,310,983	\$ 4,310,983	\$ 4,310,983	\$ 1,595,064	\$ 2,715,919	
01.A.02.97	BM-LE-1705P	LE 2 BM Security Equipment	Awarded	\$ 2,582,420	\$ 2,582,420	\$ 2,582,420	\$ 2,401,650	\$ 180,770	Omitted from currently approved baseline added in BCPs pending approval
		Other SubContracts					\$ 13,396,013		
		Total SubContracts					\$ 197,210,103		
		Government Furnished Property (GFP)					\$ 26,109,263		
		FFPO Support (Labor, ODC & OH)					\$ 79,503,818		
		Estimate At Completion (EAC) FFPO					\$ 302,823,184		
		Other Project Costs (Fee, Doe ODC, etc.)					\$ 24,000,000		
		Total Project Cost					\$ 348,000,000		
		Variance (Current TPC - EAC - Other Project Costs)					\$ 21,176,816		

Variance Explanation

BM-LE-1768, General Contractor (GC) Package - \$16.6M

- The primary driver is the Presidentially Directed Drawdowns
- The secondary driver is the material compliance and production inefficiencies

BM-LE-1779, Tank Contractor Package - \$1.8M

- The primary driver is the additional oily sludge/sediment removal, lead abatement and recleaning/inspection of BMT-1 and BMT-4

DOE Construction Management (CM) Oversight

Bryan Mound CM Routine Surveillance Reports 1st Quarter FY 2024

Date	Number	Title
2-Oct-23	<u>RSR-2024-1</u>	BM-LE-1768, Bryan Mound General Contract Observations: Outage System Piping Installation, Updated Outage Tracker
2-Oct-23	<u>RSR-2024-2</u>	BM-LE-1779, Bryan Mound Tanks Contract Observations: BMT-1 To Return to Service Uncoated, BMT-4 Hydro-testing

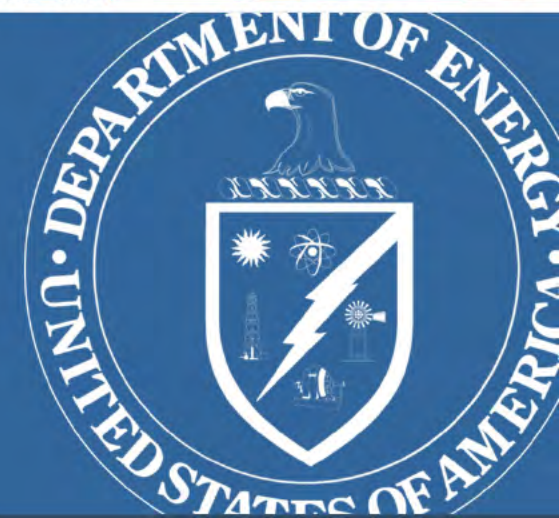


U.S. DEPARTMENT OF
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Big Hill Site

February 21, 2024



Big Hill Site

Agenda:

- Project Summary
- Project Scope
- Construction Schedule (next 36 months)
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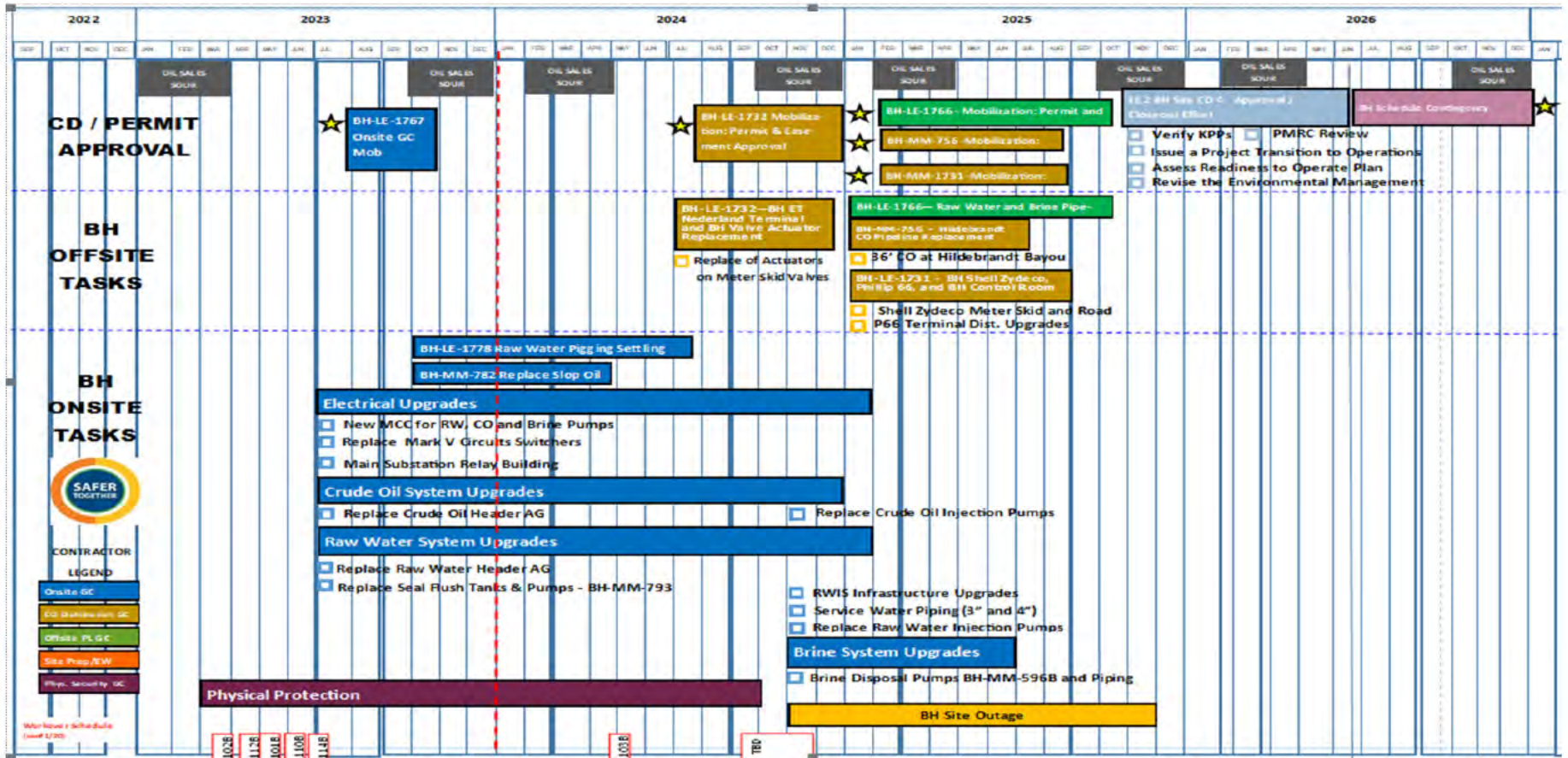
Big Hill Project Summary

- Total Project Cost (TPC): \$607M per BCP-01
- CD-4 Completion Date: January 2027, per BCP-01
- Major Scope: Distribution System and Pipeline Upgrades, Replace Actuators on Meter Skid Valves at Nederland Terminal and Big Hill Site, Raw Water Pipeline Replacement, Replace Onshore Section of Brine Disposal, Brine, Crude Oil, Electrical, and Raw Water System Upgrades
- Key Performance Parameters (KPPs):
 - 1- Raw Water Withdrawal Rate: 1,133 MBD
 - 2 - Sustained Drawdown Rate: 1,100 MBD
 - 3 - Site Fill Rate: 225 MBD

Big Hill Project Scope

<p>Onsite General Contractor</p> <ul style="list-style-type: none"> - Brine System Upgrades - Raw Water System Upgrades - Crude Oil System Upgrades - Electrical System Upgrades - Temporary Contractor Parking, GFP Laydown, and Construction Management Field Support Areas <p>- IN PROCESS</p>	<p>Raw Water Pigging Settling Pond Contractor</p> <ul style="list-style-type: none"> - Construction of new Raw Water Pigging Settling Pond Adjacent to Crude Oil Recover Pone No. 37. - The New Settling pond lined pond within the same footprint of the existing Anhydrite - The pond will have a subsurface leak detection system, including a new sump system <p>- IN PROCESS</p>	<p>Replace Slop Oil Tank and Pumps Contractor</p> <ul style="list-style-type: none"> - Demolishing existing Tank BHT-2, Tank BHT-6, Pump BHP-51, Pump BHP-52, (Next to the Brine Disposal Pump Pad Area) - Installing a new nominal above ground 10,000-gallon fiberglass oil tank (BHT-102), new above and underground piping, new horizontal oil pump (BHP 219), New Tank Level Switch, and associated foundations with containment west of existing Tank BHT-7 <p>- IN PROCESS</p>
<p>General Contractor Parking Area Improvement Contractor</p>	<p>Contractor Screening Checkpoints Contractor</p>	<p>Onsite Laydown Area, Material Handling, Temporary Power Switch Rack Contractor</p>
<p>- COMPLETE</p>	<p>- COMPLETE</p>	<p>- COMPLETE</p>
<p>BH Shell Zydeco, Phillip 66, and BH Control Room Contractor</p> <ul style="list-style-type: none"> - Crude Oil Distribution System Upgrades <p>- TO BE AWARDED</p>	<p>BH ET Nederland Terminal and BH Valve Actuator Replacement Contractor</p> <ul style="list-style-type: none"> - Replace Actuators on Meter Skid/Prover Valves at Sun Terminal and Big Hill Site <p>- IN PROCESS</p>	<p>BH Hillebrandt Crude Oil Pipeline Replacement Contractor</p> <ul style="list-style-type: none"> - Hillebrandt Bayou – 36" CO Pipeline Section Replacement <p>- TO BE AWARDED</p>
<p>Offsite Pipeline General Contractor</p>		
<ul style="list-style-type: none"> - Replace Raw Water Pipeline - Replace Onshore Section of Brine Disposal <p>- TO BE AWARDED</p>		
<p>Early Works</p>	<p>Physical Protection</p>	
<ul style="list-style-type: none"> - Upgrades to Wilbur Road <p>- COMPLETE</p>	<ul style="list-style-type: none"> - Replace Perimeter Security Detection System (PSDS). - Upgrade Outdoor Security Lighting. - Replace Physical Security Closed Circuit Television (CCTV) Assessment System <p>- IN PROCESS</p>	

Big Hill Project Schedule



Big Hill Construction Milestones

Work Package	Work Package Name	Contract Award	Limited NTP	Full NTP	Mobilization	Mechanical Completion	Turnover
A.08.80.01	BH-LE-1767 - BH Onsite General Contractor Package	17-Jan-23 (A)	20-Feb-23 (A)	11-Jul-23 (A)	31-Jul-23 (A)	24-Jun-25 (F)	28-Jul-25 (F)
A.08.80.01	BH-MM-782- Replace Slop Oil Tank & Pumps Construction	07-Jun-23 (A)	07-Jun-23 (A)	12-Sep-23 (A)	25-Oct-23 (A)	06-Mar-24 (F)	13-Mar-24 (F)
A.08.80.01	BH-LE-1778 - Raw Water Pigging Settling Pond Construction	06-Jul-23 (A)	06-Jul-23 (A)	13-Sep-23 (A)	30-Oct-23 (A)	06-May-24 (F)	06-Jun-24 (F)
A.08.82.02	BH-LE-1732- BH ET Nederland Terminal & BH Valve Actuator Replacement	23-Dec-22 (A)	2-Feb-23 (A)	05-Jul-24 (F)	12-Jul-24 (F)	29-Nov-24 (F)	04-Dec-24 (F)
A.08.97.01	LE2 Physical Protection, Lighting & CCTV System Upgrades Contractor	07-Nov-22 (A)	07-Nov-22 (A)	13-Mar-23 (A)	13-Mar-23 (A)	20-Sep-24 (F)	17-Oct-24 (F)

A = Actual
F = Forecast

Big Hill Project Progress

BH-LE-1767 – Onsite General Contractor

- Completed the construction of the field plant and material laydown areas.
- Started foundation and duct bank work in Construction Work Area (CWA) 18, Raw Water & Crude Oil Load Center Building 846, CWA 16 Seal Flush System, and in CWA 15, the new Relay Building 853 in the substation area.
- Welding, excavation, and installation of the piping at the CWA 13, Cavern Distribution Piping, is ongoing.
- The earned value for this contract is currently 14% complete versus 20% planned as of 11-Dec-23.



Bldg. 846 & Seal Oil Fdtns

CO & RW Hdr Installation, CDP

Column Fdtn Form, Bldg. 853

Big Hill Project Progress

BH-LE-1778 – Raw Water Pigging Settling Pond

- Dewatering and demolition of the existing Pond 9 is ongoing.
- The earned value for this contract is currently 12% complete versus 27% planned as of 11-Dec-23.
 - Rains have impacted demolition and construction efforts



Dewater and Demolition

Big Hill Project Progress

BH-MM-782 – Replace Slop Oil Tank and Pumps

- Excavation for duct banks and foundations have been completed.
- Currently forming pump and tank pedestals.
- The earned value for this contract is currently 41% complete versus 53% planned as of 11-Dec-23.
 - The subcontractor is behind schedule due to late submission of tank drawings and weather.



Big Hill Project Progress

BH-LE-1735 – Physical Protection, Lighting, and CCTV System Upgrades

- Continue excavation, duct bank, conduit installation, fence construction, and lighting
- Continue installing field equipment on the new H-frame racks
- Started installation of intrusion detection system on fencing and new camera poles
- The earned value for this contract is currently 52% complete versus 71% planned as of 11-Dec-23



November 29, 2023
BH-LE-1735 – Fence fabric installed along the West end of the North perimeter (CWA-80)



November 29, 2023
BH-LE-1735 – Completed fence posts and apron along North perimeter CWA-80



November 29, 2023
BH-LE-1735 – New fence posts and apron forms along East perimeter CWA-81

Big Hill Project Progress

BH-LE-1732 – Energy Transfer Partners (ETP) – Nederland Terminal and BH Actuator Replacement

- Full Notice to Proceed (FNTP): 05-Jul-24 (F)
- Mobilization Forecast: 12-Jul-24 (F)
 - Mobilization is being delayed due to ongoing fill operations
- Evaluating Sequencing Options to integrate latest Construction with Operations CO Movement and Readiness Model for BH and WH
- Work will begin at the Big Hill Site and continue at Nederland Terminal in 2024



Big Hill Project Progress

BH-MM-756 – Replace Crude Oil Pipeline at Hillebrandt Bayou

- U.S. Army Corps of Engineers (USACE) started surveying efforts to assist in DOE land acquisition needs.

BH-LE-1766 – Offsite Pipeline Contractor

- All GFP (\$16 million) has been received and is in storage at the Big Hill Site.
- Continue to meet with USACE Galveston District and USACE Fort Worth District to discuss land and permitting needs.
- USACE started surveying efforts to assist in DOE land acquisition needs.

BH-LE-1731 – Distribution System and Pipeline Upgrades

- Factory Acceptance Test for Crude Meter Prover at Shell Zydeco (BH-SP-1307A) completed on 18-May-23.
- USACE started surveying efforts to assist in DOE land acquisition needs.

Big Hill 90-Day Look-Ahead Schedule

Activity ID	Activity Name	Remaining Duration	Start	Finish	2	2024				
						Jan	Feb	Mar	Apr	
Big Hill					386.00	01-Jun-21 A	08-Jul-25			
GC Procurement					22.00	02-Jan-24	01-Feb-24			
PBH-GC-9670	BH-LE-1767P - DBB Ball Valves MOVs - ETA Date	0.00		02-Jan-24						
PBH-GC-2290	BH-LE-1767D - Standard Piping Valves - ETA Date	0.00		29-Jan-24*						
PBH-GC-9640	BH-LE-1767L - Butterfly Valves On/Off MOVs - ETA Date	0.00		01-Feb-24						
General Contractor					386.00	07-Aug-23 A	08-Jul-25			
BHC-OS-26580	BH-LE-1767 - General Mob/Demob	4.00	04-Sep-23 A	05-Jan-24						
BHC-OS-00645	BH-LE-1767 - OS Survey & Probe - Onsite GC Contractor	16.00	07-Aug-23 A	24-Jan-24						
BHC-OS-27170	BH-LE-1767 - General Submittals	20.00	04-Sep-23 A	30-Jan-24						
PBH-GC-1480	BH-LE-1767D - Mod No. 4 - Above Ground Coating - Standard Piping Valves	4.00	23-Feb-24*	28-Feb-24						
BHC-OS-26370	BH-LE-1767 - Detailed Design (Drawing Issue)	53.00	25-Jan-24	08-Apr-24						
BHC-OS-27160	BH-LE-1767 - Equipment Procurement	144.00	04-Sep-23 A	24-Jul-24						
BHC-OS-25100	BH-LE-1767 - Bulk Procurement	160.00	04-Sep-23 A	15-Aug-24						
BHC-OS-27520	BH-LE-1767 - Proratables	359.00	06-Nov-23 A	29-May-25						
BHC-OS-27530	BH-LE-1767 - Operators / Riggers	359.00	06-Nov-23 A	29-May-25						
BHC-OS-26820	BH-LE-1767 - Sub Contracts	386.00	09-Oct-23 A	08-Jul-25						
CWA 13 - Cavern Distribution Piping					311.00	17-Oct-23 A	21-Mar-25			
BHC-OS-13520	BH CWA 13 - Painting & Coating Construction	213.00	19-Oct-23 A	30-Oct-24						
BHC-OS-13530	BH CWA 13 - Sitework Construction	302.00	17-Oct-23 A	10-Mar-25						
BHC-OS-13510	BH CWA 13 - Piping Construction	311.00	19-Oct-23 A	21-Mar-25						
CWA 14 - RWIS Upgrades					220.00	08-Jan-24*	14-Nov-24			
BHC-OS-14510	BH CWA 14 - Mechanical Construction	220.00	08-Jan-24*	14-Nov-24						
BHC-OS-14520	BH CWA 14 - General Construction	239.00	06-Feb-24*	13-Jan-25						
CWA 15 - Substation Upgrades					15.00	09-Oct-23 A	23-Jan-24			
BHC-OS-15520	BH CWA 15 - Pre-Outage Sitework Construction	12.00	09-Oct-23 A	18-Jan-24						
BHC-OS-15530	BH CWA 15 - Pre-Outage Electrical Construction	15.00	09-Oct-23 A	23-Jan-24						
CWA 16 - Seal Flush System					291.00	09-Oct-23 A	21-Feb-25			
BHC-OS-16550	BH CWA 16 - Pre-Outage Site Refurbishment/ Improvement Construction	3.00	08-Jan-24*	10-Jan-24						
BHC-OS-16501	BH CWA 16 - Pre-Outage Civil Construction	128.00	10-Oct-23 A	01-Jul-24						
BHC-OS-16530	BH CWA 16 - Pre-Outage Demolition Construction	150.00	09-Oct-23 A	01-Aug-24						
BHC-OS-16510	BH CWA 16 - Electrical Construction	291.00	16-Oct-23 A	21-Feb-25						
CWA 20 - 4 Valve Manifold/ Heat Exchanger Area					384.00	13-Oct-23 A	12-Mar-25			
BHC-OS-20530	BH CWA 20 - Pre-Outage Piling Construction	28.00	02-Jan-24*	09-Feb-24						
BHC-OS-20510	BH CWA 20 - Civil Construction	152.00	13-Oct-23 A	05-Aug-24						
BHC-OS-20520	BH CWA 20 - Electrical Construction	304.00	17-Oct-23 A	12-Mar-25						
CWA 23 - RW & Service Water Piping					10.00	13-Nov-23 A	16-Jan-24			
BHC-OS-23510	BH CWA 23 - Civil Construction	10.00	13-Nov-23 A	16-Jan-24						
Offsite Pipeline GC					70.00	01-Jun-21 A	18-Apr-24			
CBH-ROV-385	Regulatory Agency USA/CE Land Action Temp ROW (SVT)	70.00	01-Jun-21 A	18-Apr-24						
Crude Oil Distribution GC					77.00	01-Sep-22 A	18-Apr-24			
PBH-CO-9480	BH-SP-1407A - Meter / Prover Skid / Control Valves / Flow Elements - ETA Date	0.00		22-Feb-24						
PBH-GC-9750	BH-LE-1731A - Modular Building (Shell-Zydeco - Building #948) - ETA Date	0.00		26-Feb-24						
PBH-CO-9725	BH-LE-1732 - ET Nederland Terminal, BH Valve Actuator Replacement Long Lead Items Procurement by GC	63.00	27-Feb-23 A	29-Mar-24						
CBH-ROV-400	DOE LandAction Temp ROW (SVT)	70.00	01-Sep-22 A	18-Apr-24						
Physical Protection Construction					182.00	21-Mar-23 A	17-Sep-24			
CWA 14 - Raw Water Intake Structure					145.00	11-Apr-23 A	25-Jul-24			
BHC-CA-14-1350	BH - CWA14 - Concrete Work	46.00	09-Jan-24*	13-Mar-24						
BHC-CA-14-1340	BH - CWA14 - Site Work	133.00	11-Apr-23 A	09-Jul-24						
BHC-CA-14-1360	BH - CWA14 - Electrical Work	145.00	08-Sep-23 A	25-Jul-24						
CWA 15 - Electrical Substation					66.00	11-Apr-23 A	03-Apr-24			
BHC-CA-15-1430	BH - CWA15 - Electrical Work	40.00	07-Sep-23 A	27-Feb-24						
BHC-CA-15-1410	BH - CWA15 - Site Work	44.00	11-Apr-23 A	04-Mar-24						
BHC-CA-15-1420	BH - CWA15 - Concrete Work	61.00	09-Jan-24*	03-Apr-24						

Big Hill 90-Day Look-Ahead Schedule

Activity ID	Activity Name	Remaining Duration	Start	Finish	2	2024				
						Jan	Feb	Mar	Apr	
CWA 80 - North Perimeter Fence										
BHC-CA-80-1-1215	BH - CWA80-1- Electrical Work	9.00	24-Apr-23 A	12-Jan-24						
BHC-CA-80-1-1220	BH - CWA80-1- Finish Milestone	0.00		12-Jan-24						
BHC-CA-80-1170	BH - CWA80- Electrical Work	151.00	22-Mar-23 A	02-Aug-24						
BHC-CA-80-1180	BH - CWA80- Control System	167.00	09-Jan-24*	03-Sep-24						
BHC-CA-80-1150	BH - CWA80- Site Work	182.00	21-Mar-23 A	17-Sep-24						
CWA 81 - East Perimeter Fence										
BHC-CA-81-1320	BH - CWA81- Steel Work	2.00	09-Jan-24*	10-Jan-24						
BHC-CA-81-1325	BH - CWA81- Site Work	87.00	11-Apr-23 A	02-May-24						
BHC-CA-81-1315	BH - CWA81- Concrete Work	100.00	15-May-23 A	21-May-24						
BHC-CA-81-1335	BH - CWA81- Electrical Work	171.00	16-May-23 A	30-Aug-24						
BHC-CA-81-1330	BH - CWA81- Control System	175.00	09-Jan-24*	13-Sep-24						
CWA 82 - South Perimeter Fence										
BHC-CA-82-1320	BH - CWA82- Concrete Work	14.00	28-Apr-23 A	22-Jan-24						
BHC-CA-82-1328	BH - CWA82- Control System	161.00	09-Jan-24*	23-Aug-24						
BHC-CA-82-1325	BH - CWA82- Electrical Work	171.00	26-Apr-23 A	30-Aug-24						
BHC-CA-82-1340	BH - CWA82- Site Work	182.00	11-Apr-23 A	17-Sep-24						
CWA 83 - West Perimeter Fence										
BHC-CA-83-1320	BH - CWA83- Site Work	55.00	27-Mar-23 A	19-Mar-24						
BHC-CA-83-1290	BH - CWA83- Control System	151.00	04-Dec-23 A	02-Aug-24						
BHC-CA-83-1280	BH - CWA83- Electrical Work	175.00	28-Mar-23 A	06-Sep-24						
CWA 86 - High Pressure Pump Pad (HPPP)										
BHC-CA-86-1500	BH - CWA86- Electrical Work	145.00	11-Sep-23 A	25-Jul-24						
BHC-CA-86-1480	BH - CWA86- Site Work	171.00	11-Apr-23 A	30-Aug-24						
CWA 90 - CAS / SOC Building 815										
BHC-CA-90-1580	BH - CWA90- Control System	9.00	04-Dec-23 A	12-Jan-24						
BHC-CA-90-1570	BH - CWA90- Electrical Work	21.00	02-Oct-23 A	31-Jan-24						
PTZ Cameras										
BHC-CA-PTZ-1200	BH - PTZ - Electrical Work	177.00	05-Sep-23 A	10-Sep-24						
BHC-CA-PTZ-1210	BH - PTZ - Control System	172.00	09-Jan-24*	10-Sep-24						
Title III										
BHP-T3-1320	Big Hill - Title III - (BH-LE-1735R)	143.00	26-May-23 A	23-Jul-24						

Big Hill Subproject Budget

P6 WBS (CA)	CA Descr.	CCTA Task Number	Work Package Name (CCTA)	Contract Status	Current Baseline	Award Value	Current Contract Value	EAC	Variance (Award-EAC)
01.A.08.80	BH Onsite General Contractor Package	BH-LE-1767U	General Contractor Parking Area Improvement Contractor	Completed	\$ 428,989	\$ 545,253	\$ 571,851	\$ 571,851	\$ (26,598)
01.A.08.80	BH Onsite General Contractor Package	BH-LE-1767W	Contractor Screening Checkpoints Contractor	Completed	\$ -	\$ 1,087,079	\$ 1,161,565	\$ 1,161,565	\$ (74,486)
01.A.08.80	BH Onsite General Contractor Package	BH-LE-1767V	Onsite Laydown Area Improvement / Material Offloading	Completed	\$ -	\$ 773,120	\$ 1,324,998	\$ 1,324,998	\$ (551,878)
01.A.08.85	Early Works	BH-LE-1774	Upgrades to Wilbur Road and RWIS Road	Completed	\$ 4,070,225	\$ 3,659,855	\$ 3,829,790	\$ 4,070,225	\$ (410,370)
01.A.08.97	BH Physical Protection	BH-LE-1735D	LE2 Security Entry Barrier - Install	Completed	\$ 650,280	\$ 383,987	\$ 649,657	\$ 650,280	\$ (266,293)
01.A.08.80	BH Onsite General Contractor Package	BH-LE-1767	Onsite General Contractor	Awarded	\$ 112,912,647	\$ 189,603,795	\$ 190,587,150	\$ 190,587,150	\$ (983,355)
01.A.08.80	BH Onsite General Contractor Package	BH-LE-1778	Raw Water Pigging Settling Pond	Awarded	\$ -	\$ 4,566,974	\$ 4,566,974	\$ 4,566,974	\$ -
01.A.08.80	BH Onsite General Contractor Package	BH-MM-782	Replace Slop Oil Tank and Pumps Contractor	Awarded	\$ -	\$ 1,692,959	\$ 1,692,959	\$ 1,692,959	\$ -
01.A.08.82	Crude Oil Distribution General Contractor	BH-LE-1732	Replace Actuators on Meter Skid (BH Site and Sun Terminal) Contractor	Awarded	\$ -	\$ 3,369,324	\$ 3,587,276	\$ 3,587,276	\$ (217,952)
01.A.08.97	BH Physical Protection	BH-LE-1735	Physical Protection, Lighting & CCTV System Upgrades Contractor	Awarded	\$ 32,627,379	\$ 37,107,110	\$ 37,107,110	\$ 38,428,035	\$ (1,320,925)
01.A.08.97	BH Physical Protection	BH-LE-1735K	LE2 Security Systems Integrator	Awarded	\$ 1,835,612	\$ 4,842,135	\$ 4,842,135	\$ 4,842,135	\$ -
01.A.02.82	Crude Oil Distribution General Contractor	BH-LE-1731	Distribution System and Pipeline Upgrades	To be Awarded	\$ 17,071,742	N/A	N/A	\$ 20,201,064	\$ -
01.A.08.82	Crude Oil Distribution General Contractor	BH-MM-756	Replace Section Of 36-Inch Co Pipeline at Hillebrandt Bayou	To be Awarded	\$ 10,341,654	N/A	N/A	\$ 13,031,784	\$ -
01.A.08.81	Offsite Pipeline General Contractor	BH-LE-1766	Offsite Pipeline General Contractor	To be Awarded	\$ 33,547,128	N/A	N/A	\$ 52,430,225	\$ -
			Other Subcontracts					\$ 22,767,307	
			Total Subcontracts					\$ 359,341,976	
			Government Furnished Property (GFP)					\$ 64,601,111	
			FFPO Support (Labor, ODC & OH)					\$ 114,369,446	
			Estimate At Completion (EAC) FFPO					\$ 538,312,533	
			Other Project Costs (Fee, DoE ODC, etc.)					\$ 36,000,000	
			Total Project Cost					\$ 607,000,000	
			Variance (Current TPC - EAC - Other Project Costs)					\$ 32,687,467	

Big Hill Variance Explanation

BH-LE-1767U, General Contractor Parking Area Improvement - \$26,598

- Area drainage improvements

BH-LE-1767W, Contractor Screening Checkpoint - \$74,486

- Unknown subsurface conditions at bus parking area and duct bank conflict at main gate
- Additional scope to add infrastructure at Gate 3 to accommodate oversized loads

BH-LE-1767V, Onsite Laydown Area Improvement/Material Offloading - \$551,878

- Additional scope to offload 36" and 48" carbon steel pipe – 694 joints

BH-LE-1774, Upgrades to Wilbur Road - \$410,370

- Unknown sub-base failures at Wilbur Road curves

BH-LE-1735D, LE2 Security Barrier Install - \$266,293

- Design changes to incorporate the installation of GFP

BH-LE-1767, Onsite General Contractor - \$983,355

- SCN to align several GFP items with installation drawings

BH-LE-1732, Replace Actuators on Meter Skid - \$217,952

- Transport and offload meter skid

BH-LE-1735, Physical Protection, Lighting, and CCTV System Upgrades - \$1,320,925

- Differences in the material take-off quantities and actuals

DOE Construction Management (CM) Oversight

Big Hill CM Completed 5 Routine Surveillance Reports 1st Quarter FY 2024

Date	Number	Title
12-Oct-23	<u>RSR-2024-3</u>	BH-LE-1766C, HDPE Pipes Restack Final Punchlist Verification
18-Oct-23	<u>RSR-2024-4</u>	BH-LE-1767, Onsite General Contractor Quality Assurance Compliance on Welding Operations
12-Dec-23	<u>RSR-2024-23</u>	BH-LE-1735, PPICC QA Compliance for Welding Operations for Saddle Caps and Fence Posts on Soldier Piles
21-Nov-23	<u>RSR-2024-22</u>	BH-MM-782, Replace Slop Oil Tank and Pumps, Unscheduled Safety Inspection to confirm Contractor's compliance with Contract ES&H Regulations and Requirements

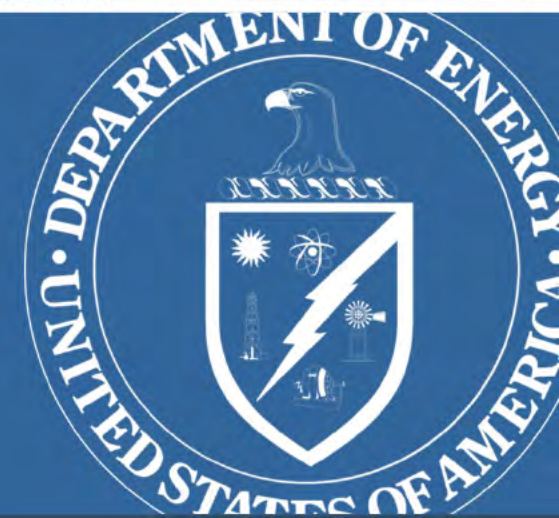


U.S. DEPARTMENT OF
ENERGY

Office of
Cybersecurity, Energy Security,
and Emergency Response

Bayou Choctaw Site

February 21, 2024



Bayou Choctaw

Agenda:

- Project Summary
- Project Scope
- Construction Schedule
- Construction Milestones
- Detailed Progress Reports
- 90-day Look-Ahead Schedule
- Construction Budget
- Variance Explanations
- Construction Management Oversight

Bayou Choctaw Project Summary

- Total Project Cost (TPC): \$369M*
- CD-4 Completion Date: March 2025*
- Major Scope:
 - Crude Oil System Upgrades
 - Raw Water System Upgrades
 - Brine System Upgrades
 - Civil Upgrades (Timber Replacement)
 - Electrical Upgrades
 - Replace Firewater Pumps and Building
 - Civil Upgrades (Bridges)
- Key Performance Parameters (KPPs):
 - 1 - Sustained Drawdown Rate: 515 MBD (Sour); 300 MBD (Sweet)
 - 2 - Design Fill Rate: 110 MBD

* Per DOE letter Exec 2023-00662, 12/1/2023, [REDACTED], "Approval of BCP-01 for SPR-LE2 Subprojects"

Bayou Choctaw Work Scope

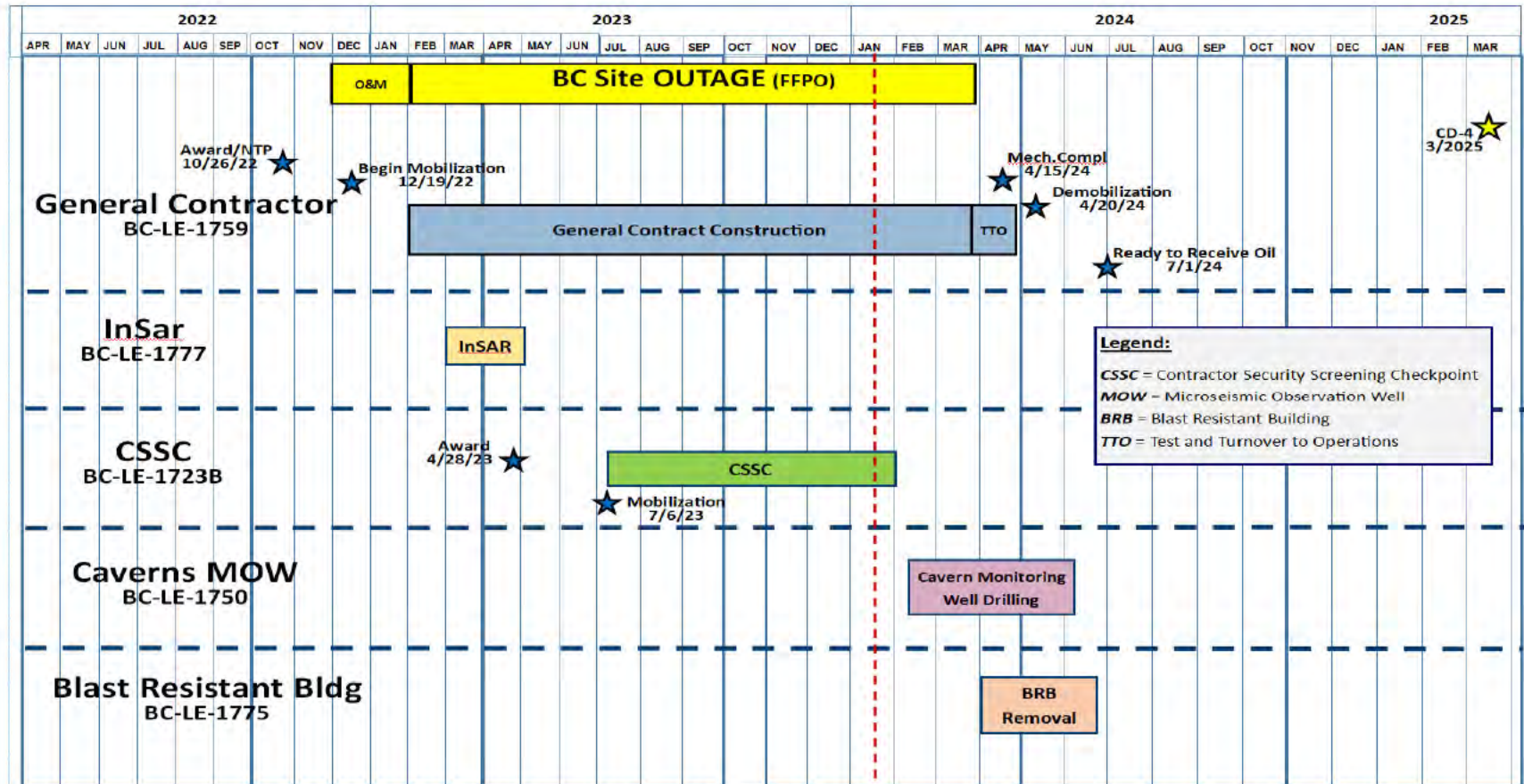
General Contractor		Bridges Contractor		Degas Offsite*	
<ul style="list-style-type: none"> - Crude Oil System Upgrades - Raw Water System Upgrades - Brine System Upgrades - Civil Upgrades (Timber Replacement) - Electrical Upgrades - Replace Firewater Pumps and Building <p>- IN PROCESS</p>		<ul style="list-style-type: none"> - Civil Upgrades (Bridges) <p>- COMPLETE</p>		<ul style="list-style-type: none"> - Degas Module Fabrication <p>- REMOVED</p>	

Degas DOTs*	Degas Distributed Control Systems (DCS)	Degas True Vapor Pressure Analyzer	Degas Flare & Incinerator (GFP)
<ul style="list-style-type: none"> - Degas Operator Training Simulator <p>- REMOVED</p>	<ul style="list-style-type: none"> - Degas DCS Programming <p>- IN PROCESS</p>	<ul style="list-style-type: none"> - Degas TVP-2020 <p>- IN PROCESS</p>	<ul style="list-style-type: none"> - Flare and Incinerator Fabrication <p>- IN PROCESS</p>

Contractor Screening Security Checkpoint (CSSC)	InSAR Piles and Reflectors	Site Preparation/Early Works	Blast Resistant Building Rentals Installation
<ul style="list-style-type: none"> - Install CSSC <p>- IN PROCESS</p>	<ul style="list-style-type: none"> -Install InSAR Reflectors <p>- COMPLETE</p>	<ul style="list-style-type: none"> -LE2 Site Preparation <p>- COMPLETE</p>	<ul style="list-style-type: none"> -Install BRB <p>-COMPLETE</p>
			<ul style="list-style-type: none"> -Removal BRB Subject to end of LE2

* Removed Scope per DOE letter Exec 2023-00662, 12/1/2023, [REDACTED], Approval of BCP-01 for SPR-LE2 Subprojects

Bayou Choctaw – Construction Schedule



Bayou Choctaw – Construction Milestones

Work Package	Work Package Name	Contract Award	NTP	Mobilization	Mechanical Completion	Turnover
A.04.80.01	BC-LE-1759 General Contractor	26-Oct-22 (A)	1-Nov-22 (A)	19-Dec-22 (A)	15-Apr-24 (F)	29-Apr-24 (F)
A.04.80.01	BC-LE-1777 InSar Subsidence Monitoring	28-Dec-22 (A)	18-Jan-23 (A)	2-Mar-23 (A)	31-May-23 (A)	31-May-23 (A)
A.04.97.01	BC-LE-1723B Contractor Security Screening Checkpoint	28-Apr-23 (A)	28-Apr-23 (A)	6-Jul-23 (A)	5-Feb-24 (F)	15-Feb-24 (F)
A.04.65.P5	BC-LE-1750A MOW-2 Microseismic Observation Well	1-Feb-24 (F)	TBD	TBD	TBD	TBD

BC-LE-1723B – Contractor Security Screening Checkpoint

- Contractor installing camera pole, security equipment, fencing, and gate
- Mechanical completion, February 5, 2024
- Site Acceptance Systems Testing, February 9, 2024
- Turnover, February 15, 2024



BC-LE-1759 – General Construction

- Contractor mobilization December 19, 2022, only for test pile installation
- Original Outage period February 1, 2023 – February 28, 2024
 - Proposed extension of outage period to April 30, 2024
- Completed demolition work
- Completed helical pile installation
- Continue night shift work for pipe installation to enhance schedule recovery
- Shop fabrication of structural steel and process pipe on-going
- GFP transfer in progress
- Installing structural steel pipe racks
- Test and turnover planning is in progress
- Original Level 2 milestone - March 1, 2024
 - Proposed extension to May 1, 2024, due to excessive heat and helical pile obstructions in 2023
- 82% complete vs 95% planned as of December 31, 2023

BC-LE-1759 – General Construction



Grout installation at BCP-603 at HPPP



Pipe and valve installation at N/S Piperack

BC-LE-1759 – General Construction



Reinstalled pipe headers for Raw Water Injection Pump (3)



Installing of ductbank and steel at BDW#2

Bayou Choctaw 90-Day Look-Ahead Schedule

LE2		90 Day Lookahead			Run Date: 18-Jan-24 Data Date: 31-Dec-23					
Activity ID	Activity Name	Remaining Duration	Start	Finish	2023	2024	Jan	Feb	Mar	Apr
Bayou Choctaw										
Construction										
Site Outage										
MCC-MS-0061	Bayou Choctaw Site Outage (SVT)	63d	01-Feb-23A	29-Mar-24						
CWA 1 - RWIS										
BCC-GC-38538	BC CWA 01 Structural Steel	18d	02-May-23A	26-Jan-24						
BCC-GC-38543	BC CWA 01 Install AG Piping	18d	04-Sep-23A	26-Jan-24						
BCC-GC-38573	BC CWA 01 Electrical	37d	08-Nov-23A	22-Feb-24						
BCC-GC-38548	BC CWA 01 Install UG Piping	27d	12-Dec-23A	08-Feb-24						
CWA 3 - Header from RWIS										
BCC-GC-38723	BC CWA 03 Structural Steel	2d	11-May-23A	03-Jan-24						
BCC-GC-38678	BC CWA 03 Install AG Piping	9d	13-Jul-23A	12-Jan-24						
BCC-GC-38753	BC CWA 03 Electrical	38d	26-Oct-23A	23-Feb-24						
BCC-GC-38728	BC CWA 03 Install UG Piping	22d	13-Dec-23A	01-Feb-24						
CWA 2 - MCC-E Building										
BCC-GC-38653	BC CWA 02 Electrical	4d	08-Jan-24	11-Jan-24						
CWA 11 - Cavern 17										
BCC-GC-38828	BC CWA 11 AG Piping	9d	30-Aug-23A	12-Jan-24						
CWA 12 - Cavern 15										
BCC-GC-38838	BC CWA 12 Install AG Piping	9d	31-Jul-23A	12-Jan-24						
CWA 14 - EW Bridge										
BCC-GC-39798	BC CWA 14 Structural Steel	2d	03-May-23A	03-Jan-24						
BCC-GC-39793	BC CWA 14 Civil Site Work	2d	22-Oct-23A	03-Jan-24						
CWA 15 - Cavern 102										
BCC-GC-40008	BC CWA 15 Install AG Piping	5d	05-Sep-23A	08-Jan-24						
CWA 16 - Degass										
BCC-GC-42240	BC CWA 16 Install UG Piping	26d	12-Dec-23A	07-Feb-24						
CWA 18 - N/S Pipe Rack										
BCC-GC-38378	BC CWA 18 Civil Site Work	4d	10-Jul-23A	05-Jan-24						
BCC-GC-38404	BC CWA 18 Install AG Piping	9d	13-Jul-23A	12-Jan-24						
BCC-GC-38408	BC CWA 18 Install UG Piping	28d	09-Aug-23A	09-Feb-24						
CWA 19 - EW Pipe Rack										
BCC-GC-40208	BC CWA 19 Install AG Piping	7d	13-Jul-23A	10-Jan-24						
BCC-GC-40253	BC CWA 19 Install UG Piping	24d	09-Aug-23A	05-Feb-24						
CWA 20 - Brine Reservoir										
BCC-GC-40668	BC CWA 20 Civil Site Work	4d	05-Mar-23A	05-Jan-24						
BCC-GC-40673	BC CWA 20 Civil Concrete	21d	11-Apr-23A	31-Jan-24						
BCC-GC-40663	BC CWA 20 Install AG Piping	27d	06-Sep-23A	08-Feb-24						
CWA 22 - Control Building & Emergency Generator										
BCC-GC-41198	BC CWA 22 Structural Steel	4d	11-May-23A	05-Jan-24						
BCC-GC-40728	BC CWA 22 Civil Site Work	3d	12-Jun-23A	04-Jan-24						
BCC-GC-40743	BC CWA 22 Electrical	36d	14-Sep-23A	21-Feb-24						
BCC-GC-40758	BC CWA 22 Emergency Generator Cabinet	23d	08-Jan-24	08-Feb-24						
CWA 23 - HPPP										
BCC-GC-41263	BC CWA 23 Structural Steel	14d	12-May-23A	22-Jan-24						
BCC-GC-41288	BC CWA 23 Install AG Piping	20d	02-Aug-23A	30-Jan-24						

Bayou Choctaw 90-Day Look-Ahead Schedule

Activity ID	Activity Name	Remaining Duration	Start	Finish	2024			
					Jan	Feb	Mar	Apr
BCC-GC-41328	BC CWA 23 Electrical	47d	16-Aug-23A	07-Mar-24	BC CWA 23 Electrical			
BCC-GC-41608	BC CWA 23 Control Systems	28d	11-Dec-23A	23-Feb-24	BC CWA 23 Control Systems			
BCC-GC-41393	BC CWA 23 Install UG Piping	23d	13-Dec-23A	02-Feb-24	BC CWA 23 Install UG Piping			
BCC-GC-41603	BC CWA 23 Deluge	37d	08-Jan-24	28-Feb-24	BC CWA 23 Deluge			
CWA 24 - Demo RW Pipe		4d	02-Oct-23A	06-Jan-24				
BCC-GC-41708	BC CWA 24 Install AG Piping	4d	02-Oct-23A	06-Jan-24	BC CWA 24 Install AG Piping			
CWA 25 - Cavern 18		15d	09-May-23A	23-Jan-24				
BCC-GC-41633	BC CWA 25 Structural Steel	1d	09-May-23A	02-Jan-24	BC CWA 25 Structural Steel			
BCC-GC-41543	BC CWA 25 Install AG Piping	15d	16-Aug-23A	23-Jan-24	BC CWA 25 Install AG Piping			
CWA 26 - Fuel Storage Tank & Dike		15d	21-Sep-23A	23-Jan-24				
BCC-GC-41133	BC CWA 26 Install AG Piping	9d	21-Sep-23A	12-Jan-24	BC CWA 26 Install AG Piping			
BCC-GC-41113	BC CWA 26 BCT - 200 - Diesel Fuel Tank	15d	11-Dec-23A	23-Jan-24	BC CWA 26 BCT - 200 - Diesel Fuel Tank			
BCC-GC-41103	BC CWA 26 Civil Concrete	5d	16-Jan-24	22-Jan-24	BC CWA 26 Civil Concrete			
CWA 29 - Cavern 101		9d	08-Sep-23A	12-Jan-24				
BCC-GC-41418	BC CWA 29 Install AG Piping	9d	08-Sep-23A	12-Jan-24	BC CWA 29 Install AG Piping			
CWA 31 - Warehouse		27d	11-Jul-23A	08-Feb-24				
BCC-GC-40583	BC CWA 31 Structural Steel	27d	11-Jul-23A	08-Feb-24	BC CWA 31 Structural Steel			
BCC-GC-41429	BC CWA 29 Install UG Piping	8d	13-Dec-23A	11-Jan-24	BC CWA 29 Install UG Piping			
BCC-GC-40563	BC CWA 31 Civil Concrete	16d	09-Jan-24	31-Jan-24	BC CWA 31 Civil Concrete			
BCC-GC-40623	BC CWA 31 Electrical	5d	22-Jan-24	29-Jan-24	BC CWA 31 Electrical			
CWA 32 - Cavern 19		9d	08-Sep-23A	12-Jan-24				
BCC-GC-40413	BC CWA 32 Install AG Piping	9d	08-Sep-23A	12-Jan-24	BC CWA 32 Install AG Piping			
BCC-GC-40373	BC CWA 32 Civil Site Work	3d	22-Oct-23A	04-Jan-24	BC CWA 32 Civil Site Work			
CWA 34 - Brine Disposal Well 3		23d	02-May-23A	16-Feb-24				
BCC-GC-39898	BC CWA 34 Structural Steel	5d	02-May-23A	08-Jan-24	BC CWA 34 Structural Steel			
BCC-GC-39858	BC CWA 34 Electrical	30d	30-May-23A	16-Feb-24	BC CWA 34 Electrical			
BCC-GC-39908	BC CWA 34 Install AG Piping	9d	31-Jul-23A	12-Jan-24	BC CWA 34 Install AG Piping			
CWA 35 - Header from Well 3 to 2		34d	30-May-23A	19-Feb-24				
BCC-GC-39738	BC CWA 35 Electrical	34d	30-May-23A	19-Feb-24	BC CWA 35 Electrical			
BCC-GC-39678	BC CWA 35 Install AG Piping	1d	12-Jun-23A	02-Jan-24	BC CWA 35 Install AG Piping			
CWA 36 - Brine Disposal Well 2		31d	03-May-23A	14-Feb-24				
BCC-GC-39468	BC CWA 36 Structural Steel	10d	03-May-23A	16-Jan-24	BC CWA 36 Structural Steel			
BCC-GC-39638	BC CWA 36 Electrical	31d	21-Jun-23A	14-Feb-24	BC CWA 36 Electrical			
BCC-GC-39478	BC CWA 36 Install AG Piping	15d	31-Jul-23A	23-Jan-24	BC CWA 36 Install AG Piping			
BCC-GC-39448	BC CWA 36 Civil Site Work	2d	16-Oct-23A	03-Jan-24	BC CWA 36 Civil Site Work			
BCC-GC-39458	BC CWA 36 Civil Concrete	9d	24-Oct-23A	12-Jan-24	BC CWA 36 Civil Concrete			
CWA 37 - Header from Well 2 to 1		40d	19-Jun-23A	29-Feb-24				
BCC-GC-39338	BC CWA 37 Electrical	40d	13-Jun-23A	29-Feb-24	BC CWA 37 Electrical			
BCC-GC-39274	BC CWA 37 Install AG Piping	9d	16-Jul-23A	12-Jan-24	BC CWA 37 Install AG Piping			
BCC-GC-39258	BC CWA 37 Civil Site Work	9d	31-Jul-23A	12-Jan-24	BC CWA 37 Civil Site Work			
BCC-GC-39298	BC CWA 37 Install UG Piping	38d	13-Dec-23A	23-Feb-24	BC CWA 37 Install UG Piping			
CWA 38 - Brine Disposal Well 1		30d	20-Jun-23A	13-Feb-24				
BCC-GC-39138	BC CWA 38 Electrical	30d	20-Jun-23A	13-Feb-24	BC CWA 38 Electrical			
BCC-GC-39058	BC CWA 38 Civil Site Work	9d	31-Jul-23A	12-Jan-24	BC CWA 38 Civil Site Work			
BCC-GC-39086	BC CWA 38 Install AG Piping	6d	31-Jul-23A	09-Jan-24	BC CWA 38 Install AG Piping			
BCC-GC-39068	BC CWA 38 Civil Concrete	14d	27-Nov-23A	22-Jan-24	BC CWA 38 Civil Concrete			
BCC-GC-39088	BC CWA 38 Install UG Piping	8d	13-Dec-23A	11-Jan-24	BC CWA 38 Install UG Piping			

Bayou Choctaw 90-Day Look-Ahead Schedule

Activity ID	Activity Name	Remaining Duration	Start	Finish	2024			
					Jan	Feb	Mar	Apr
BC GC Mod#3		3d	05-Jan-24	09-Jan-24				
BCC-GC-42829	BC Mod.7 - PCA59 Radio Tower	3d	05-Jan-24	09-Jan-24	█			
BC GC Mod#5		3d	26-Dec-23A	04-Jan-24				
BCC-GC-42530	BC Mod.5 - PCA27 - Additional High Point Vents	3d	26-Dec-23A	04-Jan-24	█			
BC GC Mod#4		4d	26-Dec-23A	05-Jan-24				
BCC-GC-42779	BC Mod.7 - PCA54 "C" Channels	4d	26-Dec-23A	05-Jan-24	█			
BCC-GC-42819	BC Mod.7 - PCA57 Electrical Cable	3d	26-Dec-23A	04-Jan-24	█			
BC-LE-1723 Physical Protection		40d	21-Jul-23A	27-Feb-24				
PBC-CSSC-A3330	BC-LE-1723B Stone / Fabric	5d	21-Jul-23A	08-Jan-24	█			
PBC-CSSC-A3450	BC-LE-1723B UPS	6d	25-Sep-23A	09-Jan-24	█			
PBC-CSSC-A3400	BC-LE-1723B Mobile & Jersey Barriers	5d	09-Jan-24	16-Jan-24	█			
PBC-CSSC-A3420	BC-LE-1723B Control System Equipment	15d	09-Jan-24	30-Jan-24	█			
PBC-CSSC-A3410	BC-LE-1723B Fences & Gates	4d	17-Jan-24	22-Jan-24	█			
PBC-CSSC-A3430	BC-LE-1723B Fibers Optics / Hopperuns	3d	23-Jan-24	25-Jan-24	█			
PBC-CSSC-A3440	BC-LE-1723B Signage / Hydroseding	6d	25-Jan-24	02-Feb-24	█			
PBC-CSSC-A3480	BC-LE-1723T Fence Gap Scope FCD BC-010	1d	01-Feb-24	01-Feb-24	█			
PBC-CSSC-A3460	BC-LE-1723B Precommissioning	9d	05-Feb-24	15-Feb-24	█			
PBC-CSSC-A3470	BC-LE-1723B Demobilization	1d	27-Feb-24	27-Feb-24		█		

Bayou Choctaw Construction Budget

P6 WBS (CA)	CCTA Task Number	Work Package Name (CCTA)	Contract Status	Current Baseline	Award Value	Current Contract Value	EAC	Variance (Award-EAC)	Note
01.A.04.80	BC-LE-1759	General Contractor	Awarded	\$ 133,424,830	\$ 133,451,679	\$ 131,967,157	\$ 133,557,993	\$ (106,314)	EAC includes pending Mod.7
01.A.04.97	BC-LE-1723B *	Contractor Security Screening Checkpoint	Completed	\$ -	\$ 2,265,478	\$ 2,265,478	\$ 916,402	\$ (1,349,076)	Contract terminated for convenience.
01.A.04.97	BC-LE-1723B	Contractor Security Screening Checkpoint	Awarded	\$ 5,354,005	\$ 3,494,600	\$ 3,614,953	\$ 4,833,953	\$ (1,339,353)	EAC includes FCD-010 for Fence Gap Scope
01.A.04.97	BC-LE-1723K	Security Systems Integrator	Awarded	\$ 3,993,544	\$ 3,993,544	\$ 3,993,544	\$ 4,494,936	\$ (501,392)	EAC includes FCD-007 for CSSC Security Integration.
01.A.04.65	BC-LE-1750A	Microseismic Observation Wells	To be Awarded	\$ 10,166,276	N/A	N/A	\$ 8,966,119	\$ -	
01.A.04.80	BC-LE-1777 **	InSAR Subsidence Monitoring - Reflector and Pile Supports Install	Completed	\$ -	\$ 363,481	\$ 370,050	\$ 370,050	\$ (6,569)	Included with the GC Contract in the Current baseline.
01.A.04.97	BC-LE-1723D ***	Security Entry Barrier Install	Completed	\$ 341,948	\$ 497,556	\$ 513,318	\$ 513,318	\$ (15,762)	
01.A.04.83	BC-LE-1762 ***	Site Preparation / Early Works	Completed	\$ 6,137,710	\$ 5,665,460	\$ 6,193,073	\$ 6,193,073	\$ (527,613)	
01.A.04.83	BC-LE-1775 ***	Blast Resistant Buildings - Install	Completed	\$ 1,694,000	\$ 1,436,950	\$ 1,447,625	\$ 1,447,625	\$ (10,675)	
01.A.04.83	BC-LE-1758	Bridge Contractor / Early Works	Completed	\$ 5,227,694	\$ 4,991,032	\$ 5,595,714	\$ 5,595,714	\$ (604,682)	
		Other Subcontracts					\$ 22,297,040		
		Total Subcontracts					\$ 189,186,224		
		Government Furnished Property (GFP)					\$ 30,944,980		
		FFPO Support (Labor, ODC & OH)					\$ 91,266,953		
		Estimate At Completion (EAC) FFPO					\$ 311,398,157		
		Other Project Costs (Fee, DOE ODC, etc.)					\$ 27,000,000		
		Total Project Cost					\$ 369,000,000		
		Variance (Current TPC - EAC - Other Project Costs)					\$ 30,601,843		

* The contractor was terminated for convenience, final cost negotiations in process
 ** This work was separated from the GC (-1759)
 *** Funding for this task provided under CD-38

Bayou Choctaw Variance Explanation

BC-LE-1759, General Contractor

- Mod 2 – \$100,658 Demo Road between CWA 18 and CWA 19
 - Excavate road to verify numerous underground obstructions prior to installation of helical piles
- Mod 3 – \$138,796 HPPP, Flush Sewer Line, Washout Repairs, Electric Panel/Fuses, Flanges
 - HPPP – Underground obstruction prevented helical pile and concrete foundation installations
 - Sewer Line – Flush and rerouting of line prior to local demolition
- SCN-100 – (\$2,140,988) Descope of Deferred Degas Scope
 - Removal of pipe connections from former degas headers to site caverns; likewise for civil
- Mod 4 – \$270,945 Hydro Excavation, Underground Obstructions, GFP Transportation
 - Hydro-vac areas to visually verify underground obstructions prior to installation of helical piles
 - GC contractor to expeditiously transport GFP from storage location to site
- Mod 5 – \$32,024 Remove Rack Foundations, Demo Pier, Additional High Point Vents
 - Demolition foundations missed on drawings
 - Add high point vents for efficient hydrostatic testing of pipe systems
- Mod 6 – \$114,043
 - Revise pile location due to unknown underground obstructions
 - Minor field changes
- Mod 7 (pending) – \$106,314
 - Installed concrete pedestals
 - Hydro-Excavation for Foundations
- Mod 8 (pending) – \$197,295
 - Brine Pond Spool Fab/Paint

DOE Construction Management Oversight

A total of 8 Routine Surveillance Reports (RSRs) FY 2024 – 1st Quarter published
2 RSRs featured significant events of BC LE2 Activities



BC-LE-1759, LE2 Consolidated Work Package
Observation for the week of October 2, 2023
Beginning of Night Shift



BC-LE-1759, LE2 Consolidated Work Package
Observation for the weeks of October 23, 2023
Raw Water Pump Critical Lifts

Life Extension 2 Video

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Maintenance and Operations

February 21, 2024

ASSISTANT PROJECT MANAGER MAINTENANCE AND OPERATIONS

- Crude Oil, Drawdown Readiness, and Cavern Integrity Division
 - Accomplishments
 - Asset Management/Crude Oil Sales
 - Oil Purchases
 - Oil Exchange Returns
 - EMPCo Bryan Mound, Jones Creek 30-inch Pipeline Repair
 - Texas International Pipeline System (TIPS) Connection Status
 - Cavern Integrity Program

ASSISTANT PROJECT MANAGER MAINTENANCE AND OPERATIONS

- Site Operations and Maintenance Division (SOMD)
 - Maintenance Performance Appraisal Report (MPAR)
 - Occurrence Reporting and Processing System (ORPS) Reports
 - West Hackberry Site
 - Bryan Mound Site
 - Big Hill Site
 - Bayou Choctaw Site

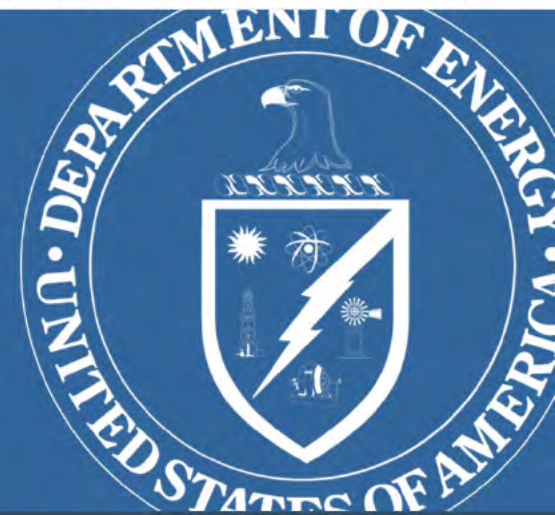


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Maintenance and Operations Crude Oil/Drawdown Readiness/Cavern Integrity Accomplishments

February 21, 2024



Maintenance & Operations

FY 2024, 1st Quarter Accomplishments

- SPR Physical crude oil inventory stored on December 31, 2023, is 354.7 MMB
- SPR COVATS inventory on December 31, 2023, is 353.3 MMB
- Northeast Home Heating Oil Reserve Inventory totaled 1 MMB
- National Gasoline Supply Reserve Inventory totaled 1 MMB
- Oil stored for others (Australia) current total is 0 MMB
 - Department of Defense (DoD) oil is 6 MMB
- SPR facility lease revenue earned during current quarter is \$1.612M
 - ExxonMobil St. James Terminal and Redstick Pipeline – \$0.587M current quarter, FY 2023, totaled \$2.2M
 - ExxonMobil Bryan Mound Pipelines – \$1.025M current quarter, FY 2023 totaled \$4.7M
 - Australian Crude Oil Storage Lease – No revenue this quarter per terms of lease
- SPR Exchange Oil Returns due DOE totals 31.7 MMB (includes Premium barrels); Winter Exchange, Hurricane Ida, and Keystone Pipeline Leak Exchange.
 - Premium barrels associated with Exchanges, total ~2.2 MMB (Reduced from ~2.5 MMB due to early returns)
 - Returns received thru December 2023 total ~5.0 MMB (~1.3 MMB (P66 return thru MYOS in-situ with Aramco, Marathon, P66 previous quarters); plus 3.7 MMB (P66, Shell, Macquarie early returns November/December 2023)
- Completed 2 cavern well diagnostic workovers utilizing DOE Rig
- Completed 1 Brine Disposal Well Remediation



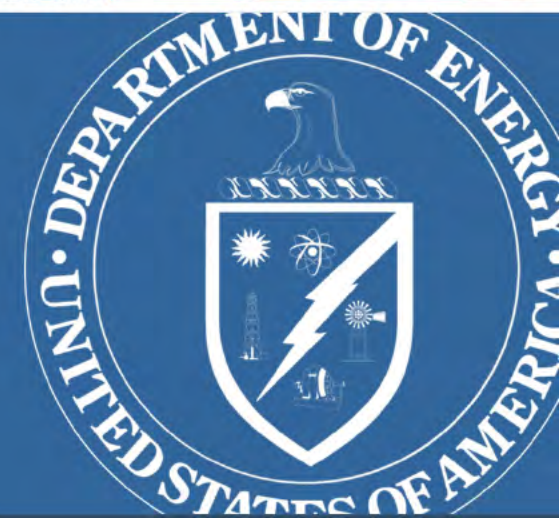
February 21

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SPR Oil Purchases

February 21, 2024



Oil Purchase & Delivery Summary

As of January 22, 2024

Site	Oil Receipt Quantity (MMB)	Company	Company Quantity (MB)	Crude Type (Sour)	Award Price(s)/BBL (Avg)	Actuals Quantity (MB)	Actuals Price(s)/BBL (Avg) + Qty Diff	Delivery Origination (Custody Transfer Point)
2023 August Deliveries								
Big Hill	3.100	Atlantic trading	1,000	SGC/Eagle Ford Blend	\$ 73.327	998.3	\$ 73.243	Sun P/L (Customer tankage)
		ExxonMobil	900	Sour Basket Blend*	\$ 73.077	891.9	\$ 73.245	
		Gunvor	600	Domestic Sour Blend	\$ 73.472	593.3	\$ 73.410	
		Macquarie	300	SGC/Eagle Ford Blend	\$ 73.827	296.4	\$ 73.827**	
		Sunoco	300	SGC/Eagle Ford Blend	\$ 73.977	297.0	\$ 73.917	
		Weighted Average Price			\$ 73.394	3,077	\$ 73.397	
2023 September Deliveries								
Big Hill	1.700	Atlantic trading	500	SGC/Eagle Ford Blend	\$ 72.250	493.6	\$ 72.155	Sun P/L (Customer tankage)
		Shell	600	SGC/Saddle Horse	\$ 72.050	592.9	\$ 72.182	
		Sunoco	600	Domestic Sour Blend	\$ 72.170	591.1	\$ 72.068	
		Weighted Average Price			\$ 72.151	1,678	\$ 72.135	
2024 January Deliveries (Awards)								
Big Hill	1.200	Macquarie	300	Southern Green Canyon / West Texas Intermediate***	\$ 77.310	N/A	N/A	Sun P/L (Customer tankage)
		Sunoco****	900	Southern Green Canyon / West Texas Intermediate	\$ 77.660	N/A	N/A	
		Weighted Average Price			\$ 77.573	N/A	N/A	
2024 January Supplement Deliveries (Awards)								
Big Hill	2.730	ExxonMobil	930	Southern Green Canyon /Oklahoma Sour	\$ 78.620	N/A	N/A	Sun P/L (Customer tankage)
		P66	600	Southern Green Canyon / Bakken	\$ 79.227	N/A	N/A	P66 Beaumont P/L (Customer tankage)
		Macquarie	600	Southern Green Canyon / West Texas Intermediate	\$ 79.587	N/A	N/A	Sun P/L (Customer tankage)
		Sunoco	600	Southern Green Canyon / West Texas Intermediate	\$ 79.207	N/A	N/A	
		Weighted Average Price			\$ 79.095	N/A	N/A	

* Southern Green Canyon (SGC), West Texas Sour (WTS), Oklahoma Sour, and WTI

** Macquarie forgoed +\$148K quality diff

***Substituted awarded West Texas Sour (WTS) with Southern Green Canyon (SGC)/West Texas Intermediate (WTI) blend

**** Sunoco Jan award (900MB) to be delivered in February

Oil Purchase & Delivery Summary

As of January 23, 2024

Site	Oil Receipt Quantity (MMB)	Company	Company Quantity (MB)	Crude Type (Sour)	Award Price(s)/BBL (Avg)	Actuals Quantity (MB)	Actuals Price(s)/BBL (Avg) + Qty Diff	Delivery Origination (Custody Transfer Point)
2024 February Deliveries (Awards)								
Big Hill	2.100	Macquarie	600	Southern Green Canyon / West Texas Intermediate	\$ 74.507	N/A	N/A	Sun P/L (Customer tankage)
		P66	600	West Texas Sour / Southern Green Canyon / Bakken	\$ 73.917	N/A	N/A	P66 Beaumont P/L (Customer tankage)
		Sunoco	900	Southern Green Canyon / West Texas Intermediate	\$ 74.254	N/A	N/A	Sun P/L (Customer tankage)
		Weighted Average Price			\$ 74.230	N/A	N/A	
2024 March Deliveries (Awards)								
Big Hill	2.994	Macquarie	898	Southern Green Canyon / West Texas Intermediate	\$ 77.353	N/A	N/A	Sun P/L (Customer tankage)
		P66	898	West Texas Sour / Southern Green Canyon / Bakken	\$ 77.053	N/A	N/A	P66 Beaumont P/L (Customer tankage)
		Sunoco	1,198	Southern Green Canyon / West Texas Intermediate	\$ 77.474	N/A	N/A	Sun P/L (Customer tankage)
		Weighted Average Price			\$ 77.312	N/A	N/A	
2024 April Deliveries (Awards)								
Big Hill	3.200	BP	600	Southern Green Canyon/Bakken	\$ 75.578	N/A	N/A	P66 Beaumont P/L (Customer tankage)
		ExxonMobil	1,400	Southern Green Canyon / Oklahoma Sour	\$ 75.828	N/A	N/A	Sun P/L (Customer tankage)
		Macquarie	600	Southern Green Canyon / West Texas Intermediate	\$ 76.303	N/A	N/A	
		P66	300	Southern Green Canyon/Bakken	\$ 76.183	N/A	N/A	P66 Beaumont P/L (Customer tankage)
		Sunoco	300	Southern Green Canyon / West Texas Intermediate	\$ 76.403	N/A	N/A	Sun P/L (Customer tankage)
		Weighted Average Price			\$ 75.957	N/A	N/A	
Total	17.024	Awards: Atlantic Trading - 2; BP - 1; ExxonMobil - 3; Gunvor - 1; Macquarie - 7; P66 - 4; Shell - 1; Sunoco - 7 (Total 26 contracts) (Total Value \$1,289.6M)						
		Awarded Weighted Average Price for combined purchases, \$75.753/barrel						

Topics of Interest

- For oil purchase to continue beyond May 2024, Site LE2 completion dates must be solidified, at which time, proper planning of outyears can occur– FY 2024/FY 2025
- Macquarie rejected crude blend (1.5 MMB awarded), containing Eagle Ford 56 API (EF56), 90-day sample (Sun tank origin) exhibited separation prior to discarding

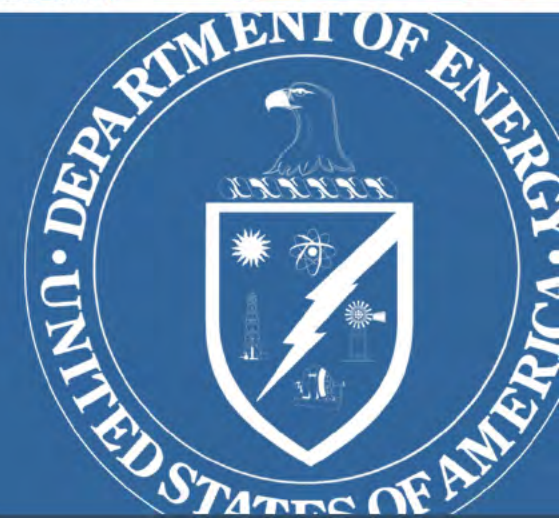


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Exchange Oil Return Status

February 21, 2024



Exchange Return Oil Period – Remaining Receipts

Return Period	Site	Event	Contractor	Crude Type	Premium	Return Quantity (MB) (Includes premium)	Delivery Location
Jun - Sep/ 2024	Bryan Mound	FY22 Winter Exchange	Atlantic Trading	Sour	8.60%	437	Seaway Freeport Docks/Pipeline
			BP		8.60%	1	
			ExxonMobil		8.60%	978	
			P66*		8.60%	0	
			Macquarie		8.60%	545	
		Keystone Leak Exchange	ExxonMobil		8.52%	759	
			P66		8.52%	475	
Subtotal						3,195	
Jun - Sep/ 2024	West Hackberry	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	1,211	Sun P/L (Contractor tankage)
			Trafigura		8.60%	3,242	
			Macquarie		8.60%	976	
			Shell		8.60%	516	
Subtotal						5,945	As of 01/23/24

Exchange Return Oil Period – Remaining Receipts

Return Period	Site	Event	Contractor	Crude Type	Premium	Return Quantity (MB) (Includes premium)	Delivery Location
Jun - Sep/ 2024	Bayou Choctaw	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	5,754	BC/STJ (Redstick) P/L
			Marathon		8.60%	272	
Oct 2024		Ida Hurricane Exchange	Placid	Sweet	2.98%	309	
Nov-Dec/ 2024		FY22 Winter Exchange	Chevron	Sour	6.10%	939	
Jan - Feb/ 2025		Keystone Leak Exchange	ExxonMobil		11.12%	555	
Subtotal						7,827	
Jul - Aug/ 2025	Big Hill	FY22 Winter Exchange	ExxonMobil	Sweet	14.60%	3,093	Sun P/L (Contractor tankage)
			Shell	Sour	9.10%	3,598	
Aug 2026		Ida Hurricane Exchange	ExxonMobil	Sour	3.40%	3,099	
Subtotal						9,791	
Total Remaining Return Oil Volume						26,758	As of 01/23/24

Return volume by year: FY2023 - 1.2MMB; FY2024 - 18.9MMB; FY2025 - 8.5MMB; FY2026 - 3.1MMB; All years - 31.7MMB

* P66 returns include 1.2MMB in-situ from FY23 Spring Mandatory Sale

FY 2024 Exchange Return Oil Period

Return Period	Site	Event	Contractor	Crude Type	Premium	Return Quantity (MB) (includes premium)	Delivery Location
Jun - Sep/ 2024	Bryan Mound	FY22 Winter Exchange	Atlantic Trading	Sour	8.60%	437	Seaway Freeport Docks/Pipeline
			BP		8.60%	1	
			ExxonMobil		8.60%	978	
			P66*		8.60%	0	
			Macquarie		8.60%	545	
		Keystone Leak Exchange	ExxonMobil		8.52%	759	
			P66		8.52%	475	
			Subtotal			3,195	
Jun - Sep/ 2024	West Hackberry	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	1,211	Sun P/L (Contractor tankage)
			Trafigura		8.60%	3,242	
			Macquarie		8.60%	976	
			Shell		8.60%	516	
			Subtotal			5,945	
Jun - Sep/ 2024	Bayou Choctaw	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	5,754	BC/STJ (Redstick) P/L
			Marathon		8.60%	272	
			Subtotal			6,026	
Nov - Dec/ 2023	Big Hill	FY22 Winter Exchange	BP	Sour	2.00%	503	P66 Beaumont P/L (Customer tankage)
			Macquarie		2.00%	608	Sun P/L (Contractor tankage)
			P66		2.00%	1,123	P66 Beaumont P/L (Customer tankage)
			Shell		2.00%	1,319	Sun P/L (Contractor tankage)
		Keystone Leak Exchange	P66		2.00%	161	
			Subtotal			3,713	
			Total Return Oil Volume			18,878	As of 01/23/24

* P66 returns include 1.2MMB in-situ from FY23 Spring Mandatory Sale

CY 2024 Exchange Return Oil Period

Return Period	Site	Event	Contractor	Crude Type	Premium	Return Quantity (MB) (Includes premium)	Delivery Location
Jun - Sep/ 2024	Bryan Mound	FY22 Winter Exchange	Atlantic Trading	Sour	8.60%	437	Seaway Freeport Docks/Pipeline
			BP		8.60%	1	
			ExxonMobil		8.60%	978	
			P66*		8.60%	0	
			Macquarie		8.60%	545	
		Keystone Leak Exchange	ExxonMobil		8.52%	759	
			P66		8.52%	475	
Subtotal						3,195	
Jun - Sep/ 2024	West Hackberry	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	1,211	Sun P/L (Contractor tankage)
			Trafigura		8.60%	3,242	
			Macquarie		8.60%	976	
			Shell		8.60%	516	
			Subtotal				
Jun - Sep/ 2024	Bayou Choctaw	FY22 Winter Exchange	ExxonMobil	Sour	8.60%	5,754	BC/STJ (Redstick) P/L
			Marathon		8.60%	272	
Oct 2024		Ida Hurricane Exchange	Placid	Sweet	2.98%	309	
Nov-Dec/ 2024		FY22 Winter Exchange	Chevron	Sour	6.10%	939	
Subtotal						7,273	
Total Remaining Return Oil Volume						16,412	As of 01/23/24

Return volume by year: FY2023 - 1.2MMB; FY2024 - 18.9MMB; FY2025 - 8.5MMB; FY2026 - 3.1MMB; All years - 31.7MMB

* P66 returns include 1.2MMB in-situ from FY23 Spring Mandatory Sale

CY 2024 Snapshot

	2023	2024											
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Scheduled Activity													
BC	BC LE2 OUTAGE 2/1/2023 - 2/28/2024			Cavern Transfers (supports Fill)			Winter Exchange Returns ~5.5MMB			Exchange Returns (CVX/Placid/EX) ~1.4MMB			
BH	Exchange Return 3MMB	SPR Purchase 3MMB	SPR Purchase 3MMB	SPR Purchase 3MMB	Potential 3MMB Purchase	Potential 3MMB Purchase	LE2 Prep ~45 days	BH LE2 OUTAGE 7/15/2024 - 7/15/2025					
BM*	LE2 Outage 5/1/2023 - 6/30/2024						POST LE2 Site Prep	Keystone and Winter Exchange Returns ~3.2MMB			BM Outage LE2 Header work**		
WH***				Pig Trap Maintenance			Winter Exchange Returns pending ~5.9MMB						
Capacity to Repurchase Crude													
BC	0	0	0	0	0	0	0	0	0	0	0	0	0
BH	0	0	0	0	3.0	3.0	0	0	0	0	0	0	0
BM	0	0	0	0	0	0	0	0	0	0	3.0	0	0
WH*	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	3.0	3.0	-	-	-	-	3.0	-	-

LE2
Maintenance
Exchange Returns
Purchase

Assume BH remains in service for purchase through May 2024
 Assume BM out of service through June 2024 (LE2 delay)

Additional Crude at Big Hill has been increased by:
 13.8 sour purchase at Big Hill (Aug-Sept'23, Jan-March'24)

- * BM able to receive oil beginning 8/1/24 based on latest estimate of return to service
- ** LE2 crude oil header outage under discussion at PMO
- *** WH injection rate is below industry standard acceptance

Topics of Interest

- Due to LE2 delay, Bryan Mound will need ~90 days to receive 3.2 MMB if 100% comes from Seaway due to ongoing commercial oil markets.
 - Will need to extend original return period as well as contract mods eliminating June/July 2024 from availability.
 - If HOOPS crude oil deemed acceptable, then extending [from June-September 2024] into October may not be necessary since 55% of returns will avoid the congested Seaway system
- Need to finalize strategy for reallocation of West Hackberry return barrels and commence notifying exchange customers
- Early returns have reduced premium due from ~2.5 MMB to ~2.2 MMB



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ExxonMobil Jones Creek 30" Pipeline Repair

February 21, 2024



ExxonMobil Jones Creek 30-inch Pipeline Repair

Situation

- ❑ **September 2017** – ExxonMobil Pipeline Company (EMPCo) reported **scour damage as a result of Hurricane Harvey** on the leased, Bryan Mound to Jones Creek 30-inch pipeline; sonar test **revealed ground previously supporting approximately 136 feet of pipeline was washed out, leaving pipeline unsupported.**
- ❑ EMPCo repair of pipeline via direct pipe method, with original anticipated return-to-service in May/June 2022.

EMPCo Revised Cost Estimate (\$21.1M)

- ❑ **April 2019** – General Contractor support for Direct Pipe was significantly higher due to the complexity of the technology, additional equipment required, and extended project schedule. **Initial estimate increased from \$8.5M to \$10.4M.**
- ❑ **July 2021** – Additional increases were identified in the cost of pipe (the design requires twice the amount of pipe), installation (stringing, welding, boring, etc.), removal activities associated with sacrificial pipe, and cost/schedule risk should pipe extraction be required during execution. **Estimate increased from \$10.4M to \$17.5M.**
- ❑ **July 2022** – DOE Funding mod approved; \$17.5M.

Current Contract Status

- ❑ **March 2023** – DOE met with EMPCo personnel on revised costs and schedule. Latest cost estimate (single bidder) has increased from \$17.5M to 21.1M. But EMPCo advised is working to keep costs within original July/2021 estimate.
- ❑ **August 2023** – EMPCo received a **Section 404 permit from United States Army Corps of Engineers (USACE)** but include a special condition requiring an additional valve within 100 feet from Drill Pipe East Exit.

ExxonMobil Jones Creek 30-inch Pipeline Repair

Current Contract Status (Continued)

- ❑ January 9, 2024 - DOE / EMPCo follow-up meeting to discuss project status update.
 - ❑ EMPCo advised USACE's mandate requiring the **installation of this valve in the 100-year flood plan will increase the time and expense (up to \$1.5M) necessary to complete this project**, in part, due to additional Pipeline and Hazardous Materials Safety Administration (PHMSA) requirements to address potential risks inherent to installing a valve in a flood plan, USACE to review design prior to installation.
 - ❑ EMPCo to move forward with execution of projection
 - ❑ Construction in progress January through June 2024
 - ❑ 36" replacement pipe will be at coating vendor on week of Jan 22, 2024, and on site by February 15, 2024
 - ❑ Pipe will be installed and filled with nitrogen prior to 2024 Hurricane Season
 - ❑ USACE valve in engineering design and projected to be installed in December 2024 with pipeline back in service before June 2025
- ❑ DOE Crude Oil and DOE Finance are investigating options to pay for this increased cost due to additional valve; e.g., budget availability or application of Lease Revenue towards additional costs [Note, also researching cost funding for BM valves for Texas City line.]
- ❑ EMPCo Working schedule to be updated
 - ❑ August 2023 – Permitting completed with USACE
 - ❑ November 2023 – Procurement/Contractor Selection
 - ❑ January 2024 – Construction commenced
 - ❑ December 2024 – Install additional valve. Pipeline to be in service before June 2025. [Previous May 2024]

ExxonMobil Jones Creek 30-inch Pipeline Repair

Bryan Mound to Jones Creek (TX-226)

➤ Replace a ~1600' section of TX-226, a currently idled and exposed 30-inch DOE crude oil pipeline, across the Brazos River Diversion Channel via Direct Pipe Installation



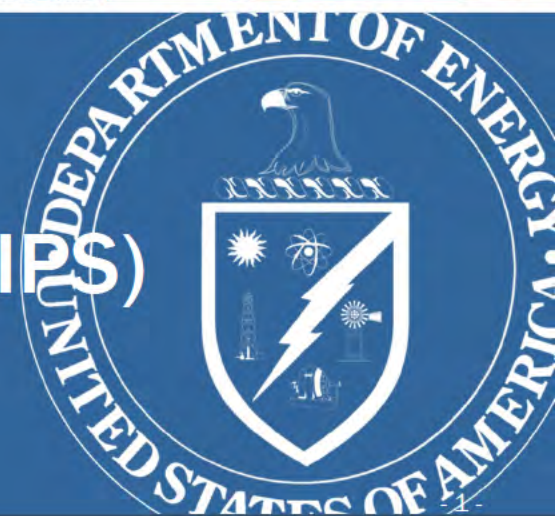


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Texas International Pipeline System (TIPS) Connection Agreement

February 21, 2024



TIPS Connection Agreement

Texas International Pipeline System (TIPS)

- October 2023 – DOE, EMPCo, and Texas International signed connection agreement involving the TIPS tie-connection to the DOE, Texas City 40” pipeline (close to Genesis connection at Texas City)
- An Enterprise Change Proposal (ECP) is in process and will be presented to the PCCB for approval in February 2024. EMPCo working with FFPO and DOE
- Proposed Timeline pulls commissioning from February 2025 to September 2024
- Additional benefit - marine drawdown distribution capability

TIPS Connection Agreement Construction Timeline

Project Task	2023				2024												2025			
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Agreement Approval	█																			
Project Setup		█																		
Funding		█																		
Project Design Finalization		█	█	█	█															
Materials Procurement					█	█	█	█	█	█	█	█	█							
ROW and Regulatory										█	█	█	█							
Site Preparation													█	█	█	█				
Construction																	█	█		
Commissioning																		█	█	
Project Closeout																				█

Proposed update:

Project Task	2023				2024											
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Agreement Approval	█	█														
Project Set-up		█	█	█												
Funding		█	█	█												
Project Design Finalization		█	█	█	█	█	█	█								
Materials Procurement					█	█	█	█	█	█	█	█				
ROW & Regulatory											█	█				
Site Preparation												█	█	█	█	
Construction													█	█	█	
Commissioning															█	
Project Closeout															█	



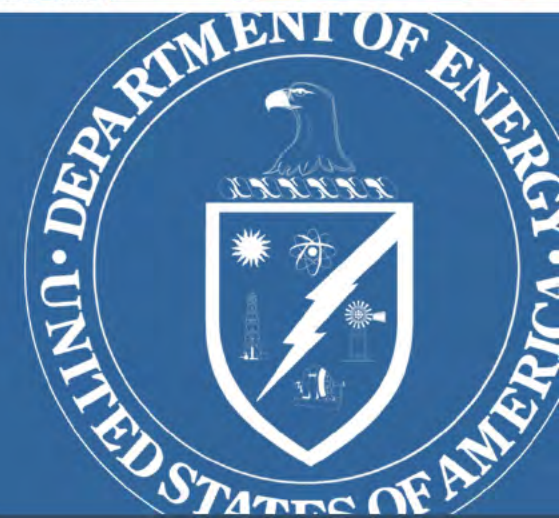
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Maintenance and Operations

Cavern Integrity

February 21, 2024



Cavern Integrity – 1st Quarter FY 2024

Workover Rig Program

■ Diagnostic Workovers Completed

- WH-113: Performed MAC Survey, replaced brine string, and installed new Phase IV Wellhead
- WH-9B: Performed MAC Survey and repaired broken brine string
- WH-BDW-1A: Repair/Remediate brine disposal well

MAC – Multi-Arm Caliper

Cavern Integrity Multi-Arm Caliper (MAC) Surveys Taken in 1st Quarter 2024

- **Multi-Arm Caliper (MAC) Surveys** – Regulatory 10-Year Texas and Louisiana (DOE internal practice to conduct yellow status wells, if necessary, every 5 years)
 - WH-9B – Green (No status change from last survey in April 2014)
 - WH-113 – Green (No status change from last survey in January 2019)

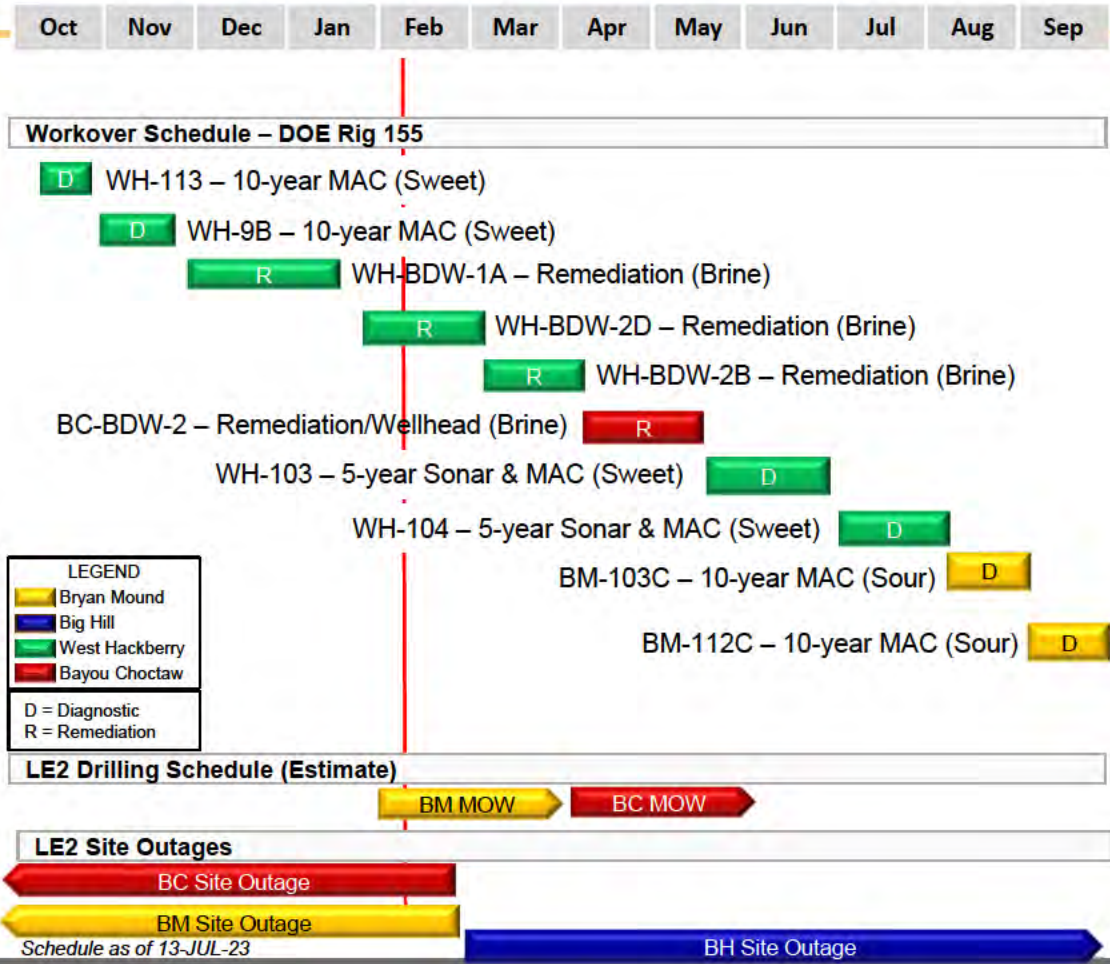
[Note: WH-113 MAC was performed due to leaking valve on wellhead; it now has a new Phase IV wellhead.]

Blue	MAC Survey was performed shortly after the installation of a new casing liner.
Green	Minor deformation, ovality, or casing changes but are <u>not</u> located at depths of concern.
Yellow 3 - Low	Minor deformation when greater than 75% of the casing remains intact.
Yellow 2 - Medium	Moderate deformation when less than 75% of the casing remains intact, but greater than 25%.
Yellow 1 - High	High deformation when less than 25% of casing remains intact.
Red 3 - Severe Deformation	Casing inner diameter (ID) deformation is greater than the wall thickness, OR beyond OD of the casing.
Red 2 - Failed MIT	The well does not pass the mechanical integrity test (MIT).
Red 1 - Hydraulic Failure	The cavern pressurization rates have changed and the well is not liquid tight.
Sealant	Remediated the well with <i>Seal-Tite</i> Sealant.

FY 2024 Workover Schedule

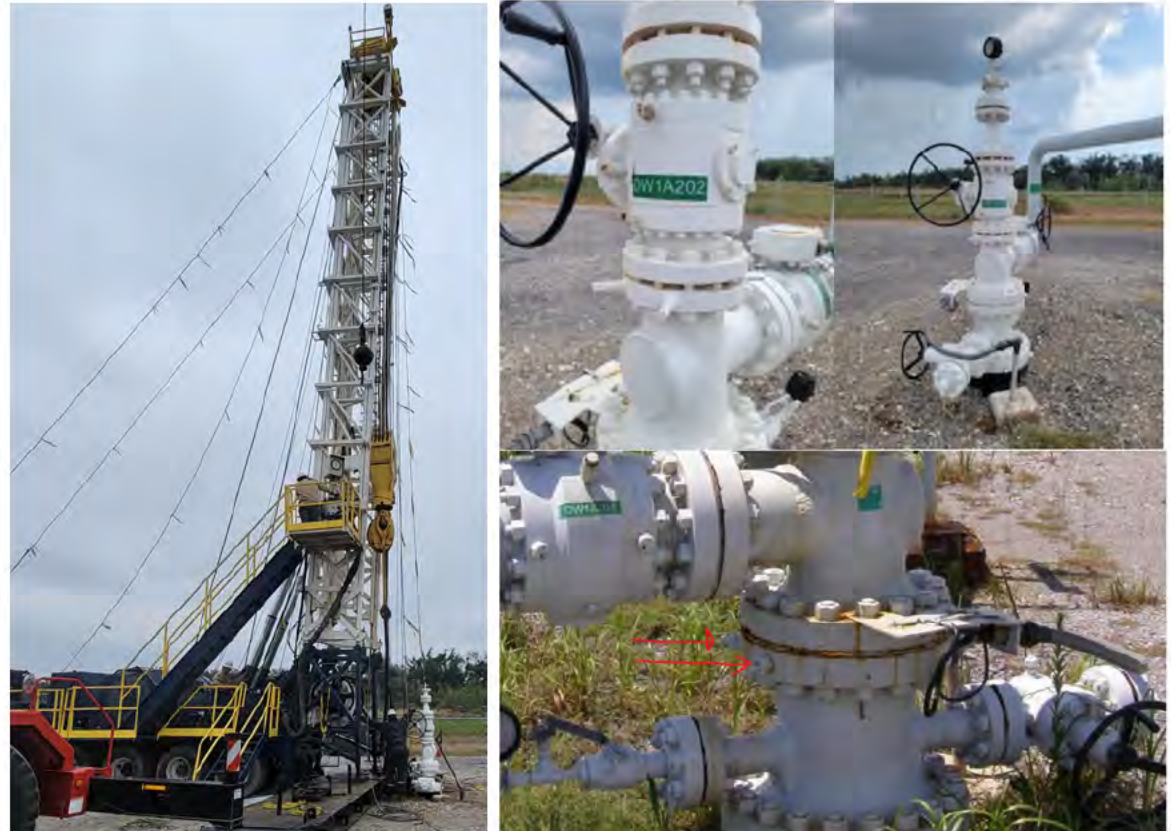
Notes

- ◆ **9 Workover Schedule for PEMP**
 - 4 Brine Disposal Well Remediations
 - 5 Diagnostic Workovers
- ◆ **BDW Remediations**
 - Regulatory compliance with Louisiana Department of Natural Resources
 - Restore brine disposal rates for crude oil replenishment
- ◆ **Diagnostic Workovers**
 - Regulatory compliance (10-year)
 - SPR risk management (5-year)
 - Cavern sonar survey compliance
 - Replace aging wellheads
- ◆ **LE2 Drilling**
 - Drill and complete Microseismic Observation Wells (MOW)
 - Coordinate with LE2 construction schedules at BM and BC
 - Manage Cavern Integrity resources
- ◆ **Schedule Flexibility**
 - Navigate LE2 site shutdowns
 - Respond to emerging issues if/when necessary

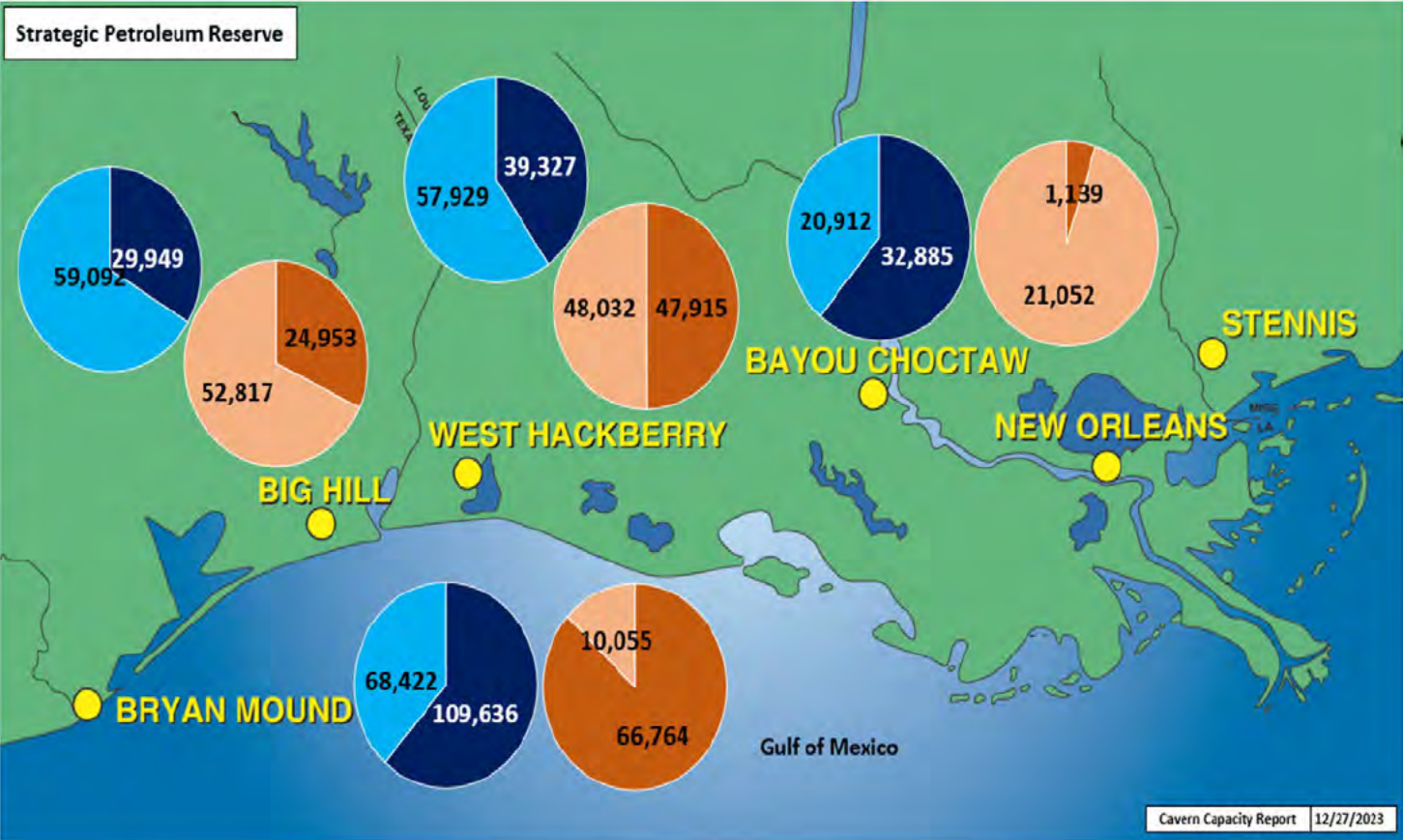


WH-Brine Disposal Well Workovers

- Workover to repair three brine disposal wells (BDW) at WH due to failed MITs:
 - WH-BDW-1A
 - WH-BDW-2B
 - WH-BDW-2D
- BDW workovers will replace injection string and casing packer assembly.



SPR Total Inventory and Ullage





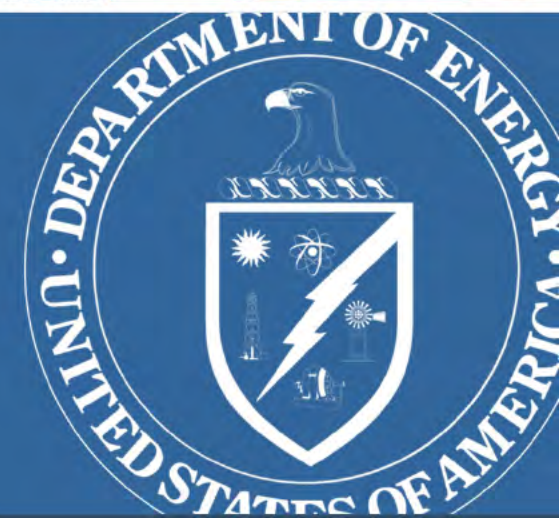
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Maintenance and Operations

Site Operations and Maintenance Division

February 21, 2024



Site Operations & Maintenance – 1st Quarter FY 2024

Maintenance Performance Appraisal Report (MPAR)

SPR-Wide	98.81
Bryan Mound	98.22
Big Hill	96.30
West Hackberry	99.02
Bayou Choctaw	98.92

Site Operations & Maintenance – 1st Quarter FY 2024

Occurrence Reporting and Processing System (ORPS) Reports

- On September 18, 2023, an LE2 contractor worked on Fire Hydrant #69 without proper work authorization, permit or LOTO. On November 17, it was found that the same contractor again performed work on the same hydrant without proper work authorization, permit or LOTO. **(BM)**
 - **Cause: Failure to Identify and Mitigate Hazards**
 - **Corrective Actions (September 18 incident)**
 1. Weekly safety meeting topic LOTO/energy isolation was discussed/shared with all employees.
 2. Superintendents reviewed ENERGY ISOLATION (LOTO) PROCEDURE HSE-ADPROC-2021 with all employees as supplemental training. Employee acknowledgement was captured with sign-in sheet.
 3. Safety Task Analysis (STA) Refresher Training was conducted for the involved supervisor(s) and work crew.
 4. Permits will be thoroughly reviewed, understood, and signed. If permit does not match the task(s) being performed, operations and supervision will be questioned.
 - **Corrective Actions (November 17 incident)**
 1. A safety stand down was held with all craft personnel to stress only following immediate supervisor guidance.
 2. A briefing was held with LE2 superintendents regarding directing subcontractors and operating within their discipline. Furthermore, the importance of over-communication was stressed with the LE2 superintendents.

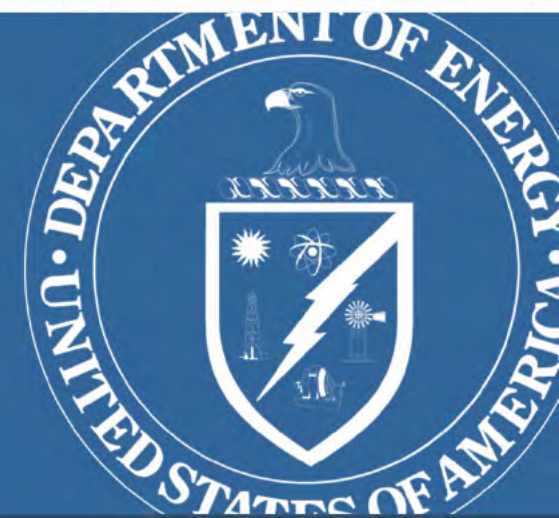


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West Hackberry Site

February 21, 2024



West Hackberry Accomplishments

- **Safety**
 - 349 days without DART/ 139 days TRC as of 12/31/2023
- **Operations, Maintenance, and Site Activities**
 - Total Fluid Movements:
 - Crude Oil = 794,427 bbls
 - Brine = 943,814 bbls
 - Permits issued: 628
 - Annual Pipeline Leak Detection Test Successfully Completed
 - Borescope of the Heat Exchangers Completed
 - Maintenance Repairs
 - Fire Water Repairs
 - Ongoing Crude Oil Injection Pumps Repairs
 - RWIS Traveling Screen Removed for Tear Down and Inspection
 - Security Fence Repairs
 - Relocated the Security Portal at the Construction Gate
- **Construction**
 - WH-MM-2088, Replace Spare Parts Warehouse, WH Building 310 (Hurricane Laura)
 - WH-OM-2178, Renovate Maintenance Building 302 (Hurricane Laura)
 - WH-OM-2128, Outdoor Lighting Repairs (Hurricane Laura)
 - WH-OM-2128A, Perimeter Security Lighting
 - WH-MM-1969A, Clean and Inspect Brine Tank WHT-14



Fire Water Failure



Security Fence Deflection

West Hackberry Accomplishments

- **Cavern Integrity**
 - Workover Rig
 - WH-9B Workover Completed
 - Failed Mechanical Integrity Test (MIT) BDW 1-A, 2-B, 2-D; All are LOTO
 - Caverns
 - Fill Operations: WH-109 to WH-106
 - Oil Brine Interface survey of WH-109
 - WH-8 Liquid Pressure Optimization Test (LPOT) completed December 15, 2023
 - Post FY 2023 MYOS Sonar Surveys



Workover Rig on BDW 1-A



WH-MM-2088, Replace Spare Parts Warehouse, WH Building 310 (Hurricane Laura)



WH-OM-2178, Renovate Maintenance Building 302 (Hurricane Laura)



Prebid for Hurricane Laura Repairs

West Hackberry Restoration



WH-OM-2128, Outdoor Lighting Repairs and Perimeter Security Lighting



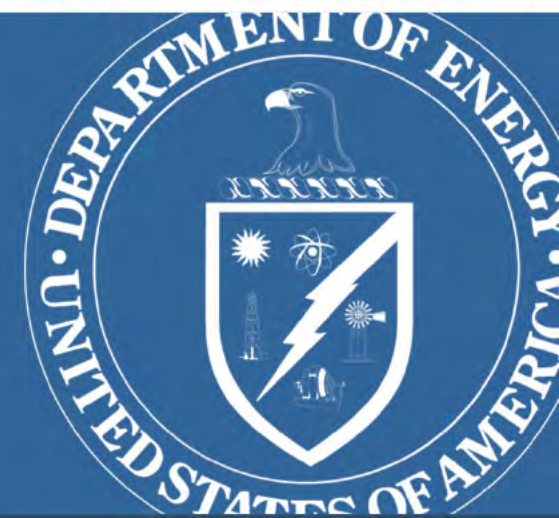


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Bryan Mound Site

February 21, 2024



Bryan Mound Activities

Safety

- 82 days without Days Away Restricted Time (DART); 58 days without Total Recordable Case (TRC) (as of December 31, 2023)
 - DART - LE2 subcontractor fractured toe (October 10, 2023)
 - TRC - FFPO Mechanic finger laceration (November 3, 2023)

Operation, Maintenance and Site Activities

- Fluid Movements: CO - 18,195 bbls; RW/Brine - 111,679 bbls.
- Permits: 4,402 (4,833 in 4th Quarter FY 2023)
- Biennial Electrical Shutdown
- Heat Exchanger (HEX) Borescopes
- Execution of traffic/TSP during LE2 42" Levee Crossing
- New vacuum truck arrives (FINALLY) - Vendor Led Training
- Hosted Fluor Corporate's Visit for Growing Real Opportunities in the Workforce (Women's STEM Program)
- FY 2024 BM On-Site Appraisal

Cavern Integrity

- No wireline activity during reporting period
- Cavern 112 - Cavern 109 transfer
- Calculating new cavern options due to unknown outage ECD



Cavern 109



New Vacuum Truck



Cavern 112 - Cavern 109 temporary piping

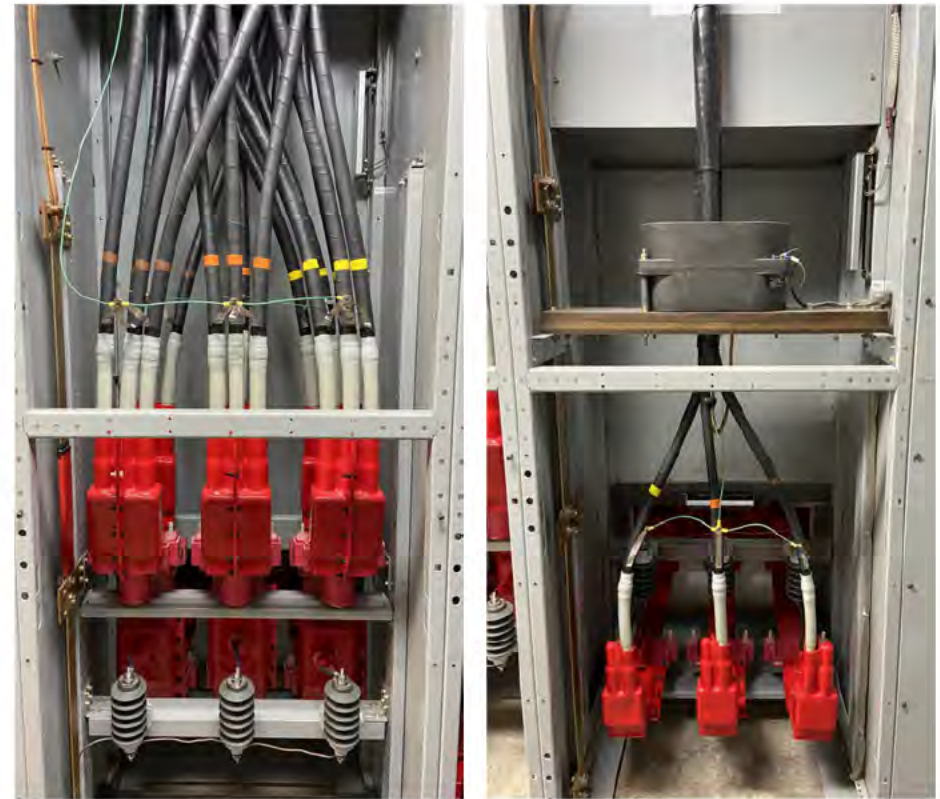
Bryan Mound Activities

LE2/Construction

- BM-MM-674B: Building upgrade project on hold due to column repairs. MOD with repair plan approved – remobilize January 2024
- BM-LE-1799: BMT-4, hydrottested. Internal painting continues. BMT-1, coating failure analysis report delivered. Pre-bid for repairs held. Award estimated to be 2nd Quarter, FY 2024
- BM-LE-1768:
 - External levee crossing completed
 - 42" Raw Water and Raw Water Injection piping installation
 - RWIS dewatering, cleaning, and repairs completed
 - High Density Polyethylene (HDPE) fire water piping installation and fit up continues
 - Crude Oil, Raw Water, and Brine piping fabrication and installation continues

Upcoming 2nd Quarter FY 2024 Activities

- Award BMT-1 Repair (milestone 3/1/24)
- Annual PREP Drill
- Jones Creek 30" repair by ExxonMobil begins



Biennial Electrical Shutdown – Back Panels on BM-SG-1

LE2 External Levee Crossing



Excavating Old RW Line



Concrete Pour Begins



Piping and Duct Bank Placement



External Levee Crossing - Pour Completed

LE2 Activities



RWIS Repairs Completed – Channel & Rip Rap



LE2 Piping – System 32

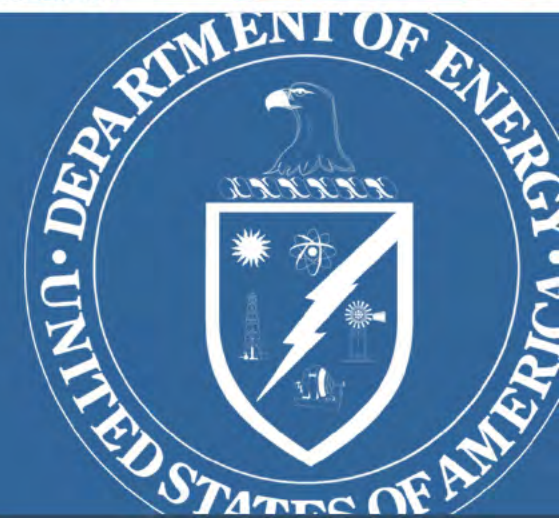


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Big Hill Site

February 21, 2024



Big Hill M&O Significant Activities

Safety: FFPO BH Site: 187 days without Recordable/Lost Time (as of December 31, 2023)

Operations:

- ❖ Completed 165 Crude Oil Movements for 6,441,626 bbls transferred during 1st Quarter of FY 2024
 - ✓ 11 Sour Crude Oil Movements for 3,552,196 bbls (FY 2024 Winter Sour Exchange Returns, November and December 2023)
 - ✓ 1 Sour Crude Oil Movements for 160,526 bbls (FY 2024 Keystone Sour Exchange Returns, December 2023)

Maintenance:

- ❖ Semi-Annual CO Pipeline Corrosion Coupon Pipeline replacement analyses/testing (average corrosion rate and inhibitor effectiveness)
- ❖ Semi-Annual Secondary Seal inspection of CO Surge Tank BHT-7 Floating Roof, October 2023
- ❖ Annual Big Hill Brine Line Integrity Test (BLIT) Dye Flow Test, October 2023
- ❖ Annual Big Hill Cathodic Protection Test Program, October 2023
- ❖ Annual Big Hill Cold Weather Preparedness, October 2023
- ❖ Annual Big Hill Pressure Relief Safety Valves (PSV) Calibrations and Service Test, November 2023 (159 PSV)
- ❖ Annual Big Hill CO Pipeline LeakNet Detection System "LeakNet™", November 2023
- ❖ Assessment of BH Heat Exchangers RW Tubing for corrosion concerns due to depleted anodes, December 2023

Big Hill M&O Significant Activities

Maintenance:

- ❖ Drawdown/Fill Equipment Repairs (Pumps, Valves and Piping)
 - ✓ Fabricated and replaced Seal Flush line on the Brine Repressurization Pump BHP-200
 - ✓ Fabricated and replaced 2" piping for Sparge Bypass Isolation Valve 8R000MOV05 under the RW Intake Structure
 - ✓ Fabricated and replaced 1½" piping for flush water Sparge Isolation Valve 8P001MOV73 on RW Intake Pump BHP-1
 - ✓ Fabricated and replaced 2" line to flush water Sparge Isolation Valve 8P005MOV73 on RW Intake Pump BHP-5
 - ✓ Patch welded 24" piping downstream of Discharge Valve on RW Intake Pump BHP-3
 - ✓ Patch welded 16" RW Recycle Line on two (2) locations downstream of Pressure Control Valve 8R000PV57
 - ✓ Fabricated and replaced 2" Sparge Lines on Traveling Water Screens SS-1011 and SS-1013
 - ✓ Replaced four (4) 4" RW Isolation Valves 8R000HV29, 33, 36, and 39 on the Traveling Water Screens SS-1011, 1012, 1013, and 1014
 - ✓ Fabricated and repaired Fire Deluge System (FDS) on CO Surge Tank BHT-7 and CO Prover found during FY 2023 Annual FDS testing
 - ✓ Changed bottom motor bearing oil on RW Intake Vertical Motors BHM-1, BHM-2, and BHM-4
 - ✓ Replaced grease fitting on wellhead CO Isolation Valve 8C106WV04A for stopping CO leak
 - ✓ Replacing the Fire Jockey Motor and Pump BHM/BHP-88 at Fire Pump House



Leak at the Raw Water Intake Structure

Big Hill M&O Significant Activities

Caverns:

	Big Hill Cavern Wells (Sour & Sweet)														Cavern Surveys FY24 - 1st Quarter															
	101		102		103		104		105		106		107			108		109		110		111		112		113		114		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A
Casing Collar Logs / Density Surveys		✓					✓				✓		✓					✓		✓		✓								Casing Collar Log, Brine String Length, Total Cavern Depth, & OBI, 1 st Q FY2024
5-Year Mechanical Integrity Test (MIT)	✓	✓																												N2 Injection in A-Well & B-Well to Leak Test Cemented Casings & Casing Shoes in each well
10-Year Sonar Surveys											✓																	✓		Cavern profile and volume table
Biennial Temperature Survey	✓	✓																												For uniformity of temperature along the depth
Converted Cavern Oil from Sour to Sweet																					✓									Needed sweet cavern capacity due to evacuating Sweet Caverns 104 and 114
Emptying Oil prior to LE2 Shutdown							✓										✓										✓			Due to casing gradual increase in deformation near the salt/caprock interface in each well
Brine Casing Cut																				✓										End of Brine string 3-feet above cavern floor. A split shot on October 16, 2023

Big Hill M&O Significant Activities



Leak Detection System Test BH CO Pipeline



Seal Flush Pump Recirculation Line Replacement



Annual PSV Calibration



Nozzle Cleaning of Deluge System at BH PIG Trap Area



Traveling Screen Lines Fabricated on-site

Big Hill M&O Significant Activities



Nitrogen Injection MIT Well 101 A



SONAR Survey Cavern 114



Density Survey Cavern 106

Big Hill M&O Significant Activities

Engineering & Construction

- ❖ **BH-OM-2207, BH Parking Lot Fence Repairs**
 - Replaced fence and posts with new fasteners, clamps, and barbed wires on the west and east double gates
 - Work commenced on October 2, 2023, and completed on October 18, 2023
- ❖ **BH-OM-2305, Substation 34.5 KV Disconnect Switch DS-4001 Repair/Replacement**
 - Work commenced November 7, 2023
 - Tested relays on Transformers BHTX-1 and BHTX-2
 - Test failed on replacement switch for replacing existing bad B-Phase switch on the Disconnect Switch DS-4001
 - Mod Contract to order and replace insulators
- ❖ **BH-MM-2162, BH Install Fire Protection Foam System Testing Headers (Fire Pump House Building 811)**
 - Pre-Construction meeting conducted on September 26, 2023, and work commenced on October 23, 2023
 - Laid out area inside Building 811 for a 4" and an 8" pipe penetration through the building east wall
 - Excavated and installed concrete pedestals for 4" and 8" pipe
 - Secured new structural steel supports on new pedestals
 - Contractor fabricating piping offsite. Task 50% complete as of December 2023
- ❖ **BH-MM-1426, Correct Pressure Relief Valve (PSV) Vibration Failures on Crude Oil MOV03 Valves**
 - Work commenced October 30, 2023, with installing pre-fabricated pipe support
 - Welded Weldolet in place and performed Hot Tap on CO header at Caverns 101, 102, 108, 110, and 112
 - Welded spool pipe with flanges on the CO Isolation Valve MOV03 at five (5) caverns
 - Bolted PSVs onto new flanges on CO Valves MOV03 and connected with new spool pipe to CO header
 - Contractor fabricated and installed spool pipes to correct vibration issues on the RW Isolation Valve MOV01



Big Hill M&O Significant Activities

Engineering & Construction (continuation)

- ❖ BH-DO-820, Repair Significant Leaks at the Raw Water Intake Structure



Special Visits:

- ❖ A representative from the Texas General Land Office (TGLO) visited Big Hill on Tuesday, October 31, 2023, and conducted the Annual Emergency Response Procedures (ERP) Audit.
- ❖ NOLA FFPO President/CEO [REDACTED] and upper management visited and attended the Big Hill Zero Incidents All Hands at Big Hill Site on Tuesday, November 7, 2023.

Ongoing/Upcoming Work:

- ❖ Continue to empty Caverns 104, 109, 114
- ❖ Repair pump base of Crude Oil Surge Tank Pump BHP-47
- ❖ Replace insulators on Disconnect Switch DS-4001

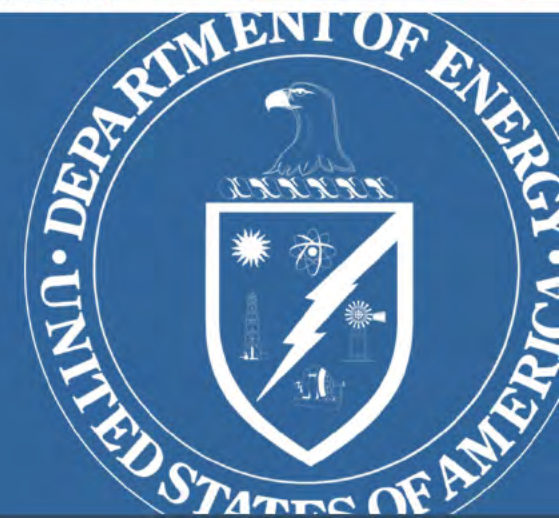


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Bayou Choctaw Site

February 21, 2024



Significant Site Activities

- **Safety (as of December 19, 2023)**

- 34 days without a Total Recordable Case (TRC); 34 days without a Days Away Restricted Time (DART)
 - FFPO Base Employee slipped and fell exiting the site bus
 - FFPO LE2 Pipefitter caught finger between two pieces of pipe shoe

- **Operations (as of December 19, 2023)**

- Fluid Movements: 1st Quarter – Crude Oil – 89 bbls. (Oil skimmed from Cavern 20)
Brine – 5,910 bbls. (By site Vacuum truck to maintain cavern pressures)
- The BC site is inoperative due to LE2 shutdown/outage. Projected ECD for outage is currently April/May 2024
- Issued 3,330 Safe Work Permits this quarter

- **Maintenance**

- Installed gear operator on Cavern 102's Crown Valve 4C102WV02B
- Removed tee on BDW-4's wellhead
- Replacement of mechanical seal on brine injection pump BCP-213
- Performance of new mainline equipment preservation PMs for equipment not being replaced during LE2 (Raw water lift, crude oil injection, brine and flush water lift, and injection pumps/motors)



Brine Disposal Well #4's Tee Section removal by Site Maintenance



Replacement of Mechanical Seal for Brine Injection Pump BCP-213 by Site Maintenance

Significant Site Activities

- **Cavern Integrity**

- Monitoring communication between Caverns 17 and 18

- **Construction/LE2**

- BC-LE-1759, General Contractor work is ongoing (RCI) - Began night shifts on 10/02/2023
- BC-LE-1723B, Contractors Security Screening Checkpoint ongoing (Beard)

NOTE: Base personnel are supporting LE2 General Contractor with identification of underground obstructions, issuing permits, reviewing critical lift procedures, excavations, and safety support

- **Other Site Activities**

- Performed Annual Fire System Testing/Inspection
- Completed semi-annual Very Early Smoke Detection Apparatus (VESDA) Testing, both systems green tagged
- Completed Borescope Inspection of both Heat Exchangers
- Completed Annual Measurement and Test Equipment (M&TE) Calibrations
- Completed Testing and Certification of Pressure Surge Valves (PSVs)
- Continue to work on the DOE/Boardwalk Louisiana Midstream brine piping tie-in agreement

- **Upcoming Activities**

- LE2 Testing and Commissioning of newly installed equipment
- Meter Prover Water Draw
- Installation of Traveling Screen #1 after refurbishment
- EMPCo Smart Pig Run



BC-LE-1723B, New Contractor Screening Portal and Mobile Wedge Gate Barrier at the Brine Road gate



Annual Fire Systems Testing



Annual Fire Hose testing



Annual M&TE Calibration

Significant Site Activities



BC-LE-1759, Phased Array Weld Inspection Scanning Tool



BC-LE-1759, New Raw Water Injection Pump, Motor, and Oiler Skid



BC-LE-1759, The Three New 3500 HP Raw Water Injection Pumps



BC-LE-1759, FIB Building Installed at Disposal Well Pad #1



BC-LE-1759, New Fire Water Pump Installation at the Raw Water Intake Structure



BC-LE-1759, Night Work

Maintenance and Operations Video



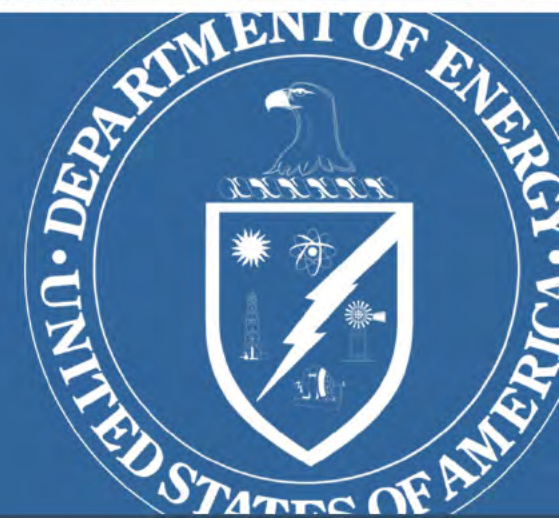
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Systems and Projects (S&P)

S&P Accomplishments

February 21, 2024



Systems and Projects

- S&P Accomplishments
- BMT-1 Coating Failure Analysis
- Major Maintenance Program
- Information Technology and Cybersecurity

Systems and Projects Accomplishments

- Project Engineering Division:

- 31 projects with combined Annual Operating Plan (AOP) budget of \$43.5 million
- 11 Architect-Engineering (A-E) designs in progress; 3 design reviews
- 1 project awarded (West Hackberry)
- FFPO finalizing Chiller Description of Work (DOW) for Bayou Choctaw

- Systems Engineering and Analysis Division:

- Reviewed multiple pipeline integrity reports from FFPO
- Reviewed Annual Report from Vapor Pressure Committee (VPC)
- Reviewed Final BMT-1 Coating Failure Analysis Report from FFPO
- Completed project-wide heat exchanger borescope inspections
- Continued to support Level 2 Vapor Pressure Criteria Review

Systems and Projects Accomplishments

- Configuration Management:

- Project Change Control Board (PCCB) approved 12 Enterprise Change Proposals (ECP) and 3 deviations
- Sandia submitted 3 reports; completed 3 milestones

- Information Systems and Technical Services Division:

- Visited with Emerson to discuss cybersecurity enhancements to Distributed Control System (DCS)
- Upgraded the NOLA warehouse circuit from 10Mbps to 50Mbps
- Progressing with site conference room upgrades



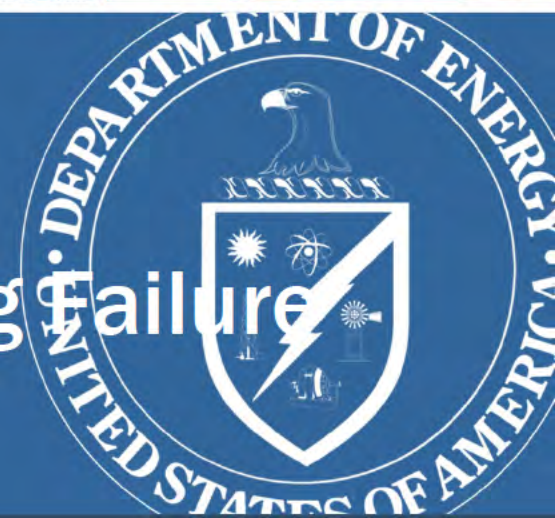
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Bryan Mound BMT-1 Interior Coating Failure

Final Failure Analysis

February 21, 2024



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Introduction: What is Bryan Mound Tank 1 (BMT-1)?

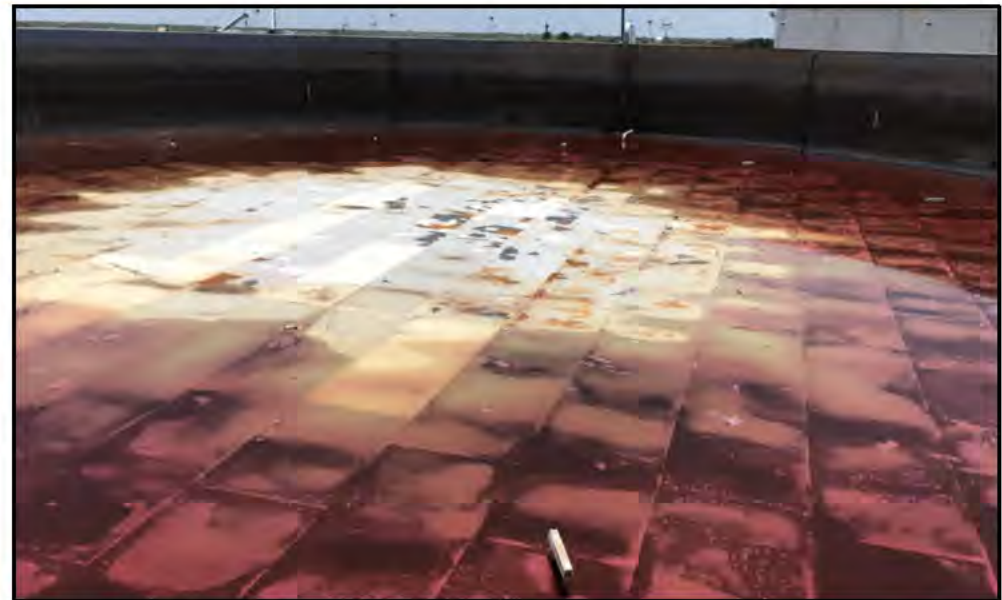
- Storage tank for brine that is transferred between caverns or pumped to the Gulf
- Being refurbished as part of LE2 (BM-LE-1779A)



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Background: BMT-1 Timeline

- S&BI awarded contract for work July 23, 2021
- S&BI mobilized to site October 6, 2021
- Tank liner was signed-off October 11, 2022
- Initial tank fill started November 10, 2022
- Cathodic Protection engaged May 24-25, 2023



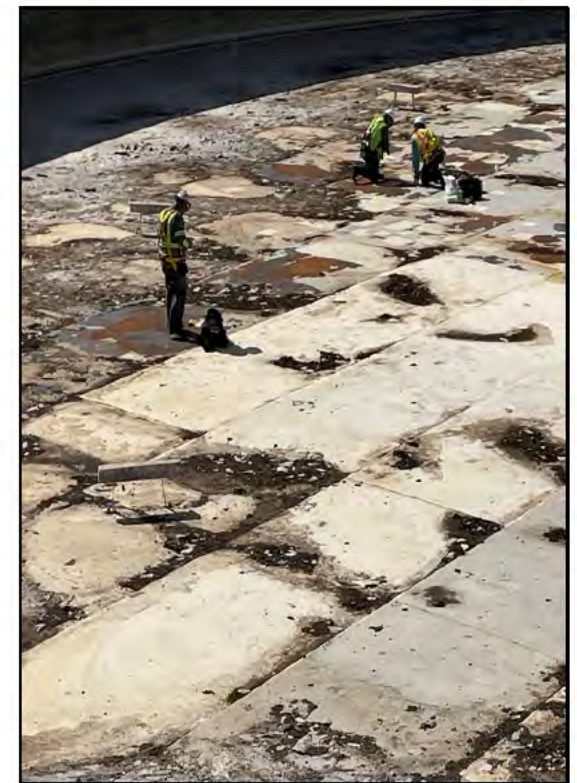
Background: BMT-1 Damage Documented

- FFPO LE2 Surveillance Report documented damage on June 2, 2023
- S&BI issued Non-Conformance Report on June 5, 2023
- Rusting and delaminated coating observed on tank floor and around tank

Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Immediate Action Taken:

- Operation of BMT-1 was suspended, and tank was completely drained; no significant pitting observed
- Access was granted to S&BI on June 13, 2021, for further examination of coating defects to tank liner



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

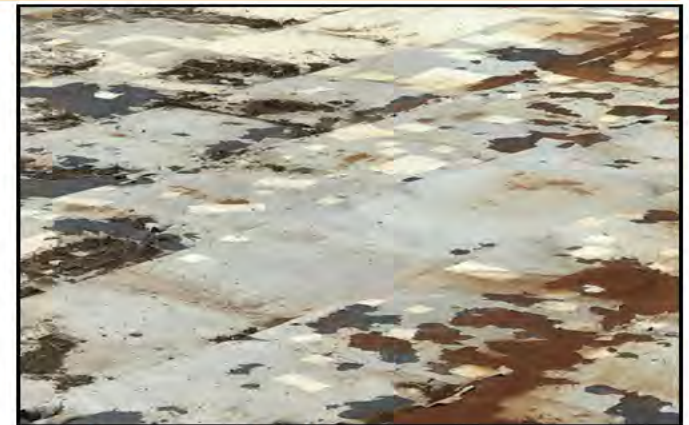
Failure Analysis Timeline:

- Failure Analysis officially requested by DOE on August 7, 2023
- FFPO and Woyt performed internal tank walkdown on August 10, 2023
- Woyt collected samples of the delaminated coating on August 10, 2023
- Interim Failure Analysis Report published on September 21, 2023
- Woyt Disbondment Test started on October 2, 2023
- FFPO requested an extension for the Final Failure Analysis Report publication date to December 14, 2023; extension requested on October 4, 2023
- Woyt Disbondment Test concluded by November 3, 2023
- Original Final Failure Analysis Report due date was November 6, 2023
- Final Failure Analysis Report published on December 14, 2023; FFPO extension request was approved on October 12, 2023

Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Investigation:

- S&BI investigated cause of failure
- FFPO investigated cause of failure
 - Coating Product Selection
 - Daily QA Oversight of Tasks
 - Cathodic Protection System
- Woyt Industries Contracted to FFPO – Independent Review of Coating Failure
 - Tank Internal Walkdown August 10, 2023
 - Tank Testing Conducted August 10, 2023
 - Performed 30-day Cathodic Disbondment Test
 - Detailed Test Results (disbondment, product composition, Microbiologically Influenced Corrosion (MIC), cathodic impact)



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Investigation: (Continued)

- Paint Specification 09440-LE-2 specified a novalac epoxy and stated the PPG product Amercoat 91 (or equivalent) should be used.
- Tank coating used was Sherwin Williams DuraPlate 154 (amine-cured bisphenol-A epoxy splash zone coating), which was not appropriate for this task.
- RFI-003 directed subcontractor to use DuraPlate 154, due to lack of availability of Amercoat 91. DuraPlate 154 was available and on the Qualified Products List (QPL).

Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Investigation: (Continued)

- Confusion about which DuraPlate to use: DuraPlate 154 or DuraPlate UHS
 - Per data sheets, DuraPlate UHS was the only appropriate DuraPlate tank liner product option for BMT-1; it is a novalac epoxy. DuraPlate 154 is an epoxy splash zone coating.
 - Amercoat 91, DuraPlate 154, and DuraPlate UHS were all listed on the Qualified Product List (QPL).
 - If an evaluation of Amercoat 91 vs DuraPlate 154 vs DuraPlate UHS was performed, it was not saved and cannot be located.
- Emails from Sherwin Williams identified a product called Phenicon HS as a novalac epoxy.
 - Phenicon HS was applied to BMT-1 after DuraPlate 154 ran out; task was 70% complete.
 - Tank areas coated with Phenicon HS did not fail.

Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Review of Testing Data:

- 30-Day Cathodic Disbondment Test
 - Paint panels displayed signs of disbonding within first 9 days
 - Disbondment significantly increased over the 30-day period
- Other Key Tests
 - Microbiologically Influenced Corrosion (MIC)
Presence of various bacteria colonies were noted
 - Coating Chalk Test – ultraviolet (UV) degradation was present
 - Spectroscopy – silica was detected on the coating surface



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Conclusion:

- Woyt findings concluded “an inappropriate coating material was used in an environment with an impressed current cathodic protection system”
- **Direct Root Cause of Failure – error in the selection of coating material (DuraPlate 154); not equivalent to the paint specification**
- Supplemental Causes of Failure – poor coating application, lack of QA oversight, environmental exposures, and operational stresses including movements while in service

Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Lessons Learned:

- Documentation was lacking with regard to communicating key decision points.
- A thorough evaluation for selecting appropriate coating material appeared non-existent.
- Key personnel were not effectively involved in the initial coating of the tank.
- The excessive amounts of coating defects present indicated a poor job of preparing and applying the paint coating.



Bryan Mound BMT-1 Interior Coating Failure Final Failure Analysis

Questions?



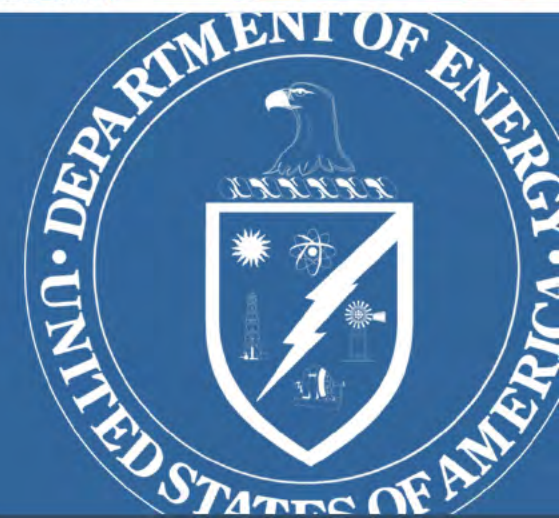


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Major Maintenance

February 21, 2024



Major Maintenance (MM) Projects – Outage Schedule Impacting Site Readiness to Drawdown

Project	Duration (Calendar Days)		Start	Finish
	CONSTRUCTION			
WH-MM-1469: IMPROVE VENT AND DRAIN SYSTEM (36" WH to LCMS) PHASE 2 (2 Traps and 1 Valve)	CONSTRUCTION	110	26FEB24	14JUN24
	OUTAGE	37	01MAR24	06APR24
WH-MM-1469: IMPROVE VENT AND DRAIN SYSTEM (42" WH to SUN) PHASE 2 (2 Traps: 1 Trap-SITE, 1-Trap SUN)	CONSTRUCTION	110	26FEB24	14JUN24
	OUTAGE	31	19APR24	19MAY24

Notes:

1. Outage period based on completing WH to Lake Charles Meter Station (LCMS) first and returning to service before starting WH to SUN
2. Based on contractor working 5-10 schedule
3. Oil refill schedule along with LE2 site outages has pushed this project out from the previous date of July 23 – October 23, 2023. This is in order for the SPR to deliver oil within 24 hours' notice during hurricane season.

SPR MM Program Today

Total	4th QTR MM Program FY 2023	1st QTR MM Program FY 2024	Delta
Number of Projects	135	-	-
Cost Estimate	\$178M	\$-	\$-

ASSUMPTIONS:

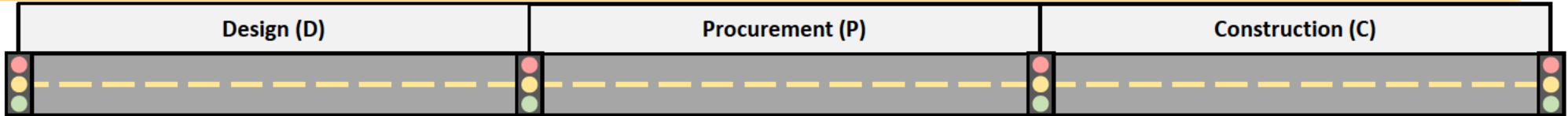
- Based on Major Maintenance Budget Planning Report for FY 2025, which includes the current estimates of all projects in MM starting in FY 2023.
- Includes 20 projects that were descope from LE2 Program with an estimated value of ~\$34M. These projects were based on the December 2020, and March 2021, LE2 project descopes.
- Does not include “project deferrals” from the LE2 Program (LE2 is requesting ~\$500M in additional funding for project deferrals).
- Includes Degas 3 site modifications, piping, foundations, fire protection, and electrical for BC, BH, and WH (ROM estimate ~\$35.4M).
- Does not include BM site modifications, piping, foundations, fire protection, and electrical. Does not include Degas 3 fabrication or Degas 3 relocation.
- Does not include additional Chiller Projects (The current and approved Chiller Projects at BC/BH are utilizing Petroleum Account (PAT) Funding).

Major Maintenance FY 2024

Task Number	Title	Current Estimate (12/18/2024)
BC-MM-2154A	HIGH INTEGRITY VALVES AT CUSTODY TRANSFER BOUNDARY (GFP)	\$883
BH-MM-2262	DIRECT ASSESSMENT AND REPAIR OF BH-SUN 36-INCH CO PIPELINE	\$427
BM-MM-1587A	REPLACE SITE EMERGENCY GENERATOR (MAIN SITE) GFP	\$556
WH-MM-1586A	REPLACE SITE EMERGENCY GENERATOR (LCMS AND MAIN SITE) GFP	\$586
WH-MM-1834	CRUDE OIL CAVERN TRANSFER PUMPS WHP-134 AND 135 (INSTALL)	\$1,296
WH-MM-1834B	CRUDE OIL CAVERN TRANSFER PUMPS - Valves GFP	\$159
WH-MM-1834C	CRUDE OIL CAVERN TRANSFER PUMPS - Motor Starters GFP	\$63
WH-MM-802A	REPLACE LCMS MCC - GFP	\$200
Sub-Total		\$4,170
Contingency/Shortfall(-)		\$330
Total Construction		\$4,500
Construction Management		\$1,260
Sub-total Construction & CM		\$5,760

FY 2018 SPR Major Maintenance Dashboard

Budget Year: **FY 2018**
 Obligations: \$13.5 MM
 Planned Tasks: 25



Task	Description	Phase	CWE	Status
BC-MM-1425	Correct Relief Valve Vibration Failures on MOV03 Valves	---		(Cancelled)
BC-MM-1591	Replace Foam Deluge Piping	---	\$1,542	Complete
BH-MM-750	Upgrade ADAS System Servers and Workstations	---	\$899	Complete
BH-MM-1253J	Close Anhydrite Pond 9 – Environmental Consultant/Sampling	---	\$312	Complete
BH-MM-1285A	Upgrade Launcher Equip at BH and Sun – GFP	---	\$360	Complete
BH-MM-1290	Upgrade Terminal Data Monitoring Equip at BH and Sun Terminals	C	\$23	LeakNet replacement is in procurement. Upgrade will follow LeakNet replacement. LOE Install.
BH-MM-1426	Correct Relief Valve Vibration Failures on MOV03 Valves	---		(Cancelled then replanned in FY 2022)
BH-MM-1569	Entergy 230 kV Transmission Line – BH Relay Upgrade	---	\$409	Complete
BM-MM-779	Replace Obsolete RW Injection Pump Vibration Transmitters	---	\$158	Complete
BM-MM-1213	Emergency Response Boom Deployment Dock at Blue Lake	---	\$320	Complete
BM-MM-1289	Upgrade Terminal Data Monitoring Equip at BM and TEPPCO Dock	C	\$17	LeakNet replacement is in procurement. Upgrade will follow LeakNet replacement. LOE Install.
BM-MM-1423	Correct Relief Valve Vibration Failures on MOV03 Valves	---		(Cancelled)
BM-MM-1427	Brine Repressurization Pump BMP-270 Replacement	---	\$579	Complete

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2018 SPR Major Maintenance Dashboard

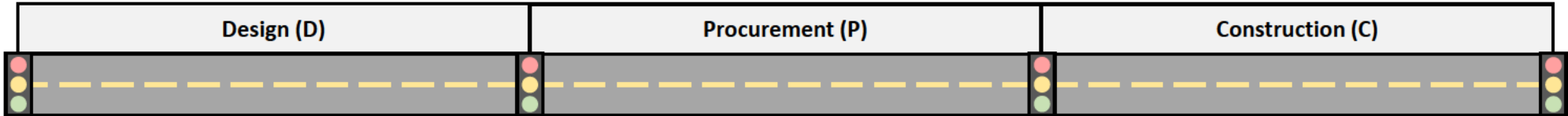
Budget Year: **FY 2018**
 Obligations: \$13.5 MM
 Planned Tasks: 25

Design (D)		Procurement (P)		Construction (C)	
Task	Description	Phase	CWE	Status	
BM-MM-1466B	Plug Body Drain on Underground Gate Valves – Explore Dig – Seaway	---	\$105	Complete	
WH-MM-1424	Correct Relief Valve Vibration Failures on MOV03 Valves	---		(Cancelled)	
WH-MM-1469A	Improve Launcher-REC Vent/Drain Sys at WH, Sun, LCMS – GFP	---	\$832	Complete	
WH-MM-1593	Oil Mop Skimmer for Brine Tanks for LOE Implementation – GFP	---	\$17	Complete	
WH-MM-1835	Replace Slop Oil Gathering Systems	---	\$1,101	Complete	
WH-MM-1835A	Replace Slop Oil Gathering Systems – Tank (GFP)	---	\$26	Complete	
WH-MM-1835B	Replace Slop Oil Gathering Systems – Pump (GFP)	---	\$53	Complete	
WH-MM-439	Sewage Treatment Plant	---	\$903	Complete	
WH-MM-439A	Sewage Treatment Plant – GFP	---	\$97	Complete	
WH-MM-675	Site Building Upgrades – (Phase 3) E2P2	---	\$1,068	Complete	
WH-MM-753	Upgrade ADAS System Servers and Workstations	---	\$899	Complete	
WH-MM-1292	Upgrade Terminal Data Monitoring Equip at WH and LCMS	C	\$15	LeakNet replacement is in procurement. Upgrade will follow LeakNet replacement. LOE Install	

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2019 SPR Major Maintenance Dashboard

Budget Year: **FY 2019**
 Obligations: \$11.6 MM
 Planned Tasks: 21

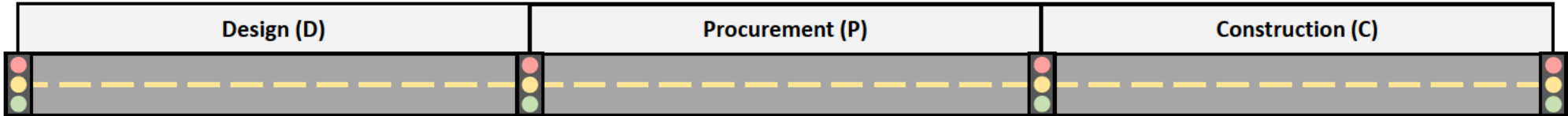


Task	Description	Priority	Phase	CWE	Status
BC-MM-1464	Plug Body Drain on Underground Gate Valves	Med	---	\$78	Complete
BC-MM-1815A	Upgrade DCS Controllers Network Hardware – GFP and Install	Med	---	\$189	Complete
BC-MM-1815B	Upgrade Flow Computers – GFP	Med	---	\$52	Complete
BH-MM-1253L	Pond 9 Remediation (Sediment Removal and Disposal)	High	---	\$1,988	Complete
BH-MM-1330	Replace Fire Water Piping in Building 810	Med	---	\$894	Complete
BH-MM-1465	Plug Body Drain on Underground Gate Valves (DO 802)	Med	---	\$84	Complete
BH-MM-1606	Direct Assessment and Repair of BH-Sun 36-inch CO Pipeline	Med	---	\$198	Complete
BH-MM-1816A	Upgrade DCS Controllers and Network Hardware – GFP	Med	---	\$319	Complete
BH-MM-1816B	Upgrade Flow Computers – GFP	Med	---	\$91	Complete
BH-MM-1884	Upgrade RTU's at Remote Pipeline Valves	Med	---	\$101	Complete

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2019 SPR Major Maintenance Dashboard

Budget Year: **FY 2019**
 Obligations: \$11.6 MM
 Planned Tasks: 21

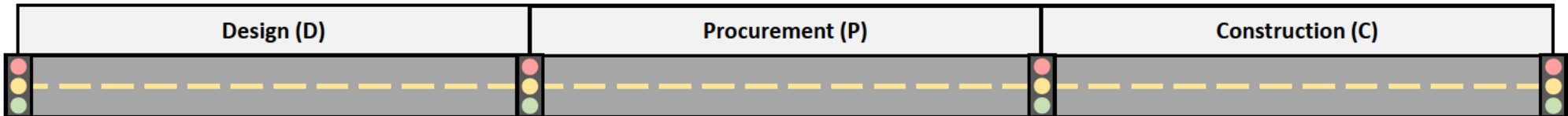


Task	Description	Phase	CWE	Status
BM-MM-438	Sewage Treatment Plant – Onsite Work	D	\$1,802	Final AFC has been issued. Project is awaiting coordination with the municipality of Freeport.
BM-MM-438C	Sewage Treatment Plant – Freeport Offsite Pipeline	D	\$1,253	
Δ BM-MM-674A	Site Building Upgrades – (Phase 3) HVAC	C	\$1,744	Complete
BM-MM-674B	Site Building Upgrades – (Phase 3) CSA	C	\$1,360	Planned completion Feb 2024
BM-MM-1466A	Plug Body Drain on Underground Gate Valves – Seaway (DO 202)	---	\$701	Complete
BM-MM-1466C	Plug Body Drain on Underground Gate Valves – Site (DO 204)	---	\$129	Complete
BM-MM-1817A	Upgrade DCS Controllers and Network Hardware – GFP	---	\$397	Complete
BM-MM-1817B	Upgrade Flow Computers – GFP	---	\$112	Complete
WH-MM-1818A	Upgrade DCS Controllers and Network Hardware – GFP	---	\$401	Complete
WH-MM-1818B	Upgrade Flow Computers – GFP	---	\$176	Complete
WH-MM-1885	Upgrade RTU's at Remote Pipeline Valves	---	\$203	Complete

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2020 SPR Major Maintenance Dashboard

Budget Year: **FY 2020**
 Obligations: \$14.3 MM
 Planned Tasks: 10

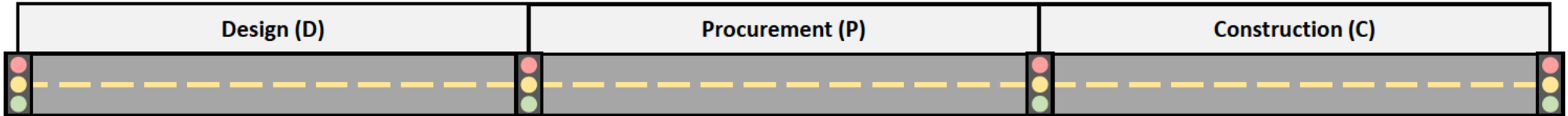


Task	Description	Phase	CWE	Status
BC-MM-1283	Replace ADAS Servers, Workstations, and Video Servers	---		(Cancelled)
BC-MM-1932	Repair and Pave Site Entrance Parking Lot	---	\$731	Complete
BC-MM-2027	Stabilization of Entry Road at Cavern Lake	---	\$6,860	Complete
BC-MM-2029	South Gate Entry Improvements	---	\$619	Complete
BH-MM-1285	Upgrade Launcher Equip at BH and Sun	---	\$1,446	Complete
BH-MM-1536	Install Fiber Optic Line to BH	---	\$141	Complete
BH-MM-670	Site Building Upgrades – (Phase 2) E2P2	---	\$1,797	Complete
BM-MM-1284	Replace ADAS Servers, Workstations, and Video Servers	---		(Cancelled)
BM-MM-740K	Install Floating Roof Legs in CO Tank BMT-2	---		(Cancelled)
WH-MM-1469	Improve Launcher-Receiver Vent/Drain Sys at WH, Sun, LCMS	C	\$2,353	Awaiting outage window construction.

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2021 SPR Major Maintenance Dashboard

Budget Year: **FY 2021**
 Obligations: \$6.1 MM
 Planned Tasks: 10

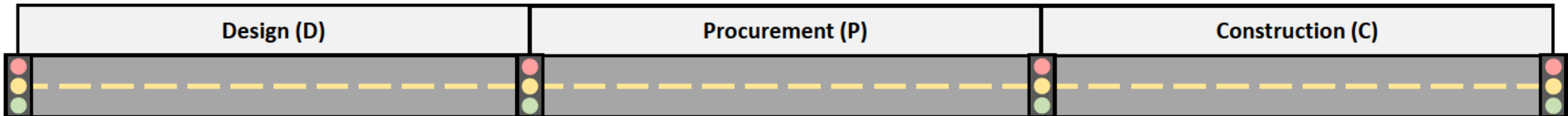


Task	Description	Phase	CWE	Status
BC-MM-1590A	Replace Brine Control Valve (4B000PV57) – GFP	---	\$41	Complete
BH-MM-1887	Clean/Inspect Crude Oil Surge Tank BHT-7	P	\$467	Postponed to coincide with LE2 outage in FY 24
BH-MM-2091	Upgrade Pipeline Valve Satellite Equipment	---	\$81	Complete
BM-MM-1607	Direct Assess/Repair of BM-Seaway 30-inch CO Pipeline	---	\$325	Complete
WH-MM-826	Replace 24-inch Brine Disposal Line – Install	D	\$6,387	Property issue (USACE/DOJ); GFP is on site
WH-MM-1604	Direct Assess/Repair of WH-LCMS 36-inch CO Pipeline	---	\$257	Complete
WH-MM-1859A	Replace Launcher Valve MLV-02 at RWIS – GFP	C	\$2	Nearing Completion TD&I Awarded
WH-MM-2023	Replace HVAC in Buildings 302 and 318	C	\$1,109	Replacement coil on schedule for Nov 2023.
WH-MM-2092	Upgrade Pipeline Valve Satellite Equipment	---	\$138	Complete

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2022 SPR Major Maintenance Dashboard

Budget Year: **FY 2022**
 Obligations: \$10.0 MM
 Planned Tasks: 7

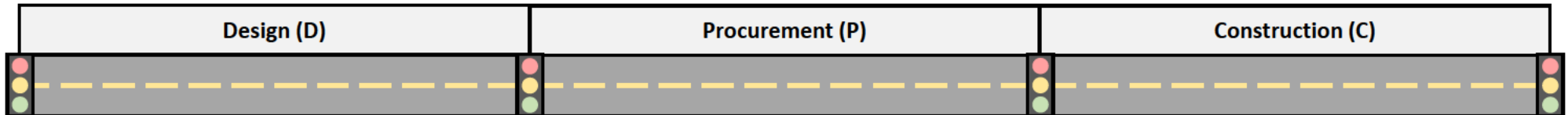


Task	Description	Phase	CWE	Status
BH-MM-1215A	Replace Site Electrical Transformer BHTX-1 – GFP	C	\$2,113	Awarded In Fabrication
BH-MM-1216A	Replace Site Electrical Transformer BHTX-2 – GFP	C	\$2,113	Awarded In Fabrication
Δ BH-MM-1426	Correct Relief Valve Vibration Failures on MOV03 Valves	C	\$389	Awarded In Fabrication
BH-MM-1557A	Sewage Treatment Plant – GFP	C	\$164	Complete
BH-MM-1557	Sewage Treatment Plant – Install	C	\$980	Complete
WH-MM-1834A	Crude Oil Cavern Transfer Pumps WHP-134 and -135 – GFP	C	\$1,794	Revised ship date for pumps is May 2024
WH-MM-1969A	Clean and Inspect Brine Tank WHT-14	P	\$859	Procurement seeking bids

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

FY 2023 SPR Major Maintenance Dashboard

Budget Year: **FY 2023**
 Obligations: \$3.6 MM
 Planned Tasks: 10



Task	Description	Phase	CWE	Status
Δ BH-MM-2162	Install Fire Protection Foam System Testing Headers	C	\$267	Awarded Mobilizing
WH-MM-1969	Repair and Coat Brine Tank WHT-14	D	\$1,104	Planning Estimate

Green Open; no issues
 Amber Open; moderate issues
 Red Open; significant issues
 White Closed
 Δ = Change from last Program Review
 CWE (\$000)

Systems and Projects Video

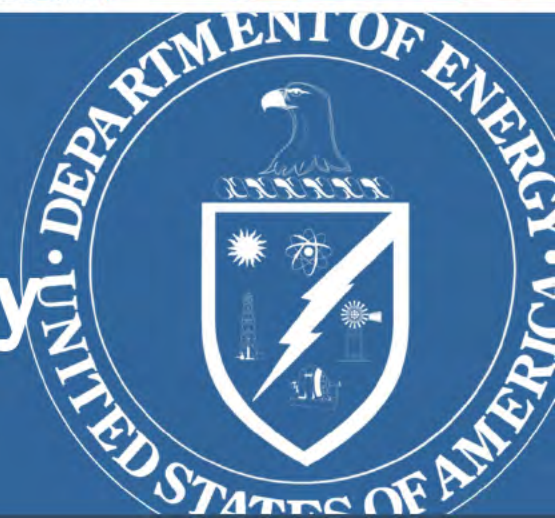


U.S. DEPARTMENT OF
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Office of
Cybersecurity, Energy Security,
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Office of Information Technology

February 21, 2024



Agenda

Major Items and Activities

- Northeast Home Heating Oil Reserve (NEHHOR)/Northeast Gasoline Supply Reserve (NGSR) Status
- Site Conference Room Upgrades
- Emerson Visit
- Internet Protocol Version 6 (IPv6) Project Update

Migrate NEHHOR/NGSR Hosting to the SPR

- Worked with M&O and Microsoft to develop final Budgetary Estimate
 - First year cost– \$420,082
 - Annual Recurring cost – \$221,622
- Presented the revised estimate to Office of Petroleum Reserves (OPR)
- Obtained approval to proceed
- Next Steps
 - OPR Web Front Ends upgraded to support PaaS
 - Activate Development Cloud Environment
 - Route ECP for approval
 - Development Workshops for OPR and the M&O

The screenshot shows the website for the Northeast Gasoline Supply Reserve. At the top, it features the U.S. Department of Energy logo and the text "Office of Fossil Energy" and "Northeast Gasoline Supply Reserve". Below this is a navigation bar with buttons for Home, Login, Register, Sale Terms, Bid, Help, and Log Off. A message states "You are not logged on. You must be logged on to bid." Below the navigation bar, there is a section titled "Energy Protection for Americans" with a paragraph of text. To the right of this text is a box titled "Background Information & Reserve Documents" containing links for Notice of Sale, Distribution Plan, Sale Implementation Plan, Questions and Answers, Comments, Reserve Background, and About This Site. At the bottom of the page, there is a note about the best browser and screen resolution for viewing the site.

U.S. DEPARTMENT OF ENERGY
Office of Fossil Energy
Northeast Gasoline Supply Reserve

Home Login Register Sale Terms Bid Help Log Off

You are not logged on. You must be logged on to bid.

Energy Protection for Americans
The U.S. Department of Energy has created a Gasoline Supply Reserve of one million barrels in leased commercial terminals in the Northeast.

To receive E-mail Alerts concerning the Reserve, please click on the Register button above and provide your name and e-mail address.

To submit bids in the case of a sale, please click on the Register button above and complete both sections of the form. This will establish a UserName and password which will be needed to submit bids.

Please note that both your UserName and Password should be kept strictly confidential, since they potentially bind you to a contract with the government.

Should emergency use of the Reserve be ordered, the Department of Energy's solicitation and bid process will be posted on this site. The buttons above will direct you to the solicitation and will provide instructions for submitting your bid(s).

This site is best viewed with Internet Explorer 5.5 or better, Firefox 3.0 or better, or Chrome 8 or better and with a screen resolution of 1024x768.

Background Information & Reserve Documents
(Requires Adobe Reader to view)
- Notice of Sale
- Distribution Plan
- Sale Implementation Plan
- Questions and Answers
- Comments
- Reserve Background
- About This Site

Migrate NEHHOR/NGSR Hosting to the SPR

Application Initial Implementation	\$34,000	Year 1 Only
Unified Support from Microsoft	\$34,877	Recurring
Unified Development Support	\$164,460	Year 1 Only
Recurring labor costs	\$64,345	Recurring
Cybersecurity Subscriptions	\$61,800	Recurring
SPR Azure Costs	\$60,600	Recurring

First Year \$ 420,082.00
 Recurring \$ 221,622.00

Costs	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
M&O Labor	\$98,345	\$64,345	\$65,825	\$67,339	\$68,888	\$70,472	\$72,093
Software Subscriptions	\$122,400	\$125,215	\$128,095	\$131,041	\$134,055	\$137,139	\$140,293
Unified Support	\$199,337	\$34,877	\$35,679	\$36,500	\$37,339	\$38,198	\$39,077
Totals	\$420,082	\$224,437	\$229,599	\$234,880	\$240,282	\$245,809	\$251,462

* Escalated at 2.3%. Current prescribed rate per the FY 2026 Budget Request

SPR Site Conference Rooms

- Initiative to upgrade the remote SPR Site Conference Rooms
- Goals - provide improved conference room experience featuring:
 - Large format displays (moving away from projectors)
 - AV racks in rooms to cleanup wiring
 - Continued use of Poly devices for video conferencing
 - Add Surface Docks as an option to allow use of displays from a user's SPR issued surface book



SPR Site Conference Rooms

- Site assessments conducted with all 4 sites
- Sites to perform conference room prep work
 - Such as electrical, wall reinforcement/minor construction
- WH Deployment began January 2024
 - Deployment was coordinated with sites by FFPO Data Systems with subcontractor performing hardware/cabling installation
 - WH conference room upgrades were completed early January
 - FFPO Data Systems configured/tested newly installed devices

Emerson Visit (DCS Vendor)

- A visit to the Emerson facilities occurred 11/30/2023 – 12/1/2023
- Participation included:
 - Data Systems, Cyber Security, and Control Systems Group
 - DOE and FFPO staff
- Primary objectives:
 - Discuss Emerson product roadmap
 - Technologies and services available to enhance DCS security
 - Support for Federal initiatives such as Zero Trust (ZTA) and IPv6



Emerson Visit (DCS Vendor)

- Key Observations:
 - New technologies exist to improve operational capability and enhance security
 - Virtualization
 - Security Information and Event Management (SIEM), Integrated Patch Management (IPM), Network Security Monitor (NSM)
 - Emerson Assessment Services could be used to plan and prioritize DCS enhancements and security improvements
 - Limited to no support for Federal initiatives
 - Effort underway by Emerson to map ZTA requirements to DeltaV capabilities
 - Could have improved ZTA support in future v16 product release (2 years?)
 - No plans to support IPv6 on DeltaV



U.S. DEPARTMENT OF ENERGY

OFFICE OF CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE

IPv6 Status Update

Memorandum (M-21-07)

- Outlines the requirements for implementing IPv6 across all Federal information systems and services by the end of fiscal year 2025.

What is IPv6?

- IPv6 is the next-generation Internet protocol, designed to replace IPv4.

Summary of work completed with IPv6 through end of FY 2023

- Configuration were implemented in the SPR's core network infrastructure to support both IPv4 and IPv6.
- IPv6 Telephony test deployments were conducted and completed successfully to confirm IPv6 operability within SPR's IT network infrastructure.

List of Milestones by End of FY 2024

- Per Control Milestone Change Request 23-19, 50% completion deployment of IPv6.

U.S. DEPARTMENT OF
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Technical Assurance

February 21, 2024

ASSISTANT PROJECT MANAGER

TECHNICAL ASSURANCE

- Environmental, Safety, and Health Division (ESHD)
 - Safety Statistics
 - Safety Oversight
 - Industrial Hygiene
 - Environmental Activities
- Quality and Performance Assurance Division (QPAD)
 - On-Site Management Appraisal Updates
- Security and Emergency Operations Division (SEOD)
 - Security
 - Emergency Management

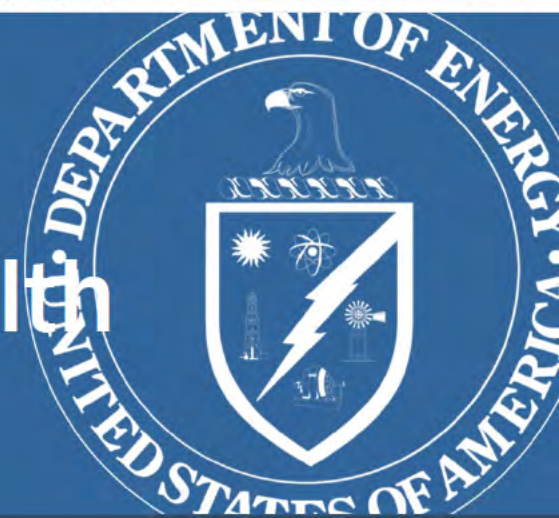


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Environmental, Safety and Health

February 21, 2024



Safety Statistics

1st Quarter Safety Statistics: 10/01/2023 - 12/31/2023

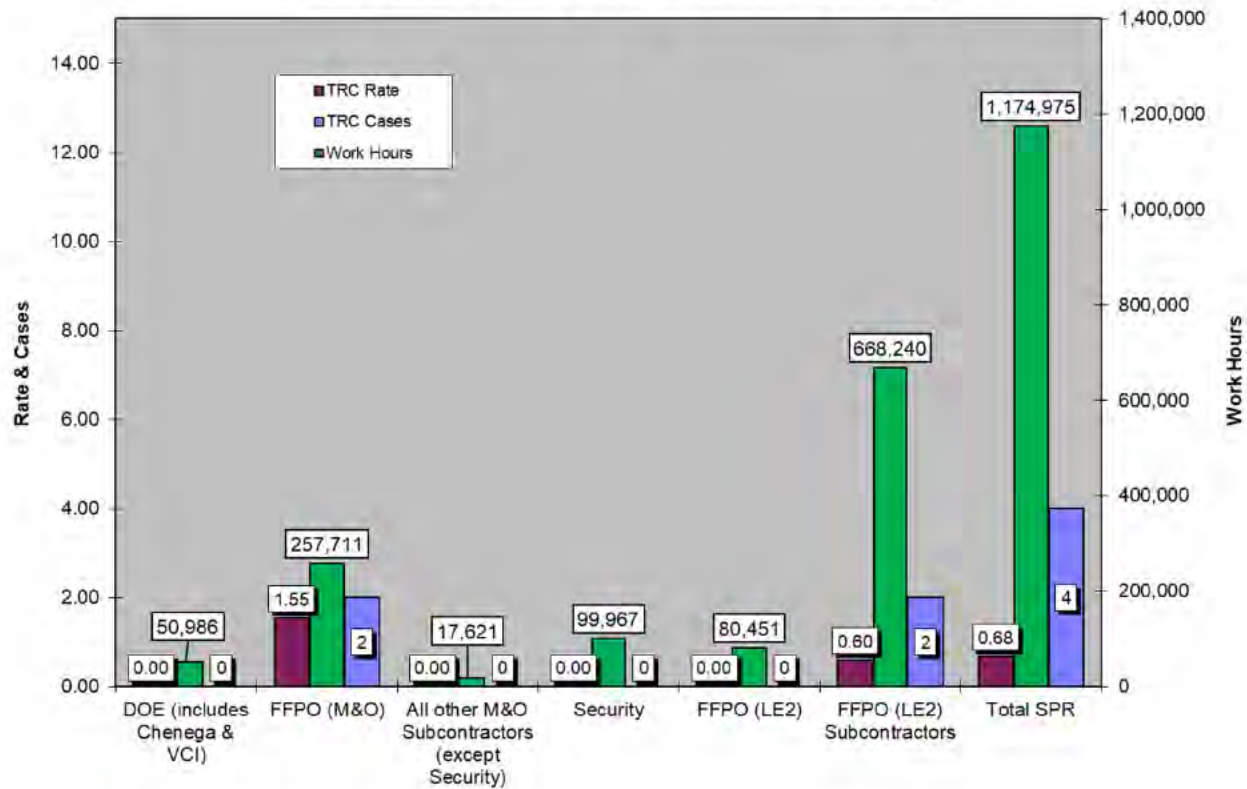
- Total Recordable Case (TRC) Rate = 0.68
- Days Away, Restricted, or Transferred (DART) Case Rate = 0.34

FY 2024	1Q	2Q	3Q	4Q	Cumulative
TRC	0.68				
DART	0.34				

FY 2023	1Q	2Q	3Q	4Q	Cumulative
TRC	0.31	0.56	1.36	0.75	0.78
DART	0.31	0.56	1.36	0.38	0.66

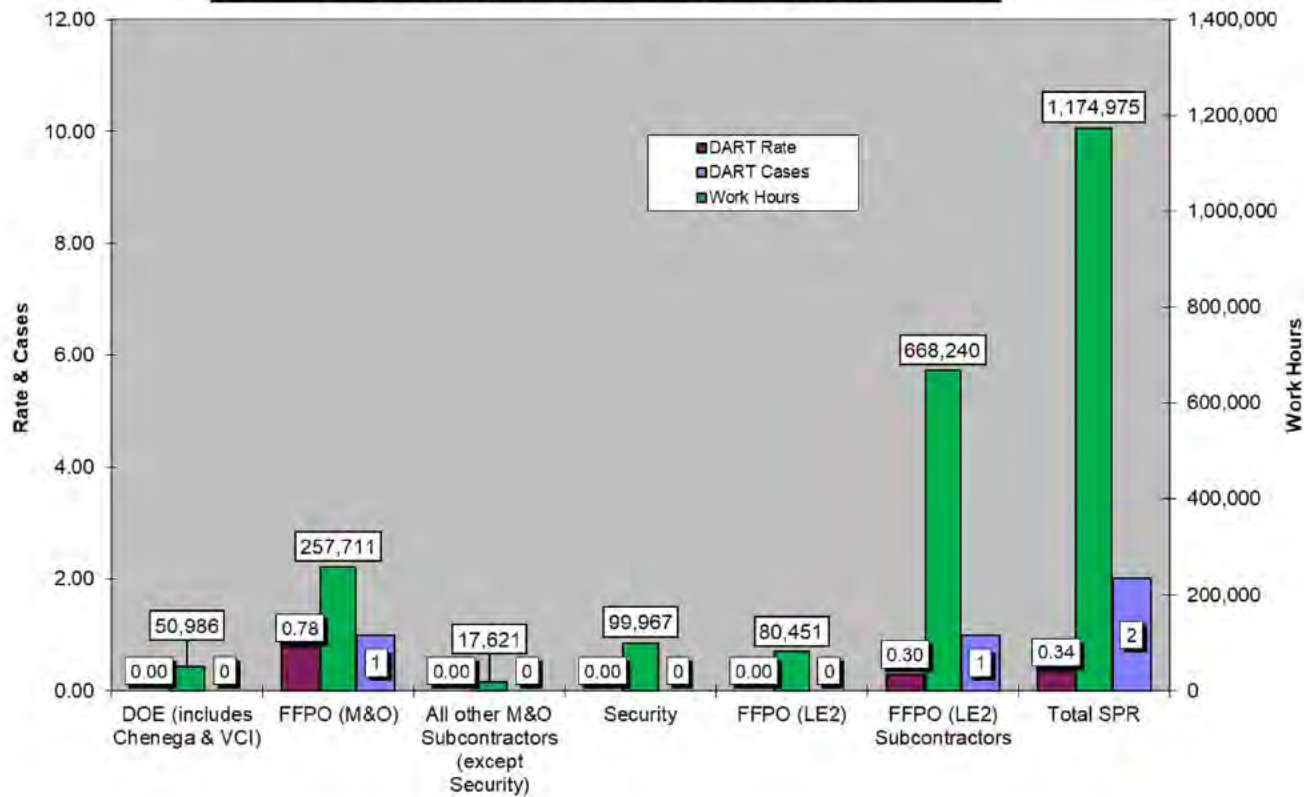
Safety Statistics

Total Recordable Case (TRC) Rate
FYTD 2024 (October 1, 2023 - December 31, 2023)

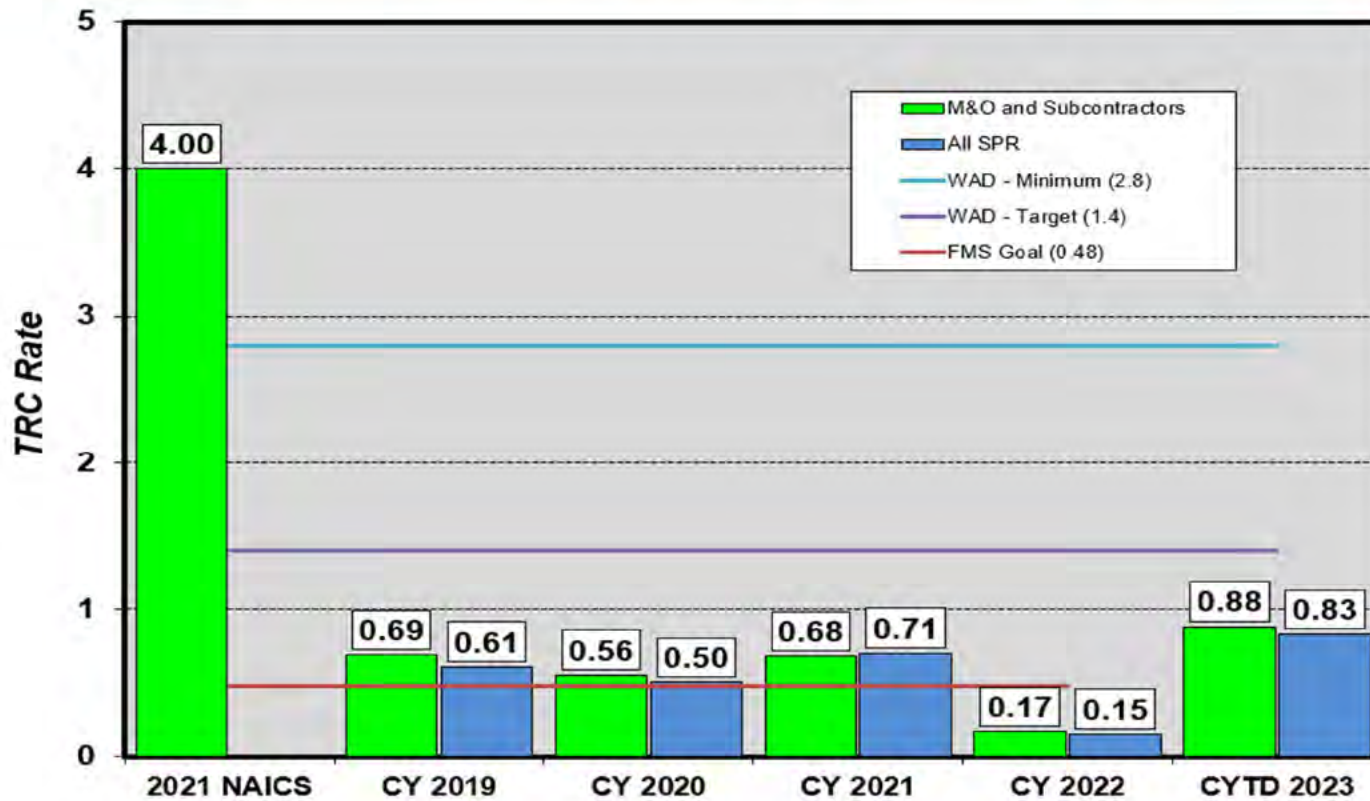


Safety Statistics

Days Away Restricted Time (DART) Rate
FYTD 2024 (October 1, 2023 - December 31, 2023)

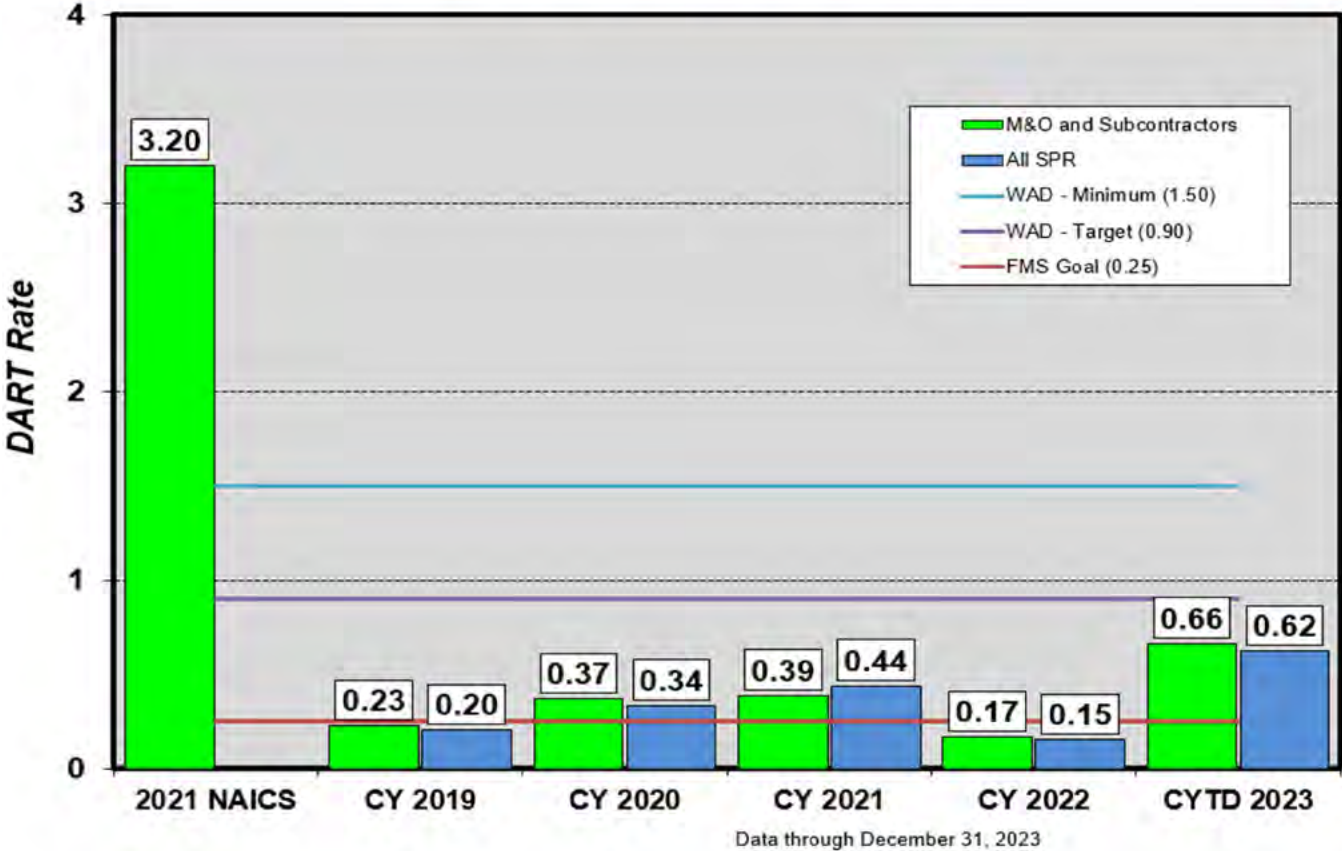


Total Recordable Case Rate



Data through December 31, 2023

DART Case Rate



Safety Statistics

Oct: (1) TRC/DART Case

10/10/23 – BM RCI LE2 – TRC/DART (CLOSED)

Nov: (2) TRC/(1) DART Case

11/03/23 – BM FFPO Base - TRC (OPEN)

11/07/23 – BC RCI LE2 – TRC (CLOSED)

11/15/23 – BC FFPO Base – TRC/DART (CLOSED)

Dec: (0) TRC/DART Case

Safety Statistics

Date	October 10, 2023
Site	Bryan Mound
Company	S&BI (LE2)
Brief Description	At approximately 9:50 a.m., an S&BI rigger was carrying a 4x6 piece of cribbing and lost a grip on the right side of the cribbing dropping it onto their right foot just behind the steel toe.
Status	<p>The incident was reported to the Control Room Operator (CRO) and the Emergency Response Team (ERT) was dispatched. The employee was evaluated by the S&BI clinic and then taken to the Global Health occupational clinic for further evaluation and treatment. The employee received an X-ray and was diagnosed with a broken right pinky toe. The employee was put in a walking boot, provided over the counter (OTC) pain medication and return to work (RTW) with restrictions.</p> <p>TRC/DART (47 Restricted Days Away) – Closed</p>

Safety Statistics

Date	November 3, 2023
Site	Bryan Mound
Company	FFPO (Base)
Brief Description	At approximately 11:15 a.m., an FFPO employee sustained a finger injury while removing bolts on a raw water piping valve utilizing an air impact tool. The employee's right ring finger slipped in between the socket and swivel and was pinched causing a laceration to the tip of the finger.
Status	The ERT responded, administered first aid and the employee contacted WorkCare. WorkCare coordinated an offsite clinic visit. The employee was evaluated and received medical treatment including sutures and was returned to work full-duty without restrictions. The employee had a follow-up on 11/6/23, and went back to work performing regular duties. The employee had an appointment with a hand specialist on 11/7/23, and after examination, was returned to work full duty with a follow-up on 11/14/23. The employee had their sutures removed on 11/14/23. Final follow up has yet to be scheduled. Recordable Only – Open

Safety Statistics

Date	November 7, 2023
Site	Bayou Choctaw
Company	RCI (LE2)
Brief Description	At approximately 9:45 p.m., an RCI pipefitter installing pipe shoes in CWA 22 near the 401 building, caught the right middle finger between two pieces of pipe shoe, causing injury to the finger including a laceration, pain, and bruising.
Status	The incident was reported to the CRO and the ERT was deployed. After initial assessment and first aid, the employee was taken to Prime Occupational Medicine clinic for further evaluation. The clinic examined the finger and performed an x-ray, subsequently diagnosing a distal fracture to the tip of the finger and a laceration requiring sutures and prescription medication. The employee was released to return to work with no restrictions. Recordable Only – Closed

Safety Statistics

Date	November 15, 2023
Site	Bayou Choctaw
Company	FFPO (Base)
Brief Description	At approximately 5:30 a.m., an FFPO employee was exiting the bus when they slipped and fell to the ground causing abrasions and scratches to their left knee, left elbow, right index finger, and right middle finger.
Status	The incident was reported to the CRO and site ERT deployed to render first aid. The ERT cleaned dressed and bandaged the wounds on the knee, elbow, and fingers. WorkCare was notified and the employee had a follow-up clinic visit on 11/27/2023, and has returned to work. Recordable/DART – Closed

Safety Oversight and Improvements

Safety Oversight		
Oversight Assessment Tools	1Q	1 st Quarter FY 2024 Program Areas
Routine Surveillance Report (RSR)	15	Various Safety, Industrial Hygiene, and PSM topics (15) Non-findings (0) Findings
Onsite Management Appraisal Safety Topics (BM)	4	<ul style="list-style-type: none"> • Management of Change – Pipe Sleeves (Effective Performance) • Hearing Conservation Program (Effective Performance w/Observation) • Work Plan Process (Medium-Risk Nonconformance) • Site Safety and Health Staff Participation in Design Reviews (Low Risk Nonconformance)
Technical Assurance Document Assessment (TADA) Workflow	24	Contractor Work Authorization Deliverables (WAD)

Safety Oversight and Improvements

Program Enhancements	
FY 2023 Safety Oversight Management Assessment (SOMA)	<ul style="list-style-type: none"> • Final Report received (10/20/23) • CAP responses submitted to Program Office (11/22/23)
DOE PFAS Survey Training Sessions	<ul style="list-style-type: none"> • Submitter training completed (Oct) • Approver training completed (Nov)
LOTO - Performance Improvement Team	<ul style="list-style-type: none"> • LOTO - Performance Improvement Team Meeting (12/12/23) <ul style="list-style-type: none"> - Kick Off/Introductory meeting
DOE-HDBK-1101 Writing Team	<ul style="list-style-type: none"> • DOE-HDBK-1101, DOE Handbook on Process Safety Management for Highly Hazardous Chemicals - Process Safety Management, Writing Team Meeting (12/14/23) <ul style="list-style-type: none"> - Kick Off/Introductory meeting

Industrial Hygiene (IH) Oversight

- 16 IH Exposure Assessments performed
 - 3 – BC
 - 7 – WH
 - 3 – BM
 - 3 – BH
- 33 Samples performed
 - One required additional controls to be implemented for hearing conservation.
 - Samples included: H₂S, VOC's, BTEX, and noise.
- 3 - H₂S Alarm events
- Review of the Hearing Conservation Program at BM during the DOE On-Site.

Industrial Hygiene Oversight

1st Quarter FY 2024 Industrial Hygiene Exposure Assessments

Site	Analyte(s)	Similar Exposure Group (SEG)
BC	VOCs	Maintenance – Painter
BC	Lead	Bulk Samples
BC	Noise	Maintenance – Grass Cutter
WH	Noise	Operations – Field Operator Area Noise – Fire Water Pumps Area Noise - RWIPP
WH	VOCs	Maintenance – Painter
WH	VOC/H ₂ S/Noise	Maintenance – Mechanic
BM	BTEX / H ₂ S	Operations – CO Spill Response and Clean Up
BM	Noise	Area Noise – Generator Area Noise – Vac Truck Operations
BH	Noise	Maintenance – Needle Gun Area Noise – Pump Pad

Industrial Hygiene Oversight

1st Quarter FY 2024 H₂S Alarms

Site	Date	Concentration	Work Process
BH	19 Oct 2023	5 ppm	While priming a water pump at the RWIPP, the employee personal H ₂ S monitor alarmed at 5 ppm.
BM	6 Dec 2023	10 ppm	After starting a water pump to clear an excavation, an S&BI employee, LE2 Subcontractor, personal H ₂ S monitor alarmed at 10 ppm.
BH	7 Dec 2023	10 ppm	Upon turning on the Triplex pump, a BH Operator personal H ₂ S monitor alarmed at 10 ppm.

Environmental Compliance Assessments

On-Site Management Appraisal Environmental Topics	Results
Burned-Out Bulbs and Spent Ballasts	Effective Performance
Verification of Site Discharge Monitoring Report Data	Effective Performance
Waste Transportation and Disposal	Effective Performance
Compliance with Spill Prevention, Control, and Countermeasures (SPCC) Plan Inspections	Effective Performance
Dewatering Conducted Through LE2 Activities	Low-Risk Nonconformance

Environmental Management System (EMS)	Results
Orion Registrar, Inc. conducted the triennial ISO 14001 Recertification audit (Oct 2023)	Successfully passed <ul style="list-style-type: none"> • 2 OFIs (House Keeping)

NASA Stennis Space Center	Results
Conducted Annual Resident Agency Audit at the Stennis Warehouse (Dec 2023)	No Finding

Environmental Performance

Criteria	Goal	1 st Quarter FY 2024 Result
Non-Hazardous Solid Waste Diversion	50%	94%
Construction and Demolition Waste Diversion	50%	86%
Sustainable Acquisition	95%	100%
Permit Exceedances Reported on Discharge Monitoring Reports	Not to exceed 8	2
Reportable Releases	Not to exceed 6	0

Environmental Activities

- A contractor completed the semi-annual tank seal inspections for BMT-2 and BMT-3 on December 11, 2023.
- FFPO provided the fill notification letter to Texas Commission on Environmental Quality (TCEQ) for the 3 million barrels that Big Hill will receive in January 2024.
- Bryan Mound air permitting application process is ongoing.
 - Additional air modelling is being conducted per the request of TCEQ.
- Coordinated with FFPO on the development of plans to manage the brine and paint chips in BMT-1.
- Hazardous waste was removed from West Hackberry on December 18, 2023.
 - The other three sites are developing plans to clear their accumulation areas in FY 2024.

Sustainability Activities

- FY 2023 Sustainability Data was uploaded to the DOE Sustainability Dashboard on November 16, 2023
- The FY 2023 Site Sustainability Plan narrative was uploaded to the dashboard on December 1, 2023



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Quality and Performance Assurance Division

SPR On-Site Management Appraisal Program
February 21, 2024



Bryan Mound On-Site Management Appraisal

- Conducted November 13–22, 2023
- 25 Team Members (in addition to Team Lead and Chenega support) appraised 28 topics
- Appraisal Results:
 - 24 Effective Performances
 - 1 Medium-Risk Finding
 - 3 Low-Risk Findings
 - 1 Very Low-Risk Finding
 - 6 Opportunities for Improvement (Observations)

Bryan Mound On-Site Findings

- **Medium-Risk**

- **Work Plan Process** – While witnessing excavation work north of the crude oil injection building, it was observed that an excavator operator was rotating away from the flagger. This resulted in the flagger being behind the excavator and not being able to communicate with the operator. A scaffold builder walked in front of the excavator near the process during this time. There was no visible border of the exclusion zone.

While witnessing the lift of a 16,000 lb. welded pipe, it was observed that up to eight crew members working to build cribbing underneath the pipe were being exposed to shifting/falling loads and potential crush injuries.

Bryan Mound On-Site Findings

- **Low-Risk**
 - **Dewatering Conducted Through LE2 Activities** – A dewatering process north of the Motor Control Center K building resulted in the discharge of stormwater at the sluice gate without sufficient filtration. This resulted in the discharge of sediment offsite into blue lake and significantly increased the turbidity of the water.
 - **Site Safety and Health Staff Participation in Design Reviews** – It was observed that 2 of 16 design reviews for the Bryan Mound site had comments from FFPO Safety and Health personnel. There exist insufficient FFPO Safety and Health oversight on the majority of design reviews for the past two years at the Bryan Mound site.

Bryan Mound On-Site Findings

- **Low-Risk**
 - **Pipe Valve Maintenance** – Maintenance Requirement Card (MRC) 461 requires valves to be inspected sesquiennial (every 18 months). This does not comply with part (b) of the 49 CFR 195.420 requirement (twice each calendar year).
- **Very Low-Risk**
 - **Suspect/Counterfeit Parts and Items** – The only Property Inspection routinely performed is a Perpetual Inventory that does not include Suspect/Counterfeit Inspection (S/CI) criteria.

Other On-Site Appraisal Activity

- **FY 2024 On-Site Management Appraisals**
 - New Orleans/Stennis January 8-18, 2024
 - West Hackberry March 11-21, 2024
 - Bayou Choctaw May 6-16, 2024
 - Big Hill September 9-19, 2024

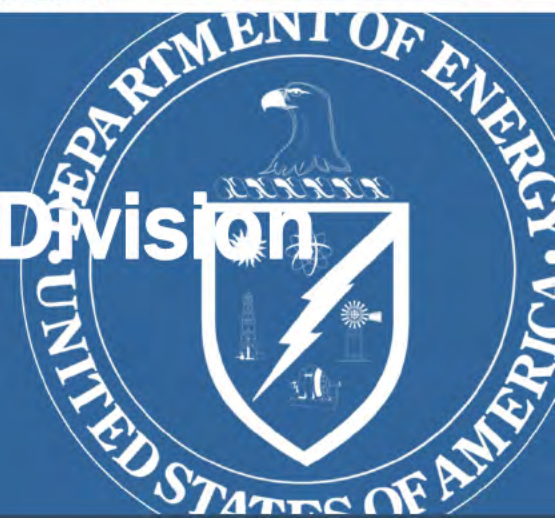


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Security and Emergency Operations Division

February 21, 2024



Security Surveys

Security Survey Schedule

- Bayou Choctaw: August 26-29, 2024
- Big Hill: September 16-19, 2024
- Bryan Mound: October 14-17, 2024
- West Hackberry: November 18-21, 2024
- NOLA/Stennis: December 9-12, 2024

FY 2024 Oversight

- Live Fire Range Assessment
- Canine Program Technical Assessment

Controlled Unclassified Information (CUI)

CUI Implementation

- SPR continues collaboration with DOE HQ to maintain consistency with CUI program, category, and IT requirements
- SPR determined some additional CUI categories that potentially impact project documents and has begun the submission process to DOE HQ for approval
- SPR is determining the best use of the Microsoft Office suite sensitivity button to assure accurate and appropriate marking of documents
- HQ DOE CUI playbook issued
- Coordination is ongoing between Security and IT/Cyber to coordinate a phased implementation and to produce an SPR desktop guide

Unmanned Aircraft System Program (UAS)

- **Development**

- FY 2022 Field Training Exercises and Security Risk Assessment were used to understand threat, Security use cases, and identify training opportunities for Protection Force

- **Security Use Cases**

- Develop & train Protection Force response during an assault or UAS event
- Support Security Exercises

- **Training**

- FAA Part 107 classroom training and licensing ongoing
- Operator training to be conducted at National Guard Training Center - Pineville, Louisiana

- **Status**

- Equipment purchased – One Skydio 2+ UAS
- DOE OPS will Aviation Implementation Plan submitted to DOE HQ

Incidents of Security Concern

1st Quarter FY 2024

Category	# of Incidents	Subject	Disposition
B	11	Denied Entry Foreign National	Recorded in SSIMS
B	7	Denied Entry Prohibited Article(s)	Recorded in SSIMS
B	0	Expired License/Registration	Recorded in SSIMS
B	5	Miscellaneous	Recorded in SSIMS
B	0	Unmanned Aerial System (UAS) Sighting	NA

FY 2018 through 1st Quarter FY 2024

Fiscal Year	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Foreign National	21	19	36	25	33	65	11
Prohibited Article	23	24	16	33	46	44	7
Expired LIC/REG	13	10	2	6	11	13	0
Miscellaneous	0	0	0	0	0	7	5
UAS Sighting	0	0	3	0	0	1	0
Total	57	53	57	64	90	130	23

Emergency Management

Emergency Response Team (ERT) Training

- Conducted at Texas A&M Engineering Extension Service (TEEX), College Station, Texas

FY 2024 ERT Training Schedule

- February 5-9, 2024
- March 11-15, 2024
- April 15-19, 2024
- May 6-10, 2024



Emergency Management

Preparedness Readiness Exercise Program (PREP)

- Day 1: Spill Response Organization (Site Training)
- Day 2: Site/Oil Spill Response Boom Deployment

FY 2024 Schedule

- Bryan Mound: 9-10 January 2024 - Complete
- Big Hill: 26-27 March 2024
- West Hackberry: 9-10 April 2024*
- Bayou Choctaw: 21-22 May 2024

EA-33 Office of Emergency Management Assessments

- Site visit during FY 2024
- Possible assessment in FY 2025

*Rescheduled due to Program Review

