

Data Acquisition Standard Operating Procedures

Florida Keys National Marine Sanctuary Water Quality Monitoring Project (ID# 297)

Last Updated: 5/6/2023

Program Summary

The function of the SERC Water Quality Monitoring Network is to address regional water quality concerns that exist outside the boundaries of individual political entities. Funding for the Network has come from many different sources with individual programs being added as funding became available. Field sampling occurs over different time periods due to the nature of the funding. This Water Quality Monitoring Project is a component of the Florida Keys National Marine Sanctuary. Water Quality Protection Program established by EPA in 1995 to characterize status and trends in water quality of the Florida Keys.

URLs

- Program - <http://serc.fiu.edu/wqmnetwork/>
- DDI - <https://data.florida-seacar.org/programs/details/297>

Contacts

Contact Name	Organization	Email	Phone
Henry Briceno		bricenoh@fiu.edu	

Data Tables

- Data_297A_Final
- Data_297A_Load

Data Stored Procedures

- usp_Data_297A_Load_insert
- usp_combined_wq_wc_nut_insert_297A

Data Acquisition Standard Operating Procedures: ProgramID 297

Date Created: 01/09/2019

Created By: *Claude Kershaw*

Date Modified: 10/09/2020

Created By: *Girija Bandaru*

Data File Paths:

1. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0297_SERC_FKNMS\WQFloridaKeys&Shelf ppm UPDATED 7-14-2018.xlsx"
2. Data: " U:\Misc_Projects\SEACAR_FDEP\Data\ID_0297_SERC_FKNMS\WQFloridaKeys&Shelf (ppm) UPDATED 6-6-2020.xlsx"

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/297>

Contact Information:

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Contact Phone:

Procedure Overview:

1. Remove/replace spaces from the column headers (the geodatabase creation process requires no spaces or non-alphanumeric characters except for underscores).
2. Use SQL Server Import Export Wizard to load the data into **Data_297A_Load**.
3. Execute procedures usp_Data_297A_Load_insert to load the data into tables **Data_297A_Final**.
4. The Monitoring Location information can be found in the table **Data_297A_Final**.
5. Add new Monitoring Locations into the **SampleLocation_Point** table.
6. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
7. Update the **SampleLocation_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure usp_SampleLocation_Point_update to do this.
8. Update the LocationID column in table **Data_297A_Final** with the LocationID in the **SampleLocation** table. Join on the [STATION] column in **Data_297A_Final** and the ProgramLocationID column in **SampleLocation**.
9. There are two rows with station (281i) don't have longitude values and for those two rows locationID is not updated.

Data Tables

1. Data_297A_Load
2. Data_297A_Final

Data Stored Procedures

1. usp_Data_297A_Load_insert
2. usp_SampleLocation_Point_update

GIS Procedures

1. The Monitoring Location information can be found in the table **Data_297A_Final**.
2. Complete steps 4 through 8 in the "Procedure Overview" section of this document.

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_297A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;
```

```
-- Delete existing data
exec usp_delete_combined 84, 'Combined_WQ_WC_NUT'
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '297A';
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
DECLARE @ParameterID int;
DECLARE @TotalRows int;
```

```
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```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
@programID = ProgramID
FROM DataStreamProcedure
WHERE DataLoadCode = @dataLoadCode;
```

```
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```

```
-- Insert data
```

```
SET @TotalRows = 0
Set @ParameterID = 17--NO2+3 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.NOX_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Where a.NOX_B is not null
and a.LocationID is not null
and a.DATE > '19000101'
```

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.NOX_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Where a.NOX_B is not null
and a.LocationID is not null
and a.DATE > '19000101'
```

```
SET @TotalRows = @TotalRows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @TotalRows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @TotalRows = 0
Set @ParameterID = 18--NH4 Filtered
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.NH4_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.NH4_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.NH4_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.NH4_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 15--TN
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.TN_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TN_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.TN_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TN_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 19--TP
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.TP_B as numeric(25,8)), GETDATE()
```

```
FROM Data_297A_Final a
Wherea.TP_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.TP_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TP_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
Set @ParameterID = 9--CHLA_unc
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.CHLA_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.CHLA_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.CHLA_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.CHLA_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
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```

```
-- Insert data
```

```
SET @Total Rows = 0
Set @ParameterID = 7--TURB
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.TURB_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
```

```
Wherea.TURB_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.TURB_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TURB_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 2--Salinity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.SAL_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.SAL_B is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.SAL_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.SAL_S is not null
anda.LocationID is not null
anda.DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 3--Temp
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.TEMP_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TEMP_B is not null
anda.LocationID is not null
```

```
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.TEMP_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.TEMP_S is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
ÿ
-- Insert data
SET @Total Rows = 0
Set @ParameterID = 1--DO
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.DO_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.DO_B is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.DO_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.DO_S is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
SET @Total Rows = 0
Set @ParameterID = 5--DO%
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Bottom', CAST(a.PercSAT_B as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.PercSAT_B is not null
anda.LocationID is not null
```



```
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.PercSAT_S as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.PercSAT_S is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 4--pH%
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.pH as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.pH is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
SET @Total Rows = 0
```

```
Set @ParameterID = 12-- Light Extention coeff
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ActivityDepth_m, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, CAST(a.Date as datetime), a.DEPTH,
NULL, 'Surface', CAST(a.Kd as numeric(25,8)), GETDATE()
FROM Data_297A_Final a
Wherea.Kd is not null
anda.LocationID is not null
anda. DATE > '19000101'
```

```
SET @Total Rows = @Total Rows + @@ROWCOUNT
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @Total Rows,
@LastUpdateBy = @runBy
```

```
/*
```

```
SELECT *
```

```
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_297A_Final
```

```
SELECT *  
FROM Combined_Parameters a  
join Indicator b on a.IndicatorID = b.IndicatorID  
where b.Habitat = 'Water Column'  
and b.IndicatorName <> 'Nekton'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 297
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 297  
ÿ  
exec usp_delete_combined 84, 'Combined_WQ_WC_NUT'  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_Data_297A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
INSERT INTO Data_297A_Final ([SURV], [BASIN],
[SEGMENT], [ZONE], [DATE], [TIME], [STATION], [SITE], [LATDEC], [LONDEC], [DEPTH], [NOX_S], [NOX_B], [NO3_S],
], [NO2_S], [NO2_B], [NH4_S], [NH4_B], [TN_S], [TN_B], [DIN_S], [DIN_B], [TON_S], [TON_B], [TP_S], [TP_B], [SRP
RP_B], [APA_S], [APA_B], [CHLA_S], [CHLA_B], [TOC_S], [TOC_B], [SiO2_S], [SiO2_B], [TURB_S], [TURB_B], [SAL_S
_B], [TEMP_S], [TEMP_B], [DO_S], [DO_B], [Kd], [pH], [TN_TP], [N_P], [DIN_TP], [Si_DIN], [PercSAT_S], [PercSAT
erclo], [DSIGT])
```

```
SELECT [SURV], [BASIN],
[SEGMENT], [ZONE], [DATE], [TIME], [STATION], [SITE], [LATDEC], [LONDEC], [DEPTH], [NOX_S], [NOX_B], [NO3_S],
], [NO2_S], [NO2_B], [NH4_S], [NH4_B], [TN_S], [TN_B], [DIN_S], [DIN_B], [TON_S], [TON_B], [TP_S], [TP_B], [SRP
RP_B], [APA_S], [APA_B], [CHLA_S], [CHLA_B], [TOC_S], [TOC_B], [SiO2_S], [SiO2_B], [TURB_S], [TURB_B], [SAL_S
_B], [TEMP_S], [TEMP_B], [DO_S], [DO_B], [Kd], [pH], [TN_TP], [N_P], [DIN_TP], [Si_DIN], [PercSAT_S], [PercSAT
erclo], [DSIGT]
```

```
FROM Data_297A_Load a
WHERE a.DATE > '2020-01-29 00:00:00.000'
AND NOT EXISTS (
SELECT *
FROM Data_297A_Final b
WHERE a.DATE = b.DATE
AND a.STATION = b.STATION
)
```

```
END
```

```
/*
```

```
SELECT MAX(CAST(a.DATE as datetime))
FROM Data_297A_Final a
```

```
*/
```

```
GO
```