DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER

July 31, 2018

MEMORANDUM FOR: U.S. Environmental Protection Agency – Region 2
Attn: Robert Morse
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

New York State Department of Environmental Conservation
Attn: Ms. Heather Bishop
Division of Environmental Remediation
625 Broadway 12th Floor
Albany, NY 12233-7015

New York State Department of Environmental Conservation
Attn: Mr. Mark Tibbe
207 Genesee Street
Utica, NY 13501-2885

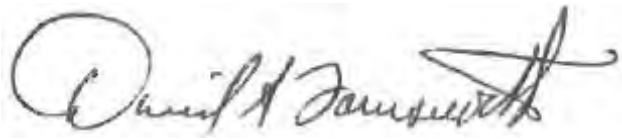
FROM: AFCEC/CIBE – Plattsburgh
8 Colorado Street, Suite 121
Plattsburgh, NY 12903

SUBJECT: 2018 Update To the Project Management Plan, Former Griffiss Air Force Base (AFB) Rome, New York, July 2019

Accompanying this letter, please find the following document for the former Griffiss AFB for your information.

- 2018 Update To The Project Management Plan, July 2019

Should you have any questions or concerns please contact me at 518-563-2871 or david.farnsworth@us.af.mil.



David S. Farnsworth
Program Manager/BRAC Environment Coordinator
BRAC Program Execution Branch

cc: See Attachment 2 Distribution List

Attachments:

1. 2018 Update To The Project Management Plan, July 2019
2. Distribution List

Distribution Requirements
2018 Update To The Project Management Plan Updated July 2019
Former Griffiss Air Force Base, Rome, New York
July 31, 2019

USEPA Region 2 - 1 Hardcopy and 1 CD
Mr. Robert Morse
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290 Broadway, 18th Floor
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NYSDEC - 1 CD
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NYSDEC – Upload to NYSDEC Spills Group FTP site (https://fts.dec.state.ny.us/fts/index.php)*.
Division of Environmental Remediation, Region 6
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*ensure email notification of upload is provided

NYSDOH –1 CD
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2018 UPDATE TO THE PROJECT MANAGEMENT PLAN FORMER GRIFFISS AIR FORCE BASE ROME, NEW YORK

Updated July 2019

Prepared For:

Air Force Civil Engineer Center
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Contract/Task Order No: FA8903-16-F-0012

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ACRONYMS AND ABBREVIATIONS

AF	Air Force
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFRPA	Air Force Real Property Agency
AOC	Area of Concern
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
Bhate	Bhate Environmental Associates, Inc.
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CDRL	Contract Data Requirements List
CDUT	Contractor Data Uploading Tool
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIBE	BRAC Program Management Execution Branch
CIH	Certified Industrial Hygienist
CO	Contracting Officer
COC	Chemical of concern
COR	Contracting Officer's Representative
CPSMR	Contractor's Progress, Status, and Management Report
CST	Central Standard Time
DPT	Direct push technology
ERPIMS	Environmental Resources Program Information Management System
ESD	Explanation of Significant Differences
FFA	Federal Facilities Agreement
FPM	FPM Remediations, Inc.
FYR	Five-Year Review
GSA	General Services Administration
GIS	Geographic Information System
GTS	Geostatistical Temporal-Spatial
H&S	Health and safety
HASP	Health and Safety Plan
HSM	Health and Safety Manager

IC	Institutional Control
ISEB	In-situ Enhanced Bioremediation
ISCO	In-situ chemical oxidation
IMS	Integrated Master Schedule
LCC	Life Cycle Cost
LFG	Landfill gas
LTM	Long term monitoring
LTO	Long term operations
LUC	Land Use Control
µg/L	Micrograms per liter
MAROS	Monitoring and Remediation Optimization Systems
MNA	Monitored natural attenuation
MPS	Milestone Payment Schedule
NFA	No further action
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation and maintenance
OES	Optimized Exit Strategy
OPS	Operating properly and successfully
OSHA	Occupational Safety and Health Administration
PA	Public Affairs
PBR	Performance-Based Remediation
PCB	Polychlorinated Biphenyl
PE	Professional Engineer
PG	Professional Geologist
PGM	Program Manager
PhD	Doctor of Philosophy
PM	Project Manager
PMP	Project Management Plan
POC	Point of contact
POP	Period of performance
PWS	Performance Work Statement
QAPP	Quality Assurance Project Plan
QC	Quality control

QSM	Quality Systems Manager
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report
RAO	Remedial Action Objectives
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
ROD	Record of decision
SC	Site Closeout
SQ	Status Quo
SSHP	Site Safety and Health Plan
SSVM	Sub slab vapor mitigation
SVE	Soil vapor extraction
SVI	Soil Vapor Intrusion
TCE	Trichloroethene
TO	Task Order
UFP	Uniform Federal Policy
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WSA	Weapons Storage Area

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1 INTRODUCTION

Bhate Environmental Associates, Inc. (Bhate), was awarded a task order (TO) FA8903-16-F-0012 under General Services Administration (GSA) contract GS10F0312K by the Air Force Civil Engineer Center (AFCEC) on June 8, 2016. The Performance Work Statement (PWS) issued by AFCEC for this TO is dated May 3, 2016, and is titled "Environmental Remediation at Base Realignment and Closure (BRAC) Eastern Region Bases". Attachment 5 to the PWS presents the Base Specific Information for the Former Griffiss Air Force Base (AFB) in Rome, New York. This is the second update to the Project Management Plan (PMP) issued in 2016 per the outlined contract milestones.

The Bhate Team is composed of Bhate and Arcadis. Our team has experience with the New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), and the U.S. Environmental Protection Agency (USEPA) Region 2. The Bhate Team's technical strategy to meet the objectives of this GSA order is to reduce the overall liability and life-cycle costs (LCCs) for the Air Force (AF) by obtaining closure with unrestricted reuse for the majority of sites; optimizing the exit strategy at other sites; and providing closures with restricted use where it provides the best value for the AF for the remaining sites.

1.1 Facility Background

Griffiss AFB was designated for realignment under the BRAC in 1993 and formerly realigned on September 30, 1995. The former Griffiss AFB occupies approximately 3,552 acres in Oneida County, New York. The base is a former U.S. Air Force Air Combat Command installation situated within the city limits of Rome, New York, approximately 10 miles west of Utica, New York (Figure 1-1). The base was opened on February 1, 1942, as the Rome Air Depot. In 1987, the USEPA added the base to the National Priorities List, and in 1990, the AF, the NYSDEC, and the USEPA entered into a Federal Facilities Agreement (FFA). In 1993, Griffiss AFB was designated for realignment under the federal BRAC and subsequently deactivated. This Performance-Based Remediation (PBR) project is part of the BRAC environmental restoration program. Property transfers have occurred through Economic Development Conveyances Agreements, Public Benefit Conveyance Agreements, Federal to Federal transfers, negotiated sales, and reversion. All property transfer actions are complete. A "Whole Base" property transfer ceremony was held on January 22, 2014.

1.2 Site Geology

The former Griffiss AFB lies in the Mohawk Valley Lowland, just north of the Allegheny Plateau. The land surface generally slopes toward the south with the highest elevations in the northeast and northern areas of the base. Elevations range from 435 feet above mean sea level in the southern extremity of the property to 595 feet above mean sea level near the northeast perimeter. The landforms in the area are a product of glacial deposition and erosion, and the

erosion and the depositional processes of the Mohawk River that produced features such as valleys, floodplains, and terraces.

The site geology is characterized by dense soils composed of fine- to medium-grained sand with silt and occasional clay lenses. The water table elevation ranges from 16 feet to 20 feet below ground surface. Shallow groundwater flow across the base generally moves from the northeast toward the Mohawk River and New York State Barge Canal to the south. There are two permanent streams within the boundary of the former AFB. Six Mile Creek is the longer stream entering at the base northeast boundary and flowing in a southeasterly direction. Three Mile Creek is located in the central part of the base and also flows to the southeast.

Groundwater aquifers consist of the bedrock and overlying unconsolidated sediments. The bedrock forms a confined aquifer and the unconsolidated sediments form an unconfined aquifer. The two aquifers are separated by the Rome Till which acts as a vertical and horizontal aquitard between the two. Groundwater flows from northeast to southwest and follows the topography and the gentle dip of bedrock to the Mohawk River to the south-southwest.

1.3 Summary of Sites

The 24 Griffiss AFB sites under this contract are summarized in Table 3-1. Nineteen (19) of the 24 sites included in this PBR contract are being addressed following the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. Four (4) of the remaining 5 sites are petroleum sites requiring closure under the NYSDEC Spills Program. Finally, the 24th site is being addressed following the Resource Conservation and Recovery Act (RCRA) process. The sites are shown on Figure 1-2. They are divided into several contractual end state categories which are discussed in the following sections.

The Bhate Team will also provide support for Restoration Advisory Board (RAB) meetings, BRAC Cleanup Team (BCT) meetings, Geographic Information Systems (GIS), community relations, contract status meetings, and property transfer.

The last RAB meeting was held on June 8, 2017. A RAB meeting was not held in 2018 due to lack of interest within the community. The AF is gauging interest in 2019 to determine if a RAB meeting will be held. If it is determined to move forward with a RAB meeting in 2019, the Bhate Team will provide support.

1.3.1 Status Quo Sites

The five sites listed below are classified as Status Quo (SQ) sites under the contract. By definition, maintaining SQ includes continuing current activities without optimization, for example, landfill cap Long Term Monitoring (LTM), groundwater monitoring, other Long Term Operations (LTO)/LTM activities, land use control/institutional control (LUC/IC) monitoring, and Five-Year Review (FYR). These activities by site are as follows:

- **AOI66 (Steam Plant APDO Storage Yard)**: Annual LUC/IC inspections to document the continued LUC/IC implementation and FYR.

- **SS008 (Building 112/Polychlorinated Biphenyl [PCB] Dump Area)**: Annual LUC/IC inspections to document the continued LUC/IC implementation and FYR.

- **SS033 (Coal Yard Storage Area-PCB Site)**: Annual LUC/IC inspections to document the continued LUC/IC implementation and FYR.

- **SS044 (Substation, Electrical Power-PCB Site)**: Annual LUC/IC inspections to document the continued LUC/IC implementation and FYR.

- **SS060 (STW-1300 Building 35/36 Area of Concern [AOC])**: Annual LUC/IC inspections to document the continued LUC/IC implementation and FYR (AF Policy Review).

1.3.2 Optimized Exit Strategy (OES) Sites

There are seven sites with OES as the contractual end state. For three of these sites (SD052-01, SD052-04, and SD052-05), the goal of the OES is to treat hot spots and to optimize performance monitoring requirements to reduce AF LCCs in the out-years until the Remedial Action Objectives (RAOs) are achieved. Performance monitoring will focus on ensuring protection of human health and the environment as well as providing useful information regarding the treatment system overall effectiveness. Specific activities to be performed at each of these sites are as follows:

- **SD052-01 (Apron 2 Chlorinated Plume)**: Completed pilot study in June 2017 to evaluate in-situ enhanced bioremediation (ISEB) with monitored natural attenuation (MNA) remedy. Conducted focused ISEB injections in locations where trichloroethene (TCE) is present above the Remedial Action Objective (RAO) of 5 micrograms per liter (µg/L). Use Monitoring and Remediation Optimization Systems (MAROS) or Geostatistical Temporal-Spatial (GTS) software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare OES Report.

- **SD052-04 (Landfill 6 Chlorinated Plume) and SD052-05 (Building 817 Chlorinated Plume)**: Conducted follow-on ISEB injections within existing injection wells at SD052-04 and via direct push technology (DPT) at SD052-05; use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare Remedial Optimization Work Plan and OES Report.

- **SD052-SVI (Soil Vapor Intrusion [SVI] System)**: Continue operation and maintenance (O&M) of SD052-02 sub slab vapor mitigation (SSVM) system and convert SD052-01 SSVM system to a passive system.

- **SS054 (Building 781 Pumphouse, Petroleum Site)**: For site SS054 the goal of the OES is primarily to reduce the chemicals of concern (COCs) to levels that allow for Site Closeout (SC) by 2027. The secondary goal is to reduce LTM requirements and decrease LCCs until the RAOs are achieved. These goals will be achieved by optimizing the biosparge system and monitoring well network; completion of a surfactant pilot study around MW-13 in 2017; evaluate the plume and any residual light non-aqueous phase liquid occurrences following removal of biosparge drop-tubes from existing monitoring wells and cessation of sparging for winter of 2018; discontinue operation of the existing biosparge system with NYSDEC approval; groundwater sampling and reporting; annual LTM and LUC inspections/reporting; and submittal of Corrective Action Plan (CAP), Optimization Plan, OES Report, and FYR (as part of AF Policy).

- **SS062 (AOC 9 Weapons Storage Area [WSA] Landfill Chlorinated Plume)**: The goal of OES for site SS062 is primarily to reduce the COCs to levels that allow for achievement of Response Complete (RC) by 2024 through MNA. The secondary goal is to reduce LTM requirements to decrease LCCs until the RAOs are achieved. These goals will be achieved by continued optimization of selected remedy and the monitoring well network; continued groundwater and LUC/IC monitoring and reporting; and submittal of optimization work plan, OES report, and FYR.

- **SS067 (Building 789 Type II Fuel System, Petroleum Site)**: Evaluate data from free product investigation and optimize product recovery as appropriate. The OES goal for site SS067 is to eliminate free product followed by optimization of LTM. Continued O&M of systems, air/groundwater monitoring/reporting, LUC/IC inspection; and submittal of optimization work plan, OES report, and FYR as part of AF Policy.

1.3.3 Response Complete Sites

Five of these six CERCLA sites are all capped landfills with ongoing post-closure activities that include the performance of routine, preventive, predictive, scheduled, and unscheduled inspections. Groundwater and surface water sample results are compared to NYSDEC Class GA Groundwater Standards and NYSDEC Class C Surface Water Standards. Site activities are conducted under the supervision and recommendations of the USEPA, Region 2 and NYSDEC. The goal of RC is to obtain formalized documentation for the AF that each landfill is considered to have achieved the RAOs presented in the approved record of decision (ROD). OES is primarily to reduce LTM requirements to decrease LCCs in an effective manner through 2045. LTM will focus on ensuring protection of human health and the environment. The sixth site (SD052-02 Building 775) is a chlorinated solvent plume associated with a degreasing system in Building 774. Specific activities to be completed at each site during the period of performance (POP) are as follows:

- **LF001 (Landfill 1)**: Reduce landfill gas (LFG) monitoring by 50% and to annual from semi-annual within POP, reduce groundwater monitoring locations by 25% and all sampling to biennial, and perform annual cap inspections.

- **LF002 (Landfills 2 & 3)**: Reduce LFG monitoring by 40% and to annual from semi-annual within POP, begin sampling every 5 years with FYR starting in 2019, and perform annual cap inspections.

- **LF003 (Landfill 7)**: Reduce sample locations by 25%, begin sampling every 5 years with FYR starting in 2019 and perform annual cap inspections.

- **LF007 (Landfill 5)**: Begin sampling every 5 years with FYR starting in 2019 and perform annual cap inspections.

- **LF009 (Landfill 6)**: Reduce LFG monitoring by 50% and to annual from semi-annual within POP. Reduce groundwater monitoring locations by 50% and move to biennial sampling within POP and begin sampling every 5 years with FYR starting in 2019. Perform annual cap inspections.

- **SD052-02 (Building 775)**: Prepared Remedial Optimization Work Plan to evaluate alternative remedies including completion of an in-situ chemical oxidation (ISCO) pilot study, and prepare Focused Feasibility Study, Proposed Plan, and ROD Amendment or Explanation of Significant Difference (ESD). Shutdown the groundwater extraction system based upon 2016 groundwater results demonstrating asymptotic conditions coupled with treatment of the 50 micrograms per liter (µg/L) trichloroethene (TCE) plume within the radius of influence. Continue LUC/IC monitoring and reporting and FYR until RC is achieved. RC was planned to be achieved by implementing ISCO injections to reduce the COCs to RC levels. However, following the pilot test conducted in 2017, the approach to achieve RC at SD052-02 proposed and tested by Bhate was not viable given the impediments to reagent distribution. Therefore, notice was given to the AF that RC could not be met. The Final SD052-02 ISCO Pilot Study Technical Memorandum was submitted to regulators on July 3, 2019. The path forward for the site is under evaluation.

1.3.4 Site Closeout Sites

Six sites have a contractual end state of SC, which will be achieved differently at each site. Specific activities to be complete at each site are as follows:

- **ST006 (Building 101)**: Perform soil vapor extraction (SVE) treatment system O&M, soil vapor/air/groundwater monitoring, LUC/IC monitoring and FYRs until TCE is remediated. Note: Rebound study completed by FPM Remediations, Inc. (FPM) did not support SC. FPM suggested that a continuing source may be present. Bhate operated the SVE system for 6 months in 2017 and completed additional rebound sampling in October 2017. Results of

the sampling indicated that the system had been ineffective at reducing sub-slab concentrations; additional investigation, system modifications, or both, may be required. A proposed path forward was sent in letter format to the Contracting Officer (CO) on June 12, 2019.

- **SS017 (Lot 69 Former Hazardous Waste Storage Area), DP022 (Building 222), and SS025 (T-9 Storage Area)**: Collect current site data, as necessary, to perform direct soil screening followed by a risk assessment to demonstrate sites meet criteria for unrestricted land use; prepare ESD to remove ROD restrictions; continue LUC monitoring (and FYR if necessary) until no further action (NFA) determination is achieved. Achieve SC through SC Reports.

  Based upon the soil sample results, elevated lead is present at DP022. The CO was notified and direction was requested. New LUC boundaries were proposed in the Supplemental Site Investigation Report.

- **CSS681-Apron 1 (LCP-E9, Petroleum Site)**: Completed ISCO injections, performing quarterly performance monitoring/reporting, perform rebound analysis, submit spill closure report, decommission monitoring wells, and submit SC Report.

- **CSS682-Building 785 Pipeline (Petroleum Site):** SC was achieved in 2018.

2 PROJECT RESOURCES

The Bhate Team will execute this contract in order to achieve the site objectives and performance milestones, while ensuring that safety, quality, and regulatory goals are met. The Bhate Team will support this project with personnel who have the practical onsite experience, enabling them to propose the most effective approach for each site in order to maximize the impact of remediation activities, minimize LCCs, and achieve the performance goals and objectives of this GSA order.

This section identifies the key Bhate Team resources that are in place to perform this TO. As prime, Bhate will be responsible for all program and project management functions. The successful management of this PBR and the achievement of performance objectives will be accomplished by integrating the technical leads from Arcadis, as necessary, into our management approach. Arcadis will be overseeing the work performed at Former Plattsburgh AFB awarded under this TO.

2.1 Program Manager

The Program Manager (PGM), Mr. Frank Gardner, Professional Geologist (PG), has the overall responsibility for all technical, contractual, safety, and administrative matters for Bhate under this contract. Mr. Gardner serves as the focal point for coordination of all contracts-related issues with AFCEC, and facilitates the Bhate Team's ability to consistently deliver a high-quality work product, on time and within budget. Mr. Gardner delegates the day-to-day responsibilities to the Project Manager (PM) and quality control (QC) management to the Quality Systems Manager (QSM). The PGM has the ultimate authority and responsibility for the establishment and maintenance of program administration, control programs, and procedures. Mr. Gardner's duties include, but are not limited to, the following:

- Establishing and interpreting program policies
- Preparing long-range program plans
- Implementing contract requirements

2.2 Project Manager

Ms. Kim Nemmers is assigned as the PM for the former Griffiss AFB. The role of the PM is to maintain administrative responsibility, authority, and accountability for the project, ensuring client satisfaction and providing all needed resources to deliver this TO on time, and with no quality, safety, or regulatory issues. In executing these duties, the PM is responsible for meeting all contractual requirements and ensuring that work is executed in conformance with approved plans. The PM is the primary point of contact (POC) with AFCEC and Griffiss AFB, and is responsible for the overall execution of this project including cost, project status, schedule updates, and technical quality.

The PM works directly with the management and technical staff to maintain safety, to maintain the technical quality of the work, and to manage the budget and schedule. The PM reports to the PGM. The PM's responsibilities include:

- Interacting with AFCEC and Griffiss AFB
- Monitoring schedule and cost performance
- Managing project work assignments, technical staff performance, and technical quality of work
- Providing additional management or technical support when needed
- Coordinating the development, implementation, and enforcement of all plans
- Serving as final reviewer on all technical documents produced as a result of this project
- Ensuring that the necessary resources are available for this project to be completed safely and in compliance with the Program Health and Safety Plan (HASP), Site-Specific Safety and Health Plans (SSHPs) as needed, Griffiss requirements, and Occupational Safety and Health Administration (OSHA) regulations
- Managing dedicated professional subcontract activities

2.3 Safety and Health Manager

Ms. Sally Smith, Certified Industrial Hygienist (CIH), acts as the Health and Safety Manager (HSM) and is responsible for overseeing project safety performance. She authorizes all aspects of the Program HASP and SSHP. Any proposed deviations from the approved Program HASP and SSHP or changes in expected site conditions are immediately presented to the HSM for consideration/approval. The HSM coordinates with the PM, but reports directly to Bhate's Chief Executive Officer.

Duties of the HSM include, but are not limited to, the following:

- Serving as the liaison between corporate health and safety (H&S) and the PM
- Overseeing the administration of the Bhate Health and Safety Program
- Ensuring that the appropriate training occurs and that appropriate training and medical records are kept current and on site
- Determining what resources are required to adequately address H&S issues and communicating those resource requirements to the PM
- Developing an activity hazard analysis for any new activity or innovative technology that is not currently in the Program HASP or SSHP
- Conducting random H&S audits in the field
- Assisting in accident investigations with field personnel and reporting to accident review boards, if necessary

2.4 Quality Systems Manager

The QSM for this project is Corey Green of Bhate. Under this program, the QSM communicates directly with the PM. The QSM is also responsible for the development and interpretation of QC policies and procedures, and carries the requisite authority to oversee and execute QC activities for the projects to be implemented under this contract.

The QSM is responsible for establishing the definable features of work and the appropriate QC monitoring and testing. She provides overall direction to the program QC function; performs audits, surveillance, and document reviews; and executes other quality functions as required in the Quality Project Plan. She interfaces with Ms. Nemmers on the quality functions of the program and coordinates all QC activities.

Implementation of the QC duties are delegated to the QC Officer in the field. Duties of the QSM include, but are not limited to, the following:

- Implementing the project QC requirements
- Overseeing onsite QC staff
- Identifying and reporting nonconforming items or activities
- Initiating or recommending corrective actions
- Verifying implementation of corrective actions
- Notifying the PM of conditions adverse to quality that cannot be resolved at the project level
- Overseeing field activities for compliance with contract requirements

2.5 Senior Engineer

Dr. Mark Stapleton, Professional Engineer (PE), Doctor of Philosophy (PhD), is assigned as the Senior Engineer. He is responsible for assuring all environmental, civil, and process engineering support goals are achieved, managing the technical aspects of project execution, and reviewing all technical documents. Dr. Stapleton also coordinates the technical efforts of Bhate's subcontractors. His duties include:

- Directing efforts of staff assigned to environmental, civil, and geotechnical engineering tasks
- Approving selection of sampling personnel
- Approving selection of analytical laboratory
- Providing technical direction to subcontractors

2.6 Bhate Team Subcontractors

Bhate directs all subcontractors and ensures that subcontractors are performing work in accordance with schedule, safety, and quality requirements of this GSA order. Proper

subcontract management generates effective work progress that is compliant with federal, state, and local requirements and provides AFCEC with seamless execution. Contractual agreements between Bhate and the Bhate Team subcontractors contain flow-down clauses that require subcontractors to meet all appropriate Griffiss, Federal, and State requirements. Onsite subcontractors coordinate their activities through Bhate Team personnel and are required to submit daily reports documenting their activities.

Bhate Team members and their primary responsibilities are discussed below. Other subcontractors may be used by the PM as needed.

2.6.1 Arcadis

Arcadis will utilize their experience at the former Plattsburg AFB CERCLA sites identified in the PBR. Arcadis' value to the Bhate Team includes experience in site closure and completing property transfers. Arcadis will provided technical resources as necessary to support contract objectives.

3 TECHNICAL APPROACH

This section presents the current performance objective and technical approach for each site. Each site is briefly described in Table 3-1. Sites are discussed in detail in the Site Specific Summary Sheets found in Appendix B.

The AF has four possible performance objectives that can be achieved for each site. The Bhate Team's performance objective for each site is shown in Table 3-1. The performance objectives are:

- Status Quo
- Optimized Exit Strategy
- Response Complete
- Site Closeout with Unrestricted Reuse (i.e., no remaining Air Force financial liabilities)

Bhate recognizes that changes to the technical approach may occur over the course of the project. These revisions will be discussed with AFCEC/BRAC Program Management Execution Branch (CIBE), the CO if necessary, and upon concurrence, will be documented within the PMP as a revision.

3.1 PBR Transition

The Bhate Team works effectively to keep the project on schedule and maintain compliance. The Bhate Team has longstanding existing relationships with AFCEC, the former Air Force Real Property Agency (AFRPA), NYSDEC, NYSDOH, and USEPA regulators which will support a seamless transition to the new contract. The Bhate PM for the former Griffiss AFB completed a site walk with the BRAC Environmental Coordinator (BEC) on June 27 and 28, 2016. The Bhate Team worked closely with the BEC and his support staff to obtain information for transitioning as seamlessly as possible. The Bhate Team works to establish a dynamic and open communication with the applicable regulators with support from the BEC to hopefully minimize schedule delays due to document reviews or acceptance of approaches presented previously.

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Table 3-1. Griffiss PBR Sites

Site #	Site Identification and Site Name	Performance Objective	Regulatory Program	Technical Approach	Proposed Performance Objective Date	SC Date
SQ Sites						
1	AOI66-Steam Plant APDO Storage Yard	SQ	CERCLA	LUC/IC monitoring/reporting and FYR.	Not Applicable	Indefinite
2	SS008-Building 112/PCB Dump Area	SQ	CERCLA	LUC/IC monitoring/reporting and FYR.	Not Applicable	Indefinite
3	SS033-Coal Storage Area – PCB site	SQ	CERCLA	LUC/IC monitoring/reporting and FYR.	Not Applicable	Indefinite
4	SS044-Substation, Electrical Power – PCB Site	SQ	CERCLA	LUC/IC monitoring/reporting and FYR.	Not Applicable	Indefinite
5	SS060-STW-1300 Building 35/36 AOC	SQ	RCRA	LUC/IC monitoring/reporting and FYR (FYR is an Air Force Policy requirement).	Not Applicable	Indefinite
OES Sites						
6	SD052-01 (Apron 2 Chlorinated Plume)	OES	CERCLA	Conducted focused ISEB injections as pilot study; use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare OES Report.	04/2021	12/2036
7	SD052-04 (Landfill 6 Chlorinated Plume)	OES	CERCLA	Conducted follow-on ISEB injections with four new injection wells; use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare Optimization Plan and OES Report.	03/2021	12/2038
8	SD052-05 (Building 817 Chlorinated Plume)	OES	CERCLA	Conducted follow-on ISEB injections via DPT; use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare Remedial Optimization Work Plan and OES Report.	02/2021	12/2040
9	SD052-SVI (Soil Vapor Intrusion System)	OES	CERCLA	Continue O&M of SD052-02 SSVM passive system and convert SD052-01 SSVM system to a passive system when monitoring data indicates passive is acceptable.	05/2019	12/2025
10	SS054-Building 781, Pumphouse – Free Product on Groundwater (NYSDEC Spill #9202658)	OES	NYSDEC	Optimize biosparge system, if appropriate, and monitoring well network; continue evaluation of site conditions without biosparging and post surfactant treatment, groundwater sampling and reporting, annual LTM and LUC inspections/reporting; submit CAP, Optimization Plan OES reports, and non-CERCLA FYR (FYR is an Air Force Policy requirement).	02/2021	12/2027
11	SS062-AOC 9 Weapons Storage Area Landfill Chlorinated Plume	OES	CERCLA	Optimize selected remedy (ISCO) and optimize monitoring well network; continue groundwater and LUC/IC monitoring and reporting; submit optimization work plan, OES report, and FYR.	03/2021	12/2027
12	SS067-Building 789 Type II Fuel System (NYSDEC Spill #9810713)	OES	NYSDEC	Evaluate data from free product investigation and optimize product recovery as appropriate, optimize LTM; continue O&M of systems, air/groundwater monitoring/reporting, LUC/IC inspection; submit optimization work plan, OES report, and FYR (FYR is an Air Force Policy requirement).	6/2021	12/2027
RC Sites						
13	LF001-Landfill 1	Achieved RC in 2017	CERCLA	Prepared technical memorandum to document that RAOs have been achieved to document RC; reduce LFG monitoring by 50% through reduction of gas vents monitored and to annual from semi-annual within POP; reduce groundwater monitoring locations by 25% based upon continued non-exceedance of landfill leachate indicators or Volatile Organic Compounds (VOCs) and all sampling to biennial; and perform annual cap inspections. Prepare Optimization Plan and OES Reports.	11/2016	Indefinite
14	LF002-Landfills 2 & 3	Achieved RC in 2017	CERCLA	Prepared technical memorandum to document that RAOs have been achieved to document RC; reduce LFG monitoring by 40% and to annual from semi-annual within POP; begin sampling every 5 years starting in 2019 before the FYR in 2020; eliminate sampling from 2 groundwater monitoring wells; and perform annual cap inspections. Prepare Optimization Plan and OES Reports.	11/2016	Indefinite
15	LF003-Landfill 7	Achieved RC in 2017	CERCLA	Prepared technical memorandum to document that RAOs have been achieved to document RC; reduce sample locations by 25% and begin sampling every 5 years starting in 2019 before the FYR in 2020; perform annual cap inspections. Prepare Optimization Plan and OES Report.	11/2016	Indefinite
16	LF007-Landfill 5	Achieved RC in 2017	CERCLA	Prepared technical memorandum to document that RAOs have been achieved to document RC; reduce sample locations by 25% and begin sampling every 5 years starting in 2019 before the FYR in 2020; and perform annual cap inspections. Prepare Optimization Plan and OES Report.	11/2016	Indefinite

Table 3-1. Griffiss PBR Sites

Site #	Site Identification and Site Name	Performance Objective	Regulatory Program	Technical Approach	Proposed Performance Objective Date	SC Date
17	LF009-Landfill 6	Achieved RC in 2017	CERCLA	Prepared technical memorandum to document that RAOs have been achieved to document RC; reduce LFG monitoring by 50% and to annual within POP; reduce groundwater monitoring to 10 locations; begin sampling every 5 years in 2019 before the FYR in 2020 and perform annual cap inspections. Prepare Optimization Plan and OES Report.	11/2016	Indefinite
18	SD052-02	RC	CERCLA	Completed an ISCO pilot study and evaluation of results; the approach to achieve RC at SD052-02 proposed and tested by Bhate was not viable given the impediments to reagent distribution. Therefore, notice was given to the AF that RC could not be met. Recommended change in performance objective from RC to OES. A path forward for the site is under evaluation. CO notified and direction requested. Use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and reporting and FYR.	02/2021	N/A
SC Sites						
19	ST006-Building 101	SC	CERCLA	Perform SVE treatment system O&M, soil vapor/air/groundwater monitoring, LUC/IC monitoring and FYRs until TCE is remediated. Based upon rebound observed by others and verified by Bhate, CO notified of possible source that precludes achievement of SC within the contracted POP. Results of the rebound sampling indicated that the system had been ineffective at reducing sub-slab concentrations; additional investigation, system modifications, or both, may be required. A proposed path forward was sent in letter format to the CO on June 12, 2019.	Not Applicable	06/2021
20	SS017-Lot 69 Former Hazardous Waste Storage Area	SC	CERCLA	Collected current site data to perform assessment demonstrating sites meet criteria for unrestricted land use; prepare ESD to remove ROD restrictions; continue LUC monitoring (and FYR if necessary) until NFA determination is achieved; abandon monitoring wells. Achieve SC through SC Reports. Note: DP022 soil sampling identified soil contaminated with lead. The CO was notified and direction requested. Based upon the soil sample results, new LUC boundaries were proposed in the Supplemental Site Investigation Report.	06/2020	06/2020
21	DP022-Building 222	SC	CERCLA		Not Applicable	
22	SS025-T-9 Storage Area–contaminated soil/groundwater	SC	CERCLA		06/2020	
23	CSS681-Apron 1 Area LCP-E9 (NYSDEC Spill #1501553)	SC	NYSDEC	Completed ISCO injections for petroleum impacted groundwater and smear zone; perform quarterly performance monitoring/reporting, perform rebound analysis, submit spill closure report, decommission monitoring wells, submit SC Report.	12/2020	12/2020
24	CSS682-Building 785 Pipeline (NYSDEC Spill #1408594)	SC	NYSDEC	Achieved SC in 2018.	12/2018	12/2018

3.2 Technical Support

The Bhate Team will provide technical support to AFCEC and Griffiss, in accordance with the PWS, including the following activities:

- Attending RAB meetings and preparing RAB meeting agendas, handouts, and meeting minutes
- Supporting regulatory meetings of the BCT, developing presentations and preparing meeting minutes as required
- Attending other public meetings and preparing meeting minutes as required
- Supporting community involvement activities as required
- Preparing and submitting annual LUC/IC documents
- Providing LUC/IC assistance to ensure property owner activities do not impact remediation efforts (e.g., review of development plans)
- Providing timely response to applicable utility location request tickets
- Providing informal or formal dispute resolution or alternative dispute resolution support
- Providing GIS support to produce environmental property condition maps, tables, and other graphics as required
- Providing technical and documentation support for AF data calls, meetings, annual work cell events, real property-related actions, etc.
- Supporting Property Transfer Management Actions (deed modifications to add/delete environmental requirements and preparation of Operating Properly and Successfully [OPS] Determinations)

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4 PROJECT SCHEDULE

The Contract POP expires on June 15, 2021. All actions required to meet the objectives of this TO (identified in the Milestone Payment Schedule [MPS] and the Integrated Master Schedule [IMS] as Appendices C and E, respectively), are presently on track to be accomplished by that date. Bhate will work with AFCEC and the regulatory community to stagger the delivery of documents as much as possible to avoid delays.

The major objective regarding the project schedule is to ensure proper planning has occurred in order to complete the project within the TO POP and to maintain compliance with the requirements of the PWS.

Contractor's Progress, Status, and Management Reports (CPSMRs) will be issued by the 10th business day of each month and will include document delivery schedule and minutes from the monthly team meetings and monthly meetings with NYSDEC CERCLA Group and USEPA 2 representatives. The CPSMRs will include site status updates to facilitate review of specific performance objectives for each site.

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5 MANAGEMENT APPROACH

The general management approach for this TO is described in this section. In addition to the plans and reports discussed in this section, work conducted at the sites will require Work Plans and/or Documentation Reports.

5.1 Performance and Payment Milestones Completion

Performance and payment milestones for this contract are summarized below and forecasted milestones have been updated on the performance MPS as shown in the table in Appendix C. The individual performance and payment milestones discussed below are proposed for most sites.

Periodic reporting will evaluate performance and monitoring data using statistical and/or graphical/tabular interpretation. The data analysis will be relied upon to make optimization, remediation, or SC recommendations. Monthly and annual reports will be submitted as appropriate. From previous Griffiss experience, staggering submittal of performance and monitoring reports is preferred by the Government and the regulators, facilitating timely reviews.

5.2 Documents

Working Copy documents will be submitted to AFCEC for review and comment. Following AFCEC review, the draft version documents will be submitted to NYSDEC and USEPA for review and comment. Bhate will provide responses to regulatory comments. Draft final documents may be submitted that incorporates regulator comments. Once all comments are received, final documents addressing all comments will be submitted.

To the greatest extent possible, documents will be submitted as groups, but individual documents within these groups will be submitted for closure, etc. when needed. In line with previous Griffiss submissions, the following types of sites will be grouped together:

- LUC/IC Sites
- Landfills
- Petroleum Spill Sites
- SVI Sites

5.2.1 PMP

Bhate will submit the draft PMP to AFCEC for review. The PMP will meet the requirements of Contract Data Requirements List (CDRL) A002. The final document will be submitted within 14 calendar days of receipt of Government comments to the draft PMP. Once written approval

from AFCEC is received, Bhate will invoice for the PMP performance milestone in accordance with the proposed performance milestone and payment schedule. Annual updates will be submitted and invoices will be submitted for the PMP performance milestones when the PMP updates are approved.

5.2.2 Five-Year Review

FYRs will be conducted for all Griffiss Sites containing contamination above levels that allow for unrestricted use. Of the 24 sites listed in Table 3-1, 19 will undergo the FYR as prescribed under CERCLA. The five, non-CERCLA sites listed in Table 3-1 will undergo AF policy required reviews as part of the FYR process unless they achieve SC before the next FYR.

5.2.3 Uniform Federal Policy-Quality Assurance Project Plan and HASP

The Bhate Team will submit the Working Copy Uniform Federal Policy (UFP)-Quality Assurance Project Plan (QAPP) and Program HASP to AFCEC for review and comment. Following AFCEC review, the draft UFP-QAPP will be submitted to the NYSDEC and the USEPA for review. Bhate will provide responses to regulatory comments. The final document will be submitted within 14 calendar days of receipt of Government comments to the draft documents. After receiving approval from AFCEC, the USEPA, and the NYSDEC, Bhate will invoice for the UFP-QAPP and Program HASP performance milestone in accordance with the proposed performance milestone and payment schedule. Annual Program HASP updates will be submitted and invoices will be submitted for the PMP performance milestones when the UFP-QAPP and Program HASP updates are approved.

5.2.4 Annual Well Inventory/Maintenance Reports

The Bhate Team will submit the Working Copy annual site inspection and repairs reports to AFCEC for review and comment. Inspections will document features such as monitoring wells, piping, remediation equipment, and fencing. Well location information along with a list of wells not located during field inventory/inspection requiring follow-up during the next inspection event will also be reported. The draft reports will document inspection findings and any repairs conducted. Following AFCEC review, the final annual site inspection and repairs reports will be submitted to the NYSDEC and the USEPA for informational purposes. Bhate will provide responses to regulatory comments to the final documents through correspondence or as part of the next reporting cycle for that document. Once approval from AFCEC, the USEPA, and the NYSDEC is received, Bhate will invoice for the Annual Inspection and Repairs Reports performance milestone in accordance with the proposed performance milestone and payment schedule.

5.2.5 Annual LTM Reports

The Bhate Team will submit the Working Copy of annual LTM Reports to AFCEC for review and comment. The annual LTM Report will consist of the Data Quality Control Report, the annual groundwater monitoring report, data validation, the Environmental Resources Program Information Management System (ERPIMS) data submittal, and the required GIS data. The annual LTM Reports will include monitoring results, site conclusions, and recommendations.

Following AFCEC review, the final LTM Report will be submitted to the NYSDEC, NYSDOH, and the USEPA for informational purposes. If regulatory comments are received they will be addressed either via correspondence or as part of the next reporting cycle for that document. Once approval from AFCEC, the USEPA, NYSDOH, and the NYSDEC is received, Bhate will invoice for the annual Final Annual LTM Report performance milestone in accordance with the proposed performance milestone and payment schedule. The Final LTM Report will include the Electronic Data Deliverables from the laboratory for NYSDEC use.

Data review will be done on 100% of sample data, and level IV data validation will be performed on 10% of the sample data. The data review will confirm that the criteria specified in the project-specific QAPP and method was met. If any corrective action or flagging criteria was needed, data review will verify that these actions were performed.

5.2.6 Annual LUC/IC Inspection Reports

The Bhate Team will submit the Working Copy annual landfill LUC/IC inspection reports to AFCEC for review and comment. The LUC/IC report will include property owner certification of compliance with the applicable LUC/ICs. Following AFCEC review, the final annual landfill LUC/IC inspection reports will be submitted to the NYSDEC, NYSDOH, and the USEPA for informational purposes. If regulatory comments are received they will be addressed either via correspondence or as part of the next reporting cycle for that document. Bhate will provide responses to regulatory comments to the draft documents, and will submit final reports. Once approval from AFCEC, the USEPA, NYSDOH, and the NYSDEC is received, Bhate will invoice for the Annual LUC/IC Inspection Reports performance milestone in accordance with the proposed performance milestone and payment schedule.

5.2.7 Optimization Plans

The Bhate Team has submitted Working Copy Optimization Plans to AFCEC for review and comment. Following AFCEC review, the draft Optimization Plans were submitted to the NYSDEC and the USEPA for review. Bhate provided responses to regulatory comments to the draft documents, if received, and then issued final documents. Once approval from AFCEC, the USEPA, and the NYSDEC was received, Bhate invoiced for the Optimization Plan performance milestone in accordance with the proposed performance milestone and payment schedule. Sites that are not closed will be evaluated for optimization opportunities throughout the POP.

It is anticipated that optimization implementation will occur as early in the POP as practical. Necessary mitigation actions needed to keep moving the site toward achievement of the proposed objective will be implemented as soon as practical.

5.2.8 Additional Performance Milestones

Additional performance and payment milestones are proposed for one or more sites, as shown in the Performance and Payment Milestones table in Appendix C. These milestones include, Design/Plan Remedy Optimization plans, Optimization plans, Site Closure Reports, Groundwater Monitoring Reports, Corrective Action Plans, and ESD. After receiving individual approval from AFCEC, the USEPA, and the NYSDEC for these deliverables, Bhate will invoice for each individual performance milestone in accordance with the proposed performance milestone and payment schedule.

5.2.9 ERPIMS

Bhate will provide an ERPIMS Data Submission Schedule within 30 days of contract award (CDRL B009). ERPIMS submittals will be provided within 90 days of the sampling event unless a written waiver or extension is obtained from the CO in coordination with the Contracting Officer's Representative (COR) (CDRL B010). Additionally, documentation of successful uploads will be provided to AFCEC and included as backup as appropriate with invoices. ERPIMS uploads include data from CERCLA, petroleum, soil, and SVI sites. Analytical data includes analyses of water, soil, and air samples. To date, 67 data package uploads have been completed. A record of uploads is kept in a spreadsheet format.

5.2.10 AFCEC Website Uploads

AFCEC Website uploads will be completed as batches of final reports for the preceding quarter. Documentation of successful uploads will be provided to AFCEC and included as backup as appropriate with invoices. Current AFCEC website upload instructions are to use the Contractor Data Uploading Tool (CDUT) which is an electronic data delivery, storage, and retrieval system used to standardize electronic delivery and document management for deliverables related to this AFCEC contract. Over the past several years there has been repeated difficulties with the AFCEC website for uploading final deliverables. As a temporary remedy, Bhate will be providing, per AFCEC direction, compact discs with PDF files of final documents to the CO designee that will be inclusive of GIS data. These deliverables will be suitable for uploading to the Administrative Record (including metadata sheets with electronic copies submitted to Mr. Monico Luna).

5.3 Communications

The Bhate Team will maintain high levels of communication. This has and will continue to result in the coordination and fostering of stakeholder partnering and will ensure that the appropriate

resources are fully available to the project. The PM will promote constant communication among AFCEC, the Bhate Team, and regulatory stakeholders to achieve the project goals and SCs proposed for the successful execution of this PBR Contract.

The Bhate Team will work with the AF, NYSDOH, NYSDEC and USEPA Region 2 to ensure the document review process remains within the established review time periods per the FFA. Bhate will continue to conduct monthly BCT meetings with AF, NYSDOH, NYSDEC and USEPA Region 2 personnel to review needed action by these agencies for submitted documents, to provide a forecast for upcoming document submittals, and to discuss progress and issues at applicable sites as necessary. A summary table of document submittals requiring their action and a forecast of upcoming document deliverables will be updated and provided each month. Bhate will continue to proactively communicate its needs to NYSDEC and the USEPA and seek their support in meeting contract objectives. Additional weekly internal contract status meetings between the AF and Bhate will be held until the COR and Bhate determine the frequency should be reduced.

The PM will continue to make her primary objective the achievement of a level of communication which is appropriate, efficient, and focused on project goals and agreed upon initiatives. The PM previously met with the BEC onsite on June 27 and 28, 2016, to visit the sites and discuss our approaches. Monthly BCT meetings along with annual in-person meetings will facilitate open communications. At this time, all stakeholders will agree to communication protocols and meeting document review periods as established in the FFA. In the interim, on board reviews and scoping sessions will be scheduled as necessary, to provide open lines of communication and input as the Bhate Team finalizes works plans and prepares for field efforts. The Bhate Team will provide advance notification for planned field work as well as notification of system outages.

Communication protocols were designed to build trust and a commitment of cooperation among stakeholders while addressing the AF's need to close sites and reduce LCCs.

5.3.1 Project Management Team

The first avenue of communication is between the project management team and AFCEC. This team consists of our PM, PGM, and other technical resources as necessary. This team will monitor and record progress toward site goals and compliance with regulatory, quality, and safety metrics. Project and site-specific goals are communicated among team members during our monthly meetings.

5.3.2 Program Management Team

The second avenue of communication is the AFCEC program management team. This team, located in San Antonio, Texas will ensure that Bhate is meeting all of AFCEC's contractual requirements and is available to respond immediately to AFCEC requests. Bhate's PGM, as

discussed earlier, will ensure that a proper flow of communication exists between the project management team and AFCEC.

5.3.3 Field Weekly Status Reports

During active field project activities, Bhate will notify the BEC, who is also the COR, a week ahead of the scheduled field activity date and check in with him on the day of the scheduled activity prior to traveling to the site. Every attempt will also be made to notify the regulatory agencies in advance of any planned field work to facilitate any necessary or desired site visits. Field activity updates will be provided during the monthly project status conference calls at a minimum or more frequently as needed. Status reports will include a planned look-ahead schedule for any subsequent work to be performed during the following week of work. The status report will also include a brief discussion of any problems encountered requiring resolution.

Any immediate issues encountered during field activities or other contract activities will be addressed promptly in accordance with the appropriate reporting procedures required by law and the critical issues notification procedures outlined in the PWS.

5.3.4 Conference Calls

Bi-weekly conference calls will be conducted with the Bhate Team and AFCEC to provide updates on project status and the milestone schedule. Communication will focus upon progress made toward achieving site goals while maintaining quality, safety, and compliance throughout the life of the contract. Weekly conference calls will be scheduled for every Wednesday at 10:00 AM Central Standard Time (CST). An Action Item tracker for these weekly meetings is prepared by the Bhate PM and distributed prior to the next weekly meeting for project team review.

In addition, monthly meetings (BCT meetings) have been scheduled on the fourth Thursday of each month with AFCEC, Bhate, NYSDEC, and USEPA CERCLA representatives. These meetings are scheduled for 10:00 AM CST. Minutes for these monthly meeting are prepared by the Bhate PM and distributed prior to the next monthly meeting for team for project team review. Key participants on the monthly team calls are:

- Dave Farnsworth, AFCEC COR
- Sean Eldredge, AFCEC
- Joe Tellez, AFCEC
- Kim Nemmers, Bhate
- Frank Gardner, Bhate
- Stan Haskins, Bhate

5.3.5 Monthly Project Reports

Monthly project reports (CPSMR) will be prepared and submitted to AFCEC by the third week of each month and address progress and issues noted during the preceding month as well as a forecast of planned future activities including fieldwork. Monthly reports will include updates to the milestone schedule as needed. The project schedule is attached as Appendix E.

5.3.6 Annual Onsite Meetings

Annual onsite meetings will be held between the PM, AFCEC personnel, NYSDEC representatives, and USEPA Region 2 representatives. This meeting will be scheduled to coincide with the Annual RAB meeting typically held in the second quarter of each calendar year (e.g. June).

5.3.7 Written Correspondence

All written correspondence pertaining to this TO will be addressed to the COR unless otherwise directed by the CO or COR. Questions and requests for information will be directed to the COR or PM. TO submittals (e.g., work plans and reports) will be made to the PM. Written directions or clarifications to the PWS will only be provided by the CO.

5.3.8 Community Relations

Issues relating to public relations will be resolved in a timely manner to the satisfaction of the Government. Bhate will not converse with the public on issues relating to the PWS without the prior approval of the Government. Direction from AFCEC in March 2013 regarding public relations and dealing with the media is as follows:

“It is important to respond to media inquiries in a timely manner, but what’s equally important, if not more so, is making sure the information provided is accurate, properly vetted and releasable. That’s where public affairs (PA) can help.

What to do if approached by the media…

Record as much of the reporter’s information as possible, including the reporter’s name, phone number, email address, the name of his or her organization and deadline for a response. Reach out to the BRAC Environmental Coordinator (BEC) at your installation and let him or her know of the inquiry so he/she can help you get in touch with PA. Contact AFCEC Public Affairs at 866-725-7617. For AFCEC.PA@us.af.mil to let PA know about the media interest. Provide the reporter’s information, the name of the base and their areas of interest so PA can follow up with appropriate experts.”

5.3.9 Contracts Office Communication

Bhate will maintain active communication with the AFCEC CO and their designated representative. Currently these individuals are Adalberto Ramirez and Alicia Kooda. AFCEC Contract representatives are provided the minutes for these meetings. The CPSMR and Document Submittal Tracking Sheet are provided to the designated Contracting Representatives as well. If any contracting issues or questions regarding contract expectations occur, such as need to extend a period of performance, contract modification requests, or potential change orders due to a differing site condition, change in contract personnel, etc., the appropriate AFCEC Contracts personnel Ramirez and Kooda will be immediately notified and a solution based on the contract requirements and the Federal Acquisition Regulations will be decided. Contact information for these individuals are included in Appendix D.

FIGURES

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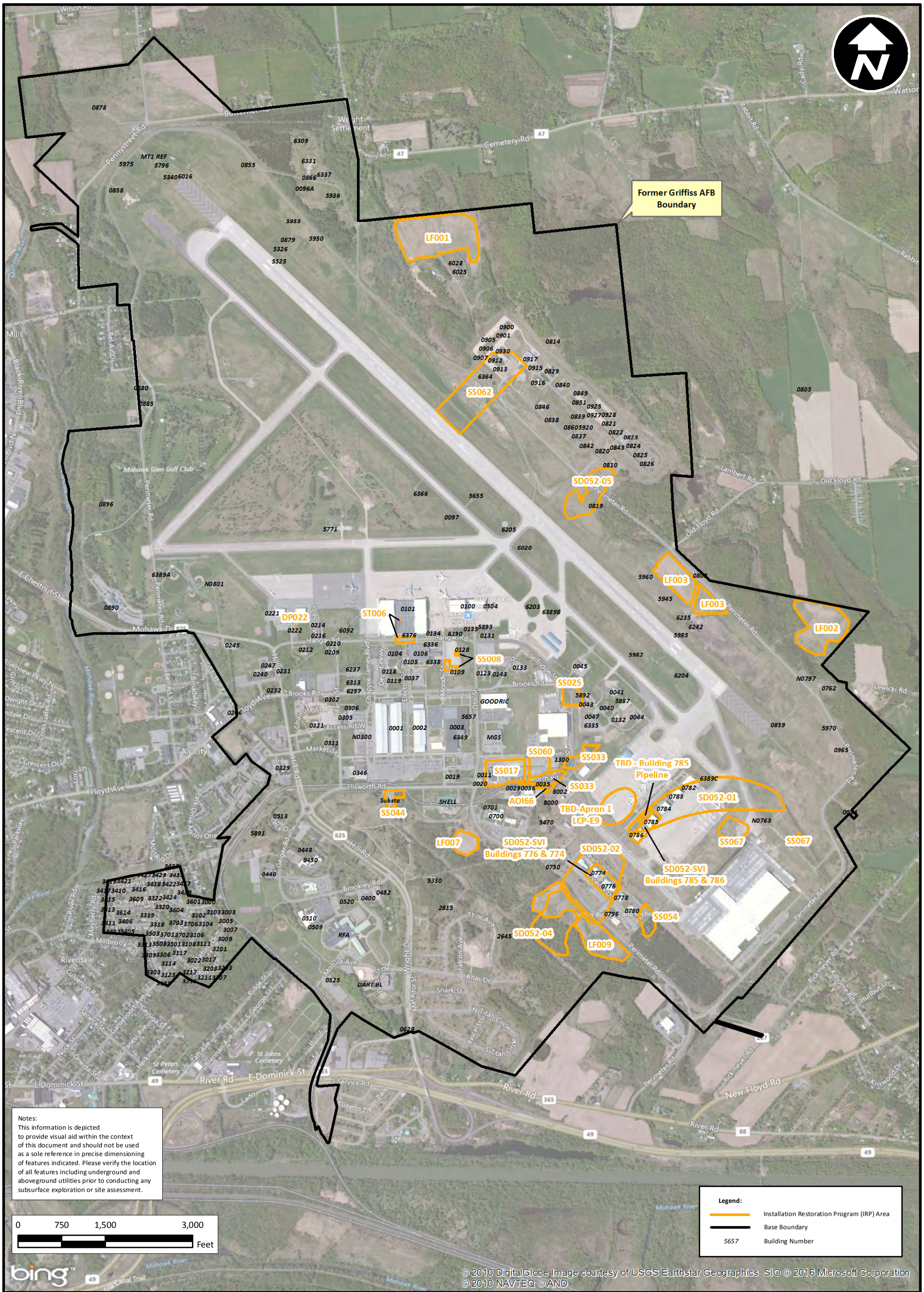
Former Griffiss AFB Site Map

Figure 1-1

Opening Phase Project Management Plan for
Performance-Based Contract
Former Griffiss AFB, Rome, New York

DRAWN BY:	DATE:	SCALE:	PROJECT NO:
MRM	6/30/2016	As Shown	AFCGSA3, 2000.0001

bhate ENVIRONMENT INFRASTRUCTURE



bhate ENVIRONMENT INFRASTRUCTURE

Opening Phase Project Management Plan for
Performance-Based Contract
Former Griffiss AFB, Rome, New York

PROJECT NO:	SCALE:	DATE:	DRAWN BY:
AFCGSA3. 2000.0001	As Shown	6/30/2016	MRM

Former Griffiss AFB
Installation Restoration Program (IRP) Locations

Figure 1-2

APPENDIX A
PROJECT MANAGEMENT PLAN REVISION SUMMARY

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PROJECT MANAGEMENT PLAN REVISION SUMMARY
FORMER GRIFFISS AIR FORCE BASE
ENVIRONMENTAL REMEDIATION AT BRAC EASTERN REGION BASES

PMP Revision Description	Date of Revision
Appendix B - Revised to document updated site-specific approaches.	July 2019
Appendix C - Revised with 2018 Approved Milestone Payment Structure.	July 2019
Appendix D - Revised the Air Force Contracting Contacts and associated information.	July 2018
Appendix E - Revised IMS based upon 2018 changes.	July 2019

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APPENDIX B
SITE SPECIFIC SUMMARY SHEETS

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Griffiss Air Force Base Understanding of Work

Griffiss Air Force Base (AFB) was designated for realignment under the Base Realignment and Closure Act (BRAC) in 1993 and formerly realigned September 30, 1995. The former Griffiss AFB has a Federal Facilities Agreement (FFA) signed in 1990 that was supplemented by a letter re-establishing review times for documentation (April 1991). Twenty-four (24) sites are included in this contract with 19 sites following the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process, 1 site following the Resource Conservation and Recovery Act (RCRA), and 4 petroleum sites requiring closure under the New York State Department of Environmental Conservation (NYSDEC) Corrective Action (Spills) Program.

To significantly reduce Air Force (AF) Life Cycle Costs (LCCs) and advance sites towards Site Closeout (SC), Bhate Environmental Associates, Inc. (Bhate) will optimize the exit strategy at 7 of the 24 sites, achieve SC at 6 sites, and achieve Response Complete (RC) at 6 sites. We have elected to maintain Status Quo (SQ) at 5 sites that only have Land Use Control (LUC)/Institutional Control (IC) inspections and Five Year Reviews (FYRs). SQ was determined to be the lowest LCC for the AF for those sites due to the high remediation costs required to achieve SC. FYRs and LUC/IC inspections will be conducted for all Griffiss sites containing contamination above levels that allow for unrestricted use.

To ensure achievement of the Proposed Performance Objectives (PPOs) and maintain regulatory compliance, Bhate participates in monthly teleconferences with the BRAC Cleanup Team (BCT) as well as weekly internal contract status teleconferences. We will participate in scheduled face-to-face BCT meetings and the Restoration Advisory Board (RAB) meetings. We coordinate with the county airport to obtain access to the flightline area, when necessary, including facilitation of site inspections within the boundaries of the airfield. Bhate completes the annual inspection and inventory of existing wells, including an annual well inventory/maintenance report. Bhate subscribes and responds timely to utility location request tickets from the New York Dig Safe Program. Bhate maintains a log of all dig request tickets and notifies the AF, as appropriate, including any specific details that may need input from the Contracting Officer's Representative (COR)/BRAC Environmental Coordinator (BEC). Bhate will prevent and/or mitigate potential flooding impacts due to beaver activity by removing beavers and dams, as necessary, including coordination and permitting with the property owner(s) and appropriate regulatory agencies. Specifically, breach of beaver dams, when necessary, requires U.S. Army Corps of Engineers (USACE)/New York District approval and permitting as well as a NYSDEC Environmental Conservation Law Title II Permit.

Technical approaches by sites or site grouping are presented herein.

Site # 1, 2, 3, 4, and 5	**AOI66 (Steam Plant APDO Storage Yard), SS008 (Building 112/Polychlorinated Biphenyl [PCB] Dump Area), SS033 (Coal Storage Area PCB Site), SS044 (Substation Electrical Power PCB Site), SS060 (STW-1300 Building 35/36 Area of Concern [AOC])**
Projected Closure Date	Indefinite
Performance Objective:	Status Quo
General Strategy:	LUC/IC Monitoring and FYR

Maintenance of SQ includes continuing current activities without optimization. For sites AOI66, SS008, SS033, SS044, and SS060 current activities include LUC/IC monitoring and reporting and FYR.

Site # 6, 7, and 8	**SD052-01 (Apron 2 Chlorinated Plume), SD052-04 (Landfill 06 Operable Unit [OU]), SD052-05 (Building 817 OU)**
Projected Closure Date:	SD052-01: 2036, SD052-04: 2038, SD052-05: 2040
Performance Objective:	Optimized Exit Strategy (OES)
General Strategy:	**SD052-01:** Completed pilot study in June 2017 to evaluate in-situ enhanced bioremediation (ISEB) with monitored natural attenuation (MNA) remedy. Conducted focused ISEB injections in locations where trichloroethene (TCE) is present above the Remedial Action Objective (RAO) of 5 micrograms per liter (µg/L); use Monitoring and Remediation Optimization Systems (MAROS) or Geostatistical Temporal-Spatial (GTS) Exp software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare Remedial Optimization Work Plan and OES Report. **SD052-04 and SD052-05:** Conducted focused ISEB injections in hot spot areas based upon most recent groundwater data; use MAROS or GTS software to optimize groundwater monitoring; conduct LUC/IC monitoring and FYR. Prepare Remedial Optimization Work Plan and OES Report.

Current Site Conditions

The Records of Decision (RODs) for SD052-01 (Apron 2 Chlorinated Plume), SD052-04 (Landfill 6 OU), and SD052-05 (Building 817 OU) were signed in March 2009. The ROD for SD052-01 specified the remedy of MNA including groundwater and surface water monitoring to verify that human health and the environment are protected. Soil vapor intrusion (SVI) is addressed in the technical approach for SD052-SVI. The RODs for both SD052-04 and SD052-05 selected enhanced bioremediation to remove chlorinated volatile organic compounds (CVOCs) from the groundwater. The RAOs specified in each of the RODs consist of achieving the cleanup goals for

1,2-dichloroethene (DCE); TCE; and vinyl chloride (VC) (5 µg/L, 5 µg/L, and 2 µg/L, respectively).
Site SD052-01: The CVOC contamination at Apron 2 OU is present as a plume approximately 2,800 feet (ft) long and 500 ft wide and appears to originate in the area of the nosedock wash water system near Building 786. Data indicates that dechlorination is occurring at the site based on the decreasing trend in TCE and stable/increasing trends in cis-1,2-DCE and VC. Operating properly and successfully (OPS) for MNA was conferred in August 2013. The high hydraulic conductivity of gravel layers has produced an estimated average groundwater velocity of 106 ft/year. The total aquifer thickness ranges from 45 ft in the source areas to less than 20 ft in the downgradient areas. Aerobic degradation of VC is occurring near the leading edge of the plume; however, VC in the southern plume has migrated eastward to well 782VMW-101 within 100 ft of Six Mile Creek. The VC concentration at 782VMW-101 was reported below the NYSDEC Class GA Groundwater Standard of 2 µg/L in 2014 and has remained below that threshold in each annual sample since, including the 2018 sample. In addition, concentrations at well 782VMW-121 located approximately 195 ft up-gradient of 782VMW-101, dropped below 10 µg/L in 2017 and below 5 µg/L (clean up goal) in 2018. These steady declines in the two most downgradient monitoring locations within the SD052-01 plume reinforce the observed site condition that aerobic degradation is occurring on the leading edge of the plume.
Site SD052-04: The ROD requires that contaminated groundwater from the site be prevented from adversely impacting surface water (in Three Mile Creek), which is defined as surface water concentrations above performance indicators (NYSDEC Class GA Groundwater Quality Standards of 5 µg/L for DCE and 2 µg/L for VC). Surface water sample locations show only minor CVOC detections.
Site SD052-05: The ROD for the SD052-05 (Building 817 OU) includes contingency for an air sparge wall if surface water samples from the culvert section of Six Mile Creek contain elevated concentrations of DCE and/or VC that could be attributed to site groundwater. Similar to the ROD for SD052-04, the ROD requires that contaminated groundwater be prevented from adversely impacting the surface water in Six Mile Creek. The plume is stable to reducing, and CVOC concentrations are relatively low (maximum ~50 µg/L for each CVOC). No detections of chlorinated compounds above the NYSDEC groundwater standards have been detected in Six Mile Creek.

Comprehensive Technical Approach

The goal of the OES is to treat hot spots and to optimize performance monitoring requirements to reduce AF LCCs in the out-years until the RAOs are achieved. Performance monitoring will focus on ensuring protection of human health and the environment as well as providing useful information regarding the treatment system overall effectiveness. **In order to achieve the PPO of OES, the Bhate Team will:**

1) Prepare Required OES Documentation throughout Period of Performance (POP): We prepared the Remedial Optimization Work Plan to memorialize the OES outlined in this PMP and obtain approval of our performance model and metrics. We will prepare an OES Report prior to the end of the POP to evaluate the optimizations and present further optimization in post-POP years.

2) Implement Remedial Action to Achieve OES: A Work Plan was prepared to conduct hot spot treatments using ISEB. This Work Plan was implemented at Site SD052-01 and SD052-05 in June 2017 and at SD052-04 in July 2018.

Focused treatments using sodium lactate and/or emulsified vegetable oil (EVO), buffer (as needed), and nutrient injections were completed via direct push technology (DPT) points at identified hot spots, with the exception of new injection wells that will be utilized at SD052-04. Reduction of the CVOCs at SD052-01 will provide secondary risk reduction to the AF by significantly advancing the SD052-SVI system towards shut-off and decommissioning.

At SD052-01, the injections focused around Nosedock 4 and Building 785, specifically at and around monitoring wells 782VMW-105B and 782VMW-81.

At SD052-04, the injections targeted hot spot wells: LF6MW-12, -16, -17, and -20.

At SD052-05, the injections were placed down the middle of the plume, both north and south of the roadway.

Rationale: Optimization of the ongoing reductive dechlorination provides the AF with the most cost-effective and low risk approach to treat groundwater at SD052-01, SD052-04, and SD052-05. Remediation of "hot spots" within the source of the plume at SD052-01 will reduce the time required to achieve RAOs, as well as provide secondary benefits to SD052-SVI. At both SD052-04 and SD052-05, ISEB treatment of the hot spot in the core of the plume and parallel to the axis of groundwater flow will have significant impacts on reducing concentrations in down-gradient monitoring wells and reduce the time to achieve SC.

3) Revise Decision Document (DD) for SD052-01: Initially ISEB was implemented as a pilot study at Site SD052-01. Revision of the DD is not planned at this time since the one well with TCE concentrations (source) remaining above the groundwater standard of 5 µg/L (782VMW-105B) in the plume dropped to 5 µg/L in the 2018 annual sample. This, coupled with the declining concentrations at the leading edge of the plume, indicate that the ROD remedy of MNA is progressing. Whether this was enhanced by the pilot test injections is debatable; however, monitoring well 782VMW-105B was in the focused area of the injections and 2018 was the first instance of attaining the 5 µg/L cleanup goal within the ROD.

Rationale: Due to the remedy selection of MNA at SD052-01, an ESD would be required if additional ISEB injections were planned. However, the injections were difficult to implement at the site and only limited volumes were injected, due to high injection pressures and daylighting. It is not anticipated that additional injections would be any more successful. Since MNA appears to be progressing with measurable results and injection success is limited, an ESD for additional injections is not recommended at this time.

4) Conduct and Optimize Performance Monitoring: Continue required LUC/IC monitoring and FYRs. LTM sampling will be optimized during the POP, as remedies are implemented.

Groundwater Sampling Year 1: Long-term Management (LTM) at SD052-01 (Apron 2) was performed annually for the first year at 13 monitoring wells and 3 surface water locations. LTM at SD052-04 (Landfill 6) was performed annually for the first year at 13 monitoring wells/direct push locations and 1 surface water sampling location. LTM at SD052-05 (Building Weapons Storage Area [WSA]/817) was performed annually for the first year at 12 monitoring wells, 3 surface water locations, and 3 man-hole locations.

Sampling frequency optimization will be implemented after confirmation that the additional treatments were successfully implemented. The monitoring wells will be analyzed for Volatile Organic Compounds (VOCs) and natural attenuation parameters (sulfate; dissolved oxygen concentration; and methane, ethane, and ethene). Results will be documented in an Annual Monitoring Report.

LTM optimization will be accomplished by reducing the number of samples collected at each site as follows:

- SD052-01: Reduce annual samples by at least 43%
- SD052-04: Reduce annual samples by at least 35%
- SD052-05: Reduce annual samples by at least 70%

We will use GTS and/or MAROS software (or equivalent) to determine the optimum number and location of existing monitoring wells, and the sampling frequency. We will develop nonlinear trends and trend maps. Future sampling data will be incorporated into GTS/MAROS, and inconsistent data will be flagged for further assessment. Monitoring wells eliminated from the LTM program will be properly decommissioned in accordance with (IAW) the NYSDEC Groundwater Monitoring Well Decommissioning Policy (Commissioner Policy-43) to eliminate AF liability.

A FYR will be completed to ensure ROD compliance and protection of human health and the environment.

Rationale: Proposed approach will minimize AF LCC and future liabilities, while maintaining compliance with the ROD.

Deliverables

Remedial Optimization and LTM Work Plans, Annual LTM Report (includes LUC/IC monitoring), ESD for SD052-01 (if necessary), Optimization Plan, OES Report, and FYR.

Why the Selected PPO is the Optimal Solution

This PPO is in the best interest of the AF because OES of the ROD-selected remedies provides the lowest possible LCC, while ensuring protection of human health and the environment. Given that the ROD RAOs are concentration-based, the cost to achieve RC or SC are essentially equivalent. Due to the plume size and mass, the cost to achieve RC or SC within the POP is at least four times that of the LCC for implementing our OES. We propose to actively remediate impacted groundwater by enhancing reductive dechlorination to reduce the chemicals of concern (COCs) over time by completing focused ISEB at SD052-01, -04, and -05. Focused (pilot scale) ISEB at SD052-01 will also have a beneficial impact on the time to achieve SC at SD052-SVI.

Technical Approach Risks and Mitigations

The primary risk to the AF with ISEB is that microbes are present, but with a low population and/or they lack the VC reductase gene. Bhate's approach mitigates this by completing the microbial study followed by optimization of the design, which may include bioaugmentation. If necessary, Bhate will use zero valent iron (ZVI) as a contingent action in recalcitrant locations to abiotically reduce the CVOCs. A secondary risk is that the ESD at SD052-01 is required to be a ROD Amendment per the U.S. Environmental Protection Agency (USEPA). We will mitigate this risk with contingency time in the Integrated Master Schedule (IMS).

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet the existing agreements and schedule by continuing LUC/IC inspections, FYRs, and sampling. Bhate will also complete all CERCLA-required documentation to change the remedy to ISEB at SD052-01, if needed.

Business Case Analysis

SD052-01: Proposed approach results in 22% decrease in LCC versus SQ and a projected SC date of 12/2036.

Post-POP LCC activities include the following at a cost of $251K:

Fiscal Year (FY) 2021-FY2034: Annual LUC/IC maintenance and inspections, groundwater sampling of 13 wells for VOCs and 3 surface water locations and reporting. The annual cost of $14K or a total of $196K post-POP LCC.

FY2035: Rebound sampling at a cost of $20K

FY2036: Remedial Action Completion Report (RACR) and well/system abandonment at a cost of $35K

SD052-04: Proposed approach results in 19.5% decrease in LCC versus SQ (Indefinite, assumed FY50 for comparison) and a projected SC date of 12/2038.

Post-POP LCC activities include the following at a cost of $279K:

FY2021-FY2036: Annual LUC/IC maintenance/inspections, groundwater sampling of 13 wells and 1 surface water location for VOCs and reporting. The annual cost of $14K or a total of $224K post-POP LCC.

FY2037: Rebound sampling at a cost of $20K

FY2038: RACR and well/system abandonment at a cost of $35K

SD052-05: Proposed approach results in 46.6% decrease in LCC versus SQ and a projected SC date of 12/2040.

Post-POP LCC activities include the following at a cost of $307K:

FY2021-FY2038: Annual LUC/IC maintenance and inspections, groundwater sampling of 12 wells for VOCs, 3 surface water locations, 3 manholes, and reporting. The annual cost of $14K or a total of $252K post-POP LCC

FY2039: Rebound sampling at a cost of $20K

FY2040: RACR and well/system abandonment at a cost of $35K

Performance Model

The Final Remedial Optimization Work Plan On-Base Groundwater Areas of Concern, Former Griffiss Air Force Base (Bhate, March 2017) presents the approved performance models. The key performance metric of OES for each site is hot spot treatment and to optimize performance monitoring requirements to reduce AF LCCs in the out-years until the RAOs are achieved.

Site # 9	**SD052-SVI (Soil Vapor Intrusion System)**
Projected Closure Date:	2025
Performance Objective:	Optimized Exit Strategy
General Strategy:	Continue operations and maintenance (O&M) of SD052-02 Sub Slab Vapor Mitigation (SSVM) system; convert SD052-01 SSVM system to a passive system.

Current Site Conditions

Interim Remedial Action (IRA) SVI mitigation by horizontal sub-slab depressurization is underway at SD052-01 Apron 2 Chlorinated Plume Site (Buildings 785/786) and SD052-02 Building 775 Site (Buildings 774/776). The recommended action addresses the vapor intrusion (VI) potential associated with contaminated groundwater beneath these buildings. The Final DD for SD052-02 Building 775 Site (Buildings 774/776) and SD052-01 Apron 2 (Buildings 785/786)

was signed in September 2016 and will aim to document OPS at the site.

Comprehensive Technical Approach

To achieve the PPO, the Team will:

1) Prepare Required OES Documentation throughout POP: Upon finalization of the ROD, the Bhate Team prepared the Optimization Plan to memorialize the OES and obtain approval of our performance model and metrics. An OES Report will be prepared prior to the end of the POP to evaluate the implemented optimizations and present further optimization in post-POP years.

Rationale: This OES documentation will ensure compliance with the Performance Work Statement (PWS) and ROD.

2) Evaluate Sub-Slab and Influent Soil Vapor Concentrations: Currently, the sub-slab is actively depressurized by imposing negative pressure under the slabs by mechanical (regenerative) blowers at SD052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786), and the extracted vapors are discharged to a vapor treatment system consisting of granular activated carbon (GAC) vessels. A similar system was converted to a passive system at SD052-02 Building 775 Site (Buildings 774 and 776). The conversion was completed in June 2018. The regenerative blowers and GAC treatment were by-passed with wind-powered turbines mounted on the exhaust stacks and direct discharge to atmosphere. The November 2018 sampling results from the IRA were compared to the USEPA and NYSDEC tables and show no further action is needed. With Regulator and AF concurrence, the SSVM system at SD052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786) will also be converted in 2019.

Laboratory results for the SSVM system indicate the sub-slab soil gas concentrations are at or below the New York State Department of Health (NYSDOH) no further action (NFA) screening criteria (NYSDOH, October 2006 or updated criteria). NFA values in the NYSDOH guidance range from 5 to 50 micrograms per cubic meter ($\mu g/m^3$). Please note that New Ambient Air Guidelines for TCE were implemented in August 2015. NYSDOH lowered their guideline for TCE in ambient air from 5 $\mu g/m^3$ to 2 $\mu g/m^3$. A review of the Indoor Ambient Air results for 774/776 and 785/786 adjusted to the new regulatory standard indicates that the recent air analytical results are still below the regulatory threshold.

Rationale: This OES documentation will ensure compliance with the PWS and ROD.

3) Convert to Passive SSVM System: The proposed outcome includes a strategy for converting the active SSVM systems into passive SSVM systems. Conversion for SD052-02 Building 775 Site (Buildings 774 and 776) was completed in 2018. Under the passive SSVM system, the horizontal wells are connected to vertical pipes with wind-powered exhaust turbines. The SSVM components of the active systems remain in place once the systems are converted to passive systems. During the operation of the passive systems, the active systems are inspected/tested on an annual basis. The following are optimization strategy provisions as detailed in the signed ROD for converting the SSVM systems into passive SVI mitigation systems:

- Groundwater Samples: The concentrations of VOCs in groundwater in the vicinity of the soil vapor extraction (SVE) systems is evaluated to assess the SVI pathway into the buildings. Conversion of the active SSVM system to a passive SSVM system will be evaluated if the VOC concentrations do not meet groundwater applicable or relevant and appropriate requirements (ARARs) (i.e., established groundwater quality standards). Therefore, conversion of the system is evaluated using the SSVM influent and Sub-Slab Soil Vapor Rebound Sample Result indicators discussed in the next two bullets.

- SSVM Influent: As an indicator of remediation progress in the sub-slab environment, VOCs in the influent to the SSVM system prior to any carbon treatment are sampled periodically for laboratory analysis. When influent air data reach a stable trend (i.e., they are no longer decreasing) or the laboratory results for the SSVM system influent indicate that the sub-slab soil gas concentrations are below the NYSDOH no further action screening criteria (NYSDOH, October 2006 or updated criteria) at http://www.health.ny.gov/environmental/investigations/soil_gas/svi_guidance/docs/svig_final2006_complete.pdf and/or USEPA industrial use Regional Screening Levels (RSLs) (http://www.epa.gov/region9/superfund/prg/) for contaminants of concern, the active SSVM systems will be converted into passive SSVM systems. Update: In August 2015, NYSDOH lowered their guideline for TCE in ambient air from 5 $\mu g/m^3$ to 2 $\mu g/m^3$ and developed a recommended immediate action level of 20 $\mu g/m^3$.
- Sub-Slab Soil Vapor Rebound Sample Results: Periodic (annual) performance monitoring will be conducted. If sub-slab soil gas concentrations are reported higher than the industrial use screening criteria cited for two consecutive sampling events, the active SSVM systems will be re-started.

The conversion of the SD052-SVI SSVM systems from active to a passive will be documented in the annual SD052-SVI report for the year each system is converted. The Optimization Plan details continued operations and sampling of the SD052-02 SSVM system under OES. Indoor and outdoor air sampling, sub-slab vapor sampling, and influent sampling will be conducted annually.

Rationale: Physical removal of COC vapors to below NYSDOH NFA screening criteria (NYSDOH, October 2006 or updated criteria) and the applicable USEPA RSLs is the most effective and low risk approach (most protective of human health) to significantly reducing the time to achieve SC.

Deliverables

Optimization Plan, LTM Work Plan, O&M Reports, OES Report, and FYR

Why the Selected PPO is the Optimal Solution

Accelerated SC will be demonstrated by achievement of RC for the groundwater under Buildings 785 and 786 at Site SD052-01; and Buildings 774 and 776 at Site SD052-02 within the POP. However, demonstrating permanent shut down status of the SSVM systems, as described in the signed ROD (September 2016), will not be possible due to the rebound evaluation requirement for three heating season sampling events. This time requirement would extend beyond the POP. Therefore, SSVM Systems will continue operations until it has been determined that the SVI RAO has been achieved or that continued operation of the system is not effective or needed; i.e., contamination is no longer being removed, sub-slab soil gas concentrations have been reduced to a level that would not impact indoor air at unacceptable levels, and/or there is no remaining groundwater contamination in the vicinity of the buildings at concentrations greater than groundwater ARARs (New York State Ambient Water Quality Standards and Guidance Values, NYSDEC, June 1998) that could impact the SVI pathway into the buildings.

The SSVM systems will be advanced towards SC by converting to a passive system as required by Section 1.2 of the Site Specific PWS. This PPO is in the best interest of the AF because the PPO combines remediation of impacted groundwater at SD052-01 and SD052-02 with the conversion of active SSVM systems to passive systems. The selected remedy provides the AF with limited LCCs while advancing the systems towards achieving SC.

Technical Approach Risks and Mitigations

If sub-slab soil gas concentrations are reported higher than the industrial use screening criteria cited for two consecutive sampling events, the passive system will be reconnected to the active SSVM systems and the systems will be re-started. Following reactivation of the SSVM systems, Bhate will conduct an evaluation to determine the cause of the rebound and if necessary, install up to 12 air inlet wells around Building 785 and 786 (6 per building) to control the subsurface airflow and possibly overcome preferential pathways and dead zones that may be impeding the SSVM systems. The air inlet wells are passive and will be installed at the edge of the buildings so as not to induce flow of contamination from an adjacent site.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet the existing agreements and schedule by continuing to optimize the selected remedies, complete LUC/IC inspections, FYRs, and sampling.

Business Case Analysis

Preferential pathways and dead zones appear to be impeding the SSVM system closure activities based on the sub-slab concentration data and mass removal rates to date. The proposed approach results in a 75% decrease in LCC versus SQ and a projected SC date of 12/2025.

Post-POP LCC activities include the following at a cost of $201K:

- FY2021-FY2023: O&M, Quarterly Reporting, Indoor and Outdoor Sampling. Annual cost of $10K to $43K (system dependent) or a total of $116K post-POP LCC.
- FY2024: Rebound sampling at a cost of $30K.
- FY2025: Closure Report and well/system abandonment at a cost of $55K.

Performance Model

The PWS stipulates two performance metrics for the OES at SD052-SVI: 1) accelerate SC from the SQ date of Fiscal Year 2035 and 2) convert the system to passive operation or shut it down. The Bhate Team's OES will accelerate SC by 10 years and convert the system to passive operation by removing preferential pathways and dead zones that are impeding the SSVM system closure. The *Final Optimization Plan for Soil Vapor Intrusion at SD052-01 Apron 2 Chlorinated Plume Site (Buildings 785 and 786) and SD052-02 Building 775 Site (Buildings 774 and 776) Former Griffiss Air Force Base* (Bhate, April 2017) presented the final performance model for SD052-SVI.

Site # 10	**SS054 (Building 781 Pumphouse)**
Projected Closure Date:	2027
Performance Objective:	Optimized Exit Strategy
General Strategy:	Optimize biosparge system and monitoring well network; completed surfactant pilot study around MW-13 in 2017; evaluate the plume and any residual light non-aqueous phase liquid (LNAPL) occurrences following removal of biosparge drop-tubes from existing monitoring wells and cessation of sparging for winter of 2018, continue groundwater sampling and reporting, annual LTM and LUC inspections/reporting; submit Corrective Action Plan (CAP), OES reports, and FYR.

Current Site Conditions

The spill number was assigned by the NYSDEC in June 1992; and Building 781 and the associated underground storage tanks (USTs) were removed in May 1995. The existing biosparge system was expanded in 2012 based upon a supplemental site investigation and a remedial optimization evaluation. In 2012, the biosparge system converted 12 existing monitoring wells into sparge wells by adding a polyvinyl chloride (PVC) drop-tube to the bottom of the well for air injection. It was realized in 2018, that although the conversions allowed for sparging, it prevented accurate gauging and sampling of the water table since blank casing occluded the water table. In addition, the drop tubes created piezometers that prevented equalization of air pressure within the drop tubes and therefore equalization of water levels after purging as well. The conversion created new casing elevations which were not re-surveyed. Due to these factors, non-equalization of air pressure and water levels, plus inaccurate casing elevations, potentiometric surface maps have been inaccurate since 2012. Seven of the 12 drop tubes were removed in November/December 2018. Residual soil impacts and LNAPL at or near the water table persisted in and near 781-MW-13 prior to 2017 surfactant injections in this area, which have removed measurable LNAPL in the plume area at and surrounding MW-13. The southern end of the dissolved phase plume has been contained and treated by the biosparge system. COCs in the groundwater include benzene, toluene, ethylbenzene, and xylenes (BTEX) and both 1,2,4- and 1,3,5-trimethylbenzene.

Comprehensive Technical Approach

The goal of the OES is primarily to reduce the COCs to levels that allow for SC by 2027. The secondary goal is to reduce LTM requirements and decrease LCCs until the RAOs are achieved.

In order to achieve our OES, the Bhate Team will:

1) Continue FYRs and ongoing LTM program: Operation of the biosparge system will cease for the winter of 2018/2019 to allow for equilibration of the plume, which will then be followed by gauging and sampling of monitoring wells without drop-tubes. An "annual" sampling event will be completed in the Spring of 2019. Oxidation reduction potential (ORP) and dissolved oxygen (DO) will be measured concurrent with the annual groundwater monitoring. LTM/LUC inspections will be completed and included in the annual report.

Rationale: Our actions will ensure compliance with ongoing remedial actions and recommendations.

2) Optimize future operations: Since free product has been eliminated in the area of MW-13 following the surfactant treatment, the Spring groundwater monitoring event will evaluate each monitoring well depth to water and presence of product after removal of the sparge pipes, which have prevented accurate gauging. If free product is present in any of the monitoring wells following gauging without sparge pipes, Bhate will evaluate surfactant for elimination of smear zone and saturated soil impacts contributing to the observance of free product. The key to optimizing the bioremediation is distribution of sufficient oxygen to the plume. Methods of increasing oxygen into the aquifer will be assessed through sparging and through natural groundwater flow. Optimization may include shut-off of the system, with approval from the NYSDEC. Per discussion with the NYSDEC, evaluation of water levels compared to prior detections of petroleum impacts as wells as free product is needed to confirm sufficient remediation prior to system shut-down.

Rationale: If LNAPL has been removed from the area around MW-13 and 2019 monitoring shows

the remaining monitoring wells (without drop tubes) are LNAPL free and the water levels are not dissimilar to historical levels when LNAPL was present, then the remaining dissolved plume can be addressed by allowing the unusually high levels of dissolved oxygen upgradient of the plume to infiltrate the plume with or without the help of the sparge system.

3) Optimize the well network: Based on the most recent data, at least 8 wells do not currently exceed the cleanup standards. These wells are proposed for decommissioning throughout the POP. Our optimization of the treatment system will reduce the plume by 50% and may result in elimination of additional monitoring wells within the POP.

Rationale: Removal of the existing monitoring wells will eliminate all future costs to the AF. Bhate will right-size the monitoring well network to advance the site towards SC.

Deliverables

LTM Work Plan, Annual LTM/O&M Reports, Optimization Plan, OES Report, and Non-CERCLA FYR

Why the Selected PPO is the Optimal Solution

The projected SC date in the PWS is FY18, which is not possible due to the previous persistence of free product. Given that free product has been eliminated, the existing, optimized biosparge system should achieve SC by 2027. Continuing to operate the existing systems at SS054 provides the AF with the lowest LCC versus aggressive, high-risk in-situ or ex-situ treatment that will not significantly reduce the time to achieve SC or RC and will result in a significantly higher LCC.

Technical Approach Risks and Mitigations

The primary risk to the AF is that the 2019 water level evaluation shows that the water table is significantly lower currently than when LNAPL thicknesses were at a maximum. Indicating that the smear zone is well above the current water table and the current lack of LNAPL is due to the water table lying outside of the smear zone. Therefore, it is an opportune time to shift from biosparging to bioventing and allow for oxygen to encompass the smear zone, if there is one.

A secondary risk is that the NYSDEC and/or USEPA do not concur with reduction in sample locations. Bhate will mitigate this risk by requesting sampling optimization ahead of the implementation date to gain consensus with the Regulators on the data needed to support this request.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet the existing agreements by ensuring that treatment reduces the plume size to prevent offsite migration and eliminate free product.

Business Case Analysis

The existing system has been optimized, product removed, and COCs decreased to below 10 milligrams per liter (mg/L) per well. Confirmation of these parameters without the down-hole sparge piping obscuring the data will be accomplished in 2019. Site SS054 contamination will not reduce below the cleanup levels by the projected FY18 in the PWS. Further, SC within the POP is a risk to the AF given the current plume mass, including the historical presence of free product, and would require a longer POP and greater LCC than OES during the POP with SC achieved by FY2027.

Performance Model

The *Final Performance Model is presented in Final Optimization Plan for SS054 Building 781 Pumphouse NYSDEC Spill Site 9202658 Former Griffiss AFB* (Bhate, December 2016). The key performance metric for LTM is to reduce sampling by 20% annually through elimination of upgradient wells and to reduce the plume VOCs by 50% of baseline by the end of the POP. This

reduction of COCs will allow the site to achieve RC by 2025 and SC by 2027.

Site # 11	SS062 (AOC 9 WSA Landfill Chlorinated Plume)
Projected Closure Date:	2027
Performance Objective:	Optimized Exit Strategy
General Strategy:	Completed a follow-on in-situ chemical oxidation (ISCO) injection in 2018 and optimize monitoring well network; continue groundwater and LUC/IC monitoring and reporting; submit Optimization Plan, OES report, and FYR.

Current Site Conditions

AOC 9 is the location of the former Griffiss AFB's first landfill used between 1943 and 1960. Most of the landfill material was removed from the area in the 1950s as the WSA was constructed. An Interim Remedial Action Completion Report (IRACR) was completed in 2010, which included excavation, dewatering, and backfilling with sodium persulfate oxidant and an iron chelate activator. The Final ROD was completed in July 2010 and selected excavation of contaminated soil, ISCO for groundwater, and LUCs. In November 2013, PermeOx® Plus was injected to enhance aerobic bioremediation of the groundwater plume and Remedy in Place (RIP) was achieved in 2015 based upon performance monitoring results. Follow on injections of sodium persulfate and calcium peroxide were completed in 2018.

The primary COCs exceeding groundwater standards are chlorobenzene; TCE; and cis-1,2-DCE. The plume is approximately 1,400 ft long but relatively narrow at approximately 150 ft wide. LUCs/ICs will remain in place until groundwater RAOs are achieved. Historically, the chlorobenzene plume has been relatively stable with fluctuating concentrations on a decreasing trend since 2010. However, in 2018 the concentration of chlorobenzene in well AOC9MW-19, located on the up-gradient edge of the former excavation, increased, almost as a spike, from 13 µg/L in 2016 to 560 µg/L. The well was re-sampled and the confirmation concentration was 270 µg/L. This increase, as well as an increase observed in well AOC9MW-9, are most likely attributed to Oxygen BioChem (OBC®) injections in July 2018. Injections can disrupt the equilibrium between adsorbed and dissolved mass causing temporary dissolved phase increases. These concentrations should decrease over several quarters until equilibrium conditions return.

Comprehensive Technical Approach

The goal of the OES is primarily to reduce the COCs to levels that allow for achievement of RC by FY24 through MNA. The secondary goal is to reduce LTM requirements to decrease LCCs until the RAOs are achieved. **OES will be achieved through the following activities**.

1) Prepare Required OES Documentation throughout POP: the Bhate Team prepared the Optimization Plan to memorialize the OES outlined in the proposal and obtain approval of our performance model/metrics. We will prepare an OES Report prior to the end of the POP to evaluate the optimizations and present further optimization in post-POP years.

Rationale: Our OES will be documented to ensure compliance with the PWS.

2) Continue Annual LTM: Bhate also prepared a Work Plan for the annual groundwater sampling and LUC/IC inspection and maintenance.

Rationale: Our activities will ensure compliance with the ROD.

3) Optimize Groundwater and Surface Water sampling: Continue to optimize LTM by reducing the number of samples collected. To ensure protection of human and ecological health, as well as regulatory compliance, surface water sampling will remain SQ. We will use GTS and/or MAROS software (or equivalent) to determine the optimum number, placement of wells, and sampling frequency in the network. We will develop nonlinear trends and trend maps. Future sampling data will be incorporated into GTS/MAROS and inconsistent data flagged for further assessment. Monitoring wells eliminated from the LTM program will be properly decommissioned to eliminate AF liability.

Rationale: Although increases in chlorobenzene concentrations were observed in wells within the injection zone, the downgradient edge and surface water samples remain relatively stable. Sampling is primarily done to verify that COCs are not migrating offsite or into the stream environment. MAROS analysis supports biennial sampling for a majority of the wells and COCs. However, additional data is needed, particularly following the increased concentration documented in 2018, to support a request for all wells to move to biennial sampling, as presented in the 2014 Annual LTM Report.

4) Optimizing ISCO with Additional Injections: PermeOx® Plus injection temporarily reduced COCs in MW-14 immediately downgradient of the injections. Bhate prepared a work plan for the full scale design and implementation of additional ISCO injections using OBC®, which is a formulated mixture of sodium persulfate and calcium peroxide. Injections were completed in 2017 and 2018 focusing on areas around MW-14 and MW-15 as well up-gradient areas including the excavation area. Annual LTM Reports will document the results of ISCO.

Rationale: The IRACR (excavation and persulfate/iron additions), performed in 2010, reduced the COCs by 10-fold compared to the baseline conditions. However, the chlorobenzene and TCE plumes have stabilized but continue to fluctuate based upon a comparison of the 2013, 2014, 2015, 2016, and 2017 data. The 2018 data suggest that the mass flux exiting the excavation area may not be negligible and investigating this area may be needed to finalize an OES strategy.

5) Complete FYR: To ensure ROD compliance and protection of human health and the environment.

Rationale: The goal of the OES is primarily to reduce the COCs to levels that allow for natural degradation over time while protecting Six Mile Creek. The secondary goal is reduction of the LTM requirements to reduce LCCs until the RAOs are achieved. LTM will focus on ensuring the RAOs are achieved by ensuring COCs are not migrating offsite or into the stream environment.

Deliverables

Remedial Optimization and LTM Work Plans, Annual LTM Reports (includes ISCO injection information), Optimization Plan, OES Report, and FYR

Why the Selected PPO is the Optimal Solution

Given the plume length and constituent concentrations, OES within the 5-year POP provides the AF with the lowest LCC. ISCO has performed well at the site but the COCs appear to have reached asymptotic levels in the past 2 years. Modeling in 2013 indicated that RAOs would be achieved in 11 years, but that didn't account for the currently observed asymptotic levels. Achieving RC or SC is a high risk to the AF given chlorobenzene concentrations exceeding 100 µg/L over 50% of the plume with a RAO of 5 µg/L. Also, given that the site is known to have been used as a landfill, it is uncertain that SC can be achieved as residual landfill material is likely present.

Technical Approach Risks and Mitigations

The primary risk is that the COCs do not decrease as modeled such that the goal of reducing the COCs to less than 10 µg/L cannot be achieved within the POP. Based upon the 2018 results, this risk has increased due to additional mass within the saturated zone soils. Additional groundwater data will be collected in 2019 to evaluate the residual contamination and revise the OES accordingly. A secondary risk is that the NYSDEC and/or USEPA do not concur with reduction in sample locations. Bhate will mitigate this risk by requesting sampling optimization ahead of the implementation date to gain consensus with the Regulators on the data needed to support this request.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet existing agreements by completing the FYRs and completing LUC/IC inspections. Our optimization will allow the AF to meet the goal of RC in FY24, as projected, despite the recently observed asymptotic concentrations of the COCs within the plume. Assumes that the excavation area is not an on-going source and groundwater concentrations exiting the area meet clean-up standards.

Business Case Analysis

Our optimization will result in limited groundwater sampling, FYR, and Annual LUC/IC maintenance to ensure compliance with the ROD. The LCC post-POP includes the FYR, additional monitoring well abandonment, and LUC/IC inspections and reports for 10 years beyond the POP, which includes one year of rebound sampling to demonstrate closure. Based upon the 2018 groundwater data, additional time will be required for MNA. The cost per year is $100K plus well decommissioning for a total of $110K post-POP LCC.

Performance Model

The key performance metric for LTM is to reduce sampling by 20% annually through elimination of upgradient wells. The *Final Optimization Plan for SS062 AOC 9 Weapons Storage Area Landfill Chlorinated Plume, Former Griffiss AFB* (Bhate, November 2016) presents the performance model. A revised model will be generated based upon the new data from 2018 and subsequent mass-flux investigation.

Site # 12	**SS067 (Building 789 Type II Fuel System)**
Projected Closure Date:	2027
Performance Objective:	Optimized Exit Strategy
General Strategy:	Evaluate data from free product investigation and optimize product recovery as appropriate; optimize LTM; continue O&M of systems, air/groundwater monitoring/reporting, LUC/IC inspection; submit Optimization work plan, OES report, and FYR.

Current Site Conditions

Soil was removed to approximately 25 ft bgs in 2001 to prevent further migration of petroleum contamination from the site. While sidewall samples indicated that soil cleanup objectives were met in all but 3 locations, the samples were collected approximately 8 ft above the smear zone. Free product was observed to be leaching into the excavation from the smear zone. While the excavation removed unsaturated soil contamination and a large portion of the smear zone contamination, free product recovery is currently ongoing using the existing skimmer system. In addition, a dissolved phase plume is present and defined by existing LTM wells. The 2016 conceptual site model (CSM) was described as product existing on the water table in recoverable quantities as defined by recorded product thicknesses in wells of several feet. This CSM suggested the skimmer system was ineffective since only minor quantities of product were being recovered. This led to a refurbishing of the skimmers with little change in recoverable quantities. A CAP was implemented in 2018 to define the limits of recoverable product, the scope included multiple soil borings, temporary wells, three new permanent wells, and recoverability testing on soil samples. Evaluation of the data collected changed the CSM from "ineffective product recovery system" to limited quantities of recoverable product in the subsurface. In addition, the horizontal sparge well 789HW-1 has been determined to be unnecessary in preventing downgradient migration of dissolved COCs.

Comprehensive Technical Approach

OES will be achieved through elimination of free product followed by optimization of LTM. **In order to achieve our OES, the Bhate Team will:**

1) Prepare Required OES Documentation throughout POP: The Bhate Team prepared an Optimization Plan that memorialized the OES outlined in the proposal and obtained approval of our performance metrics. An OES Report will be prepared prior to the end of the POP to evaluate the implemented optimizations and present further optimization in post-POP years.

Rationale: The OES documentation will be prepared to ensure compliance with the PWS.

2) Discontinue O&M of existing sparge system and minimize ongoing monitoring program, including groundwater sampling and LUC/IC inspections and FYRs: The free product recovery system is not currently operating as optimization strategies are being evaluated. Monitoring groundwater and free product recovery wells for offsite laboratory analysis will continue on a quarterly basis. However, reporting will be completed annually instead of quarterly.

Rationale: Our proposed activities will ensure compliance with ongoing remedial actions and recommendations, while minimizing cost.

3) **Delineate and then Optimize Free Product Reduction**: A CAP in Uniform Federal Policy (UFP)-Quality Assurance Project Plan (QAPP) format was prepared to complete test pits, soil borings, and temporary wells to evaluate potential continuing release of free product from the abandoned fuel lines because the amount of free product being measured has not changed significantly over the past 10 years. Based upon 2018 data the OES will be revised.

Rationale: The CSM has changed following the additional investigation completed in 2018.

4) **Optimize LTM:** Following verification of the stability of the plume, groundwater sampling frequency can be reduced to quarterly for six wells plus semi-annually for three wells in 2019. Annual sampling will be proposed by 2020 to allow for significant reduction in LCCs.

Rationale: Optimized LTM will reduce LCCs while still supporting achievement of SC.

Deliverables

CAP, Construction Completion Report (CCR), Annual Performance Monitoring Reports, Optimization Plan, OES Report, and non-CERCLA FYR

Why the Selected PPO is the Optimal Solution

Bhate's OES uses site evaluation to determine the optimal approach and provide the lowest LCC. The existing skimming system has been turned off due to inefficiency and the sparge system continues to operate even though it is deemed unnecessary until operations can be modified to turn the sparge well off. The cost to achieve RC versus SC is essentially the same because remediation for groundwater to the cleanup levels has to be achieved for both. The cost to achieve groundwater cleanup standards in the 5 year POP is 2 to 3 times more than our proposed OES, which will discontinue use of the sparge system, continue to reduce measured product, and rely on MNA to achieve SC post-POP.

Technical Approach Risks and Mitigations

The primary risk is that the sparge system needs to be turned back on due to Regulatory concerns of potential migration of the source area.

Achieving the PPO IAW Applicable Agreements & Schedule

Our approach will meet the existing agreements and schedule by improving the CSM, shutting down the existing treatment systems, completing LUC/IC inspections and FYRs, and continuing sampling.

Business Case Analysis

Given the continued presence of free product at SS067, SC is not technically feasible or cost effective by FY18 as presented in Attachment 1B of the PWS. The proposed SC date is 12/2027. Post-POP LCC activities will include the following, at a cost of $270K:

- FY2021-FY2025: Annual LUC/IC maintenance and inspections, O&M of air sparge system and GW sampling of 12 wells for VOCs at an annual cost of $35K for a total of $175K
- FY2026: Rebound sampling at a cost of $50K
- FY2027: Spill Closure Report and well/system decommissioning at a cost of $45K

Performance Model

Bhate will eliminate the existing treatment systems and develop a revised OES to advance the site to SC. LTM OES will reduce sampling from quarterly to annual by 2021.

Site # 13, 14, 15, 16, and 17	**LF001 (Landfill 1), LF002 (Landfill 2 & 3), LF003 (Landfill 7), LF007 (Landfill 5), and LF009 (Landfill 6)**
Projected Closure Date	Indefinite
Performance Objective:	Response Complete followed by Optimized Exit Strategy
General Strategy:	Document that RAOs have been achieved to document RC, optimize groundwater monitoring/reporting, optimize landfill gas monitoring, cap inspections, and conduct LUC/IC monitoring and FYR

Current Site Conditions

The ROD, signed in June 2000 by the USEPA, for LF001, LF002, LF003, and LF007, was developed with presumptive remedies that require: 1) installation and maintenance of an impermeable cover per the current New York Codes, Rules, and Regulations (NYCRR), Part 360 landfill closure regulations; 2) LTM for groundwater, surface water, and sediment per the NYCRR Part 360 landfill post-closure regulations; 3) evaluation of LTM data to confirm the effectiveness of the presumptive remedy; 4) implementation of ICs in the form of deed restrictions; and 5) joint FYRs. The RAO in the ROD does require monitoring groundwater and a stream environment assessment downgradient of the site to evaluate the effectiveness of the presumptive remedy. The ROD for LF009 was signed by the USEPA in June 2001. Per the FFA, the landfills will continue LTM until 2040. These five CERCLA sites are all capped landfills with ongoing post-closure activities that include the performance of routine, preventive, predictive, scheduled, and unscheduled inspections. Groundwater and surface water sample results are compared to NYSDEC Class GA Groundwater Standards and NYSDEC Class C Surface Water Standards. Site activities are conducted under the supervision and recommendations of the USEPA, Region 2 and NYSDEC.

Comprehensive Technical Approach

The goal of RC is to obtain formalized documentation for the AF that each landfill is considered to have achieved the RAOs presented in the approved RODs. OES is primarily to reduce LTM requirements to decrease LCCs in an effective manner through 2040. LTM will focus on ensuring protection of human health and the environment.

To achieve the PPOs of RC followed by OES for LTM, the Bhate Team has and will:

1) Achieved RC in 2017: On 17 March 2010, the USEPA Region 2 issued a letter indicating that LF001 had achieved closure and can begin LTM as required by the ROD and ROD amendment. This letter was issued in response to the "Report on Implementation of Remedial Action at Landfill 1" and response to USEPA's comments dated January 2010. This letter supports RC at LF001. The Bhate Team prepared a Technical Memorandum to document that RC has been achieved at all five of the landfills based upon similar documentation available for each of the sites. This technical memorandum demonstrated that the sites have achieved closure and that the sites are considered to be in LTM (post-RC) as required by the ROD. Bhate summarized the basis and background of the RODs for these four landfill sites (including relevant information regarding presumptive remedies) and the existing site conditions (e.g., COCs, secured by fencing). The submittal of the final technical memorandum to the Regulators served as the basis of having achieved RC per the PWS for LF001, LF002, LF003, LF007, and LF009.

Rationale: Documenting that RC is achieved minimizes AF risk and allows for continued optimization of the LTM.

2) Continue LTM per Final O&M Plan, FYRs, and ICs for Landfills: The Bhate team will implement the approved O&M Plan, FYR, and ICs for these landfills.

Rationale: Our actions will ensure compliance with the ROD and established O&M Plan.

3) Prepare Required OES Documentation throughout the POP: Upon award, the Bhate Team prepared the Optimization Plan to memorialize the OES outlined in the PMP and obtain approval of our performance model and metrics. An OES Report will be prepared prior to the end of the POP to evaluate the implemented optimizations and present further recommended optimization in post-POP years.

4) Implement OES for LTM: Systematic reduction of LTM built upon the ongoing OES, by others. The table below presents the pre-contract award comprehensive sampling activities followed by the OES in process.

Site ID	2015 LTM Activities	OES during POP
LF001	• Semi-annual landfill gas (LFG) monitoring at 18 gas monitoring probes/31 gas vents. • Annual groundwater monitoring at 12 monitoring wells. • Surface water monitoring at 3 locations. • Semi-annual cap inspections.	• Reduce LFG monitoring by 50% through reduction of gas vents monitored and to annual from semi-annual within POP. • Reduce groundwater monitoring locations by 25% based upon continued non-exceedance of landfill leachate indicators or VOCs and all sampling to biennial. • Annual cap inspections.
LF002	• Semi-annual LFG monitoring at 9 gas monitoring probes/14 gas vents. • Biennial groundwater monitoring at 6 monitoring wells and biennial surface water monitoring at 3 locations. • Semi-annual cap inspections.	• Reduce LFG monitoring by 40% and to annual within POP. • Sampling every 5 years with the next sampling event to coincide with the FYR in 2020. • Eliminate sampling from 2 groundwater monitoring wells. • Annual cap inspections.
LF003	• Annual groundwater monitoring at 8 monitoring wells and biennial surface water monitoring at 2 locations. • Semi-annual cap inspections.	• Reduce sample locations by 25% and sampling every 5 years with the next sampling event to coincide with the FYR in 2020. • Annual cap inspections.
LF007	• No LFG monitoring. • Biennial groundwater monitoring at 5 monitoring wells and biennial surface water monitoring at 3 locations. • Semi-annual cap inspections.	• Sampling every 5 years with the next sampling event to coincide with the FYR in 2020. • Annual cap inspections.
LF009	• Semi-annual LFG monitoring at 13 gas monitoring probes/16 gas vents. • Annual groundwater monitoring at 19 monitoring wells, 2 leachate locations, 1 wetland location, and 3 surface water monitoring locations. • Semi-annual cap inspections.	• Reduce LFG monitoring by 50% and to annual within POP. • Reduce groundwater monitoring to 10 locations. • Sampling every 5 years with the next sampling event to coincide with the FYR in 2020. • Annual cap inspections.

We will use GTS and/or MAROS software, developed for the Air Force Civil Engineer Center (AFCEC), (or equivalent) to determine the optimum number, placement of wells, and sampling

frequency in each landfill network. We will develop non-linear trends and trend maps. Future sampling data will be incorporated into GTS/MAROS and inconsistent data flagged for further assessment.

Rationale: Per 6 NYCRR Part 360, site conditions must be evaluated at least once every 5 years. The plumes are stable and/or decreasing. Sampling is primarily done to verify that COCs are not migrating offsite or into the stream environment and ensuring human and ecological health, thus, maintaining regulatory compliance. NYSDEC Sub Part 360 for landfills does not require LFG monitoring such that continued reduction of this LTM activity is reasonable. Per the O&M Manual, Bhate will petition the NYSDEC to modify the inspection requirements based upon the fully established cap and no visual signs of deterioration of the cap within the previous years. Per the Landfill Optimization Plan, Bhate plans to conduct emergency inspections after large scale (5 year) storm events. Per the O&M Manuals for the landfills, the 5-year, 24-hour storm event is approximately 3.3 inches of rainfall for Rome, New York.

The Bhate Team will support FYRs to ensure ROD compliance and protection of human health and the environment. The landfills will be surveyed during these FYRs to evaluate settlement.

The ROD and State-regulations provide some flexibility for optimization of the O&M over time. While continued LTM will be required for over 20 years, cost reductions through OES are achievable both within the POP and post-POP. Sampling data supports that the plumes are stable. LTM will focus on ensuring the RAOs are achieved by demonstrating that COCs are not migrating offsite or into the stream environment.

Deliverables

LTM Work Plan, Annual LTM Reports, Optimization Plan and OES Reports, FYR, Report on Implementation of Remedial Action, and RC Memorandum.

Why the Selected PPO is the Optimal Solution

This PPO is in the best interest of the AF because the landfills are at RC under the Defense Environmental Restoration Program (DERP). RC is based upon 1) the RAOs in the ROD have been achieved and 2) the only on-going activities are LTM. OES of the ROD-selected remedies provides the AF with the lowest LCC, while ensuring protection of human health and the environment. The Post-Closure care groundwater monitoring period will extend until the year 2040 per the FFA.

Technical Approach Risks and Mitigations

The primary risk at the landfills is COC detections in groundwater or surface water indicating an increasing trend. This risk is considered to be low given the known stability of the groundwater plumes based upon LTM implementation beginning over 10 years ago for all but LF009 (LTM began in June 2006). Sampling will increase if any increasing trends are identified to mitigate this risk. Another risk is damage to the landfill cap from a burrowing animal, large rainfall event, or similar. Mitigation will be IAW the landfill O&M Manual.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet the existing agreements and schedule by maintaining the landfill cap, inspecting LUC/IC, optimizing water and gas sampling, and completing FYRs.

Business Case Analysis

Our proposed approach results in an approximately 50% decrease in LCC versus SQ through reduction of LTM costs. Post-POP LCC activities include:

- **FY 2021-FY2040**: FYRs, annual LUC/IC maintenance and inspections, no LFG monitoring, and groundwater and surface water sampling every 5 years coinciding with the FYR (except LF001

and LF009 which will remain biennial).

Every 5 years, the 5 landfills cost $40K for a total of $200K post-POP LCC.

Performance Model

The key performance metric for O&M is to reduce LTM.

Site # 18	**SD052-02 (Building 775 OU)**
Projected Closure Date:	N/A
Performance Objective:	Response Complete (original)
General Strategy:	Prepare Remedial Optimization Work Plan to evaluate alternative remedies including completion of an ISCO pilot study, conduct LUC/IC monitoring and reporting and FYR. RC will not be achieved within the POP based upon the ISCO pilot study completed in 2017. 2019-2021: Evaluate a new path forward in conjunction with AF. Realistic paths include MNA or minimal OES.

Current Site Conditions

The ROD for the SD052-02 (Building 775 OU) was signed in March 2009, implementing installation of recovery wells to extract the groundwater from the Building 775 plume and discharge it to a sanitary sewer for off-site treatment at a wastewater treatment facility or for treatment on site and discharged to Three Mile Creek. The RAOs specified in the ROD consist of achieving the cleanup goal for TCE of 5 µg/L. SVI at this site will be addressed in the SD052-01 and SD052-02 SVI ROD, which was finalized in September 2016. OPS was conferred on April 2009. Pump and treat at SD052-02 is expected to reduce the levels of CVOC contamination in groundwater to levels below NYSDEC Groundwater Standards and achieve SC by FY25 (government projection).

The average depth to groundwater is about 60 ft. The water table exhibits a very low hydraulic gradient (0.005 ft/ft) across the site, with an even lower gradient (0.001 ft/ft) to the northeast between the Nosedock area and the northeast edge of Strategic Air Command (SAC) Hill. The contaminated aquifer is comprised of silty sands with an average thickness extending from 60 ft below ground surface (bgs) to 120 ft bgs where shale bedrock is encountered. Due to a relatively flat gradient, average groundwater velocities at this site are slow and have been estimated at approximately 10 ft/year. Higher velocities may exist in discontinuous seams of coarse sand and gravel. Contamination is not found in the bedrock.

A pilot test was completed in 2017 using permanganate injections into 12 newly installed wells and 3 existing wells. The metric for success was to see permanganate downgradient over time, transported by both injection mechanics and groundwater flow. After 1 year, permanganate was not observed in any site monitoring wells and a subsequent 2018 investigation with soil borings did not find evidence of permanganate even 5 feet from an injection well. Permanganate was still present in the injection wells at that time. Air injection into two injection wells was completed in 2018 to try and displace the permanganate outward to neighboring monitoring wells. This also failed to deliver permanganate to wells 25 and 30 feet away from the injection wells.

Following the pilot test conducted in 2017, the approach to achieve RC at SD052-02 proposed and tested by Bhate was not viable given the impediments to reagent distribution. Therefore, notice was given to the AF that RC could not be met.

Comprehensive Technical Approach

RC was planned to be achieved by implementing ISCO injections to reduce the COCs to RC levels. However, following the pilot test conducted in 2017, the approach proposed by Bhate was not achievable and notice was given to the AF that RC would not be met. The path forward for the site is under evaluation.

Site # 19	**ST006 (Building 101)**
Projected Closure Date:	2021
Performance Objective:	Site Closeout (original)
General Strategy:	Perform SVE treatment system O&M, soil vapor/air/groundwater monitoring, LUC/IC monitoring and FYRs until TCE is remediated. Further direction is required from contracting as SC will not be achieved within the Period of Performance based upon data collected by others after contract award.

Current Site Conditions

The 2012-approved ROD RAOs restrict exposure to contamination and selected LUC/ICs in the form of limiting future use to restricted land use and re-evaluation for SVI if new construction is proposed in the designated restricted area. Based upon the 2013 Site Closure Evaluation, potential for unacceptable risk due to TCE exists for indoor air. To remediate this unacceptable risk, an SVE system was installed in October 2013. The sub-slab vapor screening level is 60 µg/m^3. Sub-slab TCE concentrations continue to exceed the screening level. A rebound evaluation was done in early 2017 that concluded a source may be present. The system then continued to operate and was evaluated via a second rebound study in Fall 2017. The second rebound study was completed using 8-hour Summa canisters. The results indicate a rebound of TCE at Site ST006, though not as wide spread as observed in early 2017. A proposed path forward was sent in letter format to the Contracting Officer (CO) on June 12, 2019. Bhate is awaiting direction from contracting.

Comprehensive Technical Approach

SC was planned to be achieved by optimizing existing systems to reduce the COCs to unrestricted use. However, following the rebound analysis conducted in 2017, the sampling indicated that the system had been ineffective at reducing sub-slab concentrations; additional investigation, system modifications, or both, may be required.

Site # 20, 21, and 22	**SS017 (Lot 69 Former Hazardous Waste Storage Area), DP022 (Building 222), SS025 (T-9 Storage Area)**
Projected Closure Date:	2020
Performance Objective:	Site Closeout

General Strategy:	Collect current site data to document that the sites meet the criteria for unrestricted land use; prepare ESD to remove ROD restrictions; continue LUC monitoring (and FYR if necessary) until NFA determination is achieved; abandon monitoring wells. Achieve SC through SC Reports.

Current Site Conditions

Site SS017: A ROD was signed on March 17, 2005, based on restricted future usage. Based on metals detections in groundwater being associated with suspended solids and consistent with background levels, the groundwater restriction under the ROD was removed in 2013. Based on the Remedial Investigation (RI) data, only one sample location represents a "hot spot" that may require remediation. The risk assessment didn't assess unrestricted reuse for the Polycyclic Aromatic Hydrocarbon (PAH) and PCB detections.

Site DP022: A ROD was signed on September 27, 2001, based on restricted future usage. The groundwater restriction under the ROD was removed in 2013. The risk assessment performed as part of the RI used the maximum detected concentration because less than 10 soil samples were collected. The risk assessment was completed prior to the removal action and didn't consider unrestricted reuse. Bhate completed a boring at DP022 in December 2017 that resulted in a soil sample which indicated lead at elevated levels (2,500 milligrams per kilogram [mg/kg]). Given that this data was not consistent with the previously documented soil results, the Contracting Officer was notified and direction was requested. New LUC boundaries were proposed in the Supplemental Site Investigation Report.

Site SS025: A ROD was signed on September 27, 2001, based on restricted future usage. The groundwater restriction under the ROD was removed in 2013. A removal action was completed in 1998 based upon public comment on the Proposed Plan (PP). The risk assessment performed as part of the RI was completed prior to the removal action and didn't consider unrestricted reuse.

Sites SS017 and SS025: Groundwater usage is no longer restricted and soil levels are likely consistent with residential reuse, but requires a revised risk assessment to confirm. Based upon additional and current soil data, restrictions due to soil contamination at SS017 and SS025 can be removed through ROD amendments.

Comprehensive Technical Approach

We will achieve SC by collecting and assessing more recent site data to document that the site meets unrestricted use criteria. **To achieve SC, the Bhate Team will:**

1) Continue LUC/IC Inspections and FYRs at Site DP022-Building 22 per the ROD: Annual LUC/IC inspections will be completed and presented in an Annual Report. Bhate is awaiting direction from the Contracting Officer on DP022.

Rationale: Our proposed actions will ensure compliance with the ROD, FFA, and CERCLA.

2) Collect soil samples to evaluate the sites for residential reuse. A Work Plan in UFP-QAPP format was prepared to collect soil data (last sampling completed in 1994) to evaluate current detections of containments identified from historical data. The DQOs, including number of soil sample locations and depths, were established during scoping sessions with the BCT. Sufficient soil samples were collected from Site SS017 and SS025 in June 2017 as confirmed by the New York State Regulators (NYSDEC and NYSDOH) during the BCT call on 8 September 2017.

Validated data was used to complete a revised risk assessment for Sites SS025 and SS017 based upon residential reuse. The risk assessments were prepared and reviewed by the USEPA in 2018 and are being incorporated into Site-Specific Supplemental Investigation Reports recommending removal of land use controls and deed restrictions.

Rationale: Previous soil data indicates that a revised risk assessment will achieve unrestricted reuse.

3) Achieve DD and SC: The ESD will be prepared to document the new soil samples and the revised risk assessment or exposure assessment that supports unrestricted reuse. Completion for the ESD or Note to File will also achieve SC for Sites SS025 and SS017.

Rationale: The ESD formalizes the decision of unrestricted use.

Deliverables

Exposure Assessment Work Plan, Annual LTM Reports, Supplemental Investigation Report, ESD, FYR, and SC Report (if necessary)

Why the Selected PPO is the Optimal Solution

This PPO is in the best interest of the AF because it eliminates future liability at the same cost as continuing annual LUC/IC inspections and FYRs. Previous data indicates that a revised exposure assessment should demonstrate unrestricted reuse of each of these three sites is protective of human health and the environment. However, the results from the soil collected at DP022 does not support unrestricted reuse.

Technical Approach Risks and Mitigations

The primary risk to achieving SC is that the additional soil sampling detects PAHs, metals, and/or PCBs at concentrations that create an unacceptable risk to potential future residents. Note: elevated lead was detected at Site DP022 beneath the existing slab on grade building. Bhate is awaiting direction from the Air Force regarding this site. Our mitigation is inclusion of contingency time in the schedule to implement a removal action to excavate the contaminated soil and achieve SC within the POP. A secondary risk is that the ESD is not acceptable to the USEPA and a ROD Amendment must be prepared. Our IMS mitigates this risk by inclusion of contingency time to complete a ROD Amendment.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will comply with the existing ROD by continuing LUCs/ICs and FYR until approval to remove the restrictions is obtained. We will exceed the existing agreements and schedule by achieving SC in the POP.

Business Case Analysis

SC will be achieved at Sites SS025 and SS017, within the POP such that no post-POP LCC activities or costs are required.

Performance Model

No performance model is required with the proposed approach.

Site # 23	**CSS681 (Apron 1 Area LCP-E9)**
Projected Closure Date:	2020

Performance Objective:	Site Closeout
General Strategy:	Submit CAP to install monitoring wells and to complete in-situ treatment of the plume; perform quarterly performance monitoring/reporting, perform rebound analysis, submit spill closure report, decommission monitoring wells, submit SC Report.

Current Site Conditions

In 2014, the vertical and horizontal extent of soil impacts around the former lateral control pit (LCP) was delineated. The extent of the associated groundwater plume was delineated during an investigation in 2017.

Comprehensive Technical Approach

The goal of SC is to reduce source material using ISCO. **In order to achieve the PPO of SC, the Bhate Team will:**

1) Monitor Residual Groundwater Plume: Five monitoring wells were installed to delineate and assess residual groundwater contamination and flow. Monitoring wells were placed downgradient, upgradient, and in the center of the known contamination. A CAP was prepared to identify the well locations and present the sampling plan.

Rationale: Groundwater data to date is based upon grab samples that are not representative of the COCs.

2) Implement Remedial Action to Treat Petroleum Contaminated Groundwater and Smear Zone Soils: The CAP was amended to present the in-situ remedy selected to treat groundwater and the smear zone soils. Contingent actions include:

- **Complete ISCO injections:** Since the amount of residual soil and groundwater impacts are limited, ISCO injections were completed to treat the remaining contamination.

Rationale: The use of ISCO allowed for remediation of the groundwater and/or soil contamination to reduce the presence of the source material. Excavation of the soils is expensive due to the required depth and lateral extent of the excavation because the contamination is in the saturated soils only and is present under 2 feet of re-enforced concrete for Apron 1.

3) Treat the dissolved phase plume: Performance groundwater monitoring will be completed quarterly to monitor contaminant reduction. The treatment may be optimized based upon this monitoring.

Rationale: Performance monitoring will allow for early identification of rebounding or changes in concentration that require further treatment or optimization of the remedy. Per discussions with NYSDEC in November 2018, two additional quarters of groundwater monitoring data will be collected and included in a remedial action implementation report.

4) Achieve SC:

- **Complete Rebound Analysis:** After the cleanup levels have been achieved, groundwater sampling will be completed quarterly for a minimum of 1 year (4 sampling events) to verify that contaminants do not rebound.

Rationale: Sufficient data is required to support NFA.

- **Prepare Spill Closure Report:** This report will document the rebound sampling to support NFA at the spill site.

Rationale: Report will provide sufficient documentation for the NYSDEC to grant closure of the spill.

- **Properly decommission existing monitoring wells:** IAW NYSDEC Groundwater Monitoring Well Decommissioning Policy (Commissioner Policy-43) and prepare a SC Report to achieve SC.

Rationale: Removal of the existing monitoring wells will eliminate future costs to the AF.

Deliverables

CAP, CCR, Annual Performance Monitoring Reports, Spill Closure Report, SC Report, Well and System Decommissioning Report, and non-CERCLA FYR (if necessary).

Why the Selected PPO is the Optimal Solution

The performance objective of SC eliminates AF future liabilities and ultimately provides the lowest LCC versus LTM, O&M, and LUCs/ICs for an indefinite time frame.

Technical Approach Risks and Mitigations

The primary risk is that the ISCO remedy did not oxidize the source materials in the saturated soils and groundwater concentrations fail to be reduced sufficiently to achieve SC without additional injections.

Achieving the PPO IAW Applicable Agreements and Schedule

Our approach will meet the existing agreements by achieving SC per the NYSDEC Corrective Action Program requirements.

Business Case Analysis

SC will be achieved by FY20, which is IAW Attachment 1B of the PWS.

Performance Model

No performance model is required as SC will be achieved within the POP.

Site # 24	**CSS682 (Building 785 Pipeline)**
Projected Closure Date:	2018
Performance Objective:	Site Closeout
General Strategy:	Completed additional in-situ treatment, monitored until cleanup goals were achieved, prepared/submitted a spill closure report, decommissioned monitoring wells, and prepared SC Report to achieve SC.

Current Site Conditions

Contaminated soil was excavated to the extent possible, but some residual petroleum-related (VOC/Semi-volatile Organic Compound [SVOC]) contamination was left due to existing utilities. Klozur® CR was injected in 2015. Bhate collected and analyzed soil samples from two soil borings and groundwater samples from two wells in 2017. The data was included in a 2018 closure report which was approved by the NYSDEC. Wells were abandoned and a Site Closeout Tech Memo submitted to the AF in 2018.

APPENDIX C
PERFORMANCE AND PAYMENT MILESTONES

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Appendix C
Performance and Payment Milestones

Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GPMP.001	2000	Planning	AF Approval of Final PMP-2016	11/23/2016
GPMP.007	2000	Planning	AF Approval of Final Annual Well Inventory/Maintenance Report-2016	3/21/2017
GPMP.002	2001	Planning	AF Approval of Final PMP-2017	1/30/2017
GPMP.008	2001	Planning	AF Approval of Final Annual Well Inventory/Maintenance Report-2017	5/10/2018
GPMP.003	2002	Planning	AF Approval of Final PMP-2018	2/9/2018
GPMP.009	2002	Planning	AF Approval of Final Annual Well Inventory/Maintenance Report-2018	2/25/2019
GPMP.004	2003	Planning	AF Approval of Final PMP-2019	2/21/2019
GPMP.010	2003	Planning	AF Approval of Final Annual Well Inventory/Maintenance Report-2019	3/10/2020
GPMP.005	2004	Planning	AF Approval of Final PMP-2020	3/3/2020
GPMP.011	2004	Planning	AF Approval of Final Annual Well Inventory/Maintenance Report-2020	3/9/2021
GLF001.001	2015	RC	AF Approval of Draft LTM Work Plan	9/6/2016
GLF001.008	2015	RC	AF Approval of Draft Optimization Plan	9/6/2016
GLF001.012	2015	RC	AF Approval of RC Memorandum - Achieve RC	4/28/2017
GLF001.009	2015	RC	AF Approval of Final Optimization Plan	11/10/2016
GLF001.002	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GLF001.003	2015	RC	AF Approval of Final Annual LTM Report at Landfills for 2016	2/17/2017
GLF001.004	2016	RC	AF Approval of Final Annual LTM Report at Landfills for 2017	3/30/2018
GLF001.005	2017	RC	AF Approval of Final Annual LTM Report at Landfills for 2018	11/30/2018
GLF001.006	2018	RC	AF Approval of Final Annual LTM Report at Landfills for 2019	12/31/2019
GLF001.007	2019	RC	AF Approval of Final Annual LTM Report at Landfills for 2020	7/21/2020
GLF001.010	2019	RC	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	11/16/2020
GLF002.001	2015	RC	AF Approval of Draft LTM Work Plan	9/6/2016
GLF002.008	2015	RC	AF Approval of Draft Optimization Plan	9/6/2016
GLF002.012	2015	RC	AF Approval of RC Memorandum- Achieve RC	4/28/2017
GLF002.009	2015	RC	AF Approval of Final Optimization Plan	11/10/2016
GLF002.002	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GLF002.003	2015	RC	AF Approval of Final Annual LTM Report at Landfills for 2016	2/17/2017
GLF002.004	2016	RC	AF Approval of Final Annual LTM Report at Landfills for 2017	3/30/2018
GLF002.005	2017	RC	AF Approval of Final Annual LTM Report at Landfills for 2018	11/30/2018
GLF002.006	2018	RC	AF Approval of Final Annual LTM Report at Landfills for 2019	12/31/2019
GLF002.007	2019	RC	AF Approval of Final Annual LTM Report at Landfills for 2020	7/21/2020
GLF002.010	2019	RC	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	11/16/2020
GLF003.001	2015	RC	AF Approval of Draft LTM Work Plan	9/6/2016
GLF003.008	2015	RC	AF Approval of Draft Optimization Plan	9/6/2016

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Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GLF003.012	2015	RC	AF Approval of RC Memorandum - Achieve RC	4/28/2017
GLF003.009	2015	RC	AF Approval of Final Optimization Plan	11/10/2016
GLF003.002	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GLF003.006	2018	RC	AF Approval of Final Annual LTM Report at Landfills for 2019	12/31/2019
GLF003.010	2019	RC	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	11/16/2020
GLF007.001	2015	RC	AF Approval of Draft LTM Work Plan	9/6/2016
GLF007.008	2015	RC	AF Approval of Draft Optimization Plan	9/6/2016
GLF007.012	2015	RC	AF Approval of RC Memorandum - Achieve RC	4/28/2017
GLF007.009	2015	RC	AF Approval of Final Optimization Plan	11/10/2016
GLF007.002	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GLF007.006	2018	RC	AF Approval of Final Annual LTM Report at Landfills for 2019	12/31/2019
GLF007.010	2019	RC	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	11/16/2020
GLF009.001	2015	RC	AF Approval of Draft LTM Work Plan	9/6/2016
GLF009.008	2015	RC	AF Approval of Draft Optimization Plan	9/6/2016
GLF009.012	2015	RC	AF Approval of RC Memorandum- Achieve RC	4/28/2017
GLF009.009	2015	RC	AF Approval of Final Optimization Plan	11/10/2016
GLF009.002	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GLF009.003	2015	RC	AF Approval of Final Annual LTM Report at Landfills for 2016	2/17/2017
GLF009.004	2016	RC	AF Approval of Final Annual LTM Report at Landfills for 2017	3/30/2018
GLF009.005	2017	RC	AF Approval of Final Annual LTM Report at Landfills for 2018	11/30/2018
GLF009.006	2018	RC	AF Approval of Final Annual LTM Report at Landfills for 2019	12/31/2019
GLF009.007	2019	RC	AF Approval of Final Annual LTM Report at Landfills for 2020	7/21/2020
GLF009.010	2019	RC	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	11/16/2020
GST006.001	2020	SC	AF Approval of Draft 2016 LTM Work Plan Update	9/6/2016
GST006.003	2020	SC	AF Approval of Final Annual 2016 LTM Report	2/13/2018
GST006.002	2020	SC	AF and Regulator Approval of Final 2016 LTM Work Plan Update	11/10/2016
GST006.005	2022	SC	AF Approval of Draft RA Work Plan	2/18/2019
GST006.006	2022	SC	Regulator Approval of Final RA Work Plan	5/22/2019
GST006.007	2023	SC	AF Approval of Draft ESD	7/6/2020
GST006.008	2023	SC	Regulator Approval of Final ESD	11/20/2020
GST006.009	2024	SC	AF Approval of Draft RACR	1/26/2021
GST006.010	2024	SC	AF and Regulator Approval of Final RACR;AF Approval of ERPIMS Upload	4/29/2021
GST006.011	2024	SC	AF Approval of Final Site Closeout and Well & System Decommissioning Report; Distribute Report to Regulators - Achieve SC	6/9/2021
GSS008.001	2005	SQ	AF Approval of Final 2016 Annual LTM Report	2/1/2017
GSS008.002	2006	SQ	AF Approval of Final 2017 Annual LTM Report	3/28/2018
GSS008.003	2007	SQ	AF Approval of Final 2018 Annual LTM Report	1/8/2019
GSS008.004	2008	SQ	AF Approval of Final 2019 Annual LTM Report	1/7/2020

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Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GSS008.005	2009	SQ	AF Approval of Final 2020 Annual LTM Report; Distribute Report to Regulators-Achieve SQ	11/9/2020
GSS033.001	2005	SQ	AF Approval of Final 2016 Annual LTM Report	2/1/2017
GSS033.002	2006	SQ	AF Approval of Final 2017 Annual LTM Report	3/28/2018
GSS033.003	2007	SQ	AF Approval of Final 2018 Annual LTM Report	1/8/2019
GSS033.004	2008	SQ	AF Approval of Final 2019 Annual LTM Report	1/7/2020
GSS033.005	2009	SQ	AF Approval of Final 2020 Annual LTM Report; Distribute Report to Regulators-Achieve SQ	11/9/2020
GSS044.001	2005	SQ	AF Approval of Final 2016 Annual LTM Report	2/1/2017
GSS044.002	2006	SQ	AF Approval of Final 2017 Annual LTM Report	3/28/2018
GSS044.003	2007	SQ	AF Approval of Final 2018 Annual LTM Report	1/8/2019
GSS044.004	2008	SQ	AF Approval of Final 2019 Annual LTM Report	1/7/2020
GSS044.005	2009	SQ	AF Approval of Final 2020 Annual LTM Report; Distribute Report to Regulators-Achieve SQ	11/9/2020
GSS060.001	2005	SQ	AF Approval of Final 2016 Annual LTM Report	2/1/2017
GSS060.002	2006	SQ	AF Approval of Final 2017 Annual LTM Report	3/28/2018
GSS060.003	2007	SQ	AF Approval of Final 2018 Annual LTM Report	1/8/2019
GSS060.004	2008	SQ	AF Approval of Final 2019 Annual LTM Report	1/7/2020
GSS060.005	2009	SQ	AF Approval of Final 2020 Annual LTM Report; Distribute Report to Regulators-Achieve SQ	11/9/2020
GAOI66.001	2005	SQ	AF Approval of Final 2016 Annual LTM Report	2/1/2017
GAOI66.002	2006	SQ	AF Approval of Final 2017 Annual LTM Report	3/28/2018
GAOI66.003	2007	SQ	AF Approval of Final 2018 Annual LTM Report	1/8/2019
GAOI66.004	2008	SQ	AF Approval of Final 2019 Annual LTM Report	1/7/2020
GAOI66.005	2009	SQ	AF Approval of Final 2020 Annual LTM Report; Distribute Report to Regulators-Achieve SQ	11/9/2020
GSS017.001	2020	SC	AF Approval of Draft SI Work Plan	11/16/2016
GSS017.002	2020	SC	Regulator Approval of Final SI Work Plan	2/1/2017
GSS017.003	2021	SC	AF Approval of Final Annual LUC Report-2016	2/1/2017
GSS017.004	2021	SC	AF Approval of Final Annual LUC Report-2017	3/30/2018
GSS017.005	2022	SC	AF Approval of Final Annual LUC Report-2018	12/26/2018
GSS017.008	2023	SC	AF Approval of Draft SI Report	4/11/2019
GSS017.009	2023	SC	Regulator Approval of Final SI Report	7/15/2019
GSS017.007	2023	SC	Regulator Approval of Final ESD - Achieve SC	2/10/2020
GDP022.001	2020	SC	AF Approval of Draft SI Work Plan	11/16/2016
GDP022.002	2020	SC	Regulator Approval of Final SI Work Plan	2/1/2017
GDP022.003	2021	SC	AF Approval of Final Annual LUC Report-2016	2/1/2017
GDP022.004	2021	SC	AF Approval of Final Annual LUC Report-2017	3/30/2018
GDP022.005	2022	SC	AF Approval of Final Annual LUC Report-2018	12/26/2018
GDP022.008	2023	SC	AF Approval of Draft SI Report	4/11/2019
GDP022.009	2023	SC	Regulator Approval of Final SI Report	7/15/2019
GDP022.007	2023	SC	Regulator Approval of Final ESD- Achieve SC	2/10/2020
GSS025.001	2020	SC	AF Approval of Draft SI Work Plan	11/16/2016
GSS025.002	2020	SC	Regulator Approval of Final SI Work Plan	2/1/2017
GSS025.003	2021	SC	AF Approval of Final Annual LUC Report-2016	2/1/2017
GSS025.004	2021	SC	AF Approval of Final Annual LUC Report-2017	3/30/2018
GSS025.005	2022	SC	AF Approval of Final Annual LUC Report-2018	12/26/2018
GSS025.008	2023	SC	AF Approval of Draft SI Report	4/11/2019
GSS025.009	2023	SC	Regulator Approval of Final SI Report	7/15/2019
GSS025.007	2023	SC	Regulator Approval of Final ESD-Achieve SC	2/10/2020
GSD052-01.001	2010	OES	AF Approval of Draft Remedial Optimization Work Plan	12/22/2016

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Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GSD052-01.003	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSD052-01.004	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016
GSD052-01.002	2010	OES	Regulator Approval of Final Remedial Optimization Work Plan	3/13/2017
GSD052-01.005	2010	OES	AF Approval of Final Annual LTM Report-2016	5/25/2017
GSD052-01.006	2011	OES	AF Approval of Final Annual LTM Report-2017	5/3/2018
GSD052-01.007	2012	OES	AF Approval of Final Annual LTM Report-2018	2/27/2019
GSD052-01.012	2012	OES	AF Approval of Draft ESD	5/28/2019
GSD052-01.013	2013	OES	Regulator Approval of Final ESD	8/16/2019
GSD052-01.008	2013	OES	AF Approval of Final Annual LTM Report-2019	2/14/2020
GSD052-01.009	2014	OES	AF Approval of Final Annual Report-2020	2/3/2021
GSD052-01.010	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	3/31/2021
GSD052-02.016	2015	RC	AF Approval of Draft LTM Work Plan	9/12/2016
GSD052-02.001	2015	RC	AF Approval of Draft Remedial Optimization Work Plan	12/22/2016
GSD052-02.017	2015	RC	Regulator Approval of Final LTM Work Plan	11/10/2016
GSD052-02.002	2015	RC	Regulator Approval of Final Remedial Optimization Work Plan	3/13/2017
GSD052-02.011	2015	RC	AF Approval of Final Annual LTM Report-2016	5/25/2017
~~GSD052-02.007~~	~~2015~~	~~RC~~	~~#N/A~~	7/10/2017
~~GSD052-02.008~~	~~2015~~	~~RC~~	~~#N/A~~	10/9/2017
~~GSD052-02.018~~	~~2016~~	~~RC~~	~~#N/A~~	1/8/2018
GSD052-02.007	2015	RC	#N/A	7/10/2017
GSD052-02.008	2015	RC	#N/A	10/9/2017
GSD052-02.003	2016	RC	AF Approval of Draft FFS	4/23/2018
GSD052-02.012	2016	RC	AF Approval of Draft Final LTM Report-2017	5/3/2018
GSD052-02.004	2016	RC	Regulator Approval of Final FFS	7/13/2018
GSD052-02.005	2017	RC	AF Approval of Draft Proposed Plan	10/9/2018
GSD052-02.013	2017	RC	AF Approval of Final Annual LTM Report-2018	2/8/2019
GSD052-02.006	2017	RC	Regulator Approval of Final Proposed Plan	5/2/2019
GSD052-02.009	2017	RC	AF Approval of Draft ESD	7/10/2019
GSD052-02.010	2018	RC	Regulator Approval of Final ESD	9/3/2019
GSD052-02.014	2018	RC	AF Approval of Final Annual LTM Report-2019	2/18/2020
GSD052-02.015	2019	RC	AF Approval of Final Annual LTM Report-Achieve RC	1/29/2021
GSD052-02.019	2015	RC	AF Approval of Draft Pilot Study Report	1/8/2019
GSD052-02.020	2016	RC	AF Approval of Final Pilot Study Report	4/9/2019
GSD052-04.003	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSD052-04.001	2010	OES	AF Approval of Draft Remedial Optimization Work Plan	12/22/2016
GSD052-04.004	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016
GSD052-04.002	2010	OES	Regulator Approval of Final Remedial Optimization Work Plan	3/13/2017
GSD052-04.005	2010	OES	AF Approval of Final Annual LTM Report-2016	5/25/2017
GSD052-04.007	2011	OES	AF Approval of Final Annual LTM Report-2017	5/3/2018
GSD052-04.008	2012	OES	AF Approval of Final Annual LTM Report-2018	2/27/2019
GSD052-04.009	2013	OES	AF Approval of Final Annual LTM Report-2019	2/14/2020
GSD052-04.010	2014	OES	AF Approval of Final Annual Report-2020	12/9/2020
GSD052-04.011	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	2/9/2021
GSD052-05.003	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSD052-05.001	2010	OES	AF Approval of Draft Remedial Optimization Work Plan	12/22/2016
GSD052-05.004	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016

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Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GSD052-05.002	2010	OES	Regulator Approval of Final Remedial Optimization Work Plan	3/13/2017
GSD052-05.005	2010	OES	AF Approval of Final Annual LTM Report	5/25/2017
GSD052-05.006	2011	OES	AF Approval of Final Annual LTM Report	5/3/2018
GSD052-05.007	2012	OES	AF Approval of Final Annual LTM Report	2/21/2019
GSD052-05.008	2013	OES	AF Approval of Final Annual LTM Report	2/10/2020
GSD052-05.009	2014	OES	AF Approval of Final Annual Report	11/5/2020
GSD052-05.010	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	1/4/2021
GSD052SVI.001	2010	OES	AF Approval of Draft Optimization Plan	12/22/2016
GSD052SVI.002	2010	OES	AF Approval of Final Optimization Plan	2/21/2017
GSD052SVI.003	2010	OES	AF Approval of Draft Construction Completion Report	9/3/2018
GSD052SVI.004	2010	OES	Regulator Approval of Final Construction Completion Report	10/29/2018
GSD052SVI.005	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSD052SVI.006	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016
GSD052SVI.007	2010	OES	AF Approval of Final O&M Report	8/2/2017
GSD052SVI.008	2011	OES	AF Approval of Final O&M Report	9/26/2018
GSD052SVI.009	2011	OES	AF Approval of Final O&M Report	11/19/2019
GSD052SVI.010	2011	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	4/16/2020
GSS054.001	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSS054.008	2010	OES	AF Approval of Draft Optimization Plan	9/15/2016
GSS054.009	2010	OES	AF Approval of Final Optimization Plan	12/23/2016
GSS054.002	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016
GSS054.003	2010	OES	AF Approval of Final 2016 Annual LTM and O&M Report	6/6/2017
GSS054.004	2011	OES	AF Approval of Final 2017 Annual LTM and O&M Report	5/21/2018
GSS054.005	2012	OES	AF Approval of Final 2018 Annual LTM and O&M Report	10/31/2018
GSS054.006	2013	OES	AF Approval of Final 2019 Annual LTM and O&M Report	11/15/2019
GSS054.007	2014	OES	AF Approval of Final 2020 Annual LTM and O&M Report	9/23/2020
GSS054.010	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	10/21/2020
GSS062.001	2010	OES	AF Approval of Draft Remedial Optimization Work Plan	9/16/2016
GSS062.005	2010	OES	AF Approval of Draft LTM Work Plan	9/12/2016
GSS062.006	2010	OES	Regulator Approval of Final LTM Work Plan	11/10/2016
GSS062.002	2010	OES	Regulator Approval of Final Remedial Optimization Work Plan	11/21/2016
GSS062.007	2010	OES	AF Approval of Final 2016 Annual LTM Report	5/25/2017
GSS062.008	2011	OES	AF Approval of Final Annual 2017 LTM Report	5/3/2018
GSS062.009	2012	OES	AF Approval of Final 2018 Annual LTM Report	2/15/2019
GSS062.010	2013	OES	AF Approval of Final 2019 Annual LTM Report	2/4/2020
GSS062.003	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	3/5/2021
GSS062.011	2014	OES	AF Approval of Final 2020 Annual LTM Report	1/8/2021
GCSS681.001	2020	SC	AF Approval of Draft Corrective Action Plan	4/21/2017
GCSS681.002	2020	SC	Regulator Approval of Final CAP	9/21/2017
GCSS681.003	2021	SC	AF Approval of Draft CCR	12/12/2018
GCSS681.004	2021	SC	Regulator Approval of Final CCR	4/4/2019
GCSS681.005	2022	SC	AF Approval of Final Year 2 Annual Performance Monitoring Report	11/22/2019
GCSS681.006	2023	SC	AF Approval of Draft Spill Closure Report	10/14/2020

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Milestone Number	CLINs	Outcome	Task Name	Milestone Completion Date
GCSS681.007	2024	SC	AF and Regulator Approval of Final Spill Closure Report; AF Approval of ERPIMS Upload	2/4/2021
GCSS681.008	2024	SC	AF Approval of Final Site Closeout and Well & System Decommissioning Report; Distribute Report to Regulators-Achieve SC	5/12/2021
GSS067.001	2010	OES	AF Approval of Draft Corrective Action Plan	4/21/2017
GSS067.002	2010	OES	Regulator Approval of Final CAP	8/9/2017
GSS067.005	2010	OES	AF Approval of Final 2016 Annual Performance Monitoring Report	6/6/2017
GSS067.003	2010	OES	AF Approval of Draft CCR	6/12/2018
GSS067.004	2011	OES	Regulator Approval of Final CCR	9/3/2018
GSS067.010	2011	OES	AF Approval of Draft Optimization Plan	11/30/2018
GSS067.011	2011	OES	AF Approval of Final Optimization Plan	2/5/2019
GSS067.006	2011	OES	AF Approval o Final 2017 Annual Performance Monitoring Report	5/21/2018
GSS067.007	2012	OES	AF Approval of Final 2018 Annual Performance Monitoring Report	10/25/2018
GSS067.008	2013	OES	AF Approval of Final 2019 Annual Performance Monitoring Report	11/14/2019
GSS067.009	2014	OES	AF Approval of Final 2020 Annual Performance Monitoring Report	5/19/2020
GSS067.012	2014	OES	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	7/2/2020
GCSS682.001	2020	SC	AF Approval of Draft Corrective Action Plan Amendment (if required)	4/21/2017
GCSS682.002	2020	SC	Regulator Approval of Final Corrective Action Plan Amendment (if required)	9/8/2017
GCSS682.003	2021	SC	AF Approval of Final 2017 Annual Performance Monitoring Report	5/21/2018
GCSS682.004	2022	SC	AF Approval of Final 2018 Annual Performance Monitoring Report	5/8/2019
GCSS682.005	2023	SC	AF Approval of Draft Spill Closure	3/30/2018
GCSS682.006	2023	SC	AF and Regulator Approval of Final Spill Closure; AF Approval of ERPIMS Upload	5/9/2018
GCSS682.007	2023	SC	AF Approval of Final Site Closeout and Well Decommissioning Report; Distribute Report to Regulators-Achieve SC	12/11/2018

APPENDIX D
CONTACT INFORMATION

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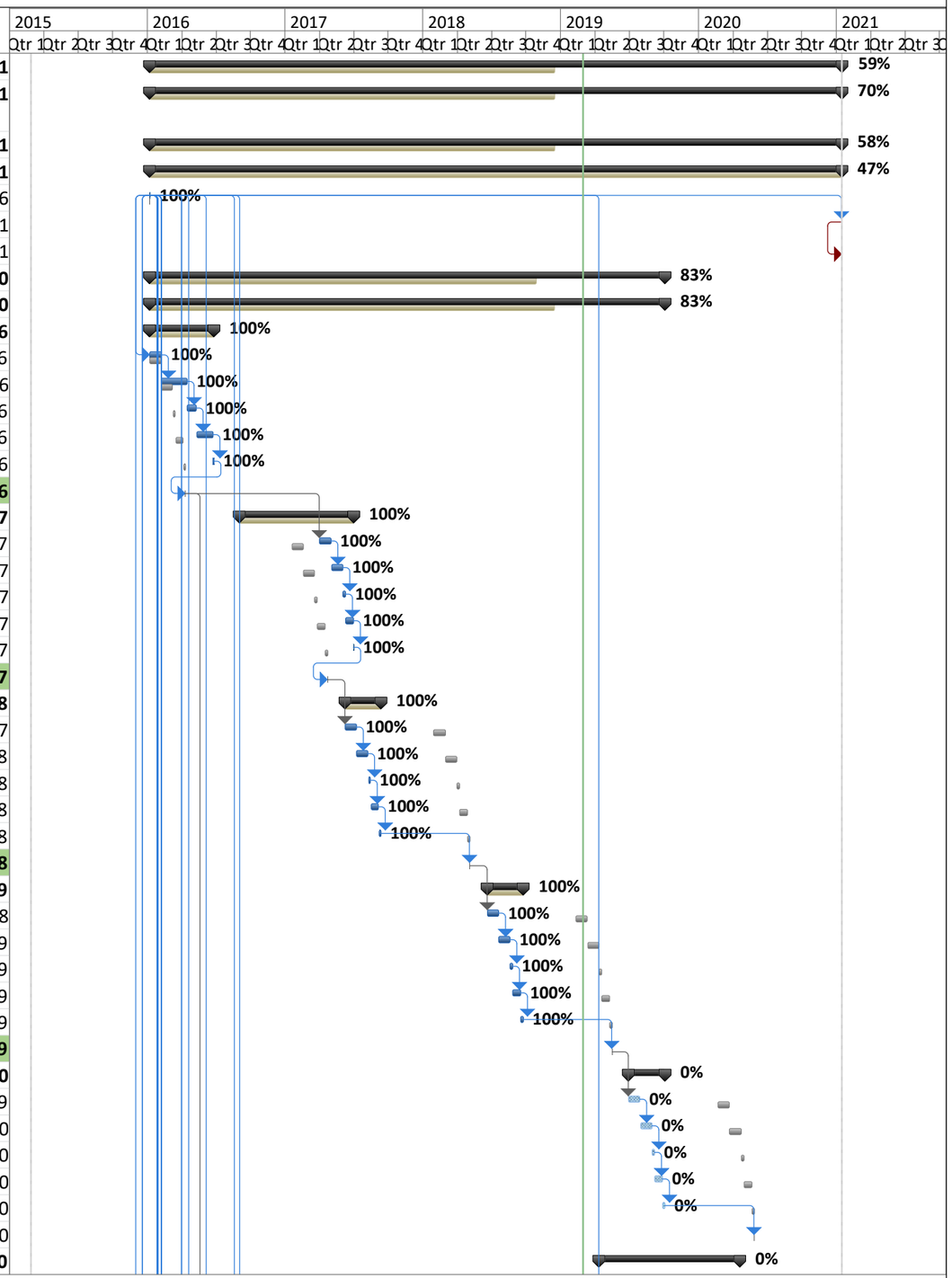
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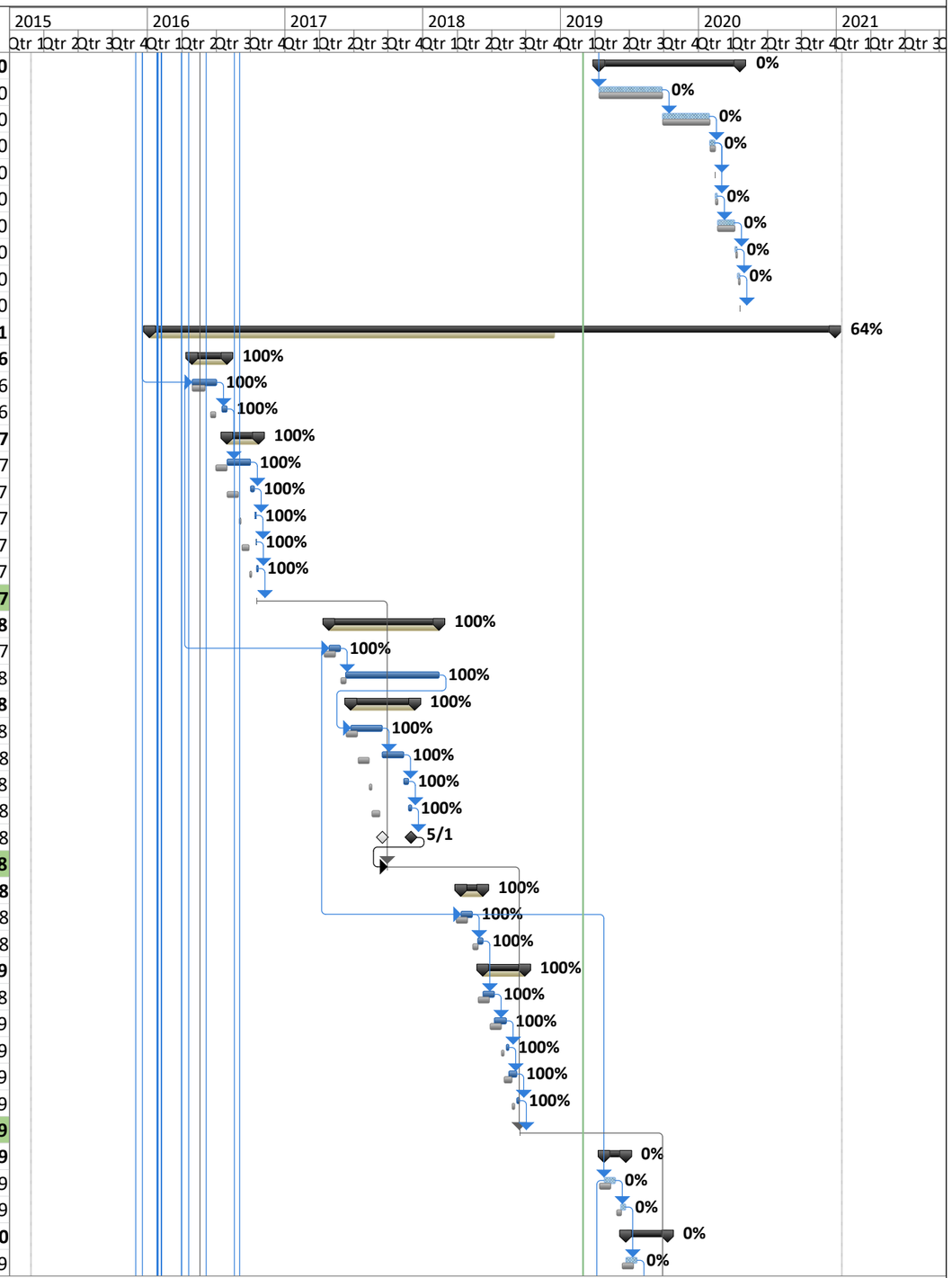
APPENDIX E
PROJECT SCHEDULE

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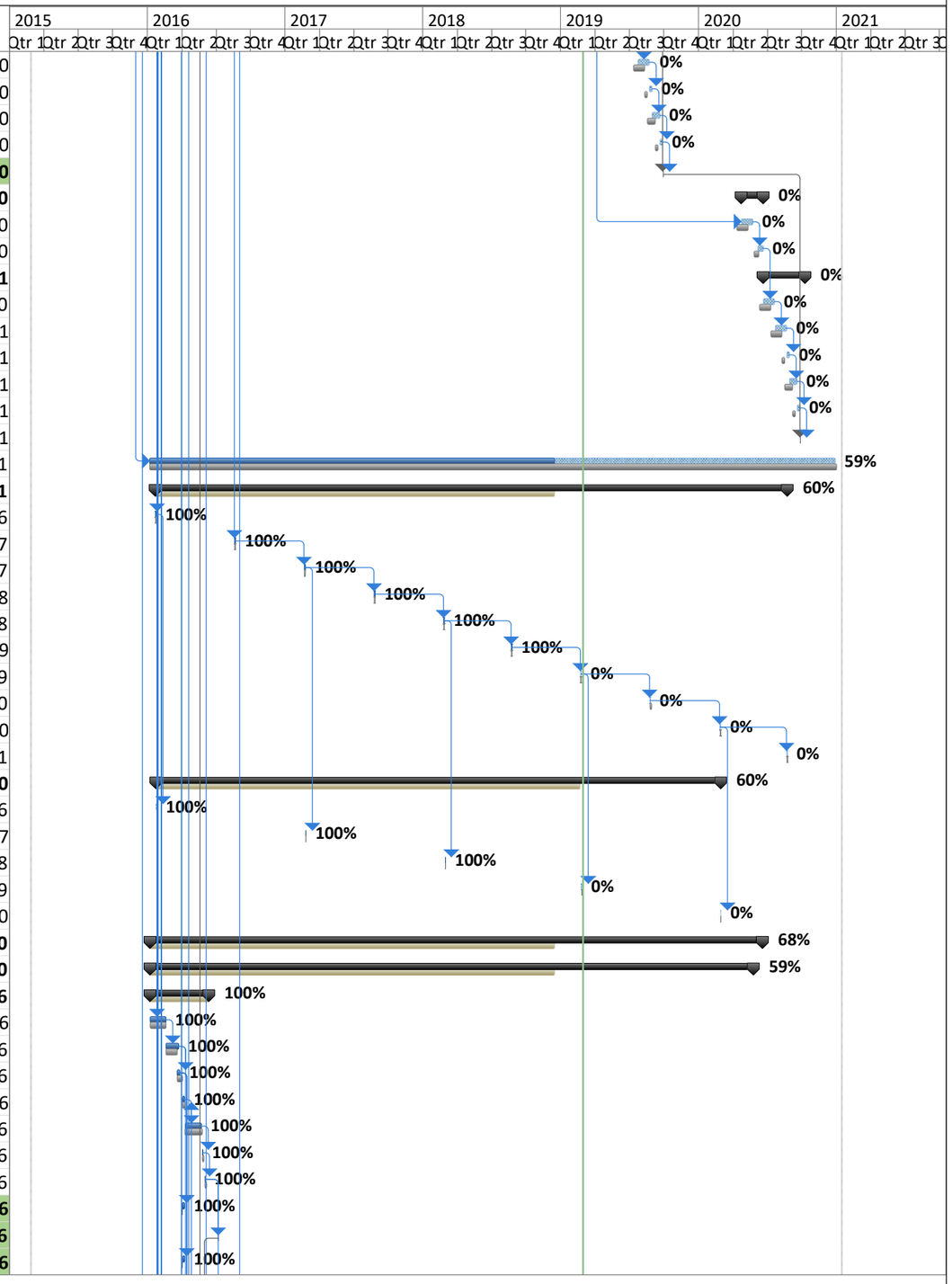
ID	Unique ID	CLIN	Description	Duration	Start	Finish
1	**6543**		**BRAC Project**	**1312 days**	**Tue 6/7/16**	**Tue 6/15/21**
952	**1**		**Environmental Services for Eastern Region Base Realignment and Closure (BRAC) Bases - Griffiss AFB**	**1312 days**	**Tue 6/7/16**	**Tue 6/15/21**
953	**2**		**Contract Management**	**1312 days**	**Tue 6/7/16**	**Tue 6/15/21**
954	**3**		**Period of Performance (POP)**	**1312 days**	**Tue 6/7/16**	**Tue 6/15/21**
955	5		Notice to Proceed	1 day	Tue 6/7/16	Tue 6/7/16
956	6		Project Work Complete	1 day	Tue 6/15/21	Tue 6/15/21
957	7		Contractual End Date : 15 June 2021	1 day	Tue 6/15/21	Tue 6/15/21
958	**6298**		**Project Management Plan (PMP)**	**977 days**	**Tue 6/7/16**	**Tue 3/3/20**
959	**8**		**Project Management Plan (PMP)**	**977 days**	**Tue 6/7/16**	**Tue 3/3/20**
960	**6365**		**Opening Phase of PMP -2016**	**122 days**	**Tue 6/7/16**	**Wed 11/23/16**
961	10		Prepare Working Copy of PMP	23 days	Tue 6/7/16	Thu 7/7/16
962	11		Air Force Review of Working Copy	49 days	Thu 7/7/16	Tue 9/13/16
963	12		Resolve AF Comments on Working Copy AF	18 days	Wed 9/14/16	Fri 10/7/16
964	13		AF Review and Approval of RTCs	31 days	Mon 10/10/16	Mon 11/21/16
965	14		Prepare Final PMP	2 days	Tue 11/22/16	Wed 11/23/16
966	**15**	**2000**	**AF Approval of Final PMP-2016**	**0 days**	**Wed 11/23/16**	**Wed 11/23/16**
967	**6366**		**2017 Update to PMP**	**217 days**	**Mon 1/30/17**	**Wed 11/29/17**
968	6079		Review and Update PMP - 2017	22 days	Thu 8/31/17	Fri 9/29/17
969	6080		AF Review of Updated PMP - 2017	22 days	Mon 10/2/17	Tue 10/31/17
970	6367		Resolve AF Comments on Working Copy AF	5 days	Wed 11/1/17	Tue 11/7/17
971	6368		AF Review and Approval of RTCs	15 days	Wed 11/8/17	Tue 11/28/17
972	6369		Prepare Final PMP	1 day	Wed 11/29/17	Wed 11/29/17
973	**6370**	**2001**	**AF Approval of Final PMP-2017**	**0 days**	**Mon 1/30/17**	**Mon 1/30/17**
974	**6371**		**2018 Update to PMP**	**69 days**	**Tue 11/7/17**	**Fri 2/9/18**
975	6082		Review and Update PMP - 2018	22 days	Tue 11/7/17	Wed 12/6/17
976	6083		AF Review of Updated PMP -2018	22 days	Thu 12/7/17	Fri 1/5/18
977	6372		Resolve AF Comments on Working Copy AF	5 days	Mon 1/8/18	Fri 1/12/18
978	6373		AF Review and Approval of RTCs	15 days	Mon 1/15/18	Fri 2/2/18
979	6374		Prepare Final PMP	5 days	Mon 2/5/18	Fri 2/9/18
980	**6375**	**2002**	**AF Approval of Final PMP-2018**	**0 days**	**Fri 2/9/18**	**Fri 2/9/18**
981	**6376**		**2019 Update to PMP**	**69 days**	**Mon 11/19/18**	**Thu 2/21/19**
982	6085		Review and Update PMP - Year 2019	22 days	Mon 11/19/18	Tue 12/18/18
983	6086		AF Review of Updated PMP - Year 2019	22 days	Wed 12/19/18	Thu 1/17/19
984	6378		Resolve AF Comments on Working Copy AF	5 days	Fri 1/18/19	Thu 1/24/19
985	6379		AF Review and Approval of RTCs	15 days	Fri 1/25/19	Thu 2/14/19
986	6380		Prepare Final PMP	5 days	Fri 2/15/19	Thu 2/21/19
987	**6381**	**2003**	**AF Approval of Final PMP-2019**	**0 days**	**Thu 2/21/19**	**Thu 2/21/19**
988	**6377**		**2020 Update to PMP**	**69 days**	**Thu 11/28/19**	**Tue 3/3/20**
989	6109		Review and Update PMP - Year 2020	22 days	Thu 11/28/19	Fri 12/27/19
990	6110		AF Review of Updated PMP - Year 2020	22 days	Mon 12/30/19	Tue 1/28/20
991	6382		Resolve AF Comments on Working Copy AF	5 days	Wed 1/29/20	Tue 2/4/20
992	6383		AF Review and Approval of RTCs	15 days	Wed 2/5/20	Tue 2/25/20
993	6384		Prepare Final PMP	5 days	Wed 2/26/20	Tue 3/3/20
994	6385	2004	AF Approval of Final PMP-2020	0 days	Tue 3/3/20	Tue 3/3/20
995	**6299**		**Five Year Review CERCLA and non-CERCLA**	**268 days**	**Wed 9/11/19**	**Thu 9/17/20**


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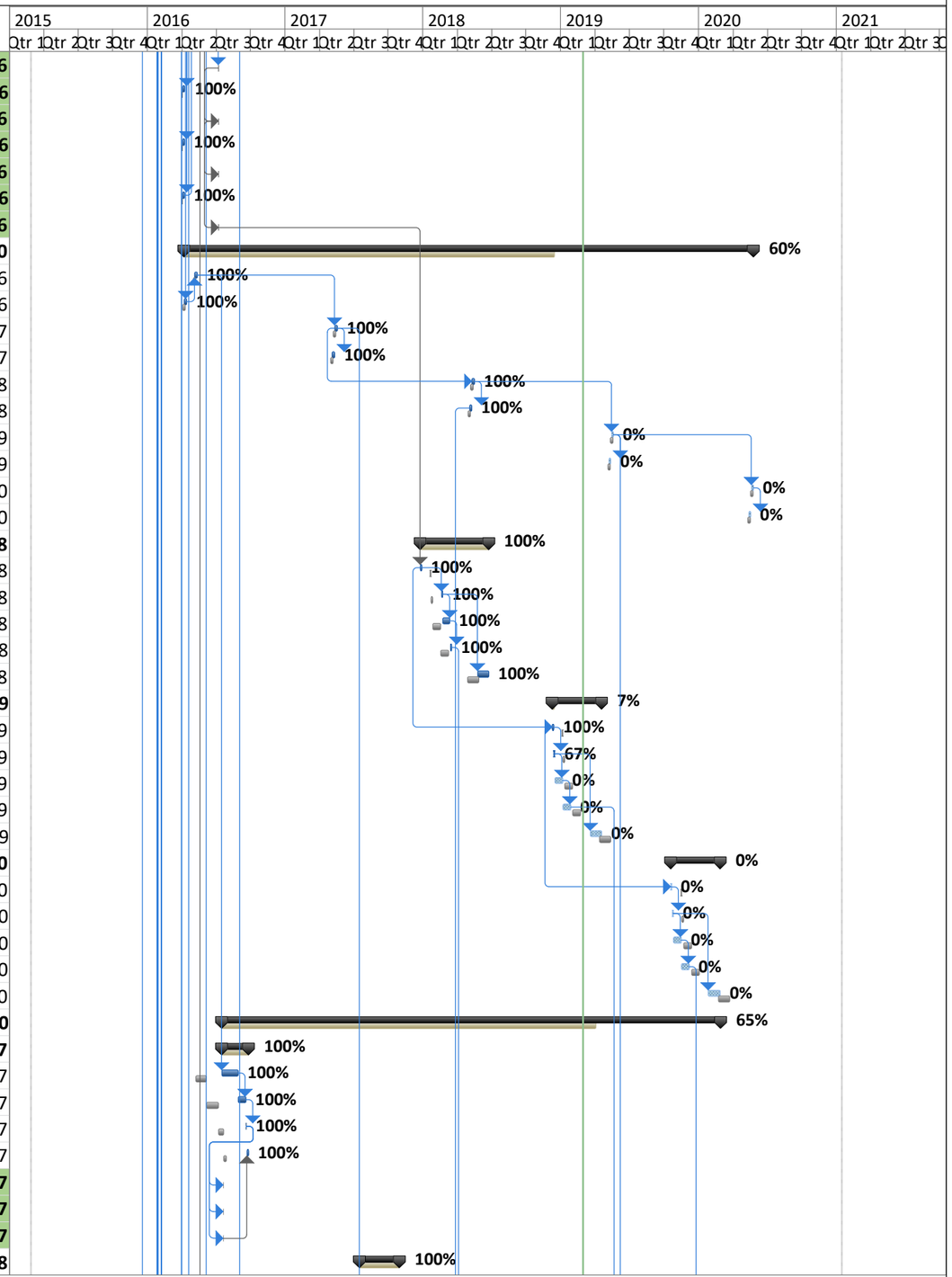
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996	**6280**		**Five Year Review**	**268 days**	**Wed 9/11/19**	**Thu 9/17/20**
997	6281		Prepare Working Copy of Five Year Review	120 days	Wed 9/11/19	Mon 2/24/20
998	6282		AF Review of Working Copy of Five Year Review	90 days	Tue 2/25/20	Mon 6/29/20
999	6283		Resolve AF Comments on Working Copy of Five Year Review	10 days	Tue 6/30/20	Mon 7/13/20
1000	6284		AF Approval of Draft Five Year Review	0 days	Mon 7/13/20	Mon 7/13/20
1001	6289		Submit Draft Five Year Review to Regulators	5 days	Tue 7/14/20	Mon 7/20/20
1002	6290		Regulator Review of Draft Five Year Review	45 edays	Mon 7/20/20	Thu 9/3/20
1003	6291		RTC Regulator Comments on Draft Five Year Review	5 days	Fri 9/4/20	Thu 9/10/20
1004	6292		Prepare Final Five Year Review	5 days	Fri 9/11/20	Thu 9/17/20
1005	6293		Regulator Approval of Final Five Year Review	0 days	Thu 9/17/20	Thu 9/17/20
1006	**2360**		**Well Maintenance and Inspections**	**1300 days**	**Tue 6/7/16**	**Fri 5/28/21**
1007	**2361**		**Annual Well Inspection/Maintenance**	**67 days**	**Tue 9/27/16**	**Wed 12/28/16**
1008	2362		Annual Field Inspection and Inventory of Existing Wells	47 days	Tue 9/27/16	Wed 11/30/16
1009	2363		Maintenance of Wells, as needed	10 days	Thu 12/15/16	Wed 12/28/16
1010	**2364**		**Annual Well Inventory /Maintenance Report-2016**	**59 days**	**Thu 12/29/16**	**Tue 3/21/17**
1011	2365		Prepare Working Copy of Report	44 days	Thu 12/29/16	Tue 2/28/17
1012	2366		Air Force Review of Working Copy	8 days	Wed 3/1/17	Fri 3/10/17
1013	2367		Resolve AF Comments on Working Copy AF	3 days	Mon 3/13/17	Wed 3/15/17
1014	2368		AF Review and Approval of RTCs	1 day	Thu 3/16/17	Thu 3/16/17
1015	2369		Prepare Final Annual Well Inventory/Maintenance Report	2 days	Fri 3/17/17	Mon 3/20/17
1016	**2370**	**2000**	**AF Approval of Final Annual Well Inventory/Maintenance Repor**	**0 days**	**Tue 3/21/17**	**Tue 3/21/17**
1017	**2371**		**Annual Well Inspection/Maintenance**	**210 days**	**Mon 9/25/17**	**Fri 7/13/18**
1018	2372		Annual Field Inspection and Inventory of Existing Wells	22 days	Mon 9/25/17	Tue 10/24/17
1019	2373		Maintenance of Wells, as needed	178 days	Wed 11/8/17	Fri 7/13/18
1020	**2374**		**Annual Well Inventory /Maintenance Report-2017**	**122 days**	**Wed 11/22/17**	**Thu 5/10/18**
1021	2375		Prepare Working Copy of Report	59 days	Wed 11/22/17	Mon 2/12/18
1022	2376		Air Force Review of Working Copy	41 days	Tue 2/13/18	Tue 4/10/18
1023	2377		Resolve AF Comments on Working Copy AF	9 days	Wed 4/11/18	Mon 4/23/18
1024	2378		AF Review and Approval of RTCs	6 days	Tue 4/24/18	Tue 5/1/18
1025	2379		Prepare Final Annual Well Inventory/Maintenance Report	0 days	Tue 5/1/18	Tue 5/1/18
1026	**2380**	**2001**	**AF Approval of Final Annual Well Inventory/Maintenance Repor**	**0 days**	**Thu 5/10/18**	**Thu 5/10/18**
1027	**2381**		**Annual Well Inspection/Maintenance**	**42 days**	**Mon 9/10/18**	**Tue 11/6/18**
1028	2382		Annual Field Inspection and Inventory of Existing Wells	22 days	Mon 9/10/18	Tue 10/9/18
1029	2383		Maintenance of Wells, as needed	10 days	Wed 10/24/18	Tue 11/6/18
1030	**2384**		**Annual Well Inventory /Maintenance Report-2018**	**79 days**	**Wed 11/7/18**	**Mon 2/25/19**
1031	2385		Prepare Working Copy of Report	22 days	Wed 11/7/18	Thu 12/6/18
1032	2386		Air Force Review of Working Copy	22 days	Fri 12/7/18	Mon 1/7/19
1033	2387		Resolve AF Comments on Working Copy AF	5 days	Tue 1/8/19	Mon 1/14/19
1034	2388		AF Review and Approval of RTCs	15 days	Tue 1/15/19	Mon 2/4/19
1035	2389		Prepare Final Annual Well Inventory/Maintenance Report	5 days	Tue 2/5/19	Mon 2/11/19
1036	**2390**	**2002**	**AF Approval of Final Annual Well Inventory/Maintenance Repor**	**0 days**	**Mon 2/25/19**	**Mon 2/25/19**
1037	**2401**		**Annual Well Inspection/Maintenance**	**42 days**	**Tue 9/24/19**	**Wed 11/20/19**
1038	2402		Annual Field Inspection and Inventory of Existing Wells	22 days	Tue 9/24/19	Wed 10/23/19
1039	2403		Maintenance of Wells, as needed	10 days	Thu 11/7/19	Wed 11/20/19
1040	**2404**		**Annual Well Inventory /Maintenance Report-2019**	**79 days**	**Thu 11/21/19**	**Tue 3/10/20**
1041	2405		Prepare Working Copy of Report	22 days	Thu 11/21/19	Fri 12/20/19



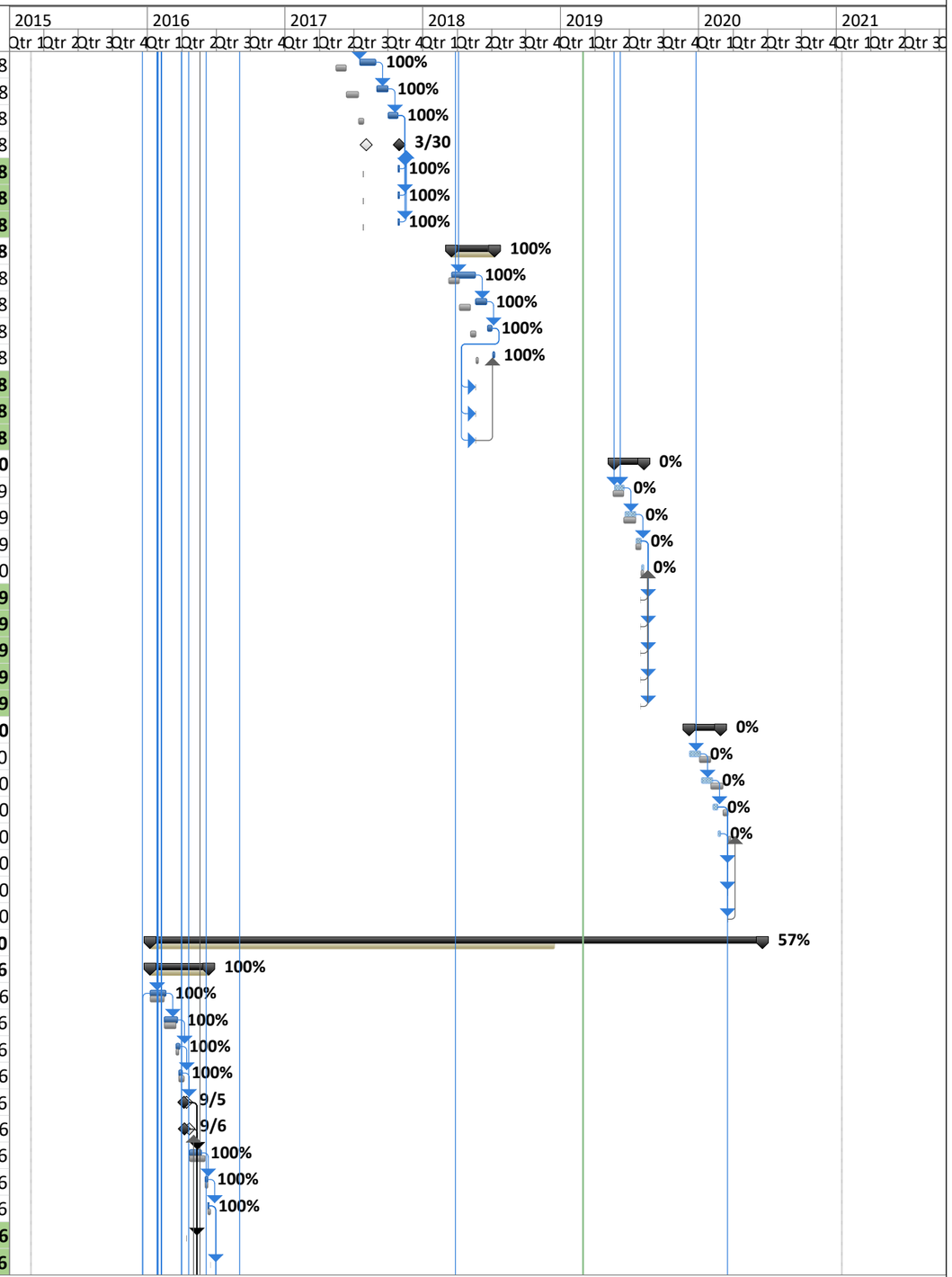
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1042	2406		Air Force Review of Working Copy	22 days	Mon 12/23/19	Tue 1/21/20
1043	2407		Resolve AF Comments on Working Copy AF	5 days	Wed 1/22/20	Tue 1/28/20
1044	2408		AF Review and Approval of RTCs	15 days	Wed 1/29/20	Tue 2/18/20
1045	2409		Prepare Final Annual Well Inventory/Maintenance Report	5 days	Wed 2/19/20	Tue 2/25/20
1046	**2410**	**2003**	**AF Approval of Final Annual Well Inventory/Maintenance Repor**	**0 days**	**Tue 3/10/20**	**Tue 3/10/20**
1047	**2391**		**Annual Well Inspection/Maintenance**	**42 days**	**Tue 9/22/20**	**Wed 11/18/20**
1048	2392		Annual Field Inspection and Inventory of Existing Wells	22 days	Tue 9/22/20	Wed 10/21/20
1049	2393		Maintenance of Wells, as needed	10 days	Thu 11/5/20	Wed 11/18/20
1050	**2394**		**Annual Well Inventory /Maintenance Report-2020**	**79 days**	**Thu 11/19/20**	**Tue 3/9/21**
1051	2395		Prepare Working Copy of Report	22 days	Thu 11/19/20	Fri 12/18/20
1052	2396		Air Force Review of Working Copy	22 days	Mon 12/21/20	Tue 1/19/21
1053	2397		Resolve AF Comments on Working Copy AF	5 days	Wed 1/20/21	Tue 1/26/21
1054	2398		AF Review and Approval of RTCs	15 days	Wed 1/27/21	Tue 2/16/21
1055	2399		Prepare Final Annual Well Inventory/Maintenance Report	5 days	Wed 2/17/21	Tue 2/23/21
1056	2400	2004	AF Approval of Final Annual Well Inventory/Maintenance Report-	0 days	Tue 3/9/21	Tue 3/9/21
1057	2341		Monthly BCT Teleconferences	1300 days	Tue 6/7/16	Fri 5/28/21
1058	**2342**		**Semiannual BCT Meeting**	**1198 days**	**Wed 6/22/16**	**Thu 1/21/21**
1059	2353		2016 BCT Meeting	2 days	Wed 6/22/16	Thu 6/23/16
1060	2343		2016 BCT Meeting	2 days	Wed 1/18/17	Thu 1/19/17
1061	2344		2017 BCT Meeting	2 days	Fri 7/21/17	Mon 7/24/17
1062	2351		2017 BCT Meeting	2 days	Tue 1/23/18	Wed 1/24/18
1063	2352		2018 BCT Meeting	2 days	Thu 7/26/18	Fri 7/27/18
1064	2349		2018 BCT Meeting	2 days	Mon 1/21/19	Tue 1/22/19
1065	2350		2019 BCT Meeting	2 days	Wed 7/24/19	Thu 7/25/19
1066	2347		2019 BCT Meeting	2 days	Thu 1/23/20	Fri 1/24/20
1067	2348		2020 BCT Meeting	2 days	Mon 7/27/20	Tue 7/28/20
1068	2345		2020 BCT Meeting	2 days	Wed 1/20/21	Thu 1/21/21
1069	**2354**		**RAB Meetings (unless adjourned)**	**1070 days**	**Fri 6/24/16**	**Wed 7/29/20**
1070	2355		2016 RAB Meeting	1 day	Fri 6/24/16	Fri 6/24/16
1071	2359		2017 RAB Meeting	1 day	Tue 7/25/17	Tue 7/25/17
1072	2358		2018 RAB Meeting	1 day	Mon 7/30/18	Mon 7/30/18
1073	2357		2019 RAB Meeting	1 day	Fri 7/26/19	Fri 7/26/19
1074	2356		2020 RAB Meeting	1 day	Wed 7/29/20	Wed 7/29/20
1075	**16**		**Landfills RC: LF001, LF002, LF003, LF007 and LF009-Achieve RC**	**1160 days**	**Wed 6/8/16**	**Mon 11/16/20**
1076	**6278**		**Long-term Management (LTM)**	**1144 days**	**Wed 6/8/16**	**Fri 10/23/20**
1077	**1072**		**LTM Work Plan**	**112 days**	**Wed 6/8/16**	**Thu 11/10/16**
1078	1073		Prepare Working Copy of LTM Work Plan	30 days	Wed 6/8/16	Tue 7/19/16
1079	1074		AF Review of Working Copy of LTM Work Plan	24 days	Wed 7/20/16	Mon 8/22/16
1080	1075		Resolve AF Comments on Working Copy of LTM Work Plan	5 days	Fri 8/19/16	Thu 8/25/16
1086	1077		Submit Draft LTM Work Plan to Regulators	3 days	Fri 9/2/16	Tue 9/6/16
1087	1078		Regulator Review of Draft LTM Work Plan	31 days	Thu 9/8/16	Fri 10/21/16
1088	1079		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/24/16	Mon 10/24/16
1089	1080		Prepare Final LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
1081	**2414**	**2015**	**AF Approval of Draft LTM Work Plan**	**4 days**	**Wed 8/31/16**	**Tue 9/6/16**
1090	**2418**	**2015**	**Regulator Approval of Final LTM Work Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1082	**2413**	**2015**	**AF Approval of Draft LTM Work Plan**	**3 days**	**Thu 9/1/16**	**Tue 9/6/16**


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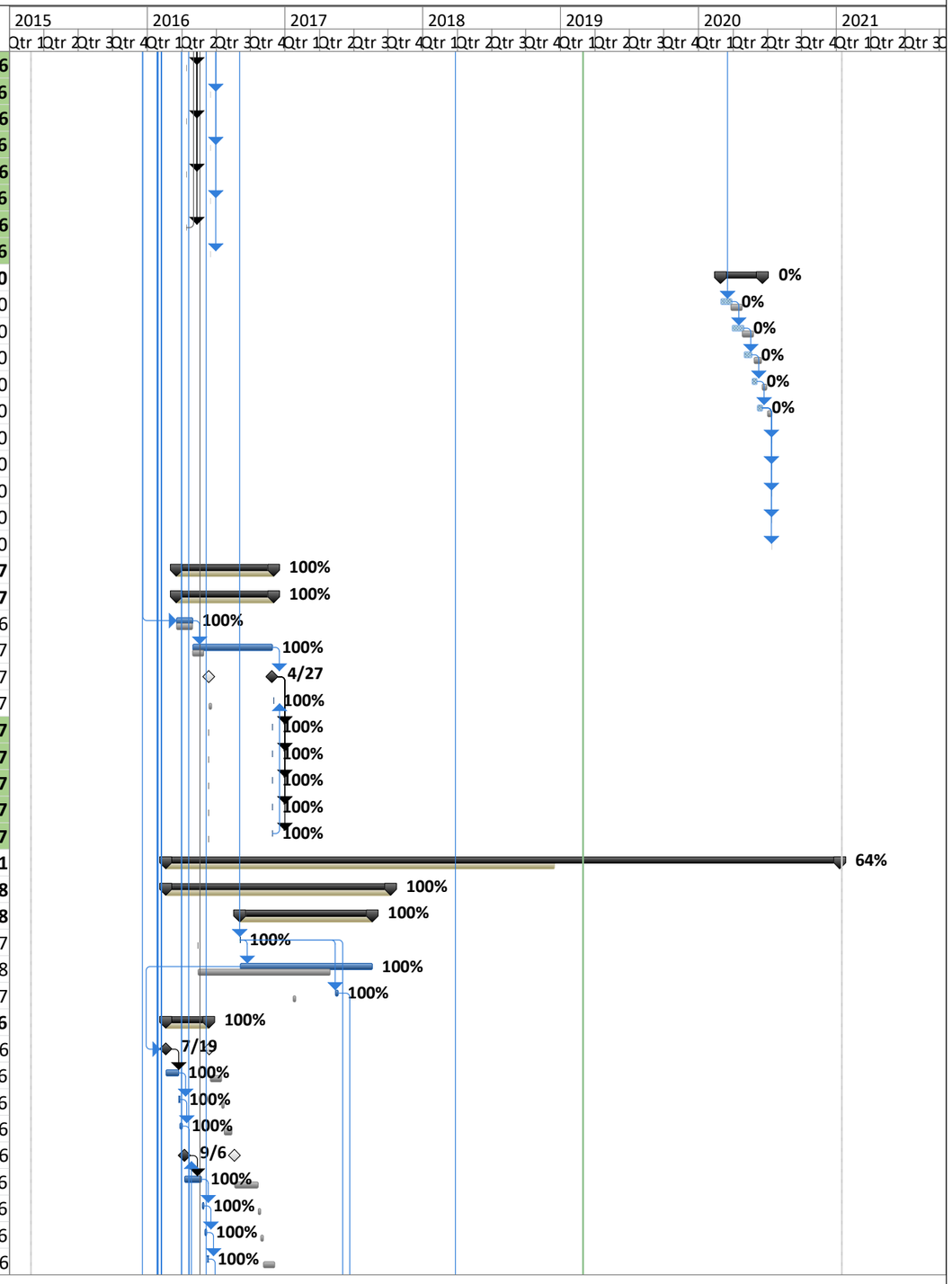
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1091	**2417**	**2015**	**Regulator Approval of Final LTM Work Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1083	**2412**	**2015**	**AF Approval of Draft LTM Work Plan**	**3 days**	**Thu 9/1/16**	**Tue 9/6/16**
1092	**2416**	**2015**	**Regulator Approval of Final LTM Work Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1084	**2411**	**2015**	**AF Approval of Draft LTM Work Plan**	**3 days**	**Thu 9/1/16**	**Tue 9/6/16**
1093	**2415**	**2015**	**Regulator Approval of Final LTM Work Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1085	**1076**	**2015**	**AF Approval of Draft LTM Work Plan**	**3 days**	**Thu 9/1/16**	**Tue 9/6/16**
1094	**1081**	**2015**	**Regulator Approval of Final LTM Work Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1095	**1084**		**LUC Inspections, Mowing and Landfill Gas Inspections**	**1080 days**	**Tue 9/6/16**	**Fri 10/23/20**
1096	1085		LUC Inspections/Landfill Gas Monitoring Year 2016 - Annual	5 days	Tue 10/4/16	Mon 10/10/16
1097	1165		Annual Mowing	5 days	Tue 9/6/16	Mon 9/12/16
1098	1086		LUC Inspections/Landfill Gas Monitoring Year 2017: Annual	5 days	Tue 10/10/17	Mon 10/16/17
1099	1166		Annual Mowing	5 days	Tue 10/3/17	Mon 10/9/17
1100	1087		LUC Inspections/Landfill Gas Monitoring Year 2018: Annual	5 days	Tue 10/9/18	Mon 10/15/18
1101	1168		Annual Mowing	5 days	Tue 10/2/18	Mon 10/8/18
1102	1171		LUC Inspections Year 2019 : Annual	5 days	Mon 10/14/19	Fri 10/18/19
1103	1173		Annual Mowing	5 days	Mon 10/7/19	Fri 10/11/19
1104	1174		LUC Inspections Year 2020: Annual	5 days	Mon 10/19/20	Fri 10/23/20
1105	6363		Annual Mowing	5 days	Mon 10/12/20	Fri 10/16/20
1106	**1140**		**Annual Groundwater Sampling and Well Inspections at LF001 - 201**	**130 days**	**Fri 5/25/18**	**Thu 11/22/18**
1107	1143		Groundwater gaging and Well inspection	2 days	Fri 5/25/18	Mon 5/28/18
1108	1144		Collect groundwater samples	2 days	Fri 7/20/18	Mon 7/23/18
1109	1145		Offsite Analysis of Groundwater Samples	14 days	Tue 7/24/18	Fri 8/10/18
1110	1146		Data Validation	3 days	Mon 8/13/18	Wed 8/15/18
1111	1147		ERPIMS Submittal	22 days	Wed 10/24/18	Thu 11/22/18
1112	**1148**		**Annual Groundwater Sampling and Well Inspections -2019 (all exc**	**93 days**	**Fri 5/10/19**	**Tue 9/17/19**
1113	1151		Groundwater gaging and Well inspection	2 days	Fri 5/10/19	Mon 5/13/19
1114	1152		Collect groundwater samples	3 days	Tue 5/14/19	Thu 5/16/19
1115	1153		Offsite Analysis of Groundwater Samples	15 days	Fri 5/17/19	Thu 6/6/19
1116	1154		Data Validation	15 days	Fri 6/7/19	Thu 6/27/19
1117	1155		ERPIMS Submittal	22 days	Mon 8/19/19	Tue 9/17/19
1118	**1156**		**Annual Groundwater Sampling and Well Inspections at LF001 in 20**	**93 days**	**Thu 3/19/20**	**Mon 7/27/20**
1119	1159		Groundwater gaging and Well inspection	2 days	Thu 3/19/20	Fri 3/20/20
1120	1160		Collect groundwater samples	3 days	Mon 3/23/20	Wed 3/25/20
1121	1161		Offsite Analysis of Groundwater Samples	15 days	Thu 3/26/20	Wed 4/15/20
1122	1162		Data Validation	15 days	Thu 4/16/20	Wed 5/6/20
1123	1163		ERPIMS Submittal	22 days	Fri 6/26/20	Mon 7/27/20
1124	**1089**		**LTM Reporting**	**945 days**	**Thu 12/15/16**	**Tue 7/28/20**
1125	**1090**		**Annual Report - 2016**	**51 days**	**Thu 12/15/16**	**Thu 2/23/17**
1126	1091		Prepare Working Copy of Annual Report	31 days	Thu 12/15/16	Thu 1/26/17
1127	1092		AF Review of Working Copy of Annual Report	15 days	Fri 1/27/17	Thu 2/16/17
1128	1093		Resolve AF Comments on Working Copy of Annual Report	1 day	Fri 2/17/17	Fri 2/17/17
1132	1095		Submit Final Annual Report to Regulators	4 days	Mon 2/20/17	Thu 2/23/17
1129	**2422**	**2015**	**AF Approval of Final Annual LTM Report at Landfills for 2016**	**0 days**	**Fri 2/17/17**	**Fri 2/17/17**
1130	**2421**	**2015**	**AF Approval of Final Annual LTM Report at Landfills for 2016**	**0 days**	**Fri 2/17/17**	**Fri 2/17/17**
1131	**1094**	**2015**	**AF Approval of Final Annual LTM Report at Landfills for 2016**	**0 days**	**Fri 2/17/17**	**Fri 2/17/17**
1133	**1100**		**Annual Report - 2017**	**76 days**	**Fri 12/15/17**	**Fri 3/30/18**


2015
2016
2017
2018
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2020
2021
Qtr 1Qtr 2Qtr 3Qtr 4Qtr 1Qtr 2Qtr 3Qtr 4Qtr 1Qtr 2Qtr 3Qtr 4

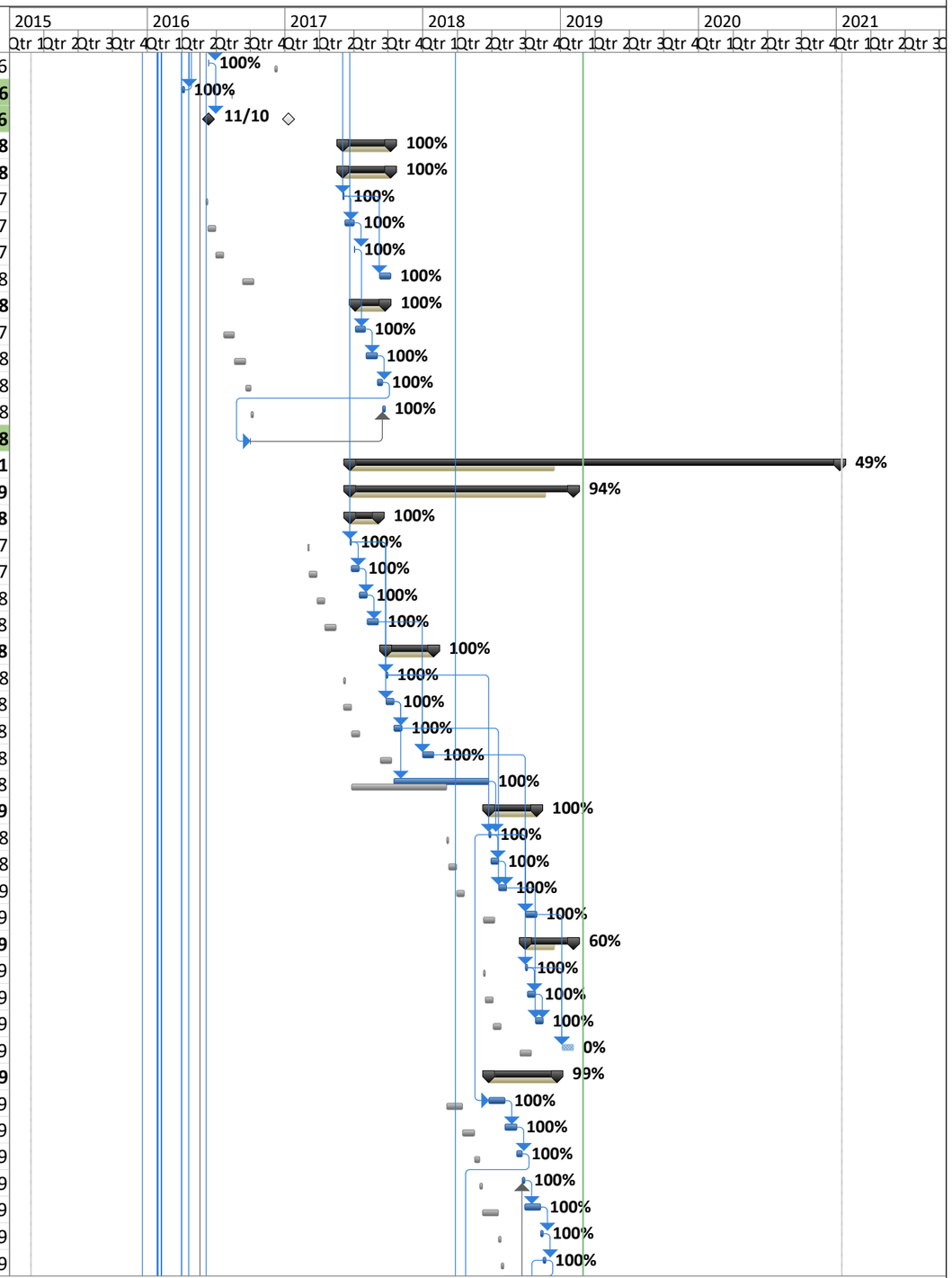
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1134	1101		Prepare Working Copy of Annual Report	31 days	Fri 12/15/17	Fri 1/26/18
1135	1102		AF Review of Working Copy of Annual Report	23 days	Mon 1/29/18	Wed 2/28/18
1136	1103		Resolve AF Comments on Working Copy of Annual Report	18 days	Thu 3/1/18	Mon 3/26/18
1140	1105		Submit Final Annual Report to Regulators	0 days	Fri 3/30/18	Fri 3/30/18
1137	**2430**	**2016**	**AF Approval of Final Annual LTM Report at Landfills for 2017**	**4 days**	**Tue 3/27/18**	**Fri 3/30/18**
1138	**2429**	**2016**	**AF Approval of Final Annual LTM Report at Landfills for 2017**	**4 days**	**Tue 3/27/18**	**Fri 3/30/18**
1139	**1104**	**2016**	**AF Approval of Final Annual LTM Report at Landfills for 2017**	**4 days**	**Tue 3/27/18**	**Fri 3/30/18**
1141	**1110**		**Annual Report - 2018**	**82 days**	**Thu 8/16/18**	**Fri 12/7/18**
1142	1111		Prepare Working Copy of Annual Report	45 days	Thu 8/16/18	Wed 10/17/18
1143	1112		AF Review of Working Copy of Annual Report	22 days	Thu 10/18/18	Fri 11/16/18
1144	1113		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 11/19/18	Fri 11/30/18
1148	1115		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Mon 12/3/18	Fri 12/7/18
1145	**2438**	**2017**	**AF Approval of Final Annual LTM Report at Landfills for 2018**	**0 days**	**Fri 11/30/18**	**Fri 11/30/18**
1146	**2437**	**2017**	**AF Approval of Final Annual LTM Report at Landfills for 2018**	**0 days**	**Fri 11/30/18**	**Fri 11/30/18**
1147	**1114**	**2017**	**AF Approval of Final Annual LTM Report at Landfills for 2018**	**0 days**	**Fri 11/30/18**	**Fri 11/30/18**
1149	**1120**		**Annual Report - 2019**	**57 days**	**Mon 10/21/19**	**Tue 1/7/20**
1150	1121		Prepare Working Copy of Annual Report	20 days	Mon 10/21/19	Fri 11/15/19
1151	1122		AF Review of Working Copy of Annual Report	22 days	Mon 11/18/19	Tue 12/17/19
1152	1123		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 12/18/19	Tue 12/31/19
1158	1125		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Wed 1/1/20	Tue 1/7/20
1153	**2446**	**2018**	**AF Approval of Final Annual LTM Report at Landfills for 2019**	**0 days**	**Tue 12/31/19**	**Tue 12/31/19**
1154	**2445**	**2018**	**AF Approval of Final Annual LTM Report at Landfills for 2019**	**0 days**	**Tue 12/31/19**	**Tue 12/31/19**
1155	**2444**	**2018**	**AF Approval of Final Annual LTM Report at Landfills for 2019**	**0 days**	**Tue 12/31/19**	**Tue 12/31/19**
1156	**2443**	**2018**	**AF Approval of Final Annual LTM Report at Landfills for 2019**	**0 days**	**Tue 12/31/19**	**Tue 12/31/19**
1157	**1124**	**2018**	**AF Approval of Final Annual LTM Report at Landfills for 2019**	**0 days**	**Tue 12/31/19**	**Tue 12/31/19**
1159	**1181**		**Annual Report - 2020**	**59 days**	**Thu 5/7/20**	**Tue 7/28/20**
1160	1182		Prepare Working Copy of Annual Report 2020	22 days	Thu 5/7/20	Fri 6/5/20
1161	1183		AF Review of Working Copy of Annual Report	22 days	Mon 6/8/20	Tue 7/7/20
1162	1184		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 7/8/20	Tue 7/21/20
1166	6275		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Wed 7/22/20	Tue 7/28/20
1163	2454	2019	AF Approval of Final Annual LTM Report at Landfills for 2020	0 days	Tue 7/21/20	Tue 7/21/20
1164	2453	2019	AF Approval of Final Annual LTM Report at Landfills for 2020	0 days	Tue 7/21/20	Tue 7/21/20
1165	1185	2019	AF Approval of Final Annual LTM Report at Landfills for 2020	0 days	Tue 7/21/20	Tue 7/21/20
1167	**6300**		**Optimization**	**1160 days**	**Wed 6/8/16**	**Mon 11/16/20**
1168	**1191**		**Optimization Plan**	**112 days**	**Wed 6/8/16**	**Thu 11/10/16**
1169	1192		Prepare Working Copy of Optimization Plan	30 days	Wed 6/8/16	Tue 7/19/16
1170	1193		Air Force Review of Working Copy	26 days	Fri 7/15/16	Fri 8/19/16
1171	1194		Resolve AF Comments on Working Copy AF	8 days	Tue 8/16/16	Thu 8/25/16
1172	1195		AF Review and Approval of RTCs	7 days	Tue 8/23/16	Wed 8/31/16
1173	6386		Prepare Draft Optimization Plan	0 days	Mon 9/5/16	Mon 9/5/16
1179	6392		Submit Draft Optimization Plan to Regulators	0 days	Tue 9/6/16	Tue 9/6/16
1180	6393		Regulator Review of Draft Optimization Plan	24 days	Tue 9/20/16	Fri 10/21/16
1181	6394		Resolve Regulator Comments on Draft Optimization Plan	5 days	Tue 11/1/16	Mon 11/7/16
1182	1196		Prepare Final Optimization Plan	3 days	Tue 11/8/16	Thu 11/10/16
1174	**6387**	**2015**	**AF Approval of Draft Optimization Plan**	**0 days**	**Tue 9/6/16**	**Tue 9/6/16**
1183	**2458**	**2015**	**AF Approval of Final Optimization Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**



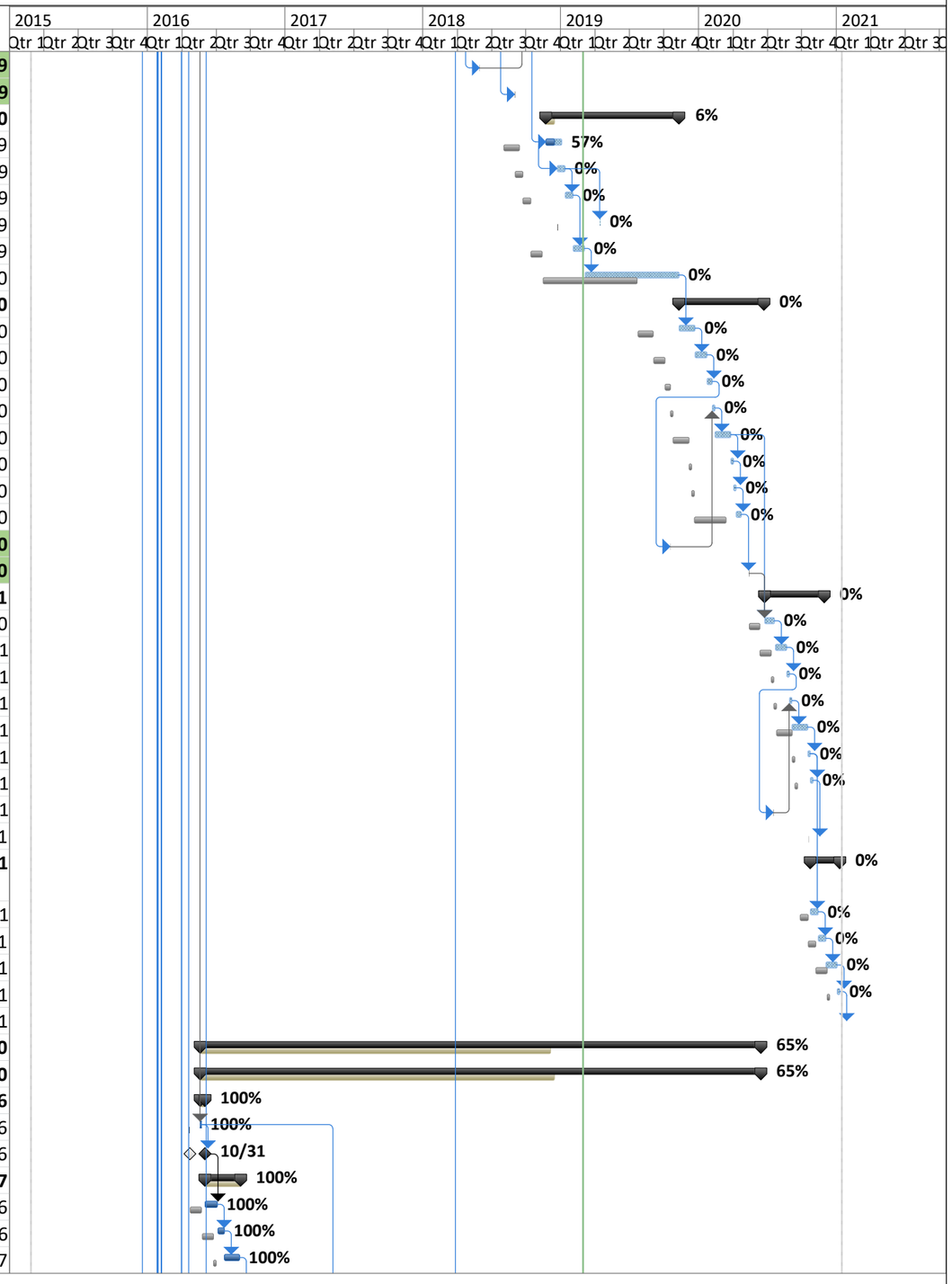
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1175	**6388**	**2015**	**AF Approval of Draft Optimization Plan**	**0 days**	**Tue 9/6/16**	**Tue 9/6/16**
1184	**2457**	**2015**	**AF Approval of Final Optimization Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1176	**6389**	**2015**	**AF Approval of Draft Optimization Plan**	**0 days**	**Tue 9/6/16**	**Tue 9/6/16**
1185	**2456**	**2015**	**AF Approval of Final Optimization Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1177	**6390**	**2015**	**AF Approval of Draft Optimization Plan**	**0 days**	**Tue 9/6/16**	**Tue 9/6/16**
1186	**2455**	**2015**	**AF Approval of Final Optimization Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1178	**6391**	**2015**	**AF Approval of Draft Optimization Plan**	**0 days**	**Tue 9/6/16**	**Tue 9/6/16**
1187	**1197**	**2015**	**AF Approval of Final Optimization Plan**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1188	**1198**		**OES Report**	**79 days**	**Wed 7/29/20**	**Mon 11/16/20**
1189	1199		Prepare Working Copy of OES Report	22 days	Wed 7/29/20	Thu 8/27/20
1190	1200		Air Force Review of Working Copy	22 days	Fri 8/28/20	Mon 9/28/20
1191	1201		Resolve AF Comments on Working Copy AF	15 days	Tue 9/29/20	Mon 10/19/20
1192	1202		AF Review and Approval of RTCs	10 days	Tue 10/20/20	Mon 11/2/20
1193	6396		Prepare Draft OES Report	10 days	Tue 11/3/20	Mon 11/16/20
1194	6397	2019	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 11/16/20	Mon 11/16/20
1195	6398	2019	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 11/16/20	Mon 11/16/20
1196	6399	2019	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 11/16/20	Mon 11/16/20
1197	6400	2019	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 11/16/20	Mon 11/16/20
1198	6401	2019	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 11/16/20	Mon 11/16/20
1199	**6279**		**Response Complete (RC)**	**184 days**	**Wed 8/17/16**	**Mon 5/1/17**
1200	**5644**		**RC Technical Memorandum**	**184 days**	**Wed 8/17/16**	**Mon 5/1/17**
1201	5645		Prepare Working Copy of Report	31 days	Wed 8/17/16	Wed 9/28/16
1202	5646		AF Review of Working Copy of Report	151 days	Wed 9/28/16	Thu 4/27/17
1203	5647		Resolve AF Comments on Working Copy of Report	0 days	Thu 4/27/17	Thu 4/27/17
1209	6276		Submit RC Memorandum to Regulators	1 day	Mon 5/1/17	Mon 5/1/17
1207	**5669**	**2015**	**AF Approval of RC Memorandum - Achieve RC**	**1 day**	**Thu 4/27/17**	**Fri 4/28/17**
1204	**5665**	**2015**	**AF Approval of RC Memorandum- Achieve RC**	**1 day**	**Fri 4/28/17**	**Fri 4/28/17**
1205	**5666**	**2015**	**AF Approval of RC Memorandum - Achieve RC**	**1 day**	**Thu 4/27/17**	**Fri 4/28/17**
1206	**5667**	**2015**	**AF Approval of RC Memorandum - Achieve RC**	**1 day**	**Thu 4/27/17**	**Fri 4/28/17**
1208	**5668**	**2015**	**AF Approval of RC Memorandum- Achieve RC**	**1 day**	**Thu 4/27/17**	**Fri 4/28/17**
1210	**2712**		**SC Site: ST006: Building 101**	**1277 days**	**Tue 7/19/16**	**Wed 6/9/21**
1211	**6301**		**LTM**	**426 days**	**Tue 7/19/16**	**Wed 3/7/18**
1212	**5309**		**O & M**	**251 days**	**Wed 2/1/17**	**Wed 1/17/18**
1213	6277		Notice to Proceed from CO	1 day	Wed 2/1/17	Wed 2/1/17
1214	2715		O&M of SVE system	250 days	Thu 2/2/17	Wed 1/17/18
1215	5308		System Shutdown	5 days	Thu 10/12/17	Wed 10/18/17
1216	**2713**		**LTM Work Plan (Update to 2014 UFP-QAPP)**	**82 days**	**Tue 7/19/16**	**Thu 11/10/16**
1217	2716		Prepare Working Copy	0 days	Tue 7/19/16	Tue 7/19/16
1218	2717		Air Force Review of Working Copy	24 days	Wed 7/20/16	Mon 8/22/16
1219	2718		Resolve AF Comments on Working Copy AF	3 days	Tue 8/23/16	Thu 8/25/16
1220	2719		AF Review and Approval of RTCs	4 days	Fri 8/26/16	Wed 8/31/16
1222	2725		Submit Draft to Regulators	0 days	Tue 9/6/16	Tue 9/6/16
1223	2726		Regulator Review of Draft	33 days	Wed 9/7/16	Fri 10/21/16
1224	2727		RTC Regulator Comments on Draft	5 days	Mon 10/24/16	Fri 10/28/16
1225	2728		AF Review and Approval of RTCs	5 days	Mon 10/31/16	Fri 11/4/16
1226	2729		Regulator Approval of RTCs and Final	2 days	Mon 11/7/16	Tue 11/8/16



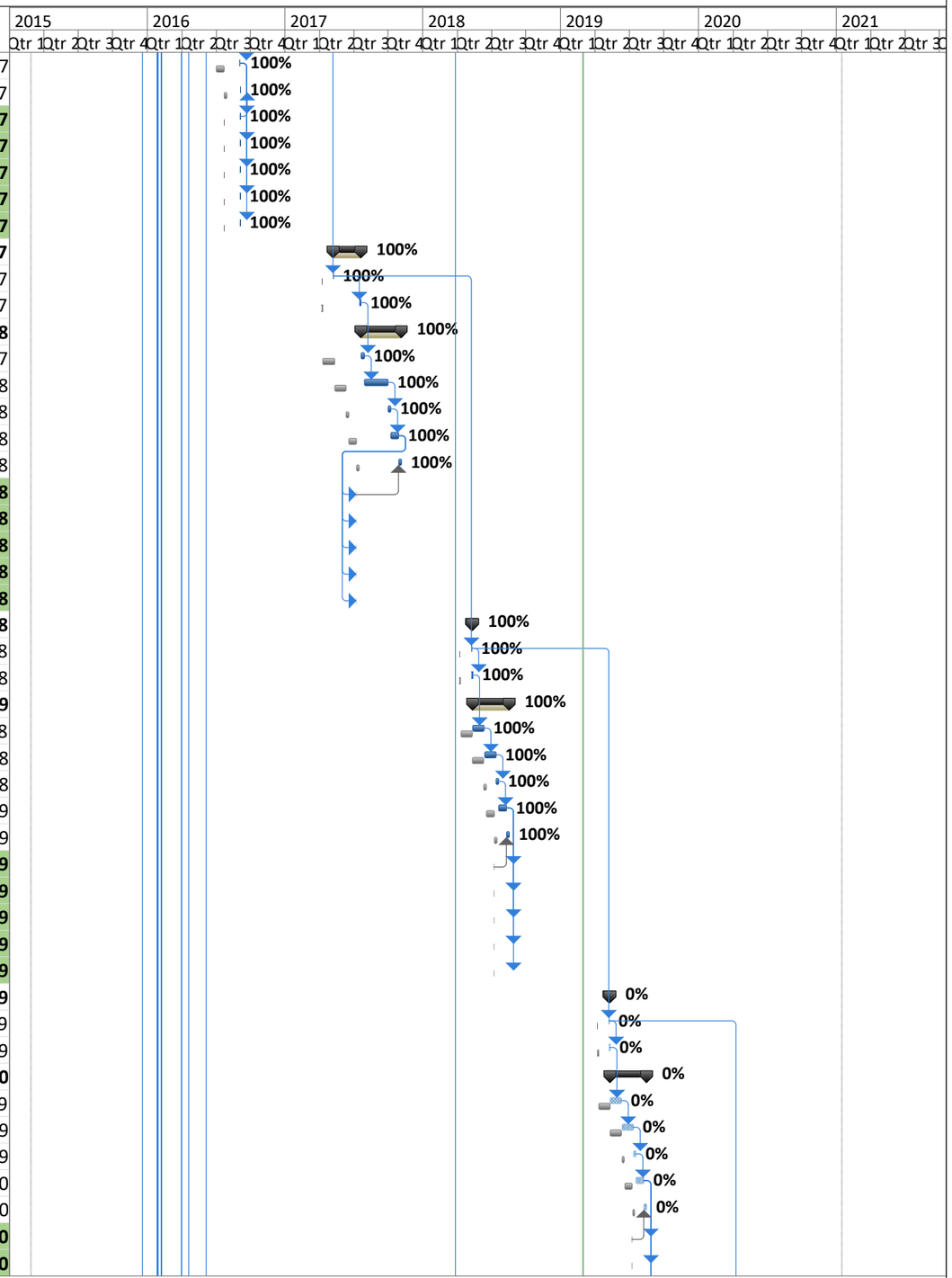
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1227	2730		Prepare Final Report	1 day	Thu 11/10/16	Thu 11/10/16
1221	**2720**	**2020**	**AF Approval of Draft 2016 LTM Work Plan Update**	**4 days**	**Wed 8/31/16**	**Tue 9/6/16**
1228	**2731**	**2020**	**AF and Regulator Approval of Final 2016 LTM Work Plan Update**	**0 days**	**Thu 11/10/16**	**Thu 11/10/16**
1229	**2736**		**Annual Soil Vapor Monitoring**	**91 days**	**Wed 11/1/17**	**Wed 3/7/18**
1230	**2744**		**Q4 Soil Vapor Monitoring**	**91 days**	**Wed 11/1/17**	**Wed 3/7/18**
1231	2745		Sampling	3 days	Wed 11/1/17	Fri 11/3/17
1232	2746		Offsite Analysis of Groundwater Samples	19 days	Mon 11/6/17	Thu 11/30/17
1233	2747		Data Validation	1 day	Fri 12/1/17	Fri 12/1/17
1234	2748		ERPIMS Submittal	22 days	Tue 2/6/18	Wed 3/7/18
1235	**2818**		**Annual Report - 2016**	**57 days**	**Mon 12/4/17**	**Tue 2/20/18**
1236	2819		Prepare Working Copy of 2016 LTM Report	20 days	Mon 12/4/17	Fri 12/29/17
1237	2820		AF Review of Working Copy of Annual Report	22 days	Mon 1/1/18	Tue 1/30/18
1238	2821		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 1/31/18	Tue 2/13/18
1240	2825		Submit Final Annual Report to Regulators	5 days	Wed 2/14/18	Tue 2/20/18
1239	**2822**	**2020**	**AF Approval of Final Annual 2016 LTM Report**	**0 days**	**Tue 2/13/18**	**Tue 2/13/18**
1241	**6302**		**Site Closeout**	**929 days**	**Mon 11/20/17**	**Wed 6/9/21**
1242	**2759**		**Rebound Sampling**	**424 days**	**Mon 11/20/17**	**Thu 7/4/19**
1243	**2760**		**Q1 Soil Vapor Monitoring**	**55 days**	**Mon 11/20/17**	**Fri 2/2/18**
1244	2761		Sampling	3 days	Mon 11/20/17	Wed 11/22/17
1245	2762		Offsite Analysis of Groundwater Samples	15 days	Thu 11/23/17	Wed 12/13/17
1246	2763		Data Validation	15 days	Thu 12/14/17	Wed 1/3/18
1247	2764		ERPIMS Submittal	22 days	Thu 1/4/18	Fri 2/2/18
1248	**2765**		**Q2 Soil Vapor Monitoring**	**91 days**	**Fri 2/23/18**	**Fri 6/29/18**
1249	2766		Sampling	3 days	Fri 2/23/18	Tue 2/27/18
1250	2767		Offsite Analysis of Groundwater Samples	15 days	Fri 2/23/18	Thu 3/15/18
1251	2768		Data Validation	15 days	Fri 3/16/18	Thu 4/5/18
1252	2769		ERPIMS Submittal	22 days	Thu 5/31/18	Fri 6/29/18
1253	2817		Contingent action	180 days	Fri 3/16/18	Thu 11/22/18
1254	**2770**		**Q3 Soil Vapor Monitoring**	**91 days**	**Fri 11/23/18**	**Fri 3/29/19**
1255	2771		Sampling	3 days	Fri 11/23/18	Tue 11/27/18
1256	2772		Offsite Analysis of Groundwater Samples	15 days	Wed 11/28/18	Tue 12/18/18
1257	2773		Data Validation	15 days	Wed 12/19/18	Tue 1/8/19
1258	2774		ERPIMS Submittal	22 days	Thu 2/28/19	Fri 3/29/19
1259	**2775**		**Q4 Soil Vapor Monitoring**	**91 days**	**Thu 2/28/19**	**Thu 7/4/19**
1260	2776		Sampling	3 days	Thu 2/28/19	Mon 3/4/19
1261	2777		Offsite Analysis of Groundwater Samples	15 days	Tue 3/5/19	Mon 3/25/19
1262	2778		Data Validation	15 days	Tue 3/26/19	Mon 4/15/19
1263	2779		ERPIMS Submittal	22 days	Wed 6/5/19	Thu 7/4/19
1264	**2780**		**Risk Assessment (RA) Work Plan (in UFP-QAPP format)**	**129 days**	**Fri 11/23/18**	**Wed 5/22/19**
1265	2781		Prepare Working Copy of RA Work Plan	30 days	Fri 11/23/18	Thu 1/3/19
1266	2782		AF Review of Working Copy of RA Work Plan	22 days	Fri 1/4/19	Mon 2/4/19
1267	2783		Resolve AF Comments on Working Copy of RA Work Plan	10 days	Tue 2/5/19	Mon 2/18/19
1269	2787		Submit Draft RA Work Plan to Regulators	5 days	Tue 2/19/19	Mon 2/25/19
1270	2788		Regulator Review of Draft RA Work Plan	30 days	Tue 2/26/19	Mon 4/8/19
1271	2789		RTC Regulator Comments on Draft RA Work Plan	5 days	Tue 4/9/19	Mon 4/15/19
1272	2790		Prepare Final RA Work Plan	5 days	Tue 4/16/19	Mon 4/22/19



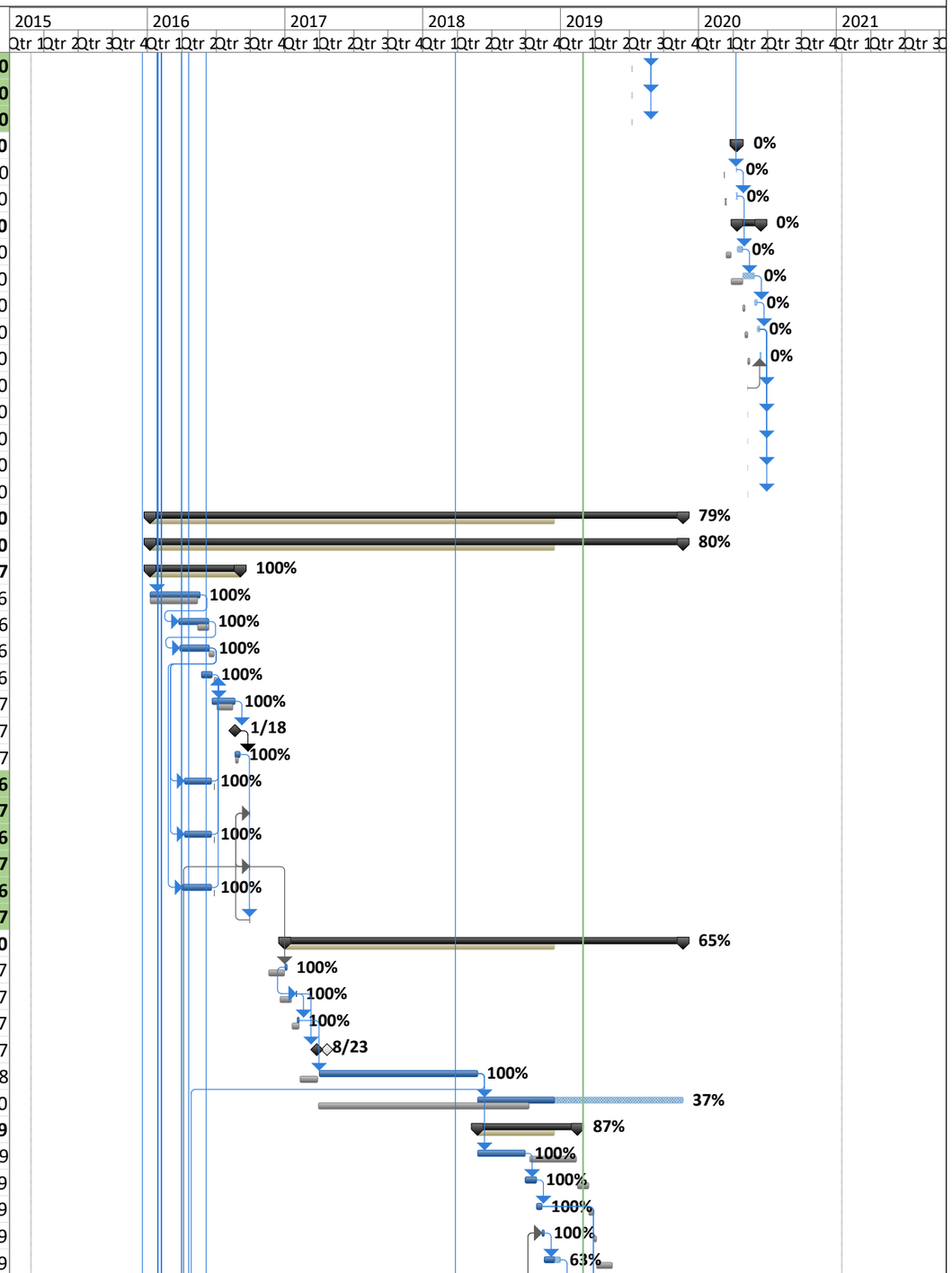
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1268	**2784**	**2022**	**AF Approval of Draft RA Work Plan**	**0 days**	**Mon 2/18/19**	**Mon 2/18/19**
1273	**2791**	**2022**	**Regulator Approval of Final RA Work Plan**	**0 days**	**Wed 5/22/19**	**Wed 5/22/19**
1274	**2794**		**Complete Soil Sampling and Risk Assessment**	**254 days**	**Tue 4/23/19**	**Thu 4/9/20**
1275	2795		Mobilization, Dig Permit and Sampling	30 days	Tue 4/23/19	Mon 6/3/19
1276	2796		Laboratory Analysis	15 days	Thu 5/23/19	Wed 6/12/19
1277	2797		Data Validation	15 days	Thu 6/13/19	Wed 7/3/19
1278	2798		ERPIMS Submittal	1 day	Fri 9/13/19	Fri 9/13/19
1279	2799		Prepare Risk Assessment	22 days	Thu 7/4/19	Fri 8/2/19
1280	2800		Implement Contingent Action	180 days	Mon 8/5/19	Thu 4/9/20
1281	**4185**		**Explanation of Significant Difference (ESD)**	**161 days**	**Fri 4/10/20**	**Fri 11/20/20**
1282	4186		Prepare Working Copy of ESD	30 days	Fri 4/10/20	Thu 5/21/20
1283	4187		AF Review of Working Copy of ESD	22 days	Fri 5/22/20	Mon 6/22/20
1284	4188		Resolve AF Comments on Working Copy of ESD	10 days	Tue 6/23/20	Mon 7/6/20
1286	4192		Submit Draft Annual Report to ESD	5 days	Tue 7/7/20	Mon 7/13/20
1287	4193		Regulator Review of Draft ESD	30 days	Tue 7/14/20	Mon 8/24/20
1288	4194		RTC Regulator Comments on Draft ESD	5 days	Tue 8/25/20	Mon 8/31/20
1289	4195		Prepare Final ESD	5 days	Tue 9/1/20	Mon 9/7/20
1290	5693		Contingency Time	10 days	Tue 9/8/20	Mon 9/21/20
1285	**4189**	**2023**	**AF Approval of Draft ESD**	**0 days**	**Mon 7/6/20**	**Mon 7/6/20**
1291	**4196**	**2023**	**Regulator Approval of Final ESD**	**0 days**	**Fri 11/20/20**	**Fri 11/20/20**
1292	**2801**		**Remedial Action Completion Report (RACR)**	**114 days**	**Mon 11/23/20**	**Thu 4/29/21**
1293	2802		Prepare Working Copy of RACR	20 days	Mon 11/23/20	Fri 12/18/20
1294	2803		AF Review of Working Copy of RACR	22 days	Mon 12/21/20	Tue 1/19/21
1295	2804		Resolve AF Comments on Working Copy of RACR	5 days	Wed 1/20/21	Tue 1/26/21
1297	2806		Submit Draft RACR to Regulators	5 days	Wed 1/27/21	Tue 2/2/21
1298	2807		Regulator Review of Draft RACR	30 days	Wed 2/3/21	Tue 3/16/21
1299	2808		RTC Regulator Comments on Draft RACR	5 days	Wed 3/17/21	Tue 3/23/21
1300	2809		Prepare Final RACR	5 days	Wed 3/24/21	Tue 3/30/21
1296	2805	2024	AF Approval of Draft RACR	0 days	Tue 1/26/21	Tue 1/26/21
1301	2810	2024	AF and Regulator Approval of Final RACR;AF Approval of ERPIMS U	0 days	Thu 4/29/21	Thu 4/29/21
1302	**2811**		**Site Closeout and Well Decommissioning and Well and System Decommissioning Report**	**56 days**	**Wed 3/24/21**	**Wed 6/9/21**
1303	2812		Decommission Wells and System	15 days	Wed 3/24/21	Tue 4/13/21
1304	2813		Prepare Working Copy of Site Closeout and Well & System Decom	14 days	Wed 4/14/21	Mon 5/3/21
1305	2814		AF Review of Working Copy of Site Closeout and Well & System D	22 days	Tue 5/4/21	Wed 6/2/21
1306	2815		Resolve AF Comments on Working Copy of Site Closeout and Wel	5 days	Thu 6/3/21	Wed 6/9/21
1307	2816	2024	AF Approval of Final Site Closeout and Well & System Decommiss	0 days	Wed 6/9/21	Wed 6/9/21
1308	**2218**		**SQ Sites: SS008, SS033, SS044, SS060, AOI66**	**1063 days**	**Tue 10/18/16**	**Thu 11/12/20**
1309	**6303**		**Long-term Management (LTM)**	**1063 days**	**Tue 10/18/16**	**Thu 11/12/20**
1310	**2219**		**2016 Annual LUC/IC Inspection**	**9 days**	**Tue 10/18/16**	**Mon 10/31/16**
1311	2220		Regulatory and AF Notice of Inspections	2 days	Tue 10/18/16	Thu 10/20/16
1312	2221		Site Inspection and Deed Notice Verification	0 days	Mon 10/31/16	Mon 10/31/16
1313	**2222**		**2016 Annual LTM Report**	**68 days**	**Tue 11/1/16**	**Thu 2/2/17**
1314	2223		Prepare Working Copy	24 days	Tue 11/1/16	Fri 12/2/16
1315	2224		Air Force Review of Working Copy	13 days	Mon 12/5/16	Wed 12/21/16
1316	2225		Resolve AF Comments on Working Copy AF	28 days	Thu 12/22/16	Mon 1/30/17



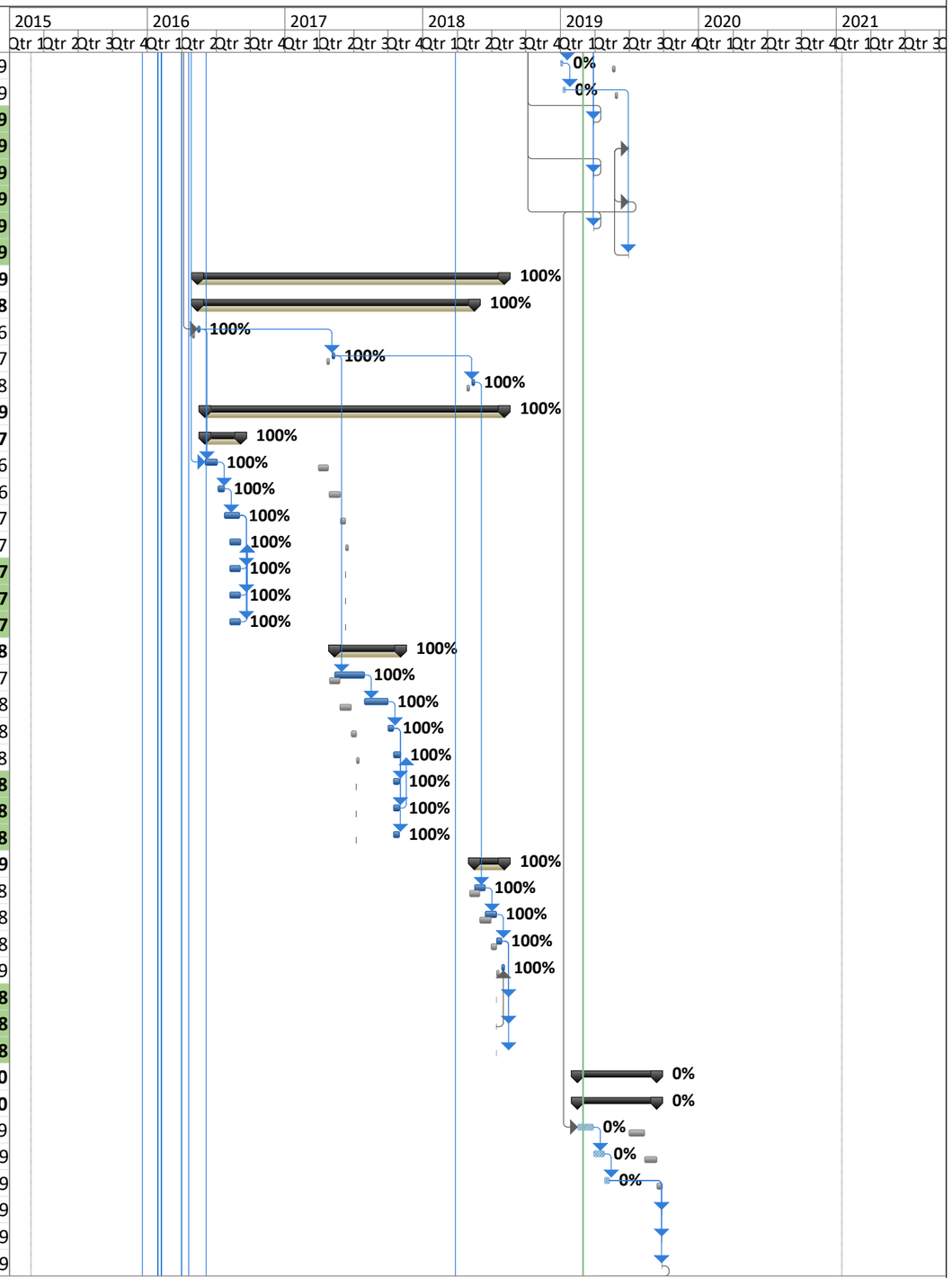
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1317	2226		AF Review and Approval of RTCs	1 day	Tue 1/31/17	Tue 1/31/17
1323	2228		Submit Final to Regulators	1 day	Thu 2/2/17	Thu 2/2/17
1322	**2227**	**2005**	**AF Approval of Final 2016 Annual LTM Report**	**1 day**	**Tue 1/31/17**	**Wed 2/1/17**
1318	**2474**	**2005**	**AF Approval of Final 2016 Annual LTM Report**	**1 day**	**Tue 1/31/17**	**Wed 2/1/17**
1319	**2473**	**2005**	**AF Approval of Final 2016 Annual LTM Report**	**1 day**	**Tue 1/31/17**	**Wed 2/1/17**
1320	**2472**	**2005**	**AF Approval of Final 2016 Annual LTM Report**	**1 day**	**Tue 1/31/17**	**Wed 2/1/17**
1321	**2471**	**2005**	**AF Approval of Final 2016 Annual LTM Report**	**1 day**	**Tue 1/31/17**	**Wed 2/1/17**
1324	**2267**		**2017 Annual LUC/IC Inspection**	**52 days**	**Fri 10/6/17**	**Mon 12/18/17**
1325	2268		Regulatory and AF Notice of Inspections	1 day	Fri 10/6/17	Fri 10/6/17
1326	2269		Site Inspection and Deed Notice Verification	2 days	Fri 12/15/17	Mon 12/18/17
1327	**2270**		**2017 Annual LTM Report**	**77 days**	**Tue 12/19/17**	**Wed 4/4/18**
1328	2271		Prepare Working Copy	7 days	Tue 12/19/17	Wed 12/27/17
1329	2272		Air Force Review of Working Copy	45 days	Thu 12/28/17	Wed 2/28/18
1330	2273		Resolve AF Comments on Working Copy AF	5 days	Thu 3/1/18	Wed 3/7/18
1331	2274		AF Review and Approval of RTCs	15 days	Thu 3/8/18	Wed 3/28/18
1337	2276		Submit Final to Regulators	5 days	Thu 3/29/18	Wed 4/4/18
1336	**2275**	**2006**	**AF Approval of Final 2017 Annual LTM Report**	**0 days**	**Wed 3/28/18**	**Wed 3/28/18**
1332	**2482**	**2006**	**AF Approval of Final 2017 Annual LTM Report**	**0 days**	**Wed 3/28/18**	**Wed 3/28/18**
1333	**2481**	**2006**	**AF Approval of Final 2017 Annual LTM Report**	**0 days**	**Wed 3/28/18**	**Wed 3/28/18**
1334	**2480**	**2006**	**AF Approval of Final 2017 Annual LTM Report**	**0 days**	**Wed 3/28/18**	**Wed 3/28/18**
1335	**2479**	**2006**	**AF Approval of Final 2017 Annual LTM Report**	**0 days**	**Wed 3/28/18**	**Wed 3/28/18**
1338	**2283**		**2018 Annual LUC/IC Inspection**	**3 days**	**Mon 10/8/18**	**Wed 10/10/18**
1339	2284		Regulatory and AF Notice of Inspections	1 day	Mon 10/8/18	Mon 10/8/18
1340	2285		Site Inspection and Deed Notice Verification	2 days	Tue 10/9/18	Wed 10/10/18
1341	**2286**		**2018 Annual LTM Report**	**69 days**	**Thu 10/11/18**	**Tue 1/15/19**
1342	2287		Prepare Working Copy	22 days	Thu 10/11/18	Fri 11/9/18
1343	2288		Air Force Review of Working Copy	22 days	Mon 11/12/18	Tue 12/11/18
1344	2289		Resolve AF Comments on Working Copy AF	5 days	Wed 12/12/18	Tue 12/18/18
1345	2290		AF Review and Approval of RTCs	15 days	Wed 12/19/18	Tue 1/8/19
1351	2292		Submit Final to Regulators	5 days	Wed 1/9/19	Tue 1/15/19
1350	**2291**	**2007**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Tue 1/8/19**	**Tue 1/8/19**
1346	**2490**	**2007**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Tue 1/8/19**	**Tue 1/8/19**
1347	**2489**	**2007**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Tue 1/8/19**	**Tue 1/8/19**
1348	**2488**	**2007**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Tue 1/8/19**	**Tue 1/8/19**
1349	**2487**	**2007**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Tue 1/8/19**	**Tue 1/8/19**
1352	**2299**		**2019 Annual LUC/IC Inspection**	**3 days**	**Mon 10/7/19**	**Wed 10/9/19**
1353	2300		Regulatory and AF Notice of Inspections	1 day	Mon 10/7/19	Mon 10/7/19
1354	2301		Site Inspection and Deed Notice Verification	2 days	Tue 10/8/19	Wed 10/9/19
1355	**2302**		**2019 Annual LTM Report**	**69 days**	**Thu 10/10/19**	**Tue 1/14/20**
1356	2303		Prepare Working Copy	22 days	Thu 10/10/19	Fri 11/8/19
1357	2304		Air Force Review of Working Copy	22 days	Mon 11/11/19	Tue 12/10/19
1358	2305		Resolve AF Comments on Working Copy AF	5 days	Wed 12/11/19	Tue 12/17/19
1359	2306		AF Review and Approval of RTCs	15 days	Wed 12/18/19	Tue 1/7/20
1365	2308		Submit Final to Regulators	5 days	Wed 1/8/20	Tue 1/14/20
1364	**2307**	**2008**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 1/7/20**	**Tue 1/7/20**
1360	**2498**	**2008**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 1/7/20**	**Tue 1/7/20**



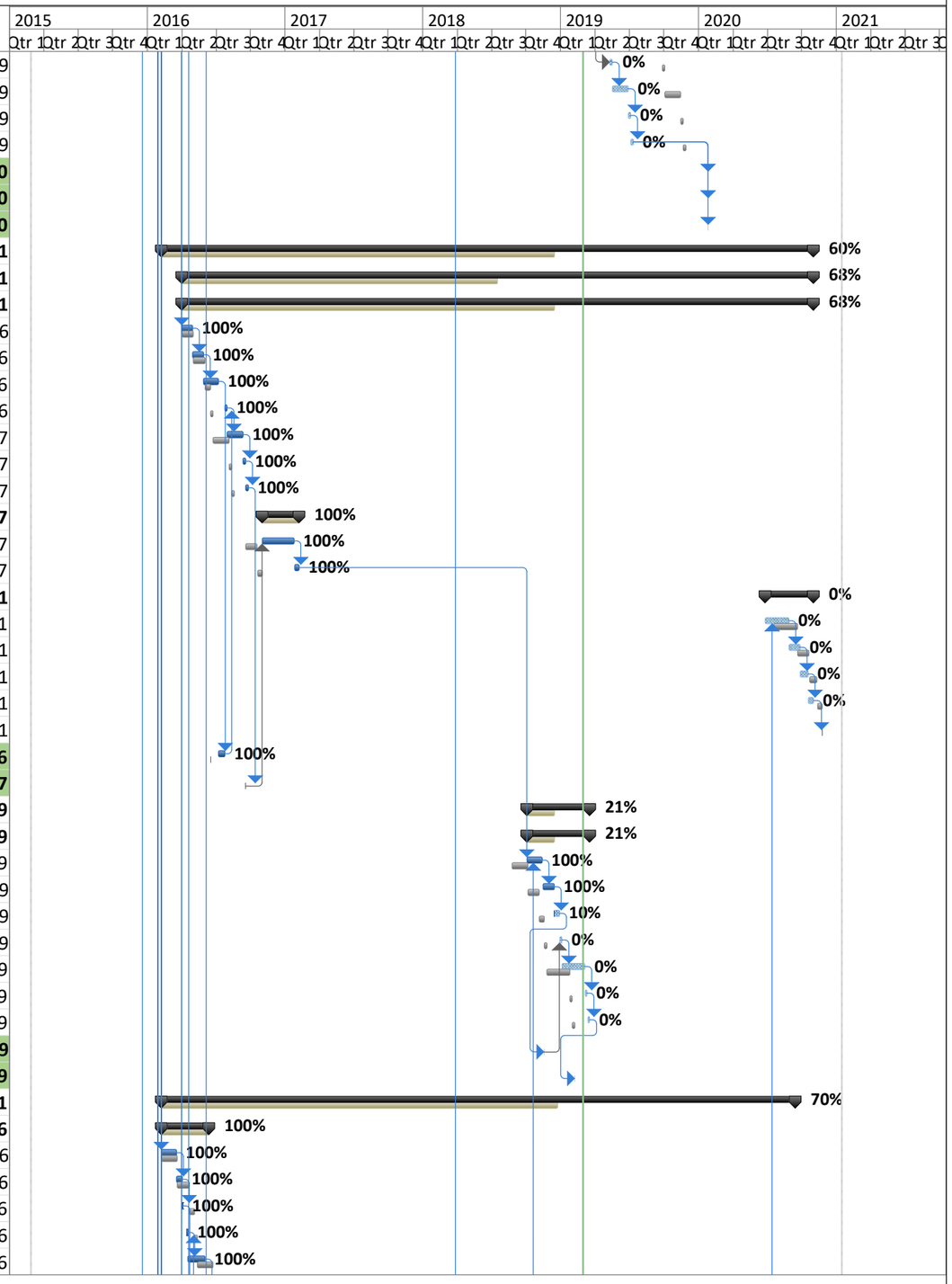
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1361	**2497**	**2008**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 1/7/20**	**Tue 1/7/20**
1362	**2496**	**2008**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 1/7/20**	**Tue 1/7/20**
1363	**2495**	**2008**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 1/7/20**	**Tue 1/7/20**
1366	**2315**		**2020 Annual LUC/IC Inspection**	**3 days**	**Tue 9/8/20**	**Thu 9/10/20**
1367	2316		Regulatory and AF Notice of Inspections	1 day	Tue 9/8/20	Tue 9/8/20
1368	2317		Site Inspection and Deed Notice Verification	2 days	Wed 9/9/20	Thu 9/10/20
1369	**2318**		**2020 Annual LTM Report**	**45 days**	**Fri 9/11/20**	**Thu 11/12/20**
1370	2319		Prepare Working Copy	10 days	Fri 9/11/20	Thu 9/24/20
1371	2320		Air Force Review of Working Copy	22 days	Fri 9/25/20	Mon 10/26/20
1372	2321		Resolve AF Comments on Working Copy AF	5 days	Tue 10/27/20	Mon 11/2/20
1373	2322		AF Review and Approval of RTCs	5 days	Tue 11/3/20	Mon 11/9/20
1379	2324		Submit Final to Regulators	3 days	Tue 11/10/20	Thu 11/12/20
1378	2323	2009	AF Approval of Final 2020 Annual LTM Report; Distribute Report t	0 days	Mon 11/9/20	Mon 11/9/20
1374	2506	2009	AF Approval of Final 2020 Annual LTM Report; Distribute Report t	0 days	Mon 11/9/20	Mon 11/9/20
1375	2505	2009	AF Approval of Final 2020 Annual LTM Report; Distribute Report t	0 days	Mon 11/9/20	Mon 11/9/20
1376	2504	2009	AF Approval of Final 2020 Annual LTM Report; Distribute Report t	0 days	Mon 11/9/20	Mon 11/9/20
1377	2503	2009	AF Approval of Final 2020 Annual LTM Report; Distribute Report t	0 days	Mon 11/9/20	Mon 11/9/20
1380	**1205**		**SC Sites SS017, DP022 and SS025**	**1010 days**	**Wed 6/8/16**	**Mon 4/20/20**
1381	**6304**		**Supplemental Investigation**	**1010 days**	**Wed 6/8/16**	**Mon 4/20/20**
1382	**1206**		**Supplemental Investigation (SI) Work Plan (in UFP-QAPP format)**	**171 days**	**Wed 6/8/16**	**Wed 2/1/17**
1383	1207		Prepare Working Copy of SI Work Plan	94 days	Wed 6/8/16	Mon 10/17/16
1384	1208		AF Review of Working Copy of SI Work Plan	57 days	Mon 8/22/16	Wed 11/9/16
1385	1209		RTC AF Comments on Working Copy of SI Work Plan	56 days	Thu 8/25/16	Fri 11/11/16
1389	1211		Submit Draft SI Work Plan to Regulators	20 days	Fri 10/21/16	Fri 11/18/16
1390	1212		Regulator Review of Draft SI Work Plan	43 days	Fri 11/18/16	Wed 1/18/17
1391	1213		RTC Regulator Comments on Draft SI Work Plan	0 days	Wed 1/18/17	Wed 1/18/17
1392	1214		Prepare Final SI Work Plan	9 days	Wed 1/18/17	Tue 1/31/17
1387	**2519**	**2020**	**AF Approval of Draft SI Work Plan**	**51 days**	**Tue 9/6/16**	**Wed 11/16/16**
1394	**2521**	**2020**	**Regulator Approval of Final SI Work Plan**	**0 days**	**Wed 2/1/17**	**Wed 2/1/17**
1388	**1210**	**2020**	**AF Approval of Draft SI Work Plan**	**51 days**	**Tue 9/6/16**	**Wed 11/16/16**
1395	**1215**	**2020**	**Regulator Approval of Final SI Work Plan**	**0 days**	**Wed 2/1/17**	**Wed 2/1/17**
1386	**2520**	**2020**	**AF Approval of Draft SI Work Plan**	**55 days**	**Wed 8/31/16**	**Wed 11/16/16**
1393	**2522**	**2020**	**Regulator Approval of Final SI Work Plan**	**0 days**	**Wed 2/1/17**	**Wed 2/1/17**
1396	**1300**		**Complete Soil Sampling and Risk Assessment (if necessary)**	**755 days**	**Wed 5/31/17**	**Mon 4/20/20**
1397	1301		Mobilization, Dig Permit and Sampling	4 days	Wed 5/31/17	Mon 6/5/17
1398	1302		Laboratory Analysis	1 day	Fri 6/30/17	Fri 6/30/17
1399	1304		Data Validation	5 days	Mon 7/3/17	Fri 7/7/17
1400	1305		ERPIMS Submittal	0 days	Wed 8/23/17	Wed 8/23/17
1401	1306		Prepare Risk Assessment (if necessary)	300 days	Wed 8/30/17	Tue 10/23/18
1402	1307		Implement Contingent Action of Excavation	390 days	Wed 10/24/18	Mon 4/20/20
1403	**6499**		**SI Report**	**189 days**	**Wed 10/24/18**	**Mon 7/15/19**
1404	6530		Prepare Working Copy of SI Report	90 days	Wed 10/24/18	Tue 2/26/19
1405	6531		AF Review of Working Copy of SI Report	22 days	Wed 2/27/19	Thu 3/28/19
1406	6532		RTC AF Comments on Working Copy of SI Report	10 days	Fri 3/29/19	Thu 4/11/19
1410	6536		Submit Draft SI Report to Regulators	5 days	Fri 4/12/19	Thu 4/18/19
1411	6537		Regulator Review of Draft SI Report	30 days	Fri 4/19/19	Thu 5/30/19



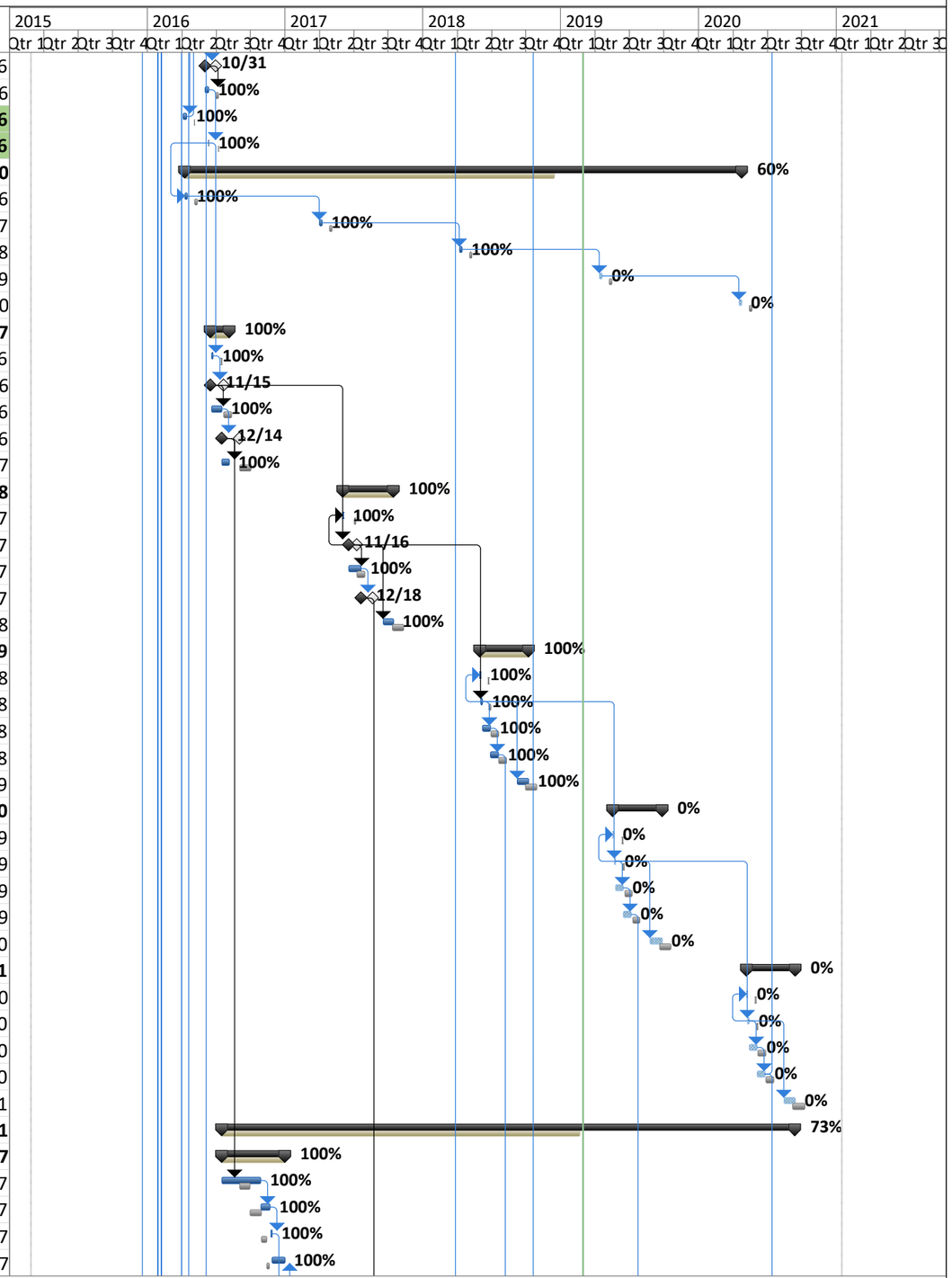
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1412	6538		RTC Regulator Comments on Draft SI Report	5 days	Fri 5/31/19	Thu 6/6/19
1413	6539		Prepare Final SI Report	5 days	Fri 6/7/19	Thu 6/13/19
1408	**6534**	**2023**	**AF Approval of Draft SI Report**	**0 days**	**Thu 4/11/19**	**Thu 4/11/19**
1415	**6541**	**2023**	**Regulator Approval of Final SI Report**	**0 days**	**Mon 7/15/19**	**Mon 7/15/19**
1409	**6535**	**2023**	**AF Approval of Draft SI Report**	**0 days**	**Thu 4/11/19**	**Thu 4/11/19**
1416	**6542**	**2023**	**Regulator Approval of Final SI Report**	**0 days**	**Mon 7/15/19**	**Mon 7/15/19**
1407	**6533**	**2023**	**AF Approval of Draft SI Report**	**0 days**	**Thu 4/11/19**	**Thu 4/11/19**
1414	**6540**	**2023**	**Regulator Approval of Final SI Report**	**0 days**	**Mon 7/15/19**	**Mon 7/15/19**
1417	**6305**		**LTM**	**581 days**	**Wed 10/12/16**	**Wed 1/2/19**
1418	**1216**		**LUC Inspections**	**524 days**	**Wed 10/12/16**	**Mon 10/15/18**
1419	1217		LUC Inspections-Annual	4 days	Wed 10/12/16	Mon 10/17/16
1420	1222		LUC Inspection-Annual (Contingency)	5 days	Tue 10/3/17	Mon 10/9/17
1421	1223		LUC Inspections - Annual (Contingency)	5 days	Tue 10/9/18	Mon 10/15/18
1422	**1254**		**LTM Reporting**	**567 days**	**Tue 11/1/16**	**Wed 1/2/19**
1423	**1255**		**Annual Report - Year 2016**	**68 days**	**Tue 11/1/16**	**Thu 2/2/17**
1424	1256		Prepare Working Copy of Annual Report	24 days	Tue 11/1/16	Fri 12/2/16
1425	1257		AF Review of Working Copy of Annual Report	13 days	Mon 12/5/16	Wed 12/21/16
1426	1258		RTC AF Comments on Working Copy of Annual Report	28 days	Thu 12/22/16	Mon 1/30/17
1430	1260		Submit Final Annual LUC Report to Regulators	21 days	Thu 1/5/17	Thu 2/2/17
1428	**2523**	**2021**	**AF Approval of Final Annual LUC Report-2016**	**20 days**	**Wed 1/4/17**	**Wed 2/1/17**
1429	**1259**	**2021**	**AF Approval of Final Annual LUC Report-2016**	**20 days**	**Wed 1/4/17**	**Wed 2/1/17**
1427	**2524**	**2021**	**AF Approval of Final Annual LUC Report-2016**	**20 days**	**Wed 1/4/17**	**Wed 2/1/17**
1431	**2590**		**Annual Report - Year 2017**	**125 days**	**Tue 10/10/17**	**Mon 4/2/18**
1432	2591		Prepare Working Copy of Annual Report	57 days	Tue 10/10/17	Wed 12/27/17
1433	2592		AF Review of Working Copy of Annual Report	45 days	Thu 12/28/17	Wed 2/28/18
1434	2593		RTC AF Comments on Working Copy of Annual Report	10 days	Thu 3/1/18	Wed 3/14/18
1438	2597		Submit Final Annual LUC Report to Regulators	13 days	Thu 3/15/18	Mon 4/2/18
1436	**2595**	**2021**	**AF Approval of Final Annual LUC Report-2017**	**12 days**	**Wed 3/14/18**	**Fri 3/30/18**
1437	**2596**	**2021**	**AF Approval of Final Annual LUC Report-2017**	**12 days**	**Wed 3/14/18**	**Fri 3/30/18**
1435	**2594**	**2021**	**AF Approval of Final Annual LUC Report-2017**	**12 days**	**Wed 3/14/18**	**Fri 3/30/18**
1439	**1265**		**Annual Report - Year 2018**	**57 days**	**Tue 10/16/18**	**Wed 1/2/19**
1440	1266		Prepare Working Copy of Annual Report	20 days	Tue 10/16/18	Mon 11/12/18
1441	1267		AF Review of Working Copy of Annual Report	22 days	Tue 11/13/18	Wed 12/12/18
1442	1268		RTC AF Comments on Working Copy of Annual Report	10 days	Thu 12/13/18	Wed 12/26/18
1446	1270		Submit Final Annual LUC Report to Regulators	5 days	Thu 12/27/18	Wed 1/2/19
1444	**2527**	**2022**	**AF Approval of Final Annual LUC Report-2018**	**0 days**	**Wed 12/26/18**	**Wed 12/26/18**
1445	**1269**	**2022**	**AF Approval of Final Annual LUC Report-2018**	**0 days**	**Wed 12/26/18**	**Wed 12/26/18**
1443	**2528**	**2022**	**AF Approval of Final Annual LUC Report-2018**	**0 days**	**Wed 12/26/18**	**Wed 12/26/18**
1447	**6306**		**Decision Document**	**151 days**	**Tue 7/16/19**	**Mon 2/10/20**
1448	**1275**		**Explanation of Significant Difference (ESD)**	**151 days**	**Tue 7/16/19**	**Mon 2/10/20**
1449	1276		Prepare Working Copy of ESD	30 days	Tue 7/16/19	Mon 8/26/19
1450	1277		AF Review of Working Copy of ESD	22 days	Tue 8/27/19	Tue 9/24/19
1451	1278		RTC AF Comments on Working Copy of ESD	10 days	Wed 9/25/19	Tue 10/8/19
1452	2532		AF Approval of Draft ESD	0 days	Tue 10/8/19	Tue 10/8/19
1453	2531		AF Approval of Draft ESD	0 days	Tue 10/8/19	Tue 10/8/19
1454	1279		AF Approval of Draft ESD	0 days	Tue 10/8/19	Tue 10/8/19



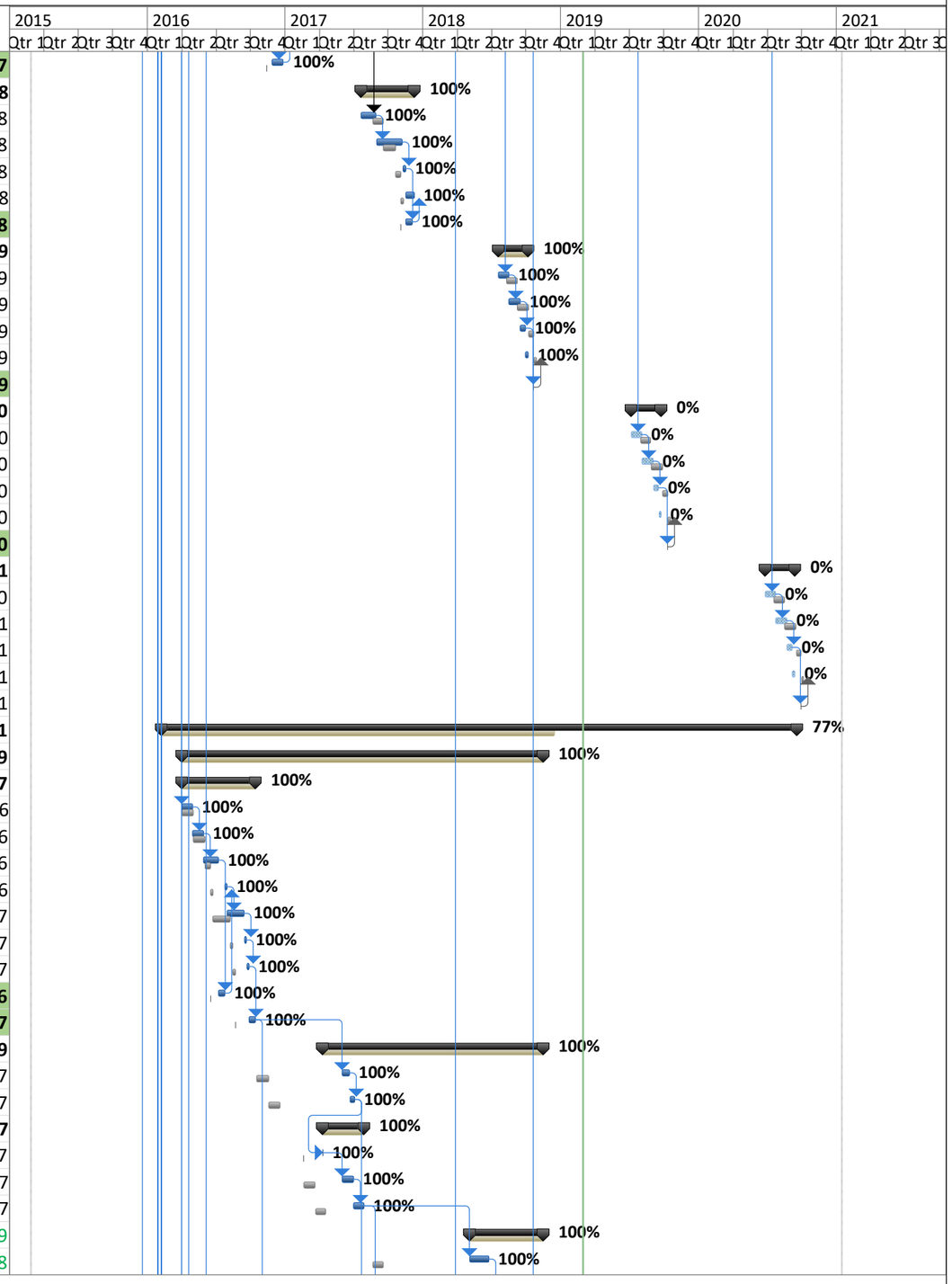
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1455	1280		Submit Draft Annual Report to ESD	5 days	Wed 10/9/19	Tue 10/15/19
1456	1281		Regulator Review of Draft ESD	30 days	Wed 10/16/19	Tue 11/26/19
1457	1282		RTC Regulator Comments on Draft ESD	5 days	Wed 11/27/19	Tue 12/3/19
1458	1283		Prepare Final ESD	5 days	Wed 12/4/19	Tue 12/10/19
1460	**2533**	**2023**	**Regulator Approval of Final ESD- Achieve SC**	**0 days**	**Mon 2/10/20**	**Mon 2/10/20**
1461	**1284**	**2023**	**Regulator Approval of Final ESD - Achieve SC**	**0 days**	**Mon 2/10/20**	**Mon 2/10/20**
1459	**2534**	**2023**	**Regulator Approval of Final ESD-Achieve SC**	**0 days**	**Mon 2/10/20**	**Mon 2/10/20**
1462	**2838**		**OES Site SD052-01: Apron 2 Chlorinated Plume**	**1235 days**	**Fri 7/8/16**	**Wed 3/31/21**
1463	**6308**		**Optimization**	**1197 days**	**Wed 8/31/16**	**Wed 3/31/21**
1464	**2839**		**Remedial Optimization Work Plan**	**1197 days**	**Wed 8/31/16**	**Wed 3/31/21**
1465	2840		Prepare Working Copy of Remedial Optimization Work Plan	20 days	Wed 8/31/16	Tue 9/27/16
1466	2841		AF Review of Working Copy of Remedial Optimization Work Plan	21 days	Wed 9/28/16	Wed 10/26/16
1467	2842		Resolve AF Comments on Working Copy of Remedial Optimizatio	28 days	Thu 10/27/16	Mon 12/5/16
1469	2844		Submit Draft Remedial Optimization Work Plan to Regulators	4 days	Fri 12/23/16	Wed 12/28/16
1470	2845		Regulator Review of Remedial Optimization Work Plan	30 days	Thu 12/29/16	Wed 2/8/17
1471	2846		RTC Regulator Comments on Draft Remedial Optimization Work F	5 days	Thu 2/9/17	Wed 2/15/17
1472	2847		Prepare Final Remedial Optimization Work Plan	5 days	Thu 2/16/17	Wed 2/22/17
1474	**2849**		**Remedial Optimization Field Implementation**	**70 days**	**Sat 4/1/17**	**Fri 7/7/17**
1475	2850		Mobilize and Obtain UIC and Dig Permits	60 days	Sat 4/1/17	Fri 6/23/17
1476	2851		Perform ISEB Injections	10 days	Mon 6/26/17	Fri 7/7/17
1477	**2956**		**OES Report**	**92 days**	**Tue 11/24/20**	**Wed 3/31/21**
1478	2957		Prepare Working Copy of OES Report	45 days	Tue 11/24/20	Mon 1/25/21
1479	2958		Air Force Review of Working Copy	22 days	Tue 1/26/21	Wed 2/24/21
1480	2959		Resolve AF Comments on Working Copy AF	15 days	Thu 2/25/21	Wed 3/17/21
1481	2960		AF Review and Approval of RTCs	10 days	Thu 3/18/21	Wed 3/31/21
1482	6405	2014	AF Approval of Final OES Report; Distribute Report to Regulato	0 days	Wed 3/31/21	Wed 3/31/21
1468	**2843**	**2010**	**AF Approval of Draft Remedial Optimization Work Plan**	**13 days**	**Mon 12/5/16**	**Thu 12/22/16**
1473	**2848**	**2010**	**Regulator Approval of Final Remedial Optimization Work Plan**	**0 days**	**Mon 3/13/17**	**Mon 3/13/17**
1483	**6309**		**Decision Document**	**120 days**	**Mon 3/4/19**	**Fri 8/16/19**
1484	**5694**		**Explanation of Significant Difference (ESD)**	**120 days**	**Mon 3/4/19**	**Fri 8/16/19**
1485	5695		Prepare Working Copy of ESD	30 days	Mon 3/4/19	Fri 4/12/19
1486	5696		AF Review of Working Copy of ESD	22 days	Mon 4/15/19	Tue 5/14/19
1487	5697		Resolve AF Comments on Working Copy of ESD	10 days	Wed 5/15/19	Tue 5/28/19
1489	5699		Submit Draft Annual Report to ESD	5 days	Wed 5/29/19	Tue 6/4/19
1490	5700		Regulator Review of Draft ESD	60 edays	Tue 6/4/19	Sat 8/3/19
1491	5701		RTC Regulator Comments on Draft ESD	5 days	Mon 8/5/19	Fri 8/9/19
1492	5702		Prepare Final ESD	5 days	Mon 8/12/19	Fri 8/16/19
1488	**5698**	**2012**	**AF Approval of Draft ESD**	**0 days**	**Tue 5/28/19**	**Tue 5/28/19**
1493	**5704**	**2013**	**Regulator Approval of Final ESD**	**0 days**	**Fri 8/16/19**	**Fri 8/16/19**
1494	**6310**		**Remedial Action -Operation (RA-O)**	**1201 days**	**Fri 7/8/16**	**Thu 2/11/21**
1495	**2852**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
1496	2853		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
1497	2854		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
1498	2855		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
1500	2857		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
1501	2858		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16


2015
2016
2017
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2021
Qtr 1Qtr 2Qtr 3Qtr 4Qtr 1Qtr 2Qtr 3Qtr 4Qtr 1Qtr 2Qtr 3Qtr 4

ID	Unique ID	CLIN	Description	Duration	Start	Finish
1502	2859		RTC Regulator Comments on Draft LTM Work Plan	0 days	Mon 10/31/16	Mon 10/31/16
1503	2860		Prepare Final LTM Work Plan	7 days	Mon 10/31/16	Wed 11/9/16
1499	**2856**	**2010**	**AF Approval of Draft LTM Work Plan**	**6 days**	**Fri 9/2/16**	**Mon 9/12/16**
1504	**2861**	**2010**	**Regulator Approval of Final LTM Work Plan**	**1 day**	**Wed 11/9/16**	**Thu 11/10/16**
1505	**2862**		**LUC Inspections**	**1055 days**	**Thu 9/8/16**	**Tue 9/22/20**
1506	2863		Annual LUC Inspection-2016	5 days	Thu 9/8/16	Wed 9/14/16
1507	2864		Annual LUC Inspection-2017	5 days	Thu 8/31/17	Wed 9/6/17
1508	2865		Annual LUC Inspection-2018	5 days	Thu 9/6/18	Wed 9/12/18
1509	2866		Annual LUC Inspection-2019	5 days	Thu 9/12/19	Wed 9/18/19
1510	2867		Annual LUC Inspection-2020	5 days	Wed 9/16/20	Tue 9/22/20
1511	**2868**		**Annual Groundwater Sampling and Well Inspections Year 2016**	**36 days**	**Tue 11/15/16**	**Tue 1/3/17**
1512	2869		Groundwater gaging and Well inspection	2 days	Fri 11/18/16	Mon 11/21/16
1513	2870		Sampling	0 days	Tue 11/15/16	Tue 11/15/16
1514	2871		Offsite Analysis of Groundwater Samples	19 days	Fri 11/18/16	Wed 12/14/16
1515	2872		Data Validation	0 days	Wed 12/14/16	Wed 12/14/16
1516	2873		ERPIMS Submittal	14 days	Thu 12/15/16	Tue 1/3/17
1517	**2874**		**Annual Groundwater Sampling and Well Inspections Year 2017**	**96 days**	**Wed 11/1/17**	**Wed 3/14/18**
1518	2875		Groundwater gaging and Well inspection	2 days	Wed 11/1/17	Thu 11/2/17
1519	2876		Sampling	0 days	Thu 11/16/17	Thu 11/16/17
1520	2877		Offsite Analysis of Groundwater Samples	23 days	Thu 11/16/17	Mon 12/18/17
1521	2878		Data Validation	0 days	Mon 12/18/17	Mon 12/18/17
1522	2879		ERPIMS Submittal	19 days	Fri 2/16/18	Wed 3/14/18
1523	**2880**		**Annual Groundwater Sampling and Well Inspections Year 2018**	**93 days**	**Tue 10/30/18**	**Thu 3/7/19**
1524	2881		Groundwater gaging and Well inspection	2 days	Tue 10/30/18	Wed 10/31/18
1525	2882		Sampling	3 days	Thu 11/1/18	Mon 11/5/18
1526	2883		Offsite Analysis of Groundwater Samples	15 days	Tue 11/6/18	Mon 11/26/18
1527	2884		Data Validation	15 days	Tue 11/27/18	Mon 12/17/18
1528	2885		ERPIMS Submittal	22 days	Wed 2/6/19	Thu 3/7/19
1529	**2886**		**Annual Groundwater Sampling and Well Inspections Year 2019**	**93 days**	**Thu 10/17/19**	**Mon 2/24/20**
1530	2887		Groundwater gaging and Well inspection	2 days	Thu 10/17/19	Fri 10/18/19
1531	2888		Sampling	3 days	Mon 10/21/19	Wed 10/23/19
1532	2889		Offsite Analysis of Groundwater Samples	15 days	Thu 10/24/19	Wed 11/13/19
1533	2890		Data Validation	15 days	Thu 11/14/19	Wed 12/4/19
1534	2891		ERPIMS Submittal	22 days	Fri 1/24/20	Mon 2/24/20
1535	**2892**		**Annual Groundwater Sampling and Well Inspections Year 2020**	**93 days**	**Tue 10/6/20**	**Thu 2/11/21**
1536	2893		Groundwater gaging and Well inspection	2 days	Tue 10/6/20	Wed 10/7/20
1537	2894		Sampling	3 days	Thu 10/8/20	Mon 10/12/20
1538	2895		Offsite Analysis of Groundwater Samples	15 days	Tue 10/13/20	Mon 11/2/20
1539	2896		Data Validation	15 days	Tue 11/3/20	Mon 11/23/20
1540	2897		ERPIMS Submittal	22 days	Wed 1/13/21	Thu 2/11/21
1541	**2898**		**LTM Reporting**	**1086 days**	**Thu 12/15/16**	**Wed 2/10/21**
1542	**2899**		**Annual Report - Year 2016**	**119 days**	**Thu 12/15/16**	**Tue 5/30/17**
1543	2900		Prepare Working Copy of Annual Report	73 days	Thu 12/15/16	Mon 3/27/17
1544	2901		AF Review of Working Copy of Annual Report	18 days	Tue 3/28/17	Fri 4/21/17
1545	2902		Resolve AF Comments on Working Copy of Annual Report	3 days	Mon 4/24/17	Wed 4/26/17
1547	2904		Submit Final Annual Report to Regulators; AF Approval of ERPI	24 days	Thu 4/27/17	Tue 5/30/17

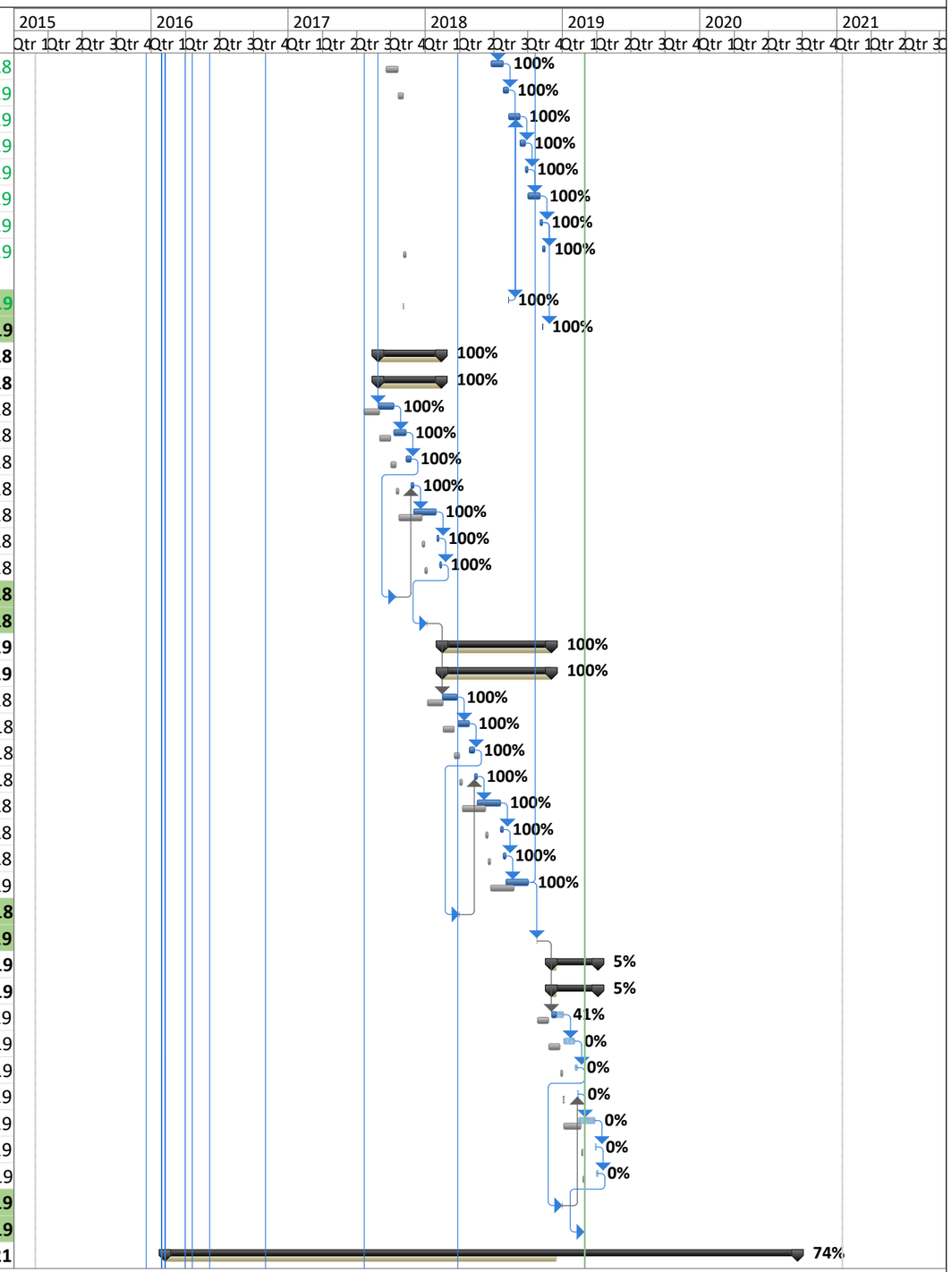


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1546	**2903**	**2010**	**AF Approval of Final Annual LTM Report-2016**	**21 days**	**Wed 4/26/17**	**Thu 5/25/17**
1548	**2909**		**Annual Report - Year 2017**	**101 days**	**Tue 12/19/17**	**Tue 5/8/18**
1549	2910		Prepare Working Copy of Annual Report	29 days	Tue 12/19/17	Fri 1/26/18
1550	2911		AF Review of Working Copy of Annual Report	50 days	Mon 1/29/18	Fri 4/6/18
1551	2912		Resolve AF Comments on Working Copy of Annual Report	6 days	Mon 4/9/18	Mon 4/16/18
1553	2914		Submit Final Annual Report to Regulators; AF Approval of ERPII	16 days	Tue 4/17/18	Tue 5/8/18
1552	**2913**	**2011**	**AF Approval of Final Annual LTM Report-2017**	**13 days**	**Mon 4/16/18**	**Thu 5/3/18**
1554	**2919**		**Annual Report - Year 2018**	**57 days**	**Tue 12/18/18**	**Wed 3/6/19**
1555	2920		Prepare Working Copy of Annual Report	20 days	Tue 12/18/18	Mon 1/14/19
1556	2921		AF Review of Working Copy of Annual Report	22 days	Tue 1/15/19	Wed 2/13/19
1557	2922		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 2/14/19	Wed 2/27/19
1559	2924		Submit Final Annual Report to Regulators; AF Approval of ERPII	5 days	Thu 2/28/19	Wed 3/6/19
1558	**2923**	**2012**	**AF Approval of Final Annual LTM Report-2018**	**0 days**	**Wed 2/27/19**	**Wed 2/27/19**
1560	**2929**		**Annual Report - Year 2019**	**57 days**	**Thu 12/5/19**	**Fri 2/21/20**
1561	2930		Prepare Working Copy of Annual Report	20 days	Thu 12/5/19	Wed 1/1/20
1562	2931		AF Review of Working Copy of Annual Report	22 days	Thu 1/2/20	Fri 1/31/20
1563	2932		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 2/3/20	Fri 2/14/20
1565	2934		Submit Final Annual Report to Regulators; AF Approval of ERPII	5 days	Mon 2/17/20	Fri 2/21/20
1564	**2933**	**2013**	**AF Approval of Final Annual LTM Report-2019**	**0 days**	**Fri 2/14/20**	**Fri 2/14/20**
1566	**2939**		**Annual Report - Year 2020**	**57 days**	**Tue 11/24/20**	**Wed 2/10/21**
1567	2940		Prepare Working Copy of Annual Report	20 days	Tue 11/24/20	Mon 12/21/20
1568	2941		AF Review of Working Copy of Annual Report	22 days	Tue 12/22/20	Wed 1/20/21
1569	2942		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 1/21/21	Wed 2/3/21
1571	2944		Submit Final Annual Report to Regulators; AF Approval of ERPII	5 days	Thu 2/4/21	Wed 2/10/21
1570	2943	2014	AF Approval of Final Annual Report-2020	0 days	Wed 2/3/21	Wed 2/3/21
1572	**2973**		**RC Site SD052-02: Bldg. 775, Pump house 3 - Chlorinated Plume**	**1203 days**	**Fri 7/8/16**	**Mon 2/15/21**
1573	**6311**		**Optimization via Pilot Study**	**684 days**	**Wed 8/31/16**	**Mon 4/15/19**
1574	**2974**		**Remedial Optimization Work Plan**	**139 days**	**Wed 8/31/16**	**Mon 3/13/17**
1575	2975		Prepare Working Copy of Remedial Optimization Work Plan	20 days	Wed 8/31/16	Tue 9/27/16
1576	2976		AF Review of Working Copy of Remedial Optimization Work Plan	21 days	Wed 9/28/16	Wed 10/26/16
1577	2977		Resolve AF Comments on Working Copy of Remedial Optimizatio	28 days	Thu 10/27/16	Mon 12/5/16
1579	2979		Submit Draft Remedial Optimization Work Plan to Regulators	4 days	Fri 12/23/16	Wed 12/28/16
1580	2980		Regulator Review of Remedial Optimization Work Plan	45 edays	Wed 12/28/16	Sat 2/11/17
1581	2981		RTC Regulator Comments on Draft Remedial Optimization Work F	5 days	Mon 2/13/17	Fri 2/17/17
1582	2982		Prepare Final Remedial Optimization Work Plan	5 days	Mon 2/20/17	Fri 2/24/17
1578	**2978**	**2015**	**AF Approval of Draft Remedial Optimization Work Plan**	**13 days**	**Mon 12/5/16**	**Thu 12/22/16**
1583	**2983**	**2015**	**Regulator Approval of Final Remedial Optimization Work Plan**	**11 days**	**Fri 2/24/17**	**Mon 3/13/17**
1584	**2984**		**Remedial Optimization Pilot Test**	**417 days**	**Fri 9/8/17**	**Mon 4/15/19**
1585	2985		Mobilize and Obtain UIC and Dig Permits	15 days	Mon 10/30/17	Fri 11/17/17
1586	2986		Complete Pilot Study	10 days	Mon 11/20/17	Fri 12/1/17
1587	**6253**		**Remedial Optimization Field Implementation**	**78 days**	**Fri 9/8/17**	**Tue 12/26/17**
1588	6256		Shut extraction system down	1 day	Fri 9/8/17	Fri 9/8/17
1589	6254		Mobilize and Obtain UIC and Dig Permits	22 days	Mon 10/30/17	Tue 11/28/17
1590	6255		Complete Full Scale Injections	20 days	Wed 11/29/17	Tue 12/26/17
1591	6583		Pilot Study Report	139 days	Wed 10/3/18	Mon 4/15/19
1592	6584		Prepare Working Copy of Pilot Study Report	37 days	Wed 10/3/18	Thu 11/22/18

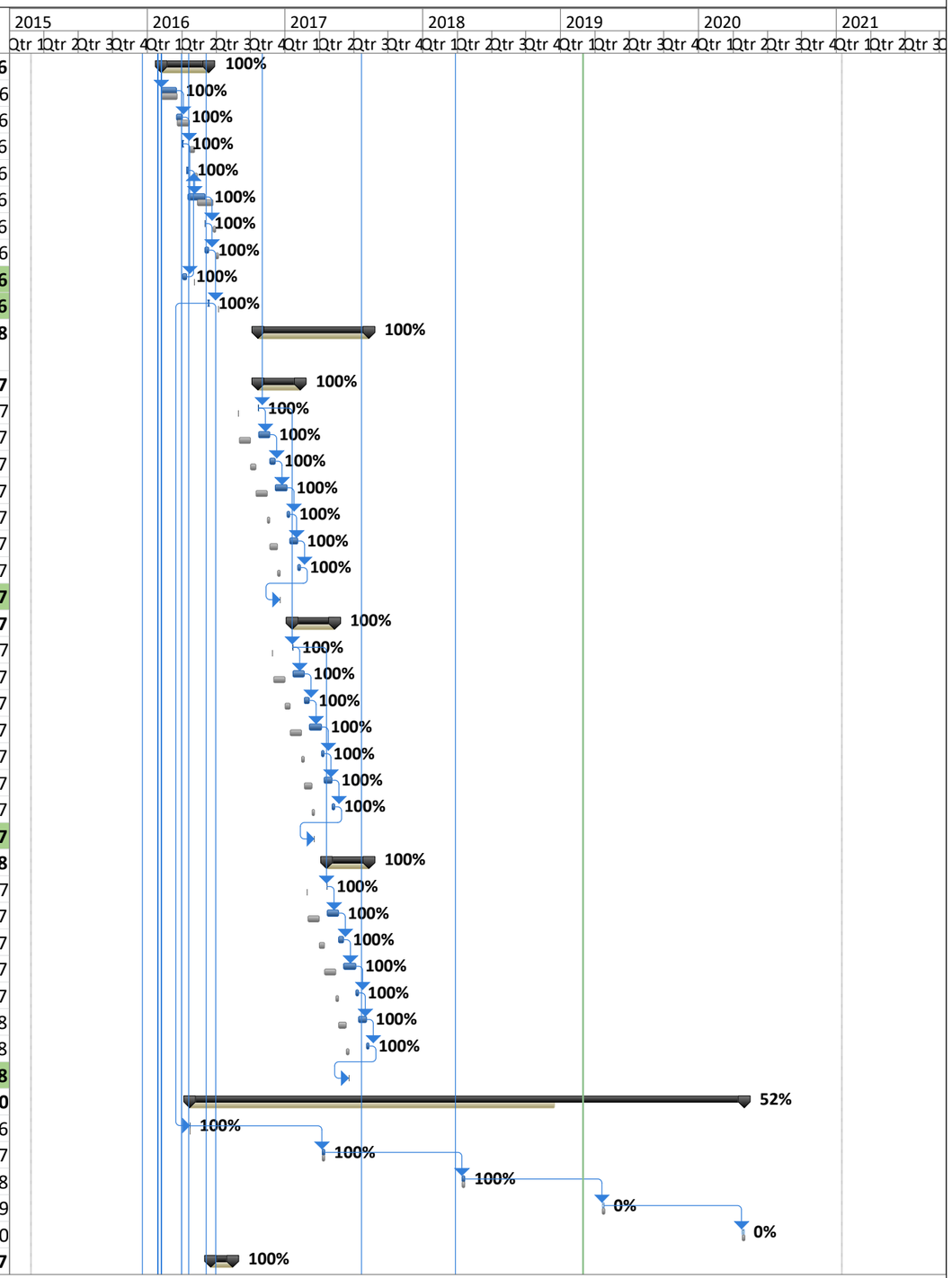


2018 PMP Update to IMS

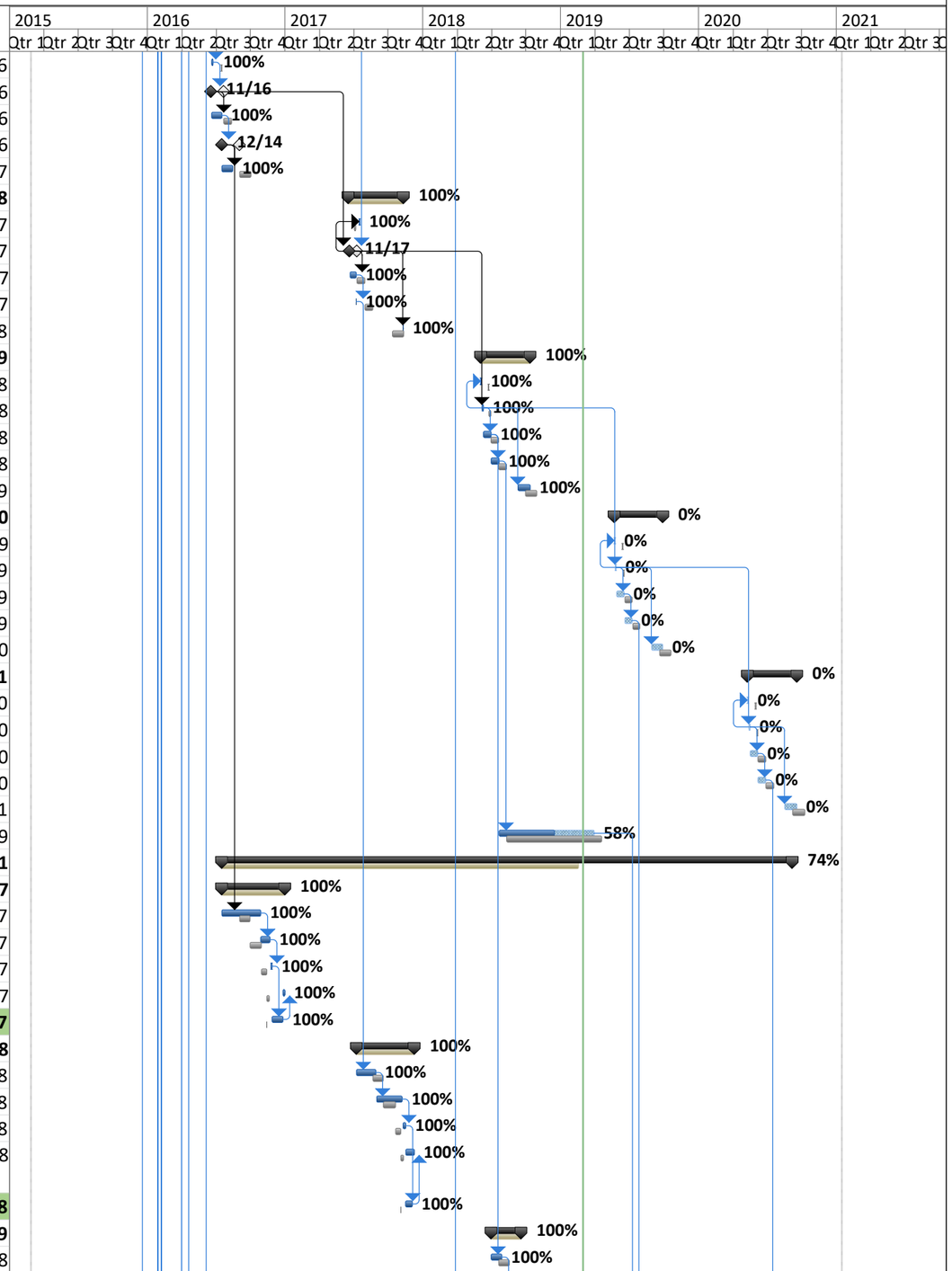
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1593	6585		AF Review of Working Copy of Pilot Study Report	22 days	Fri 11/23/18	Mon 12/24/18
1594	6586		Resolve AF Comments on Working Copy of Pilot Study Report	10 days	Tue 12/25/18	Mon 1/7/19
1596	6589		Regulator review of Draft Pilot Study Report	22 days	Wed 1/9/19	Thu 2/7/19
1597	6590		Receive and Respond to Regulator comments	10 days	Fri 2/8/19	Thu 2/21/19
1598	6591		Issue Draft Final Pilot Study Report	5 days	Fri 2/22/19	Thu 2/28/19
1599	6592		Regulator review of Draft Final report	22 days	Fri 3/1/19	Mon 4/1/19
1600	6593		Receive and Respond to Regulator comments	5 days	Tue 4/2/19	Mon 4/8/19
1601	6588		Submit Final Annual LTM Report to Regulators; AF Approval of ERPIMS Upload	5 days	Tue 4/9/19	Mon 4/15/19
1595	**6587**	**2015**	**AF Approval of Draft Pilot Study Report**	**1 day**	**Tue 1/8/19**	**Tue 1/8/19**
1602	**6841**	**2016**	**AF Approval of Final Pilot Study Report**	**1 day**	**Tue 4/9/19**	**Tue 4/9/19**
1603	**6471**		**Feasibility Study**	**121 days**	**Fri 1/26/18**	**Fri 7/13/18**
1604	**6472**		**Focused Feasibility Study (FFS)**	**121 days**	**Fri 1/26/18**	**Fri 7/13/18**
1605	6473		Prepare Working Copy of FFS	30 days	Fri 1/26/18	Thu 3/8/18
1606	6474		AF Review of Working Copy of FFS	22 days	Fri 3/9/18	Mon 4/9/18
1607	6475		Resolve AF Comments on Working Copy of FFS	10 days	Tue 4/10/18	Mon 4/23/18
1609	6477		Submit Draft Annual Report to FFS	5 days	Tue 4/24/18	Mon 4/30/18
1610	6478		Regulator Review of Draft FFS	44 days	Tue 5/1/18	Fri 6/29/18
1611	6479		RTC Regulator Comments on Draft FFS	5 days	Mon 7/2/18	Fri 7/6/18
1612	6480		Prepare Final FFS	5 days	Mon 7/9/18	Fri 7/13/18
1608	**6476**	**2016**	**AF Approval of Draft FFS**	**0 days**	**Mon 4/23/18**	**Mon 4/23/18**
1613	**6481**	**2016**	**Regulator Approval of Final FFS**	**0 days**	**Fri 7/13/18**	**Fri 7/13/18**
1614	**6482**		**Proposed Plan**	**209 days**	**Mon 7/16/18**	**Thu 5/2/19**
1615	**6483**		**Proposed Plan**	**209 days**	**Mon 7/16/18**	**Thu 5/2/19**
1616	6484		Prepare Working Copy of Proposed Plan	30 days	Mon 7/16/18	Fri 8/24/18
1617	6485		AF Review of Working Copy of Proposed Plan	22 days	Mon 8/27/18	Tue 9/25/18
1618	6486		Resolve AF Comments on Working Copy of Proposed Plan	10 days	Wed 9/26/18	Tue 10/9/18
1620	6488		Submit Draft Annual Report to Proposed Plan	5 days	Wed 10/10/18	Tue 10/16/18
1621	6489		Regulator Review of Draft Proposed Plan	44 days	Wed 10/17/18	Mon 12/17/18
1622	6490		RTC Regulator Comments on Draft Proposed Plan	5 days	Tue 12/18/18	Mon 12/24/18
1623	6491		Prepare Final Proposed Plan	5 days	Tue 12/25/18	Mon 12/31/18
1624	6492		Public Review, Meeting and Comment	44 days	Tue 1/1/19	Fri 3/1/19
1619	**6487**	**2017**	**AF Approval of Draft Proposed Plan**	**0 days**	**Tue 10/9/18**	**Tue 10/9/18**
1625	**6493**	**2017**	**Regulator Approval of Final Proposed Plan**	**0 days**	**Thu 5/2/19**	**Thu 5/2/19**
1626	**6312**		**Decision Document**	**88 days**	**Fri 5/3/19**	**Tue 9/3/19**
1627	**5826**		**Prepare ESD**	**88 days**	**Fri 5/3/19**	**Tue 9/3/19**
1628	5827		Prepare Working Copy of ESD	22 days	Fri 5/3/19	Mon 6/3/19
1629	5828		AF Review of Working Copy of ESD	22 days	Tue 6/4/19	Wed 7/3/19
1630	5829		Resolve AF Comments on Working Copy of ESD	5 days	Thu 7/4/19	Wed 7/10/19
1632	5831		Submit Draft ESD to Regulators	2 days	Thu 7/11/19	Fri 7/12/19
1633	5832		Regulator Review of Draft ESD	45 edays	Fri 7/12/19	Mon 8/26/19
1634	5833		RTC Regulator Comments on ESD	3 days	Tue 8/27/19	Thu 8/29/19
1635	5834		Prepare Final ESD	3 days	Fri 8/30/19	Tue 9/3/19
1631	**5830**	**2017**	**AF Approval of Draft ESD**	**0 days**	**Wed 7/10/19**	**Wed 7/10/19**
1636	**5835**	**2018**	**Regulator Approval of Final ESD**	**0 days**	**Tue 9/3/19**	**Tue 9/3/19**
1637	**6313**		**LTM**	**1203 days**	**Fri 7/8/16**	**Mon 2/15/21**



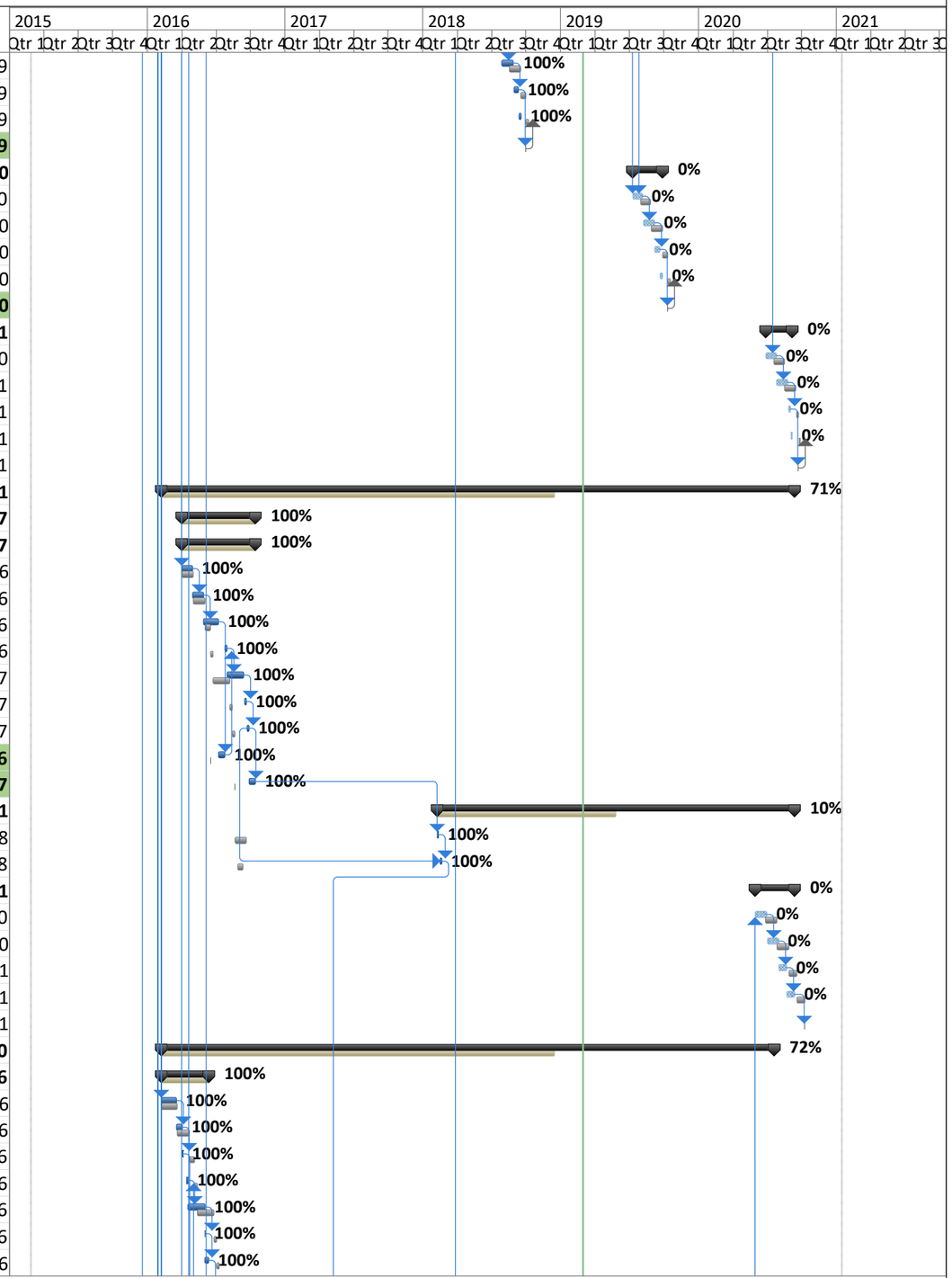
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1638	**3141**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
1639	3142		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
1640	3143		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
1641	3144		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
1643	3146		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
1644	3147		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
1645	3148		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
1646	3149		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16
1642	**3145**	**2015**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
1647	**3150**	**2015**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
1648	**2987**		**Quarterly O&M Sampling and Reporting (Contingent if system needs to be restarted)**	**210 days**	**Tue 3/21/17**	**Mon 1/8/18**
1649	**2988**		**Quarterly O&M Event-Q1 2017**	**80 days**	**Tue 3/21/17**	**Mon 7/10/17**
1650	2989		Quarterly O&M Sampling	1 day	Tue 3/21/17	Tue 3/21/17
1651	2990		Sample Analysis	22 days	Wed 3/22/17	Thu 4/20/17
1652	2991		Prepare Working Copy of O&M Report	10 days	Fri 4/21/17	Thu 5/4/17
1653	2992		Air Force Review of Working Copy	22 days	Fri 5/5/17	Mon 6/5/17
1654	2993		Resolve AF Comments on Working Copy AF	5 days	Tue 6/6/17	Mon 6/12/17
1655	2994		AF Review and Approval of RTCs	15 days	Tue 6/13/17	Mon 7/3/17
1656	2995		Prepare Final O&M Report	5 days	Tue 7/4/17	Mon 7/10/17
1657	**2996**	**2015**	**AF Approval of Final O&M Report for Q1 2017 and ERPIMS Up**	**0 days**	**Mon 7/10/17**	**Mon 7/10/17**
1658	**2997**		**Quarterly O&M Event - Q2 2017**	**80 days**	**Tue 6/20/17**	**Mon 10/9/17**
1659	2998		Quarterly O&M Sampling	1 day	Tue 6/20/17	Tue 6/20/17
1660	2999		Sample Analysis	22 days	Wed 6/21/17	Thu 7/20/17
1661	3000		Prepare Working Copy of O&M Report	10 days	Fri 7/21/17	Thu 8/3/17
1662	3001		Air Force Review of Working Copy	22 days	Fri 8/4/17	Mon 9/4/17
1663	3002		Resolve AF Comments on Working Copy AF	5 days	Tue 9/5/17	Mon 9/11/17
1664	3003		AF Review and Approval of RTCs	15 days	Tue 9/12/17	Mon 10/2/17
1665	3004		Prepare Final O&M Report	5 days	Tue 10/3/17	Mon 10/9/17
1666	**3005**	**2015**	**AF Approval of Final O&M Report for Q2 2017 and ERPIMS Up**	**0 days**	**Mon 10/9/17**	**Mon 10/9/17**
1667	**3006**		**Quarterly O&M Event- Q3 2017**	**80 days**	**Tue 9/19/17**	**Mon 1/8/18**
1668	3007		Quarterly O&M Sampling	1 day	Tue 9/19/17	Tue 9/19/17
1669	3008		Sample Analysis	22 days	Wed 9/20/17	Thu 10/19/17
1670	3009		Prepare Working Copy of O&M Report	10 days	Fri 10/20/17	Thu 11/2/17
1671	3010		Air Force Review of Working Copy	22 days	Fri 11/3/17	Mon 12/4/17
1672	3011		Resolve AF Comments on Working Copy AF	5 days	Tue 12/5/17	Mon 12/11/17
1673	3012		AF Review and Approval of RTCs	15 days	Tue 12/12/17	Mon 1/1/18
1674	3013		Prepare Final O&M Report	5 days	Tue 1/2/18	Mon 1/8/18
1675	**3014**	**2016**	**AF Approval of Final O&M Report for Q3 2017 and ERPIMS Up**	**0 days**	**Mon 1/8/18**	**Mon 1/8/18**
1676	**3151**		**LUC Inspections**	**1051 days**	**Wed 9/21/16**	**Tue 9/29/20**
1677	3152		Annual LUC Inspection-2016	1 day	Wed 9/21/16	Wed 9/21/16
1678	3153		Annual LUC Inspection-2017	5 days	Thu 9/7/17	Wed 9/13/17
1679	3154		Annual LUC Inspection-2018	5 days	Thu 9/13/18	Wed 9/19/18
1680	3155		Annual LUC Inspection-2019	5 days	Thu 9/19/19	Tue 9/24/19
1681	3156		Annual LUC Inspection-2020	5 days	Wed 9/23/20	Tue 9/29/20
1682	**3157**		**Annual Groundwater Sampling and Well Inspections Year 2016**	**42 days**	**Wed 11/16/16**	**Thu 1/12/17**



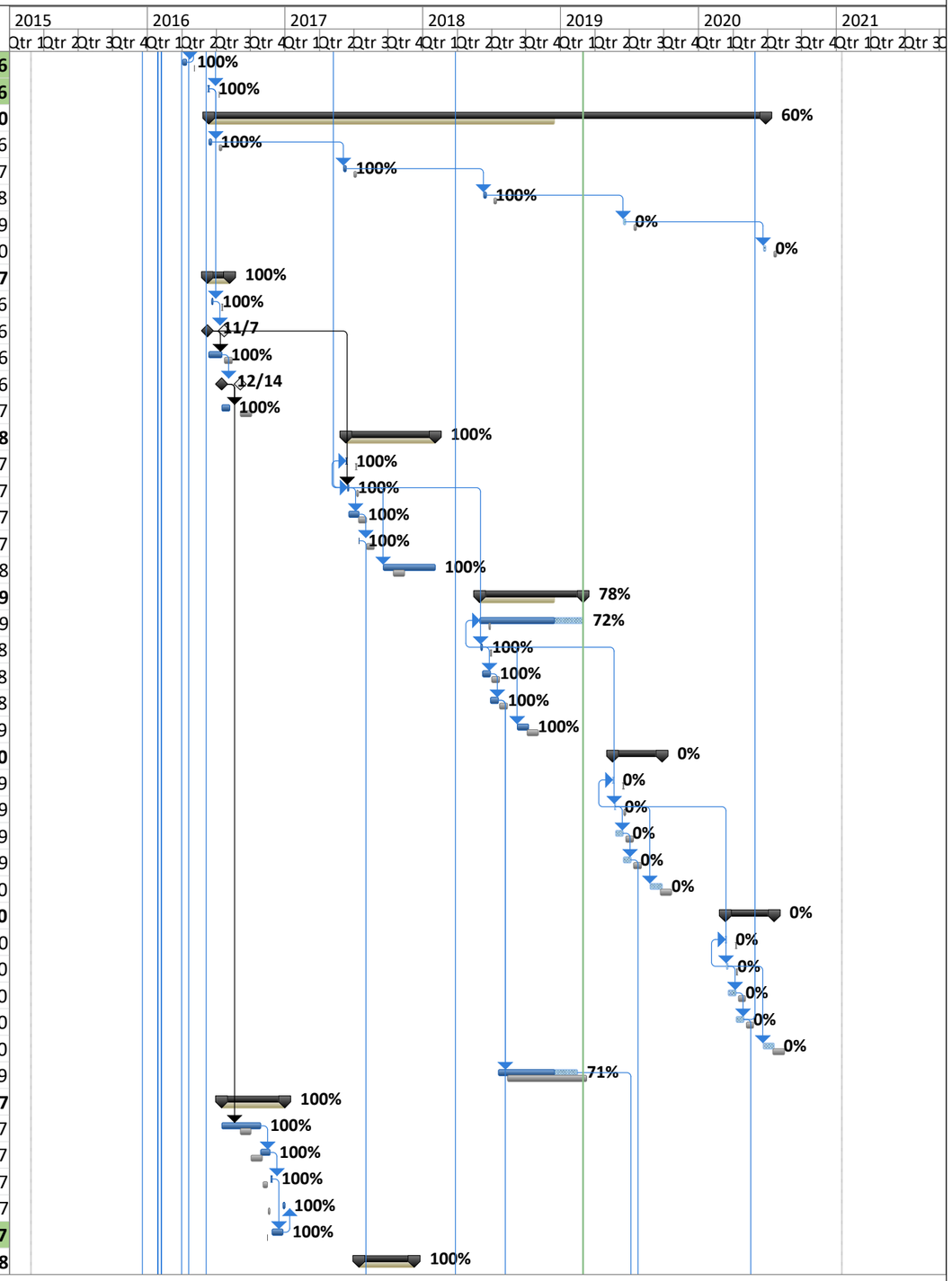
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1683	3158		Groundwater gaging and Well inspection	2 days	Fri 11/18/16	Mon 11/21/16
1684	3159		Sampling	0 days	Wed 11/16/16	Wed 11/16/16
1685	3160		Offsite Analysis of Groundwater Samples	19 days	Fri 11/18/16	Wed 12/14/16
1686	3161		Data Validation	0 days	Wed 12/14/16	Wed 12/14/16
1687	3162		ERPIMS Submittal	21 days	Thu 12/15/16	Thu 1/12/17
1688	**3163**		**Annual Groundwater Sampling and Well Inspections Year 2017**	**104 days**	**Wed 11/15/17**	**Mon 4/9/18**
1689	3164		Groundwater gaging and Well inspection	2 days	Thu 12/14/17	Fri 12/15/17
1690	3165		Sampling	0 days	Wed 11/15/17	Fri 11/17/17
1691	3166		Offsite Analysis of Groundwater Samples	12 days	Mon 11/20/17	Tue 12/5/17
1692	3167		Data Validation	1 day	Wed 12/6/17	Wed 12/6/17
1693	3168		ERPIMS Submittal	1 day	Mon 4/9/18	Mon 4/9/18
1694	**3169**		**Annual Groundwater Sampling and Well Inspections Year 2018**	**93 days**	**Thu 11/1/18**	**Mon 3/11/19**
1695	3170		Groundwater gaging and Well inspection	2 days	Thu 11/1/18	Fri 11/2/18
1696	3171		Sampling	3 days	Mon 11/5/18	Wed 11/7/18
1697	3172		Offsite Analysis of Groundwater Samples	15 days	Thu 11/8/18	Wed 11/28/18
1698	3173		Data Validation	15 days	Thu 11/29/18	Wed 12/19/18
1699	3174		ERPIMS Submittal	22 days	Fri 2/8/19	Mon 3/11/19
1700	**3175**		**Annual Groundwater Sampling and Well Inspections Year 2019**	**93 days**	**Mon 10/21/19**	**Wed 2/26/20**
1701	3176		Groundwater gaging and Well inspection	2 days	Mon 10/21/19	Tue 10/22/19
1702	3177		Sampling	3 days	Wed 10/23/19	Fri 10/25/19
1703	3178		Offsite Analysis of Groundwater Samples	15 days	Mon 10/28/19	Fri 11/15/19
1704	3179		Data Validation	15 days	Mon 11/18/19	Fri 12/6/19
1705	3180		ERPIMS Submittal	22 days	Tue 1/28/20	Wed 2/26/20
1706	**3181**		**Annual Groundwater Sampling and Well Inspections Year 2020**	**93 days**	**Thu 10/8/20**	**Mon 2/15/21**
1707	3182		Groundwater gaging and Well inspection	2 days	Thu 10/8/20	Fri 10/9/20
1708	3183		Sampling	3 days	Mon 10/12/20	Wed 10/14/20
1709	3184		Offsite Analysis of Groundwater Samples	15 days	Thu 10/15/20	Wed 11/4/20
1710	3185		Data Validation	15 days	Thu 11/5/20	Wed 11/25/20
1711	3186		ERPIMS Submittal	22 days	Fri 1/15/21	Mon 2/15/21
1712	6060		Implement Contingent Action	180 days	Thu 12/20/18	Wed 8/28/19
1713	**3187**		**LTM Reporting**	**1081 days**	**Thu 12/15/16**	**Wed 2/3/21**
1714	**3188**		**Annual Report - Year 2016**	**119 days**	**Thu 12/15/16**	**Tue 5/30/17**
1715	3189		Prepare Working Copy of Annual Report	73 days	Thu 12/15/16	Mon 3/27/17
1716	3190		AF Review of Working Copy of Annual Report	19 days	Tue 3/28/17	Fri 4/21/17
1717	3191		Resolve AF Comments on Working Copy of Annual Report	3 days	Mon 4/24/17	Wed 4/26/17
1719	3193		Submit Final Annual LTM Report to Regulators; AF Approval of	3 days	Fri 5/26/17	Tue 5/30/17
1718	**3192**	**2015**	**AF Approval of Final Annual LTM Report-2016**	**21 days**	**Wed 4/26/17**	**Thu 5/25/17**
1720	**3198**		**Annual Report - Year 2017**	**109 days**	**Thu 12/7/17**	**Tue 5/8/18**
1721	3199		Prepare Working Copy of Annual Report	37 days	Thu 12/7/17	Fri 1/26/18
1722	3200		AF Review of Working Copy of Annual Report	50 days	Mon 1/29/18	Fri 4/6/18
1723	3201		Resolve AF Comments on Working Copy of Annual Report	6 days	Mon 4/9/18	Mon 4/16/18
1725	3203		Submit Final Annual LTM Report to Regulators; AF Approval of ERPIMS Upload	16 days	Tue 4/17/18	Tue 5/8/18
1724	**3202**	**2016**	**AF Approval of Draft Final LTM Report-2017**	**14 days**	**Mon 4/16/18**	**Thu 5/3/18**
1726	**5836**		**Annual Report - Year 2018**	**57 days**	**Thu 11/29/18**	**Fri 2/15/19**
1727	5837		Prepare Working Copy of Annual Report	20 days	Thu 11/29/18	Wed 12/26/18



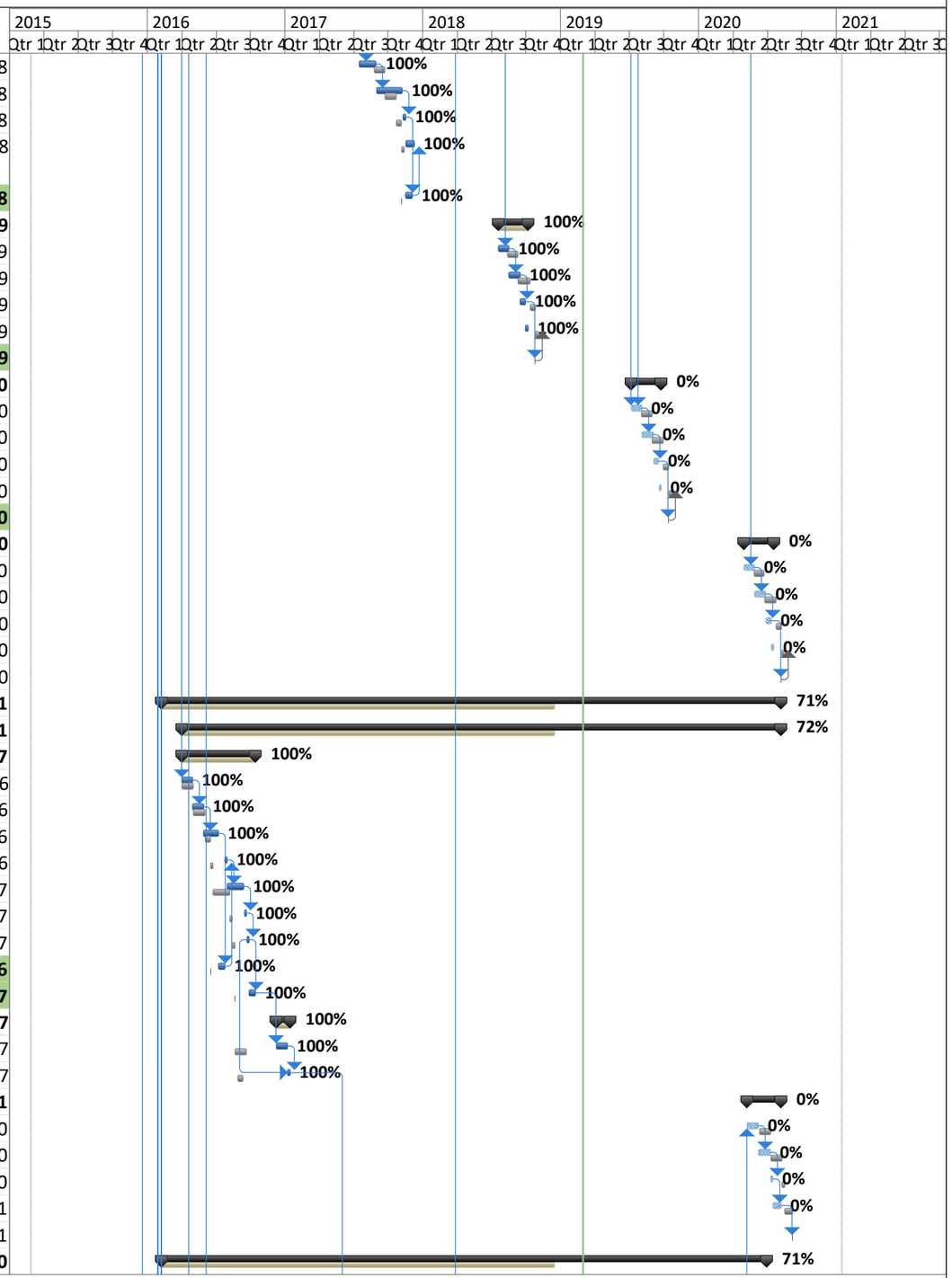
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1728	5838		AF Review of Working Copy of Annual Report	22 days	Thu 12/27/18	Fri 1/25/19
1729	5839		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 1/28/19	Fri 2/8/19
1731	5841		Submit Final Annual LTM Report to Regulators; AF Approval of	5 days	Mon 2/11/19	Fri 2/15/19
1730	**5840**	**2017**	**AF Approval of Final Annual LTM Report-2018**	**0 days**	**Fri 2/8/19**	**Fri 2/8/19**
1732	**5846**		**Annual Report - Year 2019**	**57 days**	**Mon 12/9/19**	**Tue 2/25/20**
1733	5847		Prepare Working Copy of Annual Report	20 days	Mon 12/9/19	Fri 1/3/20
1734	5848		AF Review of Working Copy of Annual Report	22 days	Mon 1/6/20	Tue 2/4/20
1735	5849		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 2/5/20	Tue 2/18/20
1737	5851		Submit Final Annual LTM Report to Regulators; AF Approval of	5 days	Wed 2/19/20	Tue 2/25/20
1736	**5850**	**2018**	**AF Approval of Final Annual LTM Report-2019**	**0 days**	**Tue 2/18/20**	**Tue 2/18/20**
1738	**3208**		**Annual Report - Year 2020**	**50 days**	**Thu 11/26/20**	**Wed 2/3/21**
1739	3209		Prepare Working Copy of Annual Report	20 days	Thu 11/26/20	Wed 12/23/20
1740	3210		AF Review of Working Copy of Annual Report	22 days	Thu 12/24/20	Fri 1/22/21
1741	3211		Resolve AF Comments on Working Copy of Annual Report	5 days	Mon 1/25/21	Fri 1/29/21
1743	3213		Submit Final Annual LTM Report to Regulators; AF Approval of	3 days	Mon 2/1/21	Wed 2/3/21
1742	3212	2019	AF Approval of Final Annual LTM Report-Achieve RC	0 days	Fri 1/29/21	Fri 1/29/21
1744	**3242**		**OES Site SD052-04: Landfill 6 Chlorinated Plume**	**1199 days**	**Fri 7/8/16**	**Tue 2/9/21**
1745	**6314**		**Optimization**	**139 days**	**Wed 8/31/16**	**Mon 3/13/17**
1746	**3243**		**Remedial Optimization Work Plan**	**139 days**	**Wed 8/31/16**	**Mon 3/13/17**
1747	3244		Prepare Working Copy of Remedial Optimization Work Plan	20 days	Wed 8/31/16	Tue 9/27/16
1748	3245		AF Review of Working Copy of Remedial Optimization Work Plan	21 days	Wed 9/28/16	Wed 10/26/16
1749	3246		Resolve AF Comments on Working Copy of Remedial Optimizatio	28 days	Thu 10/27/16	Mon 12/5/16
1751	3248		Submit Draft Remedial Optimization Work Plan to Regulators	4 days	Fri 12/23/16	Wed 12/28/16
1752	3249		Regulator Review of Remedial Optimization Work Plan	32 days	Thu 12/29/16	Fri 2/10/17
1753	3250		RTC Regulator Comments on Draft Remedial Optimization Work F	5 days	Mon 2/13/17	Fri 2/17/17
1754	3251		Prepare Final Remedial Optimization Work Plan	5 days	Mon 2/20/17	Fri 2/24/17
1750	**3247**	**2010**	**AF Approval of Draft Remedial Optimization Work Plan**	**13 days**	**Mon 12/5/16**	**Thu 12/22/16**
1755	**3252**	**2010**	**Regulator Approval of Final Remedial Optimization Work Plan**	**11 days**	**Fri 2/24/17**	**Mon 3/13/17**
1756	**3253**		**Remedial Optimization Field Implementation**	**678 days**	**Mon 7/9/18**	**Tue 2/9/21**
1757	3254		Mobilize and Obtain UIC and Dig Permits	3 days	Mon 7/9/18	Wed 7/11/18
1758	3255		Perform ISEB Injections	5 days	Mon 7/16/18	Fri 7/20/18
1759	**3360**		**OES Report**	**74 days**	**Thu 10/29/20**	**Tue 2/9/21**
1760	3361		Prepare Working Copy of OES Report	22 days	Thu 10/29/20	Fri 11/27/20
1761	3362		Air Force Review of Working Copy	22 days	Mon 11/30/20	Tue 12/29/20
1762	3363		Resolve AF Comments on Working Copy AF	15 days	Wed 12/30/20	Tue 1/19/21
1763	3364		AF Review and Approval of RTCs	15 days	Wed 1/20/21	Tue 2/9/21
1764	6410	2014	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Tue 2/9/21	Tue 2/9/21
1765	**6315**		**RA-O**	**1161 days**	**Fri 7/8/16**	**Thu 12/17/20**
1766	**3256**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
1767	3257		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
1768	3258		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
1769	3259		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
1771	3261		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
1772	3262		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
1773	3263		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
1774	3264		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16



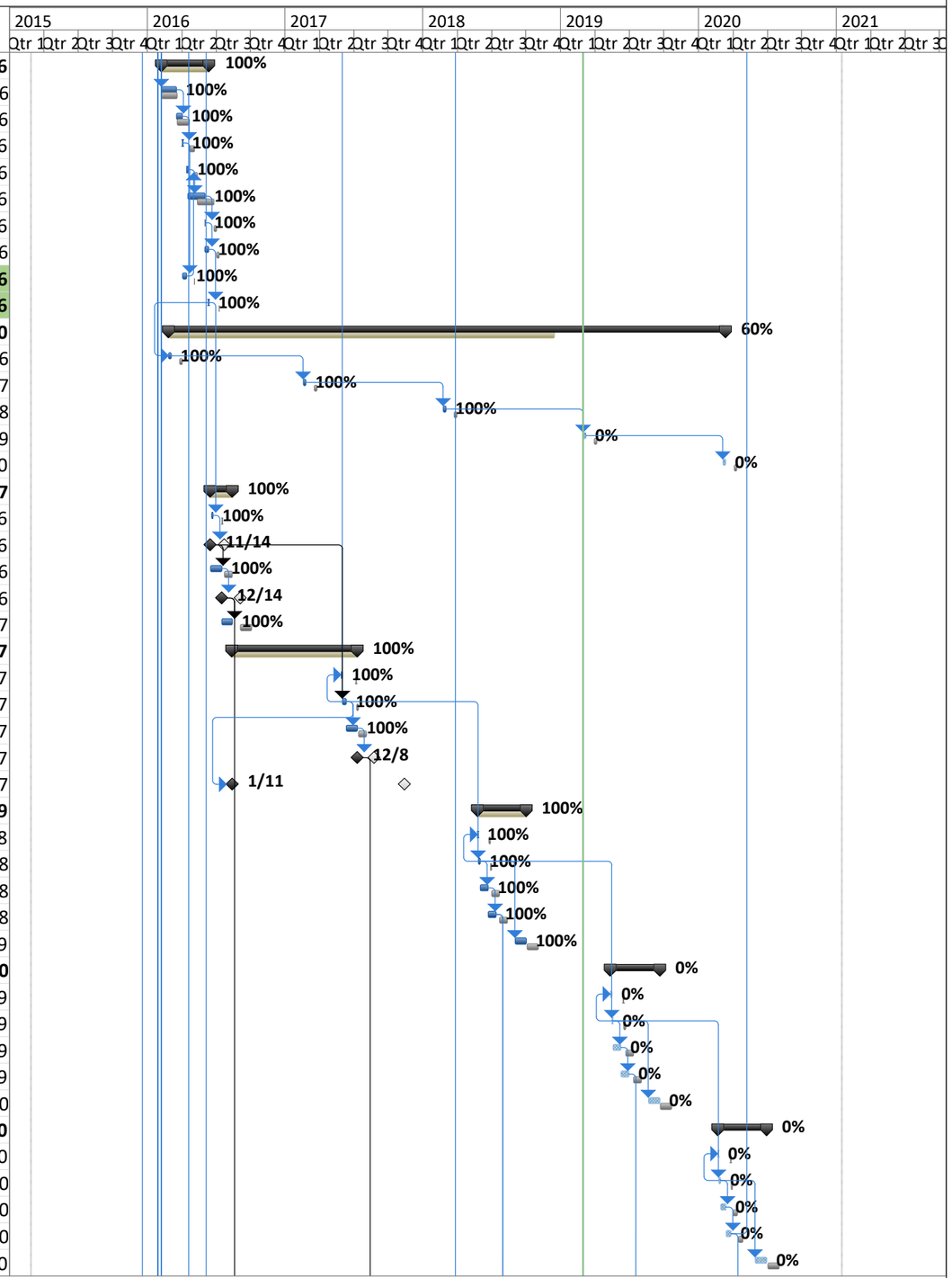
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1770	**3260**	**2010**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
1775	**3265**	**2010**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
1776	**3266**		**LUC Inspections**	**1055 days**	**Fri 11/11/16**	**Wed 11/25/20**
1777	3267		Annual LUC Inspection-2016	5 days	Fri 11/11/16	Thu 11/17/16
1778	3268		Annual LUC Inspection-2017	5 days	Fri 11/3/17	Thu 11/9/17
1779	3269		Annual LUC Inspection-2018	5 days	Fri 11/9/18	Thu 11/15/18
1780	3270		Annual LUC Inspection-2019	5 days	Thu 11/14/19	Wed 11/20/19
1781	3271		Annual LUC Inspection-2020	5 days	Thu 11/19/20	Wed 11/25/20
1782	**3272**		**Annual Groundwater Sampling and Well Inspections Year 1**	**43 days**	**Mon 11/7/16**	**Wed 1/4/17**
1783	3273		Groundwater gaging and Well inspection	2 days	Fri 11/18/16	Mon 11/21/16
1784	3274		Sampling	0 days	Mon 11/7/16	Mon 11/7/16
1785	3275		Offsite Analysis of Groundwater Samples	25 days	Thu 11/10/16	Wed 12/14/16
1786	3276		Data Validation	0 days	Wed 12/14/16	Wed 12/14/16
1787	3277		ERPIMS Submittal	15 days	Thu 12/15/16	Wed 1/4/17
1788	**3278**		**Annual Groundwater Sampling and Well Inspections Year 2**	**169 days**	**Thu 11/9/17**	**Tue 7/3/18**
1789	3279		Groundwater gaging and Well inspection	2 days	Thu 11/9/17	Fri 11/10/17
1790	3280		Sampling	3 days	Mon 11/13/17	Wed 11/15/17
1791	3281		Offsite Analysis of Groundwater Samples	19 days	Thu 11/16/17	Tue 12/12/17
1792	3282		Data Validation	1 day	Wed 12/13/17	Wed 12/13/17
1793	3283		ERPIMS Submittal	98 days	Fri 2/16/18	Tue 7/3/18
1794	**3284**		**Annual Groundwater Sampling and Well Inspections Year 3**	**196 days**	**Tue 10/30/18**	**Tue 7/30/19**
1795	3285		Groundwater gaging and Well inspection	196 days	Tue 10/30/18	Tue 7/30/19
1796	3286		Sampling	3 days	Thu 11/1/18	Mon 11/5/18
1797	3287		Offsite Analysis of Groundwater Samples	15 days	Tue 11/6/18	Mon 11/26/18
1798	3288		Data Validation	15 days	Tue 11/27/18	Mon 12/17/18
1799	3289		ERPIMS Submittal	22 days	Wed 2/6/19	Thu 3/7/19
1800	**3290**		**Annual Groundwater Sampling and Well Inspections Year 4**	**93 days**	**Thu 10/17/19**	**Mon 2/24/20**
1801	3291		Groundwater gaging and Well inspection	2 days	Thu 10/17/19	Fri 10/18/19
1802	3292		Sampling	3 days	Mon 10/21/19	Wed 10/23/19
1803	3293		Offsite Analysis of Groundwater Samples	15 days	Thu 10/24/19	Wed 11/13/19
1804	3294		Data Validation	15 days	Thu 11/14/19	Wed 12/4/19
1805	3295		ERPIMS Submittal	22 days	Fri 1/24/20	Mon 2/24/20
1806	**3296**		**Annual Groundwater Sampling and Well Inspections Year 5**	**93 days**	**Tue 8/11/20**	**Thu 12/17/20**
1807	3297		Groundwater gaging and Well inspection	2 days	Tue 8/11/20	Wed 8/12/20
1808	3298		Sampling	3 days	Thu 8/13/20	Mon 8/17/20
1809	3299		Offsite Analysis of Groundwater Samples	15 days	Tue 8/18/20	Mon 9/7/20
1810	3300		Data Validation	15 days	Tue 9/8/20	Mon 9/28/20
1811	3301		ERPIMS Submittal	22 days	Wed 11/18/20	Thu 12/17/20
1812	6061		Implement Contingent Action	150 days	Tue 12/18/18	Mon 7/15/19
1813	**3303**		**Annual Report - Year 2016**	**119 days**	**Thu 12/15/16**	**Tue 5/30/17**
1814	3304		Prepare Working Copy of Annual Report	73 days	Thu 12/15/16	Mon 3/27/17
1815	3305		AF Review of Working Copy of Annual Report	19 days	Tue 3/28/17	Fri 4/21/17
1816	3306		Resolve AF Comments on Working Copy of Annual Report	3 days	Mon 4/24/17	Wed 4/26/17
1818	3308		Submit Final Annual LTM Report to Regulators; AF Approval of ER	3 days	Fri 5/26/17	Tue 5/30/17
1817	**3307**	**2010**	**AF Approval of Final Annual LTM Report-2016**	**21 days**	**Wed 4/26/17**	**Thu 5/25/17**
1819	**3313**		**Annual Report - Year 2017**	**104 days**	**Thu 12/14/17**	**Tue 5/8/18**


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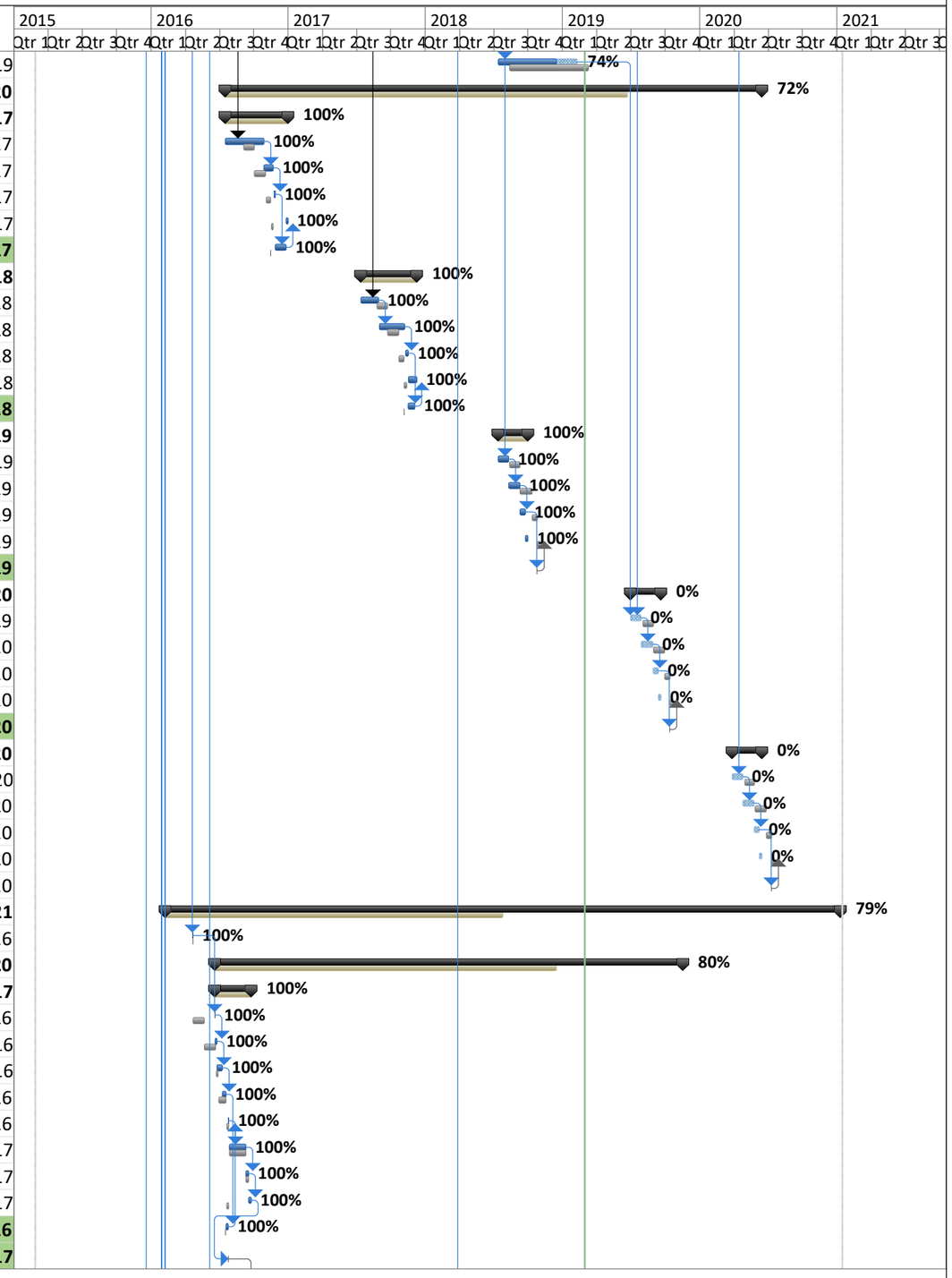
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1820	3314		Prepare Working Copy of Annual Report	32 days	Thu 12/14/17	Fri 1/26/18
1821	3315		AF Review of Working Copy of Annual Report	50 days	Mon 1/29/18	Fri 4/6/18
1822	3316		Resolve AF Comments on Working Copy of Annual Report	6 days	Mon 4/9/18	Mon 4/16/18
1824	3318		Submit Final Annual LTM Report to Regulators; AF Approval of ERPIMS Upload	16 days	Tue 4/17/18	Tue 5/8/18
1823	**3317**	**2011**	**AF Approval of Final Annual LTM Report-2017**	**14 days**	**Mon 4/16/18**	**Thu 5/3/18**
1825	**3323**		**Annual Report - Year 2018**	**57 days**	**Tue 12/18/18**	**Wed 3/6/19**
1826	3324		Prepare Working Copy of Annual Report	20 days	Tue 12/18/18	Mon 1/14/19
1827	3325		AF Review of Working Copy of Annual Report	22 days	Tue 1/15/19	Wed 2/13/19
1828	3326		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 2/14/19	Wed 2/27/19
1830	3328		Submit Final Annual LTM Report to Regulators; AF Approval of ER	5 days	Thu 2/28/19	Wed 3/6/19
1829	**3327**	**2012**	**AF Approval of Final Annual LTM Report-2018**	**0 days**	**Wed 2/27/19**	**Wed 2/27/19**
1831	**3333**		**Annual Report - Year 2019**	**57 days**	**Thu 12/5/19**	**Fri 2/21/20**
1832	3334		Prepare Working Copy of Annual Report	20 days	Thu 12/5/19	Wed 1/1/20
1833	3335		AF Review of Working Copy of Annual Report	22 days	Thu 1/2/20	Fri 1/31/20
1834	3336		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 2/3/20	Fri 2/14/20
1836	3338		Submit Final Annual LTM Report to Regulators; AF Approval of ER	5 days	Mon 2/17/20	Fri 2/21/20
1835	**3337**	**2013**	**AF Approval of Final Annual LTM Report-2019**	**0 days**	**Fri 2/14/20**	**Fri 2/14/20**
1837	**3343**		**Annual Report - Year 2020**	**57 days**	**Tue 9/29/20**	**Wed 12/16/20**
1838	3344		Prepare Working Copy of Annual Report	20 days	Tue 9/29/20	Mon 10/26/20
1839	3345		AF Review of Working Copy of Annual Report	22 days	Tue 10/27/20	Wed 11/25/20
1840	3346		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 11/26/20	Wed 12/9/20
1842	3348		Submit Final Annual LTM Report to Regulators; AF Approval of ER	5 days	Thu 12/10/20	Wed 12/16/20
1841	3347	2014	AF Approval of Final Annual Report-2020	0 days	Wed 12/9/20	Wed 12/9/20
1843	**3377**		**OES Site SD052-05: Bldg. 817 Chlorinated Plume**	**1173 days**	**Fri 7/8/16**	**Mon 1/4/21**
1844	**6316**		**Optimization**	**1135 days**	**Wed 8/31/16**	**Mon 1/4/21**
1845	**3378**		**Remedial Optimization Work Plan**	**139 days**	**Wed 8/31/16**	**Mon 3/13/17**
1846	3379		Prepare Working Copy of Remedial Optimization Work Plan	20 days	Wed 8/31/16	Tue 9/27/16
1847	3380		AF Review of Working Copy of Remedial Optimization Work Plan	21 days	Wed 9/28/16	Wed 10/26/16
1848	3381		Resolve AF Comments on Working Copy of Remedial Optimizatio	28 days	Thu 10/27/16	Mon 12/5/16
1850	3383		Submit Draft Remedial Optimization Work Plan to Regulators	4 days	Fri 12/23/16	Wed 12/28/16
1851	3384		Regulator Review of Remedial Optimization Work Plan	32 days	Thu 12/29/16	Fri 2/10/17
1852	3385		RTC Regulator Comments on Draft Remedial Optimization Work F	5 days	Mon 2/13/17	Fri 2/17/17
1853	3386		Prepare Final Remedial Optimization Work Plan	5 days	Mon 2/20/17	Fri 2/24/17
1849	**3382**	**2010**	**AF Approval of Draft Remedial Optimization Work Plan**	**13 days**	**Mon 12/5/16**	**Thu 12/22/16**
1854	**3387**	**2010**	**Regulator Approval of Final Remedial Optimization Work Plan**	**11 days**	**Fri 2/24/17**	**Mon 3/13/17**
1855	**3388**		**Remedial Optimization Field Implementation**	**27 days**	**Mon 5/8/17**	**Tue 6/13/17**
1856	3389		Mobilize and Obtain UIC and Dig Permits	22 days	Mon 5/8/17	Tue 6/6/17
1857	3390		Perform ISEB Injections	5 days	Wed 6/7/17	Tue 6/13/17
1858	**3495**		**OES Report**	**64 days**	**Wed 10/7/20**	**Mon 1/4/21**
1859	3496		Prepare Working Copy of OES Report	22 days	Wed 10/7/20	Thu 11/5/20
1860	3497		Air Force Review of Working Copy	22 days	Fri 11/6/20	Mon 12/7/20
1861	3498		Resolve AF Comments on Working Copy AF	5 days	Tue 12/8/20	Mon 12/14/20
1862	3499		AF Review and Approval of RTCs	15 days	Tue 12/15/20	Mon 1/4/21
1863	6414	2014	AF Approval of Final OES Report; Distribute Report to Regulators-	0 days	Mon 1/4/21	Mon 1/4/21
1864	**6317**		**RA-O**	**1147 days**	**Fri 7/8/16**	**Fri 11/27/20**



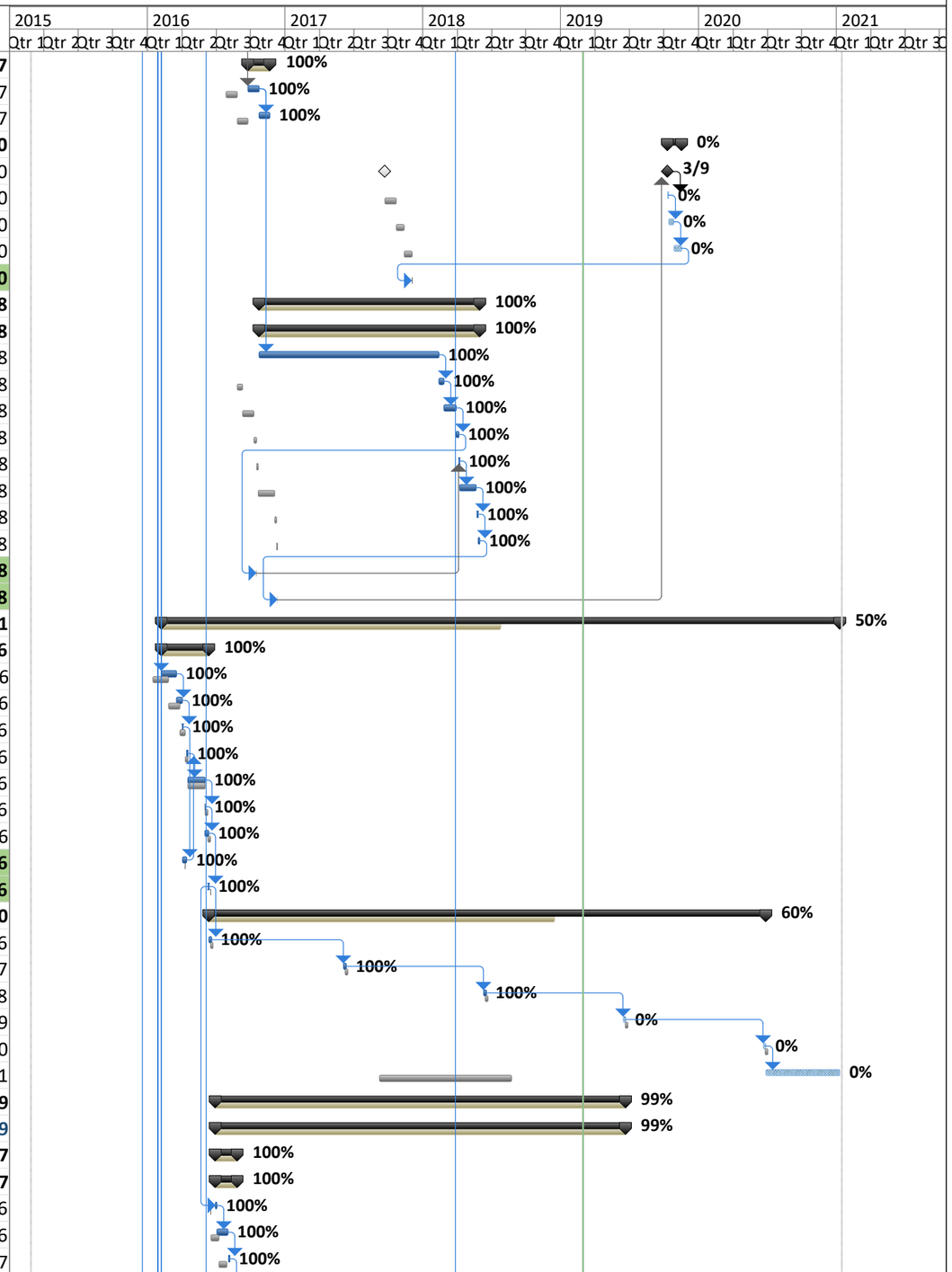
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1865	**3391**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
1866	3392		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
1867	3393		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
1868	3394		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
1870	3396		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
1871	3397		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
1872	3398		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
1873	3399		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16
1869	**3395**	**2010**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
1874	**3400**	**2010**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
1875	**3401**		**LUC Inspections**	**1055 days**	**Wed 7/27/16**	**Mon 8/10/20**
1876	3402		Annual LUC Inspection-2016	5 days	Wed 7/27/16	Tue 8/2/16
1877	3403		Annual LUC Inspection-2017	5 days	Wed 7/19/17	Tue 7/25/17
1878	3404		Annual LUC Inspection-2018	5 days	Wed 7/25/18	Tue 7/31/18
1879	3405		Annual LUC Inspection-2019	5 days	Wed 7/31/19	Tue 8/6/19
1880	3406		Annual LUC Inspection-2020	5 days	Tue 8/4/20	Mon 8/10/20
1881	**3407**		**Annual Groundwater Sampling and Well Inspections Year 1**	**43 days**	**Mon 11/14/16**	**Wed 1/11/17**
1882	3408		Groundwater gaging and Well inspection	2 days	Fri 11/18/16	Mon 11/21/16
1883	3409		Sampling	0 days	Mon 11/14/16	Mon 11/14/16
1884	3410		Offsite Analysis of Groundwater Samples	22 days	Tue 11/15/16	Wed 12/14/16
1885	3411		Data Validation	0 days	Wed 12/14/16	Wed 12/14/16
1886	3412		ERPIMS Submittal	20 days	Thu 12/15/16	Wed 1/11/17
1887	**3413**		**Annual Groundwater Sampling and Well Inspections Year 2**	**238 days**	**Wed 1/11/17**	**Fri 12/8/17**
1888	3414		Groundwater gaging and Well inspection	2 days	Fri 10/27/17	Mon 10/30/17
1889	3415		Sampling	8 days	Tue 10/31/17	Thu 11/9/17
1890	3416		Offsite Analysis of Groundwater Samples	21 days	Fri 11/10/17	Fri 12/8/17
1891	3417		Data Validation	0 days	Fri 12/8/17	Fri 12/8/17
1892	3418		ERPIMS Submittal	0 days	Wed 1/11/17	Wed 1/11/17
1893	**3419**		**Annual Groundwater Sampling and Well Inspections Year 3**	**93 days**	**Wed 10/24/18**	**Fri 3/1/19**
1894	3420		Groundwater gaging and Well inspection	2 days	Wed 10/24/18	Thu 10/25/18
1895	3421		Sampling	3 days	Fri 10/26/18	Tue 10/30/18
1896	3422		Offsite Analysis of Groundwater Samples	15 days	Wed 10/31/18	Tue 11/20/18
1897	3423		Data Validation	15 days	Wed 11/21/18	Tue 12/11/18
1898	3424		ERPIMS Submittal	22 days	Thu 1/31/19	Fri 3/1/19
1899	**3425**		**Annual Groundwater Sampling and Well Inspections Year 4**	**93 days**	**Fri 10/11/19**	**Tue 2/18/20**
1900	3426		Groundwater gaging and Well inspection	2 days	Fri 10/11/19	Mon 10/14/19
1901	3427		Sampling	3 days	Tue 10/15/19	Thu 10/17/19
1902	3428		Offsite Analysis of Groundwater Samples	15 days	Fri 10/18/19	Thu 11/7/19
1903	3429		Data Validation	15 days	Fri 11/8/19	Thu 11/28/19
1904	3430		ERPIMS Submittal	22 days	Mon 1/20/20	Tue 2/18/20
1905	**3431**		**Annual Groundwater Sampling and Well Inspections Year 5**	**93 days**	**Wed 7/22/20**	**Fri 11/27/20**
1906	3432		Groundwater gaging and Well inspection	2 days	Wed 7/22/20	Thu 7/23/20
1907	3433		Sampling	3 days	Fri 7/24/20	Tue 7/28/20
1908	3434		Offsite Analysis of Groundwater Samples	10 days	Wed 7/29/20	Tue 8/11/20
1909	3435		Data Validation	10 days	Wed 8/12/20	Tue 8/25/20
1910	3436		ERPIMS Submittal	22 days	Thu 10/29/20	Fri 11/27/20



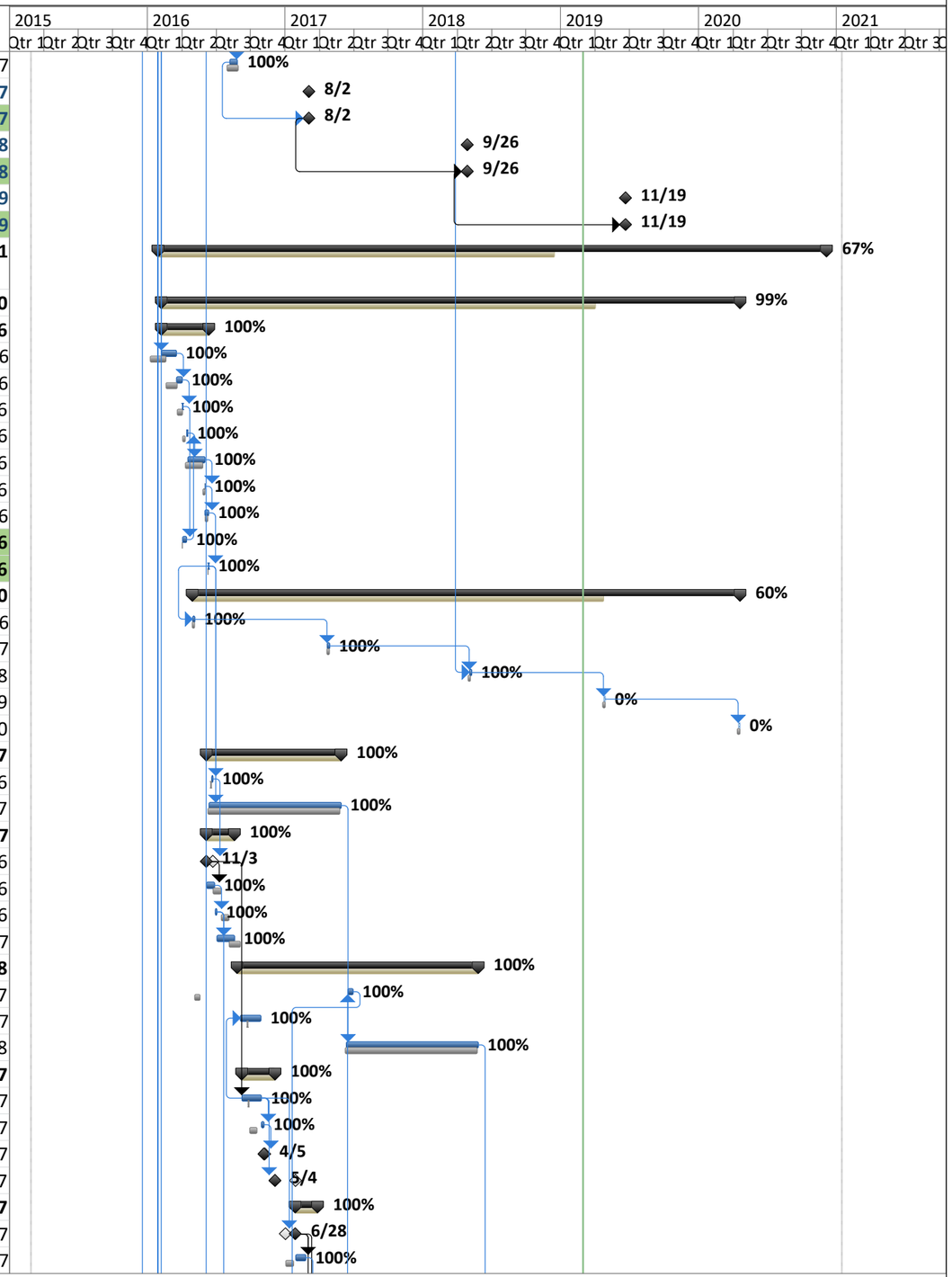
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1911	6062		Implement Contingent Action	150 days	Wed 12/12/18	Tue 7/9/19
1912	**3437**		**LTM Reporting**	**1022 days**	**Thu 12/15/16**	**Thu 11/12/20**
1913	**3438**		**Annual Report - Year 2016**	**119 days**	**Thu 12/15/16**	**Tue 5/30/17**
1914	3439		Prepare Working Copy of Annual Report	73 days	Thu 12/15/16	Mon 3/27/17
1915	3440		AF Review of Working Copy of Annual Report	19 days	Tue 3/28/17	Fri 4/21/17
1916	3441		Resolve AF Comments on Working Copy of Annual Report	3 days	Mon 4/24/17	Wed 4/26/17
1918	3443		Submit Final Annual Report to Regulators; AF Approval of ERPII	3 days	Fri 5/26/17	Tue 5/30/17
1917	**3442**	**2010**	**AF Approval of Final Annual LTM Report**	**21 days**	**Wed 4/26/17**	**Thu 5/25/17**
1919	**3448**		**Annual Report - Year 2017**	**107 days**	**Mon 12/11/17**	**Tue 5/8/18**
1920	3449		Prepare Working Copy of Annual Report	35 days	Mon 12/11/17	Fri 1/26/18
1921	3450		AF Review of Working Copy of Annual Report	50 days	Mon 1/29/18	Fri 4/6/18
1922	3451		Resolve AF Comments on Working Copy of Annual Report	6 days	Mon 4/9/18	Mon 4/16/18
1924	3453		Submit Final Annual Report to Regulators;AF Approval of ERPIN	16 days	Tue 4/17/18	Tue 5/8/18
1923	**3452**	**2011**	**AF Approval of Final Annual LTM Report**	**14 days**	**Mon 4/16/18**	**Thu 5/3/18**
1925	**3458**		**Annual Report - Year 2018**	**57 days**	**Wed 12/12/18**	**Thu 2/28/19**
1926	3459		Prepare Working Copy of Annual Report	20 days	Wed 12/12/18	Tue 1/8/19
1927	3460		AF Review of Working Copy of Annual Report	22 days	Wed 1/9/19	Thu 2/7/19
1928	3461		Resolve AF Comments on Working Copy of Annual Report	10 days	Fri 2/8/19	Thu 2/21/19
1930	3463		Submit Final Annual Report to Regulators; AF Approval of ERPII	5 days	Fri 2/22/19	Thu 2/28/19
1929	**3462**	**2012**	**AF Approval of Final Annual LTM Report**	**0 days**	**Thu 2/21/19**	**Thu 2/21/19**
1931	**3468**		**Annual Report - Year 2019**	**57 days**	**Fri 11/29/19**	**Mon 2/17/20**
1932	3469		Prepare Working Copy of Annual Report	20 days	Fri 11/29/19	Thu 12/26/19
1933	3470		AF Review of Working Copy of Annual Report	22 days	Fri 12/27/19	Mon 1/27/20
1934	3471		Resolve AF Comments on Working Copy of Annual Report	10 days	Tue 1/28/20	Mon 2/10/20
1936	3473		Submit Final Annual Report to Regulators; AF Approval of ERPII	5 days	Tue 2/11/20	Mon 2/17/20
1935	**3472**	**2013**	**AF Approval of Final Annual LTM Report**	**0 days**	**Mon 2/10/20**	**Mon 2/10/20**
1937	**3478**		**Annual Report - Year 2020**	**57 days**	**Wed 8/26/20**	**Thu 11/12/20**
1938	3479		Prepare Working Copy of Annual Report	20 days	Wed 8/26/20	Tue 9/22/20
1939	3480		AF Review of Working Copy of Annual Report	22 days	Wed 9/23/20	Thu 10/22/20
1940	3481		Resolve AF Comments on Working Copy of Annual Report	10 days	Fri 10/23/20	Thu 11/5/20
1942	3483		Submit Final Annual Report to Regulators;AF Approval of ERPIN	5 days	Fri 11/6/20	Thu 11/12/20
1941	3482	2014	AF Approval of Final Annual Report	0 days	Thu 11/5/20	Thu 11/5/20
1943	**3641**		**OES Site SD052-SVI**	**1285 days**	**Fri 7/8/16**	**Wed 6/9/21**
1944	6364		Draft ROD to Regulators	1 day	Mon 9/19/16	Mon 9/19/16
1945	**6319**		**Optimization**	**892 days**	**Thu 11/17/16**	**Thu 4/16/20**
1946	**3936**		**Optimization Plan**	**69 days**	**Thu 11/17/16**	**Tue 2/21/17**
1947	3937		Prepare Working Copy of Optimization Plan	1 day	Thu 11/17/16	Thu 11/17/16
1948	3938		Air Force Review of Working Copy	3 days	Fri 11/18/16	Tue 11/22/16
1949	3939		Resolve AF Comments on Working Copy AF	10 days	Wed 11/23/16	Tue 12/6/16
1950	3940		AF Review and Approval of RTCs	8 days	Wed 12/7/16	Fri 12/16/16
1952	6423		Submit Draft Optimization Plan to Regulators	1 day	Fri 12/23/16	Fri 12/23/16
1953	6424		Regulator Review of Draft Optimization Plan	32 days	Mon 12/26/16	Tue 2/7/17
1954	6425		Resolve Regulator Comments on Draft Optimization Plan	5 days	Wed 2/8/17	Tue 2/14/17
1955	3941		Prepare Final Optimization Plan	5 days	Wed 2/15/17	Tue 2/21/17
1951	**6422**	**2010**	**AF Approval of Draft Optimization Plan**	**4 days**	**Fri 12/16/16**	**Thu 12/22/16**
1956	**3942**	**2010**	**AF Approval of Final Optimization Plan**	**0 days**	**Tue 2/21/17**	**Tue 2/21/17**



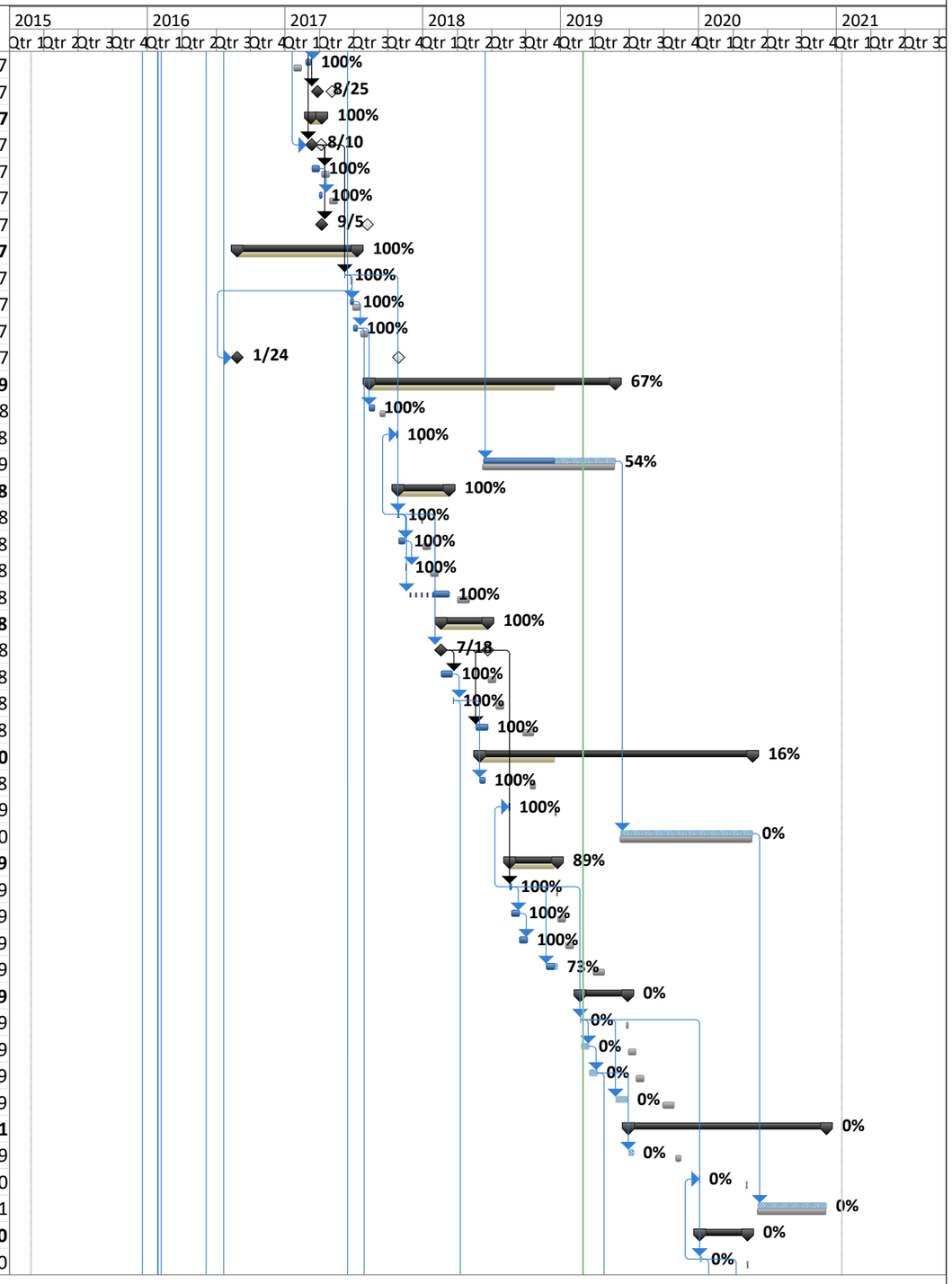
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1957	**3652**		**Remedial Optimization Field Implementation**	**42 days**	**Wed 2/22/17**	**Thu 4/20/17**
1958	3653		Mobilize and Obtain Dig Permits	22 days	Wed 2/22/17	Thu 3/23/17
1959	3654		Install Passive Air Inlet Wells	20 days	Fri 3/24/17	Thu 4/20/17
1960	**3943**		**OES Report**	**28 days**	**Mon 3/9/20**	**Thu 4/16/20**
1961	3944		Prepare Working Copy of OES Report	0 days	Mon 3/9/20	Mon 3/9/20
1962	3945		Air Force Review of Working Copy	3 days	Tue 3/10/20	Thu 3/12/20
1963	3946		Resolve AF Comments on Working Copy AF	10 days	Fri 3/13/20	Thu 3/26/20
1964	3947		AF Review and Approval of RTCs	15 days	Fri 3/27/20	Thu 4/16/20
1965	**6418**	**2011**	**AF Approval of Final OES Report; Distribute Report to Regulators**	**0 days**	**Thu 4/16/20**	**Thu 4/16/20**
1966	**6320**		**Remedial Action -Construction (RA-C)**	**417 days**	**Fri 3/24/17**	**Mon 10/29/18**
1967	**5857**		**Construction Completion Report (CCR)**	**417 days**	**Fri 3/24/17**	**Mon 10/29/18**
1968	6599		Delay	340 days	Fri 3/24/17	Thu 7/12/18
1969	5858		Prepare Working Copy of Construction Completion Report	10 days	Fri 7/13/18	Thu 7/26/18
1970	5859		AF Review of Working Copy of Construction Completion Report	22 days	Fri 7/27/18	Mon 8/27/18
1971	5860		Resolve AF Comments on Working Copy of Construction Complet	5 days	Tue 8/28/18	Mon 9/3/18
1973	5862		Submit Draft Construction Completion Report to Regulators	2 days	Tue 9/4/18	Wed 9/5/18
1974	5863		Regulator Review of Draft Construction Completion Report	32 days	Thu 9/6/18	Fri 10/19/18
1975	5864		RTC Regulator Comments on Construction Completion Report	3 days	Mon 10/22/18	Wed 10/24/18
1976	5865		Prepare Final Construction Completion Report	3 days	Thu 10/25/18	Mon 10/29/18
1972	**5861**	**2010**	**AF Approval of Draft Construction Completion Report**	**0 days**	**Mon 9/3/18**	**Mon 9/3/18**
1977	**5866**	**2010**	**Regulator Approval of Final Construction Completion Report**	**0 days**	**Mon 10/29/18**	**Mon 10/29/18**
1978	**6321**		**LTM**	**1285 days**	**Fri 7/8/16**	**Wed 6/9/21**
1979	**3655**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
1980	3656		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
1981	3657		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
1982	3658		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
1984	3660		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
1985	3661		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
1986	3662		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
1987	3663		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16
1983	**3659**	**2010**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
1988	**3664**	**2010**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
1989	**3665**		**LUC Inspections**	**1055 days**	**Fri 11/11/16**	**Wed 11/25/20**
1990	3666		Annual LUC Inspection-2016	5 days	Fri 11/11/16	Thu 11/17/16
1991	3667		Annual LUC Inspection-2017	5 days	Fri 11/3/17	Thu 11/9/17
1992	3668		Annual LUC Inspection-2018	5 days	Fri 11/9/18	Thu 11/15/18
1993	3669		Annual LUC Inspection-2019	5 days	Thu 11/14/19	Wed 11/20/19
1994	3670		Annual LUC Inspection-2020	5 days	Thu 11/19/20	Wed 11/25/20
1995	6063		Implement Contingent Action	140 days	Thu 11/26/20	Wed 6/9/21
1996	**6322**		**RA-O**	**778 days**	**Mon 11/28/16**	**Tue 11/19/19**
1997	**6843**		**Semi-Annual O&M Sampling and Reporting**	**778 days**	**Mon 11/28/16**	**Tue 11/19/19**
2004	**3701**		**Semi-Annual O&M Sampling and Reporting**	**42 days**	**Mon 11/28/16**	**Tue 1/24/17**
2005	**3702**		**Semi-Annual O&M Event**	**42 days**	**Mon 11/28/16**	**Tue 1/24/17**
2006	3703		Semi-Annual O&M Sampling	4 days	Mon 11/28/16	Thu 12/1/16
2007	4071		Offsite Analysis of Air Samples	21 days	Fri 12/2/16	Fri 12/30/16
2008	4072		Data Validation	3 days	Mon 1/2/17	Wed 1/4/17



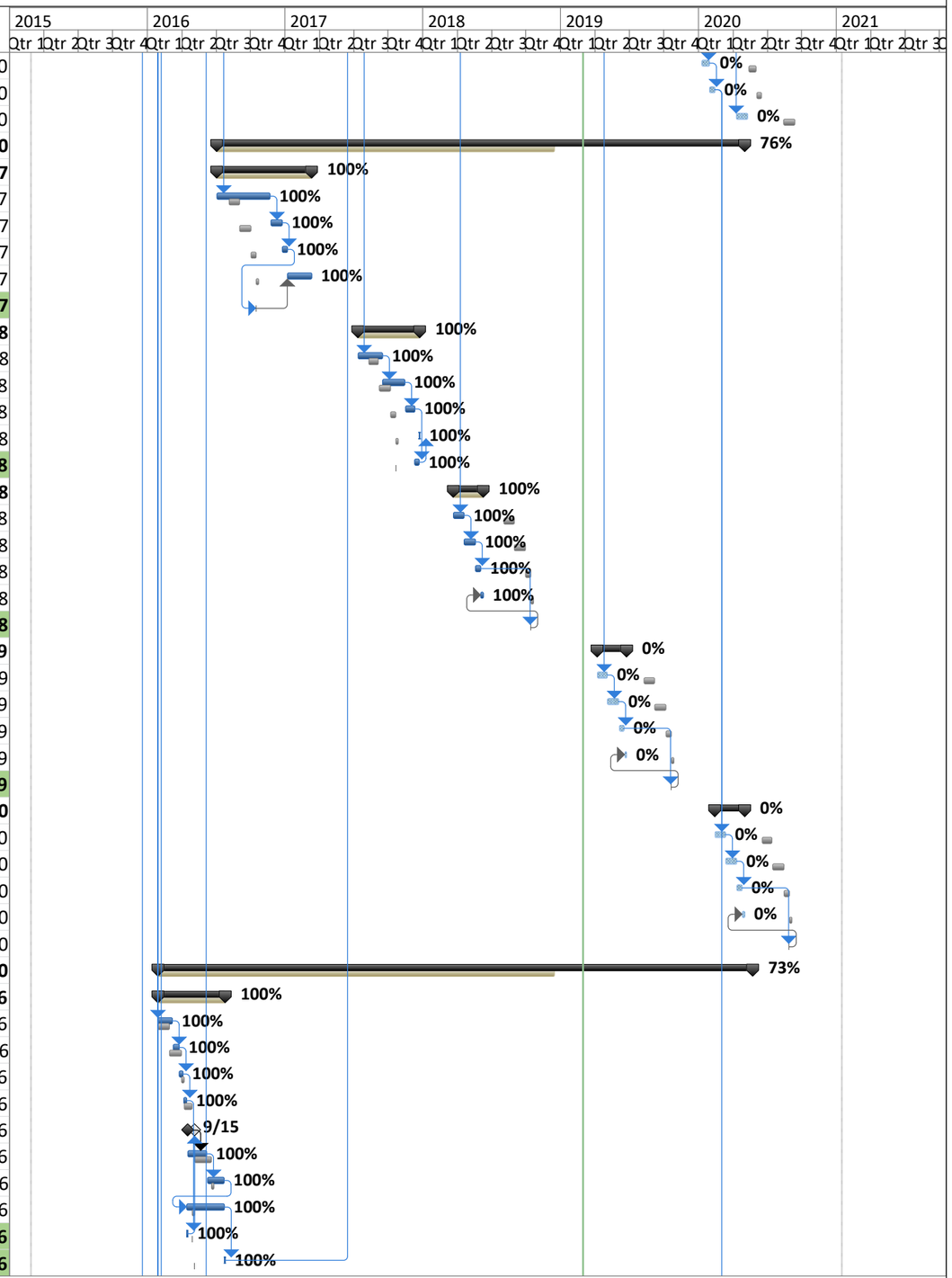
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2009	4073		ERPIMS Submittal	14 days	Thu 1/5/17	Tue 1/24/17
1998	**6844**		**Semi-Annual O&M Event**	**0 days**	**Wed 8/2/17**	**Wed 8/2/17**
1999	**6845**	**2010**	**AF Approval of Final O&M Report**	**0 days**	**Wed 8/2/17**	**Wed 8/2/17**
2000	**6846**		**Semi-Annual O&M Event**	**0 days**	**Wed 9/26/18**	**Wed 9/26/18**
2001	**6847**	**2011**	**AF Approval of Final O&M Report**	**0 days**	**Wed 9/26/18**	**Wed 9/26/18**
2002	**6848**		**Semi-Annual O&M Event**	**0 days**	**Tue 11/19/19**	**Tue 11/19/19**
2003	**6849**	**2011**	**AF Approval of Final O&M Report**	**0 days**	**Tue 11/19/19**	**Tue 11/19/19**
2010	**1309**		**OES: Site SS054 Bldg. 781. Pump house-Free Product on Groundwater (NYDEC Spill #9202658)**	**1267 days**	**Wed 6/29/16**	**Wed 5/5/21**
2011	**6323**		**RA-O**	**1097 days**	**Fri 7/8/16**	**Fri 9/18/20**
2012	**1311**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
2013	1312		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
2014	1313		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
2015	1314		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
2017	1316		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
2018	1317		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
2019	1318		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
2020	1319		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16
2016	**1315**	**2010**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
2021	**1320**	**2010**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
2022	**1321**		**LUC Inspections**	**1039 days**	**Wed 9/28/16**	**Fri 9/18/20**
2023	1433		Annual LUC Inspection-2016	5 days	Wed 9/28/16	Tue 10/4/16
2024	1432		Annual LUC Inspection-2017	5 days	Wed 9/20/17	Tue 9/26/17
2025	1431		Annual LUC Inspection-2018	5 days	Tue 10/2/18	Mon 10/8/18
2026	1430		Annual LUC Inspection-2019	5 days	Mon 9/23/19	Fri 9/27/19
2027	1429		Annual LUC Inspection-2020	5 days	Mon 9/14/20	Fri 9/18/20
2028	**1335**		**Annual Groundwater Sampling and Well Inspections Year 2016**	**255 days**	**Thu 11/3/16**	**Thu 10/26/17**
2029	1336		Groundwater gaging and Well inspection	2 days	Fri 11/18/16	Mon 11/21/16
2030	1434		Monthly ORP and DO monitoring	250 days	Fri 11/11/16	Thu 10/26/17
2031	**1443**		**Q4-2016 Groundwater Sampling**	**53 days**	**Thu 11/3/16**	**Tue 1/17/17**
2032	1447		Sampling	0 days	Thu 11/3/16	Thu 11/3/16
2033	1444		Offsite Analysis of Groundwater Samples	16 days	Fri 11/4/16	Fri 11/25/16
2034	1445		Data Validation	4 days	Mon 11/28/16	Thu 12/1/16
2035	1446		ERPIMS Submittal	33 days	Fri 12/2/16	Tue 1/17/17
2036	**1341**		**Annual Groundwater Sampling and Well Inspections Year 2017**	**457 days**	**Tue 1/24/17**	**Thu 10/25/18**
2037	1469		Optimize Biosparge System-Pilot Test	10 days	Tue 11/14/17	Mon 11/27/17
2038	1452		Groundwater gaging and Well inspection	39 days	Thu 2/2/17	Tue 3/28/17
2039	1453		Monthly ORP and DO monitoring	250 days	Fri 11/10/17	Thu 10/25/18
2040	**1454**		**Q1-2017 Groundwater Sampling**	**64 days**	**Mon 2/6/17**	**Thu 5/4/17**
2041	1455		Sampling	38 days	Mon 2/6/17	Wed 3/29/17
2042	1456		Offsite Analysis of Groundwater Samples	5 days	Thu 3/30/17	Wed 4/5/17
2043	1457		Data Validation	0 days	Wed 4/5/17	Wed 4/5/17
2044	1458		ERPIMS Submittal	0 days	Thu 5/4/17	Thu 5/4/17
2045	**1459**		**Q2 - 2017 Groundwater Sampling**	**43 days**	**Wed 6/28/17**	**Fri 8/25/17**
2046	1460		Sampling	0 days	Wed 6/28/17	Wed 6/28/17
2047	1461		Offsite Analysis of Groundwater Samples	19 days	Thu 6/29/17	Tue 7/25/17



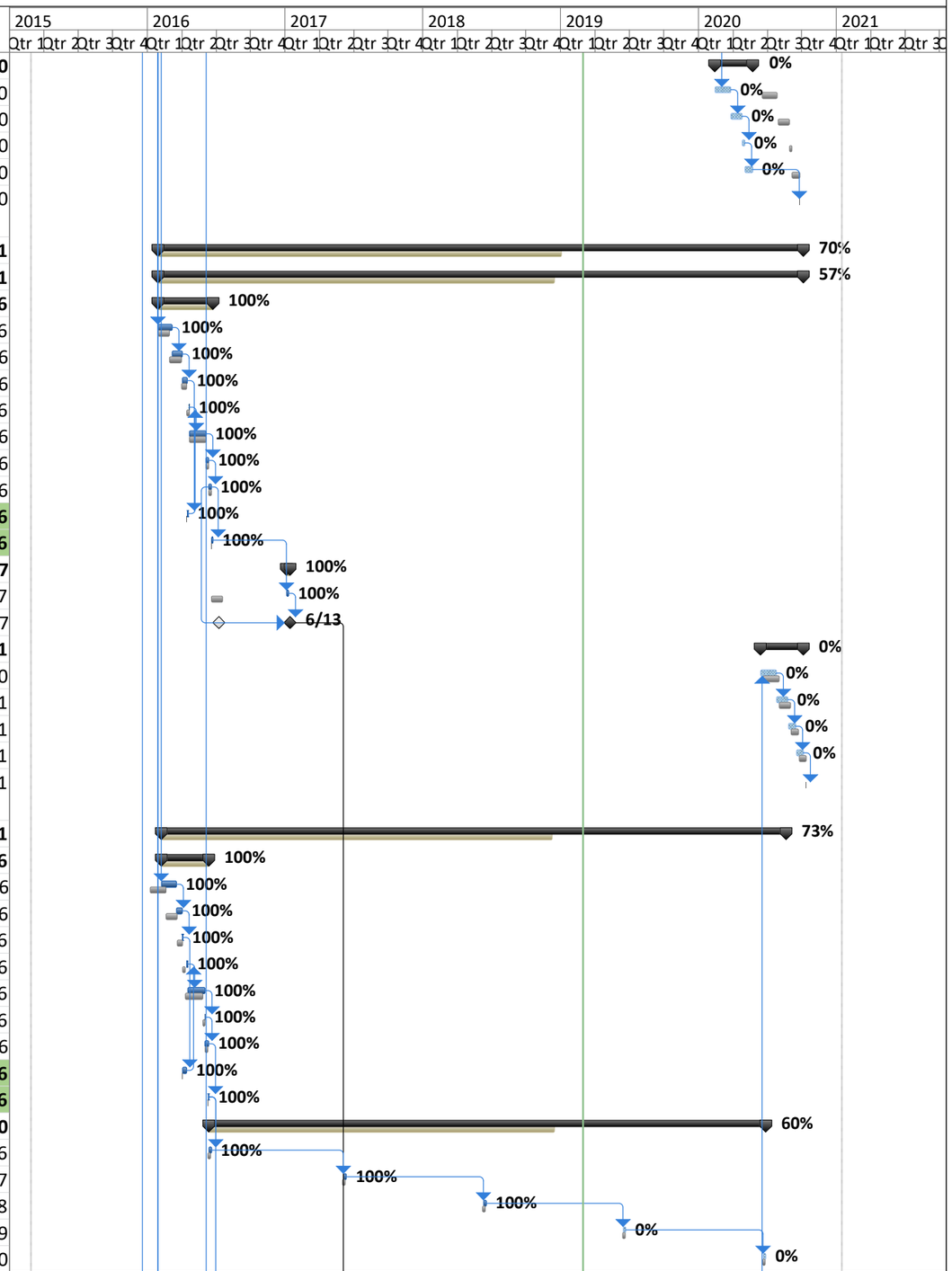
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2049	1463		ERPIMS Submittal	0 days	Fri 8/25/17	Fri 8/25/17
2050	**1464**		**Q3 -2017 Groundwater Sampling**	**21 days**	**Tue 8/8/17**	**Tue 9/5/17**
2051	1465		Sampling	0 days	Tue 8/8/17	Thu 8/10/17
2052	1466		Offsite Analysis of Groundwater Samples	14 days	Fri 8/11/17	Wed 8/30/17
2053	1467		Data Validation	4 days	Thu 8/31/17	Tue 9/5/17
2054	1468		ERPIMS Submittal	0 days	Tue 9/5/17	Tue 9/5/17
2055	**1470**		**Q4 -2017 Groundwater Sampling**	**228 days**	**Tue 1/24/17**	**Fri 12/8/17**
2056	1471		Sampling	1 day	Mon 11/6/17	Mon 11/6/17
2057	1472		Offsite Analysis of Groundwater Samples	6 days	Tue 11/21/17	Tue 11/28/17
2058	1473		Data Validation	8 days	Wed 11/29/17	Fri 12/8/17
2059	1474		ERPIMS Submittal	0 days	Tue 1/24/17	Tue 1/24/17
2060	**1347**		**Annual Groundwater Sampling and Well Inspections Year 2018**	**467 days**	**Wed 1/10/18**	**Wed 10/23/19**
2061	1475		Optimize Biosparge System and Well Network	10 days	Wed 1/10/18	Tue 1/23/18
2062	1476		Groundwater gaging and Well inspection	2 days	Fri 3/23/18	Mon 3/26/18
2063	1477		Monthly ORP and DO monitoring	250 days	Fri 11/9/18	Wed 10/23/19
2064	**1478**		**Semi-Annual Groundwater Sampling**	**98 days**	**Tue 3/27/18**	**Thu 8/9/18**
2065	1479		Sampling	2 days	Tue 3/27/18	Wed 3/28/18
2066	1480		Offsite Analysis of Groundwater Samples	12 days	Thu 3/29/18	Fri 4/13/18
2067	1481		Data Validation	1 day	Mon 4/16/18	Mon 4/16/18
2068	1482		ERPIMS Submittal	30 days	Wed 4/18/18	Thu 8/9/18
2069	**1483**		**Annual Groundwater Sampling-2018**	**88 days**	**Wed 7/18/18**	**Mon 11/19/18**
2070	1484		Sampling	0 days	Wed 7/18/18	Wed 7/18/18
2071	1485		Offsite Analysis of Groundwater Samples	22 days	Thu 7/19/18	Fri 8/17/18
2072	1486		Data Validation	1 day	Mon 8/20/18	Mon 8/20/18
2073	1487		ERPIMS Submittal	22 days	Fri 10/19/18	Mon 11/19/18
2074	**1498**		**Annual Groundwater Sampling and Well Inspections Year 2019**	**518 days**	**Tue 10/30/18**	**Wed 10/21/20**
2075	1499		Optimize Biosparge System and Well Network	10 days	Tue 10/30/18	Mon 11/12/18
2076	1500		Groundwater gaging and Well inspection	2 days	Tue 1/15/19	Wed 1/16/19
2077	1501		Monthly ORP and DO monitoring	250 days	Thu 11/7/19	Wed 10/21/20
2078	**1502**		**Semi-Annual Groundwater Sampling**	**91 days**	**Thu 1/17/19**	**Thu 5/23/19**
2079	1503		Sampling	3 days	Thu 1/17/19	Mon 1/21/19
2080	1504		Offsite Analysis of Groundwater Samples	15 days	Tue 1/22/19	Mon 2/11/19
2081	1505		Data Validation	15 days	Tue 2/12/19	Mon 3/4/19
2082	1506		ERPIMS Submittal	22 days	Wed 4/24/19	Thu 5/23/19
2083	**1507**		**Annual Groundwater Sampling**	**91 days**	**Tue 7/23/19**	**Mon 11/25/19**
2084	1508		Sampling	3 days	Tue 7/23/19	Thu 7/25/19
2085	1509		Offsite Analysis of Groundwater Samples	15 days	Fri 7/26/19	Thu 8/15/19
2086	1510		Data Validation	15 days	Fri 8/16/19	Thu 9/5/19
2087	1511		ERPIMS Submittal	22 days	Fri 10/25/19	Mon 11/25/19
2088	**1512**		**Annual Groundwater Sampling and Well Inspections Year 2020**	**375 days**	**Thu 11/28/19**	**Wed 5/5/21**
2089	1513		Optimize Biosparge System and Well Network	10 days	Thu 11/28/19	Wed 12/11/19
2090	1514		Groundwater gaging and Well inspection	2 days	Tue 6/2/20	Wed 6/3/20
2091	1515		Monthly ORP and DO monitoring	130 days	Thu 11/5/20	Wed 5/5/21
2092	**1516**		**Annual Groundwater Sampling**	**91 days**	**Thu 6/4/20**	**Thu 10/8/20**
2093	1517		Sampling	3 days	Thu 6/4/20	Mon 6/8/20



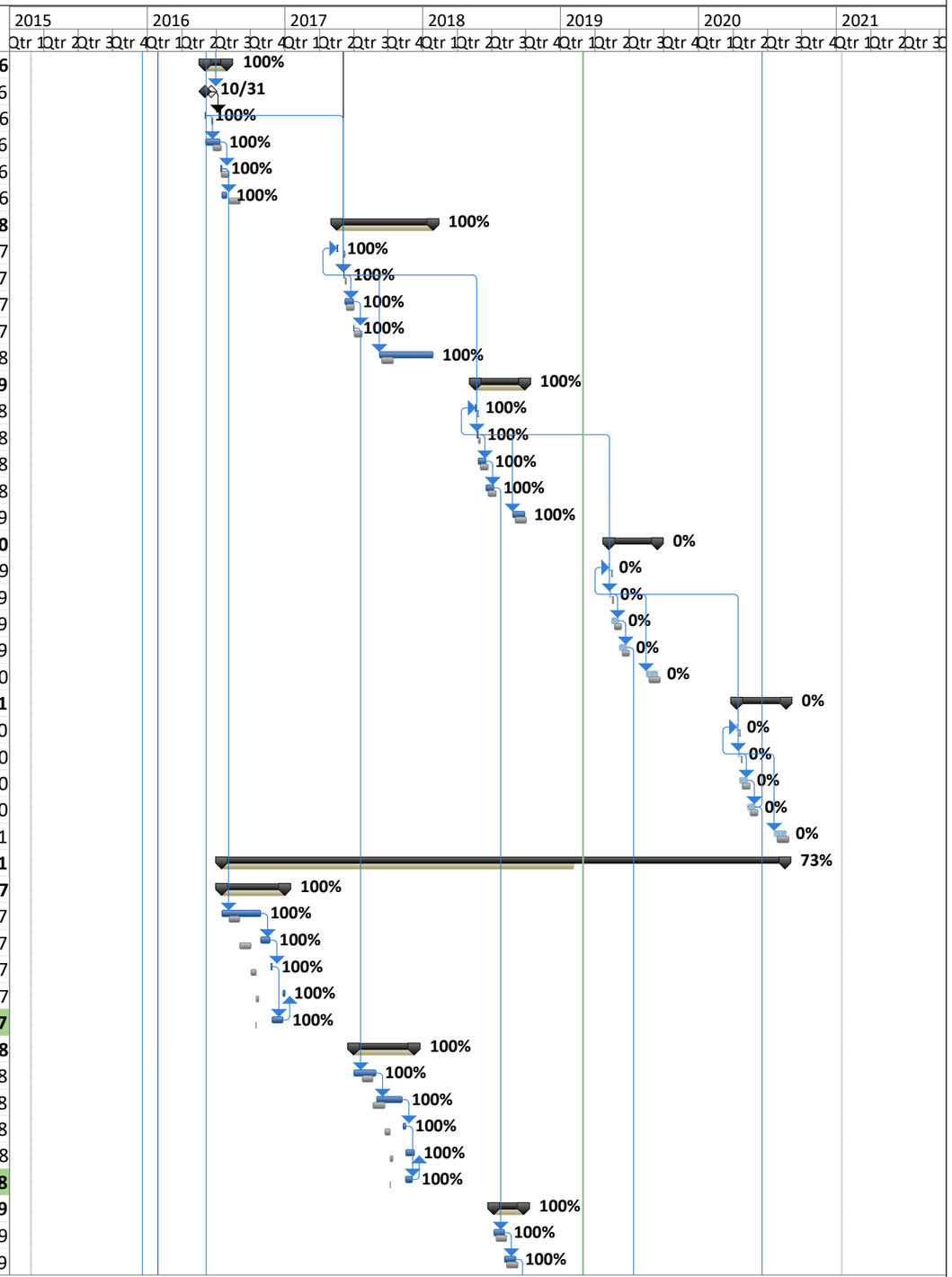
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2094	1518		Offsite Analysis of Groundwater Samples	15 days	Tue 6/9/20	Mon 6/29/20
2095	1519		Data Validation	10 days	Tue 6/30/20	Mon 7/13/20
2096	1520		ERPIMS Submittal	22 days	Wed 9/9/20	Thu 10/8/20
2097	**1359**		**LTM Reporting**	**1000 days**	**Fri 12/2/16**	**Wed 9/30/20**
2098	**1360**		**Annual Report - Year 2016**	**179 days**	**Fri 12/2/16**	**Wed 8/9/17**
2099	1361		Prepare Working Copy of Annual Report	101 days	Fri 12/2/16	Fri 4/21/17
2100	1362		AF Review of Working Copy of Annual Report	22 days	Mon 4/24/17	Tue 5/23/17
2101	1363		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 5/24/17	Tue 6/6/17
2103	1365		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	46 days	Wed 6/7/17	Wed 8/9/17
2102	**1364**	**2010**	**AF Approval of Final 2016 Annual LTM and O&M Report**	**0 days**	**Tue 6/6/17**	**Tue 6/6/17**
2104	**1370**		**Annual Report - Year 2017**	**118 days**	**Mon 12/11/17**	**Wed 5/23/18**
2105	1371		Prepare Working Copy of Annual Report	47 days	Mon 12/11/17	Tue 2/13/18
2106	1372		AF Review of Working Copy of Annual Report	43 days	Wed 2/14/18	Fri 4/13/18
2107	1373		Resolve AF Comments on Working Copy of Annual Report	19 days	Mon 4/16/18	Thu 5/10/18
2109	1375		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	2 days	Tue 5/22/18	Wed 5/23/18
2108	**1374**	**2011**	**AF Approval of Final 2017 Annual LTM and O&M Report**	**8 days**	**Thu 5/10/18**	**Mon 5/21/18**
2110	**1380**		**Annual Report - Year 2018**	**57 days**	**Tue 8/21/18**	**Wed 11/7/18**
2111	1381		Prepare Working Copy of Annual Report	20 days	Tue 8/21/18	Mon 9/17/18
2112	1382		AF Review of Working Copy of Annual Report	22 days	Tue 9/18/18	Wed 10/17/18
2113	1383		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 10/18/18	Wed 10/31/18
2115	1385		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	5 days	Thu 11/1/18	Wed 11/7/18
2114	**1384**	**2012**	**AF Approval of Final 2018 Annual LTM and O&M Report**	**0 days**	**Wed 10/31/18**	**Wed 10/31/18**
2116	**1390**		**Annual Report - Year 2019**	**57 days**	**Fri 9/6/19**	**Fri 11/22/19**
2117	1391		Prepare Working Copy of Annual Report	20 days	Fri 9/6/19	Wed 10/2/19
2118	1392		AF Review of Working Copy of Annual Report	22 days	Thu 10/3/19	Fri 11/1/19
2119	1393		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 11/4/19	Fri 11/15/19
2121	1395		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	5 days	Mon 11/18/19	Fri 11/22/19
2120	**1394**	**2013**	**AF Approval of Final 2019 Annual LTM and O&M Report**	**0 days**	**Fri 11/15/19**	**Fri 11/15/19**
2122	**6324**		**Annual Report - Year 2020**	**57 days**	**Tue 7/14/20**	**Wed 9/30/20**
2123	6325		Prepare Working Copy of Annual Report	20 days	Tue 7/14/20	Mon 8/10/20
2124	6326		AF Review of Working Copy of Annual Report	22 days	Tue 8/11/20	Wed 9/9/20
2125	6327		Resolve AF Comments on Working Copy of Annual Report	10 days	Thu 9/10/20	Wed 9/23/20
2127	6329		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	5 days	Thu 9/24/20	Wed 9/30/20
2126	6328	2014	AF Approval of Final 2020 Annual LTM and O&M Report	0 days	Wed 9/23/20	Wed 9/23/20
2128	**6334**		**Optimization**	**1127 days**	**Wed 6/29/16**	**Wed 10/21/20**
2129	**1405**		**Optimization Plan**	**128 days**	**Wed 6/29/16**	**Fri 12/23/16**
2130	1406		Prepare Working Copy of Optimization Plan	28 days	Wed 6/29/16	Fri 8/5/16
2131	1407		Air Force Review of Working Copy	12 days	Mon 8/8/16	Tue 8/23/16
2132	1408		Resolve AF Comments on Working Copy AF	8 days	Wed 8/24/16	Fri 9/2/16
2133	1409		AF Review and Approval of RTCs	6 days	Mon 9/5/16	Mon 9/12/16
2135	6427		Submit Draft Optimization Plan to Regulators	0 days	Thu 9/15/16	Thu 9/15/16
2136	6428		Regulator Review of Draft Optimization Plan	36 days	Fri 9/16/16	Fri 11/4/16
2137	6429		Resolve Regulator Comments on Draft Optimization Plan	32 days	Mon 11/7/16	Tue 12/20/16
2138	1410		Prepare Final Optimization Plan	72 days	Tue 9/13/16	Wed 12/21/16
2134	**6426**	**2010**	**AF Approval of Draft Optimization Plan**	**3 days**	**Mon 9/12/16**	**Thu 9/15/16**
2139	**1411**	**2010**	**AF Approval of Final Optimization Plan**	**2 days**	**Wed 12/21/16**	**Fri 12/23/16**



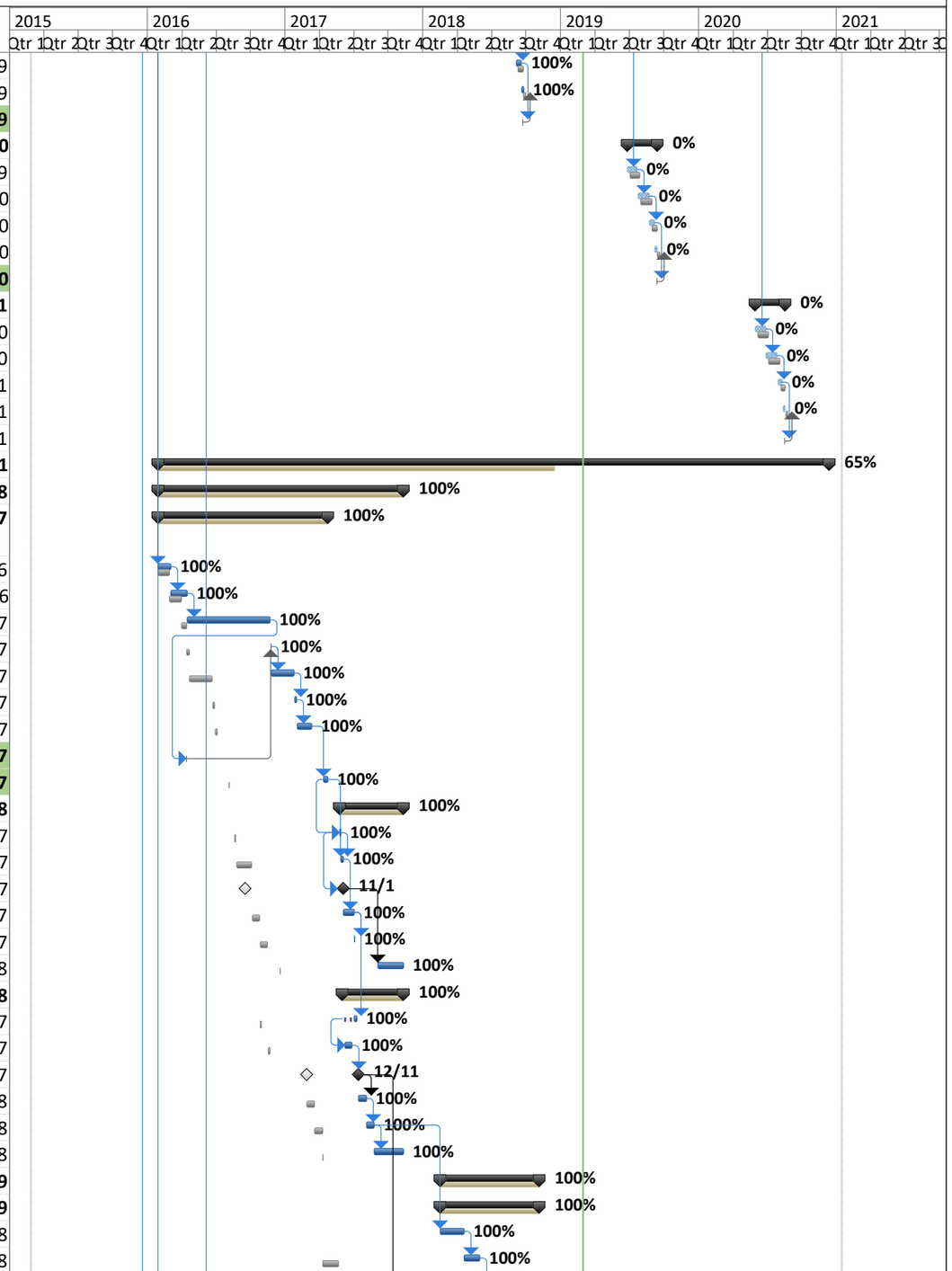
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2140	**1412**		**OES Report**	**72 days**	**Tue 7/14/20**	**Wed 10/21/20**
2141	1413		Prepare Working Copy of OES Report	30 days	Tue 7/14/20	Mon 8/24/20
2142	1414		Air Force Review of Working Copy	22 days	Tue 8/25/20	Wed 9/23/20
2143	1415		Resolve AF Comments on Working Copy AF	5 days	Thu 9/24/20	Wed 9/30/20
2144	1416		AF Review and Approval of RTCs	15 days	Thu 10/1/20	Wed 10/21/20
2145	6430	2014	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	0 days	Wed 10/21/20	Wed 10/21/20
2146	**1526**		**OES Site SS062: AOC 9 Weapons Storage Area Landfill Chlorinated Plum**	**1224 days**	**Wed 6/29/16**	**Fri 3/5/21**
2147	**6335**		**Optimization**	**1224 days**	**Wed 6/29/16**	**Fri 3/5/21**
2148	**1718**		**Remedial Optimization Work Plan**	**104 days**	**Wed 6/29/16**	**Mon 11/21/16**
2149	1719		Prepare Working Copy of Remedial Optimization Work Plan	27 days	Wed 6/29/16	Thu 8/4/16
2150	1720		AF Review of Working Copy of Remedial Optimization Work Plan	19 days	Fri 8/5/16	Wed 8/31/16
2151	1721		Resolve AF Comments on Working Copy of Remedial Optimizatio	10 days	Thu 9/1/16	Wed 9/14/16
2153	1723		Submit Draft Remedial Optimization Work Plan to Regulators	1 day	Mon 9/19/16	Mon 9/19/16
2154	1724		Regulator Review of Remedial Optimization Work Plan	32 days	Tue 9/20/16	Wed 11/2/16
2155	1725		RTC Regulator Comments on Draft Remedial Optimization Work F	5 days	Thu 11/3/16	Wed 11/9/16
2156	1726		Prepare Final Remedial Optimization Work Plan	5 days	Thu 11/10/16	Wed 11/16/16
2152	**1722**	**2010**	**AF Approval of Draft Remedial Optimization Work Plan**	**2 days**	**Wed 9/14/16**	**Fri 9/16/16**
2157	**1727**	**2010**	**Regulator Approval of Final Remedial Optimization Work Plan**	**3 days**	**Wed 11/16/16**	**Mon 11/21/16**
2158	**1732**		**Remedial Optimization Field Implementation**	**7 days**	**Mon 6/5/17**	**Tue 6/13/17**
2159	2604		Mobilize and Obtain UIC and Dig Permits	5 days	Mon 6/5/17	Fri 6/9/17
2160	1733		Perform ISCO Injections	0 days	Tue 6/13/17	Tue 6/13/17
2161	**1675**		**OES Report**	**82 days**	**Thu 11/12/20**	**Fri 3/5/21**
2162	1676		Prepare Working Copy of OES Report	30 days	Thu 11/12/20	Wed 12/23/20
2163	1677		Air Force Review of Working Copy	22 days	Thu 12/24/20	Fri 1/22/21
2164	1678		Resolve AF Comments on Working Copy AF	15 days	Mon 1/25/21	Fri 2/12/21
2165	1679		AF Review and Approval of RTCs	15 days	Mon 2/15/21	Fri 3/5/21
2166	6434	2014	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	0 days	Fri 3/5/21	Fri 3/5/21
2167	**6336**		**RA-O**	**1183 days**	**Fri 7/8/16**	**Mon 1/18/21**
2168	**1527**		**LTM Work Plan**	**90 days**	**Fri 7/8/16**	**Thu 11/10/16**
2169	1528		Prepare Working Copy of LTM Work Plan	28 days	Fri 7/8/16	Tue 8/16/16
2170	1529		AF Review of Working Copy of LTM Work Plan	11 days	Wed 8/17/16	Wed 8/31/16
2171	1530		Resolve AF Comments on Working Copy of LTM Work Plan	2 days	Thu 9/1/16	Fri 9/2/16
2173	1532		Submit Draft LTM Work Plan to Regulators	3 days	Tue 9/13/16	Thu 9/15/16
2174	1533		Regulator Review of Draft LTM Work Plan	32 days	Fri 9/16/16	Mon 10/31/16
2175	1534		RTC Regulator Comments on Draft LTM Work Plan	1 day	Mon 10/31/16	Mon 10/31/16
2176	1535		Prepare Final LTM Work Plan	8 days	Mon 10/31/16	Wed 11/9/16
2172	**1531**	**2010**	**AF Approval of Draft LTM Work Plan**	**7 days**	**Fri 9/2/16**	**Mon 9/12/16**
2177	**1536**	**2010**	**Regulator Approval of Final LTM Work Plan**	**2 days**	**Wed 11/9/16**	**Thu 11/10/16**
2178	**1537**		**LUC Inspections**	**1055 days**	**Fri 11/11/16**	**Wed 11/25/20**
2179	1538		Annual LUC Inspection-2016	5 days	Fri 11/11/16	Thu 11/17/16
2180	1539		Annual LUC Inspection-2017	5 days	Fri 11/3/17	Thu 11/9/17
2181	1540		Annual LUC Inspection-2018	5 days	Fri 11/9/18	Thu 11/15/18
2182	1541		Annual LUC Inspection-2019	5 days	Thu 11/14/19	Wed 11/20/19
2183	1542		Annual LUC Inspection-2020	5 days	Thu 11/19/20	Wed 11/25/20



ID	Unique ID	CLIN	Description	Duration	Start	Finish
2184	**1543**		**Annual Groundwater Sampling and Well Inspections Year 1**	**41 days**	**Mon 10/31/16**	**Tue 12/27/16**
2185	1544		Groundwater gaging and Well inspection	0 days	Mon 10/31/16	Mon 10/31/16
2186	1547		Sampling	1 day	Mon 10/31/16	Tue 11/1/16
2187	1548		Offsite Analysis of Groundwater Samples	28 days	Wed 11/2/16	Fri 12/9/16
2188	1549		Data Validation	3 days	Mon 12/12/16	Wed 12/14/16
2189	1550		ERPIMS Submittal	9 days	Thu 12/15/16	Tue 12/27/16
2190	**1561**		**Annual Groundwater Sampling and Well Inspections Year 2**	**183 days**	**Mon 10/16/17**	**Wed 6/27/18**
2191	1563		Groundwater gaging and Well inspection	2 days	Mon 10/16/17	Tue 10/17/17
2192	1566		Sampling	1 day	Fri 11/3/17	Fri 11/3/17
2193	1567		Offsite Analysis of Groundwater Samples	17 days	Mon 11/6/17	Tue 11/28/17
2194	1568		Data Validation	1 day	Wed 11/29/17	Wed 11/29/17
2195	1569		ERPIMS Submittal	102 days	Tue 2/6/18	Wed 6/27/18
2196	**1585**		**Annual Groundwater Sampling and Well Inspections Year 3**	**93 days**	**Thu 10/18/18**	**Mon 2/25/19**
2197	1587		Groundwater gaging and Well inspection	2 days	Thu 10/18/18	Fri 10/19/18
2198	1590		Sampling	3 days	Mon 10/22/18	Wed 10/24/18
2199	1591		Offsite Analysis of Groundwater Samples	15 days	Thu 10/25/18	Wed 11/14/18
2200	1592		Data Validation	15 days	Thu 11/15/18	Wed 12/5/18
2201	1593		ERPIMS Submittal	22 days	Fri 1/25/19	Mon 2/25/19
2202	**1599**		**Annual Groundwater Sampling and Well Inspections Year 4**	**93 days**	**Mon 10/7/19**	**Wed 2/12/20**
2203	1601		Groundwater gaging and Well inspection	2 days	Mon 10/7/19	Tue 10/8/19
2204	1604		Sampling	3 days	Wed 10/9/19	Fri 10/11/19
2205	1605		Offsite Analysis of Groundwater Samples	15 days	Mon 10/14/19	Fri 11/1/19
2206	1606		Data Validation	15 days	Mon 11/4/19	Fri 11/22/19
2207	1607		ERPIMS Submittal	22 days	Tue 1/14/20	Wed 2/12/20
2208	**1613**		**Annual Groundwater Sampling and Well Inspections Year 5**	**93 days**	**Thu 9/10/20**	**Mon 1/18/21**
2209	1615		Groundwater gaging and Well inspection	2 days	Thu 9/10/20	Fri 9/11/20
2210	1618		Sampling	3 days	Mon 9/14/20	Wed 9/16/20
2211	1619		Offsite Analysis of Groundwater Samples	15 days	Thu 9/17/20	Wed 10/7/20
2212	1620		Data Validation	15 days	Thu 10/8/20	Wed 10/28/20
2213	1621		ERPIMS Submittal	22 days	Fri 12/18/20	Mon 1/18/21
2214	**1622**		**LTM Reporting**	**1068 days**	**Thu 12/15/16**	**Fri 1/15/21**
2215	**1623**		**Annual Report - Year 2016**	**119 days**	**Thu 12/15/16**	**Tue 5/30/17**
2216	1624		Prepare Working Copy of Annual Report	73 days	Thu 12/15/16	Mon 3/27/17
2217	1625		AF Review of Working Copy of Annual Report	19 days	Tue 3/28/17	Fri 4/21/17
2218	1626		Resolve AF Comments on Working Copy of Annual Report	3 days	Mon 4/24/17	Wed 4/26/17
2220	1628		Submit Final Annual Report to Regulators	3 days	Fri 5/26/17	Tue 5/30/17
2219	**1627**	**2010**	**AF Approval of Final 2016 Annual LTM Report**	**21 days**	**Wed 4/26/17**	**Thu 5/25/17**
2221	**1633**		**Annual Report - Year 2017**	**114 days**	**Thu 11/30/17**	**Tue 5/8/18**
2222	1634		Prepare Working Copy of Annual Report	42 days	Thu 11/30/17	Fri 1/26/18
2223	1635		AF Review of Working Copy of Annual Report	50 days	Mon 1/29/18	Fri 4/6/18
2224	1636		Resolve AF Comments on Working Copy of Annual Report	6 days	Mon 4/9/18	Mon 4/16/18
2226	1638		Submit Final Annual Report to Regulators; AF Approval of ERPII	16 days	Tue 4/17/18	Tue 5/8/18
2225	**1637**	**2011**	**AF Approval of Final Annual 2017 LTM Report**	**14 days**	**Mon 4/16/18**	**Thu 5/3/18**
2227	**1643**		**Annual Report - Year 2018**	**57 days**	**Thu 12/6/18**	**Fri 2/22/19**
2228	1644		Prepare Working Copy of Annual Report	20 days	Thu 12/6/18	Wed 1/2/19
2229	1645		AF Review of Working Copy of Annual Report	22 days	Thu 1/3/19	Fri 2/1/19

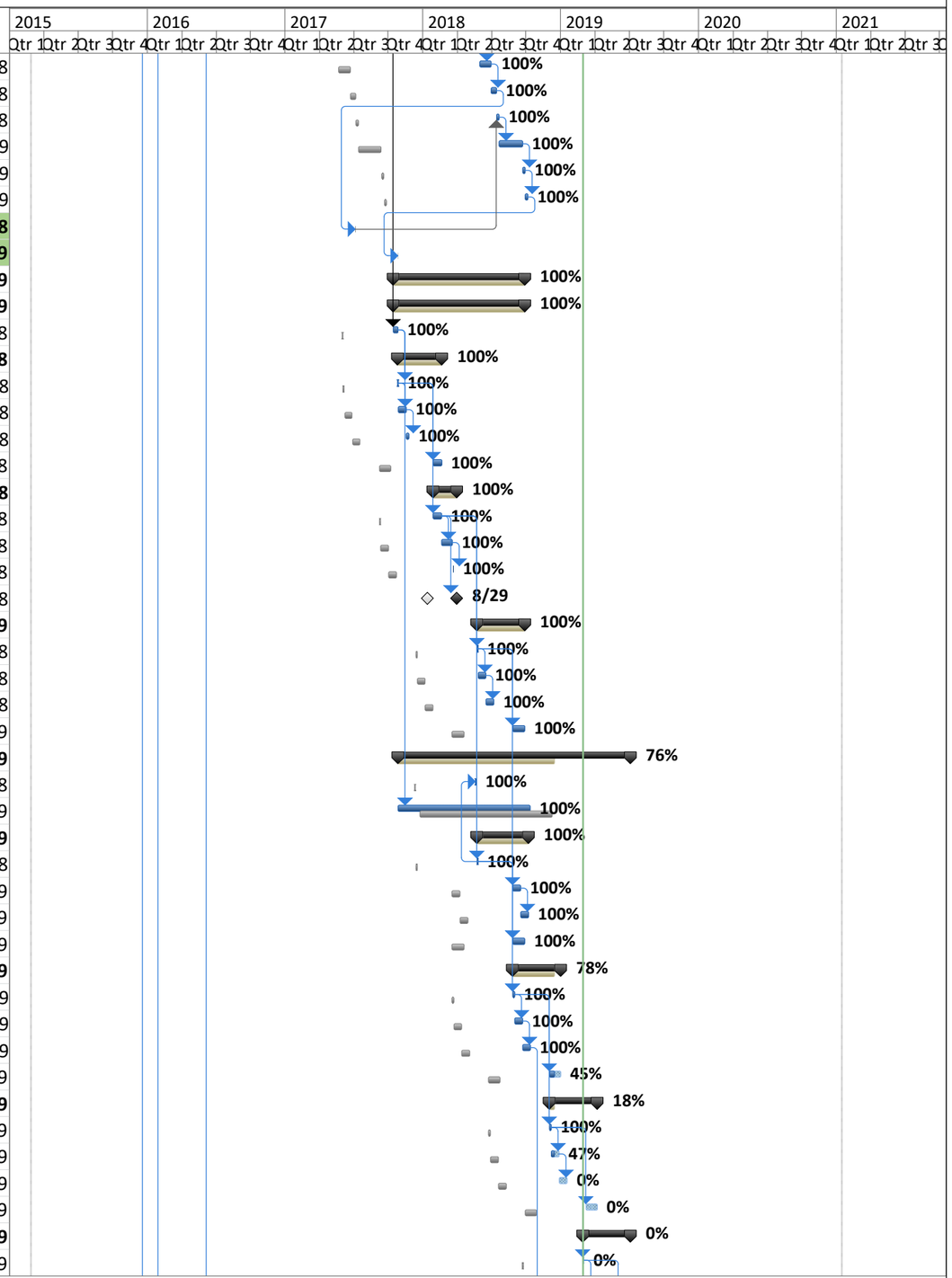


ID	Unique ID	CLIN	Description	Duration	Start	Finish
2230	1646		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 2/4/19	Fri 2/15/19
2232	1648		Submit Final Annual Report to Regulators; AF Approval of ERPIS	5 days	Mon 2/18/19	Fri 2/22/19
2231	**1647**	**2012**	**AF Approval of Final 2018 Annual LTM Report**	**0 days**	**Fri 2/15/19**	**Fri 2/15/19**
2233	**1653**		**Annual Report - Year 2019**	**57 days**	**Mon 11/25/19**	**Tue 2/11/20**
2234	1654		Prepare Working Copy of Annual Report	20 days	Mon 11/25/19	Fri 12/20/19
2235	1655		AF Review of Working Copy of Annual Report	22 days	Mon 12/23/19	Tue 1/21/20
2236	1656		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 1/22/20	Tue 2/4/20
2238	1658		Submit Final Annual Report to Regulators; AF Approval of ERPIS	5 days	Wed 2/5/20	Tue 2/11/20
2237	**1657**	**2013**	**AF Approval of Final 2019 Annual LTM Report**	**0 days**	**Tue 2/4/20**	**Tue 2/4/20**
2239	**1692**		**Annual Report - Year 2020**	**57 days**	**Thu 10/29/20**	**Fri 1/15/21**
2240	1693		Prepare Working Copy of Annual Report	20 days	Thu 10/29/20	Wed 11/25/20
2241	1694		AF Review of Working Copy of Annual Report	22 days	Thu 11/26/20	Fri 12/25/20
2242	1695		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 12/28/20	Fri 1/8/21
2244	1697		Submit Final Annual Report to Regulators; AF Approval of ERPIS	5 days	Mon 1/11/21	Fri 1/15/21
2243	1696	2014	AF Approval of Final 2020 Annual LTM Report	0 days	Fri 1/8/21	Fri 1/8/21
2245	**1735**		**SC: CSS681: Apron 1 Area LCP-E9 (NYSDEC Spill #1501553)**	**1272 days**	**Wed 6/29/16**	**Wed 5/12/21**
2246	**6337**		**Remedial Action**	**464 days**	**Wed 6/29/16**	**Mon 4/9/18**
2247	**2629**		**Corrective Action Plan (CAP) for Pre-Design Investigation (PDI) & Remedial Action**	**322 days**	**Wed 6/29/16**	**Thu 9/21/17**
2248	2630		Prepare Working Copy of CAP	24 days	Wed 6/29/16	Mon 8/1/16
2249	2631		AF Review of Working Copy of CAP	31 days	Tue 8/2/16	Tue 9/13/16
2250	2632		Resolve AF Comments on Working Copy of CAP	158 days	Wed 9/14/16	Fri 4/21/17
2252	2634		Submit Draft CAP to Regulators	1 day	Mon 4/24/17	Mon 4/24/17
2253	2635		Regulator Review of CAP	44 days	Mon 4/24/17	Fri 6/23/17
2254	2636		RTC Regulator Comments on Draft CAP	5 days	Mon 6/26/17	Fri 6/30/17
2255	2637		Prepare Final CAP	28 days	Mon 7/3/17	Wed 8/9/17
2251	**2633**	**2020**	**AF Approval of Draft Corrective Action Plan**	**0 days**	**Fri 4/21/17**	**Fri 4/21/17**
2256	**2638**	**2020**	**Regulator Approval of Final CAP**	**9 days**	**Mon 9/11/17**	**Thu 9/21/17**
2257	**2639**		**Plume Delineation**	**121 days**	**Mon 10/23/17**	**Mon 4/9/18**
2258	2640		Mobilization	3 days	Mon 10/23/17	Wed 10/25/17
2259	2641		Install Monitoring Wells	5 days	Thu 10/26/17	Wed 11/1/17
2260	2642		Groundwater gaging and sampling	0 days	Wed 11/1/17	Wed 11/1/17
2261	2643		Offsite Analysis of Groundwater Samples	21 days	Thu 11/2/17	Thu 11/30/17
2262	2644		Data Validation	1 day	Fri 12/1/17	Fri 12/1/17
2263	2645		ERPIMS Submittal	47 days	Fri 2/2/18	Mon 4/9/18
2264	**1746**		**Remedial Optimization Field Implementation**	**116 days**	**Mon 10/30/17**	**Mon 4/9/18**
2265	1747		Mobilization	5 days	Mon 10/30/17	Thu 12/7/17
2266	1749		Complete Injections	15 days	Mon 11/6/17	Fri 11/24/17
2267	6338		Collect groundwater samples	0 days	Mon 12/11/17	Mon 12/11/17
2268	6339		Offsite Analysis of Groundwater Samples	15 days	Tue 12/12/17	Mon 1/1/18
2269	6340		Data Validation	15 days	Tue 1/2/18	Mon 1/22/18
2270	6341		ERPIMS Submittal	55 days	Tue 1/23/18	Mon 4/9/18
2271	**6342**		**RA-C**	**188 days**	**Tue 7/17/18**	**Thu 4/4/19**
2272	**1752**		**Construction Completion Report (CCR)**	**188 days**	**Tue 7/17/18**	**Thu 4/4/19**
2273	6598		Complete soil borings	45 days	Tue 7/17/18	Mon 9/17/18
2274	1753		Prepare Working Copy of CCR	30 days	Tue 9/18/18	Mon 10/29/18

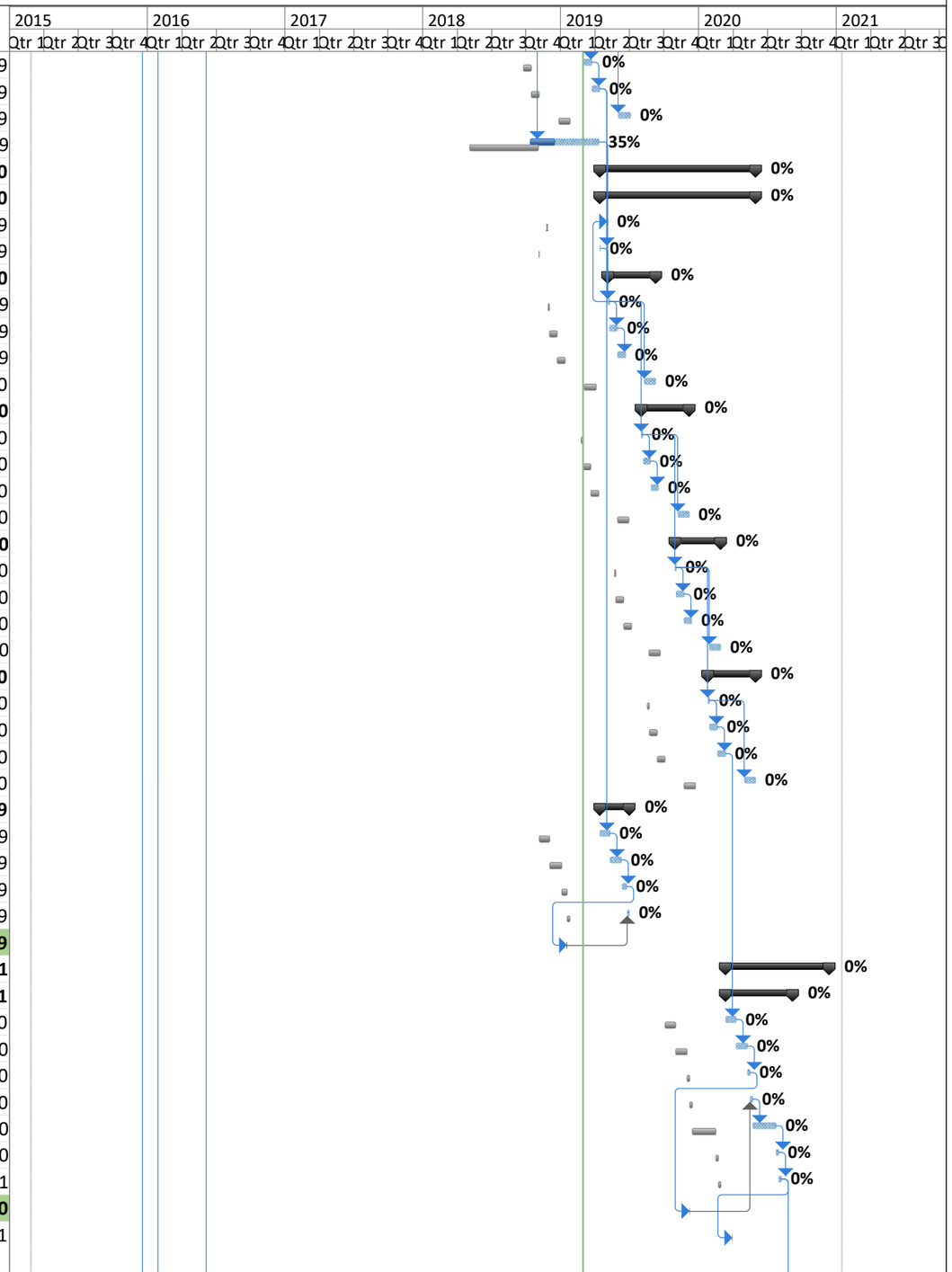


2018 PMP Update to IMS

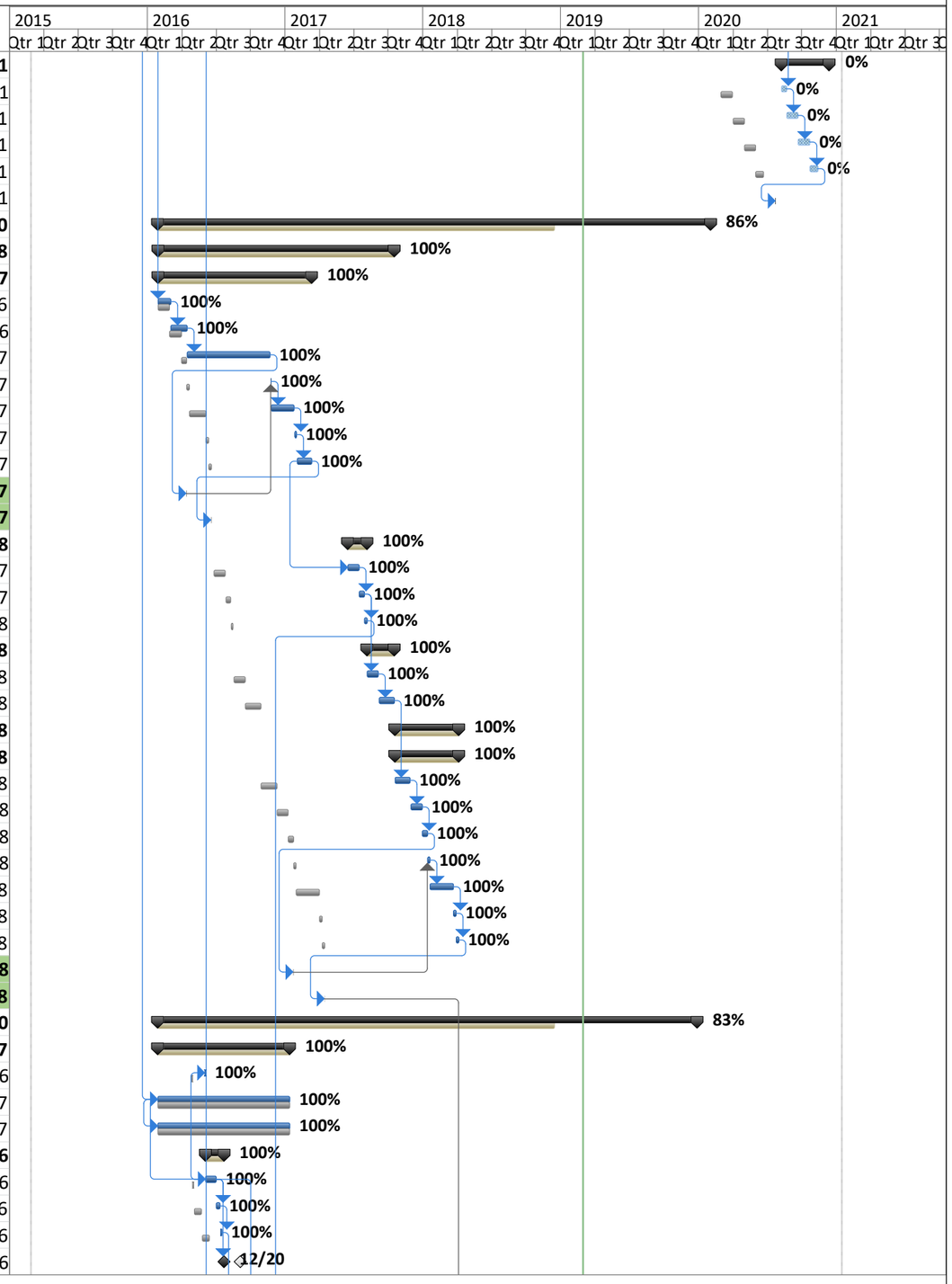
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2275	1754		AF Review of Working Copy of CCR	22 days	Tue 10/30/18	Wed 11/28/18
2276	1755		Resolve AF Comments on Working Copy of CCR	10 days	Thu 11/29/18	Wed 12/12/18
2278	1757		Submit Draft Annual CCR to Regulators	5 days	Thu 12/13/18	Wed 12/19/18
2279	1758		Regulator Review of Draft CCR	44 days	Thu 12/20/18	Tue 2/19/19
2280	1759		RTC Regulator Comments on Draft CCR	5 days	Wed 2/20/19	Tue 2/26/19
2281	1760		Prepare Final CCR	5 days	Wed 2/27/19	Tue 3/5/19
2277	**1756**	**2021**	**AF Approval of Draft CCR**	**0 days**	**Wed 12/12/18**	**Wed 12/12/18**
2282	**1761**	**2021**	**Regulator Approval of Final CCR**	**0 days**	**Thu 4/4/19**	**Thu 4/4/19**
2283	**6343**		**RA-O**	**249 days**	**Wed 3/14/18**	**Mon 2/25/19**
2284	**1763**		**Performance Groundwater Sampling and Well Inspections Year 1**	**249 days**	**Wed 3/14/18**	**Mon 2/25/19**
2285	1765		Groundwater gaging and Well inspection	9 days	Wed 3/14/18	Mon 3/26/18
2286	**1767**		**Q1 Groundwater Sampling**	**85 days**	**Mon 3/26/18**	**Fri 7/20/18**
2287	1768		Sampling	2 days	Mon 3/26/18	Tue 3/27/18
2288	1769		Offsite Analysis of Groundwater Samples	15 days	Wed 3/28/18	Tue 4/17/18
2289	1770		Data Validation	5 days	Wed 4/18/18	Tue 4/24/18
2290	1771		ERPIMS Submittal	17 days	Thu 6/28/18	Fri 7/20/18
2291	**1772**		**Q2 Groundwater Sampling**	**45 days**	**Thu 6/28/18**	**Wed 8/29/18**
2292	1773		Sampling	16 days	Thu 6/28/18	Thu 7/19/18
2293	1774		Offsite Analysis of Groundwater Samples	21 days	Fri 7/20/18	Fri 8/17/18
2294	1775		Data Validation	1 day	Mon 8/20/18	Mon 8/20/18
2295	1776		ERPIMS Submittal	0 days	Wed 8/29/18	Wed 8/29/18
2296	**6344**		**Q3 Groundwater Sampling**	**91 days**	**Mon 10/22/18**	**Mon 2/25/19**
2297	6345		Sampling	3 days	Mon 10/22/18	Wed 10/24/18
2298	6346		Offsite Analysis of Groundwater Samples	15 days	Thu 10/25/18	Wed 11/14/18
2299	6347		Data Validation	15 days	Thu 11/15/18	Wed 12/5/18
2300	6348		ERPIMS Submittal	22 days	Fri 1/25/19	Mon 2/25/19
2301	**1787**		**Performance Groundwater Sampling and Well Inspections Year 2**	**441 days**	**Tue 3/27/18**	**Mon 12/2/19**
2302	1788		Groundwater gaging and Well inspection	2 days	Thu 10/18/18	Fri 10/19/18
2303	1789		Monthly O&M	250 days	Tue 3/27/18	Mon 3/11/19
2304	**1790**		**Q1 Groundwater Sampling**	**99 days**	**Mon 10/22/18**	**Thu 3/7/19**
2305	1791		Sampling	3 days	Mon 10/22/18	Wed 10/24/18
2306	1792		Offsite Analysis of Groundwater Samples	15 days	Fri 1/25/19	Thu 2/14/19
2307	1793		Data Validation	15 days	Fri 2/15/19	Thu 3/7/19
2308	1794		ERPIMS Submittal	22 days	Fri 1/25/19	Mon 2/25/19
2309	**1795**		**Q2 Groundwater Sampling**	**91 days**	**Fri 1/25/19**	**Fri 5/31/19**
2310	1796		Sampling	3 days	Fri 1/25/19	Tue 1/29/19
2311	1797		Offsite Analysis of Groundwater Samples	15 days	Wed 1/30/19	Tue 2/19/19
2312	1798		Data Validation	15 days	Wed 2/20/19	Tue 3/12/19
2313	1799		ERPIMS Submittal	22 days	Thu 5/2/19	Fri 5/31/19
2314	**1800**		**Q3 Groundwater Sampling**	**91 days**	**Thu 5/2/19**	**Thu 9/5/19**
2315	1801		Sampling	3 days	Thu 5/2/19	Mon 5/6/19
2316	1802		Offsite Analysis of Groundwater Samples	15 days	Tue 5/7/19	Mon 5/27/19
2317	1803		Data Validation	15 days	Tue 5/28/19	Mon 6/17/19
2318	1804		ERPIMS Submittal	22 days	Wed 8/7/19	Thu 9/5/19
2319	**1908**		**Q4 Groundwater Sampling**	**91 days**	**Tue 7/30/19**	**Mon 12/2/19**
2320	1909		Sampling	3 days	Tue 7/30/19	Thu 8/1/19



ID	Unique ID	CLIN	Description	Duration	Start	Finish
2321	1910		Offsite Analysis of Groundwater Samples	15 days	Fri 8/2/19	Thu 8/22/19
2322	1911		Data Validation	15 days	Fri 8/23/19	Thu 9/12/19
2323	1912		ERPIMS Submittal	22 days	Fri 11/1/19	Mon 12/2/19
2324	6064		Implement Contingent Action	130 days	Wed 3/13/19	Tue 9/10/19
2325	**6349**		**LTM**	**296 days**	**Fri 9/13/19**	**Thu 10/29/20**
2326	**1874**		**Rebound Groundwater Sampling and Well Inspections Year 1**	**296 days**	**Fri 9/13/19**	**Thu 10/29/20**
2327	1875		Groundwater gaging and Well inspection	2 days	Wed 10/2/19	Thu 10/3/19
2328	1876		System Shutdown	1 day	Fri 9/13/19	Fri 9/13/19
2329	**1877**		**Q1 Groundwater Sampling**	**91 days**	**Fri 10/4/19**	**Fri 2/7/20**
2330	1878		Sampling	3 days	Fri 10/4/19	Tue 10/8/19
2331	1879		Offsite Analysis of Groundwater Samples	15 days	Wed 10/9/19	Tue 10/29/19
2332	1880		Data Validation	15 days	Wed 10/30/19	Tue 11/19/19
2333	1881		ERPIMS Submittal	22 days	Thu 1/9/20	Fri 2/7/20
2334	**1882**		**Q2 Groundwater Sampling**	**91 days**	**Wed 1/1/20**	**Wed 5/6/20**
2335	1883		Sampling	3 days	Wed 1/1/20	Fri 1/3/20
2336	1884		Offsite Analysis of Groundwater Samples	15 days	Mon 1/6/20	Fri 1/24/20
2337	1885		Data Validation	15 days	Mon 1/27/20	Fri 2/14/20
2338	1886		ERPIMS Submittal	22 days	Tue 4/7/20	Wed 5/6/20
2339	**1887**		**Q3 Groundwater Sampling**	**87 days**	**Mon 3/30/20**	**Tue 7/28/20**
2340	1888		Sampling	3 days	Mon 3/30/20	Wed 4/1/20
2341	1889		Offsite Analysis of Groundwater Samples	15 days	Thu 4/2/20	Wed 4/22/20
2342	1890		Data Validation	15 days	Thu 4/23/20	Wed 5/13/20
2343	1891		ERPIMS Submittal	22 days	Mon 6/29/20	Tue 7/28/20
2344	**1892**		**Q4 Groundwater Sampling**	**91 days**	**Thu 6/25/20**	**Thu 10/29/20**
2345	1893		Sampling	3 days	Thu 6/25/20	Mon 6/29/20
2346	1894		Offsite Analysis of Groundwater Samples	15 days	Tue 6/30/20	Mon 7/20/20
2347	1895		Data Validation	15 days	Tue 7/21/20	Mon 8/10/20
2348	1896		ERPIMS Submittal	22 days	Wed 9/30/20	Thu 10/29/20
2349	**1820**		**Annual Performance Monitoring Report - Year 2**	**57 days**	**Fri 9/13/19**	**Fri 11/29/19**
2350	1821		Prepare Working Copy of Annual Report	20 days	Fri 9/13/19	Wed 10/9/19
2351	1822		AF Review of Working Copy of Annual Report	22 days	Thu 10/10/19	Fri 11/8/19
2352	1823		Resolve AF Comments on Working Copy of Annual Report	10 days	Mon 11/11/19	Fri 11/22/19
2354	1825		Submit Final Annual Report to Regulators; AF Approval of ERPIMS U	5 days	Mon 11/25/19	Fri 11/29/19
2353	**1824**	**2022**	**AF Approval of Final Year 2 Annual Performance Monitoring Repor**	**0 days**	**Fri 11/22/19**	**Fri 11/22/19**
2355	**6350**		**Site Closeout**	**197 days**	**Tue 8/11/20**	**Wed 5/12/21**
2356	**1840**		**Spill Closure Report**	**128 days**	**Tue 8/11/20**	**Thu 2/4/21**
2357	1841		Prepare Working Copy of Spill Closure Report	20 days	Tue 8/11/20	Mon 9/7/20
2358	1842		AF Review of Working Copy of Spill Closure Report	22 days	Tue 9/8/20	Wed 10/7/20
2359	1843		Resolve AF Comments on Working Copy of Spill Closure Report	5 days	Thu 10/8/20	Wed 10/14/20
2361	1845		Submit Draft RACR to Regulators	5 days	Thu 10/15/20	Wed 10/21/20
2362	1846		Regulator Review of Draft Spill Closure Report	44 days	Thu 10/22/20	Tue 12/22/20
2363	1847		RTC Regulator Comments on Draft Spill Closure Report	5 days	Wed 12/23/20	Tue 12/29/20
2364	1848		Prepare Final Spill Closure Report	5 days	Wed 12/30/20	Tue 1/5/21
2360	**1844**	**2023**	**AF Approval of Draft Spill Closure Report**	**0 days**	**Wed 10/14/20**	**Wed 10/14/20**
2365	1849	2024	AF and Regulator Approval of Final Spill Closure Report; AF Approval of ERPIMS Upload	0 days	Thu 2/4/21	Thu 2/4/21

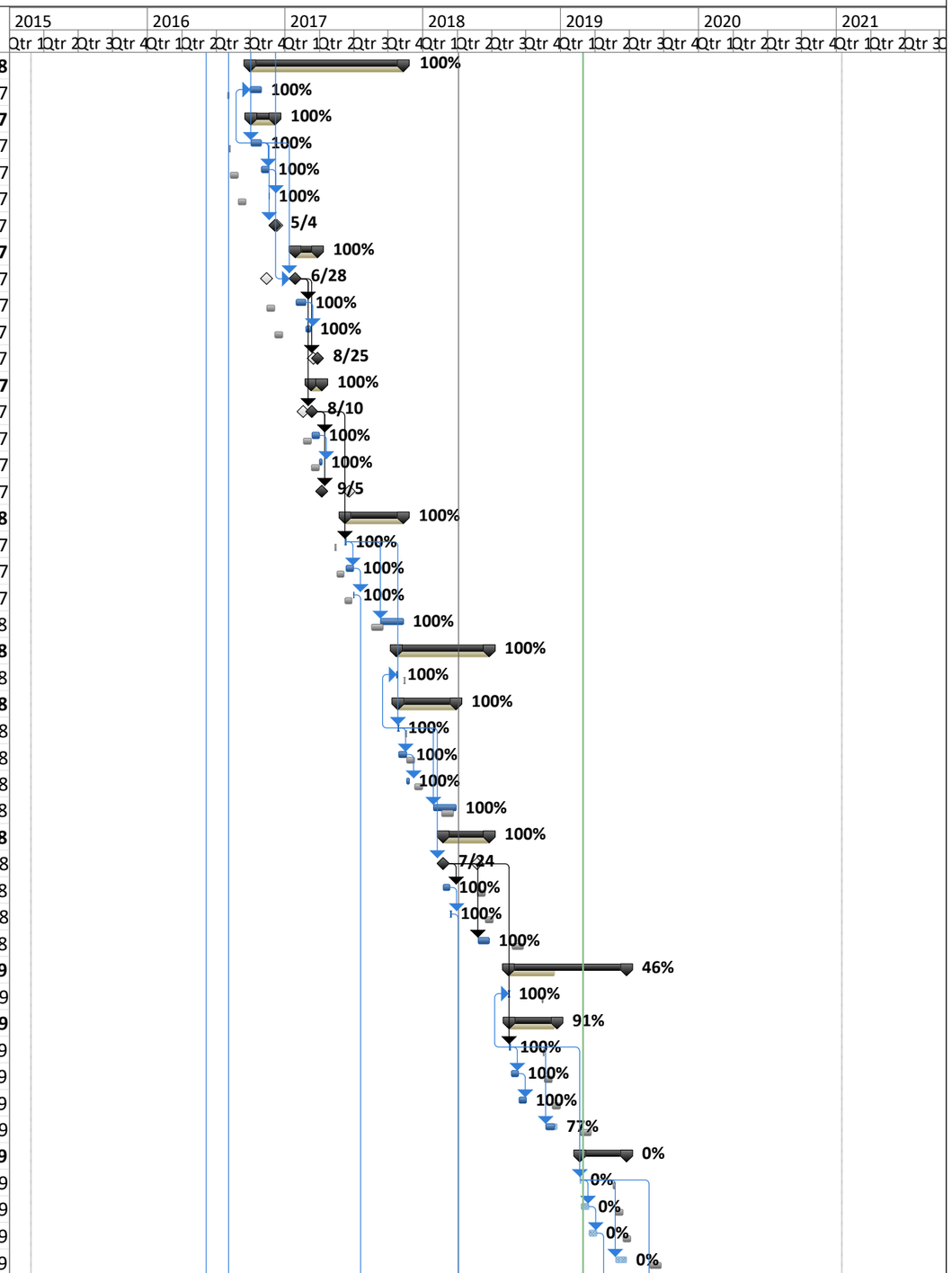


ID	Unique ID	CLIN	Description	Duration	Start	Finish
2366	**1897**		**Site Closeout and Well & System Decommissioning Report**	**91 days**	**Wed 1/6/21**	**Wed 5/12/21**
2367	1907		Decommission Wells and System	10 days	Wed 1/6/21	Tue 1/19/21
2368	1898		Prepare Working Copy of Site Closeout and Well & System Decom	22 days	Wed 1/20/21	Thu 2/18/21
2369	1899		AF Review of Working Copy of Site Closeout and Well & System D	22 days	Fri 2/19/21	Mon 3/22/21
2370	1900		Resolve AF Comments on Working Copy of Site Closeout and Wel	15 days	Tue 3/23/21	Mon 4/12/21
2371	1901	2024	AF Approval of Final Site Closeout and Well & System Decommiss	0 days	Wed 5/12/21	Wed 5/12/21
2372	**1913**		**OES: SS067: Building 789 Type II Fuel system (NYSDEC Spill #9810713)**	**1049 days**	**Tue 6/28/16**	**Thu 7/2/20**
2373	**6351**		**Free Product Delineation and Remedial Action**	**448 days**	**Wed 6/29/16**	**Fri 3/16/18**
2374	**1914**		**Corrective Action Plan**	**291 days**	**Wed 6/29/16**	**Wed 8/9/17**
2375	1915		Prepare Working Copy of CAP	24 days	Wed 6/29/16	Mon 8/1/16
2376	1916		AF Review of Working Copy	31 days	Tue 8/2/16	Tue 9/13/16
2377	1917		Resolve AF Comments on Working Copy of CAP	158 days	Wed 9/14/16	Fri 4/21/17
2379	1919		Submit Draft CAP to Regulators	1 day	Mon 4/24/17	Mon 4/24/17
2380	1920		Regulator Review of CAP	44 days	Mon 4/24/17	Fri 6/23/17
2381	1921		RTC Regulator Comments on Draft CAP	5 days	Mon 6/26/17	Fri 6/30/17
2382	1922		Prepare Final CAP	28 days	Mon 7/3/17	Wed 8/9/17
2378	**1918**	**2010**	**AF Approval of Draft Corrective Action Plan**	**0 days**	**Fri 4/21/17**	**Fri 4/21/17**
2383	**1923**	**2010**	**Regulator Approval of Final CAP**	**0 days**	**Wed 8/9/17**	**Wed 8/9/17**
2384	**1924**		**Corrective Action Plan - Delineation**	**37 days**	**Tue 11/14/17**	**Wed 1/3/18**
2385	1925		Mobilization and Permitting (Dig and UIC)	22 days	Tue 11/14/17	Wed 12/13/17
2386	2065		Delineation of Free Product	10 days	Thu 12/14/17	Wed 12/27/17
2387	1929		Install new monitoring wells (if needed)	5 days	Thu 12/28/17	Wed 1/3/18
2388	**6267**		**Corrective Action Plan - Implementation**	**52 days**	**Thu 1/4/18**	**Fri 3/16/18**
2389	6268		Mobilization and Permitting (Dig and UIC)	22 days	Thu 1/4/18	Fri 2/2/18
2390	6272		Full Scale Implementation	30 days	Mon 2/5/18	Fri 3/16/18
2391	**6352**		**RA-C**	**121 days**	**Mon 3/19/18**	**Mon 9/3/18**
2392	**1930**		**Construction Completion Report (CCR)**	**121 days**	**Mon 3/19/18**	**Mon 9/3/18**
2393	1931		Prepare Working Copy of CCR	30 days	Mon 3/19/18	Fri 4/27/18
2394	1932		AF Review of Working Copy of CCR	22 days	Mon 4/30/18	Tue 5/29/18
2395	1933		Resolve AF Comments on Working Copy of CCR	10 days	Wed 5/30/18	Tue 6/12/18
2397	1935		Submit Draft Annual CCR to Regulators	5 days	Wed 6/13/18	Tue 6/19/18
2398	1936		Regulator Review of Draft CCR	44 days	Wed 6/20/18	Mon 8/20/18
2399	1937		RTC Regulator Comments on Draft CCR	5 days	Tue 8/21/18	Mon 8/27/18
2400	1938		Prepare Final CCR	5 days	Tue 8/28/18	Mon 9/3/18
2396	**1934**	**2010**	**AF Approval of Draft CCR**	**0 days**	**Tue 6/12/18**	**Tue 6/12/18**
2401	**1939**	**2011**	**Regulator Approval of Final CCR**	**0 days**	**Mon 9/3/18**	**Mon 9/3/18**
2402	**6353**		**RA-O**	**1023 days**	**Tue 6/28/16**	**Wed 5/27/20**
2403	**1940**		**Performance Groundwater Sampling and Well Inspections Year 20**	**250 days**	**Tue 6/28/16**	**Mon 6/12/17**
2404	1941		Groundwater gaging and Well inspection	2 days	Mon 10/31/16	Tue 11/1/16
2405	2063		Monthly ORP and DO Measurements	250 days	Tue 6/28/16	Mon 6/12/17
2406	1942		Monthly O&M	250 days	Tue 6/28/16	Mon 6/12/17
2407	**1943**		**Q4-2016 Groundwater Sampling**	**35 days**	**Wed 11/2/16**	**Tue 12/20/16**
2408	1944		Sampling	20 days	Wed 11/2/16	Tue 11/29/16
2409	1945		Offsite Analysis of Groundwater Samples	8 days	Wed 11/30/16	Fri 12/9/16
2410	1946		Data Validation	3 days	Mon 12/12/16	Wed 12/14/16
2411	1947		ERPIMS Submittal	0 days	Tue 12/20/16	Tue 12/20/16



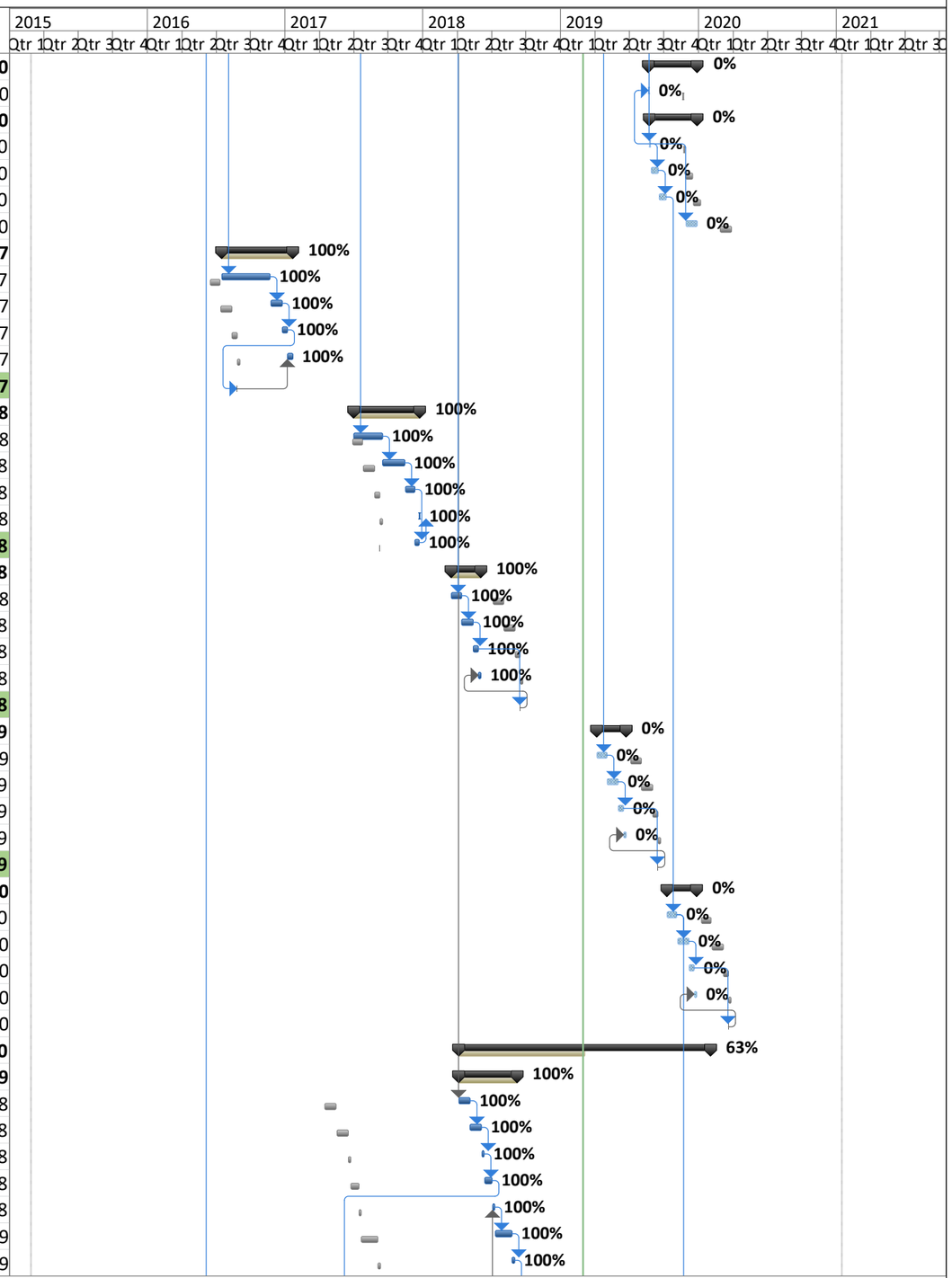
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ID	Unique ID	CLIN	Description	Duration	Start	Finish
2412	**1958**		**Performance Groundwater Sampling and Well Inspections Year 20**	**290 days**	**Tue 2/28/17**	**Mon 4/9/18**
2413	1959		Groundwater gaging and Well inspection	22 days	Tue 2/28/17	Wed 3/29/17
2414	**1961**		**Q1 2017 Groundwater Sampling**	**46 days**	**Thu 3/2/17**	**Thu 5/4/17**
2415	1962		Sampling	20 days	Thu 3/2/17	Wed 3/29/17
2416	1963		Offsite Analysis of Groundwater Samples	14 days	Thu 3/30/17	Tue 4/18/17
2417	1964		Data Validation	1 day	Wed 4/19/17	Wed 4/19/17
2418	1965		ERPIMS Submittal	0 days	Thu 5/4/17	Thu 5/4/17
2419	**1966**		**Q2 2017 Groundwater Sampling**	**43 days**	**Wed 6/28/17**	**Fri 8/25/17**
2420	1967		Sampling	0 days	Wed 6/28/17	Wed 6/28/17
2421	1968		Offsite Analysis of Groundwater Samples	18 days	Fri 6/30/17	Tue 7/25/17
2422	1969		Data Validation	9 days	Wed 7/26/17	Mon 8/7/17
2423	1970		ERPIMS Submittal	0 days	Fri 8/25/17	Fri 8/25/17
2424	**1971**		**Q3 2017 Groundwater Sampling**	**20 days**	**Wed 8/9/17**	**Tue 9/5/17**
2425	1972		Sampling	0 days	Wed 8/9/17	Thu 8/10/17
2426	1973		Offsite Analysis of Groundwater Samples	14 days	Fri 8/11/17	Wed 8/30/17
2427	1974		Data Validation	4 days	Thu 8/31/17	Tue 9/5/17
2428	1975		ERPIMS Submittal	0 days	Tue 9/5/17	Tue 9/5/17
2429	**1976**		**Q4 2017 Groundwater Sampling**	**110 days**	**Tue 11/7/17**	**Mon 4/9/18**
2430	1977		Sampling	2 days	Tue 11/7/17	Wed 11/8/17
2431	1978		Offsite Analysis of Groundwater Samples	14 days	Thu 11/9/17	Tue 11/28/17
2432	1979		Data Validation	1 day	Wed 11/29/17	Wed 11/29/17
2433	1980		ERPIMS Submittal	42 days	Fri 2/9/18	Mon 4/9/18
2434	**1981**		**Performance Groundwater Sampling and Well Inspections Year 20**	**176 days**	**Fri 3/23/18**	**Fri 11/23/18**
2435	1982		Groundwater gaging and Well inspection	2 days	Fri 3/23/18	Mon 3/26/18
2436	**1984**		**2018 Semi-Annual Groundwater Sampling**	**110 days**	**Tue 3/27/18**	**Mon 8/27/18**
2437	1985		Sampling	2 days	Tue 3/27/18	Wed 3/28/18
2438	1986		Offsite Analysis of Groundwater Samples	15 days	Thu 3/29/18	Wed 4/18/18
2439	1987		Data Validation	5 days	Thu 4/19/18	Wed 4/25/18
2440	1988		ERPIMS Submittal	42 days	Fri 6/29/18	Mon 8/27/18
2441	**1989**		**2018 Semi-Annual Groundwater Sampling**	**88 days**	**Tue 7/24/18**	**Fri 11/23/18**
2442	1990		Sampling	0 days	Tue 7/24/18	Tue 7/24/18
2443	1991		Offsite Analysis of Groundwater Samples	13 days	Wed 7/25/18	Fri 8/10/18
2444	1992		Data Validation	2 days	Mon 8/13/18	Tue 8/14/18
2445	1993		ERPIMS Submittal	22 days	Thu 10/25/18	Fri 11/23/18
2446	**2660**		**Performance Groundwater Sampling and Well Inspections Year 20**	**226 days**	**Mon 1/14/19**	**Fri 11/22/19**
2447	2661		Groundwater gaging and Well inspection	2 days	Mon 1/14/19	Tue 1/15/19
2448	**2663**		**2019 Semi-Annual Groundwater Sampling**	**91 days**	**Wed 1/16/19**	**Wed 5/22/19**
2449	2664		Sampling	3 days	Wed 1/16/19	Fri 1/18/19
2450	2665		Offsite Analysis of Groundwater Samples	15 days	Mon 1/21/19	Fri 2/8/19
2451	2666		Data Validation	15 days	Mon 2/11/19	Fri 3/1/19
2452	2667		ERPIMS Submittal	22 days	Tue 4/23/19	Wed 5/22/19
2453	**2668**		**2019 Semi-Annual Groundwater Sampling**	**91 days**	**Mon 7/22/19**	**Fri 11/22/19**
2454	2669		Sampling	3 days	Mon 7/22/19	Wed 7/24/19
2455	2670		Offsite Analysis of Groundwater Samples	15 days	Thu 7/25/19	Wed 8/14/19
2456	2671		Data Validation	15 days	Thu 8/15/19	Wed 9/4/19
2457	2672		ERPIMS Submittal	22 days	Thu 10/24/19	Fri 11/22/19



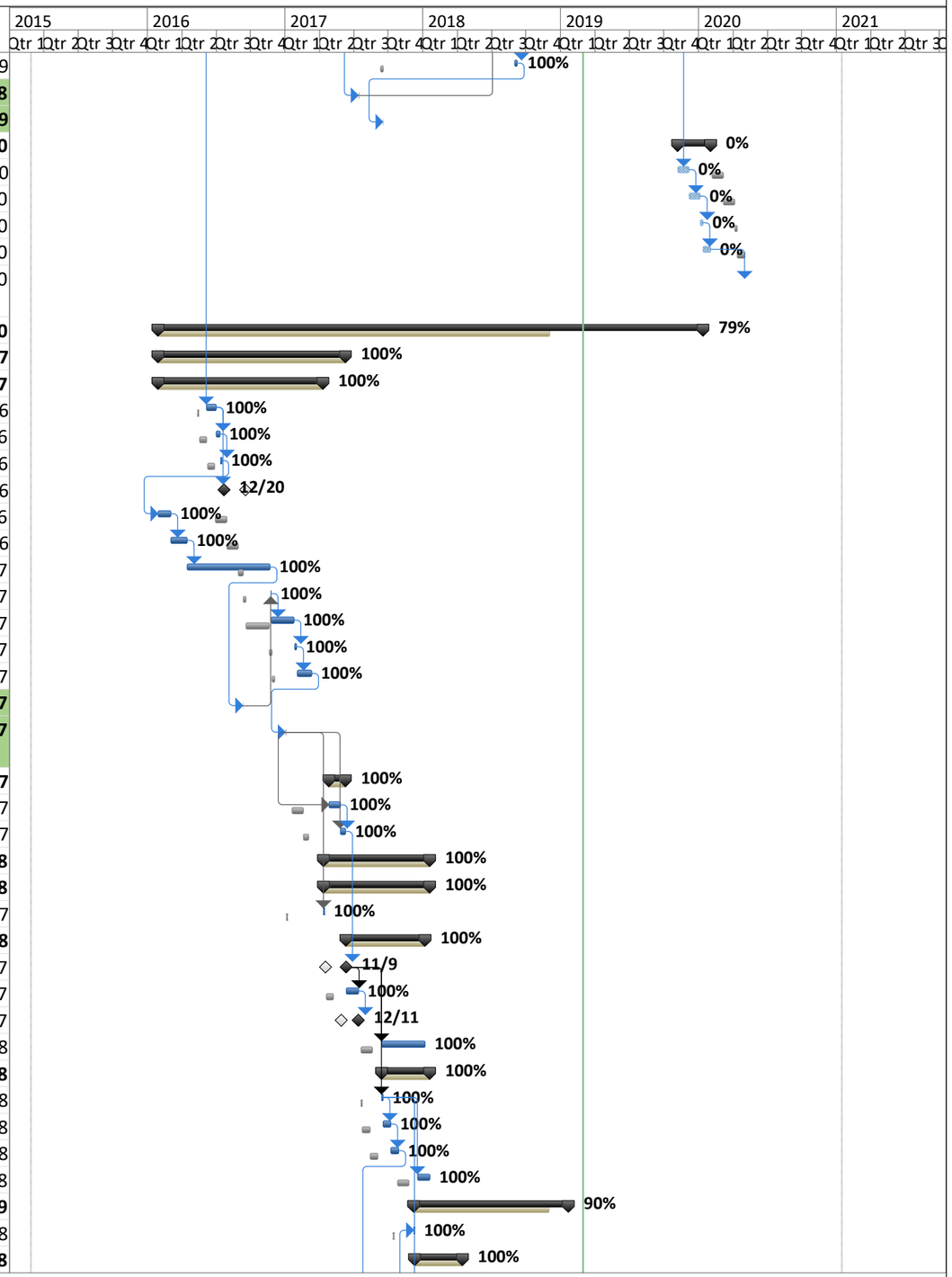
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ID	Unique ID	CLIN	Description	Duration	Start	Finish
2458	**2647**		**Performance Groundwater Sampling and Well Inspections Year 20**	**93 days**	**Mon 1/20/20**	**Wed 5/27/20**
2459	2648		Groundwater gaging and Well inspection	2 days	Mon 1/20/20	Tue 1/21/20
2460	**2650**		**Annual Groundwater Sampling-2020**	**91 days**	**Wed 1/22/20**	**Wed 5/27/20**
2461	2651		Sampling	3 days	Wed 1/22/20	Fri 1/24/20
2462	2652		Offsite Analysis of Groundwater Samples	15 days	Mon 1/27/20	Fri 2/14/20
2463	2653		Data Validation	15 days	Mon 2/17/20	Fri 3/6/20
2464	2654		ERPIMS Submittal	22 days	Tue 4/28/20	Wed 5/27/20
2465	**2017**		**Annual Performance Monitoring Report - Year 2016**	**134 days**	**Thu 12/15/16**	**Tue 6/20/17**
2466	2018		Prepare Working Copy of Annual Report	92 days	Thu 12/15/16	Fri 4/21/17
2467	2019		AF Review of Working Copy of Annual Report	22 days	Mon 4/24/17	Tue 5/23/17
2468	2020		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 5/24/17	Tue 6/6/17
2470	2022		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	10 days	Wed 6/7/17	Tue 6/20/17
2469	**2021**	**2010**	**AF Approval of Final 2016 Annual Performance Monitoring Repo**	**0 days**	**Tue 6/6/17**	**Tue 6/6/17**
2471	**2027**		**Annual Performance Monitoring Report - Year 2017**	**125 days**	**Thu 11/30/17**	**Wed 5/23/18**
2472	2028		Prepare Working Copy of Annual Report	54 days	Thu 11/30/17	Tue 2/13/18
2473	2029		AF Review of Working Copy of Annual Report	43 days	Wed 2/14/18	Fri 4/13/18
2474	2030		Resolve AF Comments on Working Copy of Annual Report	19 days	Mon 4/16/18	Thu 5/10/18
2476	2032		Submit Final Annual Report to Regulators;AF Approval of ERPIMS	2 days	Tue 5/22/18	Wed 5/23/18
2475	**2031**	**2011**	**AF Approval o Final 2017 Annual Performance Monitoring Repor**	**7 days**	**Thu 5/10/18**	**Mon 5/21/18**
2477	**2683**		**Annual Performance Monitoring Report - Year 2018**	**57 days**	**Wed 8/15/18**	**Thu 11/1/18**
2478	2684		Prepare Working Copy of Annual Report	20 days	Wed 8/15/18	Tue 9/11/18
2479	2685		AF Review of Working Copy of Annual Report	22 days	Wed 9/12/18	Thu 10/11/18
2480	2686		Resolve AF Comments on Working Copy of Annual Report	10 days	Fri 10/12/18	Thu 10/25/18
2482	2688		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Fri 10/26/18	Thu 11/1/18
2481	**2687**	**2012**	**AF Approval of Final 2018 Annual Performance Monitoring Repo**	**0 days**	**Thu 10/25/18**	**Thu 10/25/18**
2483	**2673**		**Annual Performance Monitoring Report - Year 2019**	**57 days**	**Thu 9/5/19**	**Thu 11/21/19**
2484	2674		Prepare Working Copy of Annual Report	20 days	Thu 9/5/19	Tue 10/1/19
2485	2675		AF Review of Working Copy of Annual Report	22 days	Wed 10/2/19	Thu 10/31/19
2486	2676		Resolve AF Comments on Working Copy of Annual Report	10 days	Fri 11/1/19	Thu 11/14/19
2488	2678		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Fri 11/15/19	Thu 11/21/19
2487	**2677**	**2013**	**AF Approval of Final 2019 Annual Performance Monitoring Repo**	**0 days**	**Thu 11/14/19**	**Thu 11/14/19**
2489	**2037**		**Annual Performance Monitoring Report - Year 2020**	**57 days**	**Mon 3/9/20**	**Tue 5/26/20**
2490	2038		Prepare Working Copy of Annual Report	20 days	Mon 3/9/20	Fri 4/3/20
2491	2039		AF Review of Working Copy of Annual Report	22 days	Mon 4/6/20	Tue 5/5/20
2492	2040		Resolve AF Comments on Working Copy of Annual Report	10 days	Wed 5/6/20	Tue 5/19/20
2494	2042		Submit Final Annual Report to Regulators; AF Approval of ERPIMS	5 days	Wed 5/20/20	Tue 5/26/20
2493	2041	2014	AF Approval of Final 2020 Annual Performance Monitoring Repor	0 days	Tue 5/19/20	Tue 5/19/20
2495	**6354**		**Optimization**	**479 days**	**Tue 9/4/18**	**Thu 7/2/20**
2496	**2605**		**Optimization Plan**	**111 days**	**Tue 9/4/18**	**Tue 2/5/19**
2497	2606		Prepare Working Copy of Optimization Plan	22 days	Tue 9/4/18	Wed 10/3/18
2498	2607		Air Force Review of Working Copy	22 days	Thu 10/4/18	Fri 11/2/18
2499	2608		Resolve AF Comments on Working Copy AF	5 days	Mon 11/5/18	Fri 11/9/18
2500	2609		AF Review and Approval of RTCs	15 days	Mon 11/12/18	Fri 11/30/18
2502	6443		Submit Draft Optimization Plan to Regulators	5 days	Mon 12/3/18	Fri 12/7/18
2503	6444		Regulator Review of Draft Optimization Plan	32 days	Mon 12/10/18	Tue 1/22/19
2504	6445		Resolve Regulator Comments on Draft Optimization Plan	5 days	Wed 1/23/19	Tue 1/29/19

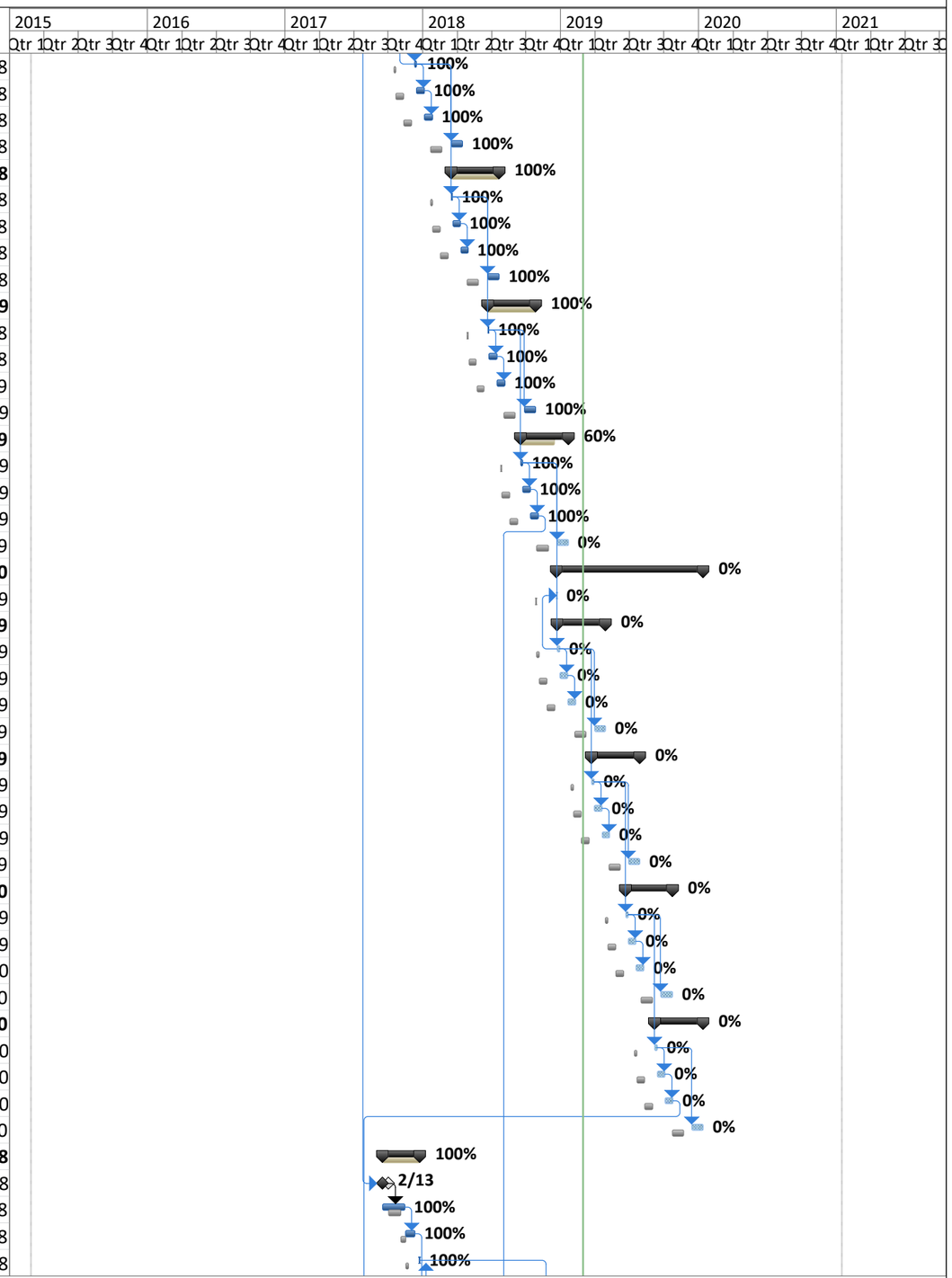


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ID	Unique ID	CLIN	Description	Duration	Start	Finish
2505	2610		Prepare Final Optimization Plan	5 days	Wed 1/30/19	Tue 2/5/19
2501	**6442**	**2011**	**AF Approval of Draft Optimization Plan**	**0 days**	**Fri 11/30/18**	**Fri 11/30/18**
2506	**2611**	**2011**	**AF Approval of Final Optimization Plan**	**0 days**	**Tue 2/5/19**	**Tue 2/5/19**
2507	**2612**		**OES Report**	**64 days**	**Mon 4/6/20**	**Thu 7/2/20**
2508	2613		Prepare Working Copy of OES Report	22 days	Mon 4/6/20	Tue 5/5/20
2509	2614		Air Force Review of Working Copy	22 days	Wed 5/6/20	Thu 6/4/20
2510	2615		Resolve AF Comments on Working Copy AF	5 days	Fri 6/5/20	Thu 6/11/20
2511	2616		AF Review and Approval of RTCs	15 days	Fri 6/12/20	Thu 7/2/20
2512	6438	2014	AF Approval of Final OES Report; Distribute Report to Regulators-Achieve OES	0 days	Thu 7/2/20	Thu 7/2/20
2513	**2069**		**SC: CSS682: Building 785 Pipeline (NYSDEC Spill #1408594)**	**1034 days**	**Wed 6/29/16**	**Fri 6/12/20**
2514	**6355**		**Remedial Action**	**355 days**	**Wed 6/29/16**	**Tue 11/7/17**
2515	**2070**		**Corrective Action Plan Amendment (if required)**	**313 days**	**Wed 6/29/16**	**Fri 9/8/17**
2516	6358		Sampling	18 days	Fri 11/4/16	Tue 11/29/16
2517	6359		Offsite Analysis of Groundwater Samples	8 days	Wed 11/30/16	Fri 12/9/16
2518	6360		Data Validation	3 days	Mon 12/12/16	Wed 12/14/16
2519	6361		ERPIMS Submittal	0 days	Tue 12/20/16	Tue 12/20/16
2520	2071		Prepare Working Copy of CAP Amendment	24 days	Wed 6/29/16	Mon 8/1/16
2521	2072		AF Review of Working Copy of CAP Amendment	31 days	Tue 8/2/16	Tue 9/13/16
2522	2073		Resolve AF Comments on Working Copy of CAP Amendment	158 days	Wed 9/14/16	Fri 4/21/17
2524	2075		Submit Draft CAP Amendment to Regulators	1 day	Mon 4/24/17	Mon 4/24/17
2525	2076		Regulator Review of CAP Amendment	44 days	Mon 4/24/17	Fri 6/23/17
2526	2077		RTC Regulator Comments on Draft CAP Amendment	5 days	Mon 6/26/17	Fri 6/30/17
2527	2078		Prepare Final CAP Amendment	28 days	Mon 7/3/17	Wed 8/9/17
2523	**2074**	**2020**	**AF Approval of Draft Corrective Action Plan Amendment (if requ**	**0 days**	**Fri 4/21/17**	**Fri 4/21/17**
2528	**2079**	**2020**	**Regulator Approval of Final Corrective Action Plan Amendment (if required)**	**0 days**	**Fri 9/8/17**	**Fri 9/8/17**
2529	**2080**		**Remedial Optimization Field Implementation**	**32 days**	**Mon 9/25/17**	**Tue 11/7/17**
2530	2081		Mobilization, Permitting (Dig and UIC)	22 days	Mon 9/25/17	Tue 10/24/17
2531	2082		Follow-on ISCO Injection, if needed	10 days	Wed 10/25/17	Tue 11/7/17
2532	**6356**		**RA-O**	**201 days**	**Mon 9/11/17**	**Mon 6/18/18**
2533	**2097**		**Performance Groundwater Sampling and Well Inspections Year 20**	**201 days**	**Mon 9/11/17**	**Mon 6/18/18**
2534	2098		Groundwater gaging and Well inspection	2 days	Mon 9/11/17	Tue 9/12/17
2535	**2101**		**Q1-2017 Groundwater Sampling**	**150 days**	**Thu 11/9/17**	**Wed 6/6/18**
2536	2102		Sampling	0 days	Thu 11/9/17	Thu 11/9/17
2537	2103		Offsite Analysis of Groundwater Samples	22 days	Fri 11/10/17	Mon 12/11/17
2538	2104		Data Validation	0 days	Mon 12/11/17	Mon 12/11/17
2539	2105		ERPIMS Submittal	83 days	Mon 2/12/18	Wed 6/6/18
2540	**2106**		**Q2-2017 Groundwater Sampling**	**91 days**	**Mon 2/12/18**	**Mon 6/18/18**
2541	2107		Sampling	3 days	Mon 2/12/18	Wed 2/14/18
2542	2108		Offsite Analysis of Groundwater Samples	15 days	Thu 2/15/18	Wed 3/7/18
2543	2109		Data Validation	15 days	Thu 3/8/18	Wed 3/28/18
2544	2110		ERPIMS Submittal	22 days	Fri 5/18/18	Mon 6/18/18
2545	**2111**		**Performance Groundwater Sampling and Well Inspections Year 2018**	**294 days**	**Tue 5/8/18**	**Fri 6/21/19**
2546	2112		Groundwater gaging and Well inspection	2 days	Tue 5/8/18	Wed 5/9/18
2547	**2115**		**Q1 -2018 Groundwater Sampling**	**91 days**	**Thu 5/10/18**	**Thu 9/13/18**



ID	Unique ID	CLIN	Description	Duration	Start	Finish
2548	2116		Sampling	3 days	Thu 5/10/18	Mon 5/14/18
2549	2117		Offsite Analysis of Groundwater Samples	15 days	Tue 5/15/18	Mon 6/4/18
2550	2118		Data Validation	15 days	Tue 6/5/18	Mon 6/25/18
2551	2119		ERPIMS Submittal	22 days	Wed 8/15/18	Thu 9/13/18
2552	**2120**		**Q2-2018 Groundwater Sampling**	**91 days**	**Wed 8/15/18**	**Wed 12/19/18**
2553	2121		Sampling	3 days	Wed 8/15/18	Fri 8/17/18
2554	2122		Offsite Analysis of Groundwater Samples	15 days	Mon 8/20/18	Fri 9/7/18
2555	2123		Data Validation	15 days	Mon 9/10/18	Fri 9/28/18
2556	2124		ERPIMS Submittal	22 days	Tue 11/20/18	Wed 12/19/18
2557	**2125**		**Q3-2018 Groundwater Sampling**	**91 days**	**Tue 11/20/18**	**Tue 3/26/19**
2558	2126		Sampling	3 days	Tue 11/20/18	Thu 11/22/18
2559	2127		Offsite Analysis of Groundwater Samples	15 days	Fri 11/23/18	Thu 12/13/18
2560	2128		Data Validation	15 days	Fri 12/14/18	Thu 1/3/19
2561	2130		ERPIMS Submittal	22 days	Mon 2/25/19	Tue 3/26/19
2562	**2131**		**Q4-2018 Groundwater Sampling**	**91 days**	**Fri 2/15/19**	**Fri 6/21/19**
2563	2132		Sampling	3 days	Fri 2/15/19	Tue 2/19/19
2564	2133		Offsite Analysis of Groundwater Samples	15 days	Wed 2/20/19	Tue 3/12/19
2565	2134		Data Validation	15 days	Wed 3/13/19	Tue 4/2/19
2566	2135		ERPIMS Submittal	22 days	Thu 5/23/19	Fri 6/21/19
2567	**2149**		**Rebound Groundwater Sampling and Well Inspections Year 2019**	**280 days**	**Tue 5/21/19**	**Fri 6/12/20**
2568	2150		Groundwater gaging and Well inspection	2 days	Tue 5/21/19	Wed 5/22/19
2569	**2152**		**Q1-2019 Groundwater Sampling**	**93 days**	**Thu 5/23/19**	**Fri 9/27/19**
2570	2153		Sampling	5 days	Thu 5/23/19	Wed 5/29/19
2571	2154		Offsite Analysis of Groundwater Samples	15 days	Thu 5/30/19	Wed 6/19/19
2572	2155		Data Validation	15 days	Thu 6/20/19	Wed 7/10/19
2573	2156		ERPIMS Submittal	22 days	Fri 8/30/19	Fri 9/27/19
2574	**2157**		**Q2-2019 Groundwater Sampling**	**93 days**	**Thu 8/22/19**	**Fri 12/27/19**
2575	2158		Sampling	5 days	Thu 8/22/19	Wed 8/28/19
2576	2159		Offsite Analysis of Groundwater Samples	15 days	Thu 8/29/19	Wed 9/18/19
2577	2160		Data Validation	15 days	Thu 9/19/19	Tue 10/8/19
2578	2161		ERPIMS Submittal	22 days	Thu 11/28/19	Fri 12/27/19
2579	**2162**		**Q3-2019 Groundwater Sampling**	**89 days**	**Wed 11/20/19**	**Mon 3/23/20**
2580	2163		Sampling	5 days	Wed 11/20/19	Tue 11/26/19
2581	2164		Offsite Analysis of Groundwater Samples	15 days	Wed 11/27/19	Tue 12/17/19
2582	2165		Data Validation	15 days	Wed 12/18/19	Tue 1/7/20
2583	2166		ERPIMS Submittal	22 days	Fri 2/21/20	Mon 3/23/20
2584	**2167**		**Q4-2019 Groundwater Sampling**	**93 days**	**Wed 2/5/20**	**Fri 6/12/20**
2585	2168		Sampling	5 days	Wed 2/5/20	Tue 2/11/20
2586	2169		Offsite Analysis of Groundwater Samples	15 days	Wed 2/12/20	Tue 3/3/20
2587	2170		Data Validation	15 days	Wed 3/4/20	Tue 3/24/20
2588	2171		ERPIMS Submittal	22 days	Thu 5/14/20	Fri 6/12/20
2589	**2172**		**Annual Performance Monitoring Report - Year 2017**	**71 days**	**Tue 2/13/18**	**Wed 5/23/18**
2590	2173		Prepare Working Copy of Annual Report	0 days	Tue 2/13/18	Tue 2/13/18
2591	2174		AF Review of Working Copy of Annual Report	43 days	Wed 2/14/18	Fri 4/13/18
2592	2175		Resolve AF Comments on Working Copy of Annual Report	19 days	Mon 4/16/18	Thu 5/10/18
2594	2177		Submit Final Annual Report to Regulators; AF Approval of ERPIMS Su	2 days	Tue 5/22/18	Wed 5/23/18



2018 PMP Update to IMS

ID	Unique ID	CLIN	Description	Duration	Start	Finish
2593	**2176**	**2021**	**AF Approval of Final 2017 Annual Performance Monitoring Report**	**8 days**	**Thu 5/10/18**	**Mon 5/21/18**
2595	**2182**		**Annual Performance Monitoring Report - Year 2018**	**0 days**	**Wed 5/8/19**	**Wed 5/8/19**
2596	~~2183~~		~~Prepare Working Copy of Annual Report~~	~~20 days~~	~~Thu 5/9/19~~	~~Wed 6/5/19~~
2597	~~2184~~		~~AF Review of Working Copy of Annual Report~~	~~22 days~~	~~Thu 6/6/19~~	~~Fri 7/5/19~~
2598	~~2185~~		~~Resolve AF Comments on Working Copy of Annual Report~~	~~10 days~~	~~Mon 7/8/19~~	~~Fri 7/19/19~~
2600	~~2187~~		~~Submit Final Annual Report to Regulators; AF Approval of ERPIMS Su~~	~~5 days~~	~~Thu 5/9/19~~	~~Wed 5/15/19~~
2599	**2186**	**2022**	**AF Approval of Final 2018 Annual Performance Monitoring Report**	**0 days**	**Wed 5/8/19**	**Wed 5/8/19**
2601	**6362**		**Site Closeout**	**225 days**	**Wed 1/31/18**	**Tue 12/11/18**
2602	**2202**		**Spill Closure Report**	**71 days**	**Wed 1/31/18**	**Wed 5/9/18**
2603	2203		Prepare Working Copy of Spill Closure	0 days	Wed 1/31/18	Fri 2/16/18
2604	2204		AF Review of Working Copy of Spill Closure	26 days	Mon 2/19/18	Mon 3/26/18
2605	2205		Resolve AF Comments on Working Copy of Spill Closure	4 days	Tue 3/27/18	Fri 3/30/18
2607	2207		Submit Draft Spill Closure to Regulators	0 days	Fri 3/30/18	Fri 3/30/18
2608	2208		Regulator Review of Draft Spill Closure	28 days	Mon 4/2/18	Wed 5/9/18
2609	2209		RTC Regulator Comments on Draft Spill Closure	0 days	Wed 5/9/18	Wed 5/9/18
2610	2210		Prepare Final Spill Closure	0 days	Wed 5/9/18	Wed 5/9/18
2606	**2206**	**2023**	**AF Approval of Draft Spill Closure**	**0 days**	**Fri 3/30/18**	**Fri 3/30/18**
2611	**2211**	**2023**	**AF and Regulator Approval of Final Spill Closure; AF Approval of**	**0 days**	**Wed 5/9/18**	**Wed 5/9/18**
2612	**2212**		**Site Closeout and Well Decommissioning Report**	**109 days**	**Thu 7/12/18**	**Tue 12/11/18**
2613	2213		Decommission Wells -One well is delayed	60 days	Thu 7/12/18	Wed 10/3/18
2614	2214		Prepare Working Copy of Site Closeout and Well Decommissionin	22 days	Thu 10/4/18	Fri 11/2/18
2615	2215		AF Review of Working Copy of Site Closeout and Well Decommiss	22 days	Mon 11/5/18	Tue 12/4/18
2616	2216		Resolve AF Comments on Working Copy of Site Closeout and Wel	5 days	Wed 12/5/18	Tue 12/11/18
2617	**2217**	**2023**	**AF Approval of Final Site Closeout and Well Decommissioning Re**	**0 days**	**Tue 12/11/18**	**Tue 12/11/18**

