YUMA PROVING GROUND

Army Cleanup Program

Installation Action Plan Final

June 2024

TABLE OF CONTENTS

STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

INSTALLATION OVERVIEW

Installation Name: YUMA PROVING GROUND

Installation City: YUMA

Installation County: YUMA

Installation State: AZ

Regulatory Participation - Federal: US Environmental Protection Agency (USEPA), Region IX

Regulatory Participation - State: ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ), FEDERAL FACILITIES UNIT

ACRONYMS

Acronym	Definition
ADEQ	Arizona Department of Environmental Quality
AOC	Area of Concern
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CACR	Corrective Action Completion Report
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CMI	Corrective Measures Implementation
CMI(O)	Corrective Measures Implementation (Operations)
CMS	Corrective Measure Study
COC	Contaminants of Concern
CR	Compliance Related
CRL	Cleanup Restoration & Liabilities
CWA	Chemical Warfare Agent
CWM	Chemical Warfare Materiel
DCS	Deputy Chief of Staff
DD	Decision Document
DERP	Defense Environmental Restoration Program
DTC	Desert Test Center
ENV	Environmental
FBTS	Fuel Bladder Test Site
FFS	Focused Feasibility Study
FS	Feasibility Study
FY	Fiscal Year
FYR	Five-Year Review
FWDA	Former Waste Disposal Area
HCA	Howard Cantonment Area
HE	High Explosive
ICE	Internal Combustion Engine
ID	Identification
IM	Interim Measures
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
LUST	Leaking Underground Storage Tank

Acronym	Definition
MAA	Main Administrative Area
MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRA	Munitions Response Area
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
NMRD	Non-Munitions Related Debris
NPL	National Priorities List
OB	Open Burn
OD	Open Detonation
OE	Ordnance Explosives
OESS	Ordnance and Explosives Safety Specialist
PA	Preliminary Assessment
PBA	Performance Based Acquisition
PFAS	Per- and Polyfluoroalkyl Substances
PP	Proposed Plan
PR	Periodic Review
PSSR	Periodic Site Status Report
RA	Remedial Action
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRD	Range Related Debris
RRSE	Relative Risk Site Evaluation
RTC	Response to Comments
SC	Site Closeout

Acronym	Definition
SCR	Site Characterization Report
SI	Site Inspection
SVE	Soil Vapor Extraction
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TPH	Total Petroleum Hydrocarbons
UE	Unrestricted Exposure
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
UST	Underground Storage Tank
UU	Unlimited Use
UXO	Unexploded Ordinance
WETA	West Environmental Test Area
YPG	Yuma Proving Ground

PHASE TRANSLATION TABLE

CERCLA Phase	RCRA Phase	RCRA UST Phase
Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
Remedial Design (RD)	Design (DES)	Design (DES)
Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

PROGRAM SUMMARY

Number of Open Sites with Response Complete/Total Open IR Sites: 3/10

Number of Open Sites with Response Complete/Total Open MR Sites: 0/5

Number of Open Sites with Response Complete/Total Open CC Sites: 0/3

SITE-LEVEL INFORMATION

04985.1010_YPG-10_FUEL BLADDER TEST SITE

Env Site ID: YPG-10

Cleanup Site: FUEL BLADDER TEST SITE

Alias: FBTS

Regulatory Driver: CERCLA

RIP Date: 7/15/2008

RC Date: 9/30/2033

RC Reason: Not assigned

SC Date: 9/30/2063

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
PA:	8/15/1991	1/15/1992
SI:	8/15/1992	9/15/1993
RI/FS:	4/15/1994	6/15/2006
RD:	7/15/2006	12/15/2006
IRA:	8/15/2001	3/15/2004
RA(C):	1/15/2007	6/15/2008
RA(O):	7/15/2008	9/30/2033
LTM:	10/1/2033	9/30/2063

Site Narrative: The Fuel Bladder Test Site (FBTS) lies within an area of approximately 30 acres at the end of Sanchez Road, one mile east of Building 2105, located on the Walker Cantonment Area. The FBTS was used during the 1960s and 1970s to test the integrity of collapsible fuel bladder tanks for combat field applications. It has been estimated that as much as 500,000 gallons of fuel may have been released during the test activities. In October 2001, a presumptive remedy of soil vapor extraction (SVE) was proposed to the Arizona Department of Environmental Quality (ADEQ). An interim remedial action (IRA) that included operation of a dual engine SVE unit to determine design parameters for a full-scale internal combustion engine (ICE) SVE system was performed. Based on the SVE pilot test data approximately 186,825 gallons of fuel was removed (not considering the amount biodegraded). Past investigations have confirmed the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX) related compounds in the vadose zone and in groundwater. Risk refinement steps have identified a potential unacceptable risk to human health and ecological resources. In 2003, a focused feasibility study (FFS) was completed and submitted to ADEQ and in March 2004 a remedial investigation (RI) report was completed. On Dec. 9, 2004, all parties signed an interim decision document (DD) for the subsurface and vadose zone. In March 2006 the remedial design (RD)/remedial action (RA) plan was submitted to and received concurrence from ADEQ. In September 2007, a performance-based acquisition (PBA) was awarded to perform remedial action (operations) (RA(O))/ long-term management (LTM) and included achieving response complete (RC) for soil and groundwater. In April 2008, the SVE system was restarted and operated until December 2008. The SVE system at the FBTS has been shut down on four occasions for rebound testing (December 2008, October 2009, October 2010, and November 2011). Based on data from the SVE/ICE system, and analytical results from groundwater sampling the selected IRA at the FBTS is progressing as intended. Soil gas concentrations have decreased since the implementation of the system whereby reducing the cost effectiveness of the SVE system using the ICE technology. There are no indications that the plume is increasing in size or migrating. An IRA completion report for the FBTS was submitted to ADEQ December 2013 and finalized in February 2014. Confirmation soil sampling was conducted at the site during Nov. 12-25, 2013, and a report was submitted to ADEQ in February 2014. The ADEQ

responded in April 2014 (via conference call) and in June 2014. Groundwater sampling events were completed in fiscal year (FY)15. The selected remedy was implemented in fall 2016. The FY16 sampling event was conducted, and annual reports were submitted to ADEQ. The SVE system will be replaced by the selected preferred remedial alternative for soil remediation discussed in the final FFS. The proposed plan (PP) was submitted to ADEQ December 2016 and ADEQ concurred on Jan. 12, 2017. Cleanup/Exit Strategy - The preferred alternative consists of the installation of 17 passive soil vapor extraction/ bioventing wells with monitored natural attenuation (MNA) and continued land use controls (LUC) for the site. The amended DD was submitted to ADEQ July 2017. The installation received final concurrence on Oct. 19, 2017. Three bioventing wells, two nested bioventing monitoring wells, and one replacement groundwater monitoring well (FBTS-OW16A) were installed and developed between April 25, 2019, and May 2, 2019. Former groundwater monitoring well FBTS-OW16 was plugged and abandoned between May 1, 2019, and May 2, 2019. A current contract is in place to continue RAO. September 2021 ADEQ concurred with reducing the sampling from bi-annual to annual. ADEQ also concurred with the abandonment of wells MW-3, 6, 8, 10, 14, 15, 21, 23A, PW-5, and 6. Soil confirmation sampling was conducted in March 2022 at YPG-10 with the final report, dated August 2022 recommending continued bioventing. Annual groundwater monitoring and quarterly soil vapor monitoring continues, with the August 2023 report recommending semi-annual soil vapor monitoring. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for unlimited use (UU)/ unrestricted exposure (UE), five-year remedy reviews will continue until UU/UE is achieved.

04985.1030_YPG-31_WEST ENVIRONMENTAL TEST AREA

Env Site ID: YPG-31

Cleanup Site: WEST ENVIRONMENTAL TEST AREA

Alias: WETA

Regulatory Driver: CERCLA

RIP Date: 10/1/2027

RC Date: 10/1/2027

RC Reason: Not assigned

SC Date: 10/2/2056

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
PA:	10/15/1980	12/15/1980
SI:	8/15/1988	8/15/1988
RI/FS:	8/15/1997	9/30/2025
RD:	10/1/2025	10/1/2026
IRA:	- -	- -
RA(C):	10/1/2026	10/1/2027
RA(O):	- -	- -
LTM:	10/1/2027	10/1/2056

Site Narrative: This site is located 2.3 miles north of the Phillips Drop Zone on the Cibola Testing Range. It is enclosed by an eight-foot-tall chain-link fence and covers an area of about 143 acres. From the 1950s until 1969, environmental testing was conducted at this location on a variety of materials that included chemical warfare agents (CWA) (distilled mustard and tear gas), munitions (assorted grenades, rockets, mines, and bursters) and assorted military material. In addition, a single disposal operation occurred at the termination of CWA testing. In 1994, four bottles of distilled mustard were discovered; they were disposed of by Dugway Proving Ground Technical Escort Unit. A historical record review, an aerial photographic review, and an investigation using geophysics and soil gas sampling were conducted. CWA was detected in soil gas samples. Signage around the building and the existing engineering controls (fence) will continue to be maintained. In September 2007 a PBA was awarded to finalize the DD and perform required LTM through 2014. One round of groundwater sampling was conducted at YPG-31 in July 2012. The contractor recommendations for the site resulted in the reopening of the RI/FS phase. Specific activities to be performed at the site and their objectives consist of the following- 1) Conducting a visual survey of the site; and 2) Collecting surface samples around the hard stands. No soil samples were collected in the area of the suspected burial trench because of concern for human safety due to possible CWA. An RI was conducted from February - August 2016. The RI Report for YPG-31 and YPG-32 was submitted to ADEQ with final concurrence, after resolving comments, received in November 2017. Based on the RI findings, an FS was recommended. The FS was completed with the report finalized in March 2018. A PP was performed also finalized in June 2018. The contractor prepared and submitted the draft DD for YPG 31 and YPG 32 and at this time the revised/finalized DD is being staffed for Deputy Chief of Staff (DCS) G-9 review and approval prior to submitting it to ADEQ. Cleanup/Exit Strategy - Once the DD is finalized, an RA will be performed for this site with anticipated LUCs. DCS G-9 provided comments to the draft final DD and US Army Environmental Command (USAEC) revised the DD. The DD is being finalized.

04985.1031_YPG-32_FORMER WASTE DISPOSAL AREA

Env Site ID: YPG-32

Cleanup Site: FORMER WASTE DISPOSAL AREA

Alias: FWDA

Regulatory Driver: CERCLA

RIP Date: 10/1/2027

RC Date: 10/1/2027

RC Reason: Not assigned

SC Date: 10/2/2056

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Medium

MRSPP: N/A

Phase	Start	End
PA:	10/31/1978	12/31/1978
SI:	8/31/1988	8/31/1988
RI/FS:	8/15/1997	9/30/2025
RD:	10/1/2025	10/1/2026
IRA:	4/30/1999	9/30/2004
RA(C):	10/1/2026	10/1/2027
RA(O):	- -	- -
LTM:	10/1/2027	10/1/2056

Site Narrative: The Former Waste Disposal Area (FWDA) site is located one-half mile northeast of the west environmental test area (WETA) on the Cibola Testing Range. The site occupies about 4.7 acres and is surrounded by a six-foot chain-link fence, with three-strand barbed wire on top. It is currently administered under strict LUC procedures including physical controls, a fence and gate, and existing Yuma Proving Ground (YPG) dig permit requirements. It consists of a number of buried disposal pits used for material disposal. From the early-1950s until late-1969 the site was used for the disposal of decontaminated chemical agent wastes from environmental and purity analysis testing performed at the Old Chemical Laboratory (Building S-2500, YPG-01), WETA and rocket-firing tubes used for chemical ammunition. Three monitoring wells have been installed. In September 2007, a contract was awarded to finalize the DD and perform required LTM through 2014. A supplemental investigation recommended additional investigation, which resulted in the RI/FS phase being reopened in June 2012. An RI was conducted from February - August 2016. The RI report for YPG-31 and YPG-32 was submitted to ADEQ with final concurrence after resolving comments received in November 2017. Based on the RI findings, an FS was recommended. The FS was completed, and the report finalized in March 2018. A PP was also performed and finalized in June 2018. The contractor prepared and submitted the draft DD for YPG-31 and YPG-32 and at this time the revised/finalized DD is being staffed for DCS G-9 review and approval prior to submitting it to ADEQ. Cleanup/Exit Strategy - Once the DD is finalized, a remedial action will be performed for this site with anticipated LUCs. DCS G-9 provided comments to the draft final DD and USAEC is currently responding to comments and revising the DD. The DD is being finalized.

04985.1046_CCYPG-141_INACTIVE LANDFILL

Env Site ID: CCYPG-141

Cleanup Site: INACTIVE LANDFILL

Alias: SWMU 39

Regulatory Driver: RCRA-C

RIP Date: 1/16/2018

RC Date: 1/16/2018

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
RFA:	5/15/1997	4/15/1999
CS:	3/15/2006	6/15/2007
RFI/CMS:	9/15/2007	12/15/2014
DES:	9/15/2015	3/3/2017
IRA:	- -	- -
CMI(C):	9/15/2016	1/16/2018
CMI(O):	- -	- -
LTM:	10/15/2018	9/30/2054

Site Narrative: The site is located approximately 1.5 miles east of the Howard Cantonment Area (HCA), north of Barranca Road and west of Laguna Army Airfield. A dry wash borders the landfill to the north and east, bedrock outcroppings border much of the southern and eastern sides of the landfill, and the Chocolate Mountains about the western side of the landfill. This site is identified in the Resource Conservation and Recovery Act (RCRA) facility assessment (RFA) as SWMU 39 and site YPG-141 but is entered in the Army database as site (04985.1046) CCYPG-141. The A.A.C.R18-8-264.A and A.A.C.R18-8-270.A requires that permits issued after Nov. 8, 1984 address corrective action, as necessary to protect public health and the environment, from releases of hazardous waste including hazardous constituents from any solid waste management unit (SWMU) at the facility, regardless of when the waste was placed in the unit. A records review conducted for CCYPG-141 during the 1998 RFA concluded that the CCYPG-141 landfill began operations in 1964, was active for several years, and was closed in 1967 and that the unit managed domestic and administrative solid waste, to include construction and maintenance wastes. The site was transferred to the Compliance Related (CR) program during FY10. A PBA was awarded in Sep 2007 and an optional RCRA facility investigation (RFI) and corrective measure study (CMS). The surface debris removal action at CCYPG-141 was performed in November 2009. The RFI concluded that the landfill consists of municipal mixed with industrial waste, and no contaminants of concern (COC) were identified as potential hazards to human or ecological receptors. A RCRA CMS was prepared to identify, screen, develop, and evaluate potential corrective measure alternatives and identify a final corrective measure(s) action to be taken at the site. The recommended corrective measure was a native soil cover with drainage control and LUCs. A contract was awarded in August 2015 to achieve RC/corrective measures implementation (CMI) landfill cover restoration for the selected corrective measures on the site. Field activities for the implementation measures at CCYPG-141 began March 2017 and the CMI was approved by ADEQ on Jan. 16, 2018. A contract to perform LTM was in place from October 2018 to September 2023. On July 02, 2021, the state regulator commented on the annual land use control inspection report – 2021, specifically for CCYPG-141 and CCYPG-029. The comments suggested removing

exposed materials due to moderate levels of erosion at the CCYPG-141 and CCYPG-029. The US Army Corps of Engineers (USACE) – Tulsa District and US Army Garrison YPG exercised a confirmation notice to the contract to initiate removal of the exposed materials from the CCYPG-141 inactive landfill site. The contractor completed, in September 2021, the removal of approximately 140 tons of mixed debris, to include scrap metal exposed in the main pile, electrical parts, and a portion of the asphalt pile located west of the site. The mixed debris was transported to and disposed at the YPG Landfill. A second debris removal was completed December 2022. The contractor separated and hauled 1,603 tons of solid waste consisting of scrap metal, concrete and gravel debris, and dirt from the site to Blaisdale pit. Cleanup/Exit Strategy - It is anticipated that additional, exposed debris will be removed as part of LUCs. LUCs will continue. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved.

04985.1047_CCYPG-165_FUEL STATION #1 (UST 207 & 209

Env Site ID: CCYPG-165

Cleanup Site: FUEL STATION #1 (UST 207 & 209

Alias: YPG004F006

Regulatory Driver: RCRA-I

RIP Date: 8/15/2006

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	12/15/1990	12/15/1991
INV:	- -	- -
CAP:	1/15/2000	5/15/2006
DES:	- -	- -
IRA:	- -	- -
IMP(C):	6/15/2000	7/15/2006
IMP(O):	8/15/2006	9/30/2054
LTM:	- -	- -

Site Narrative: The leaking underground storage tank (LUST) site (Case File #0682.02, Facility ID #0-005341) is also known as Area of Concern (AOC) 6. The site is located in the HCA, just north of First Street, near the corner of First Street and A Street, approximately one mile from the Colorado River. It consisted of monitoring equipment in Building 208, two underground storage tanks (UST) designated as UST 207 (unleaded gasoline) and UST 209 (diesel fuel), one dispenser island for each UST, and includes contamination from two 10,000-gallon steel USTs. The site occupies approximately 0.5 to one acre. The tank installation occurred during 1953 or 1954. There was an unknown quantity of releases over the years of operation. In 1991, the tanks were pulled and replaced with two 10,000-gallon double-walled fiberglass USTs. Samples taken during initial site characterization confirmed that there was a release of hydrocarbon fuel to the environment and warranted additional site characterization. The second phase of the site characterization was performed in 2000. In 2003, during the third phase of the site characterization, two additional monitoring wells (MW9-MW10) were installed in close proximity to the tank pit. The results from this fieldwork were submitted in the final site characterization report (SCR), December 2005 and approved by the ADEQ in April 2006. Analytical results show that target analyte concentrations at CCYPG-165 have been stable or decreasing since June 2006 and the plume does not appear to be migrating. In November 2018 ADEQ provided a list of recommended activities that the installation must conduct as part of a risk-based closure evaluation for CCYPG-165. The results of the semiannual groundwater sampling conducted November 2020 and March 2021 at CCYPG-165 show that hydrocarbon constituent concentrations are stable or are generally decreasing since sampling began in 2003. ADEQ approved abandonment of wells MW-4, 5, 6, and 7. At the same time ADEQ also approved retaining MW-1 and MW-3 for water level measurements and continued sampling of MW-8 on an annual basis. The final soil vapor sampling plan has been submitted and approved by ADEQ. The contractor completed 26 soil vapor probe installations from Aug. 17-18, 2021. Soil vapor sampling was completed in the spring of 2022 and the results from the final report, dated May 2022, concluded that soil vapor to indoor air pathway does not pose a human health concern and no further action is warranted for this

pathway. Based on the results of the soil vapor sampling ADEQ recommended assessing the site for achievement of Arizona's alternative groundwater closure criteria. A corrective action completion report was submitted to ADEQ in September 2023. Based on the analytical conclusions the site was recommended for closure based on the site land use, exposure pathways and data trends. Cleanup/Exit Strategy - RA(O) will continue until the corrective action completion report (CACR) is approved. February 2024, ADEQ UST section reviewed the CACR and is requiring additional work before they will accept the CACR as complete. Additional work includes at least three additional rounds of groundwater sampling and the collection of additional sub-surface soil samples from the two tank pit locations.

04985.1048_CCYPG-027_INACTIVE LANDFILL 5KM SSE MAA

Env Site ID: CCYPG-027

Cleanup Site: INACTIVE LANDFILL 5KM SSE MAA

Alias: SWMU 37

Regulatory Driver: RCRA-C

RIP Date: 1/15/2018

RC Date: 1/15/2018

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
RFA:	5/15/1997	4/15/1999
CS:	3/15/2006	6/15/2007
RFI/CMS:	9/15/2007	12/15/2014
DES:	9/15/2015	3/3/2017
IRA:	- -	- -
CMI(C):	9/15/2015	1/15/2018
CMI(O):	- -	- -
LTM:	10/15/2018	9/30/2054

Site Narrative: This site is identified in the RFA as SMWU 37 and DERP Site CCYPG-027 or YPG-27. Per 40 Code of Federal Regulations 264.101, permits issued after Nov. 8, 1984, must address corrective action as necessary to protect public health and the environment, for releases of hazardous waste including hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit. Under the provisions of the RCRA permit, YPG was required to investigate this site. This is a 30-40-year-old landfill where open burning was practiced. The inactive landfill is five kilometers (three miles) south-southeast of HCA and south of Imperial Dam Road. The landfill was in operation from 1950 to 1964. The USEPA recommended soil and groundwater monitoring in the 1998 RFA. A release assessment was completed in 2001. Construction debris, consisting mainly of concrete blocks, was observed covering approximately two to three acres. A geophysical survey of the landfill, to determine the approximate subsurface footprint and the location of metallic objects, was completed in November 2006. The survey found 15 acres of landfill debris. The site was transferred to the CR program during FY10. Removal of the concrete and other debris was conducted in December 2009. Additional geophysical surveying was conducted to establish any subsurface anomalies. The RFI activities at CCYPG-027 consisted of removal of surface debris followed by a geophysical survey, excavation of test pits, and drilling of soil borings to characterize the landfill and define its boundaries. An RFI report on the fieldwork and findings were sent to ADEQ on Nov. 18, 2011, and after comments, ADEQ approved it in August 2014. Based on comparative analysis of the corrective measure alternatives presented in the CMS, native soil cover with drainage control and LUCs was recommended as the selected remedy. A contract was awarded in August 2015 to achieve RC/CMI landfill cover restoration for the selected corrective measures on the site. Field activities for the implementation measures at CCYPG-027 began March 2017 and the CMI was approved by ADEQ on Jan. 16, 2018. Cleanup/Exit Strategy - LUCs will continue. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved.

04985.1049_CCYPG-204_YPG- 138 UST SITE REMED. AAFES

Env Site ID: CCYPG-204

Cleanup Site: YPG- 138 UST SITE REMED. AAFES

Alias: YPG004F005

Regulatory Driver: RCRA-I

RIP Date: 8/15/2006

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE:

MRSPP: N/A

Phase	Start	End
ISC:	1/15/1991	1/15/1992
INV:	- -	- -
CAP:	1/15/2000	5/15/2006
DES:	- -	- -
IRA:	- -	- -
IMP(C):	6/15/2006	7/15/2006
IMP(O):	8/15/2006	9/30/2054
LTM:	- -	- -

Site Narrative: The site is an ADEQ LUST Site (Case File # 0682.03, Facility ID #0-005341). The site is located in the HCA, just east of the main gate and north of Third Street, between Imperial Dam Road and B Street. The AAFES Service Station was previously used as a fueling station until 2005, when it was replaced by a new fueling facility. The AAFES Service Station originally contained three steel 10,000-gallon steel USTs which stored and dispensed diesel fuel and gasoline. In 1991, the tanks were replaced by three double-walled fiberglass tanks. During the removal of the USTs, a preliminary site assessment was conducted. The AAFES Service Station records were also reviewed at this time, and it was determined that an estimated 17,000 to 42,000 gallons of leaded and unleaded gasoline had been released from the USTs and associated piping. It is estimated that the two tanks leaked over a period of 23 years. During the excavation only a portion of the contaminated soil was removed due to the proximity of buildings and utilities in the area. The site occupies two to three acres. In 1998, the first phase of the site characterization was completed, delineating the horizontal and vertical extents of the contamination. The second phase of the site characterization was completed in 2000 to delineate the extent of groundwater contamination down gradient of the tank pit, and at that time five monitoring wells were installed. Monitoring wells AAFES-MW3 through AAFES-MW6 were found to be located too far down gradient or too far cross gradient to assist in the site characterization. Nine monitoring wells were installed between 2000 and 2004 and were sampled twice. Various sampled compounds exceeded the ADEQ regulatory limit. The final SCR report was submitted and approved by ADEQ on May 23, 2006, but did not require a corrective action plan. The conclusion was that MNA would complete the remediation of the site. Semiannual sampling of the groundwater monitoring wells was conducted in August and December 2020. The most recent annual groundwater monitoring report, from March 2020, shows that benzene, ethylbenzene, toluene, polycyclic aromatic hydrocarbons, naphthalene, benzo(a)anthracene, and chrysene were detected above their respective project screening levels during the 2020 sampling events at CCYPG-204. The results of the semiannual groundwater sampling conducted October 2022 and March 2023 at CCYPG-204 show that hydrocarbon constituent concentrations are

stable or are generally decreasing since sampling began in 2003. ADEQ approved abandonment of wells MW-4 and 5. Cleanup/Exit Strategy - The exit strategy for this site is to continue with MNA under the corrective measures implementation (operations) (CMI(O)) phase.

04985.1050_CCYPG-029_INACTIVE LANDFILL E RT95 2KM W

Env Site ID: CCYPG-029

Cleanup Site: INACTIVE LANDFILL E RT95 2KM W

Alias: SWMU 41

Regulatory Driver: RCRA-D

RIP Date: 1/16/2018

RC Date: 1/16/2018

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
RFA:	5/15/1997	4/15/1999
CS:	3/15/2006	6/15/2007
RFI/CMS:	9/15/2009	12/15/2014
DES:	9/15/2015	12/15/2017
IRA:	- -	- -
CMI(C):	9/15/2016	1/16/2018
CMI(O):	- -	- -
LTM:	9/15/2018	9/30/2054

Site Narrative: This site is identified in the RFA as SWMU 41, CR site CCYPG-029 or YPG-29. The site is located on the Kofa Firing Range east of US Highway 95, approximately one and quarter miles south-southeast of the Kofa Fire Station and within 200 yards of the new Kofa sewage lagoon. The site is flat with a slight rise in elevation to the east. There are also several small drainage areas immediately north and south of the site. This site is a 30-40 year old landfill, where open burning may have been practiced. The 1998 RFA describes a landfill that covers approximately one to two acres. The release assessment recommended that confirmatory samples be taken, and a geophysical survey be conducted. A geophysical survey was completed in November 2006 and found six acres of possible landfill debris. PBA contractor dug several test pits and took samples at the site in order to fully delineate the vertical and horizontal extent of the landfill. The RFI indicated a smaller landfill area of five acres. An RFI report was submitted to ADEQ with the results and recommendation for the site. ADEQ responded with approval and without further comments in March 2013. A RCRA CMS was prepared and submitted to ADEQ in December 2013. Based on the comparative analysis of corrective measure alternatives, native soil cover with drainage control and LUCs was recommended as the selected remedy, which ADEQ approved in June 2014. A contract was awarded in August 2015 to achieve RC/CMI landfill cover restoration for the selected corrective measures on the site. Field activities for the implementation measures at CCYPG-029 began March 2017 and the CMI was approved by ADEQ on Jan. 16, 2018. A contract to perform LTM is in place from October 2018 to September 2023. On July 2, 2021, the state regulator commented on the annual land use control inspection report – 2021, for CCYPG-029 and recommended removing exposed materials due to moderate levels of erosion at the site. The contractor removed the required debris as part of LUCs in 2021. Cleanup/Exit Strategy - LUCs will continue. Because hazardous substances, pollutants, or contaminants will remain at the site at concentrations exceeding levels that allow for UU/UE, five-year remedy reviews will continue until UU/UE is achieved.

04985.1053_CCYPG-151_LUST

Env Site ID: CCYPG-151

Cleanup Site: LUST

Alias: MTA #2

Regulatory Driver: RCRA-I

RIP Date: 4/1/2019

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: ENV Restoration, Army

Subprogram: IR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: Not Evaluated

MRSPP: N/A

Phase	Start	End
ISC:	5/15/1997	4/15/1999
INV:	5/15/1999	1/15/2000
CAP:	10/15/2013	9/15/2018
DES:	- -	- -
IRA:	- -	- -
IMP(C):	9/19/2018	3/30/2019
IMP(O):	4/1/2019	9/30/2054
LTM:	- -	- -

Site Narrative: The CCYPG-151 former fuel station MTA#2 site consisted of three 12,000-gallon USTs installed in circa 1971. The site is located on the east side of Ocotillo Road in the Walker Cantonment Area of YPG. The site is approximately two acres in size. A portion of the site is paved and used as a parking lot, and the remainder is undeveloped. There is an above-grounded storage tank located northeast of the site that was used to store and dispense diesel fuel; however, it is not associated with CCYPG-151. Tank removal and preliminary investigation at the site were performed in November 1994. Locations of obvious petroleum contamination were uncovered during excavation and removal of tanks and ancillary pipe work at both locations. Samples taken suggested that an unknown amount of petroleum has been released to the soil. In May of 1995 Phase I investigation at the site was conducted. During the 1995 investigation four soil borings were sampled with results of the investigation reported in the Phase I report. The report recommended further investigations and installation of down-gradient monitoring wells. In January of 1997 Phase II investigations at the site from March 4, 1997, through April 29, 1997, were conducted. The Phase II investigation uncovered that a thick clay layer at about 90 feet below ground surface tended to adsorb the petroleum contaminants and confine their downward movement. No contaminants were located below that layer. According to sample results, total petroleum hydrocarbons (TPH) levels were above residential clean-up but below non-residential clean-up levels. One area of soil contamination, located on the north side of the site, remains unresolved. Groundwater results were not conclusive. The soils pose little risk to the health or environment because of the lack of receptors. The site was transferred to the CR program during FY11. A contract was awarded August 2014 to conduct a risk-based corrective action to fully delineate extent of contamination. The SCR for CCYPG-151 was submitted on November 2016 and the ADEQ concurred in January 2017. A contract was awarded to investigate the perched aquifer and the contractor submitted a periodic site status report (PSSR) in February 2017. The following recommendations were provided for the site, 1) Selection of a corrective action remedy; 2) Installation of additional borings and monitoring wells; 3) A water monitoring program to document fluctuations in the water elevation or concentrations of COCs; and 4)

Submittal of PSSRs to document the monitoring and remedial actions. Third quarter groundwater sampling activities were conducted at the site from July 24 through July 25, 2023. Based on the concentration trends, the contractor recommended a reduction in sampling from quarterly to a semi-annual frequency. Cleanup/Exit Strategy- The exit strategy for the site is continued MNA under RA(O).

04985.1058_YPG-PFAS_PFAS

Env Site ID: YPG-PFAS
Cleanup Site: PFAS
Alias: #
Regulatory Driver: CERCLA
RIP Date: 9/30/2027
RC Date: 9/30/2027
RC Reason: Not assigned
SC Date: 9/30/2027
Program: ENV Restoration, Army
Subprogram: IR
NPL Status: No
Hazardous Ranking Score: 0
RRSE:
MRSPP: N/A

Phase	Start	End
PA:	9/17/2018	9/27/2018
SI:	9/28/2018	9/30/2022
RI/FS:	10/1/2022	9/30/2027
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: Per direction from DCS G-9, this site was created to account for all per- and polyfluoroalkyl substances (PFAS) at the installation. A preliminary assessment (PA)/site inspection (SI) was conducted at YPG to identify all releases of PFAS to the environment. The PA site visit was completed on November 2018 and the SI fieldwork was completed in September 2020. The PFAS PA/SI report was finalized in March 2022. A copy of the final report was provided to ADEQ. Cleanup/Exit Strategy - The final PA/SI recommended that an RI be performed for AOPIs that exceeded DoD guidance risk levels. A contract to perform the YPG Phase 1 PFAS RI was awarded.

04985.1044_YPG-002-R-01_MORTAR IMPACT AREA

Env Site ID: YPG-002-R-01

Cleanup Site: MORTAR IMPACT AREA

Alias: EASTERHILL

Regulatory Driver: CERCLA

RIP Date: 9/30/2025

RC Date: 9/30/2025

RC Reason: Not assigned

SC Date: 9/30/2055

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 9

Phase	Start	End
PA:	1/15/2002	5/15/2003
SI:	9/15/2003	6/15/2005
RI/FS:	1/15/2008	9/30/2024
RD:	- -	- -
IRA:	9/15/2010	9/15/2017
RA(C):	10/1/2024	9/30/2025
RA(O):	- -	- -
LTM:	10/1/2025	9/30/2055

Site Narrative: The Mortar Impact Area, consisting of approximately 625 acres, is believed to have been used between 1942 and 1945 as part of the California-Arizona maneuver area. Two historic ranges were identified within the boundaries of the former mortar impact area- a recreational skeet range and a pistol range. According to certificates of clearance from 1950 and 1953, 60mm high explosive (HE) mortars, 81mm HE light mortars, 75mm HE duds, 57mm shot, 3.5-inch rockets, rifle grenades, and hand grenades have been removed from the site. During the SI phase the decision was made to combine the two Military Munitions Response Program (MMRP) sites, mortar impact and suspected pistol range, so in March 2005 YPG-001-R-01 was listed as closed with all MMRP issues to be addressed under YPG-002-R-01. The SI recommended further evaluation of the site under an RI. A contract awarded in September 2007 included an option for completion of an RI report. The RI was conducted from December 2009 to January 2010 to define the types and extent of munitions and soil contamination. The final RI report was submitted to ADEQ in August 2011. Consistent with the results of the previous SI, the RI showed that the greatest concentrations of munitions-related debris were found on Easter Services Hill and lesser amounts in the area immediately surrounding it. During the investigation a live 75mm HE mortar was discovered near the flank of Easter Services Hill, approximately 2/3 of the way up the hill. A military munitions removal action contract was awarded to perform an IRA of 180 acres surrounding Easter Services Hill in the fourth quarter of FY11. The site was reopened for residential use upon completion of the removal action. A draft FS report was submitted in January 2016 for review and the final report was submitted to ADEQ April 2016 and comments were received May 2016. Fieldwork for a second IRA started September 2016 on 250 acres. All intrusive work was completed February 2017 on 273 acres. ADEQ concurred with the FS with nonconcurrence on specific comments. Based on the requirements outlined in the FS and work conducted during the 2nd IRA, it is recommended that a munitions response area (MRA) be created corresponding to the current munitions response site (MRS) boundary with two MRSs. One MRS (YPG-002-R-01) would encompass the area of the IRA and removal action comprising of approximately 324 acres. The second MRS (YPG-002-R-02) would be comprised of the remainder of the

current MRS and include approximately 301.48 acres. On May 2018 the ADEQ non-concurred on creating two MRSs. A contract was awarded from October 2018 to September 2023 to perform inspections and maintenance. A prior contract included preparing a PP, which was finalized in May 2021. A contract was awarded in September 2022 to complete the DD. The revised final DD with response to comments was submitted to ADEQ in November 2023. Cleanup/Exit Strategy - The preferred alternative includes accepting the remedial activities that were performed during the 2017 IRA with only LUCs remaining. LUC implementation will continue during the LTM phase.

04985.1054_YPG-003-R-01_CAMP LAGUNA, OLD PATTON CMP

Env Site ID: YPG-003-R-01

Cleanup Site: CAMP LAGUNA, OLD PATTON CMP

Alias: MEG'S FIND

Regulatory Driver: CERCLA

RIP Date: 9/30/2026

RC Date: 9/30/2026

RC Reason: Not assigned

SC Date: 9/30/2056

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 4

Phase	Start	End
PA:	5/15/2013	10/15/2013
SI:	3/15/2015	7/31/2017
RI/FS:	2/15/2018	9/15/2023
RD:	10/1/2023	9/30/2025
IRA:	- -	- -
RA(C):	10/1/2025	9/30/2026
RA(O):	- -	- -
LTM:	10/1/2026	9/30/2056

Site Narrative: Camp Laguna is a cultural resources site on YPG. Information known about the site has been compiled from a cultural resources survey, historic context, and 300 oral histories. There are cultural items such as bottles and other historic artifacts scattered across the grid. Camp Laguna is one of 14 divisional camps in the Desert Test Center (DTC), one of only four in Arizona, and the only one that is not on public lands. Because of its location on an established military reservation Camp Laguna is the best preserved of all the DTC/California–Arizona Maneuver Area camps. It is an important part of our military history and is eligible for the National Register of Historic Places. The MRS was initially identified as a potential hazardous waste/unexploded ordinance (UXO) disposal site during an archeological survey conducted June 2011. Surface ordnance was found and removed immediately from the site as part of installation safety protocols. The site consists of approximately 12 acres and is located one-mile northeast of the Walker Cantonment Area and 3/4 of a mile northeast of installation drinking water wells and treatment facility. The site of investigation was relatively flat, with a general increase in elevation from west to east. At the south end of the grid, the site flattens from east to west. A 40-foot diameter mounded area to the east of East Motor Pool Road was suspect of containing disturbed soil and may be a location for detonation activity. Surface soils consisted of silty-sand and sand, and much of the site was littered with various rock types ranging in size from 0.5 inch to six inches in diameter. Many of the rocks found at the site do not appear to be deposited naturally in place but appear to be brought to the surface by past subsurface disturbances. The USACE Albuquerque District conducted the initial RFA/release assessment. The EM31 field data collection activities were conducted May 6-10, 2013, and the G858 field data were collected from June 24 through July 1, 2013, in accordance with the geophysical investigation plan. Field activities performed as part of the geophysical investigation included site preparation (safety and UXO briefing site walk reference grid setup, and instrument calibration), ordnance avoidance, geophysical surveys using the EM31 and G858 methods and equipment, and collection of field observations and photographs of the survey grid and surface munitions and explosives of concern (MEC) that was encountered. The final geophysical survey report was completed and

submitted to the installation on Oct. 9, 2013. The geophysical survey findings identified five locations with significant levels of ferromagnetic material that may indicate the presence of subsurface MEC. The recommended course for action for the site is an investigation via intrusive methods in order to substantiate the nature of the anomalies. A contract was awarded in August 2015 to complete a site investigation on approximately 40 acres. The purpose of the SI was to determine if there is sufficient evidence to determine the presence or absence of unexploded ordnance or munitions constituents (MC) related to past military activities at the site. The SI field activities were conducted from Nov 8-10, 2016. Results indicate that antimony, copper, lead, and zinc was detected at concentrations below the Arizona soil screening levels for all samples. The results for all explosives were non-detect in all samples. The SI report recommended further investigation for MEC and no further action for MC. The contract was exercised to complete the RI. Fieldwork for the RI was conducted April/May 2019 to assess the nature and extent of MEC and MC. ADEQ concurrence was received August 2020. In September 2020, a new contract was awarded to complete the FS, PP, and DD. The FS was approved by ADEQ and finalized in March 2022. The PP is currently being finalized and a public meeting was held on September 21, 2022. The DD was finalized on September 2023 and is currently being submitted to ADEQ for their project file. Cleanup/Exit Strategy – Surface and subsurface removal across the entire site and LUCs will be performed during the upcoming remedial action (construction) (RA(C)) phase. Afterward, LUCs will be implemented during the LTM phase.

04985.1116_YPG-004-R-01_Old Minefield #1

Env Site ID: YPG-004-R-01

Cleanup Site: Old Minefield #1

Alias: #

Regulatory Driver: CERCLA

RIP Date: 10/31/2028

RC Date: 10/31/2028

RC Reason: Not assigned

SC Date: 11/1/2057

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 9

Phase	Start	End
PA:	3/1/2014	3/31/2014
SI:	12/1/2015	7/31/2016
RI/FS:	10/1/2019	10/31/2025
RD:	11/1/2025	10/31/2026
IRA:	- -	- -
RA(C):	11/1/2026	10/31/2028
RA(O):	- -	- -
LTM:	11/1/2028	10/31/2057

Site Narrative: The “Landmine Site #1,” approximately five acres, is not located on an active range and sits northwest of the inactive WETA YPG-31 site. There is limited information on the previous munitions activities at this site other than landmine training activities being conducted. The site is enclosed by a single roll of expanded concertina wire, which is marked at intervals with STANAG-style inverted triangular metal warning signs that read “MINES.” The barrier wire is open on the east and west sides. A protective barricade constructed of two earth-filled steel 55-gallon drums is visible on the south side of the wire enclosure. Several strands of two-conductor 18-gauge blasting wire extend from inside the site to this barricade, where they are fastened to metal stakes for strain relief. At the request of the YPG Environmental Sciences Division, an Albuquerque District Ordnance and Explosives Safety Specialist (OESS) conducted a site visit in March 2014. The OESS identified a concertina wire fenced area containing five shallow trenches running in an east-to-west direction. Munitions related items and features were observed during the site visit. At the conclusion of OESS site visit it was recommended that further work be done to characterize the extent of surface and subsurface MEC and MC contamination. It is believed that munitions and munitions related debris was in use and released during training activities beginning in the 1960s through the 1970s. During a PA/SI conducted in December 2015, approximately three miles of transects were visually surveyed. The site was tentatively designated as ACOE-15-MR-001, until munitions debris (MD), range-related debris (RRD) and evidence of landmine training were observed during the visual surveys indicating the potential for MEC. Surface MD consisting of bursters were found scattered throughout the site. RRD consisting of fuel can debris, firing wire, triangular warning signs, and concertina wire fencing were also observed within and surrounding the site. Other evidence of landmine training found consisted of five east-west running trenches and earth-filled steel 55-gallon drums likely used as a protective barricade. The Minelab metal detectors detected subsurface anomalies within and surrounding site, with the majority of the anomalies detected near the trenches. A contract was awarded in September 2020 to perform an RI and FS. The RI was conducted throughout 2022 and early 2023. Sufficient data were collected to fully characterize the nature and

extent of MEC within the MRS and the draft RI recommends completion of an FS. Cleanup/Exit Strategy - An FS, PP and DD will be completed. It is anticipated that a remedial action will be required and LUCs with five-year reviews (FYR) will remain.

04985.1117_YPG-005-R-01_Old Minefield #2

Env Site ID: YPG-005-R-01

Cleanup Site: Old Minefield #2

Alias: #

Regulatory Driver: CERCLA

RIP Date: 10/31/2029

RC Date: 10/31/2029

RC Reason: Not assigned

SC Date: 11/1/2058

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 9

Phase	Start	End
PA:	3/1/2014	3/31/2014
SI:	12/1/2015	7/31/2016
RI/FS:	10/1/2019	10/30/2026
RD:	11/1/2026	10/31/2027
IRA:	- -	- -
RA(C):	11/1/2027	10/31/2029
RA(O):	- -	- -
LTM:	11/1/2029	10/31/2058

Site Narrative: The “Landmine Site #2” is approximately 132 acres and is located approximately one mile east of Landmine site #1. The Rocket Alley Range firing point and FWDA YPG-32 site are located east of the site, while the inactive WETA YPG-31 site is directly adjacent to the west. There is limited information on the previous munitions activities at this site other than potential landmine training activities may have been conducted. A triple-roll barrier of concertina wire surrounds the site. An opening large enough for personnel to cross the wire safely on foot exists off the dirt road adjacent to the Rocket Alley firing point. The area within the site fence was previously divided into uniform grids with wooden stakes delineating grid corners. Scarring on the ground surface indicates the area was bladed clean by machinery in the past. At the request of the YPG Environmental Sciences Division, an Albuquerque District OESS conducted a site visit in March 2014. The OESS identified a concertina wire fenced area containing five shallow trenches running in an east-to-west direction. Munitions related items and features were observed during the site visit. During a PA/SI conducted in December 2015, approximately 24 miles of transects were visually surveyed. The site is surrounded by fencing but sections of the fencing are missing in the northwest portion of the site. The site was tentatively designated as ACOE-15-MR-002. No MEC or chemical warfare materiel (CWM) was found but various types of munitions related items, evidence of MEC, and landmine training indicate the potential for MEC. Non-munitions related debris (NMRD) were also observed and well as MD and RRD. Small arms debris items consisting of 0.50 caliber armor piercing projectiles were noted throughout the area. The Minelab metal detectors detected numerous subsurface anomalies across the site, but no distinct burial pits were detected. A contract was awarded in September 2020 to perform an RI and FS. The RI was conducted throughout 2022 and early 2023. Insufficient data were collected to characterize the nature and extent of the MEC and material potentially presenting an explosive hazard due to the discovery of chemical agent identification sets containing CWM on the site. A future RI will be conducted to characterize CWM and munitions within the MRS. The contractor recommended that the 398 pit locations identified during the current RI be included during the future RI. Cleanup/Exit Strategy - An RI, FS, PP and DD will be

completed. It is anticipated that a remedial action will be required and LUCs with FYRs will remain. During field work chemical warfare material (CWM) was found within the MRS. Field work was stopped and currently YPG is working with ACOE Huntsville to send a team to identify the nature of the CWM.

04985.1118_YPG-006-R-01_Camp Laguna South

Env Site ID: YPG-006-R-01

Cleanup Site: Camp Laguna South

Alias: #

Regulatory Driver: CERCLA

RIP Date: 10/31/2029

RC Date: 10/31/2029

RC Reason: Not assigned

SC Date: 11/1/2058

Program: ENV Restoration, Army

Subprogram: MR

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: 9

Phase	Start	End
PA:	4/1/2014	4/30/2014
SI:	4/1/2014	4/30/2014
RI/FS:	10/1/2019	10/30/2025
RD:	11/1/2025	10/31/2026
IRA:	- -	- -
RA(C):	11/1/2026	10/31/2029
RA(O):	- -	- -
LTM:	11/1/2029	10/31/2058

Site Narrative: The site is approximately 12 acres and is located south of Imperial Dam Road, about 250 meters from the YPG visitors center. During a cultural inventory of the site for verification of a historic landfill, potential MEC were encountered. The site was searched by the archaeology contractor with a Minelab Safari instrument. A request was made by the installation for the USACE OESS to visit this site and assess MEC probability. In April 2014, the OESS performed a site inspection using a Schondstedt magnetometer. The OESS found the following evidence of munitions- 1) An expended MS 1 projectile nose fuze and several large pieces of heavy steel projectile case fragments; 2) A container for a MK 2 fragmentation grenade; 3) Several empty en bloc clips from the M1 Garand rifle; 4) Scatters of unfired .30 caliber blank ammunition loose and in stripper clips. Occasional finds of single rounds around the area were also noted; 5) A single .50 caliber dummy round; 6) Some isolated .50 caliber brass. Cans and other metallic debris were found on the surface and the site was peppered with small metal debris from load bearing equipment and other munitions-related debris. Interviews with veterans who trained at the camp disclosed that informal training at Camp Laguna was often done in the desert by small units who fired small arms and threw grenades outside of established ranges. The report states that unexploded grenades were often gathered up and buried where the training took place. It is believed that munitions and munitions-related debris were in use and released during training activities beginning in the 1940s through the 1950s. The OESS recommended further study at the site for MEC and also recommended expanding the site. A contract was awarded on September 2020 to perform an RI and FS. The RI is in progress. Cleanup/Exit Strategy - An FS, PP, and DD will be completed. It is anticipated that a remedial action will be required and LUCs with FYRs will remain.

04985.1060_CCYPG-035A_MUGGINS MOUNTAIN (Surface and

Env Site ID: CCYPG-035A

Cleanup Site: MUGGINS MOUNTAIN (Surface and

Alias: YPG000F027

Regulatory Driver: RCRA-C

RIP Date: 11/15/2028

RC Date: 11/15/2028

RC Reason: Not assigned

SC Date: 9/30/2058

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	5/15/1997	4/15/1999
CS:	1/15/2004	1/15/2005
RFI/CMS:	6/15/2006	10/15/2025
DES:	11/15/2025	11/15/2026
IRA:	- -	- -
CMI(C):	11/16/2026	11/15/2028
CMI(O):	- -	- -
LTM:	11/16/2028	9/30/2058

Site Narrative: The entire Muggins Mountain open burn (OB)/open detonation (OD) facility is approximately 390 acres (acreage may change after the completion of the supplemental RFI fieldwork). The area includes the former OB/OD facility excluding the Burial Trench Area (CCYPG-35b) and the OB/OD Area (CCYPG-035c). The Muggins Mountain site was used to dispose of excess munitions and munitions components either by detonation or burial. Located approximately four miles southeast of the Kofa Firing Range Administrative Area, at the northern base of Muggins Mountain, the site operated from the 1950s until the early 1970s. YPG treated (demilitarized and disposed of) pyrotechnics, explosives, and propellants at the site. Additional investigations (Evaluation of SWMUs 1988, RFA 1998, Risk Evaluation 1998, and Release Assessment for SWMUs 2001) conclude similar results. The OD range is located on the eastern portion of the disposal site where the traditional OB/OD activities took place. There are also a number of acres of open burn area. The burn-on-ground area measures 400 feet by 1,200 feet. Only evidence of burning exists; there are no records of what materials were burned at the site. Some of the debris on site will require emergency detonation procedures, as the debris is too dangerous to move. CCYPG-035A specifically addresses the 320 acres of surface disposal debris consisting of general scrap metal, unexploded ordnance, TNT, RDX, C4, propellant, and ordnance explosives (OE) components. In addition, phosphorous-containing projectiles were disposed of on steel plates. This site is on a test and evaluation range. RCRA operating permits issued after Nov. 8, 1984, require corrective action be addressed to protect public health and the environment from releases of hazardous waste. This site is listed as a SWMU in that permit. A RCRA CMS report for the site was submitted in December 2014 and received approval from ADEQ in July 2016. Since the existing contract ended in December 2014, a new contract for interim measures (IM) work was required. A contract was awarded in September 2014 to perform IM on approximately 70 acres (surface and partial subsurface clearance) and install, develop, and sample one groundwater monitoring well. The IM field activities were conducted from Sept. 15, 2015, to June 1, 2016. Groundwater sampling activities were performed on June 20 and Aug. 18, 2016. ADEQ requested that the RFI be reopened, as additional munitions were

discovered. Based on the surface clearance conducted on the roughly 70-acre AOC it was determined that a high priority and high hazard level remains for surface munitions hazards and exposed MC that remains to be characterized. The site-specific final report was submitted to the ADEQ in February 2018 and was approved in July 2018. Based on the result of the IM, ADEQ requested supplemental RFI and CMS and expansion of the site. A contract was awarded September 2020 to conduct the fieldwork and develop a report. Due to scoping issues on the contract between the contractor and USACE contracting agency, the contract will be terminated. Cleanup/Exit Strategy - A new contract will be required to complete supplemental RFI and CMS. It is anticipated that the site will require a corrective action and LUCs with FYRs under LTM.

04985.1061_CCYPG-035B_MUGGINS MOUNTAIN (Trench & Su

Env Site ID: CCYPG-035B

Cleanup Site: MUGGINS MOUNTAIN (Trench & Su

Alias: #

Regulatory Driver: RCRA-C

RIP Date: 11/15/2028

RC Date: 11/15/2028

RC Reason: Not assigned

SC Date: 9/30/2058

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	5/31/1997	4/30/1999
CS:	- -	- -
RFI/CMS:	6/15/2006	10/15/2025
DES:	11/15/2025	11/15/2026
IRA:	- -	- -
CMI(C):	11/16/2026	11/15/2028
CMI(O):	- -	- -
LTM:	11/16/2028	9/30/2058

Site Narrative: This site is also known as SWMU 57 and 58. RCRA permits issued after Nov. 8, 1984, require that corrective action be addressed to protect public health and the environment from releases of hazardous waste. Site CCYPG-35B consists of trenches and associated surface area used to bury various munitions. The trench area is roughly 12 acres; the areas of the actual suspected burial trenches cover approximately 50 percent of the 12 acres. A geophysical survey was completed in September 2006 and identified additional pockets and trenches of buried scrap/munitions. An IM consisting of an earthen erosion berm was approved by ADEQ in 2006, and a berm was placed around open trench -1 (TR-1). The ten suspected burial trenches identified during the 2007 geophysical survey are located to the northwest and southwest of TR-1 and the contents are unknown. A contract was awarded in September 2007 and in December 2009 the contractor confirmed the presence of buried MEC; surface and subsurface soil samples were collected; and additional geophysical surveying was conducted. The final RFI report was initially submitted to ADEQ on June 13, 2014, and a revised version was sent September 2014. ADEQ concurred in a letter dated Oct. 8, 2014. An ecological risk assessment was conducted at the same time as the RFI which indicated constituents of concern exceeding Arizona regulatory levels. The RFI Report recommended a CMS to identify remedial alternatives for the site. The CMS report recommended capping the pits and trenches and fencing to restrict access to the areas. The installation received approval of the final RCRA CMS report from the ADEQ in July 2016. In a letter dated Jan. 10, 2014, ADEQ concurred with the design and installation of a soil cover as described in the draft final RCRA facility investigation report on all burial trenches and dunnage pits. ADEQ also requested (1) the installation of a groundwater monitoring system by Dec. 29, 2016; (2) complete excavation and confirmatory sampling of surface contamination and “hot spots” showing contaminant levels exceeding the remediation goals by June 29, 2016; and (3) installation of a fence and means to control entry at all times to the units subject to post-closure in addition to addressing the storm water run-on and run-off issues by Dec. 29, 2016. A new contract was awarded in September 2014 to perform IM on approximately 70 acres and install one groundwater well. The IM did not include portions of CCYPG-35b that were individual burial trenches

due to safety concerns and limitations of the equipment used for detection. ADEQ requested that the RFI be reopened, as additional munitions were discovered. Based on the result of the IM, ADEQ requested a supplemental RFI and CMS. A contract was awarded September 2020 to perform the additional investigation and revise the RFI and CMS. Due to scoping issues on the contract between the contractor and USACE contracting agency, the contract will be terminated. Cleanup/Exit Strategy - A new contract will be required to complete revised RFI and CMS. It is anticipated that the site will require a corrective action and LUCs with FYRs under LTM.

04985.1062_CCYPG-035C_MUGGINS MOUNTAIN (Open Detona

Env Site ID: CCYPG-035C

Cleanup Site: MUGGINS MOUNTAIN (Open Detona

Alias: YPG000F027

Regulatory Driver: RCRA-C

RIP Date: 11/15/2028

RC Date: 11/15/2028

RC Reason: Not assigned

SC Date: 9/30/2058

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP:

Phase	Start	End
RFA:	5/15/1997	4/15/1999
CS:	- -	- -
RFI/CMS:	6/15/2006	10/15/2025
DES:	11/15/2025	11/15/2026
IRA:	- -	- -
CMI(C):	11/16/2026	11/15/2028
CMI(O):	- -	- -
LTM:	11/16/2028	9/30/2058

Site Narrative: This site is also known as SWMU 57 and 58. A.A.C.R18-8-264. The RCRA operating permit held by YPG requires all SWMUs on the facility be listed in the permit. ADEQ requested that the RFI be reopened, as additional munitions were discovered. A single suspected experimental type of chemical warfare materiel that used a simulant, an eight-inch XM736 binary projectile, was discovered at the site. The type of munition was never produced in a configuration for chemical agent and was subsequently designated as MD for disposal. Based on the result of the IM, ADEQ requested supplemental RFI and CMS. A contract was awarded in September 2018 to conduct the fieldwork and develop a report. In September 2018 a contract was awarded to perform the additional investigation and revise the RFI and CMS. Due to scoping issues on the contract between the contractor and USACE contracting agency, the contract will be terminated. Cleanup/Exit Strategy - A new contract will be required to complete revised RFI and CMS. It is anticipated that the site will require a corrective action and LUCs with FYRs under LTM.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
04985.1001	YPG-01_OLD CHEMICAL LABORATORY (BLDG S-2	9/30/2017
04985.1002	YPG-02_CHEM WASTE HOLDING TANK BLDG S-20	10/30/2014
04985.1003	YPG-03_SEPTIC TANK LEACHFIELD BLDG. 2060	9/30/2003
04985.1004	YPG-04_PETROLEUM LABORATORY(BLDG S-2060)	8/31/1988
04985.1005	YPG-05_55 GAL POL STORAGE @ PETROLEUM LA	8/31/1988
04985.1006	YPG-06_OB/OD NEW DEMO AREA-KOFA EAST	8/31/1988
04985.1007	YPG-07_MOBILITY RANGE (GENERAL)	8/31/1988
04985.1008	YPG-08_RAD STORAGE @ X-RAY FACILITY(BLDG	8/31/1988
04985.1009	YPG-09_RAD STORAGE SITE(BUILDING 3557)	7/31/1988
04985.1011	YPG-11_FORMER PESTICIDE MIX/STORAGE BLDG	4/15/2014
04985.1012	YPG-12_PESTICIDE MIX/STORE FACILITY(BLDG	8/31/1988
04985.1013	YPG-13A_SEPTIC TANK LAGOON CASTLE DOME H	1/31/2001
04985.1014	YPG-13B_WashPad 1 Castle Dome Heliport	3/15/2014
04985.1015	YPG-13C_Washpad 2 North Castle DomeHelip	3/15/2014
04985.1016	YPG-13D_WASTE BASIN AT CASTLE DOME HELIP	3/15/2014
04985.1017	YPG-13E_SEPTIC TANK LEACHFIELD(E)KOFA BL	3/15/2014
04985.1018	YPG-13F_SEPTIC TANK LEACHFIELD BLDG 3021	9/30/2005
04985.1019	YPG-15_RAW SEWAGE LAGOON SYSTEM - MAIN P	8/31/1988
04985.1020	YPG-20_LAGOON @ MOBILITY TEST AREA	8/31/1988
04985.1021	YPG-21_IMHOFF TANK @ MOBILITY TEST AREA	8/31/1988
04985.1022	YPG-23_WASHRACK/LAGOON (WEST) AT KOFA BL	9/30/2004
04985.1023	YPG-24_RAW SEWAGE LAGOONS @ KOFA RANGE	7/31/1988
04985.1024	YPG-25_SEPTIC TANK LEACHFIELD (NORTH) AT	9/30/2004
04985.1025	YPG-26_SEPTIC TANK/LEACHFIELD (SOUTH) AT	9/30/2004
04985.1026	YPG-27_LANDFILL 5KM S-SE OF MAINPOST	8/31/1988
04985.1027	YPG-28_LANDFILL 3KM EAST OF MAIN POST	8/31/1988
04985.1028	YPG-29_LANDFILL E OF RT95, 2KM W KOFA RA	8/31/1988
04985.1029	YPG-30_LANDFILL 4KM NW OF KOFA RANGE	8/31/1988
04985.1032	YPG-33_TEST SITE 8KM W RT95, 4.4KM SW CI	8/31/1988
04985.1033	YPG-34_TEST SITE NE OF CHEM AGENT DISPOS	8/31/1988
04985.1034	YPG-35_OLD DEMO AREA(N BASE OF MUGGINS M	10/31/1996
04985.1035	YPG-37_77TH EXPLOSIVE ORDNANCE DEMOLITIO	9/30/2005
04985.1036	YPG-38_LEAD ARSENATE SITE	10/31/1992
04985.1037	YPG-39_KOFA RANGE(IMPACT AREA)	8/31/1988
04985.1038	YPG-40_PYROTECHNIC RANGE(IMPACT AREA)	8/31/1988
04985.1039	YPG-41_CIBOLA RANGE(IMPACT AREA)	8/31/1988
04985.1040	YPG-43_FORMER FIRE TRAINING PIT	9/30/1999
04985.1041	YPG-44_AMMUNITION DEFLAGRATION SITE	8/31/1988
04985.1042	YPG-45_BUILDING 506 UST FUEL RELEASE	9/30/2017
04985.1045	YPG-PBA_YPG-PBA	5/31/2010
04985.1051	CCYPG-178_INACTIVE LANDFILL 3 KM EAST OF	1/8/2020
04985.1052	CCYPG-028_INACTIVE LANDFILL NW MAA SE Im	9/30/2015

CRL ID	Site Name	Site Closeout Date
04985.1056	CCYPG-152_LUST	11/30/2018
04985.1057	CCYPG-143_INACTIVE LANDFILL SSE OF LAAF	10/15/2012
04985.1043	YPG-001-R-01_MORTAR IMPACT AREA A	6/30/2005
04985.1055	CCYPG-006A_INACTIVE OB/OD BURN ON GROUND	6/30/2016
04985.1059	CCYPG-013A_CASTLE DOME HELIPORT SEPTIC T	4/30/1999
04985.1063	CCYPG-100_ABANDONED MINES AND MINING CLA	4/30/1999
04985.1064	CCYPG-104_BATTERY MAINT AT MAIN ADMIN AR	4/30/1999
04985.1065	CCYPG-105_BATTERY MAINTENANCE SHOP BUILD	4/30/1999
04985.1066	CCYPG-106_BLDG. 2105 UST FOR PHOTOGRAPHI	4/30/1999
04985.1067	CCYPG-108_BUILDING 204 DRUM STORAGE AREA	4/30/1999
04985.1068	CCYPG-109_BUILDING 204 TRUCK MAINTENANCE	4/30/1999
04985.1069	CCYPG-110_BUILDING 204 USED OIL ABOVEGRO	4/30/1999
04985.1070	CCYPG-113_BUILDING 2103 SEPTIC TANK AND	4/30/1999
04985.1071	CCYPG-114_BUILDING 3008 SATELLITE ACCUMU	4/30/2006
04985.1072	CCYPG-115_BUILDING 2102 CIRCUIT BOARD PH	4/30/1999
04985.1073	CCYPG-117_BUILDING 3125 UST FOR PHOTOGRA	4/30/1999
04985.1074	CCYPG-118_BUILDING 3489 SEPTIC TANK AND	4/30/2006
04985.1075	CCYPG-119_BUILDING 3527 SEPTIC TANK & DR	4/30/2006
04985.1076	CCYPG-120_BUILDING 3555 SEPTIC TANK AND	4/30/2006
04985.1077	CCYPG-122_BUILDING 3566 SEPTIC TANK AND	4/30/2006
04985.1078	CCYPG-127_BUILDING 5100 SEPTIC TANK AND	4/30/2006
04985.1079	CCYPG-129_BUILDING 6000 SEPTIC TANK AND	8/31/2006
04985.1080	CCYPG-130_BUILDING 6003 SEPTIC TANK AND	4/30/2006
04985.1081	CCYPG-131_BUILDING 6004 SEPTIC TANK AND	4/30/2006
04985.1082	CCYPG-133_BUILDING 3482 SEPTIC TANK AND	4/30/2006
04985.1083	CCYPG-138_BUILDING 3109 SATELLITE ACCUMU	4/30/1999
04985.1084	CCYPG-146_KFR GP-17A AND 20 PHOTOGRAPHIC	4/30/1999
04985.1085	CCYPG-147_SEWAGE TREATMENT LAGOON AT LAG	4/30/1999
04985.1086	CCYPG-151_MTA #2	1/31/2010
04985.1087	CCYPG-152_MTA #3	4/30/1999
04985.1089	CCYPG-166_BUILDING 2096 SATELLITE ACCUMU	4/30/1999
04985.1090	CCYPG-167_BUILDING 6006 AND 6021, SATELL	4/30/1999
04985.1091	CCYPG-169_BUILDING 206 SATELLITE ACCUMUL	4/30/1999
04985.1092	CCYPG-172_VEHICLE WASH RACK AT MOBILITY	4/30/1999
04985.1093	CCYPG-176_BUILDING 3566 (LOADING PLANT)	4/30/1999
04985.1095	CCYPG-200_MTA BLDG 2090 UST	4/30/1999
04985.1096	CCYPG-202_MTA WASH RACK AT BLDG 2056	4/30/1999
04985.1097	CCYPG-203_UST AT BUILDING S-5	4/30/1999
04985.1099	CCYPG-205_BUILDING 3748 UST	4/30/1999
04985.1100	CCYPG-206_BUILDING 3749 UST	4/30/1999
04985.1101	CCYPG-207_BUILDING S-991 UST	4/30/1999
04985.1102	CCYPG-208_SPILL CLEANUP KFR FUEL STATION	4/30/1999
04985.1103	CCYPG-121_BUILDING 3558 SEPTIC TANK AND	4/30/2006
04985.1104	CCYPG-123_BUILDING 3587 SEPTIC TANK AND	4/30/2006
04985.1105	CCYPG-136_CONTAMINATED GROUND S. MTA BLD	6/30/2006

CRL ID	Site Name	Site Closeout Date
04985.1107	CCYPG-142_INACTIVE LANDFILL AT LAAF	6/30/2007
04985.1108	CCYPG-143_INACTIVE LANDFILL SSE OF LAAF	10/15/2012
04985.1109	CCYPG-175_CONTAMINATED AREA BUILDING 231	4/30/1999
04985.1114	CCYPG-044_KOFA AMMUNITION DEFLAGRATION S	1/31/2007
04985.1115	CCYPG-132_BUILDING 6016 SEPTIC TANK AND	4/30/2006

COMMUNITY INVOLVEMENT

Community Involvement Plan (Date Last Reviewed):	9/1/2019
Technical Review Committee Establishment Date:	N/A
Restoration Advisory Board (RAB) Establishment Date:	6/30/2010
RAB Adjournment Date:	6/9/2022
RAB Adjournment Reason:	Lack of interest
Reasons for Not Establishing RAB:	N/A
RAB Date of Solicitation from Community:	N/A
RAB Results of Solicitation:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A
Administrative Record Location:	Yuma Proving Ground, Building #307, First floor; Building #2075 North
Information Repository Location:	Yuma Proving Ground, Building #307, First floor; Building #2075 North

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Status	Review Type	Start Date	End Date	Plans Narrative	Actions Narrative	Results Narrative
Planned	FYR	5/21/2025	1/30/2027	N/A	N/A	N/A
Completed	FYR	5/21/2020	1/30/2022	Evaluate the YPG-10 monitoring well network for repairs, well abandonment, monitoring well network optimization, and delineation of naphthalene in perched groundwater.	Remedy at YPG-10 protects human health and environment.	Soil Vapor Extraction system removed 187,000 gallons of fuel from subsurface soil and confirmation soil sampling data support permanent shutdown of the YPG-10 Soil Vapor Extraction system.