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Naval Facilities Engineering Systems Command

EXWC Engineering and Expeditionary Warfare Center

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CR-NAVFAC-EXWC-SH-FY22264
AUGUST 2022

LIFECYCLE SUSTAINMENT PLAN REPORT

FUEL TRANSFER INFRASTRUCTURE ASSESSMENT
Red Hill Bulk Fuel Storage Facility, Hawaii (RHL)

Austin Brockenbrough and Associates, LLC

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14. ABSTRACT

Austin Brockenbrough & Associates, LLC (Brockenbrough) was contracted under NAVFAC EXWC to develop a lifecycle sustainment plan for the tanks, pipeline systems, and support equipment including the fire suppression system at Red Hill Bulk Fuel Storage Facility (RHBFSF). A site visit was performed by personnel from Brockenbrough and Jensen Hughes from 21 March 2022 thru 1 April 2022. Brockenbrough was responsible for the fuel-related tanks and pipeline systems, and Jensen Hughes was responsible for the fire suppression system portion of the plan. During the site visit, the team met with the local staff overseeing the operation and maintenance of the facility to gather all the available information. We also visually inspected the entire facility and observed its operation during normal conditions.

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LIFECYCLE SUSTAINMENT PLAN REPORT

FUEL TRANSFER INFRASTRUCTURE ASSESSMENT
Red Hill Bulk Fuel Storage Facility, Hawaii (RHL)

Delivery Order No. N3943022F4333
A/E Contract No. N39430-20-D-2242

Submitted to:

Naval Facilities Engineering Command
Engineering and Expeditionary Warfare Center
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August 19, 2022

Submitted by:

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ACRONYMS/ABBREVIATIONS

AFFF	Preaction Aqueous Film Forming Foam Fire Suppression
API	American Petroleum Institute
bbl	Barrels
DBB	Double Block and Bleed
DoD	Department of Defense
EF	Exhaust Fan
EXWC	Engineering and Expeditionary Warfare Center
F-24	Jet Fuel
F-76	Diesel Fuel
FAMNS	Fire Alarm/Mass Notification System
FLC	Fleet Logistics Center
FOR	Fuel Oil Recovered
FS	Fire Suppression
FSD	Fire/Smoke Damper
FY	Fiscal Year
GFI	Government Furnished Information
gpm	Gallons Per Minute
hp	Horsepower
JP-5	Jet Fuel
JP-8	Jet Propulsion
ITM	Inspection, Testing and Maintenance
M/R/R	Maintenance/Repair/Replacement
NAVFAC	Naval Facilities Engineering Systems Command
PE	Pressure Exhaust Fan
PS	Pressure Supply Fan
POL	Petroleum, Oil and Lubricants
RHBFSF	Red Hill Bulk Fuel Storage Facility
RHTF	Red Hill Tank Farm
RT	AFFF Retention Tank or AFFF Retention Tank System
SF	Supply Fan
SIOH	Supervision, Inspection and Overhead

SP	Standpipe
Tunnel	Harbor Tunnel
UFC	Unified Facilities Criteria
UGPH	Underground pumphouse
Vent	Mechanical Ventilation System
WP	Wet-Pipe Fire Suppression System

A. EXECUTIVE SUMMARY

Austin Brockenbrough & Associates, LLC (Brockenbrough) was contracted under NAVFAC EXWC Contract No. N39430-20-D-2242, Delivery Order No. N3943022F4333, to develop a lifecycle sustainment plan for the tanks, pipeline systems, and support equipment including the fire suppression system at Red Hill Bulk Fuel Storage Facility (RHBFSF). A site visit was performed by personnel from Brockenbrough and Jensen Hughes from 21 March 2022 thru 1 April 2022. Brockenbrough was responsible for the fuel-related tanks and pipeline systems, and Jensen Hughes was responsible for the fire suppression system portion of the plan. During the site visit, the team met with the local staff overseeing the operation and maintenance of the facility to gather all the available information. We also visually inspected the entire facility and observed its operation during normal conditions.

This plan provides an overview of what is required to sustain the facility operationally from a maintenance and repair perspective. The plan is laid out by fiscal year, and rough order of magnitude cost estimates are provided at the system, sub-system, major component, and equipment levels.

The systems included in this report are as follows:

1. F-24 – The F-24 jet/aviation grade fuel system includes the associated tanks, pipeline systems, and support equipment.
2. F-76 – The F-76 diesel grade fuel system includes the associated tanks, pipeline systems, and support equipment.
3. FOR – The FOR fuel system contains untreated off-spec or contaminated product from the three main bulk fuel products (such as tank water bottoms) and includes Tank 311, pipeline systems, and support equipment that contain FOR.
4. JP-5 – The JP-5 jet/aviation grade fuel system includes the associated tanks, pipeline systems, and support equipment.
5. AFFF Retention Tank System (RT) – The AFFF Retention Tank System consists of six lift stations and associated piping located in the Red Hill Tank Farm (RHTF) plus a retention tank just outside of ADIT [redacted].
6. Mechanical Ventilation System (Vent) – The Mechanical Ventilation System contains 32 various fans located throughout the facility along with integrated various fire/smoke dampers.
7. Fire Suppression (FS) – The FS system consists of all elements of the water-based FS systems including fire pumps, foam pumps, standpipes, wet pipe sprinkler systems, preaction AFFF sprinkler systems, nitrogen generation systems.
8. Fire Alarm/Mass Notification (FAMNS) – The FAMNS system includes all panels, equipment, and devices associated with the FAMNS system.

The fuel, AFFF Retention Tank, and Mechanical Ventilation systems are further broken down by sub-systems or areas, as follows:

1. ADIT [redacted] – This ADIT provides access as the main entrance to the UGPH.

2. ADIT [redacted] – The ADIT [redacted] access tunnel ties into the Harbor Tunnel [redacted] The Water Pumping Station is located at the junction of the ADIT [redacted] access tunnel and the Harbor Tunnel.
3. ADIT [redacted] – The ADIT [redacted] access tunnel connects with the RHTF's upper access tunnel between Tanks 13 and 15.
4. ADIT [redacted] – This ADIT provides access to Elevator [redacted] between the upper and lower access tunnels of the RHTF.
5. UGPH – The UGPH which contains the primary distribution pumps and the surge tanks.
6. Harbor Tunnel (Tunnel) – The tunnel between the UGPH and RHTF containing the [redacted] primary bulk fuel pipelines.

Red Hill Tank Farm (RHTF) – The RHTF contains the 20 primary bulk fuel storage tanks. The fire suppression systems are further broken down by sub-system as follows:

1. Underground Pumphouse (UGPH) – The UGPH system includes all fire pump, foam pump, and nitrogen generation equipment within the UGPH.
2. Standpipe (SP) – The SP system includes distribution piping serving fire suppression systems from the point of discharge from the pumphouse to fire suppression risers and fire department connections, associated fittings, valves, fire department connections, and pressure reducing valves.
3. Pre-action AFFF Fire Suppression (AFFF) – The AFFF fire suppression systems include piping, fittings, valves, and sprinklers.
4. Wet-Pipe Fire Suppression System (WP) – The WP include piping, fittings, valves, and sprinklers.
5. Fire Alarm/Mass Notification System (FAMNS) – The FAMNS includes all panels, equipment, and devices associated with the FAMNS system.

The FAMNS is further broken down by sub-system as follows:

1. Control – FAMNS control equipment including but not limited to fire alarm control panels, workstations, control modules, power supplies, transmitters, etc.
2. Notification – FAMNS notification equipment.
3. Initiation – FAMNS notification initiating equipment including but not limited to manual pull stations, heat detectors, monitor modules, etc.

A lifecycle analysis would typically consider at least one full cycle of the system's major component with the longest expected life span. In most cases, this would be at least 30 years and probably could extend to 50 years or more. The decision has been made to close the Red Hill Bulk Storage Facility's fuel systems within the next five years. Therefore, this report is limited to five years for all the fuel systems. The fire suppression system plan has been set to 15 years to cover until full closure of the entire site.

The lifecycle sustainment plan is based upon the current condition of the facility. As noted above, each system was visually inspected, and its condition documented during the site visit in 2022. In general, the

facility was found to be in fair to good condition considering it has been operated continuously since 1943. The facility still has some original equipment, but a large portion has been renovated and/or upgraded in various ways in the past 20 - 25 years. A complete list of every major component and its associated equipment is included in the report.

The plan determined the estimated programming amount for each fuel system over the next five fiscal years to be as follows:

1. F-24 = $2,724,000
2. F-76 = $4,912,000
3. FOR = $1,349,000
4. JP-5 = $3,366,000

The plan also determined the estimated programming amounts for the four facility support systems over the next 15 fiscal years to be as follows:

1. AFFF Retention Tank System = $6,435,000
2. Mechanical Ventilation System = $5,997,000
3. FS = $658,101
4. FAMNS = $15,506,426

Disclaimer

Report is based on information known as of the date of the report and subject to revision should new information become available.

B. INTRODUCTION

Austin Brockenbrough & Associates, LLC (Brockenbrough) was contracted under NAVFAC EXWC Contract No. N39430-20-D-2242, Delivery Order No. N3943022F4333, to develop a lifecycle sustainment plan for the tanks, pipeline systems, and support equipment including the fire suppression system at RHBFSF. A site visit was performed by personnel from Brockenbrough and Jensen Hughes from 21 March 2022 thru 1 April 2022. Brockenbrough was responsible for the fuel-related tanks and pipeline systems, and Jensen Hughes was responsible for the fire suppression system portion of the plan. During the site visit, the team met with the local staff overseeing the operation and maintenance of the facility to gather all the available information. We also visually inspected the entire facility and observed its operation during normal conditions.

This lifecycle sustainment plan for the RHBFSF considers the current condition and service life of the tanks, pipeline systems, and support equipment including the fire suppression system. The lifecycle sustainment plan is based upon a holistic understanding of the maintenance and replacement frequency times for each major component and its associated equipment. The plan provides an overview of what is required to sustain the facility operationally, specifically focusing on the use phase of a life cycle assessment to include the current condition, maintenance/repair requirements, and proposed decommissioning.

The plan outlines for each system, sub-system, and major component the current condition, how often it should undergo maintenance/repair work, complete replacement, and when portions of the system should be decommissioned. The plan also outlines what triggers full replacement versus minor repair work and identifies the highest potential corrosion failure points. The plan starts in FY22 as the baseline with subsequent fiscal year sustainment efforts charted and mapped for each system, sub-system, and major component with rough order of magnitude cost estimates for budgetary purposes.

The systems included in this analysis are as follows:

1. F-24 – The F-24 jet/aviation grade fuel system includes the associated tanks, pipeline systems, and support equipment. There are (b) (3) (A) bulk storage tanks at RHTF, (b) (3) (A) (b) (3) (A) pumps in the UGPH, and (b) (3) (A) bbl surge tank.
2. F-76 – The F-76 diesel grade fuel system includes the associated tanks, pipeline systems, and support equipment. (b) (3) (A)
3. FOR – The FOR fuel system contains untreated off-specification or contaminated product from the three main bulk fuel products (such as tank water bottoms) and includes Tank 311, pipeline systems, and support equipment that contain FOR.
4. JP-5 – The JP-5 jet/aviation grade fuel system includes the associated tanks, pipeline systems, and support equipment. (b) (3) (A)

(b) (3) (A)

5. RT – The RT consists of (b) (3) (A) lift stations and associated piping located in the RHTF plus a retention tank just outside of ADIT (b) (.
6. Vent – The Vent contains 32 various fans located throughout the facility along with integrated various fire/smoke dampers.
7. FS – The FS system consists of all elements of the water-based fire suppression systems including fire pumps, foam pumps, standpipes, wet pipe sprinkler systems, preaction AFFF sprinkler systems, nitrogen generation systems.
8. Fire Alarm/Mass Notification (FAMNS) – The FAMNS includes all panels, equipment, and devices associated with the FAMNS system.

The fuel, AFFF Retention Tank, and Vent systems are further broken down by sub-systems, or areas, as follows:

(b) (3) (A)

5. UGPH – The UGPH which contains the primary distribution pumps and the surge tanks.
6. Tunnel– The tunnel between the UGPH and RHTF containing the three primary bulk fuel pipelines.
7. RHTF – The RHTF contains the 20 primary bulk fuel storage tanks.

The FS systems are further broken down by sub-system as follows:

1. UGPH – The UGPH system includes all fire pump, foam pump, and nitrogen generation equipment within the UGPH.
2. SP – The SP system includes distribution piping serving fire suppression systems from the point of discharge from the UGPH to fire suppression risers and fire department connections, associated fittings, valves, fire department connections, and pressure reducing valves.
3. Preaction AFFF Fire Suppression (AFFF) – The AFFF fire suppression systems include piping, fittings, valves, and sprinklers.
4. WP – The WP includes piping, fittings, valves, and sprinklers.
5. FAMNS – The FAMNS includes all panels, equipment, and devices associated with the FAMNS system.

The fire alarm/mass notification system is further broken down by sub-system as follows:

1. Control – FAMNS control equipment including but not limited to fire alarm control panels, workstations, control modules, power supplies, transmitters, etc.
2. Notification – FAMNS notification equipment.
3. Initiation – FAMNS notification initiating equipment including but not limited to manual pull stations, heat detectors, monitor modules, etc.

The fuel systems, the boundary of each sub-system, and every major component and all associated equipment are shown in Figure AA.1 - Red Hill Bulk Fuel Storage Facility - Fuel Distribution System Schematic in the Appendix. Figure AA.2 – Mechanical Ventilation System Schematic provides a similar diagram for the ventilation system. The basic information on every major component and all associated equipment for the fuel and facility support systems is provided in Table AB.1 - Equipment Data in the Appendix.

C. LIFECYCLE ANALYSIS DEFINITIONS AND DESCRIPTIONS

1. Current Condition

The current condition assessment is primarily based upon the visual observations made during the site visit of March/April 2022 and any relevant support material provided in the GFI. We looked at every major component and its associated equipment during the site visit to verify its identification, estimate its installation date, and to determine its current condition. We also held numerous meetings with the local staff overseeing the operation and maintenance of the facility to gather all the available information.

In addition, the F-76, JP-5, JP-8, and FOR pipelines were inspected in accordance with API 570 as part of the overall effort under the referenced delivery order, and the recommendations can be found in the Fuel Transfer System Inspection Report. While the assessments noted in this report are very general in nature, the inspection report is very detailed and recommends numerous "urgent" repairs even in systems noted here as being in satisfactory or good condition.

We have assigned five easily understood levels of condition:

a. Poor – The component is either barely useable or not in continuous use due to a lack of maintenance or old age and should not remain in service.
b. Fair - The component is near the end of its useful life and should be able to remain in service for five years.
c. Satisfactory – The component has been at least minimally maintained and should be able to remain in service for at least five years and potentially up to its service life with proper maintenance.
d. Good – The component has been properly maintained and not overused. It should be able to remain in service for at least 10 years and potentially up to its service life with proper maintenance.
e. Excellent – The component is relatively new, has been well maintained, and/or has not been used very much. It should be able to remain in service for its entire service life with proper maintenance.

The current condition assessments are noted in Table AB.1 - Equipment Data in the Appendix and were used to assist in the development of the lifecycle sustainment plan. It should be noted that some equipment will be upgraded, replaced, or removed by projects that have been awarded but not completed as of the condition assessment date noted above. For the purposes of this report, the indicated condition assumes the awarded but incomplete projects have been completed. Similarly, urgent facility upgrades recommended in the Fuel Transfer System Inspection Report are also assumed to have been completed.

As can be seen by the information in Table AB.1, the facility was generally found to be in fair to good condition considering it has been operated continuously since 1943. The facility still has some original equipment, but a large portion has been renovated and/or upgraded in various ways in the past 20 - 25 years. For instance, in the UGPH the [redacted] valves are all original equipment while the motorized [redacted] valves were installed in the 2000s, and the pump flow control valves were replaced in 2015.

2. Maintenance/Repair Requirements with Costs

All of the included maintenance and repair requirements in this report are those that are necessary beyond what is currently performed or contracted by the local Fleet Logistics Center (FLC) maintenance personnel. Thus, the routine maintenance/repair operations that are done in-house on a day-to-day basis and their associated costs are not included here.

Similarly, the included maintenance and repair requirements outlined in this report for fire protection systems are those that are necessary beyond what is currently contracted to Kinetics for recurring inspection, testing, and maintenance (ITM). The equipment identified as requiring maintenance or repair is based on schedules outlined in UFC 3-601-02, deficiencies noted in ITM reports, and deficiencies identified during the March/April 2022 site visit, as well as equipment likely to require repair or replacement over the next 15 years. Deficiencies noted in ITM reports that have had an IDIQ submitted are also not included in the maintenance and repair requirements. The costs are based on FY22 estimates that have been escalated to the indicated FY using a 2% annual escalation according to UFC 3-701-01 DoD Facilities Pricing Guide dated 17 March 2022 along with a volatility factor to account for the current unprecedented market and labor inflation. The costs assume that all related work across all systems and subsystems in each FY will be aggregated into one contract. The costs are rough order of magnitude estimates (+/- 25%) that only include the direct cost of the construction contract. The estimates assume that there is not any design effort. The costs do include the current 2.3 area cost factor for Red Hill, Hawaii from UFC 3-701-01. They do include the SIOH expenses related to the construction phase. They do not include any indirect costs that might be associated with the work (environmental issues, pre-design inspections/studies, etc.). They do include a contingency factor. See Table AB.2 - Cost Estimate Markups, Table AB.3 Cost Estimate Example and Table AB.4 - Cost Estimate Escalation Rates in the Appendix for additional information.

3. Time Frame

Due to the anticipated closure of the fuel distribution systems at the RHBFSF, the lifecycle sustainment plan of the fuel distribution systems' major components and associated equipment is only for the next five years. Therefore, the plan for the fuel distribution systems' major components should be considered less of a prescriptive schedule of preventive maintenance activities and more of a general budgetary plan based on our best rough estimate of the maintenance and repair activities that may occur over the next five years. It is doubtful the specific

activities for specific equipment items will occur as indicated, but the indicated programming amounts should cover the reasonable and customary maintenance and repair costs for this facility with typical use.

It bears noting that at least a portion of the UGPH will be used beyond the closure of the RHBFF since the UGPH is used to push fuel in other locations of the fuel system. The continued use of the UGPH will require modification and upgrades that will occur in future projects.

While the fuel distribution systems will be closed and decommissioned within the next five years, the rest of the RHBFSF will remain and needs to be maintained. Therefore, the plan for the fire protection systems' major components is for the next 15 years and should be considered a prescriptive schedule of preventive maintenance activities and their associated costs.

The detailed maintenance/repair requirements for each individual piece of equipment are found in Table AC.1 - Detailed Lifecycle Sustainment Plan in the Appendix.

4. Replacement vs. Minor Repair Triggers

The general rule of thumb is to replace a component when the repair cost is more than 50% of the replacement cost. Unfortunately, this simple rule is too rudimentary to be very valuable past the most basic situations at very low-cost thresholds. There are numerous other key elements of the component that should be explored, including: current age, remaining useful service life, spare parts availability, improvements/upgrades available, etc. Thus, the decision of replacement or repair is always a case-by-case decision, and it cannot be made without considering numerous facts. For the purposes of this report, our recommendations include a thoughtful consideration of the pertinent factors.

5. Service Life/Replacement Frequency

We have incorporated general industry practices as well as our own experience to determine the service life and replacement frequency for the many components of the facility. Due to the robust DoD specifications used for most of the POL equipment, the service life of many components within a system will exceed the availability for spare parts or the useful life of the system. Our recommendations are based on the shortest duration of the two options. The cost to replace a component have been calculated in the same manner as noted above for the maintenance/repair requirements. In the case of replacement, the cost also includes the required decommissioning of the existing component.

6. Facility Upgrades

The recommended facility upgrades are those that appear to be necessary beyond the maintenance/repair requirements noted in the section above. These upgrades are based upon a thorough review of the existing facility that was performed under the same contract as this effort.

See the Fuel Transfer System Inspection Report for additional details including the estimated costs.

The lifecycle sustainment plan assumes only the "urgent" facility upgrades recommended in the Fuel Transfer System Inspection Report will be performed in the immediate future. Thus, the plan includes the normal maintenance/repair/replacement activities that would be necessary after completion of the proposed work.

7. Decommissioning

As noted above, the decommissioning cost related to the replacement of a component is included in the replacement cost. In some rare cases, a component may simply become obsolete and no longer necessary to the system's purpose. If that is the case, then the cost will simply be shown as a decommissioning cost only.

8. Potential Corrosion Failure Points

If a component is generally considered a corrosion risk, or if the component has had a history of corrosion at the facility, then it will be indicated as a potential corrosion failure point. This risk has also been incorporated into the maintenance/repair requirements and service life/replacement history recommendations.

D. LIFECYCLE SUSTAINMENT PLAN

Tables D.1 and D.2 on the following pages contain the Lifecycle Sustainment Plan Summary Tables broken down by system, sub-system, and major component. The first table contains the fuel systems based on a five-year window, and the second table contains the four facility support systems based on a 15-year window. For additional detail, see Table AC.1 - Detailed Lifecycle Sustainment Plan in the Appendix that provides the data down to each specific piece of equipment associated with each major component.

Table D.1 - Lifecycle Sustainment Plan - 5-Year Summary							
System / Sub-System / Major Component	FY22 Program	FY23 Program	FY24 Program	FY25 Program	FY26 Program	FY27 Program	Grand Total
F-24	**$8,000**	**$1,241,000**	**$802,000**	**$584,000**	**$43,000**	**$46,000**	**$2,724,000**
RHTF	**$0**	**$0**	**$152,000**	**$0**	**$0**	**$0**	**$152,000**
T-0102	$0	$0	$139,000	$0	$0	$0	$139,000
T-0103	$0	$0	$0	$0	$0	$0	$0
T-0104	$0	$0	$0	$0	$0	$0	$0
T-0105	$0	$0	$13,000	$0	$0	$0	$13,000
T-0106	$0	$0	$0	$0	$0	$0	$0
Tunnel	**$0**	**$290,000**	**$82,000**	**$0**	**$0**	**$0**	**$372,000**
T-0102	$0	$290,000	$82,000	$0	$0	$0	$372,000
UGPH	**$8,000**	**$951,000**	**$568,000**	**$584,000**	**$43,000**	**$46,000**	**$2,200,000**
P-0209	$0	$780,000	$13,000	$38,000	$0	$0	$831,000
P-0210	$0	$0	$510,000	$0	$43,000	$0	$553,000
P-0211	$0	$0	$0	$546,000	$0	$46,000	$592,000
T-0221	$8,000	$171,000	$45,000	$0	$0	$0	$224,000
F-76	**$0**	**$1,934,000**	**$636,000**	**$1,267,000**	**$820,000**	**$255,000**	**$4,912,000**
RHTF	**$0**	**$0**	**$0**	**$587,000**	**$0**	**$0**	**$587,000**
T-0104	$0	$0	$0	$0	$0	$0	$0
T-0105	$0	$0	$0	$61,000	$0	$0	$61,000
T-0106	$0	$0	$0	$0	$0	$0	$0
T-0107	$0	$0	$0	$0	$0	$0	$0
T-0108	$0	$0	$0	$239,000	$0	$0	$239,000
T-0109	$0	$0	$0	$0	$0	$0	$0
T-0110	$0	$0	$0	$61,000	$0	$0	$61,000
T-0112	$0	$0	$0	$0	$0	$0	$0
T-0113	$0	$0	$0	$165,000	$0	$0	$165,000
T-0114	$0	$0	$0	$0	$0	$0	$0
T-0115	$0	$0	$0	$61,000	$0	$0	$61,000
T-0116	$0	$0	$0	$0	$0	$0	$0
Tunnel	**$0**	**$548,000**	**$0**	**$0**	**$0**	**$0**	**$548,000**
T-0113	$0	$548,000	$0	$0	$0	$0	$548,000
UGPH	**$0**	**$1,386,000**	**$636,000**	**$680,000**	**$820,000**	**$255,000**	**$3,777,000**
P-0201	$0	$588,000	$0	$0	$104,000	$188,000	$880,000
P-0202	$0	$519,000	$45,000	$0	$0	$0	$564,000
P-0203	$0	$0	$581,000	$48,000	$0	$0	$629,000
P-0204	$0	$0	$0	$622,000	$51,000	$0	$673,000
P-0205	$0	$0	$0	$0	$665,000	$55,000	$720,000
T-0223	$0	$279,000	$10,000	$10,000	$0	$12,000	$311,000
T-0224	$0	$0	$0	$0	$0	$0	$0
FOR	**$0**	**$0**	**$1,349,000**	**$0**	**$0**	**$0**	**$1,349,000**
Adit [redacted]	**$0**	**$0**	**$1,349,000**	**$0**	**$0**	**$0**	**$1,349,000**
T-0311	$0	$0	$1,349,000	$0	$0	$0	$1,349,000
RHTF	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
T-0100	$0	$0	$0	$0	$0	$0	$0
Tunnel	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
T-0311	$0	$0	$0	$0	$0	$0	$0
UGPH	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
T-0221	$0	$0	$0	$0	$0	$0	$0
T-0222	$0	$0	$0	$0	$0	$0	$0
T-0223	$0	$0	$0	$0	$0	$0	$0
T-0224	$0	$0	$0	$0	$0	$0	$0
JP-5	**$8,000**	**$1,321,000**	**$790,000**	**$807,000**	**$373,000**	**$67,000**	**$3,366,000**
RHTF	**$0**	**$0**	**$95,000**	**$188,000**	**$322,000**	**$0**	**$605,000**
T-0102	$0	$0	$0	$0	$0	$0	$0
T-0104	$0	$0	$13,000	$0	$0	$0	$13,000
T-0106	$0	$0	$82,000	$0	$0	$0	$82,000
T-0107	$0	$0	$0	$0	$0	$0	$0
T-0108	$0	$0	$0	$0	$0	$0	$0
T-0109	$0	$0	$0	$87,000	$0	$0	$87,000
T-0110	$0	$0	$0	$0	$0	$0	$0
T-0111	$0	$0	$0	$0	$322,000	$0	$322,000
T-0112	$0	$0	$0	$0	$0	$0	$0
T-0113	$0	$0	$0	$0	$0	$0	$0
T-0114	$0	$0	$0	$0	$0	$0	$0
T-0115	$0	$0	$0	$0	$0	$0	$0
T-0116	$0	$0	$0	$0	$0	$0	$0
T-0117	$0	$0	$0	$0	$0	$0	$0
T-0118	$0	$0	$0	$0	$0	$0	$0
T-0120	$0	$0	$0	$101,000	$0	$0	$101,000
Tunnel	**$0**	**$290,000**	**$82,000**	**$0**	**$0**	**$0**	**$372,000**
T-0107	$0	$290,000	$82,000	$0	$0	$0	$372,000
UGPH	**$8,000**	**$1,031,000**	**$613,000**	**$619,000**	**$51,000**	**$67,000**	**$2,389,000**
P-0206	$0	$869,000	$36,000	$14,000	$0	$55,000	$974,000
P-0207	$0	$0	$567,000	$0	$51,000	$0	$618,000
P-0208	$0	$0	$0	$605,000	$0	$0	$605,000
T-0222	$8,000	$162,000	$10,000	$0	$0	$12,000	$192,000
Grand Total	**$16,000**	**$4,496,000**	**$3,577,000**	**$2,658,000**	**$1,236,000**	**$368,000**	**$12,351,000**

[redacted]

Table D.2 - Lifecycle Sustainment Plan - 15-Year Summary																	
System / Sub-System / Major Component	FY22 Program Amt	FY23 Program Amt	FY24 Program Amt	FY25 Program Amt	FY26 Program Amt	FY27 Program Amt	FY28 Program Amt	FY29 Program Amt	FY30 Program Amt	FY31 Program Amt	FY32 Program Amt	FY33 Program Amt	FY34 Program Amt	FY35 Program Amt	FY36 Program Amt	FY37 Program Amt	Grand Total
RT	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,684,000**	**$0**	**$185,000**	**$59,000**	**$192,000**	**$393,000**	**$313,000**	**$154,000**	**$336,000**	**$119,000**	**$0**	**$6,435,000**
Adit [redacted]	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,359,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,359,000**
T-R001	$0	$0	$0	$0	$0	$3,359,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,359,000
RHTF	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,325,000**	**$0**	**$185,000**	**$59,000**	**$192,000**	**$393,000**	**$313,000**	**$154,000**	**$336,000**	**$119,000**	**$0**	**$3,076,000**
SP-DOOR-2-1	$0	$0	$0	$0	$0	$244 000	$0	$80 000	$0	$23 000	$147 000	$24 000	$0	$40 000	$0	$0	$558 000
SP-DOOR-3-1	$0	$0	$0	$0	$0	$244 000	$0	$22 000	$59 000	$23 000	$37 000	$136 000	$0	$40 000	$0	$0	$561 000
SP-DOOR-4-1	$0	$0	$0	$0	$0	$244 000	$0	$22 000	$0	$83 000	$37 000	$24 000	$114 000	$40 000	$0	$0	$564 000
SP-DOOR-5-1	$0	$0	$0	$0	$0	$244 000	$0	$22 000	$0	$23 000	$98 000	$24 000	$0	$157 000	$0	$0	$568 000
SP-DOOR-C-1	$0	$0	$0	$0	$0	$231 000	$0	$22 000	$0	$23 000	$37 000	$48 000	$0	$0	$119 000	$0	$480 000
SP-DOOR-O L-5	$0	$0	$0	$0	$0	$118 000	$0	$17 000	$0	$17 000	$37 000	$57 000	$40 000	$59 000	$0	$0	$345 000
Vent	**$0**	**$193,000**	**$594,000**	**$812,000**	**$930,000**	**$0**	**$0**	**$0**	**$360,000**	**$0**	**$0**	**$0**	**$836,000**	**$1,086,000**	**$1,186,000**	**$0**	**$5,997,000**
Adit [redacted]	**$0**	**$0**	**$216,000**	**$232,000**	**$124,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$304,000**	**$310,000**	**$158,000**	**$0**	**$1,344,000**
EF-6A	$0	$0	$216 000	$232 000	$124 000	$0	$0	$0	$0	$0	$0	$0	$304 000	$310 000	$158 000	$0	$1 344 000
Adit [redacted]	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
EF-1A	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Adit [redacted]	**$0**	**$0**	**$0**	**$232,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$310,000**	**$0**	**$0**	**$542,000**
PE-1A	$0	$0	$0	$232,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$310,000	$0	$0	$542,000
RHTF	$0	$0	$108,000	$116,000	$186,000	$0	$0	$0	$360,000	$0	$0	$0	$152,000	$156,000	$238,000	$0	$1,316,000
EF-1A	$0	$0	$108,000	$0	$0	$0	$0	$0	$288,000	$0	$0	$0	$152,000	$0	$0	$0	$548,000
EF-2A	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
PE-1A	$0	$0	$0	$116,000	$186,000	$0	$0	$0	$72,000	$0	$0	$0	$0	$156,000	$238,000	$0	$768,000
Tunnel	**$0**	**$193,000**	**$0**	**$232,000**	**$248,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$310,000**	**$316,000**	**$0**	**$1,299,000**
EF-2A	$0	$193 000	$0	$232 000	$248 000	$0	$0	$0	$0	$0	$0	$0	$0	$310 000	$316 000	$0	$1 299 000
UGPH	**$0**	**$0**	**$270,000**	**$0**	**$372,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$380,000**	**$0**	**$474,000**	**$0**	**$1,496,000**
EF-6A	$0	$0	$270,000	$0	$372,000	$0	$0	$0	$0	$0	$0	$0	$380,000	$0	$474,000	$0	$1,496,000
FS	**$121,065**	**$11,564**	**$5,087**	**$5,443**	**$5,824**	**$144,176**	**$6,356**	**$6,483**	**$6,613**	**$6,745**	**$133,936**	**$7,018**	**$7,447**	**$7,301**	**$7,158**	**$175,886**	**$658,101**
PH	**$87,587**	**$4,542**	**$5,087**	**$5,443**	**$5,824**	**$123,440**	**$6,356**	**$6,483**	**$6,613**	**$6,745**	**$133,936**	**$7,018**	**$7,447**	**$7,301**	**$7,158**	**$147,878**	**$568,856**
FP	$87,587	$4,542	$5,087	$5,443	$5,824	$123,440	$6,356	$6,483	$6,613	$6,745	$133,936	$7,018	$7,447	$7,301	$7,158	$147,878	$568,856
AFFF	**$11,820**	**$7,022**	**$0**	**$0**	**$0**	**$2,658**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$21,501**
AF-1	$2 364	$0	$0	$0	$0	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2 896
AF-2	$2 364	$0	$0	$0	$0	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2 896
AF-3	$2 364	$7 022	$0	$0	$0	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9 918
AF-4	$2 364	$0	$0	$0	$0	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2 896
AF-5	$2 364	$0	$0	$0	$0	$532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2 896
WP	**$21,658**	**$0**	**$0**	**$0**	**$0**	**$5,317**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$28,008**	**$54,983**
WP-1	$692	$0	$0	$0	$0	$1,063	$0	$0	$0	$0	$0	$0	$0	$0	$0	$28,008	$29,763
WP-2	$3,402	$0	$0	$0	$0	$2,127	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,529
WP-3	$8,782	$0	$0	$0	$0	$1,063	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,845
WP-4	$8,782	$0	$0	$0	$0	$1,063	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,845
SP	**$0**	**$0**	**$0**	**$0**	**$0**	**$12,761**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$12,761**
LTS	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
[redacted]	$0	$0	$0	$0	$0	$4,254	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,254
[redacted]	$0	$0	$0	$0	$0	$4,254	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,254
[redacted]	$0	$0	$0	$0	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
[redacted]	$0	$0	$0	$0	$0	$4,254	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,254
FAMNS	**$3,986**	**$0**	**$0**	**$0**	**$0**	**$6,932,287**	**$0**	**$0**	**$0**	**$0**	**$4,564**	**$0**	**$0**	**$0**	**$0**	**$8,565,589**	**$15,506,426**
Control	**$3,986**	**$0**	**$0**	**$0**	**$0**	**$6,932,287**	**$0**	**$0**	**$0**	**$0**	**$4,564**	**$0**	**$0**	**$0**	**$0**	**$8,565,589**	**$15,506,426**
Power	$3,986	$0	$0	$0	$0	$6,932,287	$0	$0	$0	$0	$4,564	$0	$0	$0	$0	$8,565,589	$15,506,426
Grand Total	**$125,051**	**$204,564**	**$599,087**	**$817,443**	**$935,824**	**$11,760,464**	**$6,356**	**$191,483**	**$425,613**	**$198,745**	**$531,500**	**$320,018**	**$997,447**	**$1,429,301**	**$1,312,158**	**$8,741,475**	**$28,596,527**

[redacted]

E. APPENDIX

Figure AA.1
Red Hill Bulk Fuel Storage Facility – Fuel Distribution System Schematic

(b)(3)(A)

Table AB.1
Equipment Data

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
F-24	RHTF	T-0102		EJ-102A	(b)	(b)	Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0102		EJ-102B	(3)	(3)	Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0102		P/F-0102	(A)	(A)								1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
F-24	RHTF	T-0102		T-0102										1943	CIR completed in 2008		Satisfactory
F-24	RHTF	T-0102		MOV-0102E			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
F-24	RHTF	T-0102		MOV-0103C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
F-24	RHTF	T-0102		MOV-0103E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-24	RHTF	T-0102		MOV-0102D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995			Good
F-24	RHTF	T-0102		MOV-0103B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
F-24	RHTF	T-0102		MOV-0103D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995			Good
F-24	RHTF	T-0102		MOV-0162			General Twin Seal		EIM Controls					1995	Full Port		Good
F-24	RHTF	T-0103		T-0103										1943	No record of a formal CIR completed		Fair
F-24	RHTF	T-0104		EJ-104A			Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0104		EJ-104B			Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0104		T-0104										1943	No record of a formal CIR completed		Fair
F-24	RHTF	T-0105		T-0105										1943	CIR completed in 2020		Good
F-24	RHTF	T-0105		MOV-0105A			Cameron		EIM / Bettis	DGRA-3	51	1.5	460	2020	New Valve / New Actuator		Excellent
F-24	RHTF	T-0105		MOV-0105B			Cameron		EIM Controls	DDMA-3	30	1/2	460	2020	New Valve / Old Actuator		Excellent
F-24	RHTF	T-0105		MOV-0105C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
F-24	RHTF	T-0106		EJ-106A			Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0106		EJ-106B			Dresser							2000	Dresser Coupling - New Style		Good
F-24	RHTF	T-0106		T-0106										1943	CIR completed in 2006		Satisfactory
F-24	Tunnel	T-0102		P/F-0102										1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
F-24	Tunnel	T-0102		MOV-0159			General Twin Seal		Rotork			1 2	460	1995	Full Port		Poor
F-24	Tunnel	T-0102		MOV-0160			General Twin Seal		EIM Controls	DGNA-3	36	1 5	460	1995	Full Port		Good
F-24	Tunnel	T-0102		MOV-0161			General Twin Seal		EIM Controls	DGNA-3	36	1 5	460	1995	Full Port		Good
F-24	UGPH	P-0209		CV-0209			Cla-Val							2015		New p loting and re-tuning	Good
F-24	UGPH	P-0209		EJ-0209A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0209		EJ-0209B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0209		P/F-0209										1943	Main header pipe ine size only. Lifecycle assumes all urgent repairs will be performed immediately.		Satisfactory
F-24	UGPH	P-0209		P-0209			BW/IP International - Byron Jackson	DVS	US Electric			300	2300	1998	Split Case Horizontal Centrifugal 0x14x20 3500 gpm @ 266 FT Head		Fair
F-24	UGPH	P-0209		MOV-216E4			Cameron		EIM Controls			1/4	460	2000			Good
F-24	UGPH	P-0209		MOV-216I3			Cameron		EIM Controls			1/4	460	2000			Good
F-24	UGPH	P-0209		MOV-216T1			Crane Flowseal		EIM Controls	R5L6-3	60	1/12	460	2000	Lug Style		Satisfactory
F-24	UGPH	P-0209		MOV-216T2			Crane Flowseal		EIM Controls	O4G2-3	60	1/20	460	2000	Lug Style		Satisfactory
F-24	UGPH	P-0209		V-2321?			General Twin Seal		N/A	N/A	N/A	N/A	N/A	2000			Good
F-24	UGPH	P-0209		MOV-216E2			General Twin Seal		EIM Controls			1.5	460	2000			Poor
F-24	UGPH	P-0209		MOV-216I4			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	2000			Good
F-24	UGPH	P-0209		MOV-0209A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-24	UGPH	P-0209		MOV-0209B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-24	UGPH	P-0209		MOV-0209C			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0209		MOV-0209E			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0209		MOV-0209F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0209		MOV-0209G			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0209		MOV-216E3										1943			Fair
F-24	UGPH	P-0209		MOV-216I2			Crane							1943			Fair
F-24	UGPH	P-0210		CV-0210			Cla-Val							2015		New p loting and re-tuning	Good
F-24	UGPH	P-0210		EJ-0210A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0210		EJ-0210B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0210		P-0210			BW/IP International - Byron Jackson	DVS	US Electric			300	2300	1998	Split Case Horizontal Centrifugal 0x14x20 3500 gpm @ 266 FT Head		Fair
F-24	UGPH	P-0210		MOV-0210A			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0210		MOV-0210B			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0210		MOV-0210C			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0210		MOV-0210E			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0210		MOV-0210F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0210		MOV-0210G			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		CV-0211			Cla-Val							2015		New p loting and re-tuning	Good
F-24	UGPH	P-0211		EJ-0211A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0211		EJ-0211B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-24	UGPH	P-0211		P-0211			BW/IP International - Byron Jackson	DVS	US Electric			300	2300	1998	Split Case Horizontal Centrifugal 0x14x20 3500 gpm @ 266 FT Head		Fair
F-24	UGPH	P-0211		MOV-0211A			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		MOV-0211B			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		MOV-0211C			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		MOV-0211E			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		MOV-0211F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	P-0211		MOV-0211G			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
F-24	UGPH	T-0221		FCV-0265 / GR68H			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
F-24	UGPH	T-0221		FCV-0275			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
F-24	UGPH	T-0221		RF-0263 / GR68C			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-24	UGPH	T-0221		RF-0264 / GR68D			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-24	UGPH	T-0221		RF-0273			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-24	UGPH	T-0221		RF-0274			Cla-Val							1980	4" x 6" 1 Regulator		Poor
F-24	UGPH	T-0221		EJ-0221A			Dresser							1943	Dresser Coupling - Original Style		Satisfactory
F-24	UGPH	T-0221		ST-0265			Strainers Inc							1943	Marked as ST-0275		Satisfactory
F-24	UGPH	T-0221		ST-0275			Strainers Inc							1943			Satisfactory
F-24	UGPH	T-0221		T-0221										1943	CIR completed in 2021		Good
F-24	UGPH	T-0221		MOV-0221A			General Twin Seal		EIM Controls	DEPA-3	43	3/4	460	2000	Full Port		Good
F-24	UGPH	T-0221		V-0215A / GR68E			Crane							1943			Fair
F-24	UGPH	T-0221		V-0215B / GR68F			Crane							1943			Fair
F-24	UGPH	T-0221		V-0215C / GR68G			Walworth							1943			Fair
F-24	UGPH	T-0221		V-0215D / GR68I			Walworth							1943			Fair
F-24	UGPH	T-0221		V-1626 / GR38A			Crane							1943			Fair
F-24	UGPH	T-0221		V-1632 / GR38B			Crane							1943			Fair
F-24	UGPH	T-0221		V-GR 8E			Crane							1943			Fair
F-24	UGPH	T-0221		V-GR 8F			Crane							1943			Fair
F-24	UGPH	T-0221		V-GR 8G			Walworth							1943			Fair
F-24	UGPH	T-0221		V-GR 8I			Walworth							1943			Fair
F-24	UGPH	T-0221		V-GR68A			Crane							1943			Fair
F-24	UGPH	T-0221		V-GR68B			Crane							1943			Fair
F-24	UGPH	T-0221		MOV-216E5			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-24	UGPH	T-0221		MOV-216I5			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	RHTF	T-0104		MOV-0104E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0104		MOV-0104D			General Twin Seal		EIM Controls	DGRA-3	51	1 5	460	1995	Full Port		Good
F-76	RHTF	T-0105		MOV-0105D			Cameron		EIM Controls	DGRA-3	51	1 5	460	2020	New Valve / Old Actuator		Good
F-76	RHTF	T-0105		MOV-0105E			Cameron		Emerson	MEJ3-3	45	3/4	460	2020	New Valve / New Actuator		Excellent
F-76	RHTF	T-0106		MOV-0106E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0106		MOV-0106D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
F-76	RHTF	T-0107		MOV-0107E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0107		MOV-0107D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
F-76	RHTF	T-0108		MOV-0108E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0108		MOV-0108D			General Twin Seal		EIM Controls	DGRA-3	51	1 5	460	1995	Full Port		Good
F-76	RHTF	T-0109		MOV-0109E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0109		MOV-0109D			General Twin Seal		EIM Controls	DGRA-3	51	1 5	460	1995	Full Port		Good
F-76	RHTF	T-01 0		MOV-0110E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-01 0		MOV-0110D			General Twin Seal		EIM Controls	DGRA-3	51	1 5	460	1995	Full Port		Good
F-76	RHTF	T-0112		MOV-0112E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0112		MOV-0112D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
F-76	RHTF	T-0113		P/F-0113										1943	Main header pipe ine size only. Lifecycle assumes all urgent repairs will be performed immediately.		Satisfactory
F-76	RHTF	T-0113		T-0113										1943	CIR completed in 2021.		Good

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
F-76	RHTF	T-0113		MOV-0113E			Cameron		Emerson	MEJ3-3	45	3/4	460	2020	New Valve / New Actuator		Excellent
F-76	RHTF	T-0113		MOV-0113D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	New Valve / Old Actuator		Good
F-76	RHTF	T-0113		MOV-0154			General Twin Seal		EIM Controls	UJRA-3	51	3.2	460	1995	Full Port		Good
F-76	RHTF	T-0113		MOV-0164			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
F-76	RHTF	T-0113		RT136C			General Twin Seal		EIM / Bettis	DGRA-3	51	1.5	460	1995	New Valve / New Actuator		Excellent
F-76	RHTF	T-0114		T-0114										1943	No record of a formal CIR completed		Fair
F-76	RHTF	T-0114		MOV-0114E			Cameron		Emerson	MEJ3-3	45	3/4	460	2020	Under Construction - Assume Mirror of Tank 113		Excellent
F-76	RHTF	T-0114		MOV-0114D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Under Construction - Assume Mirror of Tank 113		Good
F-76	RHTF	T-0115		T-0115										1943	CIR completed in 2005.		Satisfactory
F-76	RHTF	T-0115		MOV-0115E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-0115		MOV-0115D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Satisfactory
F-76	RHTF	T-01 6		U-116A			Dresser							2000	Dresser Coupling - New Style		Good
F-76	RHTF	T-01 6		U-116B			Dresser							2000	Dresser Coupling - New Style		Good
F-76	RHTF	T-01 6		T-0116										1943	CIR completed in 2005		Satisfactory
F-76	RHTF	T-01 6		MOV-0116E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
F-76	RHTF	T-01 6		MOV-0116D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
F-76	Tunnel	T-0113		P/F-0113										1943	Main header pipe ine size only. Lifecycle assumes all urgent repairs will be performed immediately.		Satisfactory
F-76	Tunnel	T-0113		MOV-0151			General Twin Seal		Rotork			1.2	460	1995	Full Port		Poor
F-76	Tunnel	T-0113		MOV-0152			General Twin Seal		EIM Controls	UJRA-3	51	3.2	460	1995	Full Port		Good
F-76	Tunnel	T-0113		MOV-0153			General Twin Seal		EIM Controls	UJRA-3	51	3.2	460	1995	Full Port		Good
F-76	UGPH	P-0201		CV-0201 / GP16D			Cla-Val							2015		New p loting and re-tuning	Good
F-76	UGPH	P-0201		U-0201A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0201		U-0201B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0201		P/F-0201										1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
F-76	UGPH	P-0201		P-0201			BW/IP International - Byron Jackson	DVS	US Electric			500	2300	1998	Split Case Horizontal Centrifugal 14x18x27 5600 gpm @ 240 FT Head	Pump Assembly Overhaul	Satisfactory
F-76	UGPH	P-0201		MOV-232E4					EIM Controls			1/2	460	2000			Good
F-76	UGPH	P-0201		MOV-232I6			Cameron		EIM Controls	MDG3-3	60	1/2	460	2020	Manufacture Date 8/00		Good
F-76	UGPH	P-0201		MOV-232T1					EIM Controls			1.5	460	2000	Lug Style		Satisfactory
F-76	UGPH	P-0201		MOV-232T2					EIM Controls	O4C2-3	60	1/20	460	2000	Lug Style		Satisfactory
F-76	UGPH	P-0201		MOV-232E2			General Twin Seal		EIM Controls	UJRA-3	51	3.2	460	2000	Full Port		Poor
F-76	UGPH	P-0201		MOV-232H			General Twin Seal		EIM Controls			3.2	460	2000			Good
F-76	UGPH	P-0201		MOV-0201A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-0201B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-0201C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-0201E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-0201F			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-0201G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0201		MOV-232E3			Crane		EIM Controls					1943			Fair
F-76	UGPH	P-0201		MOV-232I5			Crane		EIM Controls	3KSK-3	43	4	460	1943			Fair
F-76	UGPH	P-0202		CV-0202 / GP26D			Cla-Val							2015		New p loting and re-tuning	Good
F-76	UGPH	P-0202		U-0202A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0202		U-0202B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0202		P-0202			BW/IP International - Byron Jackson	DVS	US Electric			500	2300	1998	Split Case Horizontal Centrifugal 14x18x27 5600 gpm @ 240 FT Head		Fair
F-76	UGPH	P-0202		MOV-0202A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0202		MOV-0202B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0202		MOV-0202C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0202		MOV-0202E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0202		MOV-0202F			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0202		MOV-0202G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		CV-0203 / GP36D			Cla-Val							2015		New p loting and re-tuning	Good
F-76	UGPH	P-0203		U-0203A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0203		U-0203B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0203		P-0203			BW/IP International - Byron Jackson	DVS	US Electric			500	2300	1998	Split Case Horizontal Centrifugal 14x18x27 5600 gpm @ 240 FT Head		Fair
F-76	UGPH	P-0203		MOV-0203A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		MOV-0203B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		MOV-0203C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		MOV-0203E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		MOV-0203F			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0203		MOV-0203G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		CV-0204 / GP46D			Cla-Val							2015		New p loting and re-tuning	Good
F-76	UGPH	P-0204		U-0204A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0204		U-0204B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0204		P-0204			BW/IP International - Byron Jackson	DVS	US Electric			500	2300	1998	Split Case Horizontal Centrifugal 14x18x27 5600 gpm @ 240 FT Head		Fair
F-76	UGPH	P-0204		MOV-0204A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		MOV-0204B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		MOV-0204C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		MOV-0204E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		MOV-0204F			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0204		MOV-0204G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		CV-0205 / GP56D			Cla-Val							2015		New p loting and re-tuning	Good
F-76	UGPH	P-0205		U-0205A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0205		U-0205B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
F-76	UGPH	P-0205		P-0205			BW/IP International - Byron Jackson	DVS	US Electric			500	2300	1998	Split Case Horizontal Centrifugal 14x18x27 5600 gpm @ 240 FT Head		Fair
F-76	UGPH	P-0205		MOV-0205A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		MOV-0205B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		MOV-0205C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		MOV-0205E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		MOV-0205F			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	P-0205		MOV-0205G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
F-76	UGPH	T-0223		FCV-0257			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
F-76	UGPH	T-0223		FCV-0262			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
F-76	UGPH	T-0223		PRF-0253			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0254			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0255			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0256			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0258			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0259			Cla-Val							1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0260			Cla-Val		N/A	N/A	N/A	N/A	N/A	1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		PRF-0261			Cla-Val		N/A	N/A	N/A	N/A	N/A	1980	4" x 4" 1 Regulator		Poor
F-76	UGPH	T-0223		U-0223A			Dresser							1943	Dresser Coupling - Original Style		Satisfactory
F-76	UGPH	T-0223		ST-0257			Strainers Inc.							1943			Satisfactory
F-76	UGPH	T-0223		ST-0262			Strainers Inc							1943			Satisfactory
F-76	UGPH	T-0223		T-0223										1943	CIR completed in 2020		Good
F-76	UGPH	T-0223		MOV-0223A			General Twin Seal		EIM Controls	UFNA-3	36	1	460	2000	Full Port		Good
F-76	UGPH	T-0223		CV-0213A			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0213B			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0213C			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0213D			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0213E			Walworth							1943			Fair
F-76	UGPH	T-0223		CV-0213F			Walworth							1943			Fair
F-76	UGPH	T-0223		CV-0216A			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0216B			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0216C			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0216D			Crane							1943			Fair
F-76	UGPH	T-0223		CV-0216E			Walworth							1943			Fair
F-76	UGPH	T-0223		CV-0216F			Walworth							1943			Fair
F-76	UGPH	T-0223		CV-GR 6A			Crane							1943			Fair
F-76	UGPH	T-0223		CV-GR 6B			Crane							1943			Fair
F-76	UGPH	T-0223		CV-GR 6C			Crane							1943			Fair

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
F-76	UGPH	T-0223	(b) (3) (A)	V-GR 6D	(b) (3) (A)		Crane							1943			Fair
F-76	UGPH	T-0223		V-GR64A			Crane							1943			Fair
F-76	UGPH	T-0223		V-GR64B			Crane							1943			Fair
F-76	UGPH	T-0223		V-GR64C			Crane							1943			Fair
F-76	UGPH	T-0223		V-GR64D			Crane							1943			Fair
F-76	UGPH	T-0224		EJ-0224A			Dresser							1943	Dresser Coupling - Original Style		Satisfactory
F-76	UGPH	T-0224		T-0224										1943	CIR completed in 2019.		Good
F-76	UGPH	T-0224		MOV-0224A			General Twin Seal		EIM Controls	UFNA-3	36	1	460	2000	Full Port		Good
F-76	UGPH	T-0224		MOV-232ES			SCV?		EIM Controls	3K3K-3	43	4	460	1943			Fair
F-76	UGPH	T-0224		MOV-232IS			SCV?		EIM Controls	3K3K-3	43	4	460	1943			Fair
FOR	Adit 3	T-0311		P/F-0311										2000	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Poor
FOR	Adit 3	T-0311		T-0311										1970	FOR Tank (21'-3" dia x 16' h) outside Adit 3 C R completed in 2019		Good
FOR	Adit 3	T-0311		T-0311A			General Twin Seal							2000			Good
FOR	Adit 3	T-0311		T-031 B			General Twin Seal							2000			Good
FOR	Adit 3	T-0311		T-031 C			General Twin Seal							2000			Good
FOR	Adit 3	T-0311		T-031 D			General Twin Seal							2000			Good
FOR	RHTF	T-0100		P/F-0100										1943	Main header pipe ine size only. Lifecycle assumes all urgent repairs will be performed immediately.		Satisfactory
FOR	RHTF	T-0100		PUMP P-0100A			Megator	L400	US Electric			15	460	2000			Satisfactory
FOR	RHTF	T-0100		PUMP P-0100B			Megator	L300	US Electric			7.5	460	2000			Satisfactory
FOR	RHTF	T-0100		ST-0100			Northeast Pipe and Iron Inc							2000			Satisfactory
FOR	RHTF	T-0100		T-0100										2000			Satisfactory
FOR	RHTF	T-0100		RS1RA										2000			Good
FOR	RHTF	T-0100		RS1RB										2000			Good
FOR	RHTF	T-0100		V-0100A										2000	3- Piece		Satisfactory
FOR	RHTF	T-0100		RS1RE										2000	Lug / Wafer Style		Good
FOR	RHTF	T-0100		V-0102F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0103F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0104F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0105F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0106F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0107F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0108F			General Twin Seal							2000			Good
FOR	RHTF	T-0 00		V-0109F			General Twin Seal							2000			Good
FOR	RHTF	T-0 00		V-0110F			General Twin Seal							2000			Good
FOR	RHTF	T-0 00		V-0111F			General Twin Seal							2000			Good
FOR	RHTF	T-0 00		V-0112F			General Twin Seal							2000			Good
FOR	RHTF	T-0 00		V-0113F			Franklin Valve	Duraseal						2000			Good
FOR	RHTF	T-0 00		V-0114F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0115F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0116F			General Twin Seal							2000			Good
FOR	RHTF	T-0100		V-0117I			Franklin Valve	Duraseal						2000			Good
FOR	RHTF	T-0100		V-0120G			Tru Seal							2000			Good
FOR	RHTF	T-0100		V-0100D			Crane							2000			Good
FOR	RHTF	T-0100		V-0100E			Crane							2000			Good
FOR	RHTF	T-0100		V-0102G			Powell							2000			Good
FOR	RHTF	T-0100		V-0103G			Powell							2000			Good
FOR	RHTF	T-0100		V-0104G			Powell							2000			Good
FOR	RHTF	T-0100		V-0105G			Powell							2000			Good
FOR	RHTF	T-0100		V-0106G			Powell							2000			Good
FOR	RHTF	T-0100		V-0107G			Powell							2000			Good
FOR	RHTF	T-0100		V-0108G			Powell							2000			Good
FOR	RHTF	T-0100		V-0109G			Powell							2000			Good
FOR	RHTF	T-0100		V-0110G			Powell							2000			Good
FOR	RHTF	T-0100		V-0111G			Powell							2000			Good
FOR	RHTF	T-0100		V-0112G			Powell							2000			Good
FOR	RHTF	T-0100		V-0114G			Powell							2000			Good
FOR	RHTF	T-0100		V-0115G			Powell							2000			Good
FOR	RHTF	T-0100		V-0116G			Powell							2000			Good
FOR	RHTF	T-0100		V-0117H			Unknown							2000			Good
FOR	RHTF	T-0100		V-0120H			Powell							2000			Good
FOR	RHTF	T-0100		MOV-0100C			Kitz		EIM Controls	IDRA-3	51	1/2	460	2000			Satisfactory
FOR	RHTF	T-0100		PSV-100										2000	Set at 45 psi Rated 585 gpm		Satisfactory
FOR	Tunnel	T-0311		P/F-0311										2000	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
FOR	UGPH	T-0221		V-0221B / GT1RB			Tru Seal							2000			Good
FOR	UGPH	T-0221		V-0221C / GT1RA			Tru Seal							2000			Good
FOR	UGPH	T-0222		V-0222B			Crane							1943			Fair
FOR	UGPH	T-0222		V-0222C			Crane							1943			Fair
FOR	UGPH	T-0223		V-0223B			Tru Seal							2000			Good
FOR	UGPH	T-0224		V-0224B			Tru Seal							2000			Good
JP-5	RHTF	T-0102		MOV-0102C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0102		MOV-0102B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0104		MOV-0104C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0104		MOV-0104B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0106		MOV-0106C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0106		MOV-0106B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0107		P/F-0107										1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
JP-5	RHTF	T-0107		T-0107										1943	CIR completed in 1998.		Fair
JP-5	RHTF	T-0107		MOV-0107C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0107		MOV-0107B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0107		MOV-0158			General Twin Seal		EIM Controls	DGNA-3	36	1.5	460	1995	Full Port		Good
JP-5	RHTF	T-0107		MOV-0163			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995	Full Port		Good
JP-5	RHTF	T-0108		EJ-108A			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0108		EJ-108B			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0108		T-0108										1943	CIR completed in 1998		Fair
JP-5	RHTF	T-0108		MOV-0108C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0108		MOV-0108B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0109		T-0109										1943	No record of a formal CIR completed.		Fair
JP-5	RHTF	T-0109		MOV-0109C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0109		MOV-0109B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-01 0		EJ-110A			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-01 0		EJ-110B			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-01 0		T-0110										1943	CIR completed in 1998		Fair
JP-5	RHTF	T-01 0		MOV-0110C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-01 0		MOV-0110B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0111		T-0111										1943	No record of a formal CIR completed		Fair
JP-5	RHTF	T-0111		MOV-0111C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0111		MOV-0111E			AES		EIM Controls	MEK3-3	45	3/4	460	1998			Satisfactory
JP-5	RHTF	T-0111		MOV-0111B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0111		MOV-0111D			General Twin Seal		EIM Controls	DGRA-3	51	1.5	460	1995	Full Port		Good
JP-5	RHTF	T-0112		EJ-112A			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0112		EJ-112B			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0112		T-0112										1943	No record of a formal CIR completed		Fair
JP-5	RHTF	T-0112		MOV-0112C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0112		MOV-0112B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0113		MOV-0113C			Forum		Emerson	R7N6-3	12	1/6	460	2020	New Valve / New Actuator Reused old E M Faceplate		Good
JP-5	RHTF	T-0113		MOV-0113B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995	New Valve / Old Actuator		Good
JP-5	RHTF	T-0114		EJ-114A			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0114		EJ-114B			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0114		MOV-0114C			Forum		Emerson	R7N6-3	12	1/6	460	2020	Under Construction - Assume Mirror of Tank 113		Excellent

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
JP-5	RHTF	T-0114		MOV-0114B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995	Under Construction - Assume Mirror of Tank 113		Good
JP-5	RHTF	T-0115		EJ-115A			Dresser							2000	Dresser Coupling - New Style		Good
JP-5	RHTF	T-0115		MOV-0115C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-0115		MOV-0115B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-01 6		MOV-0116C			AES		EIM Controls	R7N4-3	45	1/6	460	1998			Satisfactory
JP-5	RHTF	T-01 6		MOV-0116B			General Twin Seal		EIM Controls	DDMA-3	30	1/2	460	1995			Good
JP-5	RHTF	T-0117		T-0117										1943	CIR completed in 2021.		Good
JP-5	RHTF	T-0117		MOV-0117F			Cameron		EIM Controls	MDL1-3	45	1/2	460	2020	New Full Port Date of Manufacture - 11/20		Excellent
JP-5	RHTF	T-0117		MOV-0117E			General Twin Seal		EIM Controls	DEPA-3	43	3/4	460		New Full Port		Excellent
JP-5	RHTF	T-01 8		T-0118										1943	No record of a formal CIR completed.		Fair
JP-5	RHTF	T-0120		EJ-120A											Not Installed		
JP-5	RHTF	T-0120		EJ-120B											Not Installed		
JP-5	RHTF	T-0120		T-0120										1943	No record of a formal CIR completed		Fair
JP-5	RHTF	T-0120		MOV-0120F			Cooper-Cameron		EIM Controls	MOG1-3	60	1/4	460	2020			Excellent
JP-5	RHTF	T-0120		MOV-0120E			General Twin Seal		EIM Controls	DEPA-3	43	3/4	460		Full Port		Good
JP-5	Tunnel	T-0107		P/F-0107										1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
JP-5	Tunnel	T-0107		MOV-0155			General Twin Seal		Rotork			1.2	460	1995	Full Port		Poor
JP-5	Tunnel	T-0107		MOV-0156			General Twin Seal		EIM Controls	DGNA-3	36	1.5	460	1995	Full Port		Good
JP-5	Tunnel	T-0107		MOV-0157			General Twin Seal		EIM Controls	DGNA-3	36	1.5	460	1995	Full Port		Good
JP-5	UGPH	P-0206		CV-0206 / GP65D			Cla-Val							2015		New p loting and re-tuning	Good
JP-5	UGPH	P-0206		EJ-0206A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0206		EJ-0206B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0206		P/F-0206										1943	Main header pipe ine size only Lifecycle assumes all urgent repairs will be performed immediately		Satisfactory
JP-5	UGPH	P-0206		P-0206			BW/IP International - Byron Jackson	DVS	US Electric			400	2300	1998	Split Case Horizontal Centrifugal 0x14x20 3500 gpm @ 280 FT Head		Fair
JP-5	UGPH	P-0206		MOV-218E4			Cameron		EIM Controls			1/4	460	2000			Good
JP-5	UGPH	P-0206		MOV-218I4					EIM Controls			1/4	460	2000	Newer Valve		Good
JP-5	UGPH	P-0206		MOV-218I6			Cooper-Cameron		EIM Controls	MCGI-3	60	1/4	460	2020	Manufacture Date 8/00		Good
JP-5	UGPH	P-0206		MCV-218T1			Crane Flowseal		EIM Controls	RSL6-3	60	1/12	460	2000	Lug Style		Satisfactory
JP-5	UGPH	P-0206		MCV-218T2			Crane Flowseal		EIM Controls	O4G2-3	60	1/20	460	2000	Lug Style		Satisfactory
JP-5	UGPH	P-0206		MOV-0222A			General Twin Seal		EIM Controls	DCCA-3	12	1/4	460	2000			Good
JP-5	UGPH	P-0206		MOV-218E2			General Twin Seal		EIM Controls			1 5	460	2000			Poor
JP-5	UGPH	P-0206		MOV-0206A			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-0206B			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-0206C			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-0206E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-0206F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-0206G			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-218E3			Crane		EIM Controls					1943			Fair
JP-5	UGPH	P-0206		MOV-218E5			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0206		MOV-218I3			Crane		EIM Controls					1943			Fair
JP-5	UGPH	P-0206		MOV-218I5 / GI45D			Crane		Limitorque					1943	Original Vintage Actuator		Fair
JP-5	UGPH	P-0206		MOV-218I5			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0207		CV-0207 / GP75			Cla-Val							2015		New p loting and re-tuning	Good
JP-5	UGPH	P-0207		EJ-0207A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0207		EJ-0207B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0207		P-0207			BW/IP International - Byron Jackson	DVS	US Electric			400	2300	1998	Split Case Horizontal Centrifugal 10x14x20 3500 gpm @ 280 FT Head		Fair
JP-5	UGPH	P-0207		MOV-0207A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0207		MOV-0207B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0207		MOV-0207C			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0207		MOV-0207E			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0207		MOV-0207F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0207		MOV-0207G			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0208		CV-0208			Cla-Val							2015		New p loting and re-tuning	Good
JP-5	UGPH	P-0208		EJ-0208A			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0208		EJ-0208B			Dresser							1943	Dresser Coupling - Original Style	Removed	Not Applicable
JP-5	UGPH	P-0208		P-0208			BW/IP International - Byron Jackson	DVS	US Electric			400	2300	1998	Split Case Horizontal Centrifugal 0x14x20 3500 gpm @ 280 FT Head		Fair
JP-5	UGPH	P-0208		V-0208H			Crane		N/A	N/A	N/A	N/A	N/A	1943			Fair
JP-5	UGPH	P-0208		V-0208I			Crane		N/A	N/A	N/A	N/A	N/A	1943			Fair
JP-5	UGPH	P-0208		MOV-0208A			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0208		MOV-0208B			Crane		EIM Controls	2GPG-3	43	1.5	460	1943			Fair
JP-5	UGPH	P-0208		MOV-0208C			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0208		MOV-0208E			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0208		MOV-0208F			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	P-0208		MOV-0208G			Crane		EIM Controls	2GPG-3	43	1 5	460	1943			Fair
JP-5	UGPH	T-0222		FCV-0269			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
JP-5	UGPH	T-0222		FCV-0272			Brooks Instruments	Figure 533	ITT General Controls	Hydramotor				1980			Poor
JP-5	UGPH	T-0222		RF-0267			Cla-Val							1980	4" x 4" 1 Regulator		Poor
JP-5	UGPH	T-0222		RF-0268			Cla-Val							1980	4" x 4" 1 Regulator		Poor
JP-5	UGPH	T-0222		RF-0270			Cla-Val							1980	4" x 4" 1 Regulator		Poor
JP-5	UGPH	T-0222		RF-0271			Cla-Val							1980	4" x 4" 1 Regulator		Poor
JP-5	UGPH	T-0222		EJ-0222A			Dresser							1943	Dresser Coupling - Original Style		Satisfactory
JP-5	UGPH	T-0222		ST-0269			Strainers Inc							1943			Satisfactory
JP-5	UGPH	T-0222		ST-0272			Strainers Inc							1943			Satisfactory
JP-5	UGPH	T-0222		T-0222										1943	CIR completed in 2005		Satisfactory
JP-5	UGPH	T-0222		V-0212A			Crane							1943			Fair
JP-5	UGPH	T-0222		V-0212B			Crane							1943			Fair
JP-5	UGPH	T-0222		V-0212C			Walworth							1943			Fair
JP-5	UGPH	T-0222		V-0212D			Walworth							1943			Fair
JP-5	UGPH	T-0222		V-0214A			Crane							1943			Fair
JP-5	UGPH	T-0222		V-0214B			Crane							1943			Fair
JP-5	UGPH	T-0222		V-0214C			Walworth							1943			Fair
JP-5	UGPH	T-0222		V-0214D			Walworth							1943			Fair
JP-5	UGPH	T-0222		V-GI15G			Anchor							1943			Fair
JP-5	UGPH	T-0222		V-GR25A			Crane							1943			Fair
JP-5	UGPH	T-0222		V-GR25B			Crane							1943			Fair
JP-5	UGPH	T-0222		V-GR55A			Crane							1943			Fair
JP-5	UGPH	T-0222		V-GR55B			Crane							1943			Fair
JP-5	UGPH	T-0222		MOV-0222D			Crane		EIM Controls					1943			Fair
RT	Adit 3	T-R001					Weil Vertical Wastewater Pump	W-130955-11 L21	Baldor Reliance	B85185514	1725	2	115/230	2017	Sump pump (100 gpm @ 80' Hd) assembly in tunnel near Adit 3.		Excellent
RT	Adit 3	T-R001		T-R001			T. Ba ley Inc.							2017	Retention Tank (API 650 33' dia x 25' h) outside of Adit 3.		Good
RT	Adit 3	T-R001		V-R001			Victaulic	761						2017	Retention Tank Skin Drain Valve		Excellent
RT	Adit 3	T-R001		V-R002			Victaulic	761						2017	Retention Tank Fill Line		Excellent
RT	Adit 3	T-R001		V-R003			Victaulic	761						2017	Retention Tank Fill Line Capped Tee		Excellent
RT	Adit 3	T-R001		V-R004			Victaulic	716						2017	Retention Tank Fill Line		Excellent
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-1			Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 2		Excellent
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-2			Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 2		Excellent
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-3			Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 2		Excellent
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-4			Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 2		Excellent
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-5							1750	5	460	2017	20 gpm / 50 ft Head Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	761						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	761						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	761						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	761						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					ABZ Valves and Controls	402-108	Bi-Torq	FLPBT1.57XXX120BFV41D				2017	Wafer Style Fusible Link @ 165 F Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Milwaukee							2017	Wafer Style Fusible Link @ 165 F Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	716						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	716						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	716						2017	Door 2		Excellent
RT	RHTF	SP-DOOR-2-1					Victaulic	716						2017	Door 2		Excellent

(b) (3) (A)

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
RT	RHTF	SP-DOOR-2-1	[redacted]		[redacted]									2017	Door 2		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]	P-DOOR-3-1	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]	P-DOOR-3-2	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]	P-DOOR-3-3	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]	P-DOOR-3-4	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]	P-DOOR-3-5	[redacted]						1750	5	460	2017	20 gpm / 50 ft Head Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	761						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	761						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	761						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	761						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		BZ Valves and Controls	402-108	Bi-Torq	FLPBT157XXX120BFV41D				2017	Wafer Style Fusible Link @ 165F Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		Milwaukee							2017	Wafer Style Fusible Link @ 165F Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	716						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	716						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	716						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]		ictaulic	716						2017	Door 3		Excellent
RT	RHTF	SP-DOOR-3-1	[redacted]		[redacted]									2017	Door 3		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]	P-DOOR-4-1	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]	P-DOOR-4-2	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]	P-DOOR-4-3	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]	P-DOOR-4-4	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]	P-DOOR-4-5	[redacted]						1750	5	460	2017	20 gpm / 50 ft Head Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	761						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	761						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	761						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	761						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		BZ Valves and Controls	402-108	Bi-Torq	FLPBT157XXX120BFV41D				2017	Wafer Style Fusible Link @ 165F Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		Milwaukee							2017	Wafer Style Fusible Link @ 165F Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	716						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	716						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	716						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]		ictaulic	716						2017	Door 4		Excellent
RT	RHTF	SP-DOOR-4-1	[redacted]		[redacted]									2017	Door 4		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]	P-DOOR-5-1	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]	P-DOOR-5-2	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]	P-DOOR-5-3	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]	P-DOOR-5-4	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]	P-DOOR-5-5	[redacted]						1750	5	460	2017	20 gpm / 50 ft Head Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	761						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	761						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	761						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	761						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		BZ Valves and Controls	402-108	Bi-Torq	FLPBT157XXX120BFV41D				2017	Wafer Style Fusible Link @ 165F Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		Milwaukee							2017	Wafer Style Fusible Link @ 165F Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	716						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	716						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	716						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]		ictaulic	716						2017	Door 5		Excellent
RT	RHTF	SP-DOOR-5-1	[redacted]		[redacted]									2017	Door 5		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]	P-DOOR-C-1	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]	P-DOOR-C-2	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]	P-DOOR-C-3	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]	P-DOOR-C-4	[redacted]		Deming	7365			1750	40	460	2017	1000 gpm / 80 ft Head Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]	P-DOOR-C-5	[redacted]						1750	5	460	2017	20 gpm / 50 ft Head Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	761						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	761						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	761						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	761						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		BZ Valves and Controls	402-108	Bi-Torq	FLPBT157XXX120BFV41D				2017	Wafer Style Fusible Link @ 165F Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	716						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	716						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	716						2017	Door C		Excellent
RT	RHTF	SP-DOOR-C-1	[redacted]		[redacted]		ictaulic	716						2017	Door C		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]	P-DOOR-OIL-5	[redacted]						1750	5	460	2017	20 gpm / 50 ft Head Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]		Milwaukee							2017	Locken Open Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]		Milwaukee		Paladon	QTE-120				2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]		Milwaukee							2017	Locken Open Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
RT	RHTF	SP-DOOR-OIL-5	[redacted]		[redacted]									2017	Oil Tight Door		Excellent
Vent	Adit 1	EF-6A	[redacted]	F-6A	[redacted]									2014			Satisfactory
Vent	Adit 1	EF-6A	[redacted]	F-6B	[redacted]									2014			Satisfactory
Vent	Adit 1	EF-6A	[redacted]	F-6C	[redacted]									2014			Satisfactory
Vent	Adit 1	EF-6A	[redacted]	F-6D	[redacted]									2014			Satisfactory
Vent	Adit 5	EF-1A	[redacted]	SD-ADIT5	[redacted]		Ruskin	FSD60-2						2017			Satisfactory
Vent	Adit 6	PE-1A	[redacted]	SD-ADIT6	[redacted]		Ruskin	FSD60-2						2017	Near elevator		Satisfactory
Vent	Adit 6	PE-1A	[redacted]	SD-ADIT6-01	[redacted]		Ruskin	FSD60-2						2014	Located in enclosure with PE-1A & PE-1B		Satisfactory
Vent	Adit 6	PE-1A	[redacted]	E-1A	[redacted]		Greenheck	VAB-36F17-1-A 0-X				10	460	2014	Vane Axial Belt		Satisfactory
Vent	Adit 6	PE-1A	[redacted]	E-1B	[redacted]		Greenheck	VAB-36F17-1-A 0-X				10	460	2014	Vane Axial Belt		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-1A	[redacted]		Greenheck	27-BISW-41-10-1	Baldor	EM3611T	1760	3	460	2014	Centrifugal Belt Upper Access Tunnel Backdraft Damper #HB-120		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F- B	[redacted]		Greenheck	27-BISW-41-10-1	Baldor	EM3611T	1760	3	460	2014	Centrifugal Belt Upper Access Tunnel Backdraft Damper #HB-120		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7A	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7B	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7C	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7D	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7E	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7F	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7G	[redacted]		Greenheck	16-BISW-41-10-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	F-7H	[redacted]		Greenheck	16-BISW-41- 0-1				2	460	2014	Centrifugal Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	SD-EF-1	[redacted]		Ruskin	FSD60-2						2017	Upper Access Tunnel		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-1A	[redacted]		Greenheck	VAB-20F14-1-A3-X				3	460	2014	Vane Axial Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-1B	[redacted]		Greenheck	VAB-20F14-1-A3-X				3	460	2014	Vane Axial Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-2A	[redacted]		Greenheck	VAB-30F14-1-A7.5-X				7.5	460	2017	Vane Axial Belt Upper Access Tunnel New Motor Only		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-2B	[redacted]		Greenheck	VAB-30F14-1-A7.5-X				7.5	460	2017	Vane Axial Belt Upper Access Tunnel New Motor Only		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-4	[redacted]							2	460	2014	Vane Axial Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	PE-1A	[redacted]	S-5	[redacted]							2	460	2014	Vane Axial Belt Upper Access Tunnel		Satisfactory
Vent	RHTF	EF-1A	[redacted]	SD-72-U-(1/2)	[redacted]		Ruskin	FSD60-2						2014	Elevator 72 Intake Shaft		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-DOOR-1A&B	[redacted]		Ruskin	FSD60-2						2017	Door 2		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-DOOR-2A&B	[redacted]		Ruskin	FSD60-2						2017	Door 3		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-DOOR-3A&B	[redacted]		Ruskin	FSD60-2						2017	Door 4		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-DOOR-4A&B	[redacted]		Ruskin	FSD60-2						2017	Door 5		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-ELEC-1 2&3	[redacted]		Ruskin	FSD60-2						2014	Electrical Room - Gauger Station		Satisfactory
Vent	RHTF	EF-2A	[redacted]	SD-T-13	[redacted]		Ruskin	FSD60-2						2014	Door C		Satisfactory

(b) (3) (A)

Table AB.1 - Equipment Data

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	Size	Pressure Class	Manufacturer	Model	Motor/Actuator Mfr	Motor/Actuator Model	Motor/Actuator RPM/S	Motor/Actuator HP	Motor/Actuator Voltage	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
Vent	RHTF	PE-1A	[redacted]	5D-72-U-01	(b) (3) (A)		Ruskin	FSD60-2						2014	Elevator 73 Exhaust Shaft - Upper		Satisfactory
Vent	RHTF	PE-1A		5D-72-L-01			Ruskin	FSD60-2						2014	Elevator 73 Exhaust Shaft - Lower		Satisfactory
Vent	RHTF	PE-1A		5D-A6-U-01			Ruskin	FSD60-2						2014	Exhaust Shaft to Adit 6 - Upper		Satisfactory
Vent	RHTF	PE-1A		5D-A6-L-01			Ruskin	FSD60-2						2014	Exhaust Shaft to Adit 6 - Lower		Satisfactory
Vent	Tunnel	EF-2A		F-2A			Greenheck	44-BSW-41-X- 0-1	Baldor	EM2334T	1765	20	460	2017	Centrifugal Belt Backdraft Damper #HB-120 New Motor Only		Satisfactory
Vent	Tunnel	EF-2A		F-2B			Greenheck	44-BSW-41-X- 0-1	Baldor	EM2334T	1765	20	460	2017	Centrifugal Belt Backdraft Damper #HB-120 New Motor Only		Satisfactory
Vent	Tunnel	EF-2A		F-3										2014	Centrifugal Belt Backdraft Damper #HB-120		Poor
Vent	Tunnel	EF-2A		F-4A			Greenheck	44-BSW-41-X- 0-1	Baldor	EM2333T	1765	15	460	2017	Centrifugal Belt Backdraft Damper #HB-120 New Motor Only		Satisfactory
Vent	Tunnel	EF-2A		F-4B			Greenheck	44-BSW-41-X- 0-1	Baldor	EM2333T	1765	15	460	2017	Centrifugal Belt Backdraft Damper #HB-120 New Motor Only		Satisfactory
Vent	Tunnel	EF-2A		5D-EF-2			Ruskin	FSD60-2						2017			Satisfactory
Vent	Tunnel	EF-2A		5D-EF-4			Ruskin	FSD60-2						2017			Satisfactory
Vent	UGPH	EF-6A		F-8			Greenheck	27-BSW-41-10-1	Marathon	KE184TTGN6526AAL	1755	5	460	2014	Centrifugal Belt		Satisfactory
Vent	UGPH	EF-6A		F-9			Penn Ventilation Inc	SX335BC						2014	Centrifugal/Inline Belt Basement		Satisfactory
Vent	UGPH	EF-6A		F-5A			Greenheck	49-BIDW-41-3-1	Weg	05118ET3ERS254T	1765	15	460	2014	Vane Axial Belt Backdraft Damper #HB-120		Satisfactory
Vent	UGPH	EF-6A		F-5B			Greenheck	49-BIDW-41-3-1	Weg	05118ET3ERS254T	1765	15	460	2014	Vane Axial Belt Backdraft Damper #HB-120		Satisfactory
Vent	UGPH	EF-6A		F-7			Penn Ventilation Inc	RBD33B	Reliance	P2553034 MC	1760	15	460	2014	Centrifugal/Inline Belt Storage Room		Satisfactory

[redacted]

able ABT Equipment Data

System	Sub System	Major Component	Equipment ype	Equipment ag No	Size	Quantity	Manufacturer	Model	Install Date	Notes	FY22 Current Projects	FY22 Current Condition
FS	PH	FP	[redacted]	P-1	2500 GPM	1	AC Fire Pumps	8100	2017	Kinetix report recommends repacking of FP #1		Excellent
FS	PH	FP		P-1	25 GPM	1	G&L	SSV	2017	Kinetix report recommends replacement of 1/2 x 1/ sensing ine reducer		Excellent
FS	AFFF	AF-1			6	1	VIKING	068A	2017	AF-1 Riser: Area 75		Excellent
FS	AFFF	AF-1			3	--			2017	Stainless Steel		Excellent
FS	AFFF	AF-2			3	--			2017	Stainless Steel		Excellent
FS	AFFF	AF-3			6	--			2017	External degredation of r ser piping observed & replacement recommended		Poor
FS	AFFF	AF-3			3	--			2017	Stainless Steel		Excellent
FS	AFFF	AF-			3	--			2017	Stainless Steel		Excellent
FS	AFFF	AF-5			3	--			2017	Stainless Steel		Excellent
FS	WP	WP-1			3	1	Kennedy	068A	2017	WP-1 is riser in pump house		Excellent
FS	WP	WP-2			2 5	1	Kennedy	068A	2017	Gauger Riser/System		Excellent
FS	WP	WP-2			1 - 3	--			2017	Gauger s Office		Good
FS	WP	WP-3			6	1	VIKING	EasyPac	2017	WP-3 protects upper level anks 1-10		Excellent
FS	WP	WP-3			6	--			2017	1/ mechan cal T or welded outlet		Excellent
FS	WP	WP-			6	1	VIKING	EasyPac	2017	WP-3 protects upper level anks 1-10		Excellent
FS	WP	WP-			6	--			2017	1/ mechan cal T or welded outlet		Excellent
FS	SP	LTS			8	--				Area 62-66: old piping		Good
FS	SP	ADIT3			8	2	Zurn	209FP	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			–	8			2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			8	1	Tyco	CV-1F	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			8		NIBCO	GD- 865-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			8	2	NIBCO	GD- 865-C-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			2 5	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			2 5 x 3	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			3	1	Cla-val	90G-21	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			3		NIBCO	GD- 865- N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT3			8	1	Shur oint	726	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			8	2	Zurn	209FP	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			–	8			2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			8	1	Tyco	CV-1F	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			8		NIBCO	GD- 865-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			8	2	NIBCO	GD- 865-C-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			2 5	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			2 5 x 3	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			3	1	Cla-val	90G-21	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			3		NIBCO	GD- 865- N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT			8	1	Shurjoint	726	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT5			8	1	Tyco		2017	FDC Station		Excellent
FS	SP	ADIT5			2 5 x 3	6	FPPI		2017	FDC Station		Excellent
FS	SP	ADIT6			8	2	Zurn	209FP	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			–	8			2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			8	1	Tyco	CV-1F	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			8		NIBCO	GD- 865-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			8	2	NIBCO	GD- 865-C-8N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			2 5	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			2 5 x 3	6	FPPI		2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			3	1	Cla-val	90G-21	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			3		NIBCO	GD- 865- N	2017	PRV & FDC Stat on		Excellent
FS	SP	ADIT6			8	1	Shur oint	726	2017	PRV & FDC Stat on		Excellent
FAMNS	Control	Power			–	12	Gamewe IFCI	BAT-121000	2017	Notif er stated des gn ife 10 years		Good
FAMNS	Control	Power			–	52	Gamewe IFCI	BAT-12120	2017	cabinet 0 that are leaking		Good
FAMNS	Control	Power			–	10	Gamewe IFCI	BAT-12180	2017	Notif er stated des gn ife 10 years		Good
FAMNS	Control	Power			–	6	Gamewe IFCI	BAT-12260	2017	cabinet 22 that failed test		Good
FAMNS	Control	Power			–	16	Gamewe IFCI	BAT-12550	2017	Notif er stated des gn ife 10 years		Good
FAMNS	Control	Power			–	176	Gamewe IFCI	BAT-1270	2017	Notif er stated des gn ife 10 years		Good

[redacted]

Table AB.2
Cost Estimate Markups

Table AB.2 - Cost Estimate Markups	
Item	Markup Percentage
Design Phase	25.00%
Prime Contractor Overhead	37.00%
Project Office OH	15.00%
Home Office OH	5.00%
Profit	10.00%
Bond	1.00%
Insurance	1.00%
Excise Tax	5.00%
ROM Estimate	155.00%
Area Cost Factor	130.00%
ROM Accuracy	25.00%
Owner Expenses	13.00%
DoD SIOH	8.00%
DoD Contingency	5.00%

Table AB.3
Cost Estimate Example

Table AB.3 - Cost Estimate Example	
$1M Project Example	**Amount**
Design Phase	$250,000
Contract Award	$3,493,500
Construction Labor/Material	$1,000,000
Prime Contractor Overhead	$370,000
ROM Estimate Adjustment	$2,123,500
Owner SIOH/Contigency	$486,655
Programming Amount	$4,230,155
Overall Markup (rounded)	4.3

Table AB.4
Cost Estimate Escalation Rates

Table AB.4 - Cost Estimate Escalation Rates				
FY	Annual Escalation	Volatility Factor	Accumulated Escalation	Notes
FY2022			100.00%	Base Year
FY2023	2.00%	10.00%	112.00%	Volatility factor added for current market/labor inflation.
FY2024	2.00%	10.00%	125.44%	Volatility factor added for current market/labor inflation.
FY2025	2.00%	5.00%	134.22%	Volatility factor added for current market/labor inflation.
FY2026	2.00%	5.00%	143.62%	Volatility factor added for current market/labor inflation.
FY2027	2.00%	5.00%	153.67%	Volatility factor added for current market/labor inflation.
FY2028	2.00%		156.74%	
FY2029	2.00%		159.88%	
FY2030	2.00%		163.08%	
FY2031	2.00%		166.34%	
FY2032	2.00%		169.66%	
FY2033	2.00%		173.06%	
FY2034	2.00%		176.52%	
FY2035	2.00%		180.05%	
FY2036	2.00%		183.65%	
FY2037	2.00%		187.32%	

Table AC.1
Detailed Lifecycle Sustainment Plan

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
F-24	RHTF	T-0102	(b)(3)(A)	EJ-102A														
F-24	RHTF	T-0102		EJ-102B														
F-24	RHTF	T-0102		P/F-0102														
F-24	RHTF	T-0102		T-0102														
F-24	RHTF	T-0102		MOV-0102E														
F-24	RHTF	T-0102		MOV-0103C														
F-24	RHTF	T-0102		MOV-0103E					Soft Goods Replacement Kit	$57 000								
F-24	RHTF	T-0102		MOV-0102D														
F-24	RHTF	T-0102		MOV-0103B					Valve/Actuator Rebuild	$82 000								
F-24	RHTF	T-0102		MOV-0103D														
F-24	RHTF	T-0102		MOV-0162														
F-24	RHTF	T-0103		T-0103														
F-24	RHTF	T-0104		EJ-104A														
F-24	RHTF	T-0104		EJ-104B														
F-24	RHTF	T-0104		T-0104														
F-24	RHTF	T-0105		T-0105														
F-24	RHTF	T-0105		MOV-0105A														
F-24	RHTF	T-0105		MOV-0105B					Soft Goods Replacement Kit	$13 000								
F-24	RHTF	T-0105		MOV-0105C														
F-24	RHTF	T-0106		EJ-106A														
F-24	RHTF	T-0106		EJ-106B														
F-24	RHTF	T-0106		T-0106														
F-24	Tunnel	T-0102		P/F-0102														
F-24	Tunnel	T-0102		MOV-0159			Valve Replacement	$290 000										
F-24	Tunnel	T-0102		MOV-0160					Valve/Actuator Rebuild	$82 000								
F-24	Tunnel	T-0102		MOV-0161														
F-24	UGPH	P-0209		CV-0209														
F-24	UGPH	P-0209		EJ-0209A														
F-24	UGPH	P-0209		EJ-0209B														
F-24	UGPH	P-0209		P/F-0209														
F-24	UGPH	P-0209		P-0209			Pump Assembly Overhaul	$456 000										
F-24	UGPH	P-0209		MOV-216E4					Soft Goods Replacement Kit	$13 000								
F-24	UGPH	P-0209		MOV-216I3														
F-24	UGPH	P-0209		MOV-216T1							Valve/Actuator Rebuild	$38 000						
F-24	UGPH	P-0209		MOV-216T2														
F-24	UGPH	P-0209		V-23217														
F-24	UGPH	P-0209		MOV-216E2			Valve Replacement	$290 000										
F-24	UGPH	P-0209		MOV-216I4														
F-24	UGPH	P-0209		MOV-0209A			Valve/Actuator Rebu ld	$34 000										
F-24	UGPH	P-0209		MOV-0209B														
F-24	UGPH	P-0209		MOV-0209C														
F-24	UGPH	P-0209		MOV-0209E														
F-24	UGPH	P-0209		MOV-0209F														
F-24	UGPH	P-0209		MOV-0209G														
F-24	UGPH	P-0209		MOV-216E3														
F-24	UGPH	P-0209		MOV-216I2														
F-24	UGPH	P-02 0		CV-0210														
F-24	UGPH	P-02 0		EJ-0210A														
F-24	UGPH	P-02 0		EJ-0210B														
F-24	UGPH	P-02 0		P-0210					Pump Assembly Overhaul	$510 000								
F-24	UGPH	P-02 0		MOV-0210A														
F-24	UGPH	P-02 0		MOV-0210B									Valve/Actuator Rebuild	$43 000				
F-24	UGPH	P-02 0		MOV-0210C														
F-24	UGPH	P-02 0		MOV-0210E														
F-24	UGPH	P-02 0		MOV-0210F														
F-24	UGPH	P-02 0		MOV-0210G														
F-24	UGPH	P-0211		CV-0211														
F-24	UGPH	P-0211		EJ-0211A														
F-24	UGPH	P-0211		EJ-0211B														
F-24	UGPH	P-0211		P-0211							Pump Assembly Overhaul	$546 000						
F-24	UGPH	P-0211		MOV-0211A														
F-24	UGPH	P-0211		MOV-0211B														
F-24	UGPH	P-0211		MOV-0211C														
F-24	UGPH	P-0211		MOV-0211E											Valve/Actuator Rebuild	$46 000		
F-24	UGPH	P-0211		MOV-0211F														
F-24	UGPH	P-0211		MOV-0211G														
F-24	UGPH	T-0221		FCV-0265 / GR68H			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		FCV-0275			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		RF-0263 / GR68C			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		RF-0264 / GR68D			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		RF-0273			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		RF-0274			Valve Rebuild & Re-Tune	$27 000										
F-24	UGPH	T-0221		EJ-0221A														
F-24	UGPH	T-0221		ST-0265														
F-24	UGPH	T-0221		ST-0275														
F-24	UGPH	T-0221		T-0221														
F-24	UGPH	T-0221		MOV-0221A														
F-24	UGPH	T-0221		V-0215A / GR68E	Valve Rebu ld	$8 000												
F-24	UGPH	T-0221		V-0215B / GR68F														
F-24	UGPH	T-0221		V-0215C / GR68G														
F-24	UGPH	T-0221		V-0215D / GR68I														
F-24	UGPH	T-0221		V-1626 / GR38A														
F-24	UGPH	T-0221		V-1632 / GR38B			Valve Rebuild	$9 000										
F-24	UGPH	T-0221		V-GR 8E														
F-24	UGPH	T-0221		V-GR 8F														
F-24	UGPH	T-0221		V-GR 8G														
F-24	UGPH	T-0221		V-GR 8I														
F-24	UGPH	T-0221		V-GR68A														
F-24	UGPH	T-0221		V-GR68B														
F-24	UGPH	T-0221		MOV-216E5					Valve/Actuator Rebuild	$45 000								
F-24	UGPH	T-0221		MOV-216I5														
F-76	RHTF	T-0104		MOV-0104E														
F-76	RHTF	T-0104		MOV-0104D														
F-76	RHTF	T-0105		MOV-0105D							Soft Goods Replacement Kit	$61 000						
F-76	RHTF	T-0105		MOV-0105E														
F-76	RHTF	T-0106		MOV-0106E														
F-76	RHTF	T-0106		MOV-0106D														
F-76	RHTF	T-0107		MOV-0107E														
F-76	RHTF	T-0107		MOV-0107D														
F-76	RHTF	T-0108		MOV-0108E														
F-76	RHTF	T-0108		MOV-0108D							Valve/Actuator Rebuild	$239 000						
F-76	RHTF	T-0109		MOV-0109E														
F-76	RHTF	T-0109		MOV-0109D														
F-76	RHTF	T-01 0		MOV-0110E							Soft Goods Replacement Kit	$61 000						
F-76	RHTF	T-01 0		MOV-0110D														
F-76	RHTF	T-0112		MOV-0112E														
F-76	RHTF	T-0112		MOV-0112D														
F-76	RHTF	T-0113		P/F-0113														
F-76	RHTF	T-0113		T-0113														

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
F-24	RHTF	T-0102	(b)(3)(A)	EJ-102A														
F-24	RHTF	T-0102		EJ-102B														
F-24	RHTF	T-0102		P/F-0102														
F-24	RHTF	T-0102		T-0102														
F-24	RHTF	T-0102		MOV-0102E														
F-24	RHTF	T-0102		MOV-0103C														
F-24	RHTF	T-0102		MOV-0103E														
F-24	RHTF	T-0102		MOV-0102D														
F-24	RHTF	T-0102		MOV-0103B														
F-24	RHTF	T-0102		MOV-0103D														
F-24	RHTF	T-0102		MOV-0162														
F-24	RHTF	T-0103		T-0103														
F-24	RHTF	T-0104		EJ-104A														
F-24	RHTF	T-0104		EJ-104B														
F-24	RHTF	T-0104		T-0104														
F-24	RHTF	T-0105		T-0105														
F-24	RHTF	T-0105		MOV-0105A														
F-24	RHTF	T-0105		MOV-0105B														
F-24	RHTF	T-0105		MOV-0105C														
F-24	RHTF	T-0106		EJ-106A														
F-24	RHTF	T-0106		EJ-106B														
F-24	RHTF	T-0106		T-0106														
F-24	Tunnel	T-0102		P/F-0102														
F-24	Tunnel	T-0102		MOV-0159														
F-24	Tunnel	T-0102		MOV-0160														
F-24	Tunnel	T-0102		MOV-0161														
F-24	UGPH	P-0209		CV-0209														
F-24	UGPH	P-0209		EJ-0209A														
F-24	UGPH	P-0209		EJ-0209B														
F-24	UGPH	P-0209		P/F-0209														
F-24	UGPH	P-0209		P-0209														
F-24	UGPH	P-0209		MOV-216E4														
F-24	UGPH	P-0209		MOV-216I3														
F-24	UGPH	P-0209		MOV-216T1														
F-24	UGPH	P-0209		MOV-216T2														
F-24	UGPH	P-0209		V-2327														
F-24	UGPH	P-0209		MOV-216E2														
F-24	UGPH	P-0209		MOV-216I4														
F-24	UGPH	P-0209		MOV-0209A														
F-24	UGPH	P-0209		MOV-0209B														
F-24	UGPH	P-0209		MOV-0209C														
F-24	UGPH	P-0209		MOV-0209E														
F-24	UGPH	P-0209		MOV-0209F														
F-24	UGPH	P-0209		MOV-0209G														
F-24	UGPH	P-0209		MOV-216E3														
F-24	UGPH	P-0209		MOV-216I2														
F-24	UGPH	P-02 0		CV-0210														
F-24	UGPH	P-02 0		EJ-0210A														
F-24	UGPH	P-02 0		EJ-0210B														
F-24	UGPH	P-02 0		P-0210														
F-24	UGPH	P-02 0		MOV-0210A														
F-24	UGPH	P-02 0		MOV-0210B														
F-24	UGPH	P-02 0		MOV-0210C														
F-24	UGPH	P-02 0		MOV-0210E														
F-24	UGPH	P-02 0		MOV-0210F														
F-24	UGPH	P-02 0		MOV-0210G														
F-24	UGPH	P-0211		CV-0211														
F-24	UGPH	P-0211		EJ-0211A														
F-24	UGPH	P-0211		EJ-0211B														
F-24	UGPH	P-0211		P-0211														
F-24	UGPH	P-0211		MOV-0211A														
F-24	UGPH	P-0211		MOV-0211B														
F-24	UGPH	P-0211		MOV-0211C														
F-24	UGPH	P-0211		MOV-0211E														
F-24	UGPH	P-0211		MOV-0211F														
F-24	UGPH	P-0211		MOV-0211G														
F-24	UGPH	T-0221		FCV-0265 / GR68H														
F-24	UGPH	T-0221		FCV-0275														
F-24	UGPH	T-0221		RF-0263 / GR68C														
F-24	UGPH	T-0221		RF-0264 / GR68D														
F-24	UGPH	T-0221		RF-0273														
F-24	UGPH	T-0221		RF-0274														
F-24	UGPH	T-0221		EJ-0221A														
F-24	UGPH	T-0221		ST-0265														
F-24	UGPH	T-0221		ST-0275														
F-24	UGPH	T-0221		T-0221														
F-24	UGPH	T-0221		MOV-0221A														
F-24	UGPH	T-0221		V-0215A / GR68E														
F-24	UGPH	T-0221		V-0215B / GR68F														
F-24	UGPH	T-0221		V-0215C / GR68G														
F-24	UGPH	T-0221		V-0215D / GR68I														
F-24	UGPH	T-0221		V-1626 / GR38A														
F-24	UGPH	T-0221		V-1632 / GR38B														
F-24	UGPH	T-0221		V-GR 8E														
F-24	UGPH	T-0221		V-GR 8F														
F-24	UGPH	T-0221		V-GR 8G														
F-24	UGPH	T-0221		V-GR 8I														
F-24	UGPH	T-0221		V-GR68A														
F-24	UGPH	T-0221		V-GR68B														
F-24	UGPH	T-0221		MOV-216E5														
F-24	UGPH	T-0221		MOV-216I5														
F-76	RHTF	T-0104		MOV-0104E														
F-76	RHTF	T-0104		MOV-0104D														
F-76	RHTF	T-0105		MOV-0105D														
F-76	RHTF	T-0105		MOV-0105E														
F-76	RHTF	T-0106		MOV-0106E														
F-76	RHTF	T-0106		MOV-0106D														
F-76	RHTF	T-0107		MOV-0107E														
F-76	RHTF	T-0107		MOV-0107D														
F-76	RHTF	T-0108		MOV-0108E														
F-76	RHTF	T-0108		MOV-0108D														
F-76	RHTF	T-0109		MOV-0109E														
F-76	RHTF	T-0109		MOV-0109D														
F-76	RHTF	T-01 0		MOV-0110E														
F-76	RHTF	T-01 0		MOV-0110D														
F-76	RHTF	T-0112		MOV-0112E														
F-76	RHTF	T-0112		MOV-0112D														
F-76	RHTF	T-0113		P/F-0113														
F-76	RHTF	T-0113		T-0113														

					Table AC.1 - Detailed Lifecycle Sustainment Plan			
System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
F-24	RHTF	T-0102	(b)(3)(A)	EJ-102A				
F-24	RHTF	T-0102		EJ-102B				
F-24	RHTF	T-0102		P/F-0102				
F-24	RHTF	T-0102		T-0102				
F-24	RHTF	T-0102		MOV-0102E				
F-24	RHTF	T-0102		MOV-0103C				
F-24	RHTF	T-0102		MOV-0103E				
F-24	RHTF	T-0102		MOV-0102D				
F-24	RHTF	T-0102		MOV-0103B				
F-24	RHTF	T-0102		MOV-0103D				
F-24	RHTF	T-0102		MOV-0162				
F-24	RHTF	T-0103		T-0103				
F-24	RHTF	T-0104		EJ-104A				
F-24	RHTF	T-0104		EJ-104B				
F-24	RHTF	T-0104		T-0104				
F-24	RHTF	T-0105		T-0105				
F-24	RHTF	T-0105		MOV-0105A				
F-24	RHTF	T-0105		MOV-0105B				
F-24	RHTF	T-0105		MOV-0105C				
F-24	RHTF	T-0106		EJ-106A				
F-24	RHTF	T-0106		EJ-106B				
F-24	RHTF	T-0106		T-0106				
F-24	Tunnel	T-0102		P/F-0102				
F-24	Tunnel	T-0102		MOV-0159				
F-24	Tunnel	T-0102		MOV-0160				
F-24	Tunnel	T-0102		MOV-0161				
F-24	UGPH	P-0209		CV-0209				
F-24	UGPH	P-0209		EJ-0209A				
F-24	UGPH	P-0209		EJ-0209B				
F-24	UGPH	P-0209		P/F-0209				
F-24	UGPH	P-0209		P-0209				
F-24	UGPH	P-0209		MOV-216E4				
F-24	UGPH	P-0209		MOV-216I3				
F-24	UGPH	P-0209		MOV-216T1				
F-24	UGPH	P-0209		MOV-216T2				
F-24	UGPH	P-0209		V-2317				
F-24	UGPH	P-0209		MOV-216E2				
F-24	UGPH	P-0209		MOV-216I4				
F-24	UGPH	P-0209		MOV-0209A				
F-24	UGPH	P-0209		MOV-0209B				
F-24	UGPH	P-0209		MOV-0209C				
F-24	UGPH	P-0209		MOV-0209E				
F-24	UGPH	P-0209		MOV-0209F				
F-24	UGPH	P-0209		MOV-0209G				
F-24	UGPH	P-0209		MOV-216E3				
F-24	UGPH	P-0209		MOV-216I2				
F-24	UGPH	P-02 0		CV-0210				
F-24	UGPH	P-02 0		EJ-0210A				
F-24	UGPH	P-02 0		EJ-0210B				
F-24	UGPH	P-02 0		P-0210				
F-24	UGPH	P-02 0		MOV-0210A				
F-24	UGPH	P-02 0		MOV-0210B				
F-24	UGPH	P-02 0		MOV-0210C				
F-24	UGPH	P-02 0		MOV-0210E				
F-24	UGPH	P-02 0		MOV-0210F				
F-24	UGPH	P-02 0		MOV-0210G				
F-24	UGPH	P-0211		CV-0211				
F-24	UGPH	P-0211		EJ-0211A				
F-24	UGPH	P-0211		EJ-0211B				
F-24	UGPH	P-0211		P-0211				
F-24	UGPH	P-0211		MOV-0211A				
F-24	UGPH	P-0211		MOV-0211B				
F-24	UGPH	P-0211		MOV-0211C				
F-24	UGPH	P-0211		MOV-0211E				
F-24	UGPH	P-0211		MOV-0211F				
F-24	UGPH	P-0211		MOV-0211G				
F-24	UGPH	T-0221		FCV-0265 / GR68H				
F-24	UGPH	T-0221		FCV-0275				
F-24	UGPH	T-0221		RF-0263 / GR68C				
F-24	UGPH	T-0221		RF-0264 / GR68D				
F-24	UGPH	T-0221		RF-0273				
F-24	UGPH	T-0221		RF-0274				
F-24	UGPH	T-0221		EJ-0221A				
F-24	UGPH	T-0221		ST-0265				
F-24	UGPH	T-0221		ST-0275				
F-24	UGPH	T-0221		T-0221				
F-24	UGPH	T-0221		MOV-0221A				
F-24	UGPH	T-0221		V-0215A / GR68E				
F-24	UGPH	T-0221		V-0215B / GR68F				
F-24	UGPH	T-0221		V-0215C / GR68G				
F-24	UGPH	T-0221		V-0215D / GR68I				
F-24	UGPH	T-0221		V-1626 / GR38A				
F-24	UGPH	T-0221		V-1632 / GR38B				
F-24	UGPH	T-0221		V-GR 8E				
F-24	UGPH	T-0221		V-GR 8F				
F-24	UGPH	T-0221		V-GR 8G				
F-24	UGPH	T-0221		V-GR 8I				
F-24	UGPH	T-0221		V-GR68A				
F-24	UGPH	T-0221		V-GR68B				
F-24	UGPH	T-0221		MOV-216E5				
F-24	UGPH	T-0221		MOV-216I5				
F-76	RHTF	T-0104		MOV-0104E				
F-76	RHTF	T-0104		MOV-0104D				
F-76	RHTF	T-0105		MOV-0105D				
F-76	RHTF	T-0105		MOV-0105E				
F-76	RHTF	T-0106		MOV-0106E				
F-76	RHTF	T-0106		MOV-0106D				
F-76	RHTF	T-0107		MOV-0107E				
F-76	RHTF	T-0107		MOV-0107D				
F-76	RHTF	T-0108		MOV-0108E				
F-76	RHTF	T-0108		MOV-0108D				
F-76	RHTF	T-0109		MOV-0109E				
F-76	RHTF	T-0109		MOV-0109D				
F-76	RHTF	T-01 0		MOV-0110E				
F-76	RHTF	T-01 0		MOV-0110D				
F-76	RHTF	T-0112		MOV-0112E				
F-76	RHTF	T-0112		MOV-0112D				
F-76	RHTF	T-0113		P/F-0113				
F-76	RHTF	T-0113		T-0113				

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
F-76	RHTF	T-0113		MOV-0113E														
F-76	RHTF	T-0113		MOV-0113D														
F-76	RHTF	T-0113		MOV-0154							Valve/Actuator Rebuild	$165 000						
F-76	RHTF	T-0113		MOV-0164														
F-76	RHTF	T-0113		T136C														
F-76	RHTF	T-0114		-0114														
F-76	RHTF	T-0114		MOV-0114E														
F-76	RHTF	T-0114		MOV-0114D														
F-76	RHTF	T-0115		-0115														
F-76	RHTF	T-0115		MOV-0115E							Soft Goods Replacement Kit	$61 000						
F-76	RHTF	T-0115		MOV-0115D														
F-76	RHTF	T-01 6		J-116A														
F-76	RHTF	T-01 6		J-116B														
F-76	RHTF	T-01 6		-0116														
F-76	RHTF	T-01 6		MOV-0116E														
F-76	RHTF	T-01 6		MOV-0116D														
F-76	Tunnel	T-0113		/F-0113														
F-76	Tunnel	T-0113		MOV-0151			Valve Replacement	$548 000										
F-76	Tunnel	T-0113		MOV-0152														
F-76	Tunnel	T-0113		MOV-0153														
F-76	UGPH	P-0201		V-0201 / GP16D														
F-76	UGPH	P-0201		J-0201A														
F-76	UGPH	P-0201		J-0201B														
F-76	UGPH	P-0201		/F-0201														
F-76	UGPH	P-0201		-0201														
F-76	UGPH	P-0201		MOV-232E4									Soft Goods Replacement Kit	$22 000				
F-76	UGPH	P-0201		MOV-232I6														
F-76	UGPH	P-0201		MOV-232T1									Valve/Actuator Rebuild	$82 000				
F-76	UGPH	P-0201		MOV-232T2														
F-76	UGPH	P-0201		MOV-232E2			Valve Replacement	$548 000										
F-76	UGPH	P-0201		MOV-232I4											Valve/Actuator Rebuild	$188 000		
F-76	UGPH	P-0201		MOV-0201A			Valve/Actuator Rebu ld	$40 000										
F-76	UGPH	P-0201		MOV-0201B														
F-76	UGPH	P-0201		MOV-0201C														
F-76	UGPH	P-0201		MOV-0201E														
F-76	UGPH	P-0201		MOV-0201F														
F-76	UGPH	P-0201		MOV-0201G														
F-76	UGPH	P-0201		MOV-232E3														
F-76	UGPH	P-0201		MOV-232I5														
F-76	UGPH	P-0202		V-0202 / GP26D														
F-76	UGPH	P-0202		J-0202A														
F-76	UGPH	P-0202		J-0202B														
F-76	UGPH	P-0202		-0202			Pump Assembly Overhaul	$519 000										
F-76	UGPH	P-0202		MOV-0202A					Valve/Actuator Rebuild	$45 000								
F-76	UGPH	P-0202		MOV-0202B														
F-76	UGPH	P-0202		MOV-0202C														
F-76	UGPH	P-0202		MOV-0202E														
F-76	UGPH	P-0202		MOV-0202F														
F-76	UGPH	P-0202		MOV-0202G														
F-76	UGPH	P-0203		V-0203 / GP36D														
F-76	UGPH	P-0203		J-0203A														
F-76	UGPH	P-0203		J-0203B														
F-76	UGPH	P-0203		-0203					Pump Assembly Overhaul	$581 000								
F-76	UGPH	P-0203		MOV-0203A							Valve/Actuator Rebuild	$48 000						
F-76	UGPH	P-0203		MOV-0203B														
F-76	UGPH	P-0203		MOV-0203C														
F-76	UGPH	P-0203		MOV-0203E														
F-76	UGPH	P-0203		MOV-0203F														
F-76	UGPH	P-0203		MOV-0203G														
F-76	UGPH	P-0204		V-0204 / GP46D														
F-76	UGPH	P-0204		J-0204A														
F-76	UGPH	P-0204		J-0204B														
F-76	UGPH	P-0204		-0204							Pump Assembly Overhaul	$622 000						
F-76	UGPH	P-0204		MOV-0204A									Valve/Actuator Rebuild	$51 000				
F-76	UGPH	P-0204		MOV-0204B														
F-76	UGPH	P-0204		MOV-0204C														
F-76	UGPH	P-0204		MOV-0204E														
F-76	UGPH	P-0204		MOV-0204F														
F-76	UGPH	P-0204		MOV-0204G														
F-76	UGPH	P-0205		V-0205 / GP56D														
F-76	UGPH	P-0205		J-0205A														
F-76	UGPH	P-0205		J-0205B														
F-76	UGPH	P-0205		-0205									Pump Assembly Overhaul	$665 000				
F-76	UGPH	P-0205		MOV-0205A											Valve/Actuator Rebuild	$55 000		
F-76	UGPH	P-0205		MOV-0205B														
F-76	UGPH	P-0205		MOV-0205C														
F-76	UGPH	P-0205		MOV-0205E														
F-76	UGPH	P-0205		MOV-0205F														
F-76	UGPH	P-0205		MOV-0205G														
F-76	UGPH	T-0223		CV-0257			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		CV-0262			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0253			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0254			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0255			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0256			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0258			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0259			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0260			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		F-0261			Valve Rebuild & Re-Tune	$27 000										
F-76	UGPH	T-0223		J-0223A														
F-76	UGPH	T-0223		T-0257														
F-76	UGPH	T-0223		T-0262														
F-76	UGPH	T-0223		-0223														
F-76	UGPH	T-0223		MOV-0223A														
F-76	UGPH	T-0223		-0213A			Valve Rebuild	$9 000										
F-76	UGPH	T-0223		-0213B														
F-76	UGPH	T-0223		-0213C														
F-76	UGPH	T-0223		-0213D											Valve Rebuild	$12 000		
F-76	UGPH	T-0223		-0213E														
F-76	UGPH	T-0223		-0213F														
F-76	UGPH	T-0223		-0216A														
F-76	UGPH	T-0223		-0216B							Valve Rebuild	$10 000						
F-76	UGPH	T-0223		-0216C														
F-76	UGPH	T-0223		-0216D														
F-76	UGPH	T-0223		-0216E					Valve Rebuild	$10 000								
F-76	UGPH	T-0223		-0216F														
F-76	UGPH	T-0223		-GR 6A														
F-76	UGPH	T-0223		-GR 6B														
F-76	UGPH	T-0223		-GR 6C														

(b) (3) (A)

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
F-76	RHTF	T-0113	(b)(3)(A)	OV-0113E														
F-76	RHTF	T-0113		OV-0113D														
F-76	RHTF	T-0113		OV-0154														
F-76	RHTF	T-0113		OV-0164														
F-76	RHTF	T-0113		T136C														
F-76	RHTF	T-0114		-0114														
F-76	RHTF	T-0114		OV-0114E														
F-76	RHTF	T-0114		OV-0114D														
F-76	RHTF	T-0115		-0115														
F-76	RHTF	T-0115		OV-0115E														
F-76	RHTF	T-0115		OV-0115D														
F-76	RHTF	T-01 6		J-116A														
F-76	RHTF	T-01 6		J-116B														
F-76	RHTF	T-01 6		-0116														
F-76	RHTF	T-01 6		OV-0116E														
F-76	RHTF	T-01 6		OV-0116D														
F-76	Tunnel	T-0113		/F-0113														
F-76	Tunnel	T-0113		OV-0151														
F-76	Tunnel	T-0113		OV-0152														
F-76	Tunnel	T-0113		OV-0153														
F-76	UGPH	P-0201		V-0201 / GP16D														
F-76	UGPH	P-0201		J-0201A														
F-76	UGPH	P-0201		J-0201B														
F-76	UGPH	P-0201		/F-0201														
F-76	UGPH	P-0201		-0201														
F-76	UGPH	P-0201		OV-232E4														
F-76	UGPH	P-0201		OV-232I6														
F-76	UGPH	P-0201		OV-232T1														
F-76	UGPH	P-0201		OV-232T2														
F-76	UGPH	P-0201		OV-232E2														
F-76	UGPH	P-0201		OV-232I4														
F-76	UGPH	P-0201		OV-0201A														
F-76	UGPH	P-0201		OV-0201B														
F-76	UGPH	P-0201		OV-0201C														
F-76	UGPH	P-0201		OV-0201E														
F-76	UGPH	P-0201		OV-0201F														
F-76	UGPH	P-0201		OV-0201G														
F-76	UGPH	P-0201		OV-232E3														
F-76	UGPH	P-0201		OV-232I5														
F-76	UGPH	P-0202		V-0202 / GP26D														
F-76	UGPH	P-0202		J-0202A														
F-76	UGPH	P-0202		J-0202B														
F-76	UGPH	P-0202		-0202														
F-76	UGPH	P-0202		OV-0202A														
F-76	UGPH	P-0202		OV-0202B														
F-76	UGPH	P-0202		OV-0202C														
F-76	UGPH	P-0202		OV-0202E														
F-76	UGPH	P-0202		OV-0202F														
F-76	UGPH	P-0202		OV-0202G														
F-76	UGPH	P-0203		V-0203 / GP36D														
F-76	UGPH	P-0203		J-0203A														
F-76	UGPH	P-0203		J-0203B														
F-76	UGPH	P-0203		-0203														
F-76	UGPH	P-0203		OV-0203A														
F-76	UGPH	P-0203		OV-0203B														
F-76	UGPH	P-0203		OV-0203C														
F-76	UGPH	P-0203		OV-0203E														
F-76	UGPH	P-0203		OV-0203F														
F-76	UGPH	P-0203		OV-0203G														
F-76	UGPH	P-0204		V-0204 / GP46D														
F-76	UGPH	P-0204		J-0204A														
F-76	UGPH	P-0204		J-0204B														
F-76	UGPH	P-0204		-0204														
F-76	UGPH	P-0204		OV-0204A														
F-76	UGPH	P-0204		OV-0204B														
F-76	UGPH	P-0204		OV-0204C														
F-76	UGPH	P-0204		OV-0204E														
F-76	UGPH	P-0204		OV-0204F														
F-76	UGPH	P-0204		OV-0204G														
F-76	UGPH	P-0205		V-0205 / GP56D														
F-76	UGPH	P-0205		J-0205A														
F-76	UGPH	P-0205		J-0205B														
F-76	UGPH	P-0205		-0205														
F-76	UGPH	P-0205		OV-0205A														
F-76	UGPH	P-0205		OV-0205B														
F-76	UGPH	P-0205		OV-0205C														
F-76	UGPH	P-0205		OV-0205E														
F-76	UGPH	P-0205		OV-0205F														
F-76	UGPH	P-0205		OV-0205G														
F-76	UGPH	T-0223		CV-0257														
F-76	UGPH	T-0223		CV-0262														
F-76	UGPH	T-0223		F-0253														
F-76	UGPH	T-0223		F-0254														
F-76	UGPH	T-0223		F-0255														
F-76	UGPH	T-0223		F-0256														
F-76	UGPH	T-0223		F-0258														
F-76	UGPH	T-0223		F-0259														
F-76	UGPH	T-0223		F-0260														
F-76	UGPH	T-0223		F-0261														
F-76	UGPH	T-0223		J-0223A														
F-76	UGPH	T-0223		T-0257														
F-76	UGPH	T-0223		T-0262														
F-76	UGPH	T-0223		-0223														
F-76	UGPH	T-0223		OV-0223A														
F-76	UGPH	T-0223		-0213A														
F-76	UGPH	T-0223		-0213B														
F-76	UGPH	T-0223		-0213C														
F-76	UGPH	T-0223		-0213D														
F-76	UGPH	T-0223		-0213E														
F-76	UGPH	T-0223		-0213F														
F-76	UGPH	T-0223		-0216A														
F-76	UGPH	T-0223		-0216B														
F-76	UGPH	T-0223		-0216C														
F-76	UGPH	T-0223		-0216D														
F-76	UGPH	T-0223		-0216E														
F-76	UGPH	T-0223		-0216F														
F-76	UGPH	T-0223		-GR 6A														
F-76	UGPH	T-0223		-GR 6B														
F-76	UGPH	T-0223		-GR 6C														

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
F-76	RHTF	T-0113		MOV-0113E				
F-76	RHTF	T-0113		MOV-0113D				
F-76	RHTF	T-0113		MOV-0154				
F-76	RHTF	T-0113		MOV-0164				
F-76	RHTF	T-0113		RT136C				
F-76	RHTF	T-0114		T-0114				
F-76	RHTF	T-0114		MOV-0114E				
F-76	RHTF	T-0114		MOV-0114D				
F-76	RHTF	T-0115		T-0115				
F-76	RHTF	T-0115		MOV-0115E				
F-76	RHTF	T-0115		MOV-0115D				
F-76	RHTF	T-01 6		EJ-116A				
F-76	RHTF	T-01 6		EJ-116B				
F-76	RHTF	T-01 6		T-0116				
F-76	RHTF	T-01 6		MOV-0116E				
F-76	RHTF	T-01 6		MOV-0116D				
F-76	Tunnel	T-0113		P/F-0113				
F-76	Tunnel	T-0113		MOV-0151				
F-76	Tunnel	T-0113		MOV-0152				
F-76	Tunnel	T-0113		MOV-0153				
F-76	UGPH	P-0201		ECV-0201 / GP16D				
F-76	UGPH	P-0201		EJ-0201A				
F-76	UGPH	P-0201		EJ-0201B				
F-76	UGPH	P-0201		P/F-0201				
F-76	UGPH	P-0201		P-0201				
F-76	UGPH	P-0201		MOV-232E4				
F-76	UGPH	P-0201		MOV-232I6				
F-76	UGPH	P-0201		MOV-232T1				
F-76	UGPH	P-0201		MOV-232T2				
F-76	UGPH	P-0201		MOV-232E2				
F-76	UGPH	P-0201		MOV-232I4				
F-76	UGPH	P-0201		MOV-0201A				
F-76	UGPH	P-0201		MOV-0201B				
F-76	UGPH	P-0201		MOV-0201C				
F-76	UGPH	P-0201		MOV-0201E				
F-76	UGPH	P-0201		MOV-0201F				
F-76	UGPH	P-0201		MOV-0201G				
F-76	UGPH	P-0201		MOV-232E3				
F-76	UGPH	P-0201		MOV-232I5				
F-76	UGPH	P-0202		ECV-0202 / GP26D				
F-76	UGPH	P-0202		EJ-0202A				
F-76	UGPH	P-0202		EJ-0202B				
F-76	UGPH	P-0202		P-0202				
F-76	UGPH	P-0202		MOV-0202A				
F-76	UGPH	P-0202		MOV-0202B				
F-76	UGPH	P-0202		MOV-0202C				
F-76	UGPH	P-0202		MOV-0202E				
F-76	UGPH	P-0202		MOV-0202F				
F-76	UGPH	P-0202		MOV-0202G				
F-76	UGPH	P-0203		ECV-0203 / GP36D				
F-76	UGPH	P-0203		EJ-0203A				
F-76	UGPH	P-0203		EJ-0203B				
F-76	UGPH	P-0203		P-0203				
F-76	UGPH	P-0203		MOV-0203A				
F-76	UGPH	P-0203		MOV-0203B				
F-76	UGPH	P-0203		MOV-0203C				
F-76	UGPH	P-0203		MOV-0203E				
F-76	UGPH	P-0203		MOV-0203F				
F-76	UGPH	P-0203		MOV-0203G				
F-76	UGPH	P-0204		ECV-0204 / GP46D				
F-76	UGPH	P-0204		EJ-0204A				
F-76	UGPH	P-0204		EJ-0204B				
F-76	UGPH	P-0204		P-0204				
F-76	UGPH	P-0204		MOV-0204A				
F-76	UGPH	P-0204		MOV-0204B				
F-76	UGPH	P-0204		MOV-0204C				
F-76	UGPH	P-0204		MOV-0204E				
F-76	UGPH	P-0204		MOV-0204F				
F-76	UGPH	P-0204		MOV-0204G				
F-76	UGPH	P-0205		ECV-0205 / GP56D				
F-76	UGPH	P-0205		EJ-0205A				
F-76	UGPH	P-0205		EJ-0205B				
F-76	UGPH	P-0205		P-0205				
F-76	UGPH	P-0205		MOV-0205A				
F-76	UGPH	P-0205		MOV-0205B				
F-76	UGPH	P-0205		MOV-0205C				
F-76	UGPH	P-0205		MOV-0205E				
F-76	UGPH	P-0205		MOV-0205F				
F-76	UGPH	P-0205		MOV-0205G				
F-76	UGPH	T-0223		FCV-0257				
F-76	UGPH	T-0223		FCV-0262				
F-76	UGPH	T-0223		RF-0253				
F-76	UGPH	T-0223		RF-0254				
F-76	UGPH	T-0223		RF-0255				
F-76	UGPH	T-0223		RF-0256				
F-76	UGPH	T-0223		RF-0258				
F-76	UGPH	T-0223		RF-0259				
F-76	UGPH	T-0223		RF-0260				
F-76	UGPH	T-0223		RF-0261				
F-76	UGPH	T-0223		EJ-0223A				
F-76	UGPH	T-0223		ST-0257				
F-76	UGPH	T-0223		ST-0262				
F-76	UGPH	T-0223		T-0223				
F-76	UGPH	T-0223		MOV-0223A				
F-76	UGPH	T-0223		V-0213A				
F-76	UGPH	T-0223		V-0213B				
F-76	UGPH	T-0223		V-0213C				
F-76	UGPH	T-0223		V-0213D				
F-76	UGPH	T-0223		V-0213E				
F-76	UGPH	T-0223		V-0213F				
F-76	UGPH	T-0223		V-0216A				
F-76	UGPH	T-0223		V-0216B				
F-76	UGPH	T-0223		V-0216C				
F-76	UGPH	T-0223		V-0216D				
F-76	UGPH	T-0223		V-0216E				
F-76	UGPH	T-0223		V-0216F				
F-76	UGPH	T-0223		V-GR 6A				
F-76	UGPH	T-0223		V-GR 6B				
F-76	UGPH	T-0223		V-GR 6C				

(b) (3) (A)

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
F-76	UGPH	T-0223		F-GR 6D														
F-76	UGPH	T-0223		F-GR64A														
F-76	UGPH	T-0223		F-GR64B														
F-76	UGPH	T-0223		F-GR64C														
F-76	UGPH	T-0223		F-GR64D														
F-76	UGPH	T-0224		J-0224A														
F-76	UGPH	T-0224		F-0224														
F-76	UGPH	T-0224		MOV-0224A														
F-76	UGPH	T-0224		MOV-232ES														
F-76	UGPH	T-0224		MOV-232IS														
FOR	Adit 3	T-0311		/F-0311														
FOR	Adit 3	T-0311		F-0311					API 653 In-Service Inspection	$1 349 000								
FOR	Adit 3	T-0311		F-0311A														
FOR	Adit 3	T-0311		F-031 B														
FOR	Adit 3	T-0311		F-031 C														
FOR	Adit 3	T-0311		F-031 D														
FOR	RHTF	T-0100		/F-0100														
FOR	RHTF	T-0100		PUMP P-0100A														
FOR	RHTF	T-0100		PUMP P-0100B														
FOR	RHTF	T-0100		ST-0100														
FOR	RHTF	T-0100		T-0100														
FOR	RHTF	T-0100		TS1RA														
FOR	RHTF	T-0100		TS1RB														
FOR	RHTF	T-0100		V-0100A														
FOR	RHTF	T-0100		TS1RE														
FOR	RHTF	T-0100		V-0102F														
FOR	RHTF	T-0100		V-0103F														
FOR	RHTF	T-0100		V-0104F														
FOR	RHTF	T-0100		V-0105F														
FOR	RHTF	T-0100		V-0106F														
FOR	RHTF	T-0100		V-0107F														
FOR	RHTF	T-0100		V-0108F														
FOR	RHTF	T-0100		V-0109F														
FOR	RHTF	T-0100		V-0110F														
FOR	RHTF	T-0100		V-0111F														
FOR	RHTF	T-0100		V-0112F														
FOR	RHTF	T-0100		V-0113F														
FOR	RHTF	T-0100		V-0114F														
FOR	RHTF	T-0100		V-0115F														
FOR	RHTF	T-0100		V-0116F														
FOR	RHTF	T-0100		V-0117I														
FOR	RHTF	T-0100		V-0120G														
FOR	RHTF	T-0100		V-0100D														
FOR	RHTF	T-0100		V-0100E														
FOR	RHTF	T-0100		V-0102G														
FOR	RHTF	T-0100		V-0103G														
FOR	RHTF	T-0100		V-0104G														
FOR	RHTF	T-0100		V-0105G														
FOR	RHTF	T-0100		V-0106G														
FOR	RHTF	T-0100		V-0107G														
FOR	RHTF	T-0100		V-0108G														
FOR	RHTF	T-0100		V-0109G														
FOR	RHTF	T-0100		V-0110G														
FOR	RHTF	T-0100		V-0111G														
FOR	RHTF	T-0100		V-0112G														
FOR	RHTF	T-0100		V-0114G														
FOR	RHTF	T-0100		V-0115G														
FOR	RHTF	T-0100		V-0116G														
FOR	RHTF	T-0100		V-0117H														
FOR	RHTF	T-0100		V-0120H														
FOR	RHTF	T-0100		MOV-0100C														
FOR	RHTF	T-0100		PSV-100														
FOR	Tunnel	T-0311		/F-0311														
FOR	UGPH	T-0221		V-0221B / GT1RB														
FOR	UGPH	T-0221		V-0221C / GT1RA														
FOR	UGPH	T-0222		V-0222B														
FOR	UGPH	T-0222		V-0222C														
FOR	UGPH	T-0223		V-0223B														
FOR	UGPH	T-0224		V-0224B														
JP-5	RHTF	T-0102		MOV-0102C														
JP-5	RHTF	T-0102		MOV-0102B														
JP-5	RHTF	T-0104		MOV-0104C					Soft Goods Replacement Kit	$13 000								
JP-5	RHTF	T-0104		MOV-0104B														
JP-5	RHTF	T-0106		MOV-0106C														
JP-5	RHTF	T-0106		MOV-0106B					Valve/Actuator Rebuild	$82 000								
JP-5	RHTF	T-0107		/F-0107														
JP-5	RHTF	T-0107		F-0107														
JP-5	RHTF	T-0107		MOV-0107C														
JP-5	RHTF	T-0107		MOV-0107B														
JP-5	RHTF	T-0107		MOV-0158														
JP-5	RHTF	T-0107		MOV-0163														
JP-5	RHTF	T-0108		J-108A														
JP-5	RHTF	T-0108		J-108B														
JP-5	RHTF	T-0108		F-0108														
JP-5	RHTF	T-0108		MOV-0108C														
JP-5	RHTF	T-0108		MOV-0108B							Soft Goods Replacement Kit	$0						
JP-5	RHTF	T-0109		T-0109														
JP-5	RHTF	T-0109		MOV-0109C														
JP-5	RHTF	T-0109		MOV-0109B							Valve/Actuator Rebuild	$87 000						
JP-5	RHTF	T-01 0		J-110A														
JP-5	RHTF	T-01 0		J-110B														
JP-5	RHTF	T-01 0		T-0110														
JP-5	RHTF	T-01 0		MOV-0110C														
JP-5	RHTF	T-01 0		MOV-0110B														
JP-5	RHTF	T-0111		T-0111														
JP-5	RHTF	T-0111		MOV-0111C														
JP-5	RHTF	T-0111		MOV-0111E									Soft Goods Replacement Kit	$66 000				
JP-5	RHTF	T-0111		MOV-0111B														
JP-5	RHTF	T-0111		MOV-0111D									Valve/Actuator Rebuild	$256 000				
JP-5	RHTF	T-0112		J-112A														
JP-5	RHTF	T-0112		J-112B														
JP-5	RHTF	T-0112		T-0112														
JP-5	RHTF	T-0112		MOV-0112C														
JP-5	RHTF	T-0112		MOV-0112B														
JP-5	RHTF	T-0113		MOV-0113C														
JP-5	RHTF	T-0113		MOV-0113B														
JP-5	RHTF	T-0114		J-114A														
JP-5	RHTF	T-0114		J-114B														
JP-5	RHTF	T-0114		MOV-0114C														

(b) (3) (A)

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
F-76	UGPH	T-0223	(b)(3)(A)	V-GR 6D														
F-76	UGPH	T-0223		V-GR64A														
F-76	UGPH	T-0223		V-GR64B														
F-76	UGPH	T-0223		V-GR64C														
F-76	UGPH	T-0223		V-GR64D														
F-76	UGPH	T-0224		EJ-0224A														
F-76	UGPH	T-0224		T-0224														
F-76	UGPH	T-0224		MOV-0224A														
F-76	UGPH	T-0224		MOV-232E5														
F-76	UGPH	T-0224		MOV-232I5														
FOR	Adit 3	T-0311		P/F-0311														
FOR	Adit 3	T-0311		T-0311														
FOR	Adit 3	T-0311		T-0311A														
FOR	Adit 3	T-0311		T-031 B														
FOR	Adit 3	T-0311		T-031 C														
FOR	Adit 3	T-0311		T-031 D														
FOR	RHTF	T-0100		P/F-0100														
FOR	RHTF	T-0100		PUMP P-0100A														
FOR	RHTF	T-0100		PUMP P-0100B														
FOR	RHTF	T-0100		ST-0100														
FOR	RHTF	T-0100		T-0100														
FOR	RHTF	T-0100		RS1RA														
FOR	RHTF	T-0100		RS1RB														
FOR	RHTF	T-0100		V-0100A														
FOR	RHTF	T-0100		RS1RE														
FOR	RHTF	T-0100		V-0102F														
FOR	RHTF	T-0100		V-0103F														
FOR	RHTF	T-0100		V-0104F														
FOR	RHTF	T-0100		V-0105F														
FOR	RHTF	T-0100		V-0106F														
FOR	RHTF	T-0100		V-0107F														
FOR	RHTF	T-0100		V-0108F														
FOR	RHTF	T-0100		V-0109F														
FOR	RHTF	T-0100		V-0110F														
FOR	RHTF	T-0100		V-0111F														
FOR	RHTF	T-0100		V-0112F														
FOR	RHTF	T-0100		V-0113F														
FOR	RHTF	T-0100		V-0114F														
FOR	RHTF	T-0100		V-0115F														
FOR	RHTF	T-0100		V-0116F														
FOR	RHTF	T-0100		V-0117I														
FOR	RHTF	T-0100		V-0120G														
FOR	RHTF	T-0100		V-0100D														
FOR	RHTF	T-0100		V-0100E														
FOR	RHTF	T-0100		V-0102G														
FOR	RHTF	T-0100		V-0103G														
FOR	RHTF	T-0100		V-0104G														
FOR	RHTF	T-0100		V-0105G														
FOR	RHTF	T-0100		V-0106G														
FOR	RHTF	T-0100		V-0107G														
FOR	RHTF	T-0100		V-0108G														
FOR	RHTF	T-0100		V-0109G														
FOR	RHTF	T-0100		V-0110G														
FOR	RHTF	T-0100		V-0111G														
FOR	RHTF	T-0100		V-0112G														
FOR	RHTF	T-0100		V-0114G														
FOR	RHTF	T-0100		V-0115G														
FOR	RHTF	T-0100		V-0116G														
FOR	RHTF	T-0100		V-0117H														
FOR	RHTF	T-0100		V-0120H														
FOR	RHTF	T-0100		MOV-0100C														
FOR	RHTF	T-0100		PSV-100														
FOR	Tunnel	T-0311		P/F-0311														
FOR	UGPH	T-0221		V-0221B / GT1RB														
FOR	UGPH	T-0221		V-0221C / GT1RA														
FOR	UGPH	T-0222		V-0222B														
FOR	UGPH	T-0222		V-0222C														
FOR	UGPH	T-0223		V-0223B														
FOR	UGPH	T-0224		V-0224B														
JP-5	RHTF	T-0102		MOV-0102C														
JP-5	RHTF	T-0102		MOV-0102B														
JP-5	RHTF	T-0104		MOV-0104C														
JP-5	RHTF	T-0104		MOV-0104B														
JP-5	RHTF	T-0106		MOV-0106C														
JP-5	RHTF	T-0106		MOV-0106B														
JP-5	RHTF	T-0107		P/F-0107														
JP-5	RHTF	T-0107		T-0107														
JP-5	RHTF	T-0107		MOV-0107C														
JP-5	RHTF	T-0107		MOV-0107B														
JP-5	RHTF	T-0107		MOV-0158														
JP-5	RHTF	T-0107		MOV-0163														
JP-5	RHTF	T-0108		EJ-108A														
JP-5	RHTF	T-0108		EJ-108B														
JP-5	RHTF	T-0108		T-0108														
JP-5	RHTF	T-0108		MOV-0108C														
JP-5	RHTF	T-0108		MOV-0108B														
JP-5	RHTF	T-0109		T-0109														
JP-5	RHTF	T-0109		MOV-0109C														
JP-5	RHTF	T-0109		MOV-0109B														
JP-5	RHTF	T-01 0		EJ-110A														
JP-5	RHTF	T-01 0		EJ-110B														
JP-5	RHTF	T-01 0		T-0110														
JP-5	RHTF	T-01 0		MOV-0110C														
JP-5	RHTF	T-01 0		MOV-0110B														
JP-5	RHTF	T-0111		T-0111														
JP-5	RHTF	T-0111		MOV-0111C														
JP-5	RHTF	T-0111		MOV-0111E														
JP-5	RHTF	T-0111		MOV-0111B														
JP-5	RHTF	T-0111		MOV-0111D														
JP-5	RHTF	T-0112		EJ-112A														
JP-5	RHTF	T-0112		EJ-112B														
JP-5	RHTF	T-0112		T-0112														
JP-5	RHTF	T-0112		MOV-0112C														
JP-5	RHTF	T-0112		MOV-0112B														
JP-5	RHTF	T-0113		MOV-0113C														
JP-5	RHTF	T-0113		MOV-0113B														
JP-5	RHTF	T-0114		EJ-114A														
JP-5	RHTF	T-0114		EJ-114B														
JP-5	RHTF	T-0114		MOV-0114C														

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	(b)(3)(A)	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
F-76	UGPH	T-0223		V-GR 60				
F-76	UGPH	T-0223		V-GR64A				
F-76	UGPH	T-0223		V-GR64B				
F-76	UGPH	T-0223		V-GR64C				
F-76	UGPH	T-0223		V-GR64D				
F-76	UGPH	T-0224		EJ-0224A				
F-76	UGPH	T-0224		T-0224				
F-76	UGPH	T-0224		MOV-0224A				
F-76	UGPH	T-0224		MOV-2325E5				
F-76	UGPH	T-0224		MOV-2325S				
FOR	Adit 3	T-0311		P/F-0311				
FOR	Adit 3	T-0311		T-0311				
FOR	Adit 3	T-0311		T-0311A				
FOR	Adit 3	T-0311		T-0B1 B				
FOR	Adit 3	T-0311		T-0B1 C				
FOR	Adit 3	T-0311		T-0B1 D				
FOR	RHTF	T-0100		P/F-0100				
FOR	RHTF	T-0100		PUMP P-0100A				
FOR	RHTF	T-0100		PUMP P-0100B				
FOR	RHTF	T-0100		ST-0100				
FOR	RHTF	T-0100		T-0100				
FOR	RHTF	T-0100		RS1RA				
FOR	RHTF	T-0100		RS1RB				
FOR	RHTF	T-0100		V-0100A				
FOR	RHTF	T-0100		RS1RE				
FOR	RHTF	T-0100		V-0102F				
FOR	RHTF	T-0100		V-0103F				
FOR	RHTF	T-0100		V-0104F				
FOR	RHTF	T-0100		V-0105F				
FOR	RHTF	T-0100		V-0106F				
FOR	RHTF	T-0100		V-0107F				
FOR	RHTF	T-0100		V-0108F				
FOR	RHTF	T-0100		V-0109F				
FOR	RHTF	T-0100		V-0110F				
FOR	RHTF	T-0100		V-0111F				
FOR	RHTF	T-0100		V-0112F				
FOR	RHTF	T-0100		V-0113F				
FOR	RHTF	T-0100		V-0114F				
FOR	RHTF	T-0100		V-0115F				
FOR	RHTF	T-0100		V-0116F				
FOR	RHTF	T-0100		V-0117I				
FOR	RHTF	T-0100		V-0120G				
FOR	RHTF	T-0100		V-0100D				
FOR	RHTF	T-0100		V-0100E				
FOR	RHTF	T-0100		V-0102G				
FOR	RHTF	T-0100		V-0103G				
FOR	RHTF	T-0100		V-0104G				
FOR	RHTF	T-0100		V-0105G				
FOR	RHTF	T-0100		V-0106G				
FOR	RHTF	T-0100		V-0107G				
FOR	RHTF	T-0100		V-0108G				
FOR	RHTF	T-0100		V-0109G				
FOR	RHTF	T-0100		V-0110G				
FOR	RHTF	T-0100		V-0111G				
FOR	RHTF	T-0100		V-0112G				
FOR	RHTF	T-0100		V-0114G				
FOR	RHTF	T-0100		V-0115G				
FOR	RHTF	T-0100		V-0116G				
FOR	RHTF	T-0100		V-0117H				
FOR	RHTF	T-0100		V-0120H				
FOR	RHTF	T-0100		MOV-0100C				
FOR	RHTF	T-0100		PSV-100				
FOR	Tunnel	T-0311		P/F-0311				
FOR	UGPH	T-0221		V-0221B/ GT1RB				
FOR	UGPH	T-0221		V-0221C/ GT1RA				
FOR	UGPH	T-0222		V-0222B				
FOR	UGPH	T-0222		V-0222C				
FOR	UGPH	T-0223		V-0223B				
FOR	UGPH	T-0224		V-0224B				
JP-5	RHTF	T-0102		MOV-0102C				
JP-5	RHTF	T-0102		MOV-0102B				
JP-5	RHTF	T-0104		MOV-0104C				
JP-5	RHTF	T-0104		MOV-0104B				
JP-5	RHTF	T-0106		MOV-0106C				
JP-5	RHTF	T-0106		MOV-0106B				
JP-5	RHTF	T-0107		P/F-0107				
JP-5	RHTF	T-0107		T-0107				
JP-5	RHTF	T-0107		MOV-0107C				
JP-5	RHTF	T-0107		MOV-0107B				
JP-5	RHTF	T-0107		MOV-0158				
JP-5	RHTF	T-0107		MOV-0163				
JP-5	RHTF	T-0108		EJ-108A				
JP-5	RHTF	T-0108		EJ-108B				
JP-5	RHTF	T-0108		T-0108				
JP-5	RHTF	T-0108		MOV-0108C				
JP-5	RHTF	T-0108		MOV-0108B				
JP-5	RHTF	T-0109		T-0109				
JP-5	RHTF	T-0109		MOV-0109C				
JP-5	RHTF	T-0109		MOV-0109B				
JP-5	RHTF	T-01 0		EJ-110A				
JP-5	RHTF	T-01 0		EJ-110B				
JP-5	RHTF	T-01 0		T-0110				
JP-5	RHTF	T-01 0		MOV-0110C				
JP-5	RHTF	T-01 0		MOV-0110B				
JP-5	RHTF	T-0111		T-0111				
JP-5	RHTF	T-0111		MOV-0111C				
JP-5	RHTF	T-0111		MOV-0111E				
JP-5	RHTF	T-0111		MOV-0111B				
JP-5	RHTF	T-0111		MOV-0111D				
JP-5	RHTF	T-0112		EJ-112A				
JP-5	RHTF	T-0112		EJ-112B				
JP-5	RHTF	T-0112		T-0112				
JP-5	RHTF	T-0112		MOV-0112C				
JP-5	RHTF	T-0112		MOV-0112B				
JP-5	RHTF	T-0113		MOV-0113C				
JP-5	RHTF	T-0113		MOV-0113B				
JP-5	RHTF	T-0114		EJ-114A				
JP-5	RHTF	T-0114		EJ-114B				
JP-5	RHTF	T-0114		MOV-0114C				

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
JP-5	RHTF	T-0114	(b)(3)(A)	MOV-0114B														
JP-5	RHTF	T-0115		EJ-115A														
JP-5	RHTF	T-0115		MOV-0115C														
JP-5	RHTF	T-0115		MOV-0115B														
JP-5	RHTF	T-01 6		MOV-0116C														
JP-5	RHTF	T-01 6		MOV-0116B														
JP-5	RHTF	T-0117		T-0117														
JP-5	RHTF	T-0117		MOV-0117F														
JP-5	RHTF	T-0117		MOV-0117E														
JP-5	RHTF	T-01 8		T-0118														
JP-5	RHTF	T-0120		EJ-120A														
JP-5	RHTF	T-0120		EJ-120B														
JP-5	RHTF	T-0120		T-0120														
JP-5	RHTF	T-0120		MOV-0120F							Soft Goods Replacement Kit	$14 000						
JP-5	RHTF	T-0120		MOV-0120E							Valve/Actuator Rebuild	$87 000						
JP-5	Tunnel	T-0107		P/F-0107														
JP-5	Tunnel	T-0107		MOV-0155			Valve Replacement	$290 000										
JP-5	Tunnel	T-0107		MOV-0156														
JP-5	Tunnel	T-0107		MOV-0157					Valve/Actuator Rebuild	$82 000								
JP-5	UGPH	P-0206		CV-0206 / GP65D														
JP-5	UGPH	P-0206		EJ-0206A														
JP-5	UGPH	P-0206		EJ-0206B														
JP-5	UGPH	P-0206		P/F-0206														
JP-5	UGPH	P-0206		P-0206			Pump Assembly Overhaul	$472 000										
JP-5	UGPH	P-0206		MOV-218E4							Soft Goods Replacement Kit	$14 000						
JP-5	UGPH	P-0206		MOV-218I4														
JP-5	UGPH	P-0206		MOV-218I6														
JP-5	UGPH	P-0206		MCV-218T1					Valve/Actuator Rebuild	$36 000								
JP-5	UGPH	P-0206		MCV-218T2														
JP-5	UGPH	P-0206		MOV-0222A			Valve/Actuator Rebu ld	$73 000										
JP-5	UGPH	P-0206		MOV-218E2			Valve Replacement	$290 000										
JP-5	UGPH	P-0206		MOV-0206A			Valve/Actuator Rebu ld	$34 000										
JP-5	UGPH	P-0206		MOV-0206B														
JP-5	UGPH	P-0206		MOV-0206C														
JP-5	UGPH	P-0206		MOV-0206E														
JP-5	UGPH	P-0206		MOV-0206F														
JP-5	UGPH	P-0206		MOV-0206G														
JP-5	UGPH	P-0206		MOV-218E3														
JP-5	UGPH	P-0206		MOV-218E5														
JP-5	UGPH	P-0206		MOV-218I3														
JP-5	UGPH	P-0206		MOV-218I5 / GI45D											Valve/Actuator Rebuild	$55 000		
JP-5	UGPH	P-0206		MOV-218I5														
JP-5	UGPH	P-0207		CV-0207 / GP75														
JP-5	UGPH	P-0207		EJ-0207A														
JP-5	UGPH	P-0207		EJ-0207B														
JP-5	UGPH	P-0207		P-0207					Pump Assembly Overhaul	$529 000								
JP-5	UGPH	P-0207		MOV-0207A					Valve/Actuator Rebuild	$38 000								
JP-5	UGPH	P-0207		MOV-0207B														
JP-5	UGPH	P-0207		MOV-0207C														
JP-5	UGPH	P-0207		MOV-0207E														
JP-5	UGPH	P-0207		MOV-0207F									Valve/Actuator Rebuild	$51 000				
JP-5	UGPH	P-0207		MOV-0207G														
JP-5	UGPH	P-0208		CV-0208														
JP-5	UGPH	P-0208		EJ-0208A														
JP-5	UGPH	P-0208		EJ-0208B														
JP-5	UGPH	P-0208		P-0208							Pump Assembly Overhaul	$565 000						
JP-5	UGPH	P-0208		V-0208H														
JP-5	UGPH	P-0208		V-0208I														
JP-5	UGPH	P-0208		MOV-0208A							Valve/Actuator Rebuild	$40 000						
JP-5	UGPH	P-0208		MOV-0208B														
JP-5	UGPH	P-0208		MOV-0208C														
JP-5	UGPH	P-0208		MOV-0208E														
JP-5	UGPH	P-0208		MOV-0208F														
JP-5	UGPH	P-0208		MOV-0208G														
JP-5	UGPH	T-0222		FCV-0269			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		FCV-0272			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		RF-0267			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		RF-0268			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		RF-0270			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		RF-0271			Valve Rebu ld & Re-Tune	$27 000										
JP-5	UGPH	T-0222		EJ-0222A														
JP-5	UGPH	T-0222		ST-0269														
JP-5	UGPH	T-0222		ST-0272														
JP-5	UGPH	T-0222		T-0222														
JP-5	UGPH	T-0222		V-0212A	Valve Rebuild	$8 000												
JP-5	UGPH	T-0222		V-0212B														
JP-5	UGPH	T-0222		V-0212C														
JP-5	UGPH	T-0222		V-0212D														
JP-5	UGPH	T-0222		V-0214A					Valve Rebuild	$10 000								
JP-5	UGPH	T-0222		V-0214B														
JP-5	UGPH	T-0222		V-0214C														
JP-5	UGPH	T-0222		V-0214D														
JP-5	UGPH	T-0222		V-GI15G											Valve Rebuild	$12 000		
JP-5	UGPH	T-0222		V-GR25A														
JP-5	UGPH	T-0222		V-GR25B														
JP-5	UGPH	T-0222		V-GR55A														
JP-5	UGPH	T-0222		V-GR55B														
JP-5	UGPH	T-0222		MOV-0222D														
RT	Adit 3	T-R001																
RT	Adit 3	T-R001		T-R001											Out-of-Service Clean/Inspect/Repa	$3 304 000		
RT	Adit 3	T-R001		V-R001											Valve Rebuild	$21 000		
RT	Adit 3	T-R001		V-R002														
RT	Adit 3	T-R001		V-R003											Valve Rebuild	$34 000		
RT	Adit 3	T-R001		V-R004														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-1											Pump Assembly Rebuild	$100 000		
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-2														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-3														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-4														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-2-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																

[redacted]

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component		Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
JP-5	RHTF	T-0114	[redacted]	MOV-0114B														
JP-5	RHTF	T-0115		EJ-115A														
JP-5	RHTF	T-0115		MOV-0115C														
JP-5	RHTF	T-0115		MOV-0115B														
JP-5	RHTF	T-01 6		MOV-0116C														
JP-5	RHTF	T-01 6		MOV-0116B														
JP-5	RHTF	T-0117		T-0117														
JP-5	RHTF	T-0117		MOV-0117F														
JP-5	RHTF	T-0117		MOV-0117E														
JP-5	RHTF	T-01 8		T-0118														
JP-5	RHTF	T-0120		EJ-120A														
JP-5	RHTF	T-0120		EJ-120B														
JP-5	RHTF	T-0120		T-0120														
JP-5	RHTF	T-0120		MOV-0120F														
JP-5	RHTF	T-0120		MOV-0120E														
JP-5	Tunnel	T-0107		P/F-0107														
JP-5	Tunnel	T-0107		MOV-0155														
JP-5	Tunnel	T-0107		MOV-0156														
JP-5	Tunnel	T-0107		MOV-0157														
JP-5	UGPH	P-0206		CV-0206 / GP65D														
JP-5	UGPH	P-0206		EJ-0206A														
JP-5	UGPH	P-0206		EJ-0206B														
JP-5	UGPH	P-0206		P/F-0206														
JP-5	UGPH	P-0206		P-0206														
JP-5	UGPH	P-0206		MOV-218E4														
JP-5	UGPH	P-0206		MOV-218I4														
JP-5	UGPH	P-0206		MOV-218I6														
JP-5	UGPH	P-0206		MCV-218T1														
JP-5	UGPH	P-0206		MCV-218T2														
JP-5	UGPH	P-0206		MOV-0222A														
JP-5	UGPH	P-0206		MOV-218E2														
JP-5	UGPH	P-0206		MOV-0206A														
JP-5	UGPH	P-0206		MOV-0206B														
JP-5	UGPH	P-0206		MOV-0206C														
JP-5	UGPH	P-0206		MOV-0206E														
JP-5	UGPH	P-0206		MOV-0206F														
JP-5	UGPH	P-0206		MOV-0206G														
JP-5	UGPH	P-0206		MOV-218E3														
JP-5	UGPH	P-0206		MOV-218E5														
JP-5	UGPH	P-0206		MOV-218I3														
JP-5	UGPH	P-0206		MOV-218I5 / GI45														
JP-5	UGPH	P-0206		MOV-218I5														
JP-5	UGPH	P-0207		CV-0207 / GP75														
JP-5	UGPH	P-0207		EJ-0207A														
JP-5	UGPH	P-0207		EJ-0207B														
JP-5	UGPH	P-0207		P-0207														
JP-5	UGPH	P-0207		MOV-0207A														
JP-5	UGPH	P-0207		MOV-0207B														
JP-5	UGPH	P-0207		MOV-0207C														
JP-5	UGPH	P-0207		MOV-0207E														
JP-5	UGPH	P-0207		MOV-0207F														
JP-5	UGPH	P-0207		MOV-0207G														
JP-5	UGPH	P-0208		CV-0208														
JP-5	UGPH	P-0208		EJ-0208A														
JP-5	UGPH	P-0208		EJ-0208B														
JP-5	UGPH	P-0208		P-0208														
JP-5	UGPH	P-0208		V-0208H														
JP-5	UGPH	P-0208		V-0208I														
JP-5	UGPH	P-0208		MOV-0208A														
JP-5	UGPH	P-0208		MOV-0208B														
JP-5	UGPH	P-0208		MOV-0208C														
JP-5	UGPH	P-0208		MOV-0208E														
JP-5	UGPH	P-0208		MOV-0208F														
JP-5	UGPH	P-0208		MOV-0208G														
JP-5	UGPH	T-0222		FCV-0269														
JP-5	UGPH	T-0222		FCV-0272														
JP-5	UGPH	T-0222		RF-0267														
JP-5	UGPH	T-0222		RF-0268														
JP-5	UGPH	T-0222		RF-0270														
JP-5	UGPH	T-0222		RF-0271														
JP-5	UGPH	T-0222		EJ-0222A														
JP-5	UGPH	T-0222		ST-0269														
JP-5	UGPH	T-0222		ST-0272														
JP-5	UGPH	T-0222		T-0222														
JP-5	UGPH	T-0222		V-0212A														
JP-5	UGPH	T-0222		V-0212B														
JP-5	UGPH	T-0222		V-0212C														
JP-5	UGPH	T-0222		V-0212D														
JP-5	UGPH	T-0222		V-0214A														
JP-5	UGPH	T-0222		V-0214B														
JP-5	UGPH	T-0222		V-0214C														
JP-5	UGPH	T-0222		V-0214D														
JP-5	UGPH	T-0222		V-GI15G														
JP-5	UGPH	T-0222		V-GR25A														
JP-5	UGPH	T-0222		V-GR25B														
JP-5	UGPH	T-0222		V-GR55A														
JP-5	UGPH	T-0222		V-GR55B														
JP-5	UGPH	T-0222		MOV-0222D														
RT	Adit 3	T-R001																
RT	Adit 3	T-R001		T-R001														
RT	Adit 3	T-R001		V-R001														
RT	Adit 3	T-R001		V-R002														
RT	Adit 3	T-R001		V-R003														
RT	Adit 3	T-R001		V-R004														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-1														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-2							Pump Assembly Rebuild	110000						
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-3														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-4														
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1			Valve Rebu ld	36000												
RT	RHTF	SP-DOOR-2-1																
RT	RHTF	SP-DOOR-2-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-2-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-2-1											Valve Rebuild	24000				

[redacted]

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
JP-5	RHTF	T-0114	(b)(3)(A)	MOV-0114B				
JP-5	RHTF	T-0115		EJ-115A				
JP-5	RHTF	T-0115		MOV-0115C				
JP-5	RHTF	T-0115		MOV-0115B				
JP-5	RHTF	T-01 6		MOV-0116C				
JP-5	RHTF	T-01 6		MOV-0116B				
JP-5	RHTF	T-0117		T-0117				
JP-5	RHTF	T-0117		MOV-0117F				
JP-5	RHTF	T-0117		MOV-0117E				
JP-5	RHTF	T-01 8		T-0118				
JP-5	RHTF	T-0120		EJ-120A				
JP-5	RHTF	T-0120		EJ-120B				
JP-5	RHTF	T-0120		T-0120				
JP-5	RHTF	T-0120		MOV-0120F				
JP-5	RHTF	T-0120		MOV-0120E				
JP-5	Tunnel	T-0107		P/F-0107				
JP-5	Tunnel	T-0107		MOV-0155				
JP-5	Tunnel	T-0107		MOV-0156				
JP-5	Tunnel	T-0107		MOV-0157				
JP-5	UGPH	P-0206		CV-0206 / GP65D				
JP-5	UGPH	P-0206		EJ-0206A				
JP-5	UGPH	P-0206		EJ-0206B				
JP-5	UGPH	P-0206		P/F-0206				
JP-5	UGPH	P-0206		P-0206				
JP-5	UGPH	P-0206		MOV-218E4				
JP-5	UGPH	P-0206		MOV-218I4				
JP-5	UGPH	P-0206		MOV-218I6				
JP-5	UGPH	P-0206		MCV-218T1				
JP-5	UGPH	P-0206		MCV-218T2				
JP-5	UGPH	P-0206		MOV-0222A				
JP-5	UGPH	P-0206		MOV-218E2				
JP-5	UGPH	P-0206		MOV-0206A				
JP-5	UGPH	P-0206		MOV-0206B				
JP-5	UGPH	P-0206		MOV-0206C				
JP-5	UGPH	P-0206		MOV-0206E				
JP-5	UGPH	P-0206		MOV-0206F				
JP-5	UGPH	P-0206		MOV-0206G				
JP-5	UGPH	P-0206		MOV-218E3				
JP-5	UGPH	P-0206		MOV-218E5				
JP-5	UGPH	P-0206		MOV-218I3				
JP-5	UGPH	P-0206		MOV-218I5 / GI45				
JP-5	UGPH	P-0206		MOV-218I5				
JP-5	UGPH	P-0207		CV-0207 / GP75				
JP-5	UGPH	P-0207		EJ-0207A				
JP-5	UGPH	P-0207		EJ-0207B				
JP-5	UGPH	P-0207		P-0207				
JP-5	UGPH	P-0207		MOV-0207A				
JP-5	UGPH	P-0207		MOV-0207B				
JP-5	UGPH	P-0207		MOV-0207C				
JP-5	UGPH	P-0207		MOV-0207E				
JP-5	UGPH	P-0207		MOV-0207F				
JP-5	UGPH	P-0207		MOV-0207G				
JP-5	UGPH	P-0208		CV-0208				
JP-5	UGPH	P-0208		EJ-0208A				
JP-5	UGPH	P-0208		EJ-0208B				
JP-5	UGPH	P-0208		P-0208				
JP-5	UGPH	P-0208		V-0208H				
JP-5	UGPH	P-0208		V-0208I				
JP-5	UGPH	P-0208		MOV-0208A				
JP-5	UGPH	P-0208		MOV-0208B				
JP-5	UGPH	P-0208		MOV-0208C				
JP-5	UGPH	P-0208		MOV-0208E				
JP-5	UGPH	P-0208		MOV-0208F				
JP-5	UGPH	P-0208		MOV-0208G				
JP-5	UGPH	T-0222		FCV-0269				
JP-5	UGPH	T-0222		FCV-0272				
JP-5	UGPH	T-0222		RF-0267				
JP-5	UGPH	T-0222		RF-0268				
JP-5	UGPH	T-0222		RF-0270				
JP-5	UGPH	T-0222		RF-0271				
JP-5	UGPH	T-0222		EJ-0222A				
JP-5	UGPH	T-0222		ST-0269				
JP-5	UGPH	T-0222		ST-0272				
JP-5	UGPH	T-0222		T-0222				
JP-5	UGPH	T-0222		V-0212A				
JP-5	UGPH	T-0222		V-0212B				
JP-5	UGPH	T-0222		V-0212C				
JP-5	UGPH	T-0222		V-0212D				
JP-5	UGPH	T-0222		V-0214A				
JP-5	UGPH	T-0222		V-0214B				
JP-5	UGPH	T-0222		V-0214C				
JP-5	UGPH	T-0222		V-0214D				
JP-5	UGPH	T-0222		V-GI15G				
JP-5	UGPH	T-0222		V-GR25A				
JP-5	UGPH	T-0222		V-GR25B				
JP-5	UGPH	T-0222		V-GR55A				
JP-5	UGPH	T-0222		V-GR55B				
JP-5	UGPH	T-0222		MOV-0222D				
RT	Adit 3	T-R001						
RT	Adit 3	T-R001		T-R001				
RT	Adit 3	T-R001		V-R001				
RT	Adit 3	T-R001		V-R002				
RT	Adit 3	T-R001		V-R003				
RT	Adit 3	T-R001		V-R004				
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-1				
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-2				
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-3				
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-4				
RT	RHTF	SP-DOOR-2-1		SP-DOOR-2-5				
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						
RT	RHTF	SP-DOOR-2-1						

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
RT	RHTF	SP-DOOR-2-1	(b)(3)(A)												Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-3-1		SP-DOOR-3-1											Pump Assembly Rebuild	$100 000		
RT	RHTF	SP-DOOR-3-1		SP-DOOR-3-2														
RT	RHTF	SP-DOOR-3-1		SP-DOOR-3-3														
RT	RHTF	SP-DOOR-3-1		SP-DOOR-3-4														
RT	RHTF	SP-DOOR-3-1		SP-DOOR-3-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-3-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-4-1		SP-DOOR-4-1											Pump Assembly Rebuild	$100 000		
RT	RHTF	SP-DOOR-4-1		SP-DOOR-4-2														
RT	RHTF	SP-DOOR-4-1		SP-DOOR-4-3														
RT	RHTF	SP-DOOR-4-1		SP-DOOR-4-4														
RT	RHTF	SP-DOOR-4-1		SP-DOOR-4-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-4-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-5-1		SP-DOOR-5-1											Pump Assembly Rebuild	$100 000		
RT	RHTF	SP-DOOR-5-1		SP-DOOR-5-2														
RT	RHTF	SP-DOOR-5-1		SP-DOOR-5-3														
RT	RHTF	SP-DOOR-5-1		SP-DOOR-5-4														
RT	RHTF	SP-DOOR-5-1		SP-DOOR-5-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-5-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-C-1		SP-DOOR-C-1											Pump Assembly Rebuild	$100 000		
RT	RHTF	SP-DOOR-C-1		SP-DOOR-C-2														
RT	RHTF	SP-DOOR-C-1		SP-DOOR-C-3														
RT	RHTF	SP-DOOR-C-1		SP-DOOR-C-4														
RT	RHTF	SP-DOOR-C-1		SP-DOOR-C-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-C-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-C-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1													Valve Rebuild	$21 000		
RT	RHTF	SP-DOOR-OIL-5		SP-DOOR-OIL-5											Pump Assembly Rebuild	$34 000		
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5													Valve Rebuild	$16 000		
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5													Valve Rebuild	$34 000		
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
Vent	Adit 1	EF-6A		EF-6A					Motor Replacement	$108 000								
Vent	Adit 1	EF-6A		EF-6B					Motor Replacement	$108 000			Motor Replacement	$124 000				
Vent	Adit 1	EF-6A		EF-6C							Motor Replacement	$116 000						
Vent	Adit 1	EF-6A		EF-6D							Motor Replacement	$116 000						
Vent	Adit 5	EF-1A		FSD-ADIT5														
Vent	Adit 6	PE-1A		FSD-ADIT6														
Vent	Adit 6	PE-1A		FSD-ADIT6-01														
Vent	Adit 6	PE-1A		PE-1A							Motor Replacement	$116 000						
Vent	Adit 6	PE-1A		PE-1B							Motor Replacement	$116 000						
Vent	RHTF	EF-1A		EF-1A					Motor Replacement	$54 000								
Vent	RHTF	EF-1A		EF- B					Motor Replacement	$54 000								
Vent	RHTF	EF-1A		EF-7A														
Vent	RHTF	EF-1A		EF-7B														
Vent	RHTF	EF-1A		EF-7C														
Vent	RHTF	EF-1A		EF-7D														
Vent	RHTF	EF-1A		EF-7E														
Vent	RHTF	EF-1A		EF-7F														
Vent	RHTF	EF-1A		SF-7G														
Vent	RHTF	EF-1A		SF-7H														
Vent	RHTF	EF-1A		FSD-EF-1														
Vent	RHTF	PE-1A		PS-1A							Motor Replacement	$58 000						
Vent	RHTF	PE-1A		PS-1B							Motor Replacement	$58 000						
Vent	RHTF	PE-1A		PS-2A									Motor Replacement	$93 000				
Vent	RHTF	PE-1A		PS-2B									Motor Replacement	$93 000				
Vent	RHTF	PE-1A		PS-4														
Vent	RHTF	PE-1A		PS-5														
Vent	RHTF	EF-1A		FSD-72-U-(1/2)														
Vent	RHTF	EF-2A		FSD-DOOR-1A&B														
Vent	RHTF	EF-2A		FSD-DOOR-2A&B														
Vent	RHTF	EF-2A		FSD-DOOR-3A&B														
Vent	RHTF	EF-2A		FSD-DOOR-4A&B														
Vent	RHTF	EF-2A		FSD-ELEC-1 2&3														
Vent	RHTF	EF-2A		FSD-T-13														

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
RT	RHTF	SP-DOOR-2-1	(b)(3)(A)														Valve Rebu ld	$40 000
RT	RHTF	SP-DOOR-3-1		-DOOR-3-1														
RT	RHTF	SP-DOOR-3-1		-DOOR-3-2									Pump Assembly Rebuild	112000				
RT	RHTF	SP-DOOR-3-1		-DOOR-3-3														
RT	RHTF	SP-DOOR-3-1		-DOOR-3-4														
RT	RHTF	SP-DOOR-3-1		-DOOR-3-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1					Valve Rebuild	$22 000										
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1					Valve Rebuild	$37 000										
RT	RHTF	SP-DOOR-3-1																
RT	RHTF	SP-DOOR-3-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-3-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-3-1											Valve Rebuild	24000				
RT	RHTF	SP-DOOR-3-1															Valve Rebu ld	$40 000
RT	RHTF	SP-DOOR-4-1		-DOOR-4-1														
RT	RHTF	SP-DOOR-4-1		-DOOR-4-2											Pump Assembly Rebuild	$114 000		
RT	RHTF	SP-DOOR-4-1		-DOOR-4-3														
RT	RHTF	SP-DOOR-4-1		-DOOR-4-4														
RT	RHTF	SP-DOOR-4-1		-DOOR-4-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1							Valve Rebuild	37000								
RT	RHTF	SP-DOOR-4-1																
RT	RHTF	SP-DOOR-4-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-4-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-4-1											Valve Rebuild	24000				
RT	RHTF	SP-DOOR-4-1															Valve Rebu ld	$40 000
RT	RHTF	SP-DOOR-5-1		-DOOR-5-1														
RT	RHTF	SP-DOOR-5-1		-DOOR-5-2													Pump Assembly Rebu ld	$117 000
RT	RHTF	SP-DOOR-5-1		-DOOR-5-3														
RT	RHTF	SP-DOOR-5-1		-DOOR-5-4														
RT	RHTF	SP-DOOR-5-1		-DOOR-5-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1									Valve Rebuild	23000						
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1									Valve Rebuild	38000						
RT	RHTF	SP-DOOR-5-1																
RT	RHTF	SP-DOOR-5-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-5-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-5-1											Valve Rebuild	24000				
RT	RHTF	SP-DOOR-5-1															Valve Rebu ld	$40 000
RT	RHTF	SP-DOOR-C-1		-DOOR-C-1														
RT	RHTF	SP-DOOR-C-1		-DOOR-C-2														
RT	RHTF	SP-DOOR-C-1		-DOOR-C-3														
RT	RHTF	SP-DOOR-C-1		-DOOR-C-4														
RT	RHTF	SP-DOOR-C-1		-DOOR-C-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1											Valve Rebuild	24000				
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1																
RT	RHTF	SP-DOOR-C-1			Valve Rebu ld	22000												
RT	RHTF	SP-DOOR-C-1							Valve Rebuild	23000								
RT	RHTF	SP-DOOR-C-1											Valve Rebuild	24000				
RT	RHTF	SP-DOOR-OIL-5		-DOOR-OIL-5							Pump Assembly Rebuild	37000						
RT	RHTF	SP-DOOR-OIL-5											Valve Rebuild	39000				
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5													Valve Rebuild	$40 000		
RT	RHTF	SP-DOOR-OIL-5															Valve Rebu ld	$19 000
RT	RHTF	SP-DOOR-OIL-5			Valve Rebu ld	17000												
RT	RHTF	SP-DOOR-OIL-5							Valve Rebuild	17000								
RT	RHTF	SP-DOOR-OIL-5											Valve Rebuild	18000				
RT	RHTF	SP-DOOR-OIL-5															Valve Rebu ld	$40 000
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
RT	RHTF	SP-DOOR-OIL-5																
Vent	Adit 1	EF-6A		-6A											Motor Replacement	$152 000		
Vent	Adit 1	EF-6A		-6B											Motor Replacement	$152 000		
Vent	Adit 1	EF-6A		-6C													Motor Replacement	$155 000
Vent	Adit 1	EF-6A		-6D													Motor Replacement	$155 000
Vent	Adit 5	EF-1A		D-ADIT5														
Vent	Adit 6	PE-1A		D-ADIT6														
Vent	Adit 6	PE-1A		D-ADIT6-01														
Vent	Adit 6	PE-1A		-1A													Motor Replacement	$155 000
Vent	Adit 6	PE-1A		-1B													Motor Replacement	$155 000
Vent	RHTF	EF-1A		-1A											Motor Replacement	$76 000		
Vent	RHTF	EF-1A		- B											Motor Replacement	$76 000		
Vent	RHTF	EF-1A		-7A			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7B			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7C			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7D			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7E			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7F			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7G			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		-7H			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		D-EF-1														
Vent	RHTF	PE-1A		-1A													Motor Replacement	$78 000
Vent	RHTF	PE-1A		-1B													Motor Replacement	$78 000
Vent	RHTF	PE-1A		-2A														
Vent	RHTF	PE-1A		-2B														
Vent	RHTF	PE-1A		-4			Motor Replacement	$36 000										
Vent	RHTF	PE-1A		-5			Motor Replacement	$36 000										
Vent	RHTF	EF-1A		D-72-U-(1/2)														
Vent	RHTF	EF-2A		D-DOOR-1A&B														
Vent	RHTF	EF-2A		D-DOOR-2A&B														
Vent	RHTF	EF-2A		D-DOOR-3A&B														
Vent	RHTF	EF-2A		D-DOOR-4A&B														
Vent	RHTF	EF-2A		D-ELEC-1 2&3														
Vent	RHTF	EF-2A		D-T-13														

Table AC.1 - Detailed Lifecycle Sustainment Plan								
System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
RT	RHTF	SP-DOOR-2-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]	-DOOR-3-1				
RT	RHTF	SP-DOOR-3-1	[redacted]	-DOOR-3-2				
RT	RHTF	SP-DOOR-3-1	[redacted]	-DOOR-3-3				
RT	RHTF	SP-DOOR-3-1	[redacted]	-DOOR-3-4				
RT	RHTF	SP-DOOR-3-1	[redacted]	-DOOR-3-5				
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-3-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]	-DOOR-4-1				
RT	RHTF	SP-DOOR-4-1	[redacted]	-DOOR-4-2				
RT	RHTF	SP-DOOR-4-1	[redacted]	-DOOR-4-3				
RT	RHTF	SP-DOOR-4-1	[redacted]	-DOOR-4-4				
RT	RHTF	SP-DOOR-4-1	[redacted]	-DOOR-4-5				
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-4-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]	-DOOR-5-1				
RT	RHTF	SP-DOOR-5-1	[redacted]	-DOOR-5-2				
RT	RHTF	SP-DOOR-5-1	[redacted]	-DOOR-5-3				
RT	RHTF	SP-DOOR-5-1	[redacted]	-DOOR-5-4				
RT	RHTF	SP-DOOR-5-1	[redacted]	-DOOR-5-5				
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-5-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]	-DOOR-C-1				
RT	RHTF	SP-DOOR-C-1	[redacted]	-DOOR-C-2	Pump Assembly Rebu ld	$119 000		
RT	RHTF	SP-DOOR-C-1	[redacted]	-DOOR-C-3				
RT	RHTF	SP-DOOR-C-1	[redacted]	-DOOR-C-4				
RT	RHTF	SP-DOOR-C-1	[redacted]	-DOOR-C-5				
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-C-1	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]	-DOOR-OIL-5				
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
RT	RHTF	SP-DOOR-OIL-5	[redacted]					
Vent	Adit 1	EF-6A	[redacted]	-6A				
Vent	Adit 1	EF-6A	[redacted]	-6B	Motor Replacement	$158 000		
Vent	Adit 1	EF-6A	[redacted]	-6C				
Vent	Adit 1	EF-6A	[redacted]	-6D				
Vent	Adit 5	EF-1A	[redacted]	D-ADIT5				
Vent	Adit 6	PE-1A	[redacted]	D-ADIT6				
Vent	Adit 6	PE-1A	[redacted]	D-ADIT6-01				
Vent	Adit 6	PE-1A	[redacted]	-1A				
Vent	Adit 6	PE-1A	[redacted]	-1B				
Vent	RHTF	EF-1A	[redacted]	-1A				
Vent	RHTF	EF-1A	[redacted]	- B				
Vent	RHTF	EF-1A	[redacted]	-7A				
Vent	RHTF	EF-1A	[redacted]	-7B				
Vent	RHTF	EF-1A	[redacted]	-7C				
Vent	RHTF	EF-1A	[redacted]	-7D				
Vent	RHTF	EF-1A	[redacted]	-7E				
Vent	RHTF	EF-1A	[redacted]	-7F				
Vent	RHTF	EF-1A	[redacted]	-7G				
Vent	RHTF	EF-1A	[redacted]	-7H				
Vent	RHTF	EF-1A	[redacted]	D-EF-1				
Vent	RHTF	PE-1A	[redacted]	-1A				
Vent	RHTF	PE-1A	[redacted]	-1B				
Vent	RHTF	PE-1A	[redacted]	-2A	Motor Replacement	$119 000		
Vent	RHTF	PE-1A	[redacted]	-2B	Motor Replacement	$119 000		
Vent	RHTF	PE-1A	[redacted]	-4				
Vent	RHTF	PE-1A	[redacted]	-5				
Vent	RHTF	EF-1A	[redacted]	D-72-U-(1/2)				
Vent	RHTF	EF-2A	[redacted]	D-DOOR-1A&B				
Vent	RHTF	EF-2A	[redacted]	D-DOOR-2A&B				
Vent	RHTF	EF-2A	[redacted]	D-DOOR-3A&B				
Vent	RHTF	EF-2A	[redacted]	D-DOOR-4A&B				
Vent	RHTF	EF-2A	[redacted]	D-ELEC-1 2&3				
Vent	RHTF	EF-2A	[redacted]	D-T-13				

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity	FY28 Program Amt
Vent	RHTF	PE-1A	[redacted]	FSD-72-U-01														
Vent	RHTF	PE-1A		FSD-72-L-01														
Vent	RHTF	PE-1A		FSD-A6-U-01														
Vent	RHTF	PE-1A		FSD-A6-L-01														
Vent	Tunnel	EF-2A		EF-2A							Motor Replacement	$116 000						
Vent	Tunnel	EF-2A		EF-2B							Motor Replacement	$116 000						
Vent	Tunnel	EF-2A		EF-3			Fan Assembly Replacement	$193 000										
Vent	Tunnel	EF-2A		EF-4A									Motor Replacement	$124 000				
Vent	Tunnel	EF-2A		EF-4B									Motor Replacement	$124 000				
Vent	Tunnel	EF-2A		FSD-EF-2														
Vent	Tunnel	EF-2A		FSD-EF-4														
Vent	UGPH	EF-6A		EF-8					Motor Replacement	$54 000								
Vent	UGPH	EF-6A		EF-9					Motor Replacement	$108 000								
Vent	UGPH	EF-6A		SF-5A									Motor Replacement	$ 86 000				
Vent	UGPH	EF-6A		SF-5B									Motor Replacement	$ 86 000				
Vent	UGPH	EF-6A		SF-7					Motor Replacement	$108 000								

[redacted] (b) (3) (A)

Table AC.1 - Detailed Lifecycle Sustainment Plan

System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt	FY35 M/R/R Activity	FY35 Program Amt
Vent	RHTF	PE -1A	[redacted]	FSD-72-U-01														
Vent	RHTF	PE -1A		FSD-72-L-01														
Vent	RHTF	PE -1A		FSD-A6-U-01														
Vent	RHTF	PE -1A		FSD-A6-L-01														
Vent	Tunnel	EF-2A		EF-2A													Motor Replacement	$155 000
Vent	Tunnel	EF-2A		EF-2B													Motor Replacement	$155 000
Vent	Tunnel	EF-2A		EF-3														
Vent	Tunnel	EF-2A		EF-4A														
Vent	Tunnel	EF-2A		EF-4B														
Vent	Tunnel	EF-2A		FSD-EF-2														
Vent	Tunnel	EF-2A		FSD-EF-4														
Vent	UGPH	EF-6A		EF-8											Motor Replacement	$76 000		
Vent	UGPH	EF-6A		EF-9											Motor Replacement	$152 000		
Vent	UGPH	EF-6A		SF-5A														
Vent	UGPH	EF-6A		SF-5B														
Vent	UGPH	EF-6A		SF-7											Motor Replacement	$152 000		

[redacted]

					Table AC.1 - Detailed Lifecycle Sustainment Plan			
System	Sub-System	Major Component	Equipment Type	Equipment Tag No.	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
Vent	RHTF	PE-1A	(b) (3) (A)	FSD-72-U-01				
Vent	RHTF	PE-1A		FSD-72-L-01				
Vent	RHTF	PE-1A		FSD-A6-U-01				
Vent	RHTF	PE-1A		FSD-A6-L-01				
Vent	Tunnel	EF-2A		EF-2A				
Vent	Tunnel	EF-2A		EF-2B				
Vent	Tunnel	EF-2A		EF-3				
Vent	Tunnel	EF-2A		EF-4A	Motor Replacement	$158 000		
Vent	Tunnel	EF-2A		EF-4B	Motor Replacement	$158 000		
Vent	Tunnel	EF-2A		FSD-EF-2				
Vent	Tunnel	EF-2A		FSD-EF-4				
Vent	UGPH	EF-6A		EF-8				
Vent	UGPH	EF-6A		EF-9				
Vent	UGPH	EF-6A		SF-5A	Motor Replacement	$237 000		
Vent	UGPH	EF-6A		SF-5B	Motor Replacement	$237 000		
Vent	UGPH	EF-6A		SF-7				

Table AC-1 Detailed Lifecycle Sustainment Plan

System	Sub System	Major Component	Equipment Type	Equipment Tag No.	FY22 M/R/R Activity	FY22 Program Amt	FY23 M/R/R Activity	FY23 Program Amt	FY24 M/R/R Activity	FY24 Program Amt	FY25 M/R/R Activity	FY25 Program Amt	FY26 M/R/R Activity	FY26 Program Amt	FY27 M/R/R Activity	FY27 Program Amt	FY28 M/R/R Activity
FS	PH	FP		FP-1	Repack fire pump	$29,760									Repack fire pump	$45,732	
FS	PH	FP		JP-1	reducer	$336											
FS	AFFF	AF-1															
FS	AFFF	AF-1															
FS	AFFF	AF-2															
FS	AFFF	AF-3					Replace Riser Piping	$7,022									
FS	AFFF	AF-3															
FS	AFFF	AF-4															
FS	AFFF	AF-5															
FS	WP	WP-1															
FS	WP	WP-2															
FS	WP	WP-2			(approx 3' of pipe)	$2,018											
FS	WP	WP-3															
FS	WP	WP-3			install 6" x 1.25" outlet @ tanks	$8,090											
FS	WP	WP-4															
FS	WP	WP-4			install 6" x 1.25" outlet @ tanks	$8,090											
FS	SP	LTS															
FS	SP	ADIT3															
FS	SP	ADIT3													replace pressure gauges	$4,254	
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT4															
FS	SP	ADIT4													replace pressure gauges	$4,254	
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT4															
FS	SP	ADIT5															
FS	SP	ADIT5															
FS	SP	ADIT6															
FS	SP	ADIT6													replace pressure gauges	$4,254	
FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FAMNS	Control	Power													replace batteries	$33,193	
FAMNS	Control	Power			replace 2 12 ah batteries	$1,186									replace batteries	$22,820	
FAMNS	Control	Power													replace batteries	$8,821	
FAMNS	Control	Power			replace 2 26 ah batteries	$1,504									replace batteries	$4,622	
FAMNS	Control	Power													replace batteries	$38,430	
FAMNS	Control	Power													replace batteries	$42,733	

Table AC.1 Detailed Lifecycle Sustainment Plan

System	Sub System	Major Component		Equipment Tag No.	FY28 Program Amt	FY29 M/R/R Activity	FY29 Program Amt	FY30 M/R/R Activity	FY30 Program Amt	FY31 M/R/R Activity	FY31 Program Amt	FY32 M/R/R Activity	FY32 Program Amt	FY33 M/R/R Activity	FY33 Program Amt	FY34 M/R/R Activity	FY34 Program Amt
FS	PH	FP	[redacted]	FP-1								Repack fire pump	$50,491				
FS	PH	FP		JP-1													
FS	AFFF	AF-1															
FS	AFFF	AF-1															
FS	AFFF	AF-2															
FS	AFFF	AF-3															
FS	AFFF	AF-3															
FS	AFFF	AF-4															
FS	AFFF	AF-5															
FS	WP	WP-1															
FS	WP	WP-2															
FS	WP	WP-2															
FS	WP	WP-3															
FS	WP	WP-3															
FS	WP	WP-4															
FS	WP	WP-4															
FS	SP	LTS															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
FS	SP	ADIT3															
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FS	SP	ADIT6															
FS	SP	ADIT6															
FS	SP	ADIT6															
FAMNS	Control	Power															
FAMNS	Control	Power										replace 2 12 ah batteries	$2,012				
FAMNS	Control	Power															
FAMNS	Control	Power										replace 2 26 ah batteries	$2,552				
FAMNS	Control	Power															
FAMNS	Control	Power															

Table AC.1 Detailed Lifecycle Sustainment Plan

System	Sub System	Major Component	Equipment Type	Equipment Tag No.	FY35 M/R/R Activity	FY35 Program Amt	FY36 M/R/R Activity	FY36 Program Amt	FY37 M/R/R Activity	FY37 Program Amt
FS	PH	FP	(b)(3)(A)	FP-1					Repack fire pump	$55,746
FS	PH	FP		JP-1						
FS	AFFF	AF-1								
FS	AFFF	AF-1								
FS	AFFF	AF-2								
FS	AFFF	AF-3								
FS	AFFF	AF-3								
FS	AFFF	AF-4								
FS	AFFF	AF-5								
FS	WP	WP-1								
FS	WP	WP-2								
FS	WP	WP-2								
FS	WP	WP-3								
FS	WP	WP-3								
FS	WP	WP-4								
FS	WP	WP-4								
FS	SP	LTS								
FS	SP	ADIT3								
FS	SP	ADIT3								
FS	SP	ADIT3								
FS	SP	ADIT3								
FS	SP	ADIT3								
FS	SP	ADIT3								
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FS	SP	ADIT6								
FAMNS	Control	Power							replace batteries	$40,461
FAMNS	Control	Power							replace batteries	$27,817
FAMNS	Control	Power							replace batteries	$10,752
FAMNS	Control	Power							replace batteries	$5,635
FAMNS	Control	Power							replace batteries	$46,845
FAMNS	Control	Power							replace batteries	$52,090

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