Table Name: FREQUENCY		num	nber of samples to	run per control	
Column Name	Data Type	PK?	Nullable VVL	Description	
FREQUENCY_ANMCODE	varchar (7)		No	(VVL: METHLST) ANALYTICAL METHOD CODE: Coded value representing the method of analysis of a given parameter.	
FREQUENCY_BS	int		Yes	The number of blank spikes required for this method.	
FREQUENCY_FD	int		Yes	The number of field duplicates required for this method.	
FREQUENCY_FR	int		Yes	The number of field replicates required for this method.	
FREQUENCY_LABCODE	varchar (4)		Yes	(VVL: VVLLAB) Analytical Laboratory Code. Coded value identifying the analytical laboratory that performed the analysis of a sample.	
FREQUENCY_LB	int		Yes	The number of lab blanks required for this method.	
FREQUENCY_MATRIX_TYPE	varchar (1)		No	(VVL: VVLMTY) SAMPLING MATRIX_TYPE: Coded value identifying the samp medium actually being analyzed, i.e., soil, water, etc.	
FREQUENCY_MS	int		Yes	The number of matrix spikes required for this method.	
FREQUENCY_RECNO	bigint	Yes	No	Unique system generated sequence number	
FREQUENCY_REFERENCE	varchar (255)		Yes	(VVL: ARARS_DOC) REFERENCE: A coded value which references a government regulation.	
FREQUENCY_SD	int		Yes	The number of matrix spike duplicates required for this method.	
FREQUENCY_SOURCE	varchar (1)		No	A coded value indicating whether the entered data is specified within the laboratory or prime QAPP or DQO	
FREQUENCY_SUBMDATE	datetime		Yes	Date of submittal.	
FREQUENCY_UPTIME	datetime		Yes	The date the record was last updated.	
FREQUENCY_UPUSER	varchar (500)		Yes	The last user to update the record.	
FREQUENCY_USER_COMMENTS	varchar (4000)		Yes		
FREQUENCY_USER_NUMBER	decimal (14,6)		Yes		
FREQUENCY_VALSTATUS	varchar (12)		Yes	Status of record validation.	
PROJECT_RECNO	bigint		No	recno of parent project record	
<u>Associated Tables</u>					
Table Name					
PROJECT					

Table Name: PERFORMANCE		crite	eria to evaluate sa	ample control limits
Column Name	Data Type	PK?	Nullable VVL	Description
PERFORMANCE_ACCURACY_LOWER	smallint		Yes	Accuracy Lower Limit. Lower control limit of percent recovery as measured for a known target analyte spiked into a QC sample.
PERFORMANCE_ACCURACY_UPPER	smallint		Yes	Accuracy Upper Limit. Upper control limit of percent recovery as measured for a known target analyte spiked into a QC sample.
PERFORMANCE_ANMCODE	varchar (7)		No	(VVL: METHLST) ANALYTICAL METHOD CODE: Coded value representing the method of analysis of a given parameter.
PERFORMANCE_LABCODE	varchar (4)		Yes	(VVL: VVLLAB) Analytical Laboratory Code. Coded value identifying the analytical laboratory that performed the analysis of a sample
PERFORMANCE_MATRIX_TYPE	varchar (1)		No	(VVL: VVLMTY) SAMPLING MATRIX_TYPE: Coded value identifying the sample medium actually being analyzed, i.e., soil, water, etc.
PERFORMANCE_MDL	decimal (14,6)		Yes	METHOD DETECTION LIMIT: The smallest qauntity of an analyte that can be detected from a prepared sample.
PERFORMANCE_PARLABEL	varchar (12)		No	(VVL: ANALLST) PARAMETER LABEL CODE: An abbreviated, common acronyn representing a parameter/analyte.
PERFORMANCE_RECNO	bigint	Yes	No	Unique system generated sequence number
PERFORMANCE_REFERENCE	varchar (255)		Yes	(VVL: ARARS_DOC) REFERENCE: A coded value which references a governmen regulation.
PERFORMANCE_RL	decimal (14,6)		Yes	AFCEE REPORTING LIMIT: The smallest quantity of an analyte that should be reported in accordance with the AFCEE QAPP.
PERFORMANCE_RPD	decimal (14,6)		Yes	A Measure of variability that adjusts for the magnitude of observations. Used to assess total and analytical precision of duplicate measurements
PERFORMANCE_SOURCE	varchar (1)		No	A coded value indicating whether the entered data is specified within the laboratory or prime QAPP or DQO
PERFORMANCE_SUBMDATE	datetime		Yes	Date of submittal.
PERFORMANCE_SURROGATE	bit		Yes	A yes/no flag indicating the analyte is a surrogate.
PERFORMANCE_SURROGATE_NUMBER	int		Yes	An integer value indicating the elution order of the entered surrogates for analyses such as SW8270
PERFORMANCE_UNITS	varchar (10)		Yes	(VVL: VVLUTM) UNITS OF MEASURE: Units of measure used for the parameter value.
PERFORMANCE_UPTIME	datetime		Yes	The date the record was last updated.

Table Name: PERFORMANCE	criteria to evaluate sample control limits							
Column Name	Data Type	PK? Nullable VVL	Description					
PERFORMANCE_UPUSER	varchar (12)	Yes	The last user to update the record.					
PERFORMANCE_USER_COMMENTS	varchar (4000)	Yes						
PERFORMANCE_USER_NUMBER	decimal (14,6)	Yes						
PERFORMANCE_VALSTATUS	varchar (12)	Yes	Status of record validation.					
PROJECT_RECNO	bigint	No	recno of parent project record					
<u>Associated Tables</u>								
Table Name								
PROJECT								
FREQUENCY								
FREQUENCY								
FREQUENCY								

Table Name: PROJECT		Proj	ect informa	ation.	
Column Name	Data Type	PK?	Nullable	VVL	Description
PROJECT_AFIID	varchar (5)		No	AFI	(VVL: AFI) AIR FORCE INSTALLATION IDENTIFICATION: Unique code used to represent an Air Force installation, plant, or base.
PROJECT_CONTRACT_ID	varchar (16)		No		Number identifying the contract. This number must be unique across all Air Force organizations.
PROJECT_DATA_TYPE	varchar (5)		Yes		A coded value indicating whether the data-set is comprised of screening or definitive data.
PROJECT_DO_ID	varchar (4)		No		Number identifying the delivery order.
PROJECT_END_DATE	datetime		Yes		Date project ended
PROJECT_FREQUENCY	varchar (5)		Yes		A coded value describing the frequency of sample collection activities for t current contract and task order.
PROJECT_HARD_COPY_REFERENCE	varchar (255)		Yes		A bibliographic reference to the final report documenting the sampling ever and activities conducted under the reported contract and task order.
PROJECT_LAB_POC_EMAIL	varchar (50)		Yes		LAB Email address for project point of contact
PROJECT_LAB_POC_FIRST_NAME	varchar (25)		Yes		LAB Point of contact for project - first name
Project_lab_poc_last_name	varchar (25)		Yes		LAB Point of contact for project - last name
PROJECT_LABCODE	varchar (4)		Yes		(VVL: VVLLAB) Analytical Laboratory Code. Coded value identifying the analytical laboratory that performed the analysis of a sample
PROJECT_LOGCODE	varchar (4)		Yes		(VVL: VVLLOG) LOGGING COMPANY CODE: Coded value identifying the company performing field tests.
PROJECT_PHASE	varchar (5)		Yes		A coded value representing the phase of the current sampling event i.e. RI RA etc. $ \label{eq:coded} % \begin{center} \begin$
PROJECT_POC_EMAIL	varchar (50)		Yes		Email address for project point of contact
PROJECT_POC_FIRST_NAME	varchar (25)		Yes		Point of contact for project - first name
PROJECT_POC_LAST_NAME	varchar (25)		Yes		Point of contact for project - last name
PROJECT_PROJECT_ID	varchar (255)		No		Name of the project the contract is for
PROJECT_RECNO	bigint	Yes	No		Unique system generated sequence number
PROJECT_START_DATE	datetime		Yes		Date project started
PROJECT_TASK_REQUEST	bigint		Yes		A tracking number issued by the AFCEE electronic data loading section that specific to a single Prime data reporting project.

Table Name: PROJECT		Project information.	
Column Name	Data Type	PK? Nullable VVL	Description
PROJECT_TYPE	varchar (1)	No	Type of project - P for prime,L for lab
PROJECT_UPTIME	datetime	Yes	The date the record was last updated.
PROJECT_UPUSER	varchar (500)	Yes	The last user to update the record.

Table Name: RESULT		Info	rmation or	n analyt	ical results of an environmental sampling test procedure
Column Name	Data Type	PK?	Nullable	VVL	Description
RESULT_BEST_RESULT	varchar (1)		Yes		The single result value that has been determined to be the best result - ie the value reported in the prime contractors final report for the sampling event in focus
RESULT_CNFVALPREC	smallint		Yes		Number indicating the precision (number of digits after the decimal point) of the results.
RESULT_DILUTION	decimal (16,6)		Yes		Numeric expression of the amount of dilution required to bring the analyte concentration in the sample into analysis range.
RESULT_EXPECTED	decimal (16,6)		Yes		The target result for a quality control sample or surrogate spike.
RESULT_FCVALPREC	smallint		Yes		Number indicating the precision (number of digits after the decimal point) of the results.
RESULT_LAB_DQT	varchar (5)		Yes	DQT	A code identifying the type of data qualifier.
RESULT_LAB_QC_FLAG	varchar (6)		Yes	QAP	Codes that are assigned during chemistry data validation.
RESULT_LOWER_ACCURACY	decimal (14,2)		Yes		Accuracy Lower Limit. Lower control limit of percent recovery as measured for a known target analyte spiked into a QC sample.
RESULT_MDL	decimal (16,6)		Yes		METHOD DETECTION LIMIT: The smallest qauntity of an analyte that can be detected from a prepared sample.
RESULT_PARLABEL	varchar (12)		No	PAR	(VVL: ANALLST) PARAMETER LABEL CODE: An abbreviated, common acronyn representing a parameter/analyte.
RESULT_PARUN	decimal (12,4)		Yes		A value which measures the uncertainty of the analytical test (expressed as + or - some value).
RESULT_PARVAL	decimal (16,6)		Yes		PARAMETER VALUE: value of calculated parameter reported in units consistent with UNITMEAS.
RESULT_PARVQ	varchar (2)		Yes	PVQ	(VVL: VVLPVQ) PARAMETER VALUE QUALIFIER: Coded value qualifying the analytical results field (PARVAL).
RESULT_PERCENT_RECOVERY	decimal (14,2)		Yes		The calculated percent recovery value for the spiked or surrogate analyte
RESULT_PRCCODE	varchar (3)		Yes	PRC	(VVL: VVLPRC) PARAMETER CLASS CODE: Coded value identifying a class or group that a parameter is associated with (e.g. ORG, MET, STD, etc.)
RESULT_PRECISION	smallint		Yes		Number indicating the precision (number of digits after the decimal point) of the results.
RESULT_REASON_CODE	varchar (12)		Yes		Coded value that indicates why a lab or contractor flag was issued to a data point
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Table Name: RESULT		Info	rmation or	n analyt	ical results of an environmental sampling test procedure
Column Name	Data Type	PK?	Nullable	VVL	Description
RESULT_RECNO	bigint	Yes	No		Unique system generated sequence number.
RESULT_RL	decimal (16,6)		Yes		AFCEE REPORTING LIMIT: The smallest quantity of an analyte that should be reported in accordance with the AFCEE QAPP.
RESULT_RPD	decimal (14,2)		Yes		Measure of variability that adjusts for the magnitude of observations. Used t assess total and analytical on of duplicate measurements.
RESULT_SPIKE_ADDED	decimal (16,6)		Yes		Final concentration of an analyte spiked into a sample
RESULT_SPIKE_ADDED_PREC	smallint		Yes		Number indicating the precision (number of digits after the decimal point) of spike added
RESULT_SUBMDATE	datetime		Yes		Date of submittal.
RESULT_UNITS	varchar (10)		Yes	UTM	(VVL: VVLUTM) UNITS OF MEASURE: Units of measure used for the parameter value.
RESULT_UPPER_ACCURACY	decimal (14,2)		Yes		Accuracy Upper Limit. Upper control limit of percent recovery as measured for a known target analyte spiked into a QC sample.
RESULT_UPPER_RPD	decimal (14,2)		Yes		The upper performance limit for relative percent difference
RESULT_UPTIME	datetime		Yes		The date the record was last updated.
RESULT_UPUSER	varchar (500)		Yes		The last user to update the record.
RESULT_USER_COMMENTS	varchar (4000)		Yes		
RESULT_USER_NUMBER	decimal (14,6)		Yes		
RESULT_VAL_1C	decimal (16,6)		Yes		Field which represents the primary or initial value for a analyte generated from a Gas Chromatography or Gas Chromatography / Mass Spectroscopy results.
RESULT_VAL_CONFIRM	decimal (16,6)		Yes		VAL_CONFIRM: The CONFIRMING VALUE of a chromatographic analytical result that requires second column confirmation.
RESULT_VALSTATUS	varchar (12)		Yes		Status of record validation.
RESULT_VQ_1C	varchar (2)		Yes	PVQ	A coded value qualifying the RESULTS.VAL_1C field.
RESULT_VQ_CONFIRM	varchar (2)		Yes	PVQ	Code value qualifying the confirming analytical result.
TEST_RECNO	bigint		No		Value that ties record to the test table

Table Name: RESULT		Information on analytical results of an environmental sampling test procedure							
Column Name	Data Type	PK? Nullable VVL Description							
Associated Tables									
Table Name									

TEST

able Name: SAMPLE		Repo	orts inform	ation r	regarding a water, soil, or environmental sampling event	
Column Name	Data Type	PK?	Nullable	VVL	Description	
SAMPLE_COCID	varchar (12)		Yes		Unique identification reference to the chain of custody describing the transport of the sample to the laboratory.	
SAMPLE_FLDSAMPID	varchar (30)		Yes		Unique number assigned to the sample in the field.	
SAMPLE_LABSAMPID	varchar (20)		No		Laboratory Sample Identification.	
SAMPLE_LOGCODE	varchar (4)		Yes	LOG	(VVL: VVLLOG) LOGGING COMPANY CODE: Coded value identifying the company performing field tests.	
SAMPLE_LOGDATE	datetime		Yes		The date/time the sample was taken.	
SAMPLE_LOGTIME	datetime		Yes		Time of day (24 hour clock format with no colon - HHMM) that a sample is collected, a field measurement is made, or a QC sample is created.	
SAMPLE_MATRIX	varchar (2)		No	MTX	Coded value identifying the specific sample medium actually being analyze (e.g., drill cuttings, waste water, etc.).	
SAMPLE_PARENTFLDID	varchar (30)		Yes		FLDSAMPID of the parent record	
SAMPLE_PARENTLABID	varchar (20)		Yes		LABSAMPID of the parent record	
SAMPLE_RECNO	bigint	Yes	No		Unique system generated sequence number.	
SAMPLE_REMARKS	varchar (240)		Yes		Comment about the sample	
SAMPLE_SACODE	varchar (2)		Yes	SA	A coded value identifying whether the sample is QC or normal and the typ QC. $ \label{eq:QC} % \begin{center} \end{constraint} \begin{center} \end{center} % \begin{center} \end{center} $	
SAMPLE_SAMPNO	smallint		Yes		This is the numeric portion of the Sample Type.	
SAMPLE_SDG	varchar (20)		Yes		The laboratory sample delivery group value.	
SAMPLE_SUBMDATE	datetime		Yes		Date of submittal.	
SAMPLE_UPTIME	datetime		Yes		The date the record was last updated.	
SAMPLE_UPUSER	varchar (500)		Yes		The last user to update the record.	
SAMPLE_USER_COMMENTS	varchar (4000)		Yes			
SAMPLE_USER_NUMBER	decimal (14,6)		Yes			
SAMPLE_VALSTATUS	varchar (12)		Yes		Status of record validation.	

Table Name: TEST		Info	rmation or	n test pi	reparation and procedures for an environmental sample
Column Name	Data Type	PK?	Nullable	VVL	Description
SAMPLE_RECNO	bigint		No		Key value which ties records to the sample table
TEST_ANADATE	datetime		Yes		Date the sample or extraction is analyzed in the laboratory.
TEST_ANALOT	varchar (10)		Yes		The batch designator of an autonomous group of environmental samples a associated QC samples analyzed together.
TEST_ANATIME	datetime		Yes		Time the sample or extraction is analyzed in the laboratory.
TEST_ANMCODE	varchar (7)		No	ANM	(VVL: METHLST) ANALYTICAL METHOD CODE: Coded value representing the method of analysis of a given parameter.
TEST_BASIS	varchar (1)		Yes	BAS	VVL: VVLBAS) Basis. For tissue or solid samples enter whether results are reported on a wet (W) or dry (D) basis.
TEST_CALREFID	varchar (10)		Yes		A coded value which establishes a reference link between environmental a QC samples and their corresponding calibration records.
TEST_EXMCODE	varchar (7)		No	EXM	(VVL: EXTLST) EXTRACTION METHOD CODE: Coded value representing the method used to extract or prepare a sample
TEST_EXTDATE	datetime		Yes		Preparation Date is a more general identifier to indicate extractions or othe preparation methods. For compatibility with DESCIM.
TEST_EXTTIME	datetime		Yes		Preparation Time is a more general identifier to indicate extractions or othe preparation methods. For compatibility with DESCIM.
TEST_LABCODE	varchar (4)		Yes	LAB	(VVL: VVLLAB) Analytical Laboratory Code. Coded value identifying the analytical laboratory that performed the analysis of a sample.
TEST_LABLOTCTL	varchar (10)		Yes		Preparation Lot is a more general identifier to indicate extractions or other preparation methods. For compatibility with DESCIM.
TEST_LCHDATE	datetime		Yes		Date the sample was leachated.
TEST_LCHLOT	varchar (10)		Yes		The batch designator of an autonomous group of environmental samples a associated QC samples leached together.
TEST_LCHMETH	varchar (7)		No	LCH	Coded value identifying the leachate method.
TEST_LCHTIME	datetime		Yes		Time the sample was leachated.
TEST_RECNO	bigint	Yes	No		Unique system generated sequence number.
TEST_RUN_NUMBER	smallint		No		This information is stored in the Test Procedure class and is replaced by the use of Test Sequence.
TEST_SUBMDATE Printed on: 06-Nov-2008 20:25	datetime		Yes		Date of submittal. Page 10 of 11

Table Name: TEST	Information on test preparation and procedures for an environmental sample							
Column Name	Data Type	PK?	Nullable VVL	Description				
TEST_UPTIME	datetime		Yes	The date the record was last updated.				
TEST_UPUSER	varchar (500)		Yes	The last user to update the record.				
TEST_USER_COMMENTS	varchar (4000)		Yes					
TEST_USER_NUMBER	decimal (14,6)		Yes					
TEST_VALSTATUS <u>Associated Tables</u>	varchar (12)		Yes	Status of record validation.				
Table Name SAMPLE								