# Water Data Extract

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| **Column Name** | **Description** | **Source Table.Column or Logic** |
| **Observation ID** | Unique identifier for each observation. Not yet implemented (currently blank). | Always Blank |
| **Ministry Contact** | The name of the ministry staff who oversaw or initiated the sampling event. | print.staffs.first\_name || ' ' || print.staffs.last\_name |
| **Sampling Agency** | The agency responsible for collecting the sample. | ems\_client\_locations.id || ' - ' || ems\_client\_locations.name |
| **Project** | Hardcoded value identifying the project. | 'BCLMN' |
| **Work Order Number** | The requisition or work order under which the sample was collected. | ems\_samples.requisition\_id |
| **Location ID** | Identifier for the monitoring location. | ems\_samples.mon\_locn\_id |
| **Field Visit Start Time** | Earliest start time of the sampling activity at a location on a given day, formatted in ISO8601 with -08:00 offset. | MIN(collection\_start\_date) from ems\_samples using an inline subquery to get the earliest start and latest end times for each MON\_LOCN\_ID per day |
| **Field Visit End Time** | Latest end time of the sampling activity at a location on a given day, unless equal to start time (then null). | MAX(collection\_end\_date) from ems\_samples (inline subquery eal.latestendtime)  if earlieststarttime = latestendtime, don't display the end date and time |
| **Field Visit Participants** | Name or identifier of the individual who performed the sampling. | ems\_samples.sampler |
| **Field Visit Comments** | General comments about the field visit. | ems\_samples.field\_comment AS Activity Comments |
| **Activity Comments** | Duplicate of field comment for internal tracking. | ems\_samples.field\_comment |
| **Field Filtered** | Indicates whether the sample was filtered in the field (always null in current dataset). | Always Blank |
| **Field Filtered Comment** | Comment on field filtering if applicable (always null in current dataset). | Always Blank |
| **Field Preservative** | Describes the chemical or process used to preserve the sample in the field. | ems\_preservatives.description |
| **Field Device ID** | Unique identifier for the field instrument (left blank). | Always Blank |
| **Field Device Type** | Describes the field device or method used (mapped from parameter and method). | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| **Sampling Context Tag** | Additional context for sampling event (left blank). | Always Blank |
| **Collection Method** | Describes how the sample was collected (e.g., Grab, Composite). Complex logic based on ems\_collection\_methods.code. | ems\_collection\_methods.code |
| **Medium** | The environmental medium sampled (e.g., WATER). | ems.ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| **Depth Upper** | Upper boundary of the sample depth, in meters. | ems\_samples.depth\_upper |
| **Depth Lower** | Lower boundary of the sample depth, in meters. | ems\_samples.depth\_lower |
| **Depth Unit** | Unit of measure for depth (always 'metre' if upper/lower present). | 'metre' if depth exists else NULL |
| **Observed DateTime** | Date and time the sample was collected, formatted with offset. | ems\_samples.collection\_start\_date |
| **Observed Date Time End** | Date and time sampling ended, null if same as start. | ems\_samples.collection\_end\_date |
| **Observed Property ID** | Mapped combination of parameter, method, and unit for standardized reporting. | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID |
| **Result Value** | Numeric result from field or lab analysis. | ems\_results.result\_numeric |
| **Method Detection Limit** | Lowest concentration reliably detectable; converted to target unit if needed. | ems\_results.method\_detect\_limit or ems\_parm\_dicts.METHOD\_DETECT\_LIMIT |
| **Method Reporting Limit** | Minimum reportable value (not provided, left blank). | NULL |
| **Result Unit** | Unit for result value (e.g., mg/L). | AQS\_UNITS\_TEMP.AQS\_NAME\_ON\_IMPORT |
| **Detection Condition** | Indicates result is below detection limit if result\_letter = '<'. | ems\_results.result\_letter |
| **Limit Type** | Type of limit applied (not used in EMS, left blank). | NULL |
| **Fraction** | Sample fraction type (e.g., total, dissolved), from mapping table. | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| **Data Classification** | Category of result: FIELD\_RESULT, LAB, QC, etc. | OBSERVED\_PROPERTIES\_FOR\_ETL.Classification |
| **Source of Rounded Value** | Not used in EMS, left blank. | NULL |
| **Rounded Value** | Rounded version of result (not implemented, left blank). | NULL |
| **Rounding Specification** | Specification used to round values (left blank). | NULL |
| **Analyzing Agency** | Agency that performed the lab analysis. | ems\_client\_locations.short\_name |
| **Analysis Method** | Code for the analytical method used to produce the result. | ems\_results.anal\_method\_cd |
| **Analyzed Date Time** | Date sample was analyzed in lab, defaults to observed date if null. | ems\_results.analytical\_date or ems\_samples.collection\_start\_date |
| **Result Status** | Always set to 'Preliminary'. | 'Preliminary' |
| **Result Grade** | Always set to 'Ungraded'. | 'Ungraded' |
| **Activity ID** | Not currently used (left blank). | NULL |
| **Activity Name** | Unique identifier of the sample activity. | ems\_samples.id |
| **Tissue Type** | Type of tissue sampled (blank for water). | ems\_tissue\_types.description |
| **Lab Arrival Temperature** | Temperature at which the sample arrived at the lab. | ems\_samples.lab\_arrival\_temperature |
| **Specimen Name** | Name assigned to biological specimen, or blank if not applicable. | OBSERVED\_PROPERTIES\_FOR\_ETL.OP\_Group |
| **Lab Quality Flag** | Indicator for lab quality issue (left blank). | NULL |
| **Lab Arrival Date and Time** | Timestamp when the sample arrived at the lab. | ems\_samples.lab\_arrival\_date |
| **Lab Prepared DateTime** | Timestamp when the lab prepared the sample (left blank). | NULL |
| **Lab Sample ID** | Lab-generated ID to track the sample. | ems\_results.lab\_sample\_id |
| **Lab Dilution Factor** | Dilution factor used in lab (left blank). | NULL |
| **Lab Comment** | Comment field associated with lab work. | ems\_samples.lab\_comment |
| **Lab Batch ID** | Identifier for the lab batch in which the sample was processed. | ems\_results.lab\_batch\_id |
| **QC Type** | Classifies sample as Replicate, Blank, or Spike based on sample class description. | ems\_sample\_classes.description |
| **QC Source Activity Name** | Name of the activity that the QC sample was based on (left blank). | NULL |
| **Composite Stat** | Statistical method used for composites (not used for lakes, left blank). | NULL |

# Air Data Extract

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| **Column Name** | **Description** | **Source Table.Column or Logic** |
| **Observation ID** | Unique identifier for each observation (placeholder, currently blank). (Used in: Air Results section). | N/A |
| **Ministry Contact** | Name of the person from the ministry responsible for the sample. (Used in: Air Results section). | print.staffs.first\_name || ' ' || print.staffs.last\_name |
| **Sampling Agency** | Agency responsible for collecting the sample. (Used in: Air Results section). | ems\_client\_locations.id || ' - ' || ems\_client\_locations.name |
| **Project** | Fixed project name for this dataset. (Used in: Air Results section). | 'BCLMN' |
| **Work Order Number** | ID that links this sample to a specific work order or requisition. (Used in: Air Results section). | ems\_samples.requisition\_id |
| **Location ID** | Monitoring location ID where the sample was collected. (Used in: Air Results section). | ems\_samples.mon\_locn\_id |
| **Field Visit Start Time** | Start time of the sampling visit, formatted with timezone offset. (Used in: Air Results section). | MIN(collection\_start\_date) via eal.earlieststarttime |
| **Field Visit End Time** | End time of the sampling visit, omitted if same as start time. (Used in: Air Results section). | MAX(collection\_end\_date) via eal.latestendtime |
| **Field Visit Participants** | Individuals or team who collected the sample. (Used in: Air Results section). | ems\_samples.sampler |
| **Field Visit Comments** | Comments regarding the field visit. (Used in: Air Results section). | ems\_samples.field\_comment |
| **Activity Comments** | Duplicate of field visit comments, used internally. (Used in: Air Results section). | ems\_samples.field\_comment |
| **Field Filtered** | Indicates if field filtration occurred (always null in EMS). (Used in: Air Results section). | NULL |
| **Field Filtered Comment** | Comment about field filtration (always null in EMS). (Used in: Air Results section). | NULL |
| **Field Preservative** | Substance used to preserve the sample on site. (Used in: Air Results section). | ems\_preservatives.description |
| **Field Device ID** | ID of the field instrument (not captured, always null). (Used in: Air Results section). | NULL |
| **Field Device Type** | Device type or method, mapped via OBSERVED\_PROPERTIES\_FOR\_ETL. (Used in: Air Results section). | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| **Sampling Context Tag** | Extra tag for context (always null). (Used in: Air Results section). | NULL |
| **Collection Method** | Sampling method determined from ems\_collection\_methods.code with extensive mapping logic. (Used in: Air Results section). | ems\_collection\_methods.code |
| **Medium** | Type of medium sampled (e.g., AIR, WATER). (Used in: Air Results section). | ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| **Depth Upper** | Upper depth in meters (if applicable). (Used in: Air Results section). | ems\_samples.depth\_upper |
| **Depth Lower** | Lower depth in meters (if applicable). (Used in: Air Results section). | ems\_samples.depth\_lower |
| **Depth Unit** | Unit for depth ('metre' when upper/lower depth provided). (Used in: Air Results section). | 'metre' or NULL |
| **Observed DateTime** | Date and time sampling began (ISO format with offset). (Used in: Air Results section). | ems\_samples.collection\_start\_date |
| **Observed Date Time End** | End time of observation, null if same as start. (Used in: Air Results section). | ems\_samples.collection\_end\_date |
| **Observed Property ID** | Derived property ID from parameter, method, and unit mapping or labeled values for air. (Used in: Air Results section). | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID or hardcoded |
| **Result Value** | Measured result from sample or field observation. (Used in: Air Results section). | ems\_results.result\_numeric or smpl.flow, smpl.filter\_size |
| **Method Detection Limit** | Limit of detection, unit converted if needed. (Used in: Air Results section). | ems\_results.method\_detect\_limit, ems\_parm\_dicts.METHOD\_DETECT\_LIMIT |
| **Method Reporting Limit** | Minimum value to report (blank). (Used in: Air Results section). | NULL |
| **Result Unit** | Unit for result values (e.g., ug/m3, um). (Used in: Air Results section). | AQS\_UNITS\_TEMP.AQS\_NAME\_ON\_IMPORT or smpl.flow\_unit\_cd or hardcoded |
| **Detection Condition** | Flag indicating if result is below detection threshold. (Used in: Air Results section). | ems\_results.result\_letter |
| **Limit Type** | Left blank (not tracked in EMS). (Used in: Air Results section). | NULL |
| **Fraction** | Part of sample measured (e.g., total, dissolved). (Used in: Air Results section). | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| **Data Classification** | Indicates data source: LAB, FIELD\_RESULT, ACTIVITY\_RESULT. (Used in: Air Results section). | OBSERVED\_PROPERTIES\_FOR\_ETL.Classification or hardcoded |
| **Source of Rounded Value** | Blank (not used in EMS). (Used in: Air Results section). | NULL |
| **Rounded Value** | Blank (not used in EMS). (Used in: Air Results section). | NULL |
| **Rounding Specification** | Blank (not used in EMS). (Used in: Air Results section). | NULL |
| **Analyzing Agency** | Agency that analyzed the sample. (Used in: Air Results section). | ems\_client\_locations.short\_name |
| **Analysis Method** | Lab method code (null for field/volume observations). (Used in: Air Results section). | ems\_results.anal\_method\_cd |
| **Analyzed Date Time** | Date when sample was analyzed, or fallback to observed date. (Used in: Air Results section). | ems\_results.analytical\_date or smpl.collection\_start\_date |
| **Result Status** | Set to 'Preliminary'. (Used in: Air Results section). | 'Preliminary' |
| **Result Grade** | Set to 'Ungraded'. (Used in: Air Results section). | 'Ungraded' |
| **Activity ID** | Blank (not extracted from EMS). (Used in: Air Results section). | NULL |
| **Activity Name** | Sample ID representing the activity. (Used in: Air Results section). | [ems\_samples.id](http://ems_samples.id) |
| **Tissue Type** | Type of biological tissue sampled, if applicable. (Used in: Air Results section). | ems\_tissue\_types.description |
| **Lab Arrival Temperature** | Temperature at lab intake. (Used in: Air Results section). | ems\_samples.lab\_arrival\_temperature |
| **Specimen Name** | Group/specimen label for biological or field classification. (Used in: Air Results section). | OBSERVED\_PROPERTIES\_FOR\_ETL.OP\_Group |
| **Lab Quality Flag** | Quality control flags from lab (not implemented). (Used in: Air Results section). | NULL |
| **Lab Arrival Date and Time** | Timestamp for when the lab received the sample. (Used in: Air Results section). | ems\_samples.lab\_arrival\_date |
| **Lab Prepared DateTime** | Blank (not tracked). (Used in: Air Results section). | NULL |
| **Lab Sample ID** | ID used to identify sample in the lab. (Used in: Air Results section). | ems\_results.lab\_sample\_id |
| **Lab Dilution Factor** | Blank (not captured in EMS). (Used in: Air Results section). | NULL |
| **Lab Comment** | Lab notes or comments about the sample. (Used in: Air Results section). | ems\_samples.lab\_comment |
| **Lab Batch ID** | Identifier for the lab batch. (Used in: Air Results section). | ems\_results.lab\_batch\_id |
| **QC Type** | Sample classification: Replicate, Blank, Spike, or empty. (Used in: Air Results section). | ems\_sample\_classes.description |
| **QC Source Activity Name** | Blank (not linked). (Used in: Air Results section). | NULL |
| **Composite Stat** | Blank, not tracked for air samples. (Used in: Air Results section). | NULL |
| **Observed Property ID** | Hardcoded as 'Air Volume (vol.)'. (Used in: Air Flow Volume section). | 'Air Volume (vol.)' |
| **Result Value** | Flow volume from the air sample. (Used in: Air Flow Volume section). | ems\_samples.flow |
| **Result Unit** | Flow volume unit from measurement units. (Used in: Air Flow Volume section). | ems\_measurment\_units.short\_name |
| **Observed Property ID** | Hardcoded as 'Air Filter Size (len.)'. (Used in: Air Filter Size section). | 'Air Filter Size (len.)' |
| **Result Value** | Air filter size from the sample. (Used in: Air Filter Size section). | ems\_samples.filter\_size |
| **Result Unit** | Hardcoded unit 'um' for filter size. (Used in: Air Filter Size section). | 'um' |