



August 12, 2020

Via Electronic Mail

Brock Bowles
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

**Subject: Knox Pit; M2017-036 Baseline Water Quality Evaluation
Response for Review Memo**

Dear Mr. Bowles:

On June 17, 2020, Patrick Lenneberg from the Division of Reclamation Mine Safety (DRMS) issued an internal review memo to Mr. Brock Bowles of the DRMS for the Knox Pit Baseline Water Quality Evaluation report (the December 2019 Report). Mr. Lenneberg was asked to review the report and ensure the water quality sampling was conducted in accordance with the State approved Sampling and Analysis Plan (SAP). Loveland Ready-Mix Concrete, Inc. (LRM) tasked Telesto Solutions, Inc. (Telesto) with responding to questions raised by the quality evaluation. This letter addresses the adequacy issues noted in Mr. Lenneberg review memo. For convenience, we have included Mr. Lenneberg's questions and comments in *italics*, followed by Telesto's answers or response.

RESPONSE TO ADEQUACY ISSUES

Comment 1

Tables 6, 7, and 8 have Draft at the top of the page. Please revise and include the final version of the tables and include a brief statement of what changed from the Draft to Final versions. It should be noted that Draft is also at the top of the fly sheet for figures.

Response 1

We removed the word *Draft* from all report pages, tables and figures. This was simply a missed heading when the internal document moved from draft to final. We changed no content. Attachment 1 includes replacement sheets for the updated tables and figures cut sheet.

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750 14th Street SW
Loveland, Colorado 80537
970-484-7704 / 970-484-7789 (FAX)

Grand Junction

751 Horizon Court, Suite 109
Grand Junction, Colorado 81506
970-697-1550

New Mexico Office

1303 Pope Street
Silver City, New Mexico 88061
575-538-5620 / 575-538-5625 (FAX)

Comment 2

On Tables 5 and 7 the wells are identified as “KMW- “are these the same wells at the site? If so why were the wells identified differently. Please update the tables and figures to use consistent nomenclature or provide a note within the tables to define the difference.

Response 2

We have corrected the well names on Tables 5 and 7 (i.e. MW). We use the “K” prefix for the Knox site to keep track of these wells in our database. When the project was initially started, there was no need to distinguish between properties. We will do our best going forward to make sure the correct names appear in the reports. Attachment 1 includes replacement pages for Tables 5 and 7.

Comment 3

Please describe how Ferric Iron was measured in the field to obtain the results in used to create Table 7.

Response 3

We measured total iron and ferrous iron in the field using a Hach Pocket Colorimeter with total and ferrous reagent powder packets. We then subtracted ferrous from total iron concentrations to estimate ferric iron

Comment 4

Why is MW-19 missing data from July and October 2019 in Tables 2 and 3?

Response 4

Due to personnel change during the summer of 2019, we did not sample MW-19 during 2019 3rd quarter (July 2019) or 4th quarter (October 2019). However, we had sampled MW-19 for 6 consecutive quarters from February 2018 to April 2019. Sampling of MW-19 resumed in 1st quarter 2020 and will continue going forward according to the SAP.

Comment 5

Please provide the field groundwater sampling forms that were produced during each sampling event to show that sampling conforms to the criteria set forth in SAP.

Response 5

Attachment 2 provides the field sampling sheets from the sampling events.

Comment 6

Please provide the missing laboratory data reports for February 2018 and 2019. Additionally, the laboratory data report for January 2020 was included with this report but none of the data was used.

Response 6

Attachment 3 provides only the SAP related laboratory data reports pertinent to the baseline report, including the missing February 2018 and 2019 reports.

Comment 7

Samples collected on 7/16/19, some samples exceeded hold times as indicated on laboratory sheet. What were the analytes that exceeded hold times? Where the results of the samples used in the tables of the report? If so, the table should contain a note indicating the results are of samples that exceeded hold time.

Response 7

For clarification, the December 2019 report served two purposes:

1. Report the sampling results as required by DRMS and as outlined in the SAP.
2. Provide an evaluation of background water quality, in particular to characterize uranium concentrations that were (and continue to be) above water quality standards before mining.

Thus, there are two sets of data in the report. One that meets the requirements of the SAP, and another, ancillary set that helps us delineate the extent and source of uranium. In no instance were there any laboratory issues with SAP required samples or analyses.

Analytes that exceeded hold times (48 hours) were laboratory pH and specific conductance on samples P-1, P-2, P-3, and P-4. P-1 through P-4 were temporary piezometers that we used to investigate the extent of uranium concentrations adjacent to wells in the SAP. P-1 through P-4 are not part of the SAP. The samples for P-1 through P-4 met QA parameters for uranium (metals). In general, we rely on field measurements of pH and specific conductance and use laboratory data as a check. Thus, results for laboratory pH and conductivity were not reported in the report tables.

Comment 8

Samples collected 6/6/19, were the nitrate results, generated out of hold time due to lab error, used in creating the tables? If so, the table should contain a note indicating the results are of samples that exceeded hold time.

Response 8

The June 6, 2019 sampling was ancillary to the SAP and included P-1, P-3, P4 and MW-08. We did not include the results of the nitrate/nitrite in any tables in the report from samples with the lab error created by the out-of-hold time for nitrate/nitrite. We did, however, use the results along with other nitrate/nitrite results in the evaluation described in the text. The nitrate/nitrite data from these June 6, 2019 samples were consistent with other nitrate/nitrite samples and thus, we feel did not compromise the analysis.

Comment 9

It is difficult for the reviewer to determine if the QA/QC sampling criteria was met given the missing field sampling sheets, laboratory data reports that were supplied out of order and some laboratory reports are missing altogether. Please provide a detailed accounting that shows all QA/QC sampling criteria was met as indicated in the SAP.

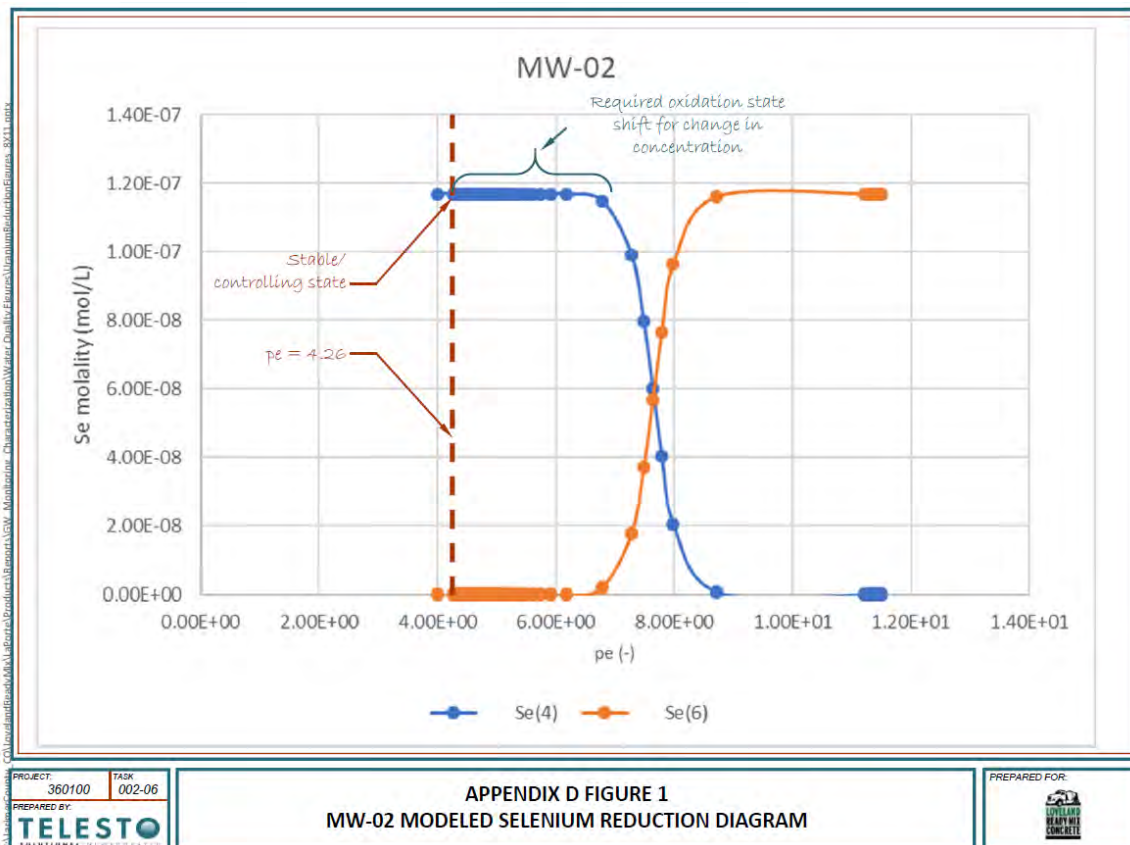
Response 9

Please see Attachment 2 for missing sampling sheets and Attachment 3 for all laboratory data reports in order.

Comment 10

Appendix D, all tables, please define what the call-outs are trying to indicate.

Response 10



The dashed vertical line represents the oxidation state, reported as electron potential (i.e., pe) as calculated in the well from the ferrous/ferric iron couple. The “stable/controlling state” is to let the reader know that the curve “highest in the graph” is the controlling mineral state (selenium +4 in this case). In order for a change in dissolved selenium chemistry to occur, the oxidation state must shift the amount indicated by the upper call out. The point is that none of the water was near the “crossover” point. At the crossover point, the potential to increase selenium groundwater concentrations would increase.

Comments on Conclusions and Recommendations

I agree with the conclusions and recommendation section of the report. The baseline data and modeling appear to be robust and technically sound. No adequacy review comments.

Response on Conclusions and Recommendations

We appreciate that.

Comments on Evaluation of Sampling and Analysis Plan

Sampling at the site has shown that there are ongoing exceedances of applicable groundwater standards and there is a requirement to report groundwater exceedances within 5 working days of receiving laboratory results pursuant to Rule 3.1.7(9). It is recommended that the Operator be made aware of this requirement. Notification may be in the form of an email.

Data validation beyond the laboratory QA/QC is not requirement of the SAP. It would be useful to begin some kind of data validation process whereby sample hold time exceedances, incorrectly completed chains-of-custody, cooler temperature and other issues can be addressed up front in a brief summary when the data report is submitted.

Response on Evaluation of Sampling and Analysis Plan

It is our understanding that the 5-day reporting requirement involves situations where there is a discharge to groundwater. Since this report refers to a time before operations (i.e., background), no discharges were occurring. Going forward, especially when operations start, site sampling showing groundwater exceedances will be reported to DMRS within 5 working days of receiving the laboratory results pursuant to Rule 3.1.7(9). Notification will be sent in the form of an email to the DMRS.

In terms of QA/QC, we will add a section to our standard quarterly report that lists any QA/QC issues associated with the reported results.

We hope that these answers and responses address your issues. Please feel free to let us know if you have additional questions, comments or require further clarification.

Sincerely,
Telesto Solutions, Inc.



Walter L. Niccoli, PE
Principal/Senior Engineer



Timothy J. Gerken
Geologist

TJG:wln
Enclosure

Attachment 1

Replacement Pages

Table 5 SPLP Results

WELL NAME	COLLECTION DATE	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BICARBONATE AS CaCO3	BORON	CADMIUM	CALCIUM	CARBONATE AS CaCO3	CHLORIDE	CHROMIUM	COPPER	FLUORIDE	IRON	LEAD	MAGNESIUM
		MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	MG/L	UG/L	MG/L
B-20	12/6/2017	ND	ND	ND	1000		ND	ND	50	ND	ND	ND	ND	100	ND	ND	ND	ND
B-21	12/7/2017	2	200	100	1000		42	1000	50	17	5	0.2	100	100	170	1	40	10
B-22	12/8/2017	2.8	ND	ND	ND		33	ND	ND	13	ND	ND	ND	ND	190	ND	ND	ND
B-23	12/9/2017	ND	ND	ND	ND		35	ND	ND	17	ND	ND	ND	ND	200	ND	ND	ND
B-24	12/10/2017	ND	ND	ND	ND		35	ND	ND	17	ND	ND	ND	ND	190	ND	ND	ND
MW-01	4/3/2017	ND	ND	ND	ND	ND	30	ND	ND	50	ND	0.24	ND	ND	160	ND	ND	16
MW-02	4/3/2017	2	200	100	1000	50	29	1000	50	49	ND	ND	100	100	200	1	40	14
MW-03	4/4/2017	ND	ND	ND	ND	ND	55	ND	ND	27	ND	ND	ND	ND	200	2.2	ND	ND
MW-04	4/4/2017	7.9	ND	ND	ND	ND	32	ND	ND	11	ND	ND	ND	ND	ND	12	ND	ND
MW-06	4/4/2017	0	ND	ND	ND	ND	45	ND	ND	31	ND	ND	ND	ND	320	ND	ND	ND
MW-07	4/5/2017	ND	ND	ND	ND	ND	24	ND	ND	35	ND	ND	ND	ND	190	ND	ND	ND
MW-08	4/5/2017	ND	ND	ND	ND	ND	25	ND	ND	110	ND	0.42	ND	ND	360	ND	ND	14
MW-09	4/5/2017	ND	ND	ND	ND	ND	43	ND	ND	130	ND	ND	ND	ND	530	ND	ND	19
MW-10	4/5/2017	ND	ND	ND	ND	ND	23	ND	ND	39	ND	0.21	ND	ND	250	ND	ND	10
MW-11	4/6/2017	ND	ND	ND	ND	ND	22	ND	ND	33	ND	0.51	ND	ND	290	ND	ND	ND
MW-13	4/6/2017	ND	ND	ND	ND	ND	22	ND	ND	55	ND	ND	ND	ND	220	ND	ND	14

Well Name	Collection Date	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	PH	POTASSIUM	SELENIUM	SILVER	SULFATE	THALLIUM	TIN	TOTAL ALKALINITY AS CaCO3	TOTAL DISSOLVED SOLIDS	URANIUM	VANADIUM	ZINC
		UG/L	UG/L	UG/L	UG/L		UG/L	UG/L	UG/L	MG/L	UG/L	UG/L	MG/L	MG/L	UG/L	UG/L	UG/L
B-20	12/6/2017	ND	ND	ND	200	ND	10000	ND	100	ND		500	28	ND		ND	200
B-21	12/7/2017	100	2	100	200	8.24	10000	60	100	20		500	42	100		100	200
B-22	12/8/2017	ND	ND	ND	ND	8.43	ND	ND	ND	12		ND	33	60		ND	ND
B-23	12/9/2017	ND	ND	ND	ND	8.41	ND	ND	ND	15		ND	35	73		ND	ND
B-24	12/10/2017	ND	ND	ND	ND	8.42	ND	ND	ND	14		ND	35	82		ND	ND
MW-01	4/3/2017	ND	2	ND	ND	7.94	ND	ND	ND	181	ND	ND	26.6	270	1.1	ND	ND
MW-02	4/3/2017	100	ND	ND	ND	8.04	ND	ND	ND	170	ND	ND	29	270	ND	ND	ND
MW-03	4/4/2017	ND	ND	ND	ND	8.13	ND	ND	ND	40	ND	ND	55.2	120	2.6	ND	ND
MW-04	4/4/2017	190	ND	ND	ND	8.55	ND	ND	ND	1.3	ND	ND	32	0	ND	ND	ND
MW-06	4/4/2017	ND	ND	ND	ND		ND	ND	ND	75	ND	ND	45	0	3.4	ND	ND
MW-07	4/5/2017	ND	ND	ND	ND		ND	ND	ND	110	ND	ND	24	0	1.2	ND	ND
MW-08	4/5/2017	ND	ND	ND	ND	7.84	ND	ND	ND	340	ND	ND	25	540	ND	ND	ND
MW-09	4/5/2017	120	ND	ND	ND	7.73	ND	ND	ND	410	ND	ND	43	650	ND	ND	ND
MW-10	4/5/2017	ND	ND	ND	ND	8.01	ND	ND	ND	140	ND	ND	23	220	ND	ND	ND
MW-11	4/6/2017	ND	ND	ND	ND	8.11	ND	ND	ND	110	ND	ND	22	170	ND	ND	ND
MW-13	4/6/2017	ND	ND	ND	ND	7.9	ND	ND	ND	190	ND	ND	22	280	ND	ND	ND

Table 6 Dissolved Iron, Selenium and Uranium in Non-Compliance Wells and Piezometers

WELL/ PIEZOMETER	COLLECTION DATE	IRON	SELENIUM	URANIUM
		MG/L	UG/L	UG/L
MW-05	17-Jul-19	0.1	16	8.3
MW-05	08-Oct-19	0.12	29	24
MW-07	17-Jul-19	ND	10	0.86
MW-07	09-Oct-19	0.17	10	1.3
MW-08	06-Jun-19	ND	ND	29
MW-08	17-Jul-19	0.1	ND	24
MW-08	08-Oct-19	0.1	10	21
MW-09	17-Jul-19	ND	12	23
MW-09	09-Oct-19	ND	ND	22
P-1	06-Jun-19	ND	25	38
P-1	16-Jul-19	0.12	12	28
P-1	09-Oct-19	ND	13	24
P-2	25-Apr-19	0.1	18	29
P-2	16-Jul-19	0.1	17	28
P-2	09-Oct-19	ND	14	27
P-3	06-Jun-19	ND	10	34
P-3	16-Jul-19	0.1	29	31
P-4	06-Jun-19	ND	ND	30
P-4	16-Jul-19	ND	15	22

Table 7 Field Measured Ferric and Total Iron

WELL NAME	COLLECTION DATE	FERROUS IRON (Fe ²⁺)	TOTAL IRON	FERRIC IRON (Fe ³⁺) Est.
		MG/L	MG/L	MG/L
MW-02	22-Aug-19	0.15	0.14	0
MW-05	22-Aug-19	3.3	3.52	0.22
MW-06	22-Aug-19	1.55	1.88	0.33
MW-07	22-Aug-19	1.4	1.9	0.5
MW-08	22-Aug-19	0.32	0.38	0.06
MW-09	22-Aug-19	0.09	0.12	0.03
MW-10	22-Aug-19	0.09	0.13	0.04
MW-12	22-Aug-19	0.1	0.13	0.03
MW-13	22-Aug-19	2.5	3.04	0.54

Ferric Iron = Total Iron – Ferrous Iron

Table 8 Select Sample Geochemical Modeled Mineralogy Results

WELL NAME	CALCULATED pH	SAMPLE pe	MINERAL SATURATION INDICES ³			
			PYRITE	HEMATITE	GOETHITE	URANINITE
MW-02	7.24	4.26	-98.77	13.04	6.04	-7.63
MW-05	7.49	1.46	-101.19	11.97	5.50	-6.84
MW-06	7.25	3.45	-97.52	13.25	6.14	-7.35
MW-07	7.68	1.08	-106.86	11.99	5.51	-7.81
MW-08	7.43	2.74	-101.35	12.00	5.52	-6.62
MW-09	7.30	3.62	-99.80	11.94	5.49	-6.24
MW-10	7.32	4.17	-100.10	12.68	5.86	-7.52
MW-12	7.49	3.38	-102.95	12.51	5.77	-7.98
MW-13	7.81	2.36	-108.18	15.51	7.27	-8.49
MW-19	7.79	-	-1000.00	12.04	5.54	-8.93

³ Negative saturation indices indicates mineral, if present, will dissolve. Positive numbers indicate minerals will precipitate

Figures

Attachment 2

Field Sampling Sheets for the December 2019 Report

GROUND WATER SAMPLING DATA SHEET

Project Number:

IDENTIFICATION

IDENTIFICATION
 Sample Location Knox Pit - MW-02 Date 7/2/18 Start Time 11:20 Stop time 12:35 Page 1 of 1
 Sampler(s) Tim Gerken + Costi K

WEATHER CONDITIONS

WEATHER CONDITIONS
Ambient Air Temperature: 43 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒
☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Slight ☐ Heavy

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)
 Static Water Level 16.43 Total Depth 29 Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 13 gallons
 _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

FINAL WELL MEASUREMENTS

FINAL WELL MEASUREMENTS
 Static Water Level 6.2 Total Depth 40.5 Total Volume Purged 40.5 Saturated Borehole Volume (gal) 40.5 Max Pumping Rate 1.0

INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION

pH Meter: Meter Number 776 YSI PRO 30 meter
Buffer Measured Value Temp. °C
Buffer Measured Value Temp. °C

Conductivity Meter: Meter Number 960 YSI PRO 30
Standard mS/cm Measured Value mS/cm Temp. °C
Standard mS/cm Measured Value mS/cm Temp. °C

Turbidity Meter: Standard NTU Measured Value NTU
Standard NTU Measured Value NTU

Turbidity Meter: _____ Standard _____ NTC Measured _____

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

FINAL SAMPLE PARAMETERS								
Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C) <i>Seems High</i>	Turbidity Visual Est. ☐ Measu red ☐		
2/2/18	10:34		7.6	960 μ S/cm	19.2 $^{\circ}$ C	clear		

Duplicate Sample-02	(sample control number/time _____)
Field Blank-03	(sample control number/time _____)
Rinsate Sample-04	(sample control number/time _____)
Matrix Spike-MS	(sample control number/time _____)
	(sample control number/time _____)

Notes: (sample control number/time)
- 1 Metals Filtered w/ perastiliz pump + .45 Filter
- 3 unfiltered samples - Metals, wetchem, No2 + No3

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 2/22/18 Start Time 12:40 Stop time 1:20 Page 1 of 1
Samplers TG + CK

Sample Control Number

Ambient Air Temperature: 44 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Static Water Level 9.48 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 4.9581 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water _____

Well purged with: New bailer, purged 85 bails $\approx$ 40 gal
FINAL WELL MEASUREMENTS

Static Water Level (ft)	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
9.4				

pH Meter: Meter Number Ysipro 1030
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number Ysipro 1030
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:	Standard	NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
2/2/18	1:17	40 gpm	7.49	1360	19.3	clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: - 1 Metals Sample (HNO_3) filter w/ .45 μm . filter + peristaltic pump
- 3 unfiltered samples - Metals, wetchem, $\text{NO}_2 + \text{NO}_3$

Sampler's Signature

e 

GROUND WATER SAMPLING DATA SHEET

IDENTIFICATION

Project Number: 360100-002-06

Sample Location Knox Pit - MW-10 Date 2/2/18 Start Time 1:35 Stop time 1:55 Page 1 of 1
 Sample Control Number MW-10 Samplers _____

WEATHER CONDITIONS

Ambient Air Temperature: 44 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 7.05 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter (inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons
 Well Casing ID MW-10 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.13' Feet of Water _____
 Well purged with: New bailer ≈ 1/2 gal per bail, 68 bails

FINAL WELL MEASUREMENTS

Static Water Level 7.81 Total Depth _____ Total Volume Purged 34 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____ Conductivity Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

Time	Volume (gallons)	pH	Cond. (μS/cm)	Temp. °C ☐ °F ☐	Turbidity Visual Est. ☐ Measured ☐	Comments

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μS/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
<u>2/2/18</u>	<u>1:50</u>		<u>7.77</u>	<u>1180</u>	<u>19.7</u>	<u>clear</u>		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes: -1 Metals (HNO₃) Filtered w/ .45 micro Filter
-3 unfiltered samples

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-12

Date 2/2/18 Start Time 2:00 Stop time 2:40 Page 1 of 1
 Samplers TG + ck

Sample Control Number MW-12~

Samplers TG + ck

Ambient Air Temperature: 43 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 9.3' Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-12 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.14' Feet of Water _____

Well purged with: New Builer, $\frac{1}{2}$ gal per bail, 75 bails

FINAL WELL MEASUREMENTS

Static Water Level 9.22 Total Depth 35 Total Volume Purged 35 Saturated Borehole Volume (gal) Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
--------	----------------	----------

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
----------	-------	----------------	-------	-------	----

Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
2/2/18	2:37		7.81	540	19.9	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: -1 Metals (HNO₃) filtered w/ .45 mic Filter
-3 unfiltered samples - Metals, Wtchem, NO₂ + NO₃

Sampler's Signature

Sr. J. J. J.

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 2/2/18 Start Time 2:00 Stop time 2:20 Page 1 of 1
Sample Control Number MW-13 Samplers TG + CK

Ambient Air Temperature: 44 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Static Water Level 9.8' Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: ~~6.5~~ 7.0 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: New bailer, Bailed 60X ≈ 30 gal

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
8/2/18	2:15		7.80	435	19.7	clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: - 1 filtered sample - 45 micra filter + peristaltic pump
- 3 unfiltered samples - Netels (HNO₃), wetchen (CrAw), NO₂ + NO₃ (N₂O₄)

Sampler's Signature _____

IDENTIFICATION

Sample Location Knox Pit - MW-19

Date 2/2/18

Start Time 2:43

Stop time 3:10 Page 1 of 1

Sample Control Number MW-19

Samplers TG + CK

Ambient Air Temperature: 44 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Static Water Level 2.40 Total Depth 19.5' Top of Screen 5' Filter Pack Interval 3-19.5' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.25 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 4.05' Feet of Water

Well purged with: New Bailers, Bailers 65x ≈ 32 gal

Static Water Level 236 Total Depth Total Volume Purged Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
2/2/18	3:08		8.05	330	19.8	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample/control number/time _____)

(sample control number/time _____)

Notes: - 1 Metals sample filtered w/ 45 µm Filter
- 3 unfiltered samples - metals, wetchem, NO₂ + NO₃

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-02 Date 5/8/18 Start Time 9:45 Stop time 11:00 Page 1 of 1
Sample Control Number MW-02 - Samplers Tin Getzen

Ambient Air Temperature: 71 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Static Water Level 9.79 Total Depth 29 Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches) _____

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.5 gallons

Well Casing ID	Well Casing OD	Protective Casing Stickup	Well Casing Stickup	Feet of Water

Well purged with: New plastic Bailer, 1 Bail = $\frac{1}{2}$ gal, purged 85 bails ≈ 42 gal

FINAL WELL MEASUREMENTS

Static Water Level	215	Total Depth	42	Saturated Borehole Volume (gal)		Max Pumping Rate	
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pH Meter: Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C
Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
5/8/18	11:00		6.96	1090	14.1	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

_____ (sample control number/time)

Notes: - Cap off of well cap

- Metl. sample filtered w/ peristaltic pump + .45 μ m filter

- 3 unfiltered samples, - wetchen, metals $\text{NO}_2 + \text{NO}_3$

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 5/8/18 Start Time 11:05 Stop time 11:50 Page 1 of 1
 Samplers TG

Sample Control Number MW-06

Samplers TG

Ambient Air Temperature: 68 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 9.45 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: ~~4.95~~ 2.86 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water _____

Well purged with: New plastic Bailer, 70 bails @ 35 gal purged

FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
9.43		35		

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number _____

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer Measured Value Temp. °C

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
5/8/18	11:45		7.06	980	10.8	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

(sample control number/time

Notes: -1 Metals sample filtered w/ pump + .45 micro Filter
-3 unfiltered samples - wetchen, Metals, NO₂ + NO

Sampler's Signature

[Handwritten signature]

IDENTIFICATION

Sample Location Knox Pit - MW-10

Date 5/8/18 Start Time 1:40 Stop time 2:25 Page 1 of 1

Sample Control Number MW-10

Samplers 76

Ambient Air Temperature:

°C ☐ °F ☐ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 72.3 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-10	Well Casing OD	Protective Casing Stickup	Well Casing Stickup 3.13'	Feet of Water
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Well purged with: New plastic Bailer, 70 bails $\approx$ 30 gal purged

FINAL WELL MEASUREMENTS

Static Water Level 30 Total Depth 30 Total Volume Purged 30 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp., °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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[illegible]

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
Duplake	7:20		7.09	1827	10.6			
5/8/18	7:10		7.05	1831	10.9	Clear		

Duplicate Sample-02 (sample control number/time 02-MW-10 / 2:20

Field Blank-03 (sample control number/time BLANK / 2:30 - Distilled water)

Rinsate Sample-04 (sample control number/time _____) $\hookrightarrow$ Blank collected

Matrix Spike-MS (sample/control number/time _____)

(sample control number/time)

Notes: -1 Metals Filtered w/ .45 μ m G/ter

- 3 unfiltered samples - wetchem, metals, NO₂ + NO₃

- Samples repeated for Duplicate sample - New tubing/filters used

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-12

Date 5/8/18 Start Time 2:35 Stop time 2:55 Page 1 of 1

Sample Control Number MW-12

Samplers

Ambient Air Temperature: 71 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 8.13 Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9.7 gallons

Well Casing ID MW-12 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.14' Feet of Water _____

Well purged with: Bailed 90x $\approx$ 45 gal purged - water a little murky - see sediment

FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
		45		

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
5/8/18	2:50		7.20	1020	11.8	- can see sediment in water		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: -1 Betyls Sampled Filtered w/ 95 μ m filter
-3 unfiltered samples - wetchem (RAW), Metals (HNO₃), NO₂ + NO₃ (NaOH)

Sampler's Signature

[Handwritten signature]

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 5/8/18 Start Time 12:25 Stop time 1:15 Page 1 of 1
Sample Control Number MW-13 Samplers TG

Ambient Air Temperature: _____ °C ☐ °F ☐ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 7.30 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter (inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.5825 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: New plastic Bailers, 70 Bail $\approx$ 35 gal purged

Static Water Level 2.2 Total Depth Total Volume Purged 12 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____

Conductivity Meter: Meter Number_____

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
5/8/18	12:10		8.10	323	10.7	clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample/control number/time _____)

(sample control number/time

Notes: -1 Metals filtered w/ .45 μ m
-3 unfiltered samples - wetchen, Metals, 162 & 163

Sampler's Signature

Project Number: 360100-002-06

Date 5/8/18 Start Time 3:33 Stop time 4:10 Page 1 of 1
 Samplers _____

Sampler's Signature 

IDENTIFICATION

Sample Location MW-02 Date 7/31/18 Start Time 11:40 Stop time 12:20 Page 1 of 1
Sample Control Number MW-02 Samplers TG

Ambient Air Temperature: 85 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.48 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 10 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: New Plastic Bait - 75 baits

Static Water Level	7.4'	Total Depth	35'	Total Volume Purged		Saturated Borehole Volume (gal)		Max Pumping Rate	
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pH Meter: Meter Number YSI PRO 30

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter:		Standard NTU	Measured Value	NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
7/3/18	2:20		6.82	1120	17.1			

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample/control number/time)

(sample control number/time

Notes: - 1 Metal Sample filtered w/ pump + .45 filter
- 3 unfiltered samples - Wetcher (RAW), Metals (HNO_3), cyanide (NaOH)

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-06 Date 7/31/18 Start Time 10:45 Stop time 11:35 Page 1 of 1
Sample Control Number MW-06 + 02-MW-06 Samplers TG

Ambient Air Temperature: 84 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 5.11 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 499.15 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water _____

Well purged with: New Plastic Bailer, 1 Bail = 1/2 gal, 80 bails = 40 gal

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
5.69		40		

pH Meter:	Meter Number _____	Conductivity Meter:	Meter Number _____
Buffer	Measured Value	Temp.	°C
		Standard	mS/cm Measured Value mS/cm Temp. °C

Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter:		Standard NTU	Measured Value	NTU	Standard	Measured Value	NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
Duplicate	11:30		7.29	903	15.3			
7/31/18	11:20		6.98	920	15.1	Clear		

Duplicate Sample-02	(sample control number/time <u>02-MW-06 / 11:30</u>)	→ <u>Distilled water</u>
Field Blank-03	(sample control number/time _____)	- <u>New tubing/filter</u>
Rinsate Sample-04	(sample control number/time _____)	
Matrix Spike-MS	(sample control number/time _____)	
	(sample control number/time _____)	

Notes: - 1 Metals Filtered w/ peristaltic pump + 0.45 Filter
- 3 unfiltered Sample - Metals, Wetchen, cyanide
- Steps Repeated for Duplicate Sample

Sampler's Signature S. Horton

IDENTIFICATION

Sample Location Knox Pit - MW-10

Date 7/31/18 Start Time 1:37 Stop time 2:10 Page 1 of 1
Samplers TG

Sample Control Number MW-10

Samplers TG

Ambient Air Temperature: 86 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.42 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-10 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: New Plastic Baiter - 70 Bails $\approx$ 35 gal

FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
		38		

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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	Measured Value	Temp.	°C
Buffer	Measured Value	Temp.	°C

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/31/18	2:10		7.92	1670	16.1	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: - 1 Metals filtered w/ peristaltic pump + 0.45 μ m filter
- 3 unfiltered samples - Wetchen, Metals, Cyanide

Sampler's Signature

Si Berk

IDENTIFICATION

Sample Location Knox Pit - MW-12 Date 7/31/18 Start Time 2:55 Stop time 3:35 Page 1 of 1
Sample Control Number MW-12 Samplers KG

Ambient Air Temperature: 86 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 6.22 Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9.11 gallons

Well Casing ID MW-12 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.14' Feet of Water

Well purged with: Plastic Bailer - 80 bails $\approx$ 40 gal

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
		40		

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/31/18	3:45		7.09	337	14.3	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

_____ (sample control number/time)

Notes: - 1 Filtered Metal - .45 micro filter

- 3 unfiltered samples - Metals, Wetchen, Cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 7/3/18 Start Time 2:10 Stop time 2:40 Page 1 of 1
Sample Control Number MW-13 + 03-Blank Samplers TG

Ambient Air Temperature: 86 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.16 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.58 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: New Plastic Bailer - 70 bails $\approx$ 35 gal

Static Water Level 7.10 Total Depth 31 Total Volume Purged 31 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number _____				Conductivity Meter: Meter Number _____			
Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm Temp. °C
Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm Temp. °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/31/18	2:30		7.92	405	16.1			

Duplicate Sample-02	(sample control number/time _____)	
Field Blank-03	(sample control number/time 03-blank / 2:40)	→ Distilled water
Rinsate Sample-04	(sample control number/time _____)	→ New tubing/Filter
Matrix Spike-MS	(sample control number/time _____)	
_____	(sample control number/time _____)	

Notes: - 1 Metals filtered - .45 mic filter
- 3 unfiltered samples - Wachen, Metals, cyanide
- Blank (Distilled water collected after

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-19

Date 7/31/18 Start Time 12:35 Stop time 1:25 Page 1 of 1

Sample Control Number MW-19-

Samplers

Ambient Air Temperature: 85 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 5.35 Total Depth 19.5' Top of Screen 5' Filter Pack Interval 3-19.5' Borehole Diameter (inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.258 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 4.05' Feet of Water

Well purged with: New Plastic Bailer - 600 Bails $\approx$ 30 gal purged
FINAL WELL MEASUREMENTS

FINAL WELL MEASUREMENTS

Static Water Level _____ Total Depth _____ Total Volume Purged 20 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:		Standard NTU	Measured Value	NTU	Standard NTU	Measured Value	NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/31/18	1:20		8.21	631	16.2	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample (.45 mic filter)
- 3 unfiltered samples - Metal, Wetchen, Cyanide

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location MW-02 Date 10/5/18 Start Time 10:10 Stop time 11:05 Page 1 of 1
Sample Control Number MW-02 + 02-MW-02 Samplers TLG

Ambient Air Temperature: 38 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 8.90 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches) 2.75
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 10 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.0' Feet of Water

Well purged with: New Plastic Bailer - 80 bail's $\approx$ 40 gal purge

Static Water Level _____ Total Depth _____ Total Volume Purged 40 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number YSI 110 30 net Conductivity Meter: Meter Number YSI 110 30

Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C
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Turbidity Meter:	Standard NTU	Measured Value	NTU Standard	NTU Measured Value	NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
Dublin	11:05		7.11	1023	16.3			
10/5/18	11:00		7.04	1010	16.4	Clear		

Duplicate Sample-02	(sample control number/time <u>02-MW-02 / 11:05</u>)	- Distilled Water
Field Blank-03	(sample control number/time _____)	- New Tubing / Filter
Rinsate Sample-04	(sample control number/time _____)	
Matrix Spike-MS	(sample control number/time _____)	
	(sample control number/time _____)	

Notes: - 1 Filtered Metal Sample w/ peristaltic pump + .45 micro filter
- 3 unfiltered samples - Wetchen, Metals, Cyanide
- Steps Repeated for duplicate sample

Sampler's Signature E. Gerke

IDENTIFICATION

Sample Location Knox Pit - MW-06 Date 10/5/18 Start Time 9:15 Stop time 9:50 Page 1 of 1
Sample Control Number MW-06 Samplers Tim Gerken

Ambient Air Temperature: 55 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☒

Static Water Level 2.90 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 4958 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water

Well purged with: New plastic Bailer, 1 bail = 1/2 gal, 75 bails

Static Water Level 7.8 Total Depth 32 Total Volume Purged 32 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
10/5/18	9:50		7.49	1208	17.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: - All Rental Equipment from Geotech - Tubing, bailers, Filters, pH/cand/Temp Meter

Sampler's Signature

Project Number: 360100-002-06

Samplers TG

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-12 Date 10/5/18 Start Time 2:15 Stop time 2:55 Page 1 of 1
Sample Control Number MW-12- Samplers TG

Ambient Air Temperature: 60 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.16 Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-12 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.14' Feet of Water

Well purged with: New Alaska Baites - 60 baits + additional 30 bait = 90 baits

Static Water Level _____ Total Depth _____ Total Volume Purged 40 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number _____ **Conductivity Meter:** Meter Number _____

Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C
Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
10/5/18	2:45		7.83	445	17.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

(sample control number/time)

Notes: - 1 Metals Sample filtered w/ .45 mic Filter.
- 3 unfiltered samples - Wetchen (RAW), Metals (HNO₃), cyanide (NaOH)

Sampler's Signature

S. Gerke

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 10/5/18 Start Time 1:15 Stop time 2:16 Page 1 of 1
Sample Control Number MW-13 Samplers 16

Ambient Air Temperature: 60 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☒

Static Water Level 2.65 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.58 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: Plastic Bailer - 75 Bails $\approx$ 35 gal purge

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal)____Max Pumping Rate____

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
10/5/18	2:10		8.06	378	17.2	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample - pump + 0.45 mic Filter
- 3 unfiltered Metal Samples - Wetchem, Metals, Cyanide

Sampler's Signature

Jim Berke

IDENTIFICATION Knox Pit

Sample Location MW-19 - Date 10/8/18 Start Time 9:07 Stop time 10:10 Page 1 of 1
Sample Control Number MW-19 Samplers 16

Ambient Air Temperature: 42 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 5.12 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 2.5 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.42 Feet of Water

Well purged with: New Plastic Bailer - 80 bails or 40 gal purged

Static Water Level 5.10 Total Depth Total Volume Purged ~40 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____

[illegible]

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
10/8/18	10:00		8.22	220	16.0	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample - 45 micron Filter
- 3 unfiltered samples - Wetchem (RAW), Metals (HNO₃), Cyanide (NaOH)

Sampler's Signature

e 

IDENTIFICATION

Sample Location Knox Pit-MW-02 Date 2/5/19 Start Time 9:40 Stop time 10:30 Page 1 of 1
Sample Control Number MW-02 Samplers Tim Gerken

Ambient Air Temperature: 27 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level / 6.07 Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) _____

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 12.5 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3, 0 Feet of Water

Well purged with: Plastic Bailer, 1 Bail $\approx$ 42 gal, Bailed 80x $\approx$ 40 gal

Static Water Level _____ Total Depth _____ Total Volume Purged 40 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number YSI Pro 30 Meter Conductivity Meter: Meter Number YSI Pro 30 Meter

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
2/5/19	10:30		7.36	862	15.4	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

MW-02 (sample control number/time 10:30)

Notes: - 1 Filtered Metals (HNO_3) w/ peristaltic pump + .45 μm Filter
- 3 unfiltered samples - Wetchen (RAW), Metals (HNO_3), Cyanide (NaOH)

Sampler's Signature [Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 2/5/19

Start Time 10:46

Stop time 11:30

Page 1 of 1

Sample Control Number

Samplers

Ambient Air Temperature:

Ambient Air Temperature: 28

°C□

 $\square \circ F \square$ ☒ Not Measured ☐**Wind:** Heavy

☐ Moderate ☐ I

right ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 9.15 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: ~~4.958~~ 5 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water _____

Well purged with: New Plastic Bailer - 70 bails $\approx$ 35 gal purged

FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number _____

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp	°C
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Buffer	Measured Value	Temp. °C
--------	----------------	----------

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☐ Measured ☐		
2/5/18	11:30		7.13	1595	15.7	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time

(sample control number/time _____)

Notes: - 1 Filtered Metal sample w/ pump + .45 micro Filter
- 3 unfiltered samples - Wetchen, Metals, Cyanide

Sampler's Signature

Dr. B. S. P.

IDENTIFICATION

Sample Location Knox Pit - MW-10 Date 2/5/19 Start Time 11:40 Stop time 12:20 Page 1 of 1
Sample Control Number MW-10 + 02-MW-10 Samplers TG

Ambient Air Temperature: 30 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 6.3 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-10 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.13' Feet of Water _____

Well purged with: New plastic Bailer = 90 bails ~ 45 gal

Static Water Level____Total Depth____Total Volume Purged 45 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:	Standard	NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
Duplicate			7.55	1130	15.7			
2/5/19	12:15		7.58	1275	15.8	Clear		

Duplicate Sample-02 (sample control number/time 02-MW-10 / 12:30) - Distilled water used

Field Blank-03 (sample control number/time _____) - New tubing/Filters

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample - peristaltic pump + .45 mic Filter
- 3 unfiltered samples - Wetchen (RAW), Metals (HNO₃), Cyanide (NaOH)
- Steps Repeated for duplicate sample - New tubing/Filtered used

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-12 Date 4/5/18 Start Time 12:35 Stop time 1:30 Page 1 of 1
Sample Control Number MW-12 Samplers 16

Ambient Air Temperature: 37 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 8.24 Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter (inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-12 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.14' Feet of Water

Well purged with: New plastic Bailes - 80 bailes $\approx$ 40 gal purged

Static Water Level 22 Total Depth Total Volume Purged 40 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measu red ☐		
2/5/19	1:20		7.82	491	15.7	clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time 03-KMW-Blank / 12:45) - Distilled water

Rinsate Sample-04 (sample control number/time _____) - New tubing/Filter

Matrix Spike-MS (sample control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metals Sample - 0.45 μ m Filter
- 3 unfiltered samples - Wetchen Metals, Cyanide
- Blank collected @ 12:45 - 0.5 filtered water

Sampler's Signature [Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 2/5/19 Start Time 1:40 Stop time 2:40 Page 1 of 1
Sample Control Number MW-13 Samplers TG

Ambient Air Temperature: 37 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 8.05 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: ~~6.5~~ 7.5 gallons

Well Casing ID MW-13 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.13' Feet of Water _____
Well purged with: Plastic Bailer - Cleaned w/ Alconox, 75 Bails @ 37gal

Static Water Level 20 Total Depth 37 Total Volume Purged 37 Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
2/5/19	2:35		8.17	371	15.8	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: -1 Metal (HNO₃) sample Filtered w/ pump + 0.45 Filter
-3 unfiltered samples - w/etcher, Metals, Cyanide
-Cow Hair around well cap - None in samples

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - MW-19

Date 2/5/19 Start Time 4:00 Stop time 4:45 Page 1 of 1
 Samplers TG

Sample Control Number M6-19

Samplers TG

Ambient Air Temperature: 33 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.5' Total Depth 19.5' Top of Screen 5' Filter Pack Interval 3-19.5' Borehole Diameter (inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.25 gallons

Well Casing ID MW-19 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 4.05' Feet of Water _____

Well purged with: Cleaned plastic bailers - w/ Alconox + distilled water, 80 bails

FINAL WELL MEASUREMENTS

Static Water Level____Total Depth____Total Volume Purged40Saturated Borehole Volume (gal) Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☒ Measured ☐		
2/5/19	4:40		8.1	227	15.5	clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time _____)

_____ (sample control number/time)

Notes: - Filtered Metals Sample - 0.45 μ m filter

- 3 unfilled samples - Wetchen, Metals, cyanide

- Last sample

Sampler's Signature

S. A. Gull

IDENTIFICATION

Sample Location MW-02 Date 4/25/19 Start Time 7:00 Stop time 7:00 Page 1 of 1
Sample Control Number MW-02 Samplers Tim Gerken

Ambient Air Temperature: 69 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.8 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 12 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: RediFlow 2 pump - 4 gal/min - 15 min = 60 gal

Static Water Level 7.68 Total Depth Total Volume Purged 60 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number YSI Pro 30 Conductivity Meter: Meter Number YSI Pro 30

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp.	°C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/29/19	3:55	4.0 gpm	7.45	642	16.1	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: - Redi Flow & pump used to purge well. Peristaltic Pump w/ filter used
- 1 filtered Metals (H₂O₃) Sample - 0.45 mic Filters
- 3 unfiltered Samples - Wetchen, Metals, Cyanide

Sampler's Signature 

IDENTIFICATION

Sample Location P-2 (Piezometer) Date 4/25/19 Start Time 12:35 Stop time 1:15 Page 1 of 1
Sample Control Number P-2 - Samplers TG

Ambient Air Temperature: 61 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 41.12 Total Depth 8 Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 1 1/4"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: Peristaltic pump = purged about 6 gal

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal)____Max Pumping Rate

pH Meter: Meter Number _____ **Conductivity Meter:** Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

[illegible][illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/25/19	1:10		7.9	720	17.2			

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time

(sample control number/time _____)

Notes: - Pumping P-2 was slow b/c persistent pump

-1 Filtered Metal Sample

- 3 unfiltered samples - Wetchen, Metals, cyanide

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 2/5/19 Start Time 3:40 Stop time 4:10 Page 1 of 1
Samplers 16

Sample Control Number MW-06

Samplers 16

Ambient Air Temperature: 62 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 10.1 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 4.958 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water

Well purged with: Rediflow 2 Pump - 5.5 gpm - 10 min = 55 gal purged

FINAL WELL MEASUREMENTS

Static Water Level 10.6 Total Depth Total Volume Purged 55 Saturated Borehole Volume (gal) Max Pumping Rate 5.5

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/25/19	4:00	5.5	7.22	1380	17.3	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time

(sample control number/time)

Notes: - Filtered Metals

- 3 unfiltered samples - Wetchen, Metals, Cyanide

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-10

Date 4/25/19 Start Time 12:15 Stop time 12:40 Page 1 of 1
 Samplers T6

Sample Control Number MW-10

Samplers TG

Ambient Air Temperature: 62 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.25 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-10 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: Rediflow 2 Pump ~ 4.8 gpm @ 10 min = 48 gal purged

FINAL WELL MEASUREMENTS

Static Water Level 16.0 Total Depth Total Volume Purged 4.8 Saturated Borehole Volume (gal) Max Pumping Rate 4.8 gpm
INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard _____	$\mu\text{S}/\text{cm}$	Measured Value _____	$\mu\text{S}/\text{cm}$	Temp. °C _____
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/25/19	12:30	4.8	7.31	1842	17.1	clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

_____ (sample control number/time _____)

Notes: - Water Clear

-1 Filtered Metal - 0.45 μ m filter.

- 3 unfiltered samples - Wetcher, Metals, cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-12

Date 4/25/19 Start Time 1:35 Stop time 2:05 Page 1 of 1
 Samplers TG

Sample Control Number Mh-12

Ambient Air Temperature: 60.2 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 8.9' Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-12 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.14' Feet of Water

Well purged with: Redi-Flow 2 Pump - 5.3 gpm @ 15 min = 79.5 gal purged

FINAL WELL MEASUREMENTS

Static Water Level 8.77 Total Depth Total Volume Purged 79.5 Saturated Borehole Volume (gal) Max Pumping Rate 5.3 gpm

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/25/19	2:05	5.3	7.7	680	17.7	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample
- 2 unfiltered - Wetchen, Metals, Cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 9/25/19 Start Time 11:40 Stop time 12:15 Page 1 of 1
Sample Control Number MW-13 Samplers 16

Ambient Air Temperature: 60 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 7.52 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.516 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: Rediflow 2 Pump @ 5.0 gpm @ 12 min $\approx$ 60 gal purged
FINAL WELL MEASUREMENTS

Static Water Level 7.24 Total Depth _____ Total Volume Purged 60 Saturated Borehole Volume (gal) _____ Max Pumping Rate 500 *gpm*
INSTRUMENT CALIBRATION

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
4/25/19	12:15	5.0	8.01	348	17.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

_____ (sample control number/time)

Notes: - Cow Hair around well Cap

P	Filter (g)	Melt	Sample
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- 3 unfiltered samples - Wetchen (RAV), Metals (H163), cyanide (NaOH)

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - MW-19 + Duplicate Date 4/25/19 Start Time 2:10 Stop time 2:40 Page 1 of 1
Sample Control Number MW-19- + G2-MW-19 Samplers TG

Ambient Air Temperature: 61 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 5.11 Total Depth 19.5' Top of Screen 5' Filter Pack Interval 3-19.5' Borehole Diameter(inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.258 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 4.05' Feet of Water

Well purged with: Reditrow 2 Pump - 4.5 gal @ 15 min = 67.5 gal purged

Static Water Level 3.03 Total Depth Total Volume Purged 62.8 Saturated Borehole Volume (gal) Max Pumping Rate 4.5 gpm

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
Duplicate	2:40		7.81	334	17.6			
4/25/19	2:30	4.5 gpm	7.74	317	17.2	Clear		

Duplicate Sample-02	(sample control number/time <u>02-MW-19 / 2:40</u>)	- Distilled water
Field Blank-03	(sample control number/time _____)	- New Tubing / Filter
Rinsate Sample-04	(sample control number/time _____)	
Matrix Spike-MS	(sample control number/time _____)	
_____	(sample control number/time _____)	

Notes: - 1 Metals Filtered
- 3 unfiltered samples - Wetchen, Metals, cyanide
- Steps repeated for duplicate sample - New Tubing + Filter used

Sampler's Signature 

Knox Pit

GROUND WATER SAMPLING DATA SHEET

Project Number: 360100-002-06

Sample Location P-1 (Piezometer) Date 7/16/19 Start Time 10:03 Stop time 10:45 Page 1 of 1
Sample Control Number P-1 - Samplers Tim Gerken + Jessica M.

WEATHER CONDITIONS

Ambient Air Temperature: 85 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 4.2 Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 1 1/4"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: Purged w/ Peristaltic Pump ~ about 7 gal

FINAL WELL MEASUREMENTS - Very slow pumping

Static Water Level____Total Depth____Total Volume Purged 74.4 Saturated Borehole Volume (gal) Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer Measured Value Temp, °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
7/16/19	10:45		7.05	1310	18.8	Clear w/ minor amount of sediment		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time

(sample control number/time _____)

Notes: - 1 Filtered Metal (HNO_3) Sample - 0.45 mL Filtered used

- 3 unfiltered samples - Wetchen (RAW), Metals (HNO_3), cyanide (NaOH)
- RAW bottle for Wetchen sample only filled 75% full

Sampler's Signature

Di. Kuter

IDENTIFICATION

Sample Location Knox Pit - P-2 (Piezometer) Date 7/16/19 Start Time 11:00 Stop time 12:05 Page 1 of 1
Sample Control Number _____ Samplers TG + SM

Ambient Air Temperature: 88 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 3.84 Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 1 1/2
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____
Well purged with: Purged w/ peristaltic pump - very slow pumping - Purged about 6 gal
FINAL WELL MEASUREMENTS

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal)____Max Pumping Rate

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
7/16/19	12:00		7.34	1174	18.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

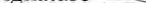
Matrix Spike-MS (sample control number/time)

_____ (sample control number/time)

Notes: - Slow pumping piezometer

-1 Filtered Metal Sample

- 3 unfiltered samples - Wetchen, Metals, Cyanide

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pt. - P-4 (Piezometer) Date 7/16/19 Start Time 12:15 Stop time 1:20 Page 1 of 1
Sample Control Number P-4- Samplers

Ambient Air Temperature: 90 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☒

Static Water Level 4.10 Total Depth 8 Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 1 1/4"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: Pump in peristaltic pump - about 7 gal in 50 min of pump

Static Water Level____Total Depth____Total Volume Purged 7 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
				Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/16/19	1:20		7.93	1340	18.6			

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

_____ (sample control number/time)

Notes: - Slow pumping w/ peristaltic pump

- Metals, sample filtered w/ 0.45 μ m Filter + peristaltic pump

- 3 unfiltered samples - wetchen, metals, cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - P-3 (Piezometer) Date 7/16/19 Start Time 1:35 Stop time 2:40 Page 1 of 1
Sample Control Number P-3 - Samplers TG + SM

Ambient Air Temperature: 80 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☒ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 3.48 Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches) 1 1/4"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID	Well Casing OD	Protective Casing Stickup	Well Casing Stickup	Feet of Water
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Well purged with: Peristaltic Pump $\approx$ 8 gal in 50 min

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
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pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:		Standard NTU	Measured Value	NTU	Standard NTU	Measured Value	NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
7/6/19	2:35		7.52	1715	18.4	clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes: -Light Rain during sample collection

-1 Filtered Metal Sample

- 3 unfiltered samples - Metals, Wtchen, cyanide

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location Knox Pit - MW-02 Date 7/17/19 Start Time 11:27 Stop time 12:05 Page 1 of 1
Sample Control Number MW-02 Samplers TG

Ambient Air Temperature: 93 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.88 Total Depth 2' Top of Screen _____ Filter Pack Interval _____ Borehole Diameter (inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 12.5 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: RediFlow 2 Pump - 5.1 gpm for 18 min = 92 gal purged

Static Water Level 7.6 Total Depth Total Volume Purged 92 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number YSI Pro 30 Conductivity Meter: Meter Number YSI Pro 30

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
				Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
7/17/19	12:00	5.1	7.01	690	17.4	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: - Rediflow 2 Pump used to purge well
- 1 Filtered metal (HNO₃) sample
- 3 unfiltered samples - Wetchen (RAW), Metals (HNO₃), Cyanide (NaOH)

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-05 Date 7/17/19 Start Time 12:15 Stop time 1:10 Page 1 of 1
Sample Control Number MW-05 Samplers TG

Ambient Air Temperature: 88 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.02 Total Depth Top of Screen Filter Pack Interval Borehole Diameter (inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 10 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: Reditlow 2 Pump @ 5.0 gpm for 20 min = 100 gal purged

Static Water Level	6.7	Total Depth	100	Total Volume Purged	100	Saturated Borehole Volume (gal)		Max Pumping Rate	
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pH Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Buffer	Measured Value	Temp.	°C
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Conductivity Meter: Meter Number

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/17/19	1:05	5.0	7.50	505	18.3	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample/control number/time)

_____ (sample control number/time)

Notes: - Purged Extra Since first time sampling

- 1 Filtered Metal Sample

- 3 unfiltered Samples - Wetchan, Metals, cyanide

Sampler's Signature Sam Ayala

IDENTIFICATION

Sample Location Knox Pit - MW-08 Date 7/17/19 Start Time ~~1:18~~ Stop time 2:10 Page 1 of 1
Sample Control Number MW-08 Samplers 16

Ambient Air Temperature: 89 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 6.9 Total Depth Top of Screen Filter Pack Interval Borehole Diameter (inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: KediFlow 2 Pump 5.0 gpm for 28 min = 140 gal purged

Static Water Level Total Depth Total Volume Purged 140 Saturated Borehole Volume (gal) Max Pumping Rate 5.0 gpm

pH Meter: Meter Number _____ **Conductivity Meter:** Meter Number _____

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Buffer____ Measured Value____ Temp.____ °C Standard____ mS/cm Measured Value____ mS/cm Temp.____ °C

Turbidity Meter: _____ Standard_NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge, cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/17/19	2:10	5.0	7.60	935	18.7	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time)

_____ (sample control number/time)

Notes: - 1 Filtered Metal Sample
- 3 unfiltered samples - Wetchen, Metals, Cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 7/18/19 Start Time 11:00 Stop time 11:50 Page 1 of 1
Samplers TG

Sample Control Number MW-06

WEATHER CONDITIONS

Ambient Air Temperature: 87 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 7.22 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 4.9510 gallons

Well Casing ID MW-06 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 2.7' Feet of Water _____

Well purged with: Rediflow 2 Pump - 4.5 gpm for 20 min = 90 gal purged

FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C
Buffer _____ Measured Value _____ Temp. _____ °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/10/19	11:45	4.5	7.79	352	19.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

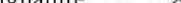
Matrix Spike-MS (sample control number/time

_____ (sample control number/time)

Notes: - 1 Metal Sample filtered

- 3 unfiltered samples - Wetchen, Metals, Cyanide

- 2nd Sample from MW-06

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - ~~MW-09~~ MW-09 Date 7/17/19 Start Time 3:06 Stop time 3:45 Page 1 of 1
Sample Control Number MW-09 Samplers TG

Ambient Air Temperature: 89 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 8.6 Total Depth 49.5 Top of Screen 5 Filter Pack Interval 3-19.5 Borehole Diameter (inches) 2"
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.25 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 405.2 Feet of Water

Well purged with: RediFlow 2 Pump - 5.0 gpm for 17 min = 85 gal purged

Static Water Level _____ Total Depth _____ Total Volume Purged 0 Saturated Borehole Volume (gal) _____ Max Pumping Rate 3.0 gpm

pH Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Buffer	Measured Value	Temp.	°C
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Conductivity Meter: Meter Number

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:		Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/17/19	3:42	5.0	7.27	884	18.4	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample

- 3 unfitted samples - Wetchen, Metals, Cyanide

Sampler's Signature

[Signature]

IDENTIFICATION

Sample Location Knox Pit- MW-10

Date 7/18/19 Start Time 9:25 Stop time 10:15 Page 1 of 1
 Samplers 76

Sample Control Number *MW-10*

Ambient Air Temperature: 82 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.56 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-10 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.13' Feet of Water _____

Well purged with: RediFlow 2 Pump - 5.0 gpm for 15 min = 75 gal purged

FINAL WELL MEASUREMENTS

Static Water Level (ft)	Total Depth	Total Volume Purged (gal)	Saturated Borehole Volume (gal)	Max Pumping Rate
24.2		75		

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer Measured Value Temp. °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
7/18/19	10:10		8.03	1800	18.1			

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time)

(sample control number/time _____)

Notes: - 1 Filtered Metal Sample - 0.45 μ m filter
- 3 unfiltered samples - wetchen, metals, cyanide

Sampler's Signature

Samuel D. Bell

IDENTIFICATION

Sample Location Knox Pit - MW-13 Date 7/18/19 Start Time 1:18 Stop time 2:00 Page 1 of 1
Sample Control Number MW-12 Samplers TG

Ambient Air Temperature: 89 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 8.33 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.510 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: Reditlow 2 Pump - 5.0 gpm for 22 min = 110 gal purged
FINAL WELL MEASUREMENTS

Static Water Level 8.0' Total Depth Total Volume Purged 10 Saturated Borehole Volume (gal) Max Pumping Rate

pH Meter: Meter Number _____

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
7/18/19	1:55		7.14	362	18.4	clear		

Duplicate Sample-02 (sample control number/time_____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes: -1 Filtered Metal Sample w/ peristaltic Pump + .45 mic filter
-3 unfiltered Samples - Wetchen, metals, cyanide

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-02 Date 10/8/19 Start Time 1:05 Stop time 1:55 Page 1 of 1
Sample Control Number MW-02 Samplers Tim Gerken

Ambient Air Temperature: 70 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☒ Sunny ☐ Partly Cloudy ☐

Static Water Level 8.20 Total Depth 291 Top of Screen _____ Filter Pack Interval 42 Borehole Diameter (inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 12 gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: ReditFlow 2 Pump - 5.0 gpm for 12 min = 60 gal purged

Static Water Level _____ Total Depth _____ Total Volume Purged 60 Saturated Borehole Volume (gal) _____ Max Pumping Rate 5.0 gpm

pH Meter: Meter Number VSI Pro 30 Conductivity Meter: Meter Number VSI Pro 30

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Standard		Measured Value	
NTU	NTU	NTU	NTU
Turbidity Meter:			
Standard NTU	Measured Value	Standard NTU	Measured Value

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/8/19	1:50	5.0	7.55	830	19.1	Clear		

Duplicate Sample-02 (sample control number/time _____)

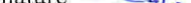
Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: -1 Filtered Metal Sample - peristaltic pump + 0.45 μ m filter used
-4 Unfiltered Samples - Wetchen (RAW), Metals (HNO₃), Cyanide (NaOH),
Total Organic Carbon (H₂SO₄) - No bubbles in samples

Sampler's Signature 

IDENTIFICATION

Sample Location Knox Pit - MW-19 Date 10/8/14 Start Time 1:56 Stop time 2:35 Page 1 of 1
Sample Control Number MW-05 Samplers TG

Ambient Air Temperature: 71 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.08 Total Depth 19.5' Top of Screen 5' Filter Pack Interval 3-10.5' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.25 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 4.05' Feet of Water

Well purged with: Keditflow Pump 5.0 gal @ 20 min = 100 gal purged

Static Water Level____Total Depth____Total Volume Purged 100 Saturated Borehole Volume (gal)____Max Pumping Rate 5.0 gpm

pH Meter: Meter Number _____

Buffer		Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter: _____ Standard_NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/8/19	2:32	5.0	7.57	1903	20.1	Clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

(sample control number/time _____)

Notes: - Pumped cleaned w/ distilled water + Alconox

- Metal sample filtered

-4 unbonded - Wetchen, Metals, Cyanide, TOC

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-06

Date 10/8/19 Start Time 2:35 Stop time 4:30 Page 1 of 1

Sample Control Number MW-06-

Samplers TG

Ambient Air Temperature: 74 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 7.68 Total Depth 22' Top of Screen 9' Filter Pack Interval 6-22' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 4.95 gallons

Well Casing ID MW-06 Well Casing OD Protective Casing Stickup Well Casing Stickup 2.7' Feet of Water

Well purged with: RediFlow 2 Pump - 4.8 gpm for 19 min = 91 gals purged

Static Water Level____Total Depth____Total Volume Purged91Saturated Borehole Volume (gal)____Max Pumping Rate_____

pH Meter: Meter Number _____
Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard_NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/8/19	4:24	4.8	7.78	1211	21.4	clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time _____)

(sample control number/time) _____

Notes: -1 Filtered Metal Sample - Peristaltic Pump + Micro Filter (0.45)

-4 unfiltered samples - Wetchen, Metals, Cyanide, TOC

- Pump cleaned w/ Distilled water + Alconox solution

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-19 Date 10/8/19 Start Time 2:42 Stop time 4:30 Page 1 of 1
Sample Control Number MW-08 Samplers TG

Ambient Air Temperature: 67 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☒

Static Water Level: 7.98 Total Depth: 19.5 Top of Screen: 5 Filter Pack Interval: 3-19.5 Borehole Diameter (inches): 2
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 7.25 gallons

Well Casing ID MW-19 Well Casing OD Protective Casing Stickup Well Casing Stickup 4.05 309 Feet of Water

Well purged with: Kedi Flow 2 Pump - 5.8 gpm for 16 min $\approx$ 93 gal purged

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate
		93		

pH Meter: Meter Number _____

Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C
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Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/8/19	4:29	5.8	7.61	912	20.2	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample/control number/time)

(sample control number/time

Notes: - Pump cleaned w/ Distilled water + Alconox

-1 Filtered Metal Sample

-4 unfiltered - Wetchen, Metals, Cyanide, TOC

Sampler's Signature [Signature]

IDENTIFICATION Knock Pit

Sample Location P-1 (Piezometer) Date 10/9/19 Start Time 11:30 Stop time 12:20 Page 1 of 1
Sample Control Number P-1 Samplers TG

Ambient Air Temperature: 70 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒
Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 4.11 Total Depth Top of Screen Filter Pack Interval Borehole Diameter (inches)
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons
Well Casing ID Well Casing OD Protective Casing Stickup Well Casing Stickup Feet of Water
Well purged with: peristaltic pump - 9.5 gal purged
FINAL WELL MEASUREMENTS

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal)____Max Pumping Rate _____

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	12:15		8.17	1124	20.8	Clear		

Notes: - 1 filtered Metal Sample
- 4 unfiltered Samples - Wetchen, Metals, cyanide, TOC

Sampler's Signature 

IDENTIFICATION

Sample Location Knox P.t - P-2 (Piezometer) Date 10/9/19 Start Time 1:15 Stop time 2:05 Page 1 of 1
Sample Control Number P2- Samplers TS

Ambient Air Temperature: 71 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 3.64 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches) 1 1/4"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with: Peristaltic Pump - Slow pumping $\approx$ 6 gal in 45 min
FINAL WELL MEASUREMENTS

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate

pH Meter: Meter Number _____ Conductivity Meter: Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value _____ NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. (°C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	2:05		7.75	1060	20.4	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time)

_____ (sample control number/time

Notes: - 1 Filtered Metal Sample

-4 unfiltered samples - Wtcham, Metals, Cyanide, TOC

- Could Not Sample P-3 or P-4 - No water from pump

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-07 Date 10/9/19 Start Time 9:30 Stop time 10:05 Page 1 of 1
Sample Control Number MW-07 Samplers TG

Ambient Air Temperature: 67 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒

Static Water Level 71.0 Total Depth Top of Screen Filter Pack Interval Borehole Diameter (inches) 4"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.03 Feet of Water

Well purged with: KediFlow 2 Pump - 5.3 gpm for 25 min = 132.5 gal

Static Water Level____Total Depth____Total Volume Purged 32 Saturated Borehole Volume (gal)____Max Pumping Rate____

pH Meter: Meter Number _____
 Buffer _____ Measured Value _____ Temp. _____ °C
 Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
 Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:	Standard NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	10:05	5.3	8.22	260	20.1	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes: - 1. Filtered Metal Sample

- 4 unfiltered samples - Wetchen, Metals, Cyanide, TOC

Sampler's Signature

Don Gordon

IDENTIFICATION

Sample Location Knox Pit - MW-09 Date 10/9/19 Start Time 10:10 Stop time 11:00 Page 1 of 1
Sample Control Number _____ Samplers _____

Ambient Air Temperature: _____ °C ☐ °F ☐ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☐

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐

Static Water Level 7.89 Total Depth Top of Screen Filter Pack Interval Borehole Diameter(inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

Well Casing ID Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water (_____)

Well purged with: Redi-Flow 2 Pump - 5.0 gpm for 17 min = 85 gal purged

Static Water Level____Total Depth____Total Volume Purged____Saturated Borehole Volume (gal)____Max Pumping Rate

pH Meter: Meter Number _____ Conductivity Meter: Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter:		Standard NTU	Measured Value	NTU	Standard NTU	Measured Value	NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	10:55	5.0	7.59	1032	20.1	Clear		

Duplicate Sample-02 (sample control number/time_____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time_____)

(sample control number/time _____)

Notes: - Pump Cleaned w/ distilled water + Alconox Solution

- 1 Filtered Metal Sample

- 4 unfiltered ~~test~~ samples - Wetchen, Metals, cyanide, TOC

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-10

Date 10/9/19

Start Time 11:07

Stop time 11:55

Page 1 of 1

Sample Control Number Mh-10

Start Time
Samplers *TG*

WEATHER CONDITIONS

Ambient Air Temperature: 74 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.13 Total Depth 20' Top of Screen 5' Filter Pack Interval 4-20' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9.11 gallons

Well Casing ID MW-10 Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup 3.13' Feet of Water _____

Well purged with: Rediflow 2 Pump - 4.8 gpm for 22 min $\approx$ 105 gal Purged

FINAL WELL MEASUREMENTS

Static Water Level____Total Depth____Total Volume Purged 105 Saturated Borehole Volume (gal) Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp. °C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C

Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	11:55	4.8	7.88	1340	20.3	clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample control number/time)

(sample control number/time

Notes: - 1 Filtered Metal Sample
- 4 unfiltered Samples - Wetchen, Metals, Cyanide, TOC

Sampler's Signature



IDENTIFICATION

Sample Location Knox Pit - MW-12 Date 10/9/19 Start Time 2:55 Stop time 3:25 Page 1 of 1
Sample Control Number MW-12- Samplers TG

Ambient Air Temperature: 70 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☒ Partly Cloudy ☐

Static Water Level 8.25 Total Depth 23' Top of Screen 10' Filter Pack Interval 8-20' Borehole Diameter(inches) 2"
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 9 gallons

Well Casing ID MW-12 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.14' Feet of Water

Well purged with: RediFlow 2 Pump - 5.5 gpm for 10 min = 55 gal purged

Static Water Level 8.12 Total Depth Total Volume Purged 55 Saturated Borehole Volume (gal) Max Pumping Rate 5.5

pH Meter: Meter Number _____

Buffer	Measured Value	Temp.	°C	Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer	Measured Value	Temp. °C	Standard	mS/cm	Measured Value	mS/cm	Temp. °C

Turbidity Meter: Standard NTU Measured Value NTU Standard NTU Measured Value NTU

[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	3:20	5.5	8.01	378	20.2	Clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time)

Matrix Spike-MS (sample/control number/time)

_____ (sample control number/time)

Notes: -1 Filtered Metals Sample

- 4 unfiltered samples - wetchem, metals, cyanide, TOC

- Pump cleaned w/ Alconox

Sampler's Signature

IDENTIFICATION

Sample Location Knox Pit - MW-13

Date 10/9/19 Start Time 2:10 Stop time 2:50 Page 1 of 1
Samplers PK

Sample Control Number MW-13-

_____ samplers _____

WEATHER CONDITIONS

Ambient Air Temperature: 70 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒

Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☒ Sunny ☐ Partly Cloudy ☐

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level 6.71 Total Depth 19' Top of Screen 7' Filter Pack Interval 5-19' Borehole Diameter(inches) 2"

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 6.5 gallons

Well Casing ID MW-13 Well Casing OD Protective Casing Stickup Well Casing Stickup 3.13' Feet of Water

Well purged with: PediFlow 2 Pump - 5.1 gpm for 16 min $\approx$ 82 gal
FINAL WELL MEASUREMENTS

FINAL WELL MEASUREMENTS

Static Water Level____Total Depth____Total Volume Purged82Saturated Borehole Volume (gal)____Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer	Measured Value	Temp.	°C
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Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Buffer _____ Measured Value _____ Temp. _____ °C

Standard	mS/cm	Measured Value	mS/cm	Temp.	°C
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Turbidity Meter: _____ Standard NTU Measured Value _____ NTU Standard NTU Measured Value NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☒	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
10/9/19	2:50	5.1	7.26	250	21.1	Clear		

Duplicate Sample-02 (sample control number/time

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time)

_____ (sample control number/time)

Notes: - Filtered Metal Sample

- Unfiltered Samples - Wetchem, Metals, Cyanide, TOC

- Pump cleaned w/ Alkonox/distilled water solution

Sampler's Signature

1

Attachment 3

SAP Related Laboratory Reports for the December 2019 Report



Wednesday, December 20, 2017

Taryn Tigges
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1712224
Project Name: Knox
Project Number: 360100

Dear Ms. Tigges:

Five solid samples and five water samples were received from Telesto Solutions Inc, on 12/8/2017. The samples were scheduled for the following analyses:

Inorganics

Metals

Total Extractable Petroleum Hydrocarbons (Diesel)

Total Volatile Petroleum Hydrocarbons (Gasoline)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1712224

GRO:

The samples were analyzed following the current revision of SOP 425 generally based on SW-846 Methods 8000C and 8015D. TVPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C6 to C10.

All acceptance criteria were met.

DRO:

The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by Trace ICP followed method 6010B and the current revision of SOP 834. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Nitrate/nitrite as N	353.2 Revision 2.0	1127
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113



Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Sulfate	1712224-2MS & MSD

The sulfate concentration in the native sample was above the analytical range; therefore accurate quantitation of MS/MSD recoveries were not possible. The LCS, ICV, and CCV results indicate the procedure was in control for this analyte.

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1712224

Client Name: Telesto Solutions Inc

Client Project Name: Knox

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-13	1712224-1		WATER	05-Dec-17	13:00
MW-6	1712224-2		WATER	05-Dec-17	13:30
MW-2	1712224-3		WATER	05-Dec-17	14:00
River	1712224-4		WATER	05-Dec-17	14:30
Blank	1712224-5		WATER	05-Dec-17	17:00
B-22	1712224-6		SOLID	06-Dec-17	8:30
B-20	1712224-7		SOLID	06-Dec-17	12:00
B-21	1712224-8		SOLID	06-Dec-17	13:00
B-24	1712224-9		SOLID	06-Dec-17	14:30
B-23	1712224-10		SOLID	06-Dec-17	16:30
B-22	1712224-11		LEACHAT	06-Dec-17	8:30
B-20	1712224-12		LEACHAT	06-Dec-17	12:00
B-21	1712224-13		LEACHAT	06-Dec-17	13:00
B-24	1712224-14		LEACHAT	06-Dec-17	14:30
B-23	1712224-15		LEACHAT	06-Dec-17	16:30

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1712224

PAGE

of

DISPOSAL

BY LAB or RETURN

[illegible]

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		Form 202r9		SIGNATURE		PRINTED NAME		DATE		TIME	
6 of 42		Summary (Standard QC)		RELINQUISHED BY <i>Taryn Tigges</i> RECEIVED BY <i>Shay Avery</i> RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY		Taryn Tigges SHAY AVERY		12/8/17 12-8-17		14:30 1545			
		LEVEL II (Standard QC)											
		LEVEL III (Std QC + forms)											
		LEVEL IV (Std QC + forms + raw)											
		PRESERVATION KEY											
1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other													



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesto
Project Manager: JK

Workorder No: 1712224
Initials: FS Date: 12-8-17

1. Does this project require any special handling in addition to standard ALS procedures?		YES	☒ NO
2. Are custody seals on shipping containers intact?	NONE	☒ YES	NO
3. Are Custody seals on sample containers intact?	☒ NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		☒ YES	NO
5. Are the COC and bottle labels complete and legible?		☒ YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		☒ YES	NO
7. Were airbills / shipping documents present and/or removable?	☒ DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	☒ YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	☒ YES	NO
10. Is there sufficient sample for the requested analyses?		☒ YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		☒ YES	NO
12. Are all samples within holding times for the requested analyses?		☒ YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		☒ YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>X</u> < green pea <u>X</u> > green pea	N/A	YES	☒ NO
15. Do any water samples contain sediment? Amount Amount of sediment: <u>X</u> dusting <u>X</u> moderate <u> </u> heavy	N/A	☒ YES	NO
16. Were the samples shipped on ice?		YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4	RAD ONLY	YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>4</u>			
External µR/hr reading: <u>11</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

14. All 40ml vials samples have bubbles.
15. Sample #1, bottle 9 has moderate sediment.
Sample #2, bottle 9 has dusting.

If applicable, was the client contacted? YES / NO / NA Contact: Date/Time:

Project Manager Signature / Date: [Signature] 12.8.17

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: MW-13

Lab ID: 1712224-1

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 13:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	130		20	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		20	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	130		20	MG/L	1	12/14/2017
Diesel Range Organics		SW8015M			Prep Date: 12/15/2017	PrepBy: JFN
Diesel Range Organics	0.39	J	0.71	MG/L	1	12/15/2017 17:14
Surr: O-TERPHENYL	100		63-126	%REC	1	12/15/2017 17:14
Gasoline Range Organics		SW8015			Prep Date: 12/18/2017	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	12/18/2017 14:55
Surr: 2,3,4-TRIFLUOROTOLUENE	105		74-129	%REC	1	12/18/2017 14:55
Total Recoverable ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: AJL2
SILVER	ND		0.01	MG/L	1	12/18/2017 12:43
ALUMINUM	33		0.2	MG/L	1	12/18/2017 12:43
ARSENIC	0.015		0.01	MG/L	1	12/18/2017 12:43
BORON	ND		0.1	MG/L	1	12/18/2017 12:43
BARIUM	0.35		0.1	MG/L	1	12/18/2017 12:43
CALCIUM	68		1	MG/L	1	12/18/2017 12:43
CADMIUM	ND		0.005	MG/L	1	12/18/2017 12:43
CHROMIUM	0.058		0.01	MG/L	1	12/18/2017 12:43
COPPER	0.068		0.01	MG/L	1	12/18/2017 12:43
IRON	44		0.1	MG/L	1	12/18/2017 12:43
POTASSIUM	9.5		1	MG/L	1	12/18/2017 12:43
MAGNESIUM	18		1	MG/L	1	12/18/2017 12:43
MANGANESE	0.8		0.01	MG/L	1	12/18/2017 12:43
MOLYBDENUM	ND		0.01	MG/L	1	12/18/2017 12:43
NICKEL	0.039		0.02	MG/L	1	12/18/2017 12:43
LEAD	0.022		0.004	MG/L	1	12/18/2017 12:43
ANTIMONY	ND		0.02	MG/L	1	12/18/2017 12:43
SELENIUM	ND		0.006	MG/L	1	12/18/2017 12:43
TIN	ND		0.05	MG/L	1	12/18/2017 12:43
VANADIUM	0.071		0.01	MG/L	1	12/18/2017 12:43
ZINC	0.12		0.02	MG/L	1	12/18/2017 12:43
Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	5.2		0.2	MG/L	1	12/14/2017 15:15
FLUORIDE	0.36		0.1	MG/L	1	12/14/2017 15:15
SULFATE	36		1	MG/L	1	12/14/2017 15:15
Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	12/18/2017 09:21
Nitrate/Nitrite as N		EPA353.2			Prep Date: 12/11/2017	PrepBy: HMA
NITRATE/NITRITE AS N	0.16		0.01	MG/L	1	12/11/2017 15:05
pH		EPA150.1			Prep Date: 12/12/2017	PrepBy: HMA
PH	7.9		0.1	pH	1	12/12/2017
Total Dissolved Solids		EPA160.1			Prep Date: 12/12/2017	PrepBy: HMA

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: MW-13

Lab ID: 1712224-1

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 13:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	12/13/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: MW-6

Lab ID: 1712224-2

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 13:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	270		20	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		20	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	12/14/2017
Diesel Range Organics		SW8015M			Prep Date: 12/15/2017	PrepBy: JFN
Diesel Range Organics	0.71	M	0.58	MG/L	1	12/15/2017 17:35
Surr: O-TERPHENYL	107		63-126	%REC	1	12/15/2017 17:35
Gasoline Range Organics		SW8015			Prep Date: 12/18/2017	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	12/18/2017 15:17
Surr: 2,3,4-TRIFLUOROTOLUENE	101		74-129	%REC	1	12/18/2017 15:17
Total Recoverable ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: AJL2
SILVER	ND		0.01	MG/L	1	12/18/2017 12:44
ALUMINUM	2.7		0.2	MG/L	1	12/18/2017 12:44
ARSENIC	ND		0.01	MG/L	1	12/18/2017 12:44
BORON	ND		0.1	MG/L	1	12/18/2017 12:44
BARIUM	ND		0.1	MG/L	1	12/18/2017 12:44
CALCIUM	590		10	MG/L	10	12/18/2017 12:58
CADMIUM	ND		0.005	MG/L	1	12/18/2017 12:44
CHROMIUM	ND		0.01	MG/L	1	12/18/2017 12:44
COPPER	ND		0.01	MG/L	1	12/18/2017 12:44
IRON	2.6		0.1	MG/L	1	12/18/2017 12:44
POTASSIUM	11		1	MG/L	1	12/18/2017 12:44
MAGNESIUM	29		1	MG/L	1	12/18/2017 12:44
MANGANESE	0.029		0.01	MG/L	1	12/18/2017 12:44
MOLYBDENUM	ND		0.01	MG/L	1	12/18/2017 12:44
NICKEL	ND		0.02	MG/L	1	12/18/2017 12:44
LEAD	ND		0.004	MG/L	1	12/18/2017 12:44
ANTIMONY	ND		0.02	MG/L	1	12/18/2017 12:44
SELENIUM	0.043		0.006	MG/L	1	12/18/2017 12:44
TIN	ND		0.05	MG/L	1	12/18/2017 12:44
VANADIUM	ND		0.01	MG/L	1	12/18/2017 12:44
ZINC	ND		0.02	MG/L	1	12/18/2017 12:44
Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	20		1	MG/L	5	12/14/2017 15:29
FLUORIDE	0.71		0.5	MG/L	5	12/14/2017 15:29
SULFATE	1300		25	MG/L	25	12/15/2017 15:08
Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	12/18/2017 09:23
Nitrate/Nitrite as N		EPA353.2			Prep Date: 12/11/2017	PrepBy: HMA
NITRATE/NITRITE AS N	6.2		0.1	MG/L	10	12/11/2017 14:55
pH		EPA150.1			Prep Date: 12/12/2017	PrepBy: HMA
PH	7.5		0.1	pH	1	12/12/2017
Total Dissolved Solids		EPA160.1			Prep Date: 12/12/2017	PrepBy: HMA

ALS -- Fort Collins**SAMPLE SUMMARY REPORT****Client:** Telesto Solutions Inc**Date:** 20-Dec-17**Project:** 360100 Knox**Work Order:** 1712224**Sample ID:** MW-6**Lab ID:** 1712224-2**Legal Location:****Matrix:** WATER**Collection Date:** 12/5/2017 13:30**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	2100		40	MG/L	1	12/13/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: MW-2

Lab ID: 1712224-3

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 14:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			EPA310.1		Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	170		20	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		20	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	12/14/2017
Diesel Range Organics			SW8015M		Prep Date: 12/15/2017	PrepBy: JFN
Diesel Range Organics	0.28	J	0.66	MG/L	1	12/15/2017 17:56
Surr: O-TERPHENYL	93		63-126	%REC	1	12/15/2017 17:56
Gasoline Range Organics			SW8015		Prep Date: 12/18/2017	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	12/18/2017 15:39
Surr: 2,3,4-TRIFLUOROTOLUENE	102		74-129	%REC	1	12/18/2017 15:39
Total Recoverable ICP Metals			SW6010		Prep Date: 12/13/2017	PrepBy: AJL2
SILVER	ND		0.01	MG/L	1	12/18/2017 12:45
ALUMINUM	2.8		0.2	MG/L	1	12/18/2017 12:45
ARSENIC	ND		0.01	MG/L	1	12/18/2017 12:45
BORON	ND		0.1	MG/L	1	12/18/2017 12:45
BARIUM	ND		0.1	MG/L	1	12/18/2017 12:45
CALCIUM	180		1	MG/L	1	12/18/2017 12:45
CADMIUM	ND		0.005	MG/L	1	12/18/2017 12:45
CHROMIUM	ND		0.01	MG/L	1	12/18/2017 12:45
COPPER	ND		0.01	MG/L	1	12/18/2017 12:45
IRON	2.4		0.1	MG/L	1	12/18/2017 12:45
POTASSIUM	3.4		1	MG/L	1	12/18/2017 12:45
MAGNESIUM	40		1	MG/L	1	12/18/2017 12:45
MANGANESE	0.027		0.01	MG/L	1	12/18/2017 12:45
MOLYBDENUM	ND		0.01	MG/L	1	12/18/2017 12:45
NICKEL	ND		0.02	MG/L	1	12/18/2017 12:45
LEAD	ND		0.004	MG/L	1	12/18/2017 12:45
ANTIMONY	ND		0.02	MG/L	1	12/18/2017 12:45
SELENIUM	ND		0.006	MG/L	1	12/18/2017 12:45
TIN	ND		0.05	MG/L	1	12/18/2017 12:45
VANADIUM	ND		0.01	MG/L	1	12/18/2017 12:45
ZINC	ND		0.02	MG/L	1	12/18/2017 12:45
Ion Chromatography			EPA300.0		Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	20		1	MG/L	5	12/14/2017 16:14
FLUORIDE	0.66		0.5	MG/L	5	12/14/2017 16:14
SULFATE	440		5	MG/L	5	12/14/2017 16:14
Mercury			SW7470		Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	12/18/2017 09:25
Nitrate/Nitrite as N			EPA353.2		Prep Date: 12/11/2017	PrepBy: HMA
NITRATE/NITRITE AS N	0.72		0.01	MG/L	1	12/11/2017 14:56
pH			EPA150.1		Prep Date: 12/12/2017	PrepBy: HMA
PH	7.39		0.1	pH	1	12/12/2017
Total Dissolved Solids			EPA160.1		Prep Date: 12/12/2017	PrepBy: HMA

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: MW-2

Lab ID: 1712224-3

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 14:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	850		20	MG/L	1	12/13/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: River

Lab ID: 1712224-4

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 14:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	84		20	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		20	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	84		20	MG/L	1	12/14/2017
Diesel Range Organics		SW8015M			Prep Date: 12/15/2017	PrepBy: JFN
Diesel Range Organics	ND		0.63	MG/L	1	12/15/2017 18:18
Surr: O-TERPHENYL	84		63-126	%REC	1	12/15/2017 18:18
Gasoline Range Organics		SW8015			Prep Date: 12/18/2017	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	12/18/2017 16:01
Surr: 2,3,4-TRIFLUOROTOLUENE	102		74-129	%REC	1	12/18/2017 16:01
Total Recoverable ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: AJL2
SILVER	ND		0.01	MG/L	1	12/18/2017 12:46
ALUMINUM	ND		0.2	MG/L	1	12/18/2017 12:46
ARSENIC	ND		0.01	MG/L	1	12/18/2017 12:46
BORON	ND		0.1	MG/L	1	12/18/2017 12:46
BARIUM	ND		0.1	MG/L	1	12/18/2017 12:46
CALCIUM	34		1	MG/L	1	12/18/2017 12:46
CADMIUM	ND		0.005	MG/L	1	12/18/2017 12:46
CHROMIUM	ND		0.01	MG/L	1	12/18/2017 12:46
COPPER	ND		0.01	MG/L	1	12/18/2017 12:46
IRON	0.12		0.1	MG/L	1	12/18/2017 12:46
POTASSIUM	1.2		1	MG/L	1	12/18/2017 12:46
MAGNESIUM	7		1	MG/L	1	12/18/2017 12:46
MANGANESE	0.021		0.01	MG/L	1	12/18/2017 12:46
MOLYBDENUM	ND		0.01	MG/L	1	12/18/2017 12:46
NICKEL	ND		0.02	MG/L	1	12/18/2017 12:46
LEAD	ND		0.004	MG/L	1	12/18/2017 12:46
ANTIMONY	ND		0.02	MG/L	1	12/18/2017 12:46
SELENIUM	ND		0.006	MG/L	1	12/18/2017 12:46
TIN	ND		0.05	MG/L	1	12/18/2017 12:46
VANADIUM	ND		0.01	MG/L	1	12/18/2017 12:46
ZINC	ND		0.02	MG/L	1	12/18/2017 12:46
Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	5.9		0.2	MG/L	1	12/14/2017 16:29
FLUORIDE	0.28		0.1	MG/L	1	12/14/2017 16:29
SULFATE	34		1	MG/L	1	12/14/2017 16:29
Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	12/18/2017 09:27
Nitrate/Nitrite as N		EPA353.2			Prep Date: 12/11/2017	PrepBy: HMA
NITRATE/NITRITE AS N	0.34		0.01	MG/L	1	12/11/2017 15:06
pH		EPA150.1			Prep Date: 12/12/2017	PrepBy: HMA
PH	8.09		0.1	pH	1	12/12/2017
Total Dissolved Solids		EPA160.1			Prep Date: 12/12/2017	PrepBy: HMA

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: River

Lab ID: 1712224-4

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 14:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	140		20	MG/L	1	12/13/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: Blank

Lab ID: 1712224-5

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 17:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	ND		5	MG/L	1	12/14/2017
Diesel Range Organics		SW8015M			Prep Date: 12/15/2017	PrepBy: JFN
Diesel Range Organics	ND		0.61	MG/L	1	12/15/2017 18:40
Surr: O-TERPHENYL	93		63-126	%REC	1	12/15/2017 18:40
Gasoline Range Organics		SW8015			Prep Date: 12/18/2017	PrepBy: JFN
GASOLINE RANGE ORGANICS	ND		0.1	MG/L	1	12/18/2017 16:23
Surr: 2,3,4-TRIFLUOROTOLUENE	108		74-129	%REC	1	12/18/2017 16:23
Total Recoverable ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: AJL2
SILVER	ND		0.01	MG/L	1	12/18/2017 12:47
ALUMINUM	ND		0.2	MG/L	1	12/18/2017 12:47
ARSENIC	ND		0.01	MG/L	1	12/18/2017 12:47
BORON	ND		0.1	MG/L	1	12/18/2017 12:47
BARIUM	ND		0.1	MG/L	1	12/18/2017 12:47
CALCIUM	ND		1	MG/L	1	12/18/2017 12:47
CADMIUM	ND		0.005	MG/L	1	12/18/2017 12:47
CHROMIUM	ND		0.01	MG/L	1	12/18/2017 12:47
COPPER	ND		0.01	MG/L	1	12/18/2017 12:47
IRON	ND		0.1	MG/L	1	12/18/2017 12:47
POTASSIUM	ND		1	MG/L	1	12/18/2017 12:47
MAGNESIUM	ND		1	MG/L	1	12/18/2017 12:47
MANGANESE	ND		0.01	MG/L	1	12/18/2017 12:47
MOLYBDENUM	ND		0.01	MG/L	1	12/18/2017 12:47
NICKEL	ND		0.02	MG/L	1	12/18/2017 12:47
LEAD	ND		0.004	MG/L	1	12/18/2017 12:47
ANTIMONY	ND		0.02	MG/L	1	12/18/2017 12:47
SELENIUM	ND		0.006	MG/L	1	12/18/2017 12:47
TIN	ND		0.05	MG/L	1	12/18/2017 12:47
VANADIUM	ND		0.01	MG/L	1	12/18/2017 12:47
ZINC	ND		0.02	MG/L	1	12/18/2017 12:47
Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 17:14
FLUORIDE	ND		0.1	MG/L	1	12/14/2017 17:14
SULFATE	ND		1	MG/L	1	12/14/2017 17:14
Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	12/18/2017 09:34
Nitrate/Nitrite as N		EPA353.2			Prep Date: 12/11/2017	PrepBy: HMA
NITRATE/NITRITE AS N	0.4		0.01	MG/L	1	12/11/2017 15:00
pH		EPA150.1			Prep Date: 12/12/2017	PrepBy: HMA
PH	7.35		0.1	pH	1	12/12/2017
Total Dissolved Solids		EPA160.1			Prep Date: 12/12/2017	PrepBy: HMA

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: Blank

Lab ID: 1712224-5

Legal Location:

Matrix: WATER

Collection Date: 12/5/2017 17:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	ND		20	MG/L	1	12/13/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-22

Lab ID: 1712224-11

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 08:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SPLP Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	33		5	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	33		5	MG/L	1	12/14/2017
SPLP ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: JML
SILVER	ND		0.1	MG/L	1	12/14/2017 12:52
ALUMINUM	2.8		2	MG/L	1	12/14/2017 12:52
ARSENIC	ND		0.1	MG/L	1	12/18/2017 14:06
BORON	ND		1	MG/L	1	12/14/2017 12:52
BARIUM	ND		1	MG/L	1	12/14/2017 12:52
CALCIUM	13		10	MG/L	1	12/14/2017 12:52
CADMIUM	ND		0.05	MG/L	1	12/14/2017 12:52
CHROMIUM	ND		0.1	MG/L	1	12/14/2017 12:52
COPPER	ND		0.1	MG/L	1	12/14/2017 12:52
IRON	ND		1	MG/L	1	12/14/2017 12:52
POTASSIUM	ND		10	MG/L	1	12/14/2017 12:52
MAGNESIUM	ND		10	MG/L	1	12/14/2017 12:52
MANGANESE	ND		0.1	MG/L	1	12/14/2017 12:52
MOLYBDENUM	ND		0.1	MG/L	1	12/14/2017 12:52
NICKEL	ND		0.2	MG/L	1	12/14/2017 12:52
LEAD	ND		0.04	MG/L	1	12/14/2017 12:52
ANTIMONY	ND		0.2	MG/L	1	12/14/2017 12:52
SELENIUM	ND		0.06	MG/L	1	12/14/2017 12:52
TIN	ND		0.5	MG/L	1	12/14/2017 12:52
VANADIUM	ND		0.1	MG/L	1	12/14/2017 12:52
ZINC	ND		0.2	MG/L	1	12/14/2017 12:52
SPLP Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 17:29
FLUORIDE	0.19		0.1	MG/L	1	12/14/2017 17:29
SULFATE	12		1	MG/L	1	12/14/2017 17:29
SPLP Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.002	MG/L	1	12/18/2017 09:36
SPLP pH		EPA150.1			Prep Date: 12/14/2017	PrepBy: HMA
PH	8.43		0.1	pH	1	12/14/2017
SPLP Total Dissolved Solids		EPA160.1			Prep Date: 12/14/2017	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	60		20	MG/L	1	12/15/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-20

Lab ID: 1712224-12

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 12:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SPLP Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	28		20	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		20	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	28		20	MG/L	1	12/14/2017
SPLP ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: JML
SILVER	ND		0.1	MG/L	1	12/14/2017 12:55
ALUMINUM	ND		2	MG/L	1	12/14/2017 12:55
ARSENIC	ND		0.1	MG/L	1	12/18/2017 14:09
BORON	ND		1	MG/L	1	12/14/2017 12:55
BARIUM	ND		1	MG/L	1	12/14/2017 12:55
CALCIUM	12		10	MG/L	1	12/14/2017 12:55
CADMIUM	ND		0.05	MG/L	1	12/14/2017 12:55
CHROMIUM	ND		0.1	MG/L	1	12/14/2017 12:55
COPPER	ND		0.1	MG/L	1	12/14/2017 12:55
IRON	ND		1	MG/L	1	12/14/2017 12:55
POTASSIUM	ND		10	MG/L	1	12/14/2017 12:55
MAGNESIUM	ND		10	MG/L	1	12/14/2017 12:55
MANGANESE	ND		0.1	MG/L	1	12/14/2017 12:55
MOLYBDENUM	ND		0.1	MG/L	1	12/14/2017 12:55
NICKEL	ND		0.2	MG/L	1	12/14/2017 12:55
LEAD	ND		0.04	MG/L	1	12/14/2017 12:55
ANTIMONY	ND		0.2	MG/L	1	12/14/2017 12:55
SELENIUM	0.13		0.06	MG/L	1	12/14/2017 12:55
TIN	ND		0.5	MG/L	1	12/14/2017 12:55
VANADIUM	ND		0.1	MG/L	1	12/14/2017 12:55
ZINC	ND		0.2	MG/L	1	12/14/2017 12:55
SPLP Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 17:44
FLUORIDE	0.25		0.1	MG/L	1	12/14/2017 17:44
SULFATE	12		1	MG/L	1	12/14/2017 17:44
SPLP Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.002	MG/L	1	12/18/2017 09:38
SPLP pH		EPA150.1			Prep Date: 12/14/2017	PrepBy: HMA
PH	8.5		0.1	pH	1	12/14/2017
SPLP Total Dissolved Solids		EPA160.1			Prep Date: 12/14/2017	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	130		20	MG/L	1	12/15/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-21

Lab ID: 1712224-13

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 13:00

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SPLP Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	42		5	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	42		5	MG/L	1	12/14/2017
SPLP ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: JML
SILVER	ND		0.1	MG/L	1	12/14/2017 13:04
ALUMINUM	ND		2	MG/L	1	12/14/2017 13:04
ARSENIC	ND		0.1	MG/L	1	12/18/2017 14:13
BORON	ND		1	MG/L	1	12/14/2017 13:04
BARIUM	ND		1	MG/L	1	12/14/2017 13:04
CALCIUM	17		10	MG/L	1	12/14/2017 13:04
CADMIUM	ND		0.05	MG/L	1	12/14/2017 13:04
CHROMIUM	ND		0.1	MG/L	1	12/14/2017 13:04
COPPER	ND		0.1	MG/L	1	12/14/2017 13:04
IRON	ND		1	MG/L	1	12/14/2017 13:04
POTASSIUM	ND		10	MG/L	1	12/14/2017 13:04
MAGNESIUM	ND		10	MG/L	1	12/14/2017 13:04
MANGANESE	ND		0.1	MG/L	1	12/14/2017 13:04
MOLYBDENUM	ND		0.1	MG/L	1	12/14/2017 13:04
NICKEL	ND		0.2	MG/L	1	12/14/2017 13:04
LEAD	ND		0.04	MG/L	1	12/14/2017 13:04
ANTIMONY	ND		0.2	MG/L	1	12/14/2017 13:04
SELENIUM	ND		0.06	MG/L	1	12/14/2017 13:04
TIN	ND		0.5	MG/L	1	12/14/2017 13:04
VANADIUM	ND		0.1	MG/L	1	12/14/2017 13:04
ZINC	ND		0.2	MG/L	1	12/14/2017 13:04
SPLP Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 17:59
FLUORIDE	0.17		0.1	MG/L	1	12/14/2017 17:59
SULFATE	20		1	MG/L	1	12/14/2017 17:59
SPLP Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.002	MG/L	1	12/18/2017 09:40
SPLP pH		EPA150.1			Prep Date: 12/14/2017	PrepBy: HMA
PH	8.24		0.1	pH	1	12/14/2017
SPLP Total Dissolved Solids		EPA160.1			Prep Date: 12/14/2017	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	100		20	MG/L	1	12/15/2017

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-24

Lab ID: 1712224-14

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 14:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SPLP Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	35		5	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	35		5	MG/L	1	12/14/2017
SPLP ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: JML
SILVER	ND		0.1	MG/L	1	12/14/2017 13:07
ALUMINUM	ND		2	MG/L	1	12/14/2017 13:07
ARSENIC	ND		0.1	MG/L	1	12/18/2017 14:16
BORON	ND		1	MG/L	1	12/14/2017 13:07
BARIUM	ND		1	MG/L	1	12/14/2017 13:07
CALCIUM	17		10	MG/L	1	12/14/2017 13:07
CADMIUM	ND		0.05	MG/L	1	12/14/2017 13:07
CHROMIUM	ND		0.1	MG/L	1	12/14/2017 13:07
COPPER	ND		0.1	MG/L	1	12/14/2017 13:07
IRON	ND		1	MG/L	1	12/14/2017 13:07
POTASSIUM	ND		10	MG/L	1	12/14/2017 13:07
MAGNESIUM	ND		10	MG/L	1	12/14/2017 13:07
MANGANESE	ND		0.1	MG/L	1	12/14/2017 13:07
MOLYBDENUM	ND		0.1	MG/L	1	12/14/2017 13:07
NICKEL	ND		0.2	MG/L	1	12/14/2017 13:07
LEAD	ND		0.04	MG/L	1	12/14/2017 13:07
ANTIMONY	ND		0.2	MG/L	1	12/14/2017 13:07
SELENIUM	ND		0.06	MG/L	1	12/14/2017 13:07
TIN	ND		0.5	MG/L	1	12/14/2017 13:07
VANADIUM	ND		0.1	MG/L	1	12/14/2017 13:07
ZINC	ND		0.2	MG/L	1	12/14/2017 13:07
SPLP Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 18:14
FLUORIDE	0.19		0.1	MG/L	1	12/14/2017 18:14
SULFATE	14		1	MG/L	1	12/14/2017 18:14
SPLP Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.002	MG/L	1	12/18/2017 09:45
SPLP pH		EPA150.1			Prep Date: 12/14/2017	PrepBy: HMA
PH	8.42		0.1	pH	1	12/14/2017
SPLP Total Dissolved Solids		EPA160.1			Prep Date: 12/14/2017	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	82		20	MG/L	1	12/15/2017

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-23

Lab ID: 1712224-15

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 16:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SPLP Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 12/14/2017	PrepBy: HMA
BICARBONATE AS CaCO3	35		5	MG/L	1	12/14/2017
CARBONATE AS CaCO3	ND		5	MG/L	1	12/14/2017
TOTAL ALKALINITY AS CaCO3	35		5	MG/L	1	12/14/2017
SPLP ICP Metals		SW6010			Prep Date: 12/13/2017	PrepBy: JML
SILVER	ND		0.1	MG/L	1	12/14/2017 13:11
ALUMINUM	ND		2	MG/L	1	12/14/2017 13:11
ARSENIC	ND		0.1	MG/L	1	12/18/2017 14:19
BORON	ND		1	MG/L	1	12/14/2017 13:11
BARIUM	ND		1	MG/L	1	12/14/2017 13:11
CALCIUM	17		10	MG/L	1	12/14/2017 13:11
CADMIUM	ND		0.05	MG/L	1	12/14/2017 13:11
CHROMIUM	ND		0.1	MG/L	1	12/14/2017 13:11
COPPER	ND		0.1	MG/L	1	12/14/2017 13:11
IRON	ND		1	MG/L	1	12/14/2017 13:11
POTASSIUM	ND		10	MG/L	1	12/14/2017 13:11
MAGNESIUM	ND		10	MG/L	1	12/14/2017 13:11
MANGANESE	ND		0.1	MG/L	1	12/14/2017 13:11
MOLYBDENUM	ND		0.1	MG/L	1	12/14/2017 13:11
NICKEL	ND		0.2	MG/L	1	12/14/2017 13:11
LEAD	ND		0.04	MG/L	1	12/14/2017 13:11
ANTIMONY	ND		0.2	MG/L	1	12/14/2017 13:11
SELENIUM	ND		0.06	MG/L	1	12/14/2017 13:11
TIN	ND		0.5	MG/L	1	12/14/2017 13:11
VANADIUM	ND		0.1	MG/L	1	12/14/2017 13:11
ZINC	ND		0.2	MG/L	1	12/14/2017 13:11
SPLP Ion Chromatography		EPA300.0			Prep Date: 12/14/2017	PrepBy: AMW
CHLORIDE	ND		0.2	MG/L	1	12/14/2017 18:28
FLUORIDE	0.2		0.1	MG/L	1	12/14/2017 18:28
SULFATE	15		1	MG/L	1	12/14/2017 18:28
SPLP Mercury		SW7470			Prep Date: 12/15/2017	PrepBy: AJL2
MERCURY	ND		0.002	MG/L	1	12/18/2017 09:47
SPLP pH		EPA150.1			Prep Date: 12/14/2017	PrepBy: HMA
PH	8.41		0.1	pH	1	12/14/2017
SPLP Total Dissolved Solids		EPA160.1			Prep Date: 12/14/2017	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	73		20	MG/L	1	12/15/2017

Client: Telesto Solutions Inc

Date: 20-Dec-17

Project: 360100 Knox

Work Order: 1712224

Sample ID: B-23

Lab ID: 1712224-15

Legal Location:

Matrix: LEACHATE

Collection Date: 12/6/2017 16:30

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers**Radiochemistry:**

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

ALS -- Fort Collins

Date: 12/20/2017 1:51

Client: Telesto Solutions Inc

QC BATCH REPORT

Work Order: 1712224

Project: 360100 Knox

Batch ID: **HC171215-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS	Sample ID: HC171215-81			Units: MG/L		Analysis Date: 12/15/2017 21:31					
Client ID:	Run ID: HC171215-8A					Prep Date: 12/15/2017			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.24	0.608	8.45		86	36-150				20	
Surr: O-TERPHENYL	1.59		1.69		94	63-126					

LCSD	Sample ID: HC171215-81			Units: MG/L		Analysis Date: 12/15/2017 21:53					
Client ID:	Run ID: HC171215-8A			Prep Date: 12/15/2017				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.9	0.615	8.54		93	36-150		7.24	9	20	
Surr: O-TERPHENYL	1.75		1.71		103	63-126			10		

MB	Sample ID: HC171215-81			Units: MG/L			Analysis Date: 12/15/2017 16:52				
Client ID:		Run ID: HC171215-8A			Prep Date: 12/15/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.6									
Surr: O-TERPHENYL	1.65		1.68		99	63-126					

MS	Sample ID: 1712224-2			Units: MG/L			Analysis Date: 12/15/2017 21:10				
Client ID: MW-6		Run ID: HC171215-8A			Prep Date: 12/15/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	9.85	0.573	7.95	0.71	115	36-150				20	
Surr: O-TERPHENYL	1.73		1.59		109	63-126					

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **HC171218-61-1** Instrument ID **FUELS-1** Method: **SW8015**

LCS		Sample ID: HC171218-61			Units: MG/L			Analysis Date: 12/18/2017 09:39			
Client ID:		Run ID: HC171218-6A			Prep Date: 12/18/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	0.485	0.1	0.5		97	79-118				20	
Surr: 2,3,4-TRIFLUOROTOLUENE	0.0975		0.1		97	74-129					

MB		Sample ID: HC171218-61			Units: MG/L			Analysis Date: 12/18/2017 10:02			
Client ID:		Run ID: HC171218-6A			Prep Date: 12/18/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	0.1									
Surr: 2,3,4-TRIFLUOROTOLUENE	0.0968		0.1		97	74-129					

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **HG171215-2-1** Instrument ID: **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG171215-2			Units: MG/L			Analysis Date: 12/18/2017 08:51				
Client ID:	Run ID: HG171218-1A1						Prep Date: 12/15/2017		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.001	0.0002	0.001		100	80-120				20	

MB	Sample ID: EX171212-2				Units: MG/L			Analysis Date: 12/18/2017 08:41			
Client ID:	Run ID: HG171218-1A1				Prep Date: 12/15/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	ND	0.0002									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	1712224-11
1712224-12	1712224-13	1712224-14
1712224-15		

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **HG171215-2-1** Instrument ID: **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG171215-2			Units: MG/L			Analysis Date: 12/18/2017 08:51				
Client ID:	Run ID: HG171218-1A2						Prep Date: 12/15/2017		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.001	0.0002	0.001		100	80-120				20	

MB	Sample ID: HG171215-2				Units: MG/L			Analysis Date: 12/18/2017 08:43			
Client ID:	Run ID: HG171218-1A2				Prep Date: 12/15/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	ND	0.0002									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	1712224-11
1712224-12	1712224-13	1712224-14
1712224-15		

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-10-5** Instrument ID **ICPTrace2** Method: **SW6010**

LCS		Sample ID: IP171213-10			Units: MG/L		Analysis Date: 12/18/2017 12:27				
Client ID:		Run ID: IT171218-1A4				Prep Date: 12/13/2017			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	2.16	0.2	2		108	80-120				20	
ANTIMONY	0.519	0.02	0.5		104	80-120				20	
ARSENIC	1.05	0.01	1		105	80-120				20	
BARIUM	1.05	0.1	1		105	80-120				20	
BORON	1.05	0.1	1		105	80-120				20	
CADMIUM	0.0517	0.005	0.05		103	80-120				20	
CALCIUM	42	1	40		105	80-120				20	
CHROMIUM	0.209	0.01	0.2		105	80-120				20	
COPPER	0.262	0.01	0.25		105	80-120				20	
IRON	0.998	0.1	1		100	80-120				20	
LEAD	0.518	0.004	0.5		104	80-120				20	
MAGNESIUM	41.2	1	40		103	80-120				20	
MANGANESE	0.526	0.01	0.5		105	80-120				20	
MOLYBDENUM	1.06	0.01	1		106	80-120				20	
NICKEL	0.513	0.02	0.5		103	80-120				20	
POTASSIUM	43.5	1	40		109	80-120				20	
SELENIUM	2.18	0.006	2		109	80-120				20	
SILVER	0.0994	0.01	0.1		99	80-120				20	
TIN	0.507	0.05	0.5		101	80-120				20	
VANADIUM	0.521	0.01	0.5		104	80-120				20	
ZINC	0.52	0.02	0.5		104	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-10-5** Instrument ID **ICPTTrace2** Method: **SW6010**

MB Sample ID: **IP171213-10** Units: **MG/L** Analysis Date: **12/18/2017 12:26**

Client ID: Run ID: **IT171218-1A4** Prep Date: **12/13/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	ND	0.2									
ANTIMONY	ND	0.02									
ARSENIC	ND	0.01									
BARIUM	ND	0.1									
BORON	ND	0.1									
CADMIUM	ND	0.005									
CALCIUM	ND	1									
CHROMIUM	ND	0.01									
COPPER	ND	0.01									
IRON	ND	0.1									
LEAD	ND	0.004									
MAGNESIUM	ND	1									
MANGANESE	ND	0.01									
MOLYBDENUM	ND	0.01									
NICKEL	ND	0.02									
POTASSIUM	ND	1									
SELENIUM	ND	0.006									
SILVER	ND	0.01									
TIN	ND	0.05									
VANADIUM	ND	0.01									
ZINC	ND	0.02									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-1-1**

Instrument ID **ICP6500**

Method: **SW6010**

LCS Sample ID: **IP171213-1**

Units: **MG/L**

Analysis Date: **12/14/2017 12:46**

Client ID:

Run ID: **IP171214-1A4**

Prep Date: **12/13/2017**

DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	19.8	2	20		99	80-120				20	
ANTIMONY	5.26	0.2	5		105	80-120				20	
BARIUM	10.1	1	10		101	80-120				20	
BORON	9.76	1	10		98	80-120				20	
CADMIUM	0.512	0.05	0.5		102	80-120				20	
CALCIUM	394	10	400		99	80-120				20	
CHROMIUM	1.76	0.1	2		88	80-120				20	
COPPER	2.41	0.1	2.5		96	80-120				20	
IRON	9.48	1	10		95	80-120				20	
LEAD	4.97	0.04	5		99	80-120				20	
MAGNESIUM	382	10	400		95	80-120				20	
MANGANESE	5.05	0.1	5		101	80-120				20	
MOLYBDENUM	9.85	0.1	10		98	80-120				20	
NICKEL	5.16	0.2	5		103	80-120				20	
POTASSIUM	390	10	400		98	80-120				20	
SELENIUM	18.7	0.06	20		94	80-120				20	
SILVER	0.897	0.1	1		90	80-120				20	
TIN	4.88	0.5	5		98	80-120				20	
VANADIUM	4.88	0.1	5		98	80-120				20	
ZINC	5.11	0.2	5		102	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-1-1**

Instrument ID: **ICP6500**

Method: **SW6010**

MB Sample ID: **EX171212-2**

Units: **MG/L**

Analysis Date: **12/14/2017 12:49**

Client ID:

Run ID: **IP171214-1A4**

Prep Date: **12/13/2017**

DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	ND	2									
ANTIMONY	ND	0.2									
BARIUM	ND	1									
BORON	ND	1									
CADMIUM	ND	0.05									
CALCIUM	ND	10									
CHROMIUM	ND	0.1									
COPPER	ND	0.1									
IRON	ND	1									
LEAD	ND	0.04									
MAGNESIUM	ND	10									
MANGANESE	ND	0.1									
MOLYBDENUM	ND	0.1									
NICKEL	ND	0.2									
POTASSIUM	ND	10									
SELENIUM	ND	0.06									
SILVER	ND	0.1									
TIN	ND	0.5									
VANADIUM	ND	0.1									
ZINC	ND	0.2									

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-1-1**

Instrument ID **ICP6500**

Method: **SW6010**

MS Sample ID: **1712224-15**

Units: **MG/L**

Analysis Date: **12/14/2017 13:20**

Client ID: **B-23**

Run ID: **IP171214-1A4**

Prep Date: **12/13/2017**

DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	21.3	2	20	2	106	80-120				20	
ANTIMONY	5.2	0.2	5	0.2	104	80-120				20	
BARIUM	10.1	1	10	1	101	80-120				20	
BORON	9.46	1	10	1	95	80-120				20	
CADMIUM	0.507	0.05	0.5	0.05	101	80-120				20	
CALCIUM	406	10	400	17	97	80-120				20	
CHROMIUM	1.78	0.1	2	0.1	89	80-120				20	
COPPER	2.41	0.1	2.5	0.1	96	80-120				20	
IRON	10.8	1	10	1	108	80-120				20	
LEAD	4.92	0.04	5	0.04	98	80-120				20	
MAGNESIUM	385	10	400	10	96	80-120				20	
MANGANESE	4.98	0.1	5	0.1	100	80-120				20	
MOLYBDENUM	9.76	0.1	10	0.1	98	80-120				20	
NICKEL	5.1	0.2	5	0.2	102	80-120				20	
POTASSIUM	392	10	400	10	98	80-120				20	
SELENIUM	18.5	0.06	20	0.06	92	80-120				20	
SILVER	0.914	0.1	1	0.1	91	80-120				20	
TIN	4.83	0.5	5	0.5	97	80-120				20	
VANADIUM	4.81	0.1	5	0.1	96	80-120				20	
ZINC	5.07	0.2	5	0.2	101	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-1-1**

Instrument ID **ICP6500**

Method: **SW6010**

MSD Sample ID: **1712224-15**

Units: **MG/L**

Analysis Date: **12/14/2017 13:23**

Client ID: **B-23**

Run ID: **IP171214-1A4**

Prep Date: **12/13/2017**

DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	21.3	2	20	2	106	80-120		21.3		20	
ANTIMONY	5.26	0.2	5	0.2	105	80-120		5.2		20	
BARIUM	10.1	1	10	1	101	80-120		10.1		20	
BORON	9.52	1	10	1	95	80-120		9.46		20	
CADMIUM	0.511	0.05	0.5	0.05	102	80-120		0.507		20	
CALCIUM	412	10	400	17	98.7	80-120		406		20	
CHROMIUM	1.82	0.1	2	0.1	91	80-120		1.78		20	
COPPER	2.48	0.1	2.5	0.1	99	80-120		2.41		20	
IRON	10.9	1	10	1	109	80-120		10.8		20	
LEAD	5.02	0.04	5	0.04	100	80-120		4.92		20	
MAGNESIUM	392	10	400	10	98	80-120		385		20	
MANGANESE	5.09	0.1	5	0.1	102	80-120		4.98		20	
MOLYBDENUM	9.92	0.1	10	0.1	99	80-120		9.76		20	
NICKEL	5.11	0.2	5	0.2	102	80-120		5.1		20	
POTASSIUM	390	10	400	10	97	80-120		392		20	
SELENIUM	18.8	0.06	20	0.06	94	80-120		18.5		20	
SILVER	0.914	0.1	1	0.1	91	80-120		0.914		20	
TIN	4.93	0.5	5	0.5	99	80-120		4.83		20	
VANADIUM	4.95	0.1	5	0.1	99	80-120		4.81		20	
ZINC	5.14	0.2	5	0.2	103	80-120		5.07		20	

The following samples were analyzed in this batch:

1712224-11	1712224-12	1712224-13
1712224-14	1712224-15	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IP171213-1-1** Instrument ID **ICP6500** Method: **SW6010**

LCS		Sample ID: IP171213-1				Units: MG/L		Analysis Date: 12/18/2017 14:03				
Client ID:		Run ID: IP171218-1A1				Prep Date: 12/13/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
ARSENIC	9.42	0.1	10		94	80-120				20		

MB		Sample ID: EX171212-2				Units: MG/L		Analysis Date: 12/18/2017 14:00				
Client ID:		Run ID: IP171218-1A1				Prep Date: 12/13/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
ARSENIC	ND	0.1										

MS		Sample ID: 1712224-15				Units: MG/L		Analysis Date: 12/18/2017 14:28				
Client ID: B-23		Run ID: IP171218-1A1				Prep Date: 12/13/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
ARSENIC	9.37	0.1	10	0.1	94	80-120				20		

MSD		Sample ID: 1712224-15				Units: MG/L		Analysis Date: 12/18/2017 14:37				
Client ID: B-23		Run ID: IP171218-1A1				Prep Date: 12/13/2017		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
ARSENIC	9.63	0.1	10	0.1	96	80-120			9.37	3	20	

The following samples were analyzed in this batch:

1712224-11	1712224-12	1712224-13
1712224-14	1712224-15	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **AK171214-1-1** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK171214-1			Units: MG/L			Analysis Date: 12/14/2017				
Client ID:	Run ID: AK171214-1A1			Prep Date: 12/14/2017			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.7	5	100		99	85-115				15	

MB	Sample ID: AK171214-1			Units: MG/L			Analysis Date: 12/14/2017				
Client ID:	Run ID: AK171214-1A1			Prep Date: 12/14/2017			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									
TOTAL ALKALINITY AS CaCO3	ND	5									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **AK171214-1-4** Instrument ID **NONE** Method: **EPA310.1**

LCS		Sample ID: AK171214-1			Units: MG/L			Analysis Date: 12/14/2017			
Client ID:		Run ID: AK171214-1A1			Prep Date: 12/14/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.7	5	100		99	85-115				15	

MB		Sample ID: AK171214-2			Units: MG/L			Analysis Date: 12/14/2017			
Client ID:		Run ID: AK171214-1A1			Prep Date: 12/14/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									
TOTAL ALKALINITY AS CaCO3	ND	5									

The following samples were analyzed in this batch:

1712224-11	1712224-12	1712224-13
1712224-14	1712224-15	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IC171214-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC171214-1			Units: MG/L			Analysis Date: 12/14/2017 14:30				
Client ID:	Run ID: IC171214-1a1			Prep Date: 12/14/2017			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	1.97	0.1	2		99	90-110				15	
CHLORIDE	5.19	0.2	5		104	90-110				15	
SULFATE	20.8	1	20		104	90-110				15	

MB		Sample ID: IC171214-1				Units: MG/L		Analysis Date: 12/14/2017 14:15			
Client ID:		Run ID: IC171214-1a1				Prep Date: 12/14/2017		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	ND	0.1									
CHLORIDE	ND	0.2									
SULFATE	ND	1									

MS		Sample ID: 1712224-2				Units: MG/L		Analysis Date: 12/14/2017 15:44			
Client ID: MW-6		Run ID: IC171214-1a1				Prep Date: 12/14/2017		DF: 5			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	9.92	0.5	10	0.71	92	85-115				15	
CHLORIDE	45.2	1	25	20	102	85-115				15	

MSD		Sample ID: 1712224-2				Units: MG/L		Analysis Date: 12/14/2017 15:59			
Client ID: MW-6		Run ID: IC171214-1a1				Prep Date: 12/14/2017			DF: 5		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	9.91	0.5	10	0.71	92	85-115		9.92	0	15	
CHLORIDE	45.1	1	25	20	102	85-115		45.2	0	15	

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **IC171214-1-2** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC171214-1** Units: **MG/L** Analysis Date: **12/14/2017 14:30**

Client ID: Run ID: **IC171214-1a1** Prep Date: **12/14/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	1.97	0.1	2		99	90-110				15	
CHLORIDE	5.19	0.2	5		104	90-110				15	
SULFATE	20.8	1	20		104	90-110				15	

MB Sample ID: **IC171214-5** Units: **MG/L** Analysis Date: **12/14/2017 14:45**

Client ID: Run ID: **IC171214-1a1** Prep Date: **12/14/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	ND	0.1									
CHLORIDE	ND	0.2									
SULFATE	ND	1									

The following samples were analyzed in this batch:

1712224-11	1712224-12	1712224-13
1712224-14	1712224-15	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **NN171211-1-1** Instrument ID **Lachat** Method: **EPA353.2**

LCS		Sample ID: NN171211-1			Units: MG/L			Analysis Date: 12/11/2017 14:23			
Client ID:		Run ID: NN171211-1A1			Prep Date: 12/11/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NITRATE/NITRITE AS N	0.475	0.01	0.5		95	90-110				20	

MB		Sample ID: NN171211-1			Units: MG/L			Analysis Date: 12/11/2017 14:22			
Client ID:		Run ID: NN171211-1A1			Prep Date: 12/11/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NITRATE/NITRITE AS N	ND	0.01									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **PH171212-1-1** Instrument ID **pH-1** Method: **EPA150.1**

DUP Sample ID: **1712224-1** Units: **pH** Analysis Date: **12/12/2017**

Client ID: **MW-13** Run ID: **PH171212-1A1** Prep Date: **12/12/2017** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.89	0.1							7.9		

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **TD171212-1-1** Instrument ID **Balance** Method: **EPA160.1**

DUP	Sample ID: 1712224-2		Units: MG/L				Analysis Date: 12/13/2017				
Client ID: MW-6	Run ID: TD171213-1A1		Prep Date: 12/12/2017				DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	2070	40						2100	2	5	

LCS	Sample ID: TD171212-1		Units: MG/L				Analysis Date: 12/13/2017				
Client ID:	Run ID: TD171213-1A1		Prep Date: 12/12/2017				DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	404	20	400		101	85-115				5	

MB	Sample ID: TD171212-1		Units: MG/L				Analysis Date: 12/13/2017				
Client ID:	Run ID: TD171213-1A1		Prep Date: 12/12/2017				DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

1712224-1	1712224-2	1712224-3
1712224-4	1712224-5	

Client: Telesto Solutions Inc
Work Order: 1712224
Project: 360100 Knox

QC BATCH REPORT

Batch ID: **TD171214-1-2** Instrument ID **Balance** Method: **EPA160.1**

LCS		Sample ID: TD171214-1			Units: MG/L			Analysis Date: 12/15/2017			
Client ID:		Run ID: TD171215-1A1			Prep Date: 12/14/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	399	20	400		100	85-115				5	

MB		Sample ID: TD171214-2			Units: MG/L			Analysis Date: 12/15/2017			
Client ID:		Run ID: TD171215-1A1			Prep Date: 12/14/2017			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

1712224-11	1712224-12	1712224-13
1712224-14	1712224-15	



Thursday, February 15, 2018

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1802056
Project Name: LRM
Project Number: 360100

Dear Mr. Gerken:

Twelve water samples were received from Telesto Solutions Inc, on 2/2/2018. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1802056

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020A and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

The samples for dissolved metals had been filtered prior to receipt. All samples had a pH less than 2 upon receipt.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846, MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1802056

Client Name: Telesto Solutions Inc

Client Project Name: LRM

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-19	1802056-1		WATER	02-Feb-18	15:08
MW-10	1802056-2		WATER	02-Feb-18	13:50
MW-13	1802056-3		WATER	02-Feb-18	14:15
MW-12	1802056-4		WATER	02-Feb-18	14:37
MW-06	1802056-5		WATER	02-Feb-18	13:17
MW-02	1802056-6		WATER	02-Feb-18	12:34
MW-19	1802056-7		WATER	02-Feb-18	15:08
MW-10	1802056-8		WATER	02-Feb-18	13:50
MW-13	1802056-9		WATER	02-Feb-18	14:15
MW-12	1802056-10		WATER	02-Feb-18	14:37
MW-06	1802056-11		WATER	02-Feb-18	13:17
MW-02	1802056-12		WATER	02-Feb-18	12:34



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1802056

PAGE

1 of 2

DISPOSAL

BY LAB or RETURN

PROJECT NAME

LRM

SITE ID

Knox Pit

PROJECT No.

360100

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

Teleso Solutions

BILL TO COMPANY

"

"

SEND REPORT TO

Tim Gerken

INVOICE ATTN TO

"

"

ADDRESS

3801 Automation Way, Ste #201

ADDRESS

"

"

CITY / STATE / ZIP

Fort Collins, CO 80525

CITY / STATE / ZIP

"

"

PHONE

970-484-7704

PHONE

"

"

FAX

FAX

E-MAIL

tgerken@teleso-inc.com

E-MAIL

"

"

LAB ID

FIELD ID

MATRIX

SAMPLE DATE

SAMPLE TIME

OF BOTTLES

PRESERVATIVE

QC

A

B

C

D

E

F

G

H

I

J

SEE NOTES SECTION

8416 MW-19-unfiltered

W

2/2/18

3:08

1

HNO3

X

7396 MW-19-Filtered

W

2/2/18

3:08

1

HNO3

X

8383 MW-19

W

2/2/18

3:08

1

4

X

11554 MW-19

W

2/2/18

3:08

1

None

X

8417 MW-10-Filtered

W

2/2/18

7:50

1

HNO3

X

7423 MW-10-unfiltered

W

2/2/18

1:50

1

2

X

11502 MW-10

W

2/2/18

1:50

1

None

X

7457 MW-10

W

2/2/18

1:50

1

4

X

8378 MW-13-Filtered

W

2/2/18

2:15

1

2

X

7423 MW-13-unfiltered

W

2/2/18

2:15

1

2

X

11541 MW-13

W

2/2/18

2:15

1

None

X

8358 MW-12

W

2/2/18

2:15

1

4

X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw)

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

2/2/18

4:13

RECEIVED BY

Julie Ellingson

Julie Ellingson

2/2/18

16:13

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

PRESERVATION KEY

1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1802056

PROJECT NAME		L R m		SITE ID				SAMPLER		Tim Gerken		PAGE		2 of 2																							
PROJECT No.		360100		EDD FORMAT				DISPOSAL				BY LAB		or RETURN																							
COMPANY NAME		Same AS		BILL TO COMPANY				PARAMETER/METHOD REQUEST FOR ANALYSIS																													
SEND REPORT TO				INVOICE ATTN TO				A		Metals																											
ADDRESS		Page 1		ADDRESS				B		Wetchem																											
CITY / STATE / ZIP				CITY / STATE / ZIP				C		No2 + NO3																											
PHONE				PHONE				D																													
FAX				FAX				E																													
E-MAIL				E-MAIL				F																													
								G																													
								H																													
								I																													
								J																													
LAB ID		FIELD ID		MATRIX		SAMPLE DATE		SAMPLE TIME		# OF BOTTLES		PRESERVATIVE		QC		A		B		C		D		E		F		G		H		I		J		SEE NOTES SECTION	
⑩ 8355		MW-12-Filtered		W		2/2/18		2:37		1		2				X																					
④ 8391		MW-12-Unfiltered		W		2/2/18		2:37		1		2				X																					
1 11496		MW-12		W		2/2/18		2:37		1		None						X																			
③ 8423		MW-13		W		2/2/18		2:15		1		4								X																	
⑪ 8388		MW-06-Filtered		W		2/2/18		1:17		1		2				X																					
⑤ 8845		MW-06-unfiltered		W		2/2/18		1:17		1		2				X																					
1 11509		MW-06		W		2/2/18		1:17		1		None						X																			
1 8405		MW-06		W		2/2/18		1:17		1		4								X																	
⑫ 8403		MW-02-Filtered		W		2/2/18		12:34		1		2				X																					
⑥ 7394		MW-02-unfiltered		W		2/2/18		12:34		1		2				X																					
1 11517		MW-02		W		2/2/18		12:34		1		None						X																			
1 7475		MW-02		W		2/2/18		12:34		1		4								X																	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED	
6 of 27		Summary (Standard QC)	
		LEVEL II (Standard QC)	
		LEVEL III (Std QC + forms)	
		LEVEL IV (Std QC + forms + raw)	
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other	

Form 2029		SIGNATURE		PRINTED NAME		DATE		TIME	
RELINQUISHED BY		<i>[Signature]</i>		Tim Gerken		2/2/18		4:13	
RECEIVED BY		<i>[Signature]</i>		Julie Ellingsen		2/2/18		1:13	
RELINQUISHED BY									
RECEIVED BY									
RELINQUISHED BY									
RECEIVED BY									



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Teles to

Workorder No: 1802056

Project Manager: JK

Initials: 212 Date: 2/2/18

1. Does this project require any special handling in addition to standard ALS procedures?		YES	☒ NO
2. Are custody seals on shipping containers intact?	NONE	YES	NO
3. Are Custody seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		☒ YES	NO
5. Are the COC and bottle labels complete and legible?		☒ YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		☒ YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	☒ NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	☒ YES	NO
10. Is there sufficient sample for the requested analyses?		☒ YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		☒ YES	NO
12. Are all samples within holding times for the requested analyses?		☒ YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		☒ YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u> </u> < green pea <u> </u> > green pea	N/A	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: <u>X</u> dusting <u>X</u> moderate <u> </u> heavy	N/A	☒ YES	NO
16. Were the samples shipped on ice?		YES	☒ NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 ☒ #3 #4		☒ YES	☒ NO
Cooler #: <u>1</u>			
Temperature (°C): <u>12.6</u>			
No. of custody seals on cooler: <u>N/A</u>			
External µR/hr reading: <u>N/A</u>			
Background µR/hr reading: <u>10</u>			
Were external µR hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

- Samples 1, 3, and 4 (all bottles) contain moderate sediment
 - Samples 2, 5, and 6 (all bottles) contain a light dusting
 - Sample 7 had an initial pH of 5, 1.0 mL HNO₃ added
 > Final pH < 2 Lot # 169331
 - Sample 8 had an initial pH of 3, 0.5 mL HNO₃ added
 > Final pH < 2 Lot # 169331

If applicable, was the client contacted? YES / NO ☒ Contact: JK Date/Time: 2.6.18

Project Manager Signature / Date: JK 2.6.18

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-19

Lab ID: 1802056-1

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 15:08

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	140		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	140		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:28
ARSENIC	58		2	UG/L	10	2/13/2018 19:28
BARIUM	1100		5	UG/L	10	2/13/2018 19:28
BERYLLIUM	5.7		0.5	UG/L	10	2/13/2018 19:28
CALCIUM	76000		1000	UG/L	10	2/13/2018 19:28
CADMIUM	ND		2	UG/L	10	2/13/2018 19:28
CHROMIUM	140		10	UG/L	10	2/13/2018 19:28
IRON	130000		100	UG/L	10	2/13/2018 19:28
POTASSIUM	16000		1000	UG/L	10	2/13/2018 19:28
MAGNESIUM	30000		100	UG/L	10	2/13/2018 19:28
MOLYBDENUM	42		2	UG/L	10	2/13/2018 19:28
SODIUM	6300		1000	UG/L	10	2/13/2018 19:28
NICKEL	120		20	UG/L	10	2/13/2018 19:28
LEAD	50		2	UG/L	10	2/13/2018 19:28
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:28
SELENIUM	46		10	UG/L	10	2/13/2018 19:28
THALLIUM	1.6		0.1	UG/L	10	2/13/2018 19:28
URANIUM	76		0.1	UG/L	10	2/13/2018 19:28
Ion Chromatography		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	4.8		0.2	MG/L	1	2/6/2018 17:13
FLUORIDE	0.32		0.1	MG/L	1	2/6/2018 17:13
NITRATE AS N	0.3		0.2	MG/L	1	2/6/2018 17:13
NITRITE AS N	ND		0.1	MG/L	1	2/6/2018 17:13
SULFATE	50		1	MG/L	1	2/6/2018 17:13
Mercury		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	0.00022		0.0002	MG/L	1	2/8/2018 13:33
pH		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.94		0.1	pH	1	2/6/2018
Total Cyanide		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	240		20	MG/L	1	2/7/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-10

Lab ID: 1802056-2

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 13:50

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	240		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	240		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:31
ARSENIC	3.9		2	UG/L	10	2/13/2018 19:31
BARIUM	200		5	UG/L	10	2/13/2018 19:31
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 19:31
CALCIUM	400000		1000	UG/L	10	2/13/2018 19:31
CADMIUM	ND		2	UG/L	10	2/13/2018 19:31
CHROMIUM	18		10	UG/L	10	2/13/2018 19:31
IRON	13000		100	UG/L	10	2/13/2018 19:31
POTASSIUM	5600		1000	UG/L	10	2/13/2018 19:31
MAGNESIUM	27000		100	UG/L	10	2/13/2018 19:31
MOLYBDENUM	3.3		2	UG/L	10	2/13/2018 19:31
SODIUM	18000		1000	UG/L	10	2/13/2018 19:31
NICKEL	ND		20	UG/L	10	2/13/2018 19:31
LEAD	7.4		2	UG/L	10	2/13/2018 19:31
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:31
SELENIUM	20		10	UG/L	10	2/13/2018 19:31
THALLIUM	0.25		0.1	UG/L	10	2/13/2018 19:31
URANIUM	35		0.1	UG/L	10	2/13/2018 19:31
Ion Chromatography		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	19		0.2	MG/L	1	2/6/2018 17:43
FLUORIDE	0.4		0.1	MG/L	1	2/6/2018 17:43
NITRATE AS N	3.3		0.2	MG/L	1	2/6/2018 17:43
NITRITE AS N	3.4		0.1	MG/L	1	2/6/2018 17:43
SULFATE	820		10	MG/L	10	2/6/2018 17:28
Mercury		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:35
pH		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.63		0.1	pH	1	2/6/2018
Total Cyanide		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	1500		40	MG/L	1	2/7/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-13

Lab ID: 1802056-3

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 14:15

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	130		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	130		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	0.7		0.5	UG/L	10	2/13/2018 19:46
ARSENIC	32		2	UG/L	10	2/13/2018 19:46
BARIUM	840		5	UG/L	10	2/13/2018 19:46
BERYLLIUM	4.1		0.5	UG/L	10	2/13/2018 19:46
CALCIUM	95000		1000	UG/L	10	2/13/2018 19:46
CADMIUM	ND		2	UG/L	10	2/13/2018 19:46
CHROMIUM	160		10	UG/L	10	2/13/2018 19:46
IRON	120000		100	UG/L	10	2/13/2018 19:46
POTASSIUM	21000		1000	UG/L	10	2/13/2018 19:46
MAGNESIUM	41000		100	UG/L	10	2/13/2018 19:46
MOLYBDENUM	8.6		2	UG/L	10	2/13/2018 19:46
SODIUM	6400		1000	UG/L	10	2/13/2018 19:46
NICKEL	110		20	UG/L	10	2/13/2018 19:46
LEAD	63		2	UG/L	10	2/13/2018 19:46
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:46
SELENIUM	ND		10	UG/L	10	2/13/2018 19:46
THALLIUM	2.2		0.1	UG/L	10	2/13/2018 19:46
URANIUM	11		0.1	UG/L	10	2/13/2018 19:46
Ion Chromatography						
		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	5		0.2	MG/L	1	2/6/2018 17:58
FLUORIDE	0.3		0.1	MG/L	1	2/6/2018 17:58
NITRATE AS N	ND		0.2	MG/L	1	2/6/2018 17:58
NITRITE AS N	ND		0.1	MG/L	1	2/6/2018 17:58
SULFATE	52		1	MG/L	1	2/6/2018 17:58
Mercury						
		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:38
pH						
		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.87		0.1	pH	1	2/6/2018
Total Cyanide						
		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	220		20	MG/L	1	2/7/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-12

Lab ID: 1802056-4

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 14:37

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	160		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	160		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:49
ARSENIC	20		2	UG/L	10	2/13/2018 19:49
BARIUM	680		5	UG/L	10	2/13/2018 19:49
BERYLLIUM	2.8		0.5	UG/L	10	2/13/2018 19:49
CALCIUM	210000		1000	UG/L	10	2/13/2018 19:49
CADMIUM	ND		2	UG/L	10	2/13/2018 19:49
CHROMIUM	130		10	UG/L	10	2/13/2018 19:49
IRON	86000		100	UG/L	10	2/13/2018 19:49
POTASSIUM	21000		1000	UG/L	10	2/13/2018 19:49
MAGNESIUM	41000		100	UG/L	10	2/13/2018 19:49
MOLYBDENUM	6.2		2	UG/L	10	2/13/2018 19:49
SODIUM	13000		1000	UG/L	10	2/13/2018 19:49
NICKEL	80		20	UG/L	10	2/13/2018 19:49
LEAD	27		2	UG/L	10	2/13/2018 19:49
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:49
SELENIUM	13		10	UG/L	10	2/13/2018 19:49
THALLIUM	1.6		0.1	UG/L	10	2/13/2018 19:49
URANIUM	13		0.1	UG/L	10	2/13/2018 19:49
Ion Chromatography		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	17		0.2	MG/L	1	2/6/2018 18:27
FLUORIDE	0.5		0.1	MG/L	1	2/6/2018 18:27
NITRATE AS N	ND		0.2	MG/L	1	2/6/2018 18:27
NITRITE AS N	2.5		0.1	MG/L	1	2/6/2018 18:27
SULFATE	430		10	MG/L	10	2/6/2018 18:13
Mercury		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:40
pH		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.63		0.1	pH	1	2/6/2018
Total Cyanide		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	790		20	MG/L	1	2/7/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-06

Lab ID: 1802056-5

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 13:17

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	260		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:52
ARSENIC	8.2		2	UG/L	10	2/13/2018 19:52
BARIUM	460		5	UG/L	10	2/13/2018 19:52
BERYLLIUM	0.89		0.5	UG/L	10	2/13/2018 19:52
CALCIUM	560000		1000	UG/L	10	2/13/2018 19:52
CADMIUM	ND		2	UG/L	10	2/13/2018 19:52
CHROMIUM	33		10	UG/L	10	2/13/2018 19:52
IRON	25000		100	UG/L	10	2/13/2018 19:52
POTASSIUM	11000		1000	UG/L	10	2/13/2018 19:52
MAGNESIUM	36000		100	UG/L	10	2/13/2018 19:52
MOLYBDENUM	6.7		2	UG/L	10	2/13/2018 19:52
SODIUM	23000		1000	UG/L	10	2/13/2018 19:52
NICKEL	38		20	UG/L	10	2/13/2018 19:52
LEAD	14		2	UG/L	10	2/13/2018 19:52
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:52
SELENIUM	37		10	UG/L	10	2/13/2018 19:52
THALLIUM	0.49		0.1	UG/L	10	2/13/2018 19:52
URANIUM	45		0.1	UG/L	10	2/13/2018 19:52
Ion Chromatography		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	19		1	MG/L	5	2/6/2018 18:57
FLUORIDE	0.62		0.5	MG/L	5	2/6/2018 18:57
NITRATE AS N	3.3		1	MG/L	5	2/6/2018 18:57
NITRITE AS N	ND		0.5	MG/L	5	2/6/2018 18:57
SULFATE	1300		20	MG/L	20	2/6/2018 18:42
Mercury		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:42
pH		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.42		0.1	pH	1	2/6/2018
Total Cyanide		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	2100		40	MG/L	1	2/7/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-02

Lab ID: 1802056-6

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 12:34

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/7/2018	PrepBy: HMA
BICARBONATE AS CaCO3	170		20	MG/L	1	2/7/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	2/7/2018
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	2/7/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:55
ARSENIC	6.4		2	UG/L	10	2/13/2018 19:55
BARIUM	230		5	UG/L	10	2/13/2018 19:55
BERYLLIUM	0.78		0.5	UG/L	10	2/13/2018 19:55
CALCIUM	150000		1000	UG/L	10	2/13/2018 19:55
CADMIUM	ND		2	UG/L	10	2/13/2018 19:55
CHROMIUM	29		10	UG/L	10	2/13/2018 19:55
IRON	21000		100	UG/L	10	2/13/2018 19:55
POTASSIUM	7100		1000	UG/L	10	2/13/2018 19:55
MAGNESIUM	40000		100	UG/L	10	2/13/2018 19:55
MOLYBDENUM	2.7		2	UG/L	10	2/13/2018 19:55
SODIUM	35000		1000	UG/L	10	2/13/2018 19:55
NICKEL	ND		20	UG/L	10	2/13/2018 19:55
LEAD	9.4		2	UG/L	10	2/13/2018 19:55
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:55
SELENIUM	ND		10	UG/L	10	2/13/2018 19:55
THALLIUM	0.35		0.1	UG/L	10	2/13/2018 19:55
URANIUM	6.9		0.1	UG/L	10	2/13/2018 19:55
Ion Chromatography		EPA300.0			Prep Date: 2/6/2018	PrepBy: HMA
CHLORIDE	19		0.2	MG/L	1	2/6/2018 19:59
FLUORIDE	0.41		0.1	MG/L	1	2/6/2018 19:59
NITRATE AS N	0.39		0.2	MG/L	1	2/6/2018 19:59
NITRITE AS N	2.5		0.1	MG/L	1	2/6/2018 19:59
SULFATE	440		10	MG/L	10	2/6/2018 19:44
Mercury		SW7470			Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:44
pH		EPA150.1			Prep Date: 2/6/2018	PrepBy: HMA
PH	7.44		0.1	pH	1	2/6/2018
Total Cyanide		SW9014			Prep Date: 2/7/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	2/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 2/6/2018	PrepBy: HMA
TOTAL DISSOLVED SOLIDS	850		20	MG/L	1	2/7/2018

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-19

Lab ID: 1802056-7

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 15:08

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 19:58
ARSENIC	ND		2	UG/L	10	2/13/2018 19:58
BARIUM	42		5	UG/L	10	2/13/2018 19:58
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 19:58
CALCIUM	60000		1000	UG/L	10	2/13/2018 19:58
CADMIUM	ND		2	UG/L	10	2/13/2018 19:58
CHROMIUM	ND		10	UG/L	10	2/13/2018 19:58
IRON	130		100	UG/L	10	2/13/2018 19:58
POTASSIUM	1200		1000	UG/L	10	2/13/2018 19:58
MAGNESIUM	8000		100	UG/L	10	2/13/2018 19:58
MOLYBDENUM	8.8		2	UG/L	10	2/13/2018 19:58
SODIUM	6400		1000	UG/L	10	2/13/2018 19:58
NICKEL	ND		20	UG/L	10	2/13/2018 19:58
LEAD	ND		2	UG/L	10	2/13/2018 19:58
ANTIMONY	ND		1	UG/L	10	2/13/2018 19:58
SELENIUM	ND		10	UG/L	10	2/13/2018 19:58
THALLIUM	ND		0.1	UG/L	10	2/13/2018 19:58
URANIUM	4.6		0.1	UG/L	10	2/13/2018 19:58
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:50

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-10

Lab ID: 1802056-8

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 13:50

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 20:01
ARSENIC	ND		2	UG/L	10	2/13/2018 20:01
BARIUM	24		5	UG/L	10	2/13/2018 20:01
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 20:01
CALCIUM	400000		1000	UG/L	10	2/13/2018 20:01
CADMIUM	ND		2	UG/L	10	2/13/2018 20:01
CHROMIUM	ND		10	UG/L	10	2/13/2018 20:01
IRON	440		100	UG/L	10	2/13/2018 20:01
POTASSIUM	3000		1000	UG/L	10	2/13/2018 20:01
MAGNESIUM	24000		100	UG/L	10	2/13/2018 20:01
MOLYBDENUM	2.5		2	UG/L	10	2/13/2018 20:01
SODIUM	18000		1000	UG/L	10	2/13/2018 20:01
NICKEL	ND		20	UG/L	10	2/13/2018 20:01
LEAD	ND		2	UG/L	10	2/13/2018 20:01
ANTIMONY	ND		1	UG/L	10	2/13/2018 20:01
SELENIUM	19		10	UG/L	10	2/13/2018 20:01
THALLIUM	ND		0.1	UG/L	10	2/13/2018 20:01
URANIUM	34		0.1	UG/L	10	2/13/2018 20:01
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:52

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-13

Lab ID: 1802056-9

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 14:15

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 20:04
ARSENIC	ND		2	UG/L	10	2/13/2018 20:04
BARIUM	39		5	UG/L	10	2/13/2018 20:04
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 20:04
CALCIUM	58000		1000	UG/L	10	2/13/2018 20:04
CADMIUM	ND		2	UG/L	10	2/13/2018 20:04
CHROMIUM	ND		10	UG/L	10	2/13/2018 20:04
IRON	100		100	UG/L	10	2/13/2018 20:04
POTASSIUM	1100		1000	UG/L	10	2/13/2018 20:04
MAGNESIUM	6900		100	UG/L	10	2/13/2018 20:04
MOLYBDENUM	2.4		2	UG/L	10	2/13/2018 20:04
SODIUM	5300		1000	UG/L	10	2/13/2018 20:04
NICKEL	ND		20	UG/L	10	2/13/2018 20:04
LEAD	ND		2	UG/L	10	2/13/2018 20:04
ANTIMONY	ND		1	UG/L	10	2/13/2018 20:04
SELENIUM	ND		10	UG/L	10	2/13/2018 20:04
THALLIUM	ND		0.1	UG/L	10	2/13/2018 20:04
URANIUM	1.9		0.1	UG/L	10	2/13/2018 20:04
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:55

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-12

Lab ID: 1802056-10

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 14:37

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 20:07
ARSENIC	ND		2	UG/L	10	2/13/2018 20:07
BARIUM	25		5	UG/L	10	2/13/2018 20:07
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 20:07
CALCIUM	200000		1000	UG/L	10	2/13/2018 20:07
CADMIUM	ND		2	UG/L	10	2/13/2018 20:07
CHROMIUM	ND		10	UG/L	10	2/13/2018 20:07
IRON	ND		100	UG/L	10	2/13/2018 20:07
POTASSIUM	1800		1000	UG/L	10	2/13/2018 20:07
MAGNESIUM	16000		100	UG/L	10	2/13/2018 20:07
MOLYBDENUM	3.8		2	UG/L	10	2/13/2018 20:07
SODIUM	14000		1000	UG/L	10	2/13/2018 20:07
NICKEL	ND		20	UG/L	10	2/13/2018 20:07
LEAD	ND		2	UG/L	10	2/13/2018 20:07
ANTIMONY	ND		1	UG/L	10	2/13/2018 20:07
SELENIUM	ND		10	UG/L	10	2/13/2018 20:07
THALLIUM	ND		0.1	UG/L	10	2/13/2018 20:07
URANIUM	7		0.1	UG/L	10	2/13/2018 20:07
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:57

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-06

Lab ID: 1802056-11

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 13:17

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 20:10
ARSENIC	ND		2	UG/L	10	2/13/2018 20:10
BARIUM	40		5	UG/L	10	2/13/2018 20:10
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 20:10
CALCIUM	540000		1000	UG/L	10	2/13/2018 20:10
CADMIUM	ND		2	UG/L	10	2/13/2018 20:10
CHROMIUM	ND		10	UG/L	10	2/13/2018 20:10
IRON	ND		100	UG/L	10	2/13/2018 20:10
POTASSIUM	6800		1000	UG/L	10	2/13/2018 20:10
MAGNESIUM	30000		100	UG/L	10	2/13/2018 20:10
MOLYBDENUM	5.2		2	UG/L	10	2/13/2018 20:10
SODIUM	23000		1000	UG/L	10	2/13/2018 20:10
NICKEL	ND		20	UG/L	10	2/13/2018 20:10
LEAD	ND		2	UG/L	10	2/13/2018 20:10
ANTIMONY	ND		1	UG/L	10	2/13/2018 20:10
SELENIUM	33		10	UG/L	10	2/13/2018 20:10
THALLIUM	ND		0.1	UG/L	10	2/13/2018 20:10
URANIUM	42		0.1	UG/L	10	2/13/2018 20:10
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 13:59

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-02

Lab ID: 1802056-12

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 12:34

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 2/12/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2018 20:13
ARSENIC	ND		2	UG/L	10	2/13/2018 20:13
BARIUM	32		5	UG/L	10	2/13/2018 20:13
BERYLLIUM	ND		0.5	UG/L	10	2/13/2018 20:13
CALCIUM	160000		1000	UG/L	10	2/13/2018 20:13
CADMIUM	ND		2	UG/L	10	2/13/2018 20:13
CHROMIUM	ND		10	UG/L	10	2/13/2018 20:13
IRON	150		100	UG/L	10	2/13/2018 20:13
POTASSIUM	2100		1000	UG/L	10	2/13/2018 20:13
MAGNESIUM	38000		100	UG/L	10	2/13/2018 20:13
MOLYBDENUM	2.1		2	UG/L	10	2/13/2018 20:13
SODIUM	38000		1000	UG/L	10	2/13/2018 20:13
NICKEL	ND		20	UG/L	10	2/13/2018 20:13
LEAD	ND		2	UG/L	10	2/13/2018 20:13
ANTIMONY	ND		1	UG/L	10	2/13/2018 20:13
SELENIUM	ND		10	UG/L	10	2/13/2018 20:13
THALLIUM	ND		0.1	UG/L	10	2/13/2018 20:13
URANIUM	5.4		0.1	UG/L	10	2/13/2018 20:13
Dissolved Mercury			SW7470		Prep Date: 2/8/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	2/8/2018 14:01

Client: Telesto Solutions Inc

Date: 15-Feb-18

Project: 360100 LRM

Work Order: 1802056

Sample ID: MW-02

Lab ID: 1802056-12

Legal Location:

Matrix: WATER

Collection Date: 2/2/2018 12:34

Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers**Radiochemistry:**

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.

- Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

ALS -- Fort Collins

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

Date: 2/15/2018 1:32:

QC BATCH REPORT

Batch ID: **HG180208-1-1** Instrument ID: **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG180208-1			Units: MG/L			Analysis Date: 2/8/2018 13:31					
Client ID:	Run ID: HG180208-1A1			Prep Date: 2/8/2018			DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.000959	0.0002	0.001		96	80-120				20		

MB	Sample ID: EX180207-3			Units: MG/L			Analysis Date: 2/8/2018 13:29					
Client ID:	Run ID: HG180208-1A1			Prep Date: 2/8/2018			DF: 1					
Analyte	Result	ReportLimit									Qual	
MERCURY	ND	0.002										

MB	Sample ID: HG180208-1			Units: MG/L			Analysis Date: 2/8/2018 13:27					
Client ID:	Run ID: HG180208-1A1			Prep Date: 2/8/2018			DF: 1					
Analyte	Result	ReportLimit									Qual	
MERCURY	ND	0.0002										

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6
1802056-7	1802056-8	1802056-9
1802056-10	1802056-11	1802056-12

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **IP180212-2-3**

Instrument ID **ICPMS2**

Method: **SW6020**

LCS	Sample ID: IM180212-2			Units: UG/L		Analysis Date: 2/13/2018 19:01					
Client ID:	Run ID: IM180213-10A1			Prep Date: 2/12/2018			DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ANTIMONY	27.9	1	30		93	80-120				20	
ARSENIC	102	2	100		102	80-120				20	
BARIUM	91.5	5	100		91	80-120				20	
BERYLLIUM	52.9	0.5	50		106	80-120				20	
CADMIUM	31.8	2	30		106	80-120				20	
CALCIUM	9330	1000	10000		93	80-120				20	
CHROMIUM	502	10	500		100	80-120				20	
IRON	4880	100	5000		98	80-120				20	
LEAD	52.8	2	50		106	80-120				20	
MAGNESIUM	9480	100	10000		95	80-120				20	
MOLYBDENUM	99.5	2	100		99	80-120				20	
NICKEL	480	20	500		96	80-120				20	
POTASSIUM	4840	1000	5000		97	80-120				20	
SELENIUM	102	10	100		102	80-120				20	
SILVER	9.22	0.5	10		92	80-120				20	
SODIUM	9450	1000	10000		94	80-120				20	
THALLIUM	2.06	0.1	2		103	80-120				20	
URANIUM	9.9	0.1	10		99	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **IP180212-2-3** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP180212-2** Units: **UG/L** Analysis Date: **2/13/2018 18:58**
Client ID: Run ID: **IM180213-10A1** Prep Date: **2/12/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
IRON	ND	100	
LEAD	ND	2	
MAGNESIUM	ND	100	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6
1802056-7	1802056-8	1802056-9
1802056-10	1802056-11	1802056-12

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **AK180207-1-1** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK180207-1				Units: MG/L		Analysis Date: 2/7/2018				
Client ID:	Run ID: AK180207-1A1				Prep Date: 2/7/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	99.5	5	100		99	85-115				15	

MB	Sample ID: AK180207-1		Units: MG/L		Analysis Date: 2/7/2018	
Client ID:	Run ID: AK180207-1A1		Prep Date: 2/7/2018		DF: 1	
Analyte	Result	ReportLimit				Qual
BICARBONATE AS CaCO3	ND	5				
CARBONATE AS CaCO3	ND	5				
TOTAL ALKALINITY AS CaCO3	ND	5				

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **CN180207-1-1** Instrument ID **Spec** Method: **SW9014**

LCS		Sample ID: CN180207-1				Units: MG/L		Analysis Date: 2/7/2018			
Client ID:		Run ID: CN180207-1A1				Prep Date: 2/7/2018				DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.0958	0.005	0.1		96	85-115				30	

LCSD		Sample ID: CN180207-1				Units: MG/L		Analysis Date: 2/7/2018			
Client ID:		Run ID: CN180207-1A1				Prep Date: 2/7/2018				DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.173	0.005	0.2		87	85-115		0.0958	10	30	

MB		Sample ID: CN180207-1				Units: MG/L		Analysis Date: 2/7/2018			
Client ID:		Run ID: CN180207-1A1				Prep Date: 2/7/2018				DF: 1	
Analyte	Result	ReportLimit									Qual
CYANIDE, TOTAL	ND	0.005									

MS		Sample ID: 1802056-1				Units: MG/L		Analysis Date: 2/7/2018			
Client ID: MW-19		Run ID: CN180207-1A1				Prep Date: 2/7/2018				DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.0917	0.005	0.1	0.005	92	75-125				30	

MSD		Sample ID: 1802056-1				Units: MG/L		Analysis Date: 2/7/2018			
Client ID: MW-19		Run ID: CN180207-1A1				Prep Date: 2/7/2018				DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.0896	0.005	0.1	0.005	90	75-125		0.0917	2	30	

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **IC180206-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC180206-1** Units: **MG/L** Analysis Date: **2/6/2018 13:06**

Client ID: Run ID: **IC180206-1A1** Prep Date: **2/6/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.15	0.1	5		103	90-110				15	
CHLORIDE	10.4	0.2	10		104	90-110				15	
NITRITE AS N	5.18	0.1	5		103	90-110				15	
NITRATE AS N	10.4	0.2	10		104	90-110				15	
SULFATE	51.8	1	50		104	90-110				15	

MB Sample ID: **IC180206-1** Units: **MG/L** Analysis Date: **2/6/2018 13:21**

Client ID: Run ID: **IC180206-1A1** Prep Date: **2/6/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
FLUORIDE	ND	0.1	
CHLORIDE	ND	0.2	
NITRITE AS N	ND	0.1	
NITRATE AS N	ND	0.2	
SULFATE	ND	1	

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6

Client: Telesto Solutions Inc
Work Order: 1802056
Project: 360100 LRM

QC BATCH REPORT

Batch ID: **TD180206-1-2** Instrument ID **Balance** Method: **EPA160.1**

LCS		Sample ID: TD180206-1			Units: MG/L			Analysis Date: 2/7/2018			
Client ID:		Run ID: TD180207-1A1			Prep Date: 2/6/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	387	20	400		97	85-115				5	

MB		Sample ID: TD180206-1			Units: MG/L			Analysis Date: 2/7/2018			
Client ID:		Run ID: TD180207-1A1			Prep Date: 2/6/2018			DF: 1			
Analyte	Result	ReportLimit									Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

1802056-1	1802056-2	1802056-3
1802056-4	1802056-5	1802056-6



Saturday, May 19, 2018

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1805174
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Sixteen water samples were received from Telesto Solutions Inc, on 5/8/2018. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,


ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1805174

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020A and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

The samples for dissolved metals had been filtered prior to receipt. All samples had a pH less than 2 upon receipt.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846, MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Hydroxide	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

- n Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Chloride	1805174-1 MS & MSD

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1805174

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-02	1805174-1		WATER	08-May-18	11:00
MW-06	1805174-2		WATER	08-May-18	11:45
MW-13	1805174-3		WATER	08-May-18	13:10
MW-10	1805174-4		WATER	08-May-18	14:10
02-MW-10	1805174-5		WATER	08-May-18	14:20
BLANK	1805174-6		WATER	08-May-18	14:30
MW-12	1805174-7		WATER	08-May-18	14:50
MW-19	1805174-8		WATER	08-May-18	16:10
MW-02	1805174-9		WATER	08-May-18	11:00
MW-06	1805174-10		WATER	08-May-18	11:45
MW-13	1805174-11		WATER	08-May-18	13:10
MW-10	1805174-12		WATER	08-May-18	14:10
02-MW-10	1805174-13		WATER	08-May-18	14:20
BLANK	1805174-14		WATER	08-May-18	14:30
MW-12	1805174-15		WATER	08-May-18	14:50
MW-19	1805174-16		WATER	08-May-18	16:10



ALS Environmental

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1805174

PAGE

1 of 3

DISPOSAL

BY LAB or RETURN

PROJECT NAME	LRM- Knox Pit	SITE ID		PARAMETER/METHOD REQUEST FOR ANALYSIS															
PROJECT No.	360 600	EDD FORMAT																	
COMPANY NAME	Telesb Solutions Inc.	PURCHASE ORDER		A	Metals														
SEND REPORT TO	Tim Gerken	BILL TO COMPANY		B	Wetchem														
ADDRESS	3801 Automation Way	INVOICE ATTN TO		C	No2 + No3														
CITY / STATE / ZIP	Fort Collins, CO 80505	ADDRESS		D															
PHONE	720-438-5513	CITY / STATE / ZIP		E															
FAX		PHONE		F															
E-MAIL	tgerken@telesb-inc.com	FAX		G															
		E-MAIL		H															
				I															
				J															
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION	
9550	MW-02 - Filtered (9)	W	5/8/18	11:00	1	2		X											
6658	MW-02 - unfiltered	W	5/8	11:00	1	2		X											
55932	MW-02 - RAW (1)	W	5/8	11:00	1	None			X										
9340	MW-02 - unfiltered	W	5/8	11:00	1	4				X									
6655	MW-06 - Filtered (10)	W	5/8	11:45	1	2		X											
10823	MW-06 - unfiltered (2)	W	5/8	11:45	1	2		X											
55964	MW-06 - RAW	W	5/8	11:45	1	none			X										
6643	MW-06 - unfiltered	W	5/8	11:45	1	4				X									
9576	MW-13 - Filtered (11)	W	5/8	13:10	1	2		X											
unknown	MW-13 - unfiltered	W	5/8	13:10	1	2		X											
55926	MW-13 - RAW (3)	W	5/8	13:10	1	None				X									
6708	MW-13 - unfiltered	W	5/8	13:10	1	4			X										

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

5-8-18 1720

RECEIVED BY

C. Dumble

C. Dumble

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY



ALS Environmental

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1805174

PAGE

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DISPOSAL

BY LAB or RETURN

PROJECT NAME		SITE ID		PARAMETER/METHOD REQUEST FOR ANALYSIS														
PROJECT No.	Same	EDD FORMAT																
COMPANY NAME	AS	PURCHASE ORDER		A														
SEND REPORT TO		BILL TO COMPANY		B														
ADDRESS		INVOICE ATTN TO		C														
CITY / STATE / ZIP		ADDRESS		D														
PHONE		CITY / STATE / ZIP		E														
FAX		PHONE		F														
E-MAIL		FAX		G														
		E-MAIL		H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
55984	MW-10 - RAW (4)	W	5/8	14:10	1	None												
14465	MW-10 - Filtered (12)	W	5/8	14:10	1	2												
14464	MW-10 - unfiltered (4)	W		14:10	1	2												
9341	MW-10 - unfiltered	W		14:10	1	4												
55989	02-MW-10 - RAW (5)	W		14:20	1	None												
9590	02-MW-10 - Filtered (13)	W		14:20	1	2												
14490	02-MW-10 - unfiltered (5)	W		14:20	1	2												
9636	02-MW-10 - unfiltered	W		14:20	1	4												
55940	01 - Blank (6)	W		14:30	1	None												
10840	02 - Blank	W		14:30	1	2												
6718	04 - Blank (14)	W		14:30	1	2												
6755	03 - Blank (6)	W		14:30	1	4												

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Tim Gerken
C. Trimbke

Tim Gerken
C. Trimbke

5-8-18 1720



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1805174

PAGE

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DISPOSAL

BY LAB

or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID		PARAMETER/METHOD REQUEST FOR ANALYSIS														
PROJECT No.	360100	EDD FORMAT																
COMPANY NAME	Teleso Solutions Inc.	PURCHASE ORDER		A	Metals													
SEND REPORT TO	Tim Gerken	BILL TO COMPANY		B	Wetchem													
ADDRESS	3801 Automation Way	INVOICE ATTN TO		C	NO2 + NO3													
CITY / STATE / ZIP	Fort Collins, CO 80525	ADDRESS		D														
PHONE	726-438-5513	CITY / STATE / ZIP		E														
FAX		PHONE		F														
E-MAIL	tgerken@teleso-inc.com	FAX		G														
		E-MAIL		H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
14481	MW-12 - Filtered (5)	W	5/8	14:50	1	2		X										
Unknown	MW-12 - unfiltered (6)	W		14:50	1	2		X										
55980	MW-12 - RAW (7)	W		14:50	1	None			X									
9381	MW-12 - unfiltered (8)	W		14:50	1	4				X								
6732	MW-19 - Filtered (10)	W		16:10	1	2		X										
10138	MW-19 - unfiltered (11)	W		16:10	1	2		X										
6685	MW-19 - unfiltered (12)	W		16:10	1	None												
6685	MW-19 - Unfiltered (13)	W		16:10	1	4				X								
55986	MW-19 - RAW (14)	W		16:10	1	None			X									

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY

1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

5-8-18

1720

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C Trimble

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ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: TELESTO

Workorder No: 18051741

Project Manager: JRK

Initials: Kgo Date: 5-9-18

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	<u>YES</u>	NO
9. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	<u>YES</u>	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	<u>N/A</u>	YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	<u>N/A</u>	<u>YES</u>	NO
16. Were the samples shipped on ice?		YES	<u>NO</u>
17. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	RAD ONLY	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>amb</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>N/A</u>			
Background µR/hr reading: <u>12</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

5) dusting samples: 1, 2, 4, 5
moderate samples: 3, 7, 18

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 5-9-18

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-02
 Legal Location:
 Collection Date: 5/8/2018 11:00

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	170		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	0.98		0.5	UG/L	10	5/15/2018 10:27
ALUMINUM	11000		100	UG/L	10	5/15/2018 10:27
ARSENIC	2.6		2	UG/L	10	5/15/2018 10:27
BORON	ND		150	UG/L	10	5/15/2018 10:27
BARIUM	110		5	UG/L	10	5/15/2018 10:27
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 10:27
CALCIUM	160000		1000	UG/L	10	5/15/2018 10:27
CADMIUM	ND		2	UG/L	10	5/15/2018 10:27
COBALT	ND		5	UG/L	10	5/15/2018 10:27
CHROMIUM	12		10	UG/L	10	5/15/2018 10:27
COPPER	ND		20	UG/L	10	5/15/2018 10:27
IRON	8800		100	UG/L	10	5/15/2018 10:27
POTASSIUM	7300		1000	UG/L	10	5/15/2018 10:27
LITHIUM	29		20	UG/L	10	5/15/2018 10:27
MAGNESIUM	38000		100	UG/L	10	5/15/2018 10:27
MANGANESE	89		5	UG/L	10	5/15/2018 10:27
MOLYBDENUM	2.2		2	UG/L	10	5/15/2018 10:27
SODIUM	36000		1000	UG/L	10	5/15/2018 10:27
NICKEL	ND		20	UG/L	10	5/15/2018 10:27
LEAD	3.2		2	UG/L	10	5/15/2018 10:27
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:27
SELENIUM	ND		10	UG/L	10	5/15/2018 10:27
THALLIUM	0.15		0.1	UG/L	10	5/15/2018 10:27
URANIUM	6		0.1	UG/L	10	5/15/2018 10:27
VANADIUM	14		5	UG/L	10	5/15/2018 10:27
ZINC	ND		100	UG/L	10	5/15/2018 10:27
Ion Chromatography						
		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	25		2	MG/L	10	5/9/2018 16:51
FLUORIDE	0.49		0.1	MG/L	1	5/9/2018 16:07
NITRATE AS N	0.44		0.2	MG/L	1	5/9/2018 16:07
NITRITE AS N	0.2		0.1	MG/L	1	5/9/2018 16:07
SULFATE	440		10	MG/L	10	5/9/2018 16:51
Mercury						
		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 12:58
pH						
		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	6.49		0.1	pH	1	5/11/2018
Total Cyanide						
		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-02	Lab ID:	1805174-1
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 11:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1600		40	MG/L	1	5/15/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-06
 Legal Location:
 Collection Date: 5/8/2018 11:45

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	250		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	250		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	1.8		0.5	UG/L	10	5/15/2018 10:30
ALUMINUM	12000		100	UG/L	10	5/15/2018 10:30
ARSENIC	4.5		2	UG/L	10	5/15/2018 10:30
BORON	ND		150	UG/L	10	5/15/2018 10:30
BARIUM	370		5	UG/L	10	5/15/2018 10:30
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 10:30
CALCIUM	500000		1000	UG/L	10	5/15/2018 10:30
CADMIUM	ND		2	UG/L	10	5/15/2018 10:30
COBALT	6.6		5	UG/L	10	5/15/2018 10:30
CHROMIUM	23		10	UG/L	10	5/15/2018 10:30
COPPER	30		20	UG/L	10	5/15/2018 10:30
IRON	16000		100	UG/L	10	5/15/2018 10:30
POTASSIUM	11000		1000	UG/L	10	5/15/2018 10:30
LITHIUM	37		20	UG/L	10	5/15/2018 10:30
MAGNESIUM	35000		100	UG/L	10	5/15/2018 10:30
MANGANESE	240		5	UG/L	10	5/15/2018 10:30
MOLYBDENUM	6		2	UG/L	10	5/15/2018 10:30
SODIUM	21000		1000	UG/L	10	5/15/2018 10:30
NICKEL	21		20	UG/L	10	5/15/2018 10:30
LEAD	8		2	UG/L	10	5/15/2018 10:30
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:30
SELENIUM	25		10	UG/L	10	5/15/2018 10:30
THALLIUM	0.32		0.1	UG/L	10	5/15/2018 10:30
URANIUM	41		0.1	UG/L	10	5/15/2018 10:30
VANADIUM	28		5	UG/L	10	5/15/2018 10:30
ZINC	ND		100	UG/L	10	5/15/2018 10:30
Ion Chromatography						
		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	19		1	MG/L	5	5/9/2018 17:06
FLUORIDE	0.59		0.5	MG/L	5	5/9/2018 17:06
NITRATE AS N	3.9		1	MG/L	5	5/9/2018 17:06
NITRITE AS N	0.94		0.5	MG/L	5	5/9/2018 17:06
SULFATE	1300		20	MG/L	20	5/9/2018 17:21
Mercury						
		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:01
pH						
		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	6.76		0.1	pH	1	5/11/2018
Total Cyanide						
		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-06	Lab ID:	1805174-2
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 11:45	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1100		20	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-13
 Legal Location:
 Collection Date: 5/8/2018 13:10

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-3
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	120		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	120		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 10:45
ALUMINUM	20000		100	UG/L	10	5/15/2018 10:45
ARSENIC	6.2		2	UG/L	10	5/15/2018 10:45
BORON	ND		150	UG/L	10	5/15/2018 10:45
BARIUM	220		5	UG/L	10	5/15/2018 10:45
BERYLLIUM	0.91		0.5	UG/L	10	5/15/2018 10:45
CALCIUM	58000		1000	UG/L	10	5/15/2018 10:45
CADMIUM	ND		2	UG/L	10	5/15/2018 10:45
COBALT	11		5	UG/L	10	5/15/2018 10:45
CHROMIUM	36		10	UG/L	10	5/15/2018 10:45
COPPER	43		20	UG/L	10	5/15/2018 10:45
IRON	27000		100	UG/L	10	5/15/2018 10:45
POTASSIUM	7400		1000	UG/L	10	5/15/2018 10:45
LITHIUM	33		20	UG/L	10	5/15/2018 10:45
MAGNESIUM	14000		100	UG/L	10	5/15/2018 10:45
MANGANESE	520		5	UG/L	10	5/15/2018 10:45
MOLYBDENUM	4.1		2	UG/L	10	5/15/2018 10:45
SODIUM	5800		1000	UG/L	10	5/15/2018 10:45
NICKEL	22		20	UG/L	10	5/15/2018 10:45
LEAD	11		2	UG/L	10	5/15/2018 10:45
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:45
SELENIUM	ND		10	UG/L	10	5/15/2018 10:45
THALLIUM	0.48		0.1	UG/L	10	5/15/2018 10:45
URANIUM	3.3		0.1	UG/L	10	5/15/2018 10:45
VANADIUM	43		5	UG/L	10	5/15/2018 10:45
ZINC	140		100	UG/L	10	5/15/2018 10:45
Ion Chromatography						
		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	6.9		0.2	MG/L	1	5/9/2018 17:35
FLUORIDE	0.36		0.1	MG/L	1	5/9/2018 17:35
NITRATE AS N	ND		0.2	MG/L	1	5/9/2018 17:35
NITRITE AS N	0.39		0.1	MG/L	1	5/9/2018 17:35
SULFATE	49		1	MG/L	1	5/9/2018 17:35
Mercury						
		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:03
pH						
		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	7.08		0.1	pH	1	5/11/2018
Total Cyanide						
		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-13	Lab ID:	1805174-3
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 13:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-10
 Legal Location:
 Collection Date: 5/8/2018 14:10

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-4
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	260		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 10:48
ALUMINUM	3700		100	UG/L	10	5/15/2018 10:48
ARSENIC	ND		2	UG/L	10	5/15/2018 10:48
BORON	ND		150	UG/L	10	5/15/2018 10:48
BARIUM	84		5	UG/L	10	5/15/2018 10:48
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 10:48
CALCIUM	370000		1000	UG/L	10	5/15/2018 10:48
CADMIUM	ND		2	UG/L	10	5/15/2018 10:48
COBALT	ND		5	UG/L	10	5/15/2018 10:48
CHROMIUM	ND		10	UG/L	10	5/15/2018 10:48
COPPER	ND		20	UG/L	10	5/15/2018 10:48
IRON	4100		100	UG/L	10	5/15/2018 10:48
POTASSIUM	4700		1000	UG/L	10	5/15/2018 10:48
LITHIUM	31		20	UG/L	10	5/15/2018 10:48
MAGNESIUM	23000		100	UG/L	10	5/15/2018 10:48
MANGANESE	50		5	UG/L	10	5/15/2018 10:48
MOLYBDENUM	2.9		2	UG/L	10	5/15/2018 10:48
SODIUM	18000		1000	UG/L	10	5/15/2018 10:48
NICKEL	ND		20	UG/L	10	5/15/2018 10:48
LEAD	ND		2	UG/L	10	5/15/2018 10:48
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:48
SELENIUM	21		10	UG/L	10	5/15/2018 10:48
THALLIUM	ND		0.1	UG/L	10	5/15/2018 10:48
URANIUM	35		0.1	UG/L	10	5/15/2018 10:48
VANADIUM	8.6		5	UG/L	10	5/15/2018 10:48
ZINC	ND		100	UG/L	10	5/15/2018 10:48
Ion Chromatography		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	23		2	MG/L	10	5/9/2018 18:05
FLUORIDE	0.58		0.1	MG/L	1	5/9/2018 17:50
NITRATE AS N	3.4		0.2	MG/L	1	5/9/2018 17:50
NITRITE AS N	0.15		0.1	MG/L	1	5/9/2018 17:50
SULFATE	860		10	MG/L	10	5/9/2018 18:05
Mercury		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:05
pH		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	6.89		0.1	pH	1	5/11/2018
Total Cyanide		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-10	Lab ID:	1805174-4
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 14:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1600		40	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: 02-MW-10
 Legal Location:
 Collection Date: 5/8/2018 14:20

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-5
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	250		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	250		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 10:51
ALUMINUM	3000		100	UG/L	10	5/15/2018 10:51
ARSENIC	ND		2	UG/L	10	5/15/2018 10:51
BORON	ND		150	UG/L	10	5/15/2018 10:51
BARIUM	72		5	UG/L	10	5/15/2018 10:51
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 10:51
CALCIUM	370000		1000	UG/L	10	5/15/2018 10:51
CADMIUM	ND		2	UG/L	10	5/15/2018 10:51
COBALT	ND		5	UG/L	10	5/15/2018 10:51
CHROMIUM	ND		10	UG/L	10	5/15/2018 10:51
COPPER	ND		20	UG/L	10	5/15/2018 10:51
IRON	3300		100	UG/L	10	5/15/2018 10:51
POTASSIUM	4100		1000	UG/L	10	5/15/2018 10:51
LITHIUM	30		20	UG/L	10	5/15/2018 10:51
MAGNESIUM	23000		100	UG/L	10	5/15/2018 10:51
MANGANESE	38		5	UG/L	10	5/15/2018 10:51
MOLYBDENUM	3		2	UG/L	10	5/15/2018 10:51
SODIUM	18000		1000	UG/L	10	5/15/2018 10:51
NICKEL	ND		20	UG/L	10	5/15/2018 10:51
LEAD	ND		2	UG/L	10	5/15/2018 10:51
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:51
SELENIUM	21		10	UG/L	10	5/15/2018 10:51
THALLIUM	ND		0.1	UG/L	10	5/15/2018 10:51
URANIUM	34		0.1	UG/L	10	5/15/2018 10:51
VANADIUM	7		5	UG/L	10	5/15/2018 10:51
ZINC	260		100	UG/L	10	5/15/2018 10:51
Ion Chromatography						
		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	23		2	MG/L	10	5/9/2018 19:05
FLUORIDE	0.59		0.1	MG/L	1	5/9/2018 18:20
NITRATE AS N	3.3		0.2	MG/L	1	5/9/2018 18:20
NITRITE AS N	0.14		0.1	MG/L	1	5/9/2018 18:20
SULFATE	850		10	MG/L	10	5/9/2018 19:05
Mercury						
		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:07
pH						
		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	6.93		0.1	pH	1	5/11/2018
Total Cyanide						
		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	02-MW-10	Lab ID:	1805174-5
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 14:20	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1600		40	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: BLANK
Legal Location:
Collection Date: 5/8/2018 14:30

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	ND		5	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		5	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	ND		5	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 10:54
ALUMINUM	ND		100	UG/L	10	5/15/2018 10:54
ARSENIC	ND		2	UG/L	10	5/15/2018 10:54
BORON	ND		150	UG/L	10	5/15/2018 10:54
BARIUM	ND		5	UG/L	10	5/15/2018 10:54
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 10:54
CALCIUM	ND		1000	UG/L	10	5/15/2018 10:54
CADMIUM	ND		2	UG/L	10	5/15/2018 10:54
COBALT	ND		5	UG/L	10	5/15/2018 10:54
CHROMIUM	ND		10	UG/L	10	5/15/2018 10:54
COPPER	ND		20	UG/L	10	5/15/2018 10:54
IRON	ND		100	UG/L	10	5/15/2018 10:54
POTASSIUM	ND		1000	UG/L	10	5/15/2018 10:54
LITHIUM	ND		20	UG/L	10	5/15/2018 10:54
MAGNESIUM	ND		100	UG/L	10	5/15/2018 10:54
MANGANESE	ND		5	UG/L	10	5/15/2018 10:54
MOLYBDENUM	ND		2	UG/L	10	5/15/2018 10:54
SODIUM	ND		1000	UG/L	10	5/15/2018 10:54
NICKEL	ND		20	UG/L	10	5/15/2018 10:54
LEAD	ND		2	UG/L	10	5/15/2018 10:54
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:54
SELENIUM	ND		10	UG/L	10	5/15/2018 10:54
THALLIUM	ND		0.1	UG/L	10	5/15/2018 10:54
URANIUM	ND		0.1	UG/L	10	5/15/2018 10:54
VANADIUM	ND		5	UG/L	10	5/15/2018 10:54
ZINC	ND		100	UG/L	10	5/15/2018 10:54
Ion Chromatography		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	ND		0.2	MG/L	1	5/9/2018 19:20
FLUORIDE	ND		0.1	MG/L	1	5/9/2018 19:20
NITRATE AS N	ND		0.2	MG/L	1	5/9/2018 19:20
NITRITE AS N	ND		0.1	MG/L	1	5/9/2018 19:20
SULFATE	ND		1	MG/L	1	5/9/2018 19:20
Mercury		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:09
pH		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	8.22		0.1	pH	1	5/11/2018
Total Cyanide		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	BLANK	Lab ID:	1805174-6
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 14:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	ND		20	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-12
 Legal Location:
 Collection Date: 5/8/2018 14:50

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-7
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	180		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	180		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 10:57
ALUMINUM	30000		100	UG/L	10	5/15/2018 10:57
ARSENIC	6.7		2	UG/L	10	5/15/2018 10:57
BORON	ND		150	UG/L	10	5/15/2018 10:57
BARIUM	260		5	UG/L	10	5/15/2018 10:57
BERYLLIUM	1.2		0.5	UG/L	10	5/15/2018 10:57
CALCIUM	190000		1000	UG/L	10	5/15/2018 10:57
CADMIUM	ND		2	UG/L	10	5/15/2018 10:57
COBALT	21		5	UG/L	10	5/15/2018 10:57
CHROMIUM	51		10	UG/L	10	5/15/2018 10:57
COPPER	59		20	UG/L	10	5/15/2018 10:57
IRON	34000		100	UG/L	10	5/15/2018 10:57
POTASSIUM	11000		1000	UG/L	10	5/15/2018 10:57
LITHIUM	46		20	UG/L	10	5/15/2018 10:57
MAGNESIUM	24000		100	UG/L	10	5/15/2018 10:57
MANGANESE	620		5	UG/L	10	5/15/2018 10:57
MOLYBDENUM	4.4		2	UG/L	10	5/15/2018 10:57
SODIUM	13000		1000	UG/L	10	5/15/2018 10:57
NICKEL	29		20	UG/L	10	5/15/2018 10:57
LEAD	9.2		2	UG/L	10	5/15/2018 10:57
ANTIMONY	ND		1	UG/L	10	5/15/2018 10:57
SELENIUM	ND		10	UG/L	10	5/15/2018 10:57
THALLIUM	0.53		0.1	UG/L	10	5/15/2018 10:57
URANIUM	8.9		0.1	UG/L	10	5/15/2018 10:57
VANADIUM	54		5	UG/L	10	5/15/2018 10:57
ZINC	100		100	UG/L	10	5/15/2018 10:57
Ion Chromatography						
		EPA300.0			Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	16		0.2	MG/L	1	5/9/2018 19:35
FLUORIDE	0.63		0.1	MG/L	1	5/9/2018 19:35
NITRATE AS N	0.26		0.2	MG/L	1	5/9/2018 19:35
NITRITE AS N	0.2		0.1	MG/L	1	5/9/2018 19:35
SULFATE	410		10	MG/L	10	5/9/2018 19:50
Mercury						
		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:11
pH						
		EPA150.1			Prep Date: 5/11/2018	PrepBy: AEJ
PH	7.02		0.1	pH	1	5/11/2018
Total Cyanide						
		SW9014			Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 5/14/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-12	Lab ID:	1805174-7
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 14:50	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	760		20	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-19
 Legal Location:
 Collection Date: 5/8/2018 16:10

Date: 19-May-18
 Work Order: 1805174
 Lab ID: 1805174-8
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			EPA310.1		Prep Date: 5/14/2018	PrepBy: HMA
BICARBONATE AS CaCO3	140		20	MG/L	1	5/14/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	5/14/2018
TOTAL ALKALINITY AS CaCO3	140		20	MG/L	1	5/14/2018
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:00
ALUMINUM	29000		100	UG/L	10	5/15/2018 11:00
ARSENIC	16		2	UG/L	10	5/15/2018 11:00
BORON	ND		150	UG/L	10	5/15/2018 11:00
BARIUM	340		5	UG/L	10	5/15/2018 11:00
BERYLLIUM	1.6		0.5	UG/L	10	5/15/2018 11:00
CALCIUM	60000		1000	UG/L	10	5/15/2018 11:00
CADMIUM	ND		2	UG/L	10	5/15/2018 11:00
COBALT	24		5	UG/L	10	5/15/2018 11:00
CHROMIUM	45		10	UG/L	10	5/15/2018 11:00
COPPER	56		20	UG/L	10	5/15/2018 11:00
IRON	37000		100	UG/L	10	5/15/2018 11:00
POTASSIUM	7700		1000	UG/L	10	5/15/2018 11:00
LITHIUM	41		20	UG/L	10	5/15/2018 11:00
MAGNESIUM	15000		100	UG/L	10	5/15/2018 11:00
MANGANESE	1400		5	UG/L	10	5/15/2018 11:00
MOLYBDENUM	11		2	UG/L	10	5/15/2018 11:00
SODIUM	7700		1000	UG/L	10	5/15/2018 11:00
NICKEL	39		20	UG/L	10	5/15/2018 11:00
LEAD	12		2	UG/L	10	5/15/2018 11:00
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:00
SELENIUM	11		10	UG/L	10	5/15/2018 11:00
THALLIUM	0.49		0.1	UG/L	10	5/15/2018 11:00
URANIUM	15		0.1	UG/L	10	5/15/2018 11:00
VANADIUM	87		5	UG/L	10	5/15/2018 11:00
ZINC	100		100	UG/L	10	5/15/2018 11:00
Ion Chromatography						
			EPA300.0		Prep Date: 5/9/2018	PrepBy: HMA
CHLORIDE	6.5		0.2	MG/L	1	5/9/2018 20:05
FLUORIDE	0.5		0.1	MG/L	1	5/9/2018 20:05
NITRATE AS N	0.21		0.2	MG/L	1	5/9/2018 20:05
NITRITE AS N	0.44		0.1	MG/L	1	5/9/2018 20:05
SULFATE	50		1	MG/L	1	5/9/2018 20:05
Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:18
pH						
			EPA150.1		Prep Date: 5/11/2018	PrepBy: AEJ
PH	7.17		0.1	pH	1	5/11/2018
Total Cyanide						
			SW9014		Prep Date: 5/15/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.01	MG/L	1	5/15/2018
Total Dissolved Solids						
			EPA160.1		Prep Date: 5/14/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-19	Lab ID:	1805174-8
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 16:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	220		20	MG/L	1	5/15/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 5/8/2018 11:00

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:03
ALUMINUM	ND		100	UG/L	10	5/15/2018 11:03
ARSENIC	ND		2	UG/L	10	5/15/2018 11:03
BORON	ND		150	UG/L	10	5/15/2018 11:03
BARIUM	34		5	UG/L	10	5/15/2018 11:03
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:03
CALCIUM	150000		1000	UG/L	10	5/15/2018 11:03
CADMIUM	ND		2	UG/L	10	5/15/2018 11:03
COBALT	ND		5	UG/L	10	5/15/2018 11:03
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:03
COPPER	ND		20	UG/L	10	5/15/2018 11:03
IRON	110		100	UG/L	10	5/15/2018 11:03
POTASSIUM	4800		1000	UG/L	10	5/15/2018 11:03
LITHIUM	ND		20	UG/L	10	5/15/2018 11:03
MAGNESIUM	35000		100	UG/L	10	5/15/2018 11:03
MANGANESE	7.3		5	UG/L	10	5/15/2018 11:03
MOLYBDENUM	2		2	UG/L	10	5/15/2018 11:03
SODIUM	36000		1000	UG/L	10	5/15/2018 11:03
NICKEL	ND		20	UG/L	10	5/15/2018 11:03
LEAD	ND		2	UG/L	10	5/15/2018 11:03
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:03
SELENIUM	ND		10	UG/L	10	5/15/2018 11:03
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:03
URANIUM	5.1		0.1	UG/L	10	5/15/2018 11:03
VANADIUM	ND		5	UG/L	10	5/15/2018 11:03
ZINC	ND		100	UG/L	10	5/15/2018 11:03
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:20

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 5/8/2018 11:45

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:06
ALUMINUM	510		100	UG/L	10	5/15/2018 11:06
ARSENIC	ND		2	UG/L	10	5/15/2018 11:06
BORON	ND		150	UG/L	10	5/15/2018 11:06
BARIUM	45		5	UG/L	10	5/15/2018 11:06
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:06
CALCIUM	490000		1000	UG/L	10	5/15/2018 11:06
CADMIUM	ND		2	UG/L	10	5/15/2018 11:06
COBALT	ND		5	UG/L	10	5/15/2018 11:06
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:06
COPPER	ND		20	UG/L	10	5/15/2018 11:06
IRON	470		100	UG/L	10	5/15/2018 11:06
POTASSIUM	7500		1000	UG/L	10	5/15/2018 11:06
LITHIUM	23		20	UG/L	10	5/15/2018 11:06
MAGNESIUM	31000		100	UG/L	10	5/15/2018 11:06
MANGANESE	7		5	UG/L	10	5/15/2018 11:06
MOLYBDENUM	5.1		2	UG/L	10	5/15/2018 11:06
SODIUM	21000		1000	UG/L	10	5/15/2018 11:06
NICKEL	ND		20	UG/L	10	5/15/2018 11:06
LEAD	ND		2	UG/L	10	5/15/2018 11:06
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:06
SELENIUM	23		10	UG/L	10	5/15/2018 11:06
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:06
URANIUM	40		0.1	UG/L	10	5/15/2018 11:06
VANADIUM	ND		5	UG/L	10	5/15/2018 11:06
ZINC	ND		100	UG/L	10	5/15/2018 11:06
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:31

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-13
Legal Location:
Collection Date: 5/8/2018 13:10

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:09
ALUMINUM	900		100	UG/L	10	5/15/2018 11:09
ARSENIC	ND		2	UG/L	10	5/15/2018 11:09
BORON	ND		150	UG/L	10	5/15/2018 11:09
BARIUM	39		5	UG/L	10	5/15/2018 11:09
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:09
CALCIUM	49000		1000	UG/L	10	5/15/2018 11:09
CADMIUM	ND		2	UG/L	10	5/15/2018 11:09
COBALT	ND		5	UG/L	10	5/15/2018 11:09
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:09
COPPER	ND		20	UG/L	10	5/15/2018 11:09
IRON	1000		100	UG/L	10	5/15/2018 11:09
POTASSIUM	1800		1000	UG/L	10	5/15/2018 11:09
LITHIUM	ND		20	UG/L	10	5/15/2018 11:09
MAGNESIUM	6100		100	UG/L	10	5/15/2018 11:09
MANGANESE	18		5	UG/L	10	5/15/2018 11:09
MOLYBDENUM	2.5		2	UG/L	10	5/15/2018 11:09
SODIUM	5100		1000	UG/L	10	5/15/2018 11:09
NICKEL	ND		20	UG/L	10	5/15/2018 11:09
LEAD	ND		2	UG/L	10	5/15/2018 11:09
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:09
SELENIUM	ND		10	UG/L	10	5/15/2018 11:09
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:09
URANIUM	1.6		0.1	UG/L	10	5/15/2018 11:09
VANADIUM	ND		5	UG/L	10	5/15/2018 11:09
ZINC	ND		100	UG/L	10	5/15/2018 11:09
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:33

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-10
Legal Location:
Collection Date: 5/8/2018 14:10

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:12
ALUMINUM	660		100	UG/L	10	5/15/2018 11:12
ARSENIC	ND		2	UG/L	10	5/15/2018 11:12
BORON	ND		150	UG/L	10	5/15/2018 11:12
BARIUM	33		5	UG/L	10	5/15/2018 11:12
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:12
CALCIUM	370000		1000	UG/L	10	5/15/2018 11:12
CADMIUM	ND		2	UG/L	10	5/15/2018 11:12
COBALT	ND		5	UG/L	10	5/15/2018 11:12
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:12
COPPER	ND		20	UG/L	10	5/15/2018 11:12
IRON	710		100	UG/L	10	5/15/2018 11:12
POTASSIUM	3900		1000	UG/L	10	5/15/2018 11:12
LITHIUM	28		20	UG/L	10	5/15/2018 11:12
MAGNESIUM	23000		100	UG/L	10	5/15/2018 11:12
MANGANESE	10		5	UG/L	10	5/15/2018 11:12
MOLYBDENUM	2.6		2	UG/L	10	5/15/2018 11:12
SODIUM	19000		1000	UG/L	10	5/15/2018 11:12
NICKEL	ND		20	UG/L	10	5/15/2018 11:12
LEAD	ND		2	UG/L	10	5/15/2018 11:12
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:12
SELENIUM	21		10	UG/L	10	5/15/2018 11:12
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:12
URANIUM	35		0.1	UG/L	10	5/15/2018 11:12
VANADIUM	ND		5	UG/L	10	5/15/2018 11:12
ZINC	ND		100	UG/L	10	5/15/2018 11:12
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:35

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-MW-10
Legal Location:
Collection Date: 5/8/2018 14:20

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:27
ALUMINUM	ND		100	UG/L	10	5/15/2018 11:27
ARSENIC	ND		2	UG/L	10	5/15/2018 11:27
BORON	ND		150	UG/L	10	5/15/2018 11:27
BARIUM	22		5	UG/L	10	5/15/2018 11:27
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:27
CALCIUM	370000		1000	UG/L	10	5/15/2018 11:27
CADMIUM	ND		2	UG/L	10	5/15/2018 11:27
COBALT	ND		5	UG/L	10	5/15/2018 11:27
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:27
COPPER	ND		20	UG/L	10	5/15/2018 11:27
IRON	ND		100	UG/L	10	5/15/2018 11:27
POTASSIUM	3500		1000	UG/L	10	5/15/2018 11:27
LITHIUM	27		20	UG/L	10	5/15/2018 11:27
MAGNESIUM	23000		100	UG/L	10	5/15/2018 11:27
MANGANESE	ND		5	UG/L	10	5/15/2018 11:27
MOLYBDENUM	2.6		2	UG/L	10	5/15/2018 11:27
SODIUM	19000		1000	UG/L	10	5/15/2018 11:27
NICKEL	ND		20	UG/L	10	5/15/2018 11:27
LEAD	ND		2	UG/L	10	5/15/2018 11:27
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:27
SELENIUM	20		10	UG/L	10	5/15/2018 11:27
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:27
URANIUM	35		0.1	UG/L	10	5/15/2018 11:27
VANADIUM	ND		5	UG/L	10	5/15/2018 11:27
ZINC	ND		100	UG/L	10	5/15/2018 11:27
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:37

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: BLANK
Legal Location:
Collection Date: 5/8/2018 14:30

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020			Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:30
ALUMINUM	ND		100	UG/L	10	5/15/2018 11:30
ARSENIC	ND		2	UG/L	10	5/15/2018 11:30
BORON	ND		150	UG/L	10	5/15/2018 11:30
BARIUM	ND		5	UG/L	10	5/15/2018 11:30
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:30
CALCIUM	ND		1000	UG/L	10	5/15/2018 11:30
CADMIUM	ND		2	UG/L	10	5/15/2018 11:30
COBALT	ND		5	UG/L	10	5/15/2018 11:30
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:30
COPPER	ND		20	UG/L	10	5/15/2018 11:30
IRON	ND		100	UG/L	10	5/15/2018 11:30
POTASSIUM	ND		1000	UG/L	10	5/15/2018 11:30
LITHIUM	ND		20	UG/L	10	5/15/2018 11:30
MAGNESIUM	ND		100	UG/L	10	5/15/2018 11:30
MANGANESE	ND		5	UG/L	10	5/15/2018 11:30
MOLYBDENUM	ND		2	UG/L	10	5/15/2018 11:30
SODIUM	ND		1000	UG/L	10	5/15/2018 11:30
NICKEL	ND		20	UG/L	10	5/15/2018 11:30
LEAD	ND		2	UG/L	10	5/15/2018 11:30
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:30
SELENIUM	ND		10	UG/L	10	5/15/2018 11:30
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:30
URANIUM	ND		0.1	UG/L	10	5/15/2018 11:30
VANADIUM	ND		5	UG/L	10	5/15/2018 11:30
ZINC	ND		100	UG/L	10	5/15/2018 11:30
Dissolved Mercury		SW7470			Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:43

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 5/8/2018 14:50

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:33
ALUMINUM	530		100	UG/L	10	5/15/2018 11:33
ARSENIC	ND		2	UG/L	10	5/15/2018 11:33
BORON	ND		150	UG/L	10	5/15/2018 11:33
BARIUM	28		5	UG/L	10	5/15/2018 11:33
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:33
CALCIUM	180000		1000	UG/L	10	5/15/2018 11:33
CADMIUM	ND		2	UG/L	10	5/15/2018 11:33
COBALT	ND		5	UG/L	10	5/15/2018 11:33
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:33
COPPER	ND		20	UG/L	10	5/15/2018 11:33
IRON	460		100	UG/L	10	5/15/2018 11:33
POTASSIUM	2200		1000	UG/L	10	5/15/2018 11:33
LITHIUM	ND		20	UG/L	10	5/15/2018 11:33
MAGNESIUM	15000		100	UG/L	10	5/15/2018 11:33
MANGANESE	8.6		5	UG/L	10	5/15/2018 11:33
MOLYBDENUM	3.4		2	UG/L	10	5/15/2018 11:33
SODIUM	13000		1000	UG/L	10	5/15/2018 11:33
NICKEL	ND		20	UG/L	10	5/15/2018 11:33
LEAD	ND		2	UG/L	10	5/15/2018 11:33
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:33
SELENIUM	ND		10	UG/L	10	5/15/2018 11:33
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:33
URANIUM	6.6		0.1	UG/L	10	5/15/2018 11:33
VANADIUM	ND		5	UG/L	10	5/15/2018 11:33
ZINC	ND		100	UG/L	10	5/15/2018 11:33
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:46

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-19
Legal Location:
Collection Date: 5/8/2018 16:10

Date: 19-May-18
Work Order: 1805174
Lab ID: 1805174-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 5/11/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	5/15/2018 11:36
ALUMINUM	ND		100	UG/L	10	5/15/2018 11:36
ARSENIC	ND		2	UG/L	10	5/15/2018 11:36
BORON	ND		150	UG/L	10	5/15/2018 11:36
BARIUM	41		5	UG/L	10	5/15/2018 11:36
BERYLLIUM	ND		0.5	UG/L	10	5/15/2018 11:36
CALCIUM	54000		1000	UG/L	10	5/15/2018 11:36
CADMIUM	ND		2	UG/L	10	5/15/2018 11:36
COBALT	ND		5	UG/L	10	5/15/2018 11:36
CHROMIUM	ND		10	UG/L	10	5/15/2018 11:36
COPPER	ND		20	UG/L	10	5/15/2018 11:36
IRON	ND		100	UG/L	10	5/15/2018 11:36
POTASSIUM	1700		1000	UG/L	10	5/15/2018 11:36
LITHIUM	ND		20	UG/L	10	5/15/2018 11:36
MAGNESIUM	6900		100	UG/L	10	5/15/2018 11:36
MANGANESE	ND		5	UG/L	10	5/15/2018 11:36
MOLYBDENUM	3.5		2	UG/L	10	5/15/2018 11:36
SODIUM	7200		1000	UG/L	10	5/15/2018 11:36
NICKEL	ND		20	UG/L	10	5/15/2018 11:36
LEAD	ND		2	UG/L	10	5/15/2018 11:36
ANTIMONY	ND		1	UG/L	10	5/15/2018 11:36
SELENIUM	ND		10	UG/L	10	5/15/2018 11:36
THALLIUM	ND		0.1	UG/L	10	5/15/2018 11:36
URANIUM	2.6		0.1	UG/L	10	5/15/2018 11:36
VANADIUM	ND		5	UG/L	10	5/15/2018 11:36
ZINC	ND		100	UG/L	10	5/15/2018 11:36
Dissolved Mercury						
			SW7470		Prep Date: 5/10/2018	PrepBy: AJL2
MERCURY	ND		0.0002	MG/L	1	5/11/2018 13:48

Client:	Telesto Solutions Inc	Date:	19-May-18
Project:	360100 LRM - Knox Pit	Work Order:	1805174
Sample ID:	MW-19	Lab ID:	1805174-16
Legal Location:		Matrix:	WATER
Collection Date:	5/8/2018 16:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers**Radiochemistry:**

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	
LT - Result is less than requested MDC but greater than achieved MDC.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

ALS -- Fort Collins

Date: 5/19/2018 12:21

Client: Telesto Solutions Inc
 Work Order: 1805174
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG180510-2-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG180510-2			Units: MG/L			Analysis Date: 5/11/2018 12:56					
Client ID:	Run ID: HG180511-1A1				Prep Date: 5/10/2018		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00102	0.0002	0.001		102	80-120				20		

MB	Sample ID: HG180510-2			Units: MG/L	Analysis Date: 5/11/2018 12:54		
Client ID:	Run ID: HG180511-1A1			Prep Date: 5/10/2018		DF: 1	
Analyte	Result	ReportLimit	Qual				
MERCURY	ND	0.0002					

MS	Sample ID: 1805174-9			Units: MG/L			Analysis Date: 5/11/2018 13:26					
Client ID: MW-02	Run ID: HG180511-1A1				Prep Date: 5/10/2018		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00202	0.0002	0.002	0.0002	101	80-120				20		

MSD	Sample ID: 1805174-9			Units: MG/L			Analysis Date: 5/11/2018 13:28					
Client ID: MW-02	Run ID: HG180511-1A1				Prep Date: 5/10/2018		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00197	0.0002	0.002	0.0002	99	80-120		0.00202	2	20		

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	1805174-9
1805174-10	1805174-11	1805174-12
1805174-13	1805174-14	1805174-15
1805174-16		

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP180511-4-3** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM180511-4		Units: UG/L		Analysis Date: 5/15/2018 10:00					
Client ID:		Run ID: IM180515-10A1		Prep Date: 5/11/2018		DF: 10					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4540	100	5000		91	80-120				20	
ANTIMONY	25.7	1	30		86	80-120				20	
ARSENIC	85.2	2	100		85	80-120				20	
BARIUM	86.2	5	100		86	80-120				20	
BERYLLIUM	47.4	0.5	50		95	80-120				20	
BORON	904	150	1000		90	80-120				20	
CADMIUM	26.5	2	30		88	80-120				20	
CALCIUM	9660	1000	10000		97	80-120				20	
CHROMIUM	460	10	500		92	80-120				20	
COBALT	95.7	5	100		96	80-120				20	
COPPER	981	20	1000		98	80-120				20	
IRON	4620	100	5000		92	80-120				20	
LEAD	44.1	2	50		88	80-120				20	
LITHIUM	956	20	1000		96	80-120				20	
MAGNESIUM	9170	100	10000		92	80-120				20	
MANGANESE	89.6	5	100		90	80-120				20	
MOLYBDENUM	87.6	2	100		88	80-120				20	
NICKEL	442	20	500		88	80-120				20	
POTASSIUM	4870	1000	5000		97	80-120				20	
SELENIUM	96.7	10	100		97	80-120				20	
SILVER	9.16	0.5	10		92	80-120				20	
SODIUM	9270	1000	10000		93	80-120				20	
THALLIUM	1.78	0.1	2		89	80-120				20	
URANIUM	8.96	0.1	10		90	80-120				20	
VANADIUM	89.6	5	100		90	80-120				20	
ZINC	1800	100	2000		90	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP180511-4-3** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP180511-4** Units: **UG/L** Analysis Date: **5/15/2018 09:57**
Client ID: Run ID: **IM180515-10A1** Prep Date: **5/11/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	1805174-9
1805174-10	1805174-11	1805174-12
1805174-13	1805174-14	1805174-15
1805174-16		

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK180514-2-1** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK180514-2			Units: MG/L			Analysis Date: 5/14/2018				
Client ID:	Run ID: AK180514-1A1			Prep Date: 5/14/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115				15	

MB	Sample ID: AK180514-2		Units: MG/L		Analysis Date: 5/14/2018	
Client ID:	Run ID: AK180514-1A1		Prep Date: 5/14/2018		DF: 1	
Analyte	Result	ReportLimit	Qual			
BICARBONATE AS CaCO3	ND	5				
CARBONATE AS CaCO3	ND	5				
TOTAL ALKALINITY AS CaCO3	ND	5				

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN180515-2-1** Instrument ID **Spec** Method: **SW9014**

LCS Sample ID: **CN180515-2** Units: **MG/L** Analysis Date: **5/15/2018**

Client ID: Run ID: **CN180515-1A1** Prep Date: **5/15/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.187	0.005	0.2		93	85-115				30	

MB Sample ID: **CN180515-2** Units: **MG/L** Analysis Date: **5/15/2018**

Client ID: Run ID: **CN180515-1A1** Prep Date: **5/15/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
CYANIDE, TOTAL	ND	0.005	

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC180509-1-1** Instrument ID: **IC3** Method: **EPA300.0**

LCS	Sample ID: IC180509-1			Units: MG/L			Analysis Date: 5/9/2018 15:37				
Client ID:	Run ID: IC180509-1A1			Prep Date: 5/9/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.21	0.1	5		104	90-110				15	
CHLORIDE	10.4	0.2	10		104	90-110				15	
NITRITE AS N	5.26	0.1	5		105	90-110				15	
NITRATE AS N	10.4	0.2	10		104	90-110				15	
SULFATE	52.1	1	50		104	90-110				15	

MB	Sample ID: IC180509-1			Units: MG/L			Analysis Date: 5/9/2018 15:52				
Client ID:	Run ID: IC180509-1A1			Prep Date: 5/9/2018			DF: 1				
Analyte	Result	ReportLimit									Qual
FLUORIDE	ND	0.1									
CHLORIDE	ND	0.2									
NITRITE AS N	ND	0.1									
NITRATE AS N	ND	0.2									
SULFATE	ND	1									

MS	Sample ID: 1805174-1			Units: MG/L			Analysis Date: 5/9/2018 16:21				
Client ID: MW-02	Run ID: IC180509-1A1			Prep Date: 5/9/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.61	0.1	2	0.49	106	85-115				15	
NITRITE AS N	1.99	0.1	2	0.2	89	85-115				15	
NITRATE AS N	5.85	0.2	5	0.44	108	85-115				15	

MSD	Sample ID: 1805174-1			Units: MG/L			Analysis Date: 5/9/2018 16:36				
Client ID: MW-02	Run ID: IC180509-1A1			Prep Date: 5/9/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.61	0.1	2	0.49	106	85-115		2.61	0	15	
NITRITE AS N	1.99	0.1	2	0.2	89	85-115		1.99	0	15	
NITRATE AS N	5.85	0.2	5	0.44	108	85-115		5.85	0	15	

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **PH180511-1-1** Instrument ID **pH-1** Method: **EPA150.1**

DUP Sample ID: **1805174-1** Units: **pH** Analysis Date: **5/11/2018**

Client ID: **MW-02** Run ID: **PH180511-1A1** Prep Date: **5/11/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	6.61	0.1							6.49		

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	

Client: Telesto Solutions Inc
Work Order: 1805174
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD180514-1-1** Instrument ID **Balance** Method: **EPA160.1**

LCS Sample ID: **TD180514-1** Units: **MG/L** Analysis Date: **5/15/2018**

Client ID: Run ID: **TD180515-1a1** Prep Date: **5/14/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	399	20	400		100	85-115				5	

MB Sample ID: **TD180514-1** Units: **MG/L** Analysis Date: **5/15/2018**

Client ID: Run ID: **TD180515-1a1** Prep Date: **5/14/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
TOTAL DISSOLVED SOLIDS	ND	20	

The following samples were analyzed in this batch:

1805174-1	1805174-2	1805174-3
1805174-4	1805174-5	1805174-6
1805174-7	1805174-8	



Monday, August 20, 2018

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1807611
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Sixteen water samples were received from Telesto Solutions Inc, on 7/31/2018. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,


ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1807611

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020A and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846 and MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

- A matrix spike (MS) and matrix spike duplicate (MSD) were prepared and analyzed with anions and cyanide batch. All guidance criteria for precision and accuracy were met, with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Nitrate as N	1807611-1 MS & MSD
Sulfate	1807611-1 MS & MSD

The native sample results are flagged for MS/MSD failure. The laboratory control sample indicates that the procedure was in control.

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1807611

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
KMW-19	1807611-1		WATER	31-Jul-18	13:20
KMW-10	1807611-2		WATER	31-Jul-18	14:10
KMW-13	1807611-3		WATER	31-Jul-18	14:30
03-Blank	1807611-4		WATER	31-Jul-18	15:30
KMW-12	1807611-5		WATER	31-Jul-18	15:45
KMW-02	1807611-6		WATER	31-Jul-18	12:20
KMW-06	1807611-7		WATER	31-Jul-18	11:20
02-KMW-06	1807611-8		WATER	31-Jul-18	11:30
KMW-19	1807611-9		WATER	31-Jul-18	13:20
KMW-10	1807611-10		WATER	31-Jul-18	14:10
KMW-13	1807611-11		WATER	31-Jul-18	14:30
03-Blank	1807611-12		WATER	31-Jul-18	15:30
KMW-12	1807611-13		WATER	31-Jul-18	15:45
KMW-02	1807611-14		WATER	31-Jul-18	12:20
KMW-06	1807611-15		WATER	31-Jul-18	11:20
02-KMW-06	1807611-16		WATER	31-Jul-18	11:30



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1807611

PAGE 1 of 3

DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM- Knox Pit Sampling		TURNAROUND TIME			SAMPLER	Tim Gerken																	
PROJECT No.	360100		SITE ID																					
			EDD FORMAT			PARAMETER/METHOD REQUEST FOR ANALYSIS																		
			PURCHASE ORDER			A	Metals																	
COMPANY NAME	Teleso Solutions Inc.		BILL TO COMPANY			B	watchem																	
SEND REPORT TO	Tim Gerken		INVOICE ATTN TO			C	Cyanide																	
ADDRESS	3801 Automation Way		ADDRESS			D																		
CITY/STATE/ZIP	Fort Collins, CO 80525		CITY/STATE/ZIP			E																		
PHONE	970-484-7704		PHONE			F																		
FAX			FAX			G																		
E-MAIL	tgerken@teleso-inc.com		E-MAIL			H																		
						I																		
						J																		
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION						
9460①	KMW-19 - Filtered	W	7/31	1:20	1	HNO3		X																
9468①	KMW-19 - unfiltered	W		1:20	1	HNO3		X																
9483①	KMW-19 - unfiltered	W		1:20	1	4				X														
9842②	KMW-19 - RAW	W		1:20	1	None			X															
9308②	KMW-10 - RAW	W		2:10	1	None			X															
9510②	KMW-10 - unfiltered	W		2:10	1	2		X																
9446②	KMW-10 - Filtered	W		2:10	1	2		X																
7149②	KMW-10 - unfiltered	W		2:10	1	4				X														
9802③	KMW-13 - RAW	W		2:30	1	None			X															
9501③	KMW-13 - Filtered	W		2:30	1	2		X																
9487③	KMW-13 - unfiltered	W		2:30	1	2		X																
9459④	KMW-13 - unfiltered	W		2:30	1	4				X														

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

5 of 40

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Tim Gerken
Joe Kestelink

Tim Gerken
Joe Kestelink

7/31/18
7-31-18

4:00pm
4:10



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524

TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1807611

PAGE

2 of 3

DISPOSAL

BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit Sampling	SITE ID		SAMPLER	Tim Gerken																
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS																	
		PURCHASE ORDER		A	Metals																
COMPANY NAME		BILL TO COMPANY		B	Wetchem																
SEND REPORT TO	Same as	INVOICE ATTN TO		C	Cyanide																
ADDRESS		ADDRESS		D																	
CITY/STATE/ZIP	Page 1	CITY/STATE/ZIP		E																	
PHONE		PHONE		F																	
FAX		FAX		G																	
E-MAIL		E-MAIL		H																	
				I																	
				J																	
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION			
9434 ⑫	03-Blank-Filtered	W	7/31	3:30	1	2		X													
9498 ④	03-Blank-unFiltered	W		3:30	1	2		X													
9209	03-Blank-RAW	W		3:30	1	None			X												
9457	03-Blank-unFiltered	W		3:30	1	4				X											
10624 ⑤	KMW-12-RAW	W		3:45	1	None			X												
7176	KMW-12-unfiltered	W		3:45	1	4				X											
7159	KMW-12-unfiltered	W		3:45	1	2		X													
7414 ⑬	KMW-12-Filtered	W		3:45	1	2		X													
7184 ⑥	KMW-02-unfiltered	W		12:20	1	2		X													
7200 ⑭	KMW-02-Filtered	W		12:20	1	2		X													
7211 ⑦	KMW-02-unfiltered	W		12:20	1	4				X											
9198	KMW-02-RAW	W		12:20	1	None			X												

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

[Signature]
[Signature]

Tim Gerken
Joe Kustelnicki

7/31/18
7-31-18

4:08 PM
4:10



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1807411

PAGE

3 of 3

DISPOSAL

BY LAB or RETURN

PROJECT NAME	LRN-Knox Pit Sampling	SITE ID		SAMPLER	Tim Gerken	PARAMETER/METHOD REQUEST FOR ANALYSIS															
PROJECT No.	360100	EDD FORMAT																			
COMPANY NAME	Same AS	PURCHASE ORDER		A	Metals																
SEND REPORT TO		BILL TO COMPANY		B	w/etcher																
ADDRESS		INVOICE ATTN TO		C	cyanide																
CITY / STATE / ZIP		ADDRESS		D																	
PHONE		CITY / STATE / ZIP		E																	
FAX		PHONE		F																	
E-MAIL		FAX		G																	
		E-MAIL		H																	
				I																	
				J																	
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION			
9191 (7)	KMW-06-RAW	W	7/31/18	11:20	1	None			X												
9503 (1)	KMW-06-unfiltered	W		11:20	1	2		X													
9458 (5)	KMW-06-Filtered	W		11:20	1	2		X													
9436 (7)	KMW-06-unfiltered	W		11:20	1	4				X											
9204 (8)	02-KMW-06-RAW	W		11:30	1	None			X												
9505 (1)	02-KMW-06-unfiltered	W		11:30	1	2		X													
9445 (14)	02-KMW-06-Filtered	W		11:30	1	2		X													
9477 (8)	02-KMW-06-unfiltered	W		11:30	1	4				X											

*Time Zone (Circle): EST CST MS PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY

1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202/9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Tim Gerken
Joe Kunkel

7/31/18 4:08pm
7/31/18 4:12pm



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesco

Workorder No: 1807611

Project Manager: JK

Initials: CD Date: 7-31-18

1. Are airbills / shipping documents present and/or removable?	<u>(DROP OFF)</u>	YES	NO
2. Are custody seals on shipping containers intact?	<u>(NONE)</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>(NONE)</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>(YES)</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>(YES)</u>	NO
6. Are short-hold samples present?		YES	<u>(NO)</u>
7. Are all samples within holding times for the requested analyses?		<u>(YES)</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>(YES)</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>(YES)</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>(YES)</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>(YES)</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>(YES)</u>	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>(N/A)</u>	YES	NO
14. Were the samples shipped on ice?		<u>(YES)</u>	<u>(NO)</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	RAD ONLY	YES
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 8-1-18

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-19
 Legal Location:
 Collection Date: 7/31/2018 13:20

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	130		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	130		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:29
ALUMINUM	4100		100	UG/L	10	8/17/2018 02:29
ARSENIC	2.8		2	UG/L	10	8/17/2018 02:29
BORON	ND		150	UG/L	10	8/17/2018 02:29
BARIUM	92		5	UG/L	10	8/17/2018 02:29
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:29
CALCIUM	53000		1000	UG/L	10	8/17/2018 02:29
CADMIUM	ND		2	UG/L	10	8/17/2018 02:29
COBALT	ND		5	UG/L	10	8/17/2018 02:29
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:29
COPPER	ND		20	UG/L	10	8/17/2018 02:29
IRON	4600		100	UG/L	10	8/17/2018 02:29
POTASSIUM	2000		1000	UG/L	10	8/17/2018 02:29
LITHIUM	ND		20	UG/L	10	8/17/2018 02:29
MAGNESIUM	8100		100	UG/L	10	8/17/2018 02:29
MANGANESE	270		5	UG/L	10	8/17/2018 02:29
MOLYBDENUM	4.5		2	UG/L	10	8/17/2018 02:29
SODIUM	6100		1000	UG/L	10	8/17/2018 02:29
NICKEL	ND		20	UG/L	10	8/17/2018 02:29
LEAD	ND		2	UG/L	10	8/17/2018 02:29
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:29
SELENIUM	ND		10	UG/L	10	8/17/2018 02:29
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:29
URANIUM	4.1		0.1	UG/L	10	8/17/2018 02:29
VANADIUM	11		5	UG/L	10	8/17/2018 02:29
ZINC	ND		100	UG/L	10	8/17/2018 02:29
Ion Chromatography		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	4.9		0.2	MG/L	1	8/1/2018 11:24
FLUORIDE	0.44		0.1	MG/L	1	8/1/2018 11:24
NITRATE AS N	ND		0.2	MG/L	1	8/1/2018 11:24
NITRITE AS N	ND	N	0.1	MG/L	1	8/1/2018 11:24
SULFATE	39	N	1	MG/L	1	8/1/2018 11:24
Mercury		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:43
pH		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.85		0.1	pH	1	8/3/2018
Total Cyanide		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	8/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	KMW-19	Lab ID:	1807611-1
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 13:20	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-10
 Legal Location:
 Collection Date: 7/31/2018 14:10

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			EPA310.1		Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	240		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	240		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:32
ALUMINUM	790		100	UG/L	10	8/17/2018 02:32
ARSENIC	ND		2	UG/L	10	8/17/2018 02:32
BORON	ND		150	UG/L	10	8/17/2018 02:32
BARIUM	46		5	UG/L	10	8/17/2018 02:32
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:32
CALCIUM	410000		1000	UG/L	10	8/17/2018 02:32
CADMIUM	ND		2	UG/L	10	8/17/2018 02:32
COBALT	ND		5	UG/L	10	8/17/2018 02:32
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:32
COPPER	ND		20	UG/L	10	8/17/2018 02:32
IRON	1000		100	UG/L	10	8/17/2018 02:32
POTASSIUM	4500		1000	UG/L	10	8/17/2018 02:32
LITHIUM	35		20	UG/L	10	8/17/2018 02:32
MAGNESIUM	24000		100	UG/L	10	8/17/2018 02:32
MANGANESE	15		5	UG/L	10	8/17/2018 02:32
MOLYBDENUM	3.6		2	UG/L	10	8/17/2018 02:32
SODIUM	21000		1000	UG/L	10	8/17/2018 02:32
NICKEL	ND		20	UG/L	10	8/17/2018 02:32
LEAD	ND		2	UG/L	10	8/17/2018 02:32
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:32
SELENIUM	19		10	UG/L	10	8/17/2018 02:32
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:32
URANIUM	35		0.1	UG/L	10	8/17/2018 02:32
VANADIUM	ND		5	UG/L	10	8/17/2018 02:32
ZINC	ND		100	UG/L	10	8/17/2018 02:32
Ion Chromatography						
			EPA300.0		Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	20		2	MG/L	10	8/1/2018 12:39
FLUORIDE	0.59		0.1	MG/L	1	8/1/2018 12:20
NITRATE AS N	4.3		0.2	MG/L	1	8/1/2018 12:20
NITRITE AS N	ND		0.1	MG/L	1	8/1/2018 12:20
SULFATE	860		10	MG/L	10	8/1/2018 12:39
Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:45
pH						
			EPA150.1		Prep Date: 8/3/2018	PrepBy: HMA
PH	7.26		0.1	pH	1	8/3/2018
Total Cyanide						
			SW9014		Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	0.028		0.005	MG/L	1	8/7/2018
Total Dissolved Solids						
			EPA160.1		Prep Date: 8/1/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc **Date:** 20-Aug-18
Project: 360100 LRM - Knox Pit **Work Order:** 1807611
Sample ID: KMW-10 **Lab ID:** 1807611-2
Legal Location: **Matrix:** WATER
Collection Date: 7/31/2018 14:10 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1600		40	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-13
 Legal Location:
 Collection Date: 7/31/2018 14:30

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-3
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	110		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	110		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:35
ALUMINUM	2300		100	UG/L	10	8/17/2018 02:35
ARSENIC	ND		2	UG/L	10	8/17/2018 02:35
BORON	ND		150	UG/L	10	8/17/2018 02:35
BARIUM	67		5	UG/L	10	8/17/2018 02:35
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:35
CALCIUM	47000		1000	UG/L	10	8/17/2018 02:35
CADMIUM	ND		2	UG/L	10	8/17/2018 02:35
COBALT	ND		5	UG/L	10	8/17/2018 02:35
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:35
COPPER	ND		20	UG/L	10	8/17/2018 02:35
IRON	3000		100	UG/L	10	8/17/2018 02:35
POTASSIUM	2100		1000	UG/L	10	8/17/2018 02:35
LITHIUM	ND		20	UG/L	10	8/17/2018 02:35
MAGNESIUM	6600		100	UG/L	10	8/17/2018 02:35
MANGANESE	57		5	UG/L	10	8/17/2018 02:35
MOLYBDENUM	3.3		2	UG/L	10	8/17/2018 02:35
SODIUM	6000		1000	UG/L	10	8/17/2018 02:35
NICKEL	ND		20	UG/L	10	8/17/2018 02:35
LEAD	ND		2	UG/L	10	8/17/2018 02:35
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:35
SELENIUM	ND		10	UG/L	10	8/17/2018 02:35
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:35
URANIUM	1.6		0.1	UG/L	10	8/17/2018 02:35
VANADIUM	5.8		5	UG/L	10	8/17/2018 02:35
ZINC	ND		100	UG/L	10	8/17/2018 02:35
Ion Chromatography						
		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	3.9		0.2	MG/L	1	8/1/2018 12:59
FLUORIDE	0.36		0.1	MG/L	1	8/1/2018 12:59
NITRATE AS N	ND		0.2	MG/L	1	8/1/2018 12:59
NITRITE AS N	ND		0.1	MG/L	1	8/1/2018 12:59
SULFATE	34		1	MG/L	1	8/1/2018 12:59
Mercury						
		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:48
pH						
		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.94		0.1	pH	1	8/3/2018
Total Cyanide						
		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	8/7/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	KMW-13	Lab ID:	1807611-3
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 14:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	180		20	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 03-Blank
Legal Location:
Collection Date: 7/31/2018 15:30

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-4
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			EPA310.1		Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	ND		5	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		5	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	ND		5	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:38
ALUMINUM	ND		100	UG/L	10	8/17/2018 02:38
ARSENIC	ND		2	UG/L	10	8/17/2018 02:38
BORON	ND		150	UG/L	10	8/17/2018 02:38
BARIUM	ND		5	UG/L	10	8/17/2018 02:38
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:38
CALCIUM	ND		1000	UG/L	10	8/17/2018 02:38
CADMIUM	ND		2	UG/L	10	8/17/2018 02:38
COBALT	ND		5	UG/L	10	8/17/2018 02:38
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:38
COPPER	ND		20	UG/L	10	8/17/2018 02:38
IRON	ND		100	UG/L	10	8/17/2018 02:38
POTASSIUM	ND		1000	UG/L	10	8/17/2018 02:38
LITHIUM	ND		20	UG/L	10	8/17/2018 02:38
MAGNESIUM	ND		100	UG/L	10	8/17/2018 02:38
MANGANESE	ND		5	UG/L	10	8/17/2018 02:38
MOLYBDENUM	ND		2	UG/L	10	8/17/2018 02:38
SODIUM	ND		1000	UG/L	10	8/17/2018 02:38
NICKEL	ND		20	UG/L	10	8/17/2018 02:38
LEAD	ND		2	UG/L	10	8/17/2018 02:38
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:38
SELENIUM	ND		10	UG/L	10	8/17/2018 02:38
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:38
URANIUM	ND		0.1	UG/L	10	8/17/2018 02:38
VANADIUM	ND		5	UG/L	10	8/17/2018 02:38
ZINC	ND		100	UG/L	10	8/17/2018 02:38
Ion Chromatography						
			EPA300.0		Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	0.58		0.2	MG/L	1	8/1/2018 13:18
FLUORIDE	ND		0.1	MG/L	1	8/1/2018 13:18
NITRATE AS N	ND		0.2	MG/L	1	8/1/2018 13:18
NITRITE AS N	0.19		0.1	MG/L	1	8/1/2018 13:18
SULFATE	ND		1	MG/L	1	8/1/2018 13:18
Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:50
pH						
			EPA150.1		Prep Date: 8/3/2018	PrepBy: HMA
PH	6.37		0.1	pH	1	8/3/2018
Total Cyanide						
			SW9014		Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	8/7/2018
Total Dissolved Solids						
			EPA160.1		Prep Date: 8/1/2018	PrepBy: AEJ

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	03-Blank	Lab ID:	1807611-4
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 15:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	ND		20	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-12
 Legal Location:
 Collection Date: 7/31/2018 15:45

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-5
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	99		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	99		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:41
ALUMINUM	5700		100	UG/L	10	8/17/2018 02:41
ARSENIC	ND		2	UG/L	10	8/17/2018 02:41
BORON	ND		150	UG/L	10	8/17/2018 02:41
BARIUM	80		5	UG/L	10	8/17/2018 02:41
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:41
CALCIUM	240000		1000	UG/L	10	8/17/2018 02:41
CADMIUM	ND		2	UG/L	10	8/17/2018 02:41
COBALT	ND		5	UG/L	10	8/17/2018 02:41
CHROMIUM	10		10	UG/L	10	8/17/2018 02:41
COPPER	ND		20	UG/L	10	8/17/2018 02:41
IRON	6300		100	UG/L	10	8/17/2018 02:41
POTASSIUM	3800		1000	UG/L	10	8/17/2018 02:41
LITHIUM	20		20	UG/L	10	8/17/2018 02:41
MAGNESIUM	21000		100	UG/L	10	8/17/2018 02:41
MANGANESE	110		5	UG/L	10	8/17/2018 02:41
MOLYBDENUM	3.5		2	UG/L	10	8/17/2018 02:41
SODIUM	13000		1000	UG/L	10	8/17/2018 02:41
NICKEL	ND		20	UG/L	10	8/17/2018 02:41
LEAD	ND		2	UG/L	10	8/17/2018 02:41
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:41
SELENIUM	ND		10	UG/L	10	8/17/2018 02:41
THALLIUM	0.11		0.1	UG/L	10	8/17/2018 02:41
URANIUM	4.2		0.1	UG/L	10	8/17/2018 02:41
VANADIUM	9.9		5	UG/L	10	8/17/2018 02:41
ZINC	ND		100	UG/L	10	8/17/2018 02:41
Ion Chromatography		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	6.7		0.2	MG/L	1	8/1/2018 13:37
FLUORIDE	0.57		0.1	MG/L	1	8/1/2018 13:37
NITRATE AS N	ND		0.2	MG/L	1	8/1/2018 13:37
NITRITE AS N	ND		0.1	MG/L	1	8/1/2018 13:37
SULFATE	600		10	MG/L	10	8/1/2018 13:56
Mercury		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:52
pH		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.47		0.1	pH	1	8/3/2018
Total Cyanide		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	8/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc **Date:** 20-Aug-18
Project: 360100 LRM - Knox Pit **Work Order:** 1807611
Sample ID: KMW-12 **Lab ID:** 1807611-5
Legal Location: **Matrix:** WATER
Collection Date: 7/31/2018 15:45 **Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	960		20	MG/L	1	8/2/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-02
 Legal Location:
 Collection Date: 7/31/2018 12:20

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-6
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	160		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	160		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:44
ALUMINUM	2600		100	UG/L	10	8/17/2018 02:44
ARSENIC	ND		2	UG/L	10	8/17/2018 02:44
BORON	ND		150	UG/L	10	8/17/2018 02:44
BARIUM	58		5	UG/L	10	8/17/2018 02:44
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:44
CALCIUM	150000		1000	UG/L	10	8/17/2018 02:44
CADMIUM	ND		2	UG/L	10	8/17/2018 02:44
COBALT	ND		5	UG/L	10	8/17/2018 02:44
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:44
COPPER	ND		20	UG/L	10	8/17/2018 02:44
IRON	2100		100	UG/L	10	8/17/2018 02:44
POTASSIUM	2600		1000	UG/L	10	8/17/2018 02:44
LITHIUM	20		20	UG/L	10	8/17/2018 02:44
MAGNESIUM	36000		100	UG/L	10	8/17/2018 02:44
MANGANESE	25		5	UG/L	10	8/17/2018 02:44
MOLYBDENUM	ND		2	UG/L	10	8/17/2018 02:44
SODIUM	36000		1000	UG/L	10	8/17/2018 02:44
NICKEL	ND		20	UG/L	10	8/17/2018 02:44
LEAD	ND		2	UG/L	10	8/17/2018 02:44
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:44
SELENIUM	ND		10	UG/L	10	8/17/2018 02:44
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:44
URANIUM	5.4		0.1	UG/L	10	8/17/2018 02:44
VANADIUM	ND		5	UG/L	10	8/17/2018 02:44
ZINC	ND		100	UG/L	10	8/17/2018 02:44
Ion Chromatography		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	21		2	MG/L	10	8/1/2018 15:14
FLUORIDE	0.45		0.1	MG/L	1	8/1/2018 14:55
NITRATE AS N	0.43		0.2	MG/L	1	8/1/2018 14:55
NITRITE AS N	ND		0.1	MG/L	1	8/1/2018 14:55
SULFATE	420		10	MG/L	10	8/1/2018 15:14
Mercury		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:54
pH		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.23		0.1	pH	1	8/3/2018
Total Cyanide		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	0.0077		0.005	MG/L	1	8/7/2018
Total Dissolved Solids		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	KMW-02	Lab ID:	1807611-6
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 12:20	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	790		20	MG/L	1	8/2/2018

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-06
 Legal Location:
 Collection Date: 7/31/2018 11:20

Date: 20-Aug-18
 Work Order: 1807611
 Lab ID: 1807611-7
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	230		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	230		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:47
ALUMINUM	310		100	UG/L	10	8/17/2018 02:47
ARSENIC	ND		2	UG/L	10	8/17/2018 02:47
BORON	ND		150	UG/L	10	8/17/2018 02:47
BARIUM	47		5	UG/L	10	8/17/2018 02:47
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:47
CALCIUM	480000		1000	UG/L	10	8/17/2018 02:47
CADMIUM	ND		2	UG/L	10	8/17/2018 02:47
COBALT	ND		5	UG/L	10	8/17/2018 02:47
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:47
COPPER	ND		20	UG/L	10	8/17/2018 02:47
IRON	410		100	UG/L	10	8/17/2018 02:47
POTASSIUM	7100		1000	UG/L	10	8/17/2018 02:47
LITHIUM	23		20	UG/L	10	8/17/2018 02:47
MAGNESIUM	27000		100	UG/L	10	8/17/2018 02:47
MANGANESE	6.7		5	UG/L	10	8/17/2018 02:47
MOLYBDENUM	6.1		2	UG/L	10	8/17/2018 02:47
SODIUM	21000		1000	UG/L	10	8/17/2018 02:47
NICKEL	ND		20	UG/L	10	8/17/2018 02:47
LEAD	ND		2	UG/L	10	8/17/2018 02:47
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:47
SELENIUM	48		10	UG/L	10	8/17/2018 02:47
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:47
URANIUM	35		0.1	UG/L	10	8/17/2018 02:47
VANADIUM	ND		5	UG/L	10	8/17/2018 02:47
ZINC	ND		100	UG/L	10	8/17/2018 02:47
Ion Chromatography						
		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	20		1	MG/L	5	8/1/2018 15:33
FLUORIDE	0.5		0.5	MG/L	5	8/1/2018 15:33
NITRATE AS N	9.7		1	MG/L	5	8/1/2018 15:33
NITRITE AS N	ND		0.5	MG/L	5	8/1/2018 15:33
SULFATE	1100		20	MG/L	20	8/1/2018 15:52
Mercury						
		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 16:56
pH						
		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.26		0.1	pH	1	8/3/2018
Total Cyanide						
		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	0.013		0.005	MG/L	1	8/7/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	KMW-06	Lab ID:	1807611-7
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 11:20	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1900		40	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-06
Legal Location:
Collection Date: 7/31/2018 11:30

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-8
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 8/8/2018	PrepBy: HMA
BICARBONATE AS CaCO3	230		20	MG/L	1	8/8/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	8/8/2018
TOTAL ALKALINITY AS CaCO3	230		20	MG/L	1	8/8/2018
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:51
ALUMINUM	270		100	UG/L	10	8/17/2018 02:51
ARSENIC	ND		2	UG/L	10	8/17/2018 02:51
BORON	ND		150	UG/L	10	8/17/2018 02:51
BARIUM	47		5	UG/L	10	8/17/2018 02:51
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:51
CALCIUM	490000		1000	UG/L	10	8/17/2018 02:51
CADMIUM	ND		2	UG/L	10	8/17/2018 02:51
COBALT	ND		5	UG/L	10	8/17/2018 02:51
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:51
COPPER	ND		20	UG/L	10	8/17/2018 02:51
IRON	350		100	UG/L	10	8/17/2018 02:51
POTASSIUM	7200		1000	UG/L	10	8/17/2018 02:51
LITHIUM	23		20	UG/L	10	8/17/2018 02:51
MAGNESIUM	27000		100	UG/L	10	8/17/2018 02:51
MANGANESE	5.6		5	UG/L	10	8/17/2018 02:51
MOLYBDENUM	5.8		2	UG/L	10	8/17/2018 02:51
SODIUM	21000		1000	UG/L	10	8/17/2018 02:51
NICKEL	ND		20	UG/L	10	8/17/2018 02:51
LEAD	ND		2	UG/L	10	8/17/2018 02:51
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:51
SELENIUM	46		10	UG/L	10	8/17/2018 02:51
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:51
URANIUM	35		0.1	UG/L	10	8/17/2018 02:51
VANADIUM	ND		5	UG/L	10	8/17/2018 02:51
ZINC	ND		100	UG/L	10	8/17/2018 02:51
Ion Chromatography						
		EPA300.0			Prep Date: 8/1/2018	PrepBy: HMA
CHLORIDE	20		1	MG/L	5	8/1/2018 16:11
FLUORIDE	0.5		0.5	MG/L	5	8/1/2018 16:11
NITRATE AS N	10		1	MG/L	5	8/1/2018 16:11
NITRITE AS N	ND		0.5	MG/L	5	8/1/2018 16:11
SULFATE	1100		20	MG/L	20	8/1/2018 16:30
Mercury						
		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:03
pH						
		EPA150.1			Prep Date: 8/3/2018	PrepBy: HMA
PH	7.34		0.1	pH	1	8/3/2018
Total Cyanide						
		SW9014			Prep Date: 8/7/2018	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	8/7/2018
Total Dissolved Solids						
		EPA160.1			Prep Date: 8/1/2018	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	02-KMW-06	Lab ID:	1807611-8
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 11:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1800		40	MG/L	1	8/2/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 7/31/2018 13:20

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:54
ALUMINUM	ND		100	UG/L	10	8/17/2018 02:54
ARSENIC	ND		2	UG/L	10	8/17/2018 02:54
BORON	ND		150	UG/L	10	8/17/2018 02:54
BARIUM	42		5	UG/L	10	8/17/2018 02:54
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:54
CALCIUM	52000		1000	UG/L	10	8/17/2018 02:54
CADMIUM	ND		2	UG/L	10	8/17/2018 02:54
COBALT	ND		5	UG/L	10	8/17/2018 02:54
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:54
COPPER	ND		20	UG/L	10	8/17/2018 02:54
IRON	ND		100	UG/L	10	8/17/2018 02:54
POTASSIUM	1100		1000	UG/L	10	8/17/2018 02:54
LITHIUM	ND		20	UG/L	10	8/17/2018 02:54
MAGNESIUM	6900		100	UG/L	10	8/17/2018 02:54
MANGANESE	5.6		5	UG/L	10	8/17/2018 02:54
MOLYBDENUM	3.7		2	UG/L	10	8/17/2018 02:54
SODIUM	5900		1000	UG/L	10	8/17/2018 02:54
NICKEL	ND		20	UG/L	10	8/17/2018 02:54
LEAD	ND		2	UG/L	10	8/17/2018 02:54
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:54
SELENIUM	ND		10	UG/L	10	8/17/2018 02:54
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:54
URANIUM	2.1		0.1	UG/L	10	8/17/2018 02:54
VANADIUM	ND		5	UG/L	10	8/17/2018 02:54
ZINC	ND		100	UG/L	10	8/17/2018 02:54
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:05

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 7/31/2018 14:10

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 02:57
ALUMINUM	ND		100	UG/L	10	8/17/2018 02:57
ARSENIC	ND		2	UG/L	10	8/17/2018 02:57
BORON	ND		150	UG/L	10	8/17/2018 02:57
BARIUM	25		5	UG/L	10	8/17/2018 02:57
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 02:57
CALCIUM	390000		1000	UG/L	10	8/17/2018 02:57
CADMIUM	ND		2	UG/L	10	8/17/2018 02:57
COBALT	ND		5	UG/L	10	8/17/2018 02:57
CHROMIUM	ND		10	UG/L	10	8/17/2018 02:57
COPPER	ND		20	UG/L	10	8/17/2018 02:57
IRON	ND		100	UG/L	10	8/17/2018 02:57
POTASSIUM	3800		1000	UG/L	10	8/17/2018 02:57
LITHIUM	32		20	UG/L	10	8/17/2018 02:57
MAGNESIUM	22000		100	UG/L	10	8/17/2018 02:57
MANGANESE	ND		5	UG/L	10	8/17/2018 02:57
MOLYBDENUM	3.4		2	UG/L	10	8/17/2018 02:57
SODIUM	20000		1000	UG/L	10	8/17/2018 02:57
NICKEL	ND		20	UG/L	10	8/17/2018 02:57
LEAD	ND		2	UG/L	10	8/17/2018 02:57
ANTIMONY	ND		1	UG/L	10	8/17/2018 02:57
SELENIUM	18		10	UG/L	10	8/17/2018 02:57
THALLIUM	ND		0.1	UG/L	10	8/17/2018 02:57
URANIUM	35		0.1	UG/L	10	8/17/2018 02:57
VANADIUM	ND		5	UG/L	10	8/17/2018 02:57
ZINC	ND		100	UG/L	10	8/17/2018 02:57
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:07

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 7/31/2018 14:30

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:12
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:12
ARSENIC	ND		2	UG/L	10	8/17/2018 03:12
BORON	ND		150	UG/L	10	8/17/2018 03:12
BARIUM	37		5	UG/L	10	8/17/2018 03:12
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:12
CALCIUM	45000		1000	UG/L	10	8/17/2018 03:12
CADMIUM	ND		2	UG/L	10	8/17/2018 03:12
COBALT	ND		5	UG/L	10	8/17/2018 03:12
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:12
COPPER	ND		20	UG/L	10	8/17/2018 03:12
IRON	ND		100	UG/L	10	8/17/2018 03:12
POTASSIUM	1100		1000	UG/L	10	8/17/2018 03:12
LITHIUM	ND		20	UG/L	10	8/17/2018 03:12
MAGNESIUM	5700		100	UG/L	10	8/17/2018 03:12
MANGANESE	ND		5	UG/L	10	8/17/2018 03:12
MOLYBDENUM	3		2	UG/L	10	8/17/2018 03:12
SODIUM	6100		1000	UG/L	10	8/17/2018 03:12
NICKEL	ND		20	UG/L	10	8/17/2018 03:12
LEAD	ND		2	UG/L	10	8/17/2018 03:12
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:12
SELENIUM	ND		10	UG/L	10	8/17/2018 03:12
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:12
URANIUM	1.4		0.1	UG/L	10	8/17/2018 03:12
VANADIUM	ND		5	UG/L	10	8/17/2018 03:12
ZINC	ND		100	UG/L	10	8/17/2018 03:12
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:09

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 03-Blank
Legal Location:
Collection Date: 7/31/2018 15:30

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020			Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:15
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:15
ARSENIC	ND		2	UG/L	10	8/17/2018 03:15
BORON	ND		150	UG/L	10	8/17/2018 03:15
BARIUM	ND		5	UG/L	10	8/17/2018 03:15
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:15
CALCIUM	ND		1000	UG/L	10	8/17/2018 03:15
CADMIUM	ND		2	UG/L	10	8/17/2018 03:15
COBALT	ND		5	UG/L	10	8/17/2018 03:15
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:15
COPPER	ND		20	UG/L	10	8/17/2018 03:15
IRON	ND		100	UG/L	10	8/17/2018 03:15
POTASSIUM	ND		1000	UG/L	10	8/17/2018 03:15
LITHIUM	ND		20	UG/L	10	8/17/2018 03:15
MAGNESIUM	ND		100	UG/L	10	8/17/2018 03:15
MANGANESE	ND		5	UG/L	10	8/17/2018 03:15
MOLYBDENUM	ND		2	UG/L	10	8/17/2018 03:15
SODIUM	ND		1000	UG/L	10	8/17/2018 03:15
NICKEL	ND		20	UG/L	10	8/17/2018 03:15
LEAD	ND		2	UG/L	10	8/17/2018 03:15
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:15
SELENIUM	ND		10	UG/L	10	8/17/2018 03:15
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:15
URANIUM	ND		0.1	UG/L	10	8/17/2018 03:15
VANADIUM	ND		5	UG/L	10	8/17/2018 03:15
ZINC	ND		100	UG/L	10	8/17/2018 03:15
Dissolved Mercury		SW7470			Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:11

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 7/31/2018 15:45

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:18
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:18
ARSENIC	ND		2	UG/L	10	8/17/2018 03:18
BORON	ND		150	UG/L	10	8/17/2018 03:18
BARIUM	33		5	UG/L	10	8/17/2018 03:18
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:18
CALCIUM	240000		1000	UG/L	10	8/17/2018 03:18
CADMIUM	ND		2	UG/L	10	8/17/2018 03:18
COBALT	ND		5	UG/L	10	8/17/2018 03:18
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:18
COPPER	ND		20	UG/L	10	8/17/2018 03:18
IRON	ND		100	UG/L	10	8/17/2018 03:18
POTASSIUM	2000		1000	UG/L	10	8/17/2018 03:18
LITHIUM	ND		20	UG/L	10	8/17/2018 03:18
MAGNESIUM	20000		100	UG/L	10	8/17/2018 03:18
MANGANESE	ND		5	UG/L	10	8/17/2018 03:18
MOLYBDENUM	3.6		2	UG/L	10	8/17/2018 03:18
SODIUM	13000		1000	UG/L	10	8/17/2018 03:18
NICKEL	ND		20	UG/L	10	8/17/2018 03:18
LEAD	ND		2	UG/L	10	8/17/2018 03:18
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:18
SELENIUM	ND		10	UG/L	10	8/17/2018 03:18
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:18
URANIUM	3.7		0.1	UG/L	10	8/17/2018 03:18
VANADIUM	ND		5	UG/L	10	8/17/2018 03:18
ZINC	ND		100	UG/L	10	8/17/2018 03:18
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:13

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 7/31/2018 12:20

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:21
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:21
ARSENIC	ND		2	UG/L	10	8/17/2018 03:21
BORON	ND		150	UG/L	10	8/17/2018 03:21
BARIUM	35		5	UG/L	10	8/17/2018 03:21
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:21
CALCIUM	150000		1000	UG/L	10	8/17/2018 03:21
CADMIUM	ND		2	UG/L	10	8/17/2018 03:21
COBALT	ND		5	UG/L	10	8/17/2018 03:21
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:21
COPPER	ND		20	UG/L	10	8/17/2018 03:21
IRON	ND		100	UG/L	10	8/17/2018 03:21
POTASSIUM	1900		1000	UG/L	10	8/17/2018 03:21
LITHIUM	ND		20	UG/L	10	8/17/2018 03:21
MAGNESIUM	35000		100	UG/L	10	8/17/2018 03:21
MANGANESE	ND		5	UG/L	10	8/17/2018 03:21
MOLYBDENUM	2.1		2	UG/L	10	8/17/2018 03:21
SODIUM	35000		1000	UG/L	10	8/17/2018 03:21
NICKEL	ND		20	UG/L	10	8/17/2018 03:21
LEAD	ND		2	UG/L	10	8/17/2018 03:21
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:21
SELENIUM	ND		10	UG/L	10	8/17/2018 03:21
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:21
URANIUM	5		0.1	UG/L	10	8/17/2018 03:21
VANADIUM	ND		5	UG/L	10	8/17/2018 03:21
ZINC	ND		100	UG/L	10	8/17/2018 03:21
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:16

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 7/31/2018 11:20

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:24
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:24
ARSENIC	ND		2	UG/L	10	8/17/2018 03:24
BORON	ND		150	UG/L	10	8/17/2018 03:24
BARIUM	39		5	UG/L	10	8/17/2018 03:24
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:24
CALCIUM	490000		1000	UG/L	10	8/17/2018 03:24
CADMIUM	ND		2	UG/L	10	8/17/2018 03:24
COBALT	ND		5	UG/L	10	8/17/2018 03:24
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:24
COPPER	ND		20	UG/L	10	8/17/2018 03:24
IRON	ND		100	UG/L	10	8/17/2018 03:24
POTASSIUM	6900		1000	UG/L	10	8/17/2018 03:24
LITHIUM	23		20	UG/L	10	8/17/2018 03:24
MAGNESIUM	27000		100	UG/L	10	8/17/2018 03:24
MANGANESE	ND		5	UG/L	10	8/17/2018 03:24
MOLYBDENUM	6.3		2	UG/L	10	8/17/2018 03:24
SODIUM	21000		1000	UG/L	10	8/17/2018 03:24
NICKEL	ND		20	UG/L	10	8/17/2018 03:24
LEAD	ND		2	UG/L	10	8/17/2018 03:24
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:24
SELENIUM	46		10	UG/L	10	8/17/2018 03:24
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:24
URANIUM	36		0.1	UG/L	10	8/17/2018 03:24
VANADIUM	ND		5	UG/L	10	8/17/2018 03:24
ZINC	ND		100	UG/L	10	8/17/2018 03:24
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:18

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-06
Legal Location:
Collection Date: 7/31/2018 11:30

Date: 20-Aug-18
Work Order: 1807611
Lab ID: 1807611-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 8/8/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	8/17/2018 03:27
ALUMINUM	ND		100	UG/L	10	8/17/2018 03:27
ARSENIC	ND		2	UG/L	10	8/17/2018 03:27
BORON	ND		150	UG/L	10	8/17/2018 03:27
BARIUM	37		5	UG/L	10	8/17/2018 03:27
BERYLLIUM	ND		0.5	UG/L	10	8/17/2018 03:27
CALCIUM	460000		1000	UG/L	10	8/17/2018 03:27
CADMIUM	ND		2	UG/L	10	8/17/2018 03:27
COBALT	ND		5	UG/L	10	8/17/2018 03:27
CHROMIUM	ND		10	UG/L	10	8/17/2018 03:27
COPPER	ND		20	UG/L	10	8/17/2018 03:27
IRON	ND		100	UG/L	10	8/17/2018 03:27
POTASSIUM	6700		1000	UG/L	10	8/17/2018 03:27
LITHIUM	22		20	UG/L	10	8/17/2018 03:27
MAGNESIUM	25000		100	UG/L	10	8/17/2018 03:27
MANGANESE	ND		5	UG/L	10	8/17/2018 03:27
MOLYBDENUM	6		2	UG/L	10	8/17/2018 03:27
SODIUM	20000		1000	UG/L	10	8/17/2018 03:27
NICKEL	ND		20	UG/L	10	8/17/2018 03:27
LEAD	ND		2	UG/L	10	8/17/2018 03:27
ANTIMONY	ND		1	UG/L	10	8/17/2018 03:27
SELENIUM	43		10	UG/L	10	8/17/2018 03:27
THALLIUM	ND		0.1	UG/L	10	8/17/2018 03:27
URANIUM	34		0.1	UG/L	10	8/17/2018 03:27
VANADIUM	ND		5	UG/L	10	8/17/2018 03:27
ZINC	ND		100	UG/L	10	8/17/2018 03:27
Dissolved Mercury						
			SW7470		Prep Date: 8/14/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	8/14/2018 17:20

Client:	Telesto Solutions Inc	Date:	20-Aug-18
Project:	360100 LRM - Knox Pit	Work Order:	1807611
Sample ID:	02-KMW-06	Lab ID:	1807611-16
Legal Location:		Matrix:	WATER
Collection Date:	7/31/2018 11:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	
LT - Result is less than requested MDC but greater than achieved MDC.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

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Date: 8/20/2018 2:29:

Client: Telesto Solutions Inc

Work Order: 1807611

Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: HG180814-2-1

Instrument ID CETAC7500

Method: SW7470

LCS	Sample ID: HG180814-2				Units: MG/L		Analysis Date: 8/14/2018 16:41				
Client ID:	Run ID: HG180814-2A1				Prep Date: 8/14/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.0101	0.002	0.01		101	80-120				20	

MB	Sample ID: HG180814-2			Units: MG/L	Analysis Date: 8/14/2018 16:39		
Client ID:	Run ID: HG180814-2A1			Prep Date: 8/14/2018		DF: 1	
Analyte				Result	ReportLimit	Qual	
MERCURY				ND	0.0002		

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	1807611-9
1807611-10	1807611-11	1807611-12
1807611-13	1807611-14	1807611-15
1807611-16		

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP180808-3-4** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM180808-3			Units: UG/L		Analysis Date: 8/17/2018 01:47				
Client ID:		Run ID: IM180816-11A1				Prep Date: 8/8/2018			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4520	100	5000		90	80-120				20	
ANTIMONY	31	1	30		103	80-120				20	
ARSENIC	99.9	2	100		100	80-120				20	
BARIUM	104	5	100		104	80-120				20	
BERYLLIUM	45.6	0.5	50		91	80-120				20	
BORON	936	150	1000		94	80-120				20	
CADMIUM	29.4	2	30		98	80-120				20	
CALCIUM	9460	1000	10000		95	80-120				20	
CHROMIUM	498	10	500		100	80-120				20	
COBALT	102	5	100		102	80-120				20	
COPPER	952	20	1000		95	80-120				20	
IRON	4840	100	5000		97	80-120				20	
LEAD	50.8	2	50		102	80-120				20	
LITHIUM	901	20	1000		90	80-120				20	
MAGNESIUM	9370	100	10000		94	80-120				20	
MANGANESE	101	5	100		101	80-120				20	
MOLYBDENUM	97.7	2	100		98	80-120				20	
NICKEL	511	20	500		102	80-120				20	
POTASSIUM	4540	1000	5000		91	80-120				20	
SELENIUM	91.7	10	100		92	80-120				20	
SILVER	9.85	0.5	10		99	80-120				20	
SODIUM	9900	1000	10000		99	80-120				20	
THALLIUM	1.9	0.1	2		95	80-120				20	
URANIUM	9.55	0.1	10		96	80-120				20	
VANADIUM	95.4	5	100		95	80-120				20	
ZINC	1910	100	2000		96	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP180808-3-4** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP180808-3** Units: **UG/L** Analysis Date: **8/17/2018 01:41**
Client ID: Run ID: **IM180816-11A1** Prep Date: **8/8/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	1.4	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	1807611-9
1807611-10	1807611-11	1807611-12
1807611-13	1807611-14	1807611-15
1807611-16		

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK180808-1-1** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK180808-1			Units: MG/L			Analysis Date: 8/8/2018				
Client ID:	Run ID: AK180808-1A1			Prep Date: 8/8/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115				15	

MB	Sample ID: AK180808-1			Units: MG/L			Analysis Date: 8/8/2018				
Client ID:	Run ID: AK180808-1A1			Prep Date: 8/8/2018			DF: 1				
Analyte	Result	ReportLimit									Qual
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									
TOTAL ALKALINITY AS CaCO3	ND	5									

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN180807-1-1** Instrument ID **Spec** Method: **SW9014**

LCS	Sample ID: CN180807-1			Units: MG/L			Analysis Date: 8/7/2018				
Client ID:		Run ID: CN180807-1A1			Prep Date: 8/7/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.187	0.005	0.2		94	85-115				30	

MB		Sample ID: CN180807-1		Units: MG/L		Analysis Date: 8/7/2018	
Client ID:		Run ID: CN180807-1A1		Prep Date: 8/7/2018		DF: 1	
Analyte		Result	ReportLimit	Qual			
CYANIDE, TOTAL		ND	0.005				

MS		Sample ID: 1807611-1				Units: MG/L		Analysis Date: 8/7/2018			
Client ID: KMW-19		Run ID: CN180807-1A1				Prep Date: 8/7/2018		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.101	0.005	0.1	0.005	101	75-125				30	

MSD		Sample ID: 1807611-1			Units: MG/L		Analysis Date: 8/7/2018				
Client ID: KMW-19		Run ID: CN180807-1A1			Prep Date: 8/7/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.0878	0.005	0.1	0.005	88	75-125		0.101	14	30	

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC180801-1-1** Instrument ID: **IC3** Method: **EPA300.0**

LCS	Sample ID: IC180801-1			Units: MG/L			Analysis Date: 8/1/2018 10:27				
Client ID:		Run ID: IC180801-1A1			Prep Date: 8/1/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.97	0.1	5		99	90-110				15	
CHLORIDE	10.2	0.2	10		102	90-110				15	
NITRITE AS N	5.04	0.1	5		101	90-110				15	
NITRATE AS N	10.2	0.2	10		102	90-110				15	
SULFATE	50.7	1	50		101	90-110				15	

MB		Sample ID: IC180801-1		Units: MG/L		Analysis Date: 8/1/2018 10:46	
Client ID:		Run ID: IC180801-1A1		Prep Date: 8/1/2018		DF: 1	
Analyte		Result	ReportLimit	Qual			
FLUORIDE		ND	0.1				
CHLORIDE		ND	0.2				
NITRITE AS N		ND	0.1				
NITRATE AS N		ND	0.2				
SULFATE		ND	1				

MS		Sample ID: 1807611-1				Units: MG/L		Analysis Date: 8/1/2018 11:43			
Client ID: KMW-19		Run ID: IC180801-1A1				Prep Date: 8/1/2018		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.14	0.1	2	0.44	85	85-115				15	
CHLORIDE	9.21	0.2	5	4.9	87	85-115				15	
NITRITE AS N	2.63	0.1	2	0.1	132	85-115				15	N
NITRATE AS N	4.45	0.2	5	0.2	89	85-115				15	
SULFATE	55.1	1	20	39	78	85-115				15	N

MSD		Sample ID: 1807611-1				Units: MG/L		Analysis Date: 8/1/2018 12:02			
Client ID: KMW-19		Run ID: IC180801-1A1				Prep Date: 8/1/2018		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.18	0.1	2	0.44	87	85-115		2.14	2	15	
CHLORIDE	9.36	0.2	5	4.9	90	85-115		9.21	2	15	
NITRITE AS N	2.62	0.1	2	0.1	131	85-115		2.63	0	15	N
NITRATE AS N	4.6	0.2	5	0.2	92	85-115		4.45	3	15	
SULFATE	55.7	1	20	39	81	85-115		55.1	1	15	N

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	

Client: Telesto Solutions Inc
Work Order: 1807611
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD180801-1-1** Instrument ID **Balance** Method: **EPA160.1**

DUP	Sample ID: 1807611-8			Units: MG/L			Analysis Date: 8/2/2018				
Client ID: 02-KMW-06			Run ID: TD180802-1A1			Prep Date: 8/1/2018			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1870	40						1800	2	5	

LCS	Sample ID: TD180801-1			Units: MG/L			Analysis Date: 8/2/2018				
Client ID:	Run ID: TD180802-1A1						Prep Date: 8/1/2018		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	400	20	400		100	85-115				5	

MB	Sample ID: TD180801-1			Units: MG/L	Analysis Date: 8/2/2018		
Client ID:	Run ID: TD180802-1A1			Prep Date: 8/1/2018		DF: 1	
Analyte				Result	ReportLimit	Qual	
TOTAL DISSOLVED SOLIDS				ND	20		

The following samples were analyzed in this batch:

1807611-1	1807611-2	1807611-3
1807611-4	1807611-5	1807611-6
1807611-7	1807611-8	



Wednesday, October 31, 2018

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1810152
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Twenty four water samples were received from Telesto Solutions Inc, on 10/5/2018. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1810152

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020A and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846 and MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1810152

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
KMW-06	1810152-1		WATER	05-Oct-18	9:50
KMW-06	1810152-2		WATER	05-Oct-18	9:50
KMW-06	1810152-3		WATER	05-Oct-18	9:50
KMW-06	1810152-4		WATER	05-Oct-18	9:50
KMW-02	1810152-5		WATER	05-Oct-18	11:00
KMW-02	1810152-6		WATER	05-Oct-18	11:00
KMW-02	1810152-7		WATER	05-Oct-18	11:00
KMW-02	1810152-8		WATER	05-Oct-18	11:00
02-KMW-02	1810152-9		WATER	05-Oct-18	11:00
02-KMW-02	1810152-10		WATER	05-Oct-18	11:00
02-KMW-02	1810152-11		WATER	05-Oct-18	11:00
02-KMW-02	1810152-12		WATER	05-Oct-18	11:00
KMW-10	1810152-13		WATER	05-Oct-18	13:00
KMW-10	1810152-14		WATER	05-Oct-18	13:00
KMW-10	1810152-15		WATER	05-Oct-18	13:00
KMW-10	1810152-16		WATER	05-Oct-18	13:00
KMW-13	1810152-17		WATER	05-Oct-18	14:10
KMW-13	1810152-18		WATER	05-Oct-18	14:10
KMW-13	1810152-19		WATER	05-Oct-18	14:10
KMW-13	1810152-20		WATER	05-Oct-18	14:10
KMW-12	1810152-21		WATER	05-Oct-18	14:45
KMW-12	1810152-22		WATER	05-Oct-18	14:45
KMW-12	1810152-23		WATER	05-Oct-18	14:45
KMW-12	1810152-24		WATER	05-Oct-18	14:45

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1810 152

PAGE 1 of 2

DISPOSAL	BY LAB	or	RETURN
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(ALS)		TURNAROUND TIME		SAMPLER		PAGE		1 of 2										
PROJECT NAME		SITE ID		DISPOSAL		BY LAB		or RETURN										
PROJECT No.		EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS														
COMPANY NAME		BILL TO COMPANY		A		Metals												
SEND REPORT TO		INVOICE ATTN TO		B		Wetchem												
ADDRESS		ADDRESS		C		Cyanide												
CITY / STATE / ZIP		CITY / STATE / ZIP		D														
PHONE		PHONE		E														
FAX		FAX		F														
E-MAIL		E-MAIL		G														
				H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
87	KMW-06-RAW	W	10/5	9:50	1	None			X									
42807	KMW-06-Filtered			9:50	1	2		X										
42858	KMW-06-unfiltered			9:50	1	2		X										
43181	KMW-06-unfiltered			9:50	1	4				X								
81	KMW-02-RAW			11:00	1	None			X									
42948	KMW-02-Filtered			11:00	1	2		X										
51073	KMW-02-unfiltered			11:00	1	2		X										
42945	KMW-02-unfiltered			11:00	1	4				X								
109	02-KMW-02-RAW			11:00	1	None			X									
43197	02-KMW-02-Filtered			11:00	1	2		X										
51066	02-KMW-02-unfiltered			11:00	1	2		X										
42885	02-KMW-02-unfiltered			11:00	1	4				X								

*Time Zone (Circle): EST CST **MST** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

5 of 40		NOTES		REPORT LEVEL / QC REQUIRED	
				Summary (Standard QC)	
				LEVEL II (Standard QC)	
				LEVEL III (Std QC + forms)	
				LEVEL IV (Std QC + forms + raw	
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other			

Form 202r9	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Tim Gerken</i>	Tim Gerken	10/5/18	3:20
RECEIVED BY	<i>C Trimble</i>	C Trimble	10-5-18	1526
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524

TE: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1810152

PAGE 2 of 2

DISPOSAL	BY LAB	or	RETURN
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PROJECT NAME	Knox-Pit - LRM	SITE ID		DISPOSAL	BY LAB or RETURN													
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS														
		PURCHASE ORDER		A	Metals													
COMPANY NAME	Telesto Solutions	BILL TO COMPANY		B	Wetchem													
SEND REPORT TO		INVOICE ATTN TO		C	Cyanide													
ADDRESS		ADDRESS		D														
CITY / STATE / ZIP	Scene AS	CITY / STATE / ZIP		E														
PHONE		PHONE		F														
FAX		FAX		G														
E-MAIL	Page 1	E-MAIL		H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1385	KMW-10 - RAW	W	10/5	13:00	1	None			X									
51078	KMW-10 - Filtered			13:00	1	2		X										
42922	KMW-10 - unfiltered			13:00	1	2		X										
42903	KMW-10 - unfiltered			13:00	1	4				X								
92	KMW-13 - RAW			14:00	1	None			X									
42913	KMW-13 - Filtered			14:10	1	2		X										
51083	KMW-13 - unfiltered			14:10	1	2		X										
43190	KMW-13 - unfiltered			14:10	1	4				X								
106	KMW-12 - RAW			14:45	1	None			X									
51130	KMW-12 - Filtered			14:45	1	2		X										
42930	KMW-12 - unfiltered			14:45	1	2		X										
43178	KMW-12 - unfiltered			14:45	1	4				X								

*Time Zone (Circle): EST CST **(MST)** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		Form 202r9		SIGNATURE		PRINTED NAME		DATE		TIME	
6 of 40	18.6					RELINQUISHED BY		Tim Gerken		10/5/18		3:20	
		Summary (Standard QC)				RECEIVED BY		C Trimble		10-5-18		1520	
		LEVEL II (Standard QC)				RELINQUISHED BY							
		LEVEL III (Std QC + forms)				RECEIVED BY							
		LEVEL IV (Std QC + forms + raw)				RELINQUISHED BY							
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other				RECEIVED BY							



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesto

Workorder No: 1810152

Project Manager: JK

Initials: CDT

Date: 10-5-18

1. Are airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>YES</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		YES	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	RAD ONLY	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO <u>NA</u> (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

All client bottle ID's vs ALS lab ID's double-checked by: CDT

If applicable, was the client contacted? YES / NO NA Contact: _____

Date/Time: _____

Project Manager Signature / Date: _____

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 10/5/2018 09:50

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	300		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	300		20	MG/L	1	10/12/2018
Ion Chromatography		EPA300.0			Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	18		1	MG/L	5	10/8/2018 14:05
FLUORIDE	0.57		0.5	MG/L	5	10/8/2018 14:05
NITRATE AS N	5.3		1	MG/L	5	10/8/2018 14:05
NITRITE AS N	ND		0.5	MG/L	5	10/8/2018 14:05
SULFATE	1100		20	MG/L	20	10/8/2018 14:17
pH		EPA150.1			Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.36		0.1	pH	1	10/9/2018
Total Dissolved Solids		EPA160.1			Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	1800		40	MG/L	1	10/9/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 10/5/2018 09:50

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 00:49
ALUMINUM	ND		100	UG/L	10	10/27/2018 00:49
ARSENIC	ND		2	UG/L	10	10/27/2018 00:49
BORON	ND		150	UG/L	10	10/27/2018 00:49
BARIUM	38		5	UG/L	10	10/27/2018 00:49
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 00:49
CALCIUM	440000		1000	UG/L	10	10/27/2018 00:49
CADMIUM	ND		2	UG/L	10	10/27/2018 00:49
COBALT	ND		5	UG/L	10	10/27/2018 00:49
CHROMIUM	ND		10	UG/L	10	10/27/2018 00:49
COPPER	ND		20	UG/L	10	10/27/2018 00:49
IRON	ND		100	UG/L	10	10/27/2018 00:49
POTASSIUM	6100		1000	UG/L	10	10/27/2018 00:49
LITHIUM	26		20	UG/L	10	10/27/2018 00:49
MAGNESIUM	26000		100	UG/L	10	10/27/2018 00:49
MANGANESE	ND		5	UG/L	10	10/27/2018 00:49
MOLYBDENUM	6.2		2	UG/L	10	10/27/2018 00:49
SODIUM	21000		1000	UG/L	10	10/27/2018 00:49
NICKEL	ND		20	UG/L	10	10/27/2018 00:49
LEAD	ND		2	UG/L	10	10/27/2018 00:49
ANTIMONY	ND		1	UG/L	10	10/27/2018 00:49
SELENIUM	30		10	UG/L	10	10/29/2018 14:24
THALLIUM	ND		0.1	UG/L	10	10/27/2018 00:49
URANIUM	37		0.1	UG/L	10	10/27/2018 00:49
VANADIUM	ND		5	UG/L	10	10/27/2018 00:49
ZINC	ND		100	UG/L	10	10/27/2018 00:49
Dissolved Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 11:55

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 10/5/2018 09:50

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 00:52
ALUMINUM	1800		100	UG/L	10	10/27/2018 00:52
ARSENIC	ND		2	UG/L	10	10/27/2018 00:52
BORON	ND		150	UG/L	10	10/27/2018 00:52
BARIUM	67		5	UG/L	10	10/27/2018 00:52
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 00:52
CALCIUM	440000		1000	UG/L	10	10/27/2018 00:52
CADMIUM	ND		2	UG/L	10	10/27/2018 00:52
COBALT	ND		5	UG/L	10	10/27/2018 00:52
CHROMIUM	ND		10	UG/L	10	10/27/2018 00:52
COPPER	ND		20	UG/L	10	10/27/2018 00:52
IRON	1600		100	UG/L	10	10/27/2018 00:52
POTASSIUM	6500		1000	UG/L	10	10/27/2018 00:52
LITHIUM	27		20	UG/L	10	10/27/2018 00:52
MAGNESIUM	27000		100	UG/L	10	10/27/2018 00:52
MANGANESE	24		5	UG/L	10	10/27/2018 00:52
MOLYBDENUM	6.3		2	UG/L	10	10/27/2018 00:52
SODIUM	21000		1000	UG/L	10	10/27/2018 00:52
NICKEL	ND		20	UG/L	10	10/27/2018 00:52
LEAD	ND		2	UG/L	10	10/27/2018 00:52
ANTIMONY	ND		1	UG/L	10	10/27/2018 00:52
SELENIUM	32		10	UG/L	10	10/29/2018 14:27
THALLIUM	ND		0.1	UG/L	10	10/27/2018 00:52
URANIUM	37		0.1	UG/L	10	10/27/2018 00:52
VANADIUM	ND		5	UG/L	10	10/27/2018 00:52
ZINC	ND		100	UG/L	10	10/27/2018 00:52
Mercury		SW7470		Prep Date: 10/10/2018		PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 11:58

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	KMW-06	Lab ID:	1810152-4
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 09:50	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			EPA310.1		Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	170		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	10/12/2018
Ion Chromatography			EPA300.0		Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	21		2	MG/L	10	10/8/2018 14:42
FLUORIDE	0.47		0.1	MG/L	1	10/8/2018 14:30
NITRATE AS N	0.36		0.2	MG/L	1	10/8/2018 14:30
NITRITE AS N	ND		0.1	MG/L	1	10/8/2018 14:30
SULFATE	420		10	MG/L	10	10/8/2018 14:42
pH			EPA150.1		Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.31		0.1	pH	1	10/9/2018
Total Dissolved Solids			EPA160.1		Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	780		20	MG/L	1	10/9/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 00:55
ALUMINUM	ND		100	UG/L	10	10/27/2018 00:55
ARSENIC	ND		2	UG/L	10	10/27/2018 00:55
BORON	ND		150	UG/L	10	10/27/2018 00:55
BARIUM	31		5	UG/L	10	10/27/2018 00:55
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 00:55
CALCIUM	150000		1000	UG/L	10	10/27/2018 00:55
CADMIUM	ND		2	UG/L	10	10/27/2018 00:55
COBALT	ND		5	UG/L	10	10/27/2018 00:55
CHROMIUM	ND		10	UG/L	10	10/27/2018 00:55
COPPER	ND		20	UG/L	10	10/27/2018 00:55
IRON	ND		100	UG/L	10	10/27/2018 00:55
POTASSIUM	1900		1000	UG/L	10	10/27/2018 00:55
LITHIUM	20		20	UG/L	10	10/27/2018 00:55
MAGNESIUM	34000		100	UG/L	10	10/27/2018 00:55
MANGANESE	ND		5	UG/L	10	10/27/2018 00:55
MOLYBDENUM	2.2		2	UG/L	10	10/27/2018 00:55
SODIUM	35000		1000	UG/L	10	10/27/2018 00:55
NICKEL	ND		20	UG/L	10	10/27/2018 00:55
LEAD	ND		2	UG/L	10	10/27/2018 00:55
ANTIMONY	ND		1	UG/L	10	10/27/2018 00:55
SELENIUM	ND		10	UG/L	10	10/29/2018 14:30
THALLIUM	ND		0.1	UG/L	10	10/27/2018 00:55
URANIUM	4.6		0.1	UG/L	10	10/27/2018 00:55
VANADIUM	ND		5	UG/L	10	10/27/2018 00:55
ZINC	ND		100	UG/L	10	10/27/2018 00:55

Dissolved Mercury

MERCURY	ND		SW7470		Prep Date: 10/10/2018	PrepBy: KJM
			0.0002	MG/L	1	10/11/2018 12:00

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 00:58
ALUMINUM	1100		100	UG/L	10	10/27/2018 00:58
ARSENIC	ND		2	UG/L	10	10/27/2018 00:58
BORON	ND		150	UG/L	10	10/27/2018 00:58
BARIUM	40		5	UG/L	10	10/27/2018 00:58
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 00:58
CALCIUM	140000		1000	UG/L	10	10/27/2018 00:58
CADMIUM	ND		2	UG/L	10	10/27/2018 00:58
COBALT	ND		5	UG/L	10	10/27/2018 00:58
CHROMIUM	ND		10	UG/L	10	10/27/2018 00:58
COPPER	ND		20	UG/L	10	10/27/2018 00:58
IRON	940		100	UG/L	10	10/27/2018 00:58
POTASSIUM	2200		1000	UG/L	10	10/27/2018 00:58
LITHIUM	22		20	UG/L	10	10/27/2018 00:58
MAGNESIUM	34000		100	UG/L	10	10/27/2018 00:58
MANGANESE	19		5	UG/L	10	10/27/2018 00:58
MOLYBDENUM	ND		2	UG/L	10	10/27/2018 00:58
SODIUM	34000		1000	UG/L	10	10/27/2018 00:58
NICKEL	ND		20	UG/L	10	10/27/2018 00:58
LEAD	ND		2	UG/L	10	10/27/2018 00:58
ANTIMONY	ND		1	UG/L	10	10/27/2018 00:58
SELENIUM	ND		10	UG/L	10	10/29/2018 14:33
THALLIUM	ND		0.1	UG/L	10	10/27/2018 00:58
URANIUM	4.6		0.1	UG/L	10	10/27/2018 00:58
VANADIUM	ND		5	UG/L	10	10/27/2018 00:58
ZINC	ND		100	UG/L	10	10/27/2018 00:58
Mercury		SW7470		Prep Date: 10/10/2018		PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:02

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	KMW-02	Lab ID:	1810152-8
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 11:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	0.022		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	180		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	180		20	MG/L	1	10/12/2018
Ion Chromatography		EPA300.0			Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	21		2	MG/L	10	10/8/2018 15:06
FLUORIDE	0.47		0.1	MG/L	1	10/8/2018 14:54
NITRATE AS N	0.36		0.2	MG/L	1	10/8/2018 14:54
NITRITE AS N	ND		0.1	MG/L	1	10/8/2018 14:54
SULFATE	420		10	MG/L	10	10/8/2018 15:06
pH		EPA150.1			Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.32		0.1	pH	1	10/9/2018
Total Dissolved Solids		EPA160.1			Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	780		20	MG/L	1	10/9/2018

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:01
ALUMINUM	ND		100	UG/L	10	10/27/2018 01:01
ARSENIC	ND		2	UG/L	10	10/27/2018 01:01
BORON	ND		150	UG/L	10	10/27/2018 01:01
BARIUM	32		5	UG/L	10	10/27/2018 01:01
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:01
CALCIUM	150000		1000	UG/L	10	10/27/2018 01:01
CADMIUM	ND		2	UG/L	10	10/27/2018 01:01
COBALT	ND		5	UG/L	10	10/27/2018 01:01
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:01
COPPER	ND		20	UG/L	10	10/27/2018 01:01
IRON	ND		100	UG/L	10	10/27/2018 01:01
POTASSIUM	2000		1000	UG/L	10	10/27/2018 01:01
LITHIUM	20		20	UG/L	10	10/27/2018 01:01
MAGNESIUM	34000		100	UG/L	10	10/27/2018 01:01
MANGANESE	ND		5	UG/L	10	10/27/2018 01:01
MOLYBDENUM	2		2	UG/L	10	10/27/2018 01:01
SODIUM	34000		1000	UG/L	10	10/27/2018 01:01
NICKEL	ND		20	UG/L	10	10/27/2018 01:01
LEAD	ND		2	UG/L	10	10/27/2018 01:01
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:01
SELENIUM	ND		10	UG/L	10	10/29/2018 14:36
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:01
URANIUM	4.5		0.1	UG/L	10	10/27/2018 01:01
VANADIUM	ND		5	UG/L	10	10/27/2018 01:01
ZINC	ND		100	UG/L	10	10/27/2018 01:01

Dissolved Mercury

MERCURY	ND		SW7470		Prep Date: 10/10/2018	PrepBy: KJM
			0.0002	MG/L	1	10/11/2018 12:04

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-02
Legal Location:
Collection Date: 10/5/2018 11:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:04
ALUMINUM	1300		100	UG/L	10	10/27/2018 01:04
ARSENIC	ND		2	UG/L	10	10/27/2018 01:04
BORON	ND		150	UG/L	10	10/27/2018 01:04
BARIUM	43		5	UG/L	10	10/27/2018 01:04
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:04
CALCIUM	150000		1000	UG/L	10	10/27/2018 01:04
CADMIUM	ND		2	UG/L	10	10/27/2018 01:04
COBALT	ND		5	UG/L	10	10/27/2018 01:04
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:04
COPPER	ND		20	UG/L	10	10/27/2018 01:04
IRON	1000		100	UG/L	10	10/27/2018 01:04
POTASSIUM	2300		1000	UG/L	10	10/27/2018 01:04
LITHIUM	21		20	UG/L	10	10/27/2018 01:04
MAGNESIUM	35000		100	UG/L	10	10/27/2018 01:04
MANGANESE	20		5	UG/L	10	10/27/2018 01:04
MOLYBDENUM	2.2		2	UG/L	10	10/27/2018 01:04
SODIUM	35000		1000	UG/L	10	10/27/2018 01:04
NICKEL	ND		20	UG/L	10	10/27/2018 01:04
LEAD	ND		2	UG/L	10	10/27/2018 01:04
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:04
SELENIUM	ND		10	UG/L	10	10/29/2018 14:39
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:04
URANIUM	4.7		0.1	UG/L	10	10/27/2018 01:04
VANADIUM	ND		5	UG/L	10	10/27/2018 01:04
ZINC	ND		100	UG/L	10	10/27/2018 01:04
Mercury		SW7470		Prep Date: 10/10/2018		PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:06

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	02-KMW-02	Lab ID:	1810152-12
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 11:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	0.0068		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 10/5/2018 13:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			EPA310.1		Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	250		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	250		20	MG/L	1	10/12/2018
Ion Chromatography			EPA300.0		Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	19		1	MG/L	5	10/8/2018 15:18
FLUORIDE	0.58		0.5	MG/L	5	10/8/2018 15:18
NITRATE AS N	3.4		1	MG/L	5	10/8/2018 15:18
NITRITE AS N	ND		0.5	MG/L	5	10/8/2018 15:18
SULFATE	810		20	MG/L	20	10/8/2018 15:31
pH			EPA150.1		Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.4		0.1	pH	1	10/9/2018
Total Dissolved Solids			EPA160.1		Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	10/9/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 10/5/2018 13:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:07
ALUMINUM	500		100	UG/L	10	10/27/2018 01:07
ARSENIC	ND		2	UG/L	10	10/27/2018 01:07
BORON	ND		150	UG/L	10	10/27/2018 01:07
BARIUM	22		5	UG/L	10	10/27/2018 01:07
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:07
CALCIUM	330000		1000	UG/L	10	10/27/2018 01:07
CADMIUM	ND		2	UG/L	10	10/27/2018 01:07
COBALT	ND		5	UG/L	10	10/27/2018 01:07
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:07
COPPER	ND		20	UG/L	10	10/27/2018 01:07
IRON	ND		100	UG/L	10	10/27/2018 01:07
POTASSIUM	3500		1000	UG/L	10	10/27/2018 01:07
LITHIUM	33		20	UG/L	10	10/27/2018 01:07
MAGNESIUM	22000		100	UG/L	10	10/27/2018 01:07
MANGANESE	ND		5	UG/L	10	10/27/2018 01:07
MOLYBDENUM	3.2		2	UG/L	10	10/27/2018 01:07
SODIUM	19000		1000	UG/L	10	10/27/2018 01:07
NICKEL	ND		20	UG/L	10	10/27/2018 01:07
LEAD	ND		2	UG/L	10	10/27/2018 01:07
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:07
SELENIUM	20		10	UG/L	10	10/29/2018 14:42
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:07
URANIUM	29		0.1	UG/L	10	10/27/2018 01:07
VANADIUM	ND		5	UG/L	10	10/27/2018 01:07
ZINC	ND		100	UG/L	10	10/27/2018 01:07
Dissolved Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:08

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 10/5/2018 13:00

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:22
ALUMINUM	110		100	UG/L	10	10/27/2018 01:22
ARSENIC	ND		2	UG/L	10	10/27/2018 01:22
BORON	ND		150	UG/L	10	10/27/2018 01:22
BARIUM	23		5	UG/L	10	10/27/2018 01:22
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:22
CALCIUM	330000		1000	UG/L	10	10/27/2018 01:22
CADMIUM	ND		2	UG/L	10	10/27/2018 01:22
COBALT	ND		5	UG/L	10	10/27/2018 01:22
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:22
COPPER	ND		20	UG/L	10	10/27/2018 01:22
IRON	ND		100	UG/L	10	10/27/2018 01:22
POTASSIUM	3500		1000	UG/L	10	10/27/2018 01:22
LITHIUM	33		20	UG/L	10	10/27/2018 01:22
MAGNESIUM	21000		100	UG/L	10	10/27/2018 01:22
MANGANESE	ND		5	UG/L	10	10/27/2018 01:22
MOLYBDENUM	3.3		2	UG/L	10	10/27/2018 01:22
SODIUM	19000		1000	UG/L	10	10/27/2018 01:22
NICKEL	ND		20	UG/L	10	10/27/2018 01:22
LEAD	ND		2	UG/L	10	10/27/2018 01:22
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:22
SELENIUM	21		10	UG/L	10	10/29/2018 14:57
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:22
URANIUM	29		0.1	UG/L	10	10/27/2018 01:22
VANADIUM	ND		5	UG/L	10	10/27/2018 01:22
ZINC	ND		100	UG/L	10	10/27/2018 01:22
Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:15

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	KMW-10	Lab ID:	1810152-16
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 13:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 10/5/2018 14:10

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-17
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate			EPA310.1		Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	120		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	120		20	MG/L	1	10/12/2018
Ion Chromatography			EPA300.0		Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	2.2		0.2	MG/L	1	10/8/2018 15:43
FLUORIDE	0.39		0.1	MG/L	1	10/8/2018 15:43
NITRATE AS N	ND		0.2	MG/L	1	10/8/2018 15:43
NITRITE AS N	ND		0.1	MG/L	1	10/8/2018 15:43
SULFATE	19		1	MG/L	1	10/8/2018 15:43
pH			EPA150.1		Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.98		0.1	pH	1	10/9/2018
Total Dissolved Solids			EPA160.1		Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	150		20	MG/L	1	10/9/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 10/5/2018 14:10

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-18
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:25
ALUMINUM	ND		100	UG/L	10	10/27/2018 01:25
ARSENIC	ND		2	UG/L	10	10/27/2018 01:25
BORON	ND		150	UG/L	10	10/27/2018 01:25
BARIUM	27		5	UG/L	10	10/27/2018 01:25
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:25
CALCIUM	38000		1000	UG/L	10	10/27/2018 01:25
CADMIUM	ND		2	UG/L	10	10/27/2018 01:25
COBALT	ND		5	UG/L	10	10/27/2018 01:25
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:25
COPPER	ND		20	UG/L	10	10/27/2018 01:25
IRON	ND		100	UG/L	10	10/27/2018 01:25
POTASSIUM	1000		1000	UG/L	10	10/27/2018 01:25
LITHIUM	ND		20	UG/L	10	10/27/2018 01:25
MAGNESIUM	4600		100	UG/L	10	10/27/2018 01:25
MANGANESE	ND		5	UG/L	10	10/27/2018 01:25
MOLYBDENUM	3.2		2	UG/L	10	10/27/2018 01:25
SODIUM	5500		1000	UG/L	10	10/27/2018 01:25
NICKEL	ND		20	UG/L	10	10/27/2018 01:25
LEAD	ND		2	UG/L	10	10/27/2018 01:25
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:25
SELENIUM	ND		10	UG/L	10	10/29/2018 15:00
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:25
URANIUM	1		0.1	UG/L	10	10/27/2018 01:25
VANADIUM	ND		5	UG/L	10	10/27/2018 01:25
ZINC	ND		100	UG/L	10	10/27/2018 01:25
Dissolved Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:17

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 10/5/2018 14:10

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-19
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:28
ALUMINUM	590		100	UG/L	10	10/27/2018 01:28
ARSENIC	ND		2	UG/L	10	10/27/2018 01:28
BORON	ND		150	UG/L	10	10/27/2018 01:28
BARIUM	33		5	UG/L	10	10/27/2018 01:28
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:28
CALCIUM	37000		1000	UG/L	10	10/27/2018 01:28
CADMIUM	ND		2	UG/L	10	10/27/2018 01:28
COBALT	ND		5	UG/L	10	10/27/2018 01:28
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:28
COPPER	ND		20	UG/L	10	10/27/2018 01:28
IRON	640		100	UG/L	10	10/27/2018 01:28
POTASSIUM	1100		1000	UG/L	10	10/27/2018 01:28
LITHIUM	ND		20	UG/L	10	10/27/2018 01:28
MAGNESIUM	4800		100	UG/L	10	10/27/2018 01:28
MANGANESE	11		5	UG/L	10	10/27/2018 01:28
MOLYBDENUM	3.2		2	UG/L	10	10/27/2018 01:28
SODIUM	5400		1000	UG/L	10	10/27/2018 01:28
NICKEL	ND		20	UG/L	10	10/27/2018 01:28
LEAD	ND		2	UG/L	10	10/27/2018 01:28
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:28
SELENIUM	ND		10	UG/L	10	10/29/2018 15:03
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:28
URANIUM	1.1		0.1	UG/L	10	10/27/2018 01:28
VANADIUM	ND		5	UG/L	10	10/27/2018 01:28
ZINC	ND		100	UG/L	10	10/27/2018 01:28
Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:19

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	KMW-13	Lab ID:	1810152-20
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 14:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 10/5/2018 14:45

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-21
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	55		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	55		20	MG/L	1	10/12/2018
Ion Chromatography		EPA300.0			Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	3.6		0.2	MG/L	1	10/8/2018 16:21
FLUORIDE	0.8		0.1	MG/L	1	10/8/2018 16:21
NITRATE AS N	ND		0.2	MG/L	1	10/8/2018 16:21
NITRITE AS N	ND		0.1	MG/L	1	10/8/2018 16:21
SULFATE	370		10	MG/L	10	10/8/2018 23:44
pH		EPA150.1			Prep Date: 10/8/2018	PrepBy: AEJ
PH	7.58		0.1	pH	1	10/9/2018
Total Dissolved Solids		EPA160.1			Prep Date: 10/8/2018	PrepBy: AEJ
TOTAL DISSOLVED SOLIDS	570		20	MG/L	1	10/9/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 10/5/2018 14:45

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-22
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020		Prep Date: 10/13/2018		PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:31
ALUMINUM	ND		100	UG/L	10	10/27/2018 01:31
ARSENIC	ND		2	UG/L	10	10/27/2018 01:31
BORON	ND		150	UG/L	10	10/27/2018 01:31
BARIUM	20		5	UG/L	10	10/27/2018 01:31
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:31
CALCIUM	140000		1000	UG/L	10	10/27/2018 01:31
CADMIUM	ND		2	UG/L	10	10/27/2018 01:31
COBALT	ND		5	UG/L	10	10/27/2018 01:31
CHROMIUM	23		10	UG/L	10	10/27/2018 01:31
COPPER	ND		20	UG/L	10	10/27/2018 01:31
IRON	340		100	UG/L	10	10/27/2018 01:31
POTASSIUM	1400		1000	UG/L	10	10/27/2018 01:31
LITHIUM	ND		20	UG/L	10	10/27/2018 01:31
MAGNESIUM	8400		100	UG/L	10	10/27/2018 01:31
MANGANESE	12		5	UG/L	10	10/27/2018 01:31
MOLYBDENUM	4.4		2	UG/L	10	10/27/2018 01:31
SODIUM	3400		1000	UG/L	10	10/27/2018 01:31
NICKEL	ND		20	UG/L	10	10/27/2018 01:31
LEAD	ND		2	UG/L	10	10/27/2018 01:31
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:31
SELENIUM	ND		10	UG/L	10	10/29/2018 15:06
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:31
URANIUM	0.5		0.1	UG/L	10	10/27/2018 01:31
VANADIUM	ND		5	UG/L	10	10/27/2018 01:31
ZINC	ND		100	UG/L	10	10/27/2018 01:31

Dissolved Mercury

MERCURY	ND		SW7470		Prep Date: 10/10/2018	PrepBy: KJM
			0.0002	MG/L	1	10/11/2018 12:21

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 10/5/2018 14:45

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-23
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 10/13/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/27/2018 01:34
ALUMINUM	1400		100	UG/L	10	10/27/2018 01:34
ARSENIC	ND		2	UG/L	10	10/27/2018 01:34
BORON	ND		150	UG/L	10	10/27/2018 01:34
BARIUM	32		5	UG/L	10	10/27/2018 01:34
BERYLLIUM	ND		0.5	UG/L	10	10/27/2018 01:34
CALCIUM	140000		1000	UG/L	10	10/27/2018 01:34
CADMIUM	ND		2	UG/L	10	10/27/2018 01:34
COBALT	ND		5	UG/L	10	10/27/2018 01:34
CHROMIUM	ND		10	UG/L	10	10/27/2018 01:34
COPPER	ND		20	UG/L	10	10/27/2018 01:34
IRON	1400		100	UG/L	10	10/27/2018 01:34
POTASSIUM	1800		1000	UG/L	10	10/27/2018 01:34
LITHIUM	ND		20	UG/L	10	10/27/2018 01:34
MAGNESIUM	8600		100	UG/L	10	10/27/2018 01:34
MANGANESE	26		5	UG/L	10	10/27/2018 01:34
MOLYBDENUM	4.1		2	UG/L	10	10/27/2018 01:34
SODIUM	3400		1000	UG/L	10	10/27/2018 01:34
NICKEL	ND		20	UG/L	10	10/27/2018 01:34
LEAD	ND		2	UG/L	10	10/27/2018 01:34
ANTIMONY	ND		1	UG/L	10	10/27/2018 01:34
SELENIUM	ND		10	UG/L	10	10/29/2018 15:09
THALLIUM	ND		0.1	UG/L	10	10/27/2018 01:34
URANIUM	0.57		0.1	UG/L	10	10/27/2018 01:34
VANADIUM	ND		5	UG/L	10	10/27/2018 01:34
ZINC	ND		100	UG/L	10	10/27/2018 01:34
Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 12:24

Client:	Telesto Solutions Inc	Date:	31-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810152
Sample ID:	KMW-12	Lab ID:	1810152-24
Legal Location:		Matrix:	WATER
Collection Date:	10/5/2018 14:45	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Total Cyanide			SW9014		Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	0.0064		0.005	MG/L	1	10/11/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 10/5/2018 14:45

Date: 31-Oct-18
Work Order: 1810152
Lab ID: 1810152-24
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
 U or ND - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
 Y2 - Chemical Yield outside default limits.
 W - DER is greater than Warning Limit of 1.42
 * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
 G - Sample density differs by more than 15% of LCS density.
 D - DER is greater than Control Limit
 M - Requested MDC not met.
 LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS, Matrix Spike Recovery within control limits.
 N - Matrix Spike Recovery outside control limits
 NC - Not Calculated for duplicate results less than 5 times MDC
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 10/31/2018 3:40

Client: Telesto Solutions Inc

Work Order: 1810152

Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: HG181010-3-1

Instrument ID CETAC7500

Method: SW7470

LCS	Sample ID: HG181010-3			Units: MG/L			Analysis Date: 10/11/2018 11:53				
Client ID:	Run ID: HG181011-1A1						Prep Date: 10/10/2018		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.00102	0.0002	0.001		102	80-120				20	

MB	Sample ID: HG181010-3			Units: MG/L	Analysis Date: 10/11/2018 11:51		
Client ID:	Run ID: HG181011-1A1			Prep Date: 10/10/2018		DF: 1	
Analyte	Result	ReportLimit	Qual				
MERCURY	ND	0.0002					

The following samples were analyzed in this batch:

1810152-2	1810152-3	1810152-6
1810152-7	1810152-10	1810152-11
1810152-14	1810152-15	1810152-18
1810152-19	1810152-22	1810152-23

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181013-7-3** Instrument ID: **ICPMS2** Method: **SW6020**

LCS	Sample ID: IM181013-7				Units: UG/L		Analysis Date: 10/26/2018 23:55				
Client ID:	Run ID: IM181026-10A1				Prep Date: 10/13/2018			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4560	100	5000		91	80-120				20	
ANTIMONY	25.6	1	30		85	80-120				20	
ARSENIC	93.2	2	100		93	80-120				20	
BARIUM	87.1	5	100		87	80-120				20	
BERYLLIUM	46.9	0.5	50		94	80-120				20	
BORON	955	150	1000		96	80-120				20	
CADMIUM	29.5	2	30		98	80-120				20	
CALCIUM	9280	1000	10000		93	80-120				20	
CHROMIUM	448	10	500		90	80-120				20	
COBALT	93.5	5	100		93	80-120				20	
COPPER	925	20	1000		92	80-120				20	
IRON	4510	100	5000		90	80-120				20	
LEAD	48	2	50		96	80-120				20	
LITHIUM	1050	20	1000		105	80-120				20	
MAGNESIUM	9080	100	10000		91	80-120				20	
MANGANESE	94.9	5	100		95	80-120				20	
MOLYBDENUM	88	2	100		88	80-120				20	
NICKEL	480	20	500		96	80-120				20	
POTASSIUM	4260	1000	5000		85	80-120				20	
SILVER	9.79	0.5	10		98	80-120				20	
SODIUM	9110	1000	10000		91	80-120				20	
THALLIUM	1.88	0.1	2		94	80-120				20	
URANIUM	8.69	0.1	10		87	80-120				20	
VANADIUM	89.5	5	100		89	80-120				20	
ZINC	1730	100	2000		87	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181013-7-3** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP181013-7** Units: **UG/L** Analysis Date: **10/26/2018 23:52**
Client ID: Run ID: **IM181026-10A1** Prep Date: **10/13/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1810152-2	1810152-3	1810152-6
1810152-7	1810152-10	1810152-11
1810152-14	1810152-15	1810152-18
1810152-19	1810152-22	1810152-23

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181013-7-3** Instrument ID **ICPMS2** Method: **SW6020**

LCS	Sample ID: IM181013-7			Units: UG/L			Analysis Date: 10/29/2018 13:31				
Client ID:	Run ID: IM181029-10A1			Prep Date: 10/13/2018			DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SELENIUM	93.6	10	100		94	80-120				20	

MB	Sample ID: IP181013-7			Units: UG/L			Analysis Date: 10/29/2018 13:28				
Client ID:	Run ID: IM181029-10A1			Prep Date: 10/13/2018			DF: 10				
Analyte	Result	ReportLimit									Qual
SELENIUM	ND	10									

The following samples were analyzed in this batch:

1810152-2	1810152-3	1810152-6
1810152-7	1810152-10	1810152-11
1810152-14	1810152-15	1810152-18
1810152-19	1810152-22	1810152-23

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN181009-2-1** Instrument ID **Spec** Method: **SW9014**

LCS	Sample ID: CN181009-1			Units: MG/L			Analysis Date: 10/11/2018				
Client ID:		Run ID: CN181011-1A1			Prep Date: 10/9/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.183	0.005	0.2		91	85-115				30	

MB		Sample ID: CN181009-1		Units: MG/L		Analysis Date: 10/11/2018	
Client ID:		Run ID: CN181011-1A1		Prep Date: 10/9/2018		DF: 1	
Analyte		Result	ReportLimit				
CYANIDE, TOTAL		ND	0.005				

The following samples were analyzed in this batch:

1810152-4	1810152-8	1810152-12
1810152-16	1810152-20	1810152-24

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC181008-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC181008-1** Units: **MG/L** Analysis Date: **10/8/2018 13:29**

Client ID: Run ID: **IC181008-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.01	0.1	5		100	90-110				15	
CHLORIDE	9.88	0.2	10		99	90-110				15	
NITRITE AS N	5.04	0.1	5		101	90-110				15	
NITRATE AS N	9.83	0.2	10		98	90-110				15	
SULFATE	49	1	50		98	90-110				15	

MB Sample ID: **IC181008-1** Units: **MG/L** Analysis Date: **10/8/2018 13:41**

Client ID: Run ID: **IC181008-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
FLUORIDE	ND	0.1	
CHLORIDE	ND	0.2	
NITRITE AS N	ND	0.1	
NITRATE AS N	ND	0.2	
SULFATE	ND	1	

The following samples were analyzed in this batch:

1810152-1	1810152-5	1810152-9
1810152-13	1810152-17	1810152-21

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **PH181008-1-2** Instrument ID **pH-1** Method: **EPA150.1**

DUP Sample ID: **1810152-1** Units: **pH** Analysis Date: **10/9/2018**

Client ID: **KMW-06** Run ID: **PH181008-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.24	0.1							7.36		

The following samples were analyzed in this batch:

1810152-1	1810152-5	1810152-9
1810152-13	1810152-17	1810152-21

Client: Telesto Solutions Inc
Work Order: 1810152
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD181008-1-2** Instrument ID **Balance** Method: **EPA160.1**

DUP Sample ID: **1810152-1** Units: **MG/L** Analysis Date: **10/9/2018**

Client ID: **KMW-06** Run ID: **TD181009-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1880	40						1800	2	5	

LCS Sample ID: **TD181008-1** Units: **MG/L** Analysis Date: **10/9/2018**

Client ID: Run ID: **TD181009-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	389	20	400		97	85-115				5	

MB Sample ID: **TD181008-1** Units: **MG/L** Analysis Date: **10/9/2018**

Client ID: Run ID: **TD181009-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit									Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

1810152-1	1810152-5	1810152-9
1810152-13	1810152-17	1810152-21



Tuesday, October 30, 2018

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1810180
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Two water samples were received from Telesto Solutions Inc, on 10/8/2018. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1810180

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020A and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	1810180-1

The concentration of this analyte in the native sample was greater than four times the concentration of matrix spike added during the digestion. When sample concentration is that much greater than the spike added, spike recoveries may not be accurate. The laboratory control sample indicates that the digestion and analysis were in control.

All remaining acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846 and MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1810180

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
KMW-19	1810180-1		WATER	08-Oct-18	10:00
KMW-19	1810180-2		WATER	08-Oct-18	10:00

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1810180

PAGE

of

DISPOSAL

BY LAB or RETURN

[illegible]

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

5 of 19	NOTES		12.600	REPORT LEVEL / QC REQUIRED	
				Summary (Standard QC)	
				LEVEL II (Standard QC)	
				LEVEL III (Std QC + forms)	
				LEVEL IV (Std QC + forms + raw	
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other			

Form 202r9	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Tim Gerken	10/8/18	10:36
RECEIVED BY		Keli-Jean Smith	10-8-18	1036
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesto Workorder No: 1810180
Project Manager: DK Initials: KG Date: 10-8-18

1. Are airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		<u>YES</u>	NO
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>YES</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		YES	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 <u>#3</u> #4	RAD ONLY	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>12.4</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>N/A</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

All client bottle ID's vs ALS lab ID's double-checked by: KG

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 10-9-11

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 10/8/2018 10:00

Date: 30-Oct-18
Work Order: 1810180
Lab ID: 1810180-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 10/12/2018	PrepBy: HMA
BICARBONATE AS CaCO3	100		20	MG/L	1	10/12/2018
CARBONATE AS CaCO3	ND		20	MG/L	1	10/12/2018
TOTAL ALKALINITY AS CaCO3	100		20	MG/L	1	10/12/2018
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/15/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/26/2018 19:55
ALUMINUM	ND		100	UG/L	10	10/26/2018 19:55
ARSENIC	ND		2	UG/L	10	10/26/2018 19:55
BORON	ND		150	UG/L	10	10/26/2018 19:55
BARIUM	28		5	UG/L	10	10/26/2018 19:55
BERYLLIUM	ND		0.5	UG/L	10	10/26/2018 19:55
CALCIUM	41000		1000	UG/L	10	10/26/2018 19:55
CADMIUM	ND		2	UG/L	10	10/26/2018 19:55
COBALT	ND		5	UG/L	10	10/26/2018 19:55
CHROMIUM	ND		10	UG/L	10	10/26/2018 19:55
COPPER	ND		20	UG/L	10	10/26/2018 19:55
IRON	ND		100	UG/L	10	10/26/2018 19:55
POTASSIUM	1000		1000	UG/L	10	10/26/2018 19:55
LITHIUM	ND		20	UG/L	10	10/26/2018 19:55
MAGNESIUM	5100		100	UG/L	10	10/26/2018 19:55
MANGANESE	ND		5	UG/L	10	10/26/2018 19:55
MOLYBDENUM	2.6		2	UG/L	10	10/26/2018 19:55
SODIUM	4700		1000	UG/L	10	10/26/2018 19:55
NICKEL	ND		20	UG/L	10	10/26/2018 19:55
LEAD	ND		2	UG/L	10	10/26/2018 19:55
ANTIMONY	ND		1	UG/L	10	10/26/2018 19:55
SELENIUM	ND		10	UG/L	10	10/26/2018 19:55
THALLIUM	ND		0.1	UG/L	10	10/26/2018 19:55
URANIUM	0.94		0.1	UG/L	10	10/26/2018 19:55
VANADIUM	ND		5	UG/L	10	10/26/2018 19:55
ZINC	ND		100	UG/L	10	10/26/2018 19:55
Ion Chromatography		EPA300.0			Prep Date: 10/8/2018	PrepBy: HMA
CHLORIDE	2.9		0.2	MG/L	1	10/8/2018 16:33
FLUORIDE	0.41		0.1	MG/L	1	10/8/2018 16:33
NITRATE AS N	ND		0.2	MG/L	1	10/8/2018 16:33
NITRITE AS N	ND		0.1	MG/L	1	10/8/2018 16:33
SULFATE	30		1	MG/L	1	10/8/2018 16:33
Mercury		SW7470			Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 11:34
pH		EPA150.1			Prep Date: 10/11/2018	PrepBy: HMA
PH	8.08		0.1	pH	1	10/11/2018
Total Cyanide		SW9014			Prep Date: 10/9/2018	PrepBy: HMA
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/11/2018
Total Dissolved Solids		EPA160.1			Prep Date: 10/9/2018	PrepBy: AEJ

ALS -- Fort Collins**SAMPLE SUMMARY REPORT**

Client:	Telesto Solutions Inc	Date:	30-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810180
Sample ID:	KMW-19	Lab ID:	1810180-1
Legal Location:		Matrix:	WATER
Collection Date:	10/8/2018 10:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	160		20	MG/L	1	10/10/2018

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 10/8/2018 10:00

Date: 30-Oct-18
Work Order: 1810180
Lab ID: 1810180-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/15/2018	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/26/2018 20:10
ALUMINUM	1100		100	UG/L	10	10/26/2018 20:10
ARSENIC	ND		2	UG/L	10	10/26/2018 20:10
BORON	ND		150	UG/L	10	10/26/2018 20:10
BARIUM	37		5	UG/L	10	10/26/2018 20:10
BERYLLIUM	ND		0.5	UG/L	10	10/26/2018 20:10
CALCIUM	42000		1000	UG/L	10	10/26/2018 20:10
CADMIUM	ND		2	UG/L	10	10/26/2018 20:10
COBALT	ND		5	UG/L	10	10/26/2018 20:10
CHROMIUM	ND		10	UG/L	10	10/26/2018 20:10
COPPER	ND		20	UG/L	10	10/26/2018 20:10
IRON	1600		100	UG/L	10	10/26/2018 20:10
POTASSIUM	1300		1000	UG/L	10	10/26/2018 20:10
LITHIUM	ND		20	UG/L	10	10/26/2018 20:10
MAGNESIUM	5300		100	UG/L	10	10/26/2018 20:10
MANGANESE	77		5	UG/L	10	10/26/2018 20:10
MOLYBDENUM	2.9		2	UG/L	10	10/26/2018 20:10
SODIUM	4700		1000	UG/L	10	10/26/2018 20:10
NICKEL	ND		20	UG/L	10	10/26/2018 20:10
LEAD	ND		2	UG/L	10	10/26/2018 20:10
ANTIMONY	ND		1	UG/L	10	10/26/2018 20:10
SELENIUM	ND		10	UG/L	10	10/26/2018 20:10
THALLIUM	ND		0.1	UG/L	10	10/26/2018 20:10
URANIUM	1.3		0.1	UG/L	10	10/26/2018 20:10
VANADIUM	ND		5	UG/L	10	10/26/2018 20:10
ZINC	ND		100	UG/L	10	10/26/2018 20:10
Dissolved Mercury						
			SW7470		Prep Date: 10/10/2018	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	10/11/2018 11:36

Client:	Telesto Solutions Inc	Date:	30-Oct-18
Project:	360100 LRM - Knox Pit	Work Order:	1810180
Sample ID:	KMW-19	Lab ID:	1810180-2
Legal Location:		Matrix:	WATER
Collection Date:	10/8/2018 10:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers**Radiochemistry:**

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	
LT - Result is less than requested MDC but greater than achieved MDC.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

ALS -- Fort Collins

Date: 10/30/2018 12:5

Client: Telesto Solutions Inc

Work Order: 1810180

Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: HG181010-2-1

Instrument ID CETAC7500

Method: SW7470

LCS	Sample ID: HG181010-2				Units: MG/L		Analysis Date: 10/11/2018 10:34				
Client ID:	Run ID: HG181011-1A1				Prep Date: 10/10/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.00102	0.0002	0.001		102	80-120				20	

MB	Sample ID: HG181010-2			Units: MG/L	Analysis Date: 10/11/2018 10:32		
Client ID:	Run ID: HG181011-1A1			Prep Date: 10/10/2018		DF: 1	
Analyte				Result	ReportLimit	Qual	
MERCURY				ND	0.0002		

The following samples were analyzed in this batch:

1810180-1 1810180-2

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181015-3-3** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM181015-3			Units: UG/L		Analysis Date: 10/26/2018 18:31				
Client ID:		Run ID: IM181026-10A1				Prep Date: 10/15/2018			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4640	100	5000		93	80-120				20	
ANTIMONY	25.6	1	30		85	80-120				20	
ARSENIC	97.2	2	100		97	80-120				20	
BARIUM	91.1	5	100		91	80-120				20	
BERYLLIUM	47.1	0.5	50		94	80-120				20	
BORON	903	150	1000		90	80-120				20	
CADMIUM	28.7	2	30		96	80-120				20	
CALCIUM	9670	1000	10000		97	80-120				20	
CHROMIUM	466	10	500		93	80-120				20	
COBALT	97.1	5	100		97	80-120				20	
COPPER	924	20	1000		92	80-120				20	
IRON	4770	100	5000		95	80-120				20	
LEAD	49.1	2	50		98	80-120				20	
LITHIUM	1030	20	1000		103	80-120				20	
MAGNESIUM	9250	100	10000		93	80-120				20	
MANGANESE	96.8	5	100		97	80-120				20	
MOLYBDENUM	89.5	2	100		89	80-120				20	
NICKEL	502	20	500		100	80-120				20	
POTASSIUM	4460	1000	5000		89	80-120				20	
SELENIUM	93.1	10	100		93	80-120				20	
SILVER	9.57	0.5	10		96	80-120				20	
SODIUM	9260	1000	10000		93	80-120				20	
THALLIUM	1.97	0.1	2		99	80-120				20	
URANIUM	8.89	0.1	10		89	80-120				20	
VANADIUM	93.2	5	100		93	80-120				20	
ZINC	1790	100	2000		90	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181015-3-3** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP181015-3** Units: **UG/L** Analysis Date: **10/26/2018 18:28**
Client ID: Run ID: **IM181026-10A1** Prep Date: **10/15/2018** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181015-3-3** Instrument ID: **ICPMS2** Method: **SW6020**

MS Sample ID: **1810180-1** Units: **UG/L** Analysis Date: **10/26/2018 20:01**
 Client ID: **KMW-19** Run ID: **IM181026-10A1** Prep Date: **10/15/2018** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4530	100	5000	100	91	75-125				20	
ANTIMONY	26	1	30	1	87	75-125				20	
ARSENIC	97.4	2	100	2	97	75-125				20	
BARIUM	116	5	100	28	88	75-125				20	
BERYLLIUM	46.9	0.5	50	0.5	94	75-125				20	
BORON	950	150	1000	150	95	75-125				20	
CADMIUM	28.7	2	30	2	96	75-125				20	
CALCIUM	51400	1000	10000	41000	105	75-125				20	
CHROMIUM	460	10	500	10	92	75-125				20	
COBALT	94.1	5	100	5	94	75-125				20	
COPPER	924	20	1000	20	92	75-125				20	
IRON	4720	100	5000	100	94	75-125				20	
LEAD	49.2	2	50	2	98	75-125				20	
LITHIUM	1030	20	1000	20	103	75-125				20	
MAGNESIUM	14300	100	10000	5100	91	75-125				20	
MANGANESE	97.2	5	100	5	97	75-125				20	
MOLYBDENUM	90.8	2	100	2.6	88	75-125				20	
NICKEL	488	20	500	20	98	75-125				20	
POTASSIUM	5410	1000	5000	1000	88	75-125				20	
SELENIUM	94.4	10	100	10	94	75-125				20	
SILVER	9.72	0.5	10	0.5	97	75-125				20	
SODIUM	13800	1000	10000	4700	91	75-125				20	
THALLIUM	1.91	0.1	2	0.1	95	75-125				20	
URANIUM	9.9	0.1	10	0.94	90	75-125				20	
VANADIUM	93.7	5	100	5	94	75-125				20	
ZINC	1810	100	2000	100	90	75-125				20	

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP181015-3-3** Instrument ID: **ICPMS2** Method: **SW6020**

MSD			Sample ID: 1810180-1			Units: UG/L			Analysis Date: 10/26/2018 20:04		
Client ID: KMW-19			Run ID: IM181026-10A1			Prep Date: 10/15/2018			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4510	100	5000	100	90	75-125		4530	1	20	
ANTIMONY	25.7	1	30	1	86	75-125		26	1	20	
ARSENIC	95.8	2	100	2	96	75-125		97.4	2	20	
BARIUM	114	5	100	28	85.7	75-125		116	2	20	
BERYLLIUM	46.6	0.5	50	0.5	93	75-125		46.9	1	20	
BORON	990	150	1000	150	99	75-125		950	4	20	
CADMIUM	28	2	30	2	93	75-125		28.7	2	20	
CALCIUM	50500	1000	10000	41000	95.8	75-125		51400	2	20	
CHROMIUM	457	10	500	10	91	75-125		460	1	20	
COBALT	94.8	5	100	5	95	75-125		94.1	1	20	
COPPER	919	20	1000	20	92	75-125		924	1	20	
IRON	4640	100	5000	100	93	75-125		4720	2	20	
LEAD	48.1	2	50	2	96	75-125		49.2	2	20	
LITHIUM	1020	20	1000	20	102	75-125		1030	0	20	
MAGNESIUM	14300	100	10000	5100	91.6	75-125		14300	0	20	
MANGANESE	97.3	5	100	5	97	75-125		97.2	0	20	
MOLYBDENUM	91.1	2	100	2.6	88.5	75-125		90.8	0	20	
NICKEL	488	20	500	20	98	75-125		488	0	20	
POTASSIUM	5450	1000	5000	1000	88.6	75-125		5410	1	20	
SELENIUM	94	10	100	10	94	75-125		94.4	0	20	
SILVER	9.52	0.5	10	0.5	95	75-125		9.72	2	20	
SODIUM	13800	1000	10000	4700	91	75-125		13800	0	20	
THALLIUM	1.89	0.1	2	0.1	94	75-125		1.91	1	20	
URANIUM	9.58	0.1	10	0.94	86.4	75-125		9.9	3	20	
VANADIUM	92.7	5	100	5	93	75-125		93.7	1	20	
ZINC	1810	100	2000	100	91	75-125		1810	0	20	

The following samples were analyzed in this batch:

1810180-1	1810180-2
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Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN181009-2-1** Instrument ID **Spec** Method: **SW9014**

LCS		Sample ID: CN181009-1			Units: MG/L			Analysis Date: 10/11/2018			
Client ID:		Run ID: CN181011-1A1			Prep Date: 10/9/2018			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.183	0.005	0.2		91	85-115				30	

MB		Sample ID: CN181009-1			Units: MG/L			Analysis Date: 10/11/2018			
Client ID:		Run ID: CN181011-1A1			Prep Date: 10/9/2018			DF: 1			
Analyte	Result	ReportLimit									Qual
CYANIDE, TOTAL	ND	0.005									

The following samples were analyzed in this batch:

1810180-1

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC181008-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS Sample ID: **IC181008-1** Units: **MG/L** Analysis Date: **10/8/2018 13:29**

Client ID: Run ID: **IC181008-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.01	0.1	5		100	90-110				15	
CHLORIDE	9.88	0.2	10		99	90-110				15	
NITRITE AS N	5.04	0.1	5		101	90-110				15	
NITRATE AS N	9.83	0.2	10		98	90-110				15	
SULFATE	49	1	50		98	90-110				15	

MB Sample ID: **IC181008-1** Units: **MG/L** Analysis Date: **10/8/2018 13:41**

Client ID: Run ID: **IC181008-1A1** Prep Date: **10/8/2018** DF: **1**

Analyte	Result	ReportLimit	Qual
FLUORIDE	ND	0.1	
CHLORIDE	ND	0.2	
NITRITE AS N	ND	0.1	
NITRATE AS N	ND	0.2	
SULFATE	ND	1	

The following samples were analyzed in this batch:

1810180-1

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **PH181011-1-2** Instrument ID **pH-1** Method: **EPA150.1**

DUP Sample ID: **1810180-1** Units: **pH** Analysis Date: **10/11/2018**

Client ID: **KMW-19** Run ID: **PH181011-1A1** Prep Date: **10/11/2018** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	8.15	0.1							8.08		

The following samples were analyzed in this batch:

1810180-1

Client: Telesto Solutions Inc
Work Order: 1810180
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD181009-1-2** Instrument ID **Balance** Method: **EPA160.1**

LCS	Sample ID: TD181009-1			Units: MG/L			Analysis Date: 10/10/2018				
Client ID:		Run ID: TD181010-1A1				Prep Date: 10/9/2018			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	360	20	400		90	85-115				5	

MB		Sample ID: TD181009-1			Units: MG/L		Analysis Date: 10/10/2018		
Client ID:		Run ID: TD181010-1A1			Prep Date: 10/9/2018			DF: 1	
Analyte		Result	ReportLimit						
TOTAL DISSOLVED SOLIDS		ND	20						

The following samples were analyzed in this batch:

1810180-1



Thursday, February 14, 2019

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1902056
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Sixteen water samples were received from Telesto Solutions Inc, on 2/5/2019. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,



ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1902056

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020B and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846 and MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

The samples were prepared and analyzed within the established hold time for each analysis with the exception of nitrate as N and nitrite as N. The chain of custody did not indicate short hold analyses, so the laboratory was unaware of short holds present on samples and was therefore unable to inform analyst of short hold presence. Samples 1902056-1, -2, -3, and -5 were not analyzed within method holding times.

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1902056

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
KMW-02	1902056-1		WATER	05-Feb-19	10:30
KMW-06	1902056-2		WATER	05-Feb-19	11:30
KMW-10	1902056-3		WATER	05-Feb-19	12:15
02-KMW-10	1902056-4		WATER	05-Feb-19	12:30
03KMW-Blank	1902056-5		WATER	05-Feb-19	12:45
KMW-12	1902056-6		WATER	05-Feb-19	13:20
KMW-13	1902056-7		WATER	05-Feb-19	14:35
KMW-19	1902056-8		WATER	05-Feb-19	15:40
KMW-02	1902056-9		WATER	05-Feb-19	10:30
KMW-06	1902056-10		WATER	05-Feb-19	11:30
KMW-10	1902056-11		WATER	05-Feb-19	12:15
02-KMW-10	1902056-12		WATER	05-Feb-19	12:30
03-KMW-Blank	1902056-13		WATER	05-Feb-19	12:45
KMW-12	1902056-14		WATER	05-Feb-19	13:20
KMW-13	1902056-15		WATER	05-Feb-19	14:35
KMW-19	1902056-16		WATER	05-Feb-19	15:40



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

K02056

PAGE 1 of 3

DISPOSAL ☒ BY LAB or RETURN

PROJECT NAME	IRM-KNOX Pit	SITE ID		SAMPLER	Tim Gesken
PROJECT No.	360100	EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	Teleso Solutions Inc.	BILL TO COMPANY			
SEND REPORT TO	" "	INVOICE ATTN TO			
ADDRESS	3801 Automation Way, Ste 101	ADDRESS			
CITY / STATE / ZIP	Fort Collins, CO 80525	CITY / STATE / ZIP			
PHONE	970-484-7704	PHONE			
FAX		FAX			
E-MAIL	tggesken@teleso-inc.com	E-MAIL			

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
594	KMW-02-RAW	W	2/5	10:30	1	None			X									
1556	KMW-02-Filtered	W	2/5	10:30	1	2		X										
1576	KMW-02-unfiltered			10:30	1	2		X										
9746	KMW-02-unfiltered			10:30	1	4				X								
623	KMW-06-RAW			11:30	1	None			X									
1672	KMW-06-Filtered			11:30	1	2		X										
9706	KMW-06-unfiltered			11:30	1	2		X										
9755	KMW-06-unfiltered			11:30	1	4				X								
601	KMW-10-RAW			12:15	1	None			X									
1600	KMW-10-Filtered			12:15	1	2		X										
9716	KMW-10-unfiltered			12:15	1	2		X										
1586	KMW-10-unfiltered			12:15	1	4				X								

*Time Zone (Circle): EST CST MS PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 282r

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Blake Brazell
C Trimble

2-5-19 1625
2-5-19 1630



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1902056
PAGE 2 of 3

PROJECT NAME		LHM - Knox Pit		SITE ID		SAMPLER		Tim Greker		DISPOSAL		BY LAB or RETURN																									
PROJECT No.		360100		EDD FORMAT		PURCHASE ORDER		PARAMETER/METHOD REQUEST FOR ANALYSIS		A		Metals																									
COMPANY NAME		Telesto Solutions Inc.		BILL TO COMPANY		INVOICE ATTN TO		B		Wetzel		Cyanide																									
SEND REPORT TO		Same as Page 1		ADDRESS		CITY/STATE/ZIP		D		E		F																									
PHONE		1		PHONE		PHONE		G		H		I																									
FAX				FAX		FAX		J		K		L																									
E-MAIL				E-MAIL		E-MAIL		M		N		O																									
LAB ID		FIELD ID		MATRIX		SAMPLE DATE		SAMPLE TIME		# OF BOTTLES		PRESERVATIVE		QC		A		B		C		D		E		F		G		H		I		J		SEE NOTES SECTION	
537	02-KMW-10 - Raw	W	2-5-19	12:30	1	None																															
9762	02-KMW-10 - Filtered	W	2-5-19	12:30	1	2																															
9710	02-KMW-10 - unFiltered	W		12:30	1	2																															
9722	02-KMW-10 - unFiltered			12:30	1	4																															
566	03-KMW-Blank - Raw			12:45	1	None																															
9712	03-KMW-Blank - Filtered			12:45	1	2																															
1597	03-KMW-Blank - unFiltered			12:45	1	2																															
9705	03-KMW-Blank - unFiltered			12:45	1	4																															
504	KMW-12 - RAW			1:20	1	None																															
9739	KMW-12 - Filtered			1:20	1	2																															
1615	KMW-12 - unFiltered			1:20	1	2																															
9693	KMW-12 - unFiltered			1:20	1	4																															

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 2829

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Blake R. Bratt
C. J. Mumbel

Blake Bratt
C. J. Mumbel

2-5-19
2-5-19

16:30
16:30



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1905056

PAGE 3 of 3

DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-360100	SITE ID		PARAMETER/METHOD REQUEST FOR ANALYSIS														
PROJECT No.		EDD FORMAT																
COMPANY NAME	Teleso Solutions	PURCHASE ORDER		A	Metals													
SEND REPORT TO	Tim Gerken	BILL TO COMPANY		B	Wetchem													
ADDRESS		INVOICE ATTN TO		C	Cyanide													
CITY / STATE / ZIP	Same AS	ADDRESS		D														
PHONE		CITY / STATE / ZIP		E														
FAX		PHONE		F														
E-MAIL	Page 1	FAX		G														
		E-MAIL		H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
463	1588	W	2:30pm	2:30pm	1	None												
530	KMW-13-RAW	W	2:30pm	2:30pm	1	None			X									
1588	KMW-13-Filtered		2:30pm	2:30pm	1	2		X										
9758	KMW-13-Unfiltered		2:30pm	2:30pm	1	2		X										
1549	KMW-13-Unfiltered		2:30pm	2:30pm	1	4				X								
588	KMW-19-RAW		3:40pm	3:40pm	1	None			X									
1554	KMW-19-Filtered		3:40pm	3:40pm	1	2		X										
9715	KMW-19-Unfiltered		3:40pm	3:40pm	1	2		X										
9687	KMW-19-Unfiltered		3:40pm	3:40pm	1	4				X								

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

7.2°

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 2029

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Blake L. Borell
C Trimble

Blake Borell
C Trimble

2-5-19
2-5-19

1630
1630

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Teleso

Workorder No: 1902056

Project Manager: JK

Initials: CDT

Date: 2-6-19

1. Are airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (chain-of-custody) present?		<u>YES</u>	NO
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
6. Are short-hold samples present?		YES	NO
7. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>	NO
9. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>	NO
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	<u>YES</u>	NO
12. Are all aqueous non-preserved samples pH 4-9?	N/A	<u>YES</u>	NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?		YES	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 <u>#3</u> #4	RAD ONLY	YES <u>NO</u>
Cooler #: <u>1</u>			
Temperature (°C): <u>7.2</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO <u>NA</u> (If no, see Form 008.)			

Additional Information: Please provide details here for any NO responses to gray-shaded boxes above, or any other issues noted:

All client bottle ID's vs ALS lab ID's double-checked by: CDT

If applicable, was the client contacted? YES / NO NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 2-7-19

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-02
 Legal Location:
 Collection Date: 2/5/2019 10:30

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	180		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	180		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 14:50
ALUMINUM	420		100	UG/L	10	2/13/2019 14:50
ARSENIC	ND		2	UG/L	10	2/13/2019 14:50
BORON	ND		150	UG/L	10	2/13/2019 14:50
BARIUM	35		5	UG/L	10	2/13/2019 14:50
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 14:50
CALCIUM	140000		1000	UG/L	10	2/13/2019 14:50
CADMIUM	ND		2	UG/L	10	2/13/2019 14:50
COBALT	ND		5	UG/L	10	2/13/2019 14:50
CHROMIUM	ND		10	UG/L	10	2/13/2019 14:50
COPPER	ND		20	UG/L	10	2/13/2019 14:50
IRON	400		100	UG/L	10	2/13/2019 14:50
POTASSIUM	2000		1000	UG/L	10	2/13/2019 14:50
LITHIUM	ND		20	UG/L	10	2/13/2019 14:50
MAGNESIUM	32000		100	UG/L	10	2/13/2019 14:50
MANGANESE	15		5	UG/L	10	2/13/2019 14:50
MOLYBDENUM	2		2	UG/L	10	2/13/2019 14:50
SODIUM	35000		1000	UG/L	10	2/13/2019 14:50
NICKEL	ND		20	UG/L	10	2/13/2019 14:50
LEAD	ND		2	UG/L	10	2/13/2019 14:50
ANTIMONY	ND		1	UG/L	10	2/13/2019 14:50
SELENIUM	ND		10	UG/L	10	2/13/2019 14:50
THALLIUM	ND		0.1	UG/L	10	2/13/2019 14:50
URANIUM	4.2		0.1	UG/L	10	2/13/2019 14:50
VANADIUM	ND		5	UG/L	10	2/13/2019 14:50
ZINC	ND		100	UG/L	10	2/13/2019 14:50
Ion Chromatography		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	17		0.2	MG/L	1	2/7/2019 14:06
FLUORIDE	0.45		0.1	MG/L	1	2/7/2019 14:06
NITRATE AS N	0.28		0.2	MG/L	1	2/7/2019 14:06
NITRITE AS N	ND		0.1	MG/L	1	2/7/2019 14:06
SULFATE	410		10	MG/L	10	2/7/2019 14:44
Mercury		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:11
pH		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	7.11		0.1	pH	1	2/8/2019
Total Cyanide		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.0076		0.005	MG/L	1	2/8/2019
Total Dissolved Solids		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 2/5/2019 10:30

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	750		20	MG/L	1	2/12/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-06
 Legal Location:
 Collection Date: 2/5/2019 11:30

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	300		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	300		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:05
ALUMINUM	930		100	UG/L	10	2/13/2019 15:05
ARSENIC	ND		2	UG/L	10	2/13/2019 15:05
BORON	ND		150	UG/L	10	2/13/2019 15:05
BARIUM	62		5	UG/L	10	2/13/2019 15:05
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:05
CALCIUM	470000		1000	UG/L	10	2/13/2019 15:05
CADMIUM	ND		2	UG/L	10	2/13/2019 15:05
COBALT	ND		5	UG/L	10	2/13/2019 15:05
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:05
COPPER	ND		20	UG/L	10	2/13/2019 15:05
IRON	1400		100	UG/L	10	2/13/2019 15:05
POTASSIUM	5900		1000	UG/L	10	2/13/2019 15:05
LITHIUM	23		20	UG/L	10	2/13/2019 15:05
MAGNESIUM	29000		100	UG/L	10	2/13/2019 15:05
MANGANESE	20		5	UG/L	10	2/13/2019 15:05
MOLYBDENUM	4.6		2	UG/L	10	2/13/2019 15:05
SODIUM	19000		1000	UG/L	10	2/13/2019 15:05
NICKEL	ND		20	UG/L	10	2/13/2019 15:05
LEAD	ND		2	UG/L	10	2/13/2019 15:05
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:05
SELENIUM	32		10	UG/L	10	2/13/2019 15:05
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:05
URANIUM	37		0.1	UG/L	10	2/13/2019 15:05
VANADIUM	ND		5	UG/L	10	2/13/2019 15:05
ZINC	ND		100	UG/L	10	2/13/2019 15:05
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	18		1	MG/L	5	2/7/2019 14:56
FLUORIDE	ND		0.5	MG/L	5	2/7/2019 14:56
NITRATE AS N	2.5		1	MG/L	5	2/7/2019 14:56
NITRITE AS N	ND		0.5	MG/L	5	2/7/2019 14:56
SULFATE	1300		50	MG/L	50	2/7/2019 15:08
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:19
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	7.27		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.0072		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

ALS -- Fort Collins**SAMPLE SUMMARY REPORT**

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 2/5/2019 11:30

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1900		40	MG/L	1	2/12/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-10
 Legal Location:
 Collection Date: 2/5/2019 12:15

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-3
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	270		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:08
ALUMINUM	440		100	UG/L	10	2/13/2019 15:08
ARSENIC	ND		2	UG/L	10	2/13/2019 15:08
BORON	ND		150	UG/L	10	2/13/2019 15:08
BARIUM	26		5	UG/L	10	2/13/2019 15:08
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:08
CALCIUM	330000		1000	UG/L	10	2/13/2019 15:08
CADMIUM	ND		2	UG/L	10	2/13/2019 15:08
COBALT	ND		5	UG/L	10	2/13/2019 15:08
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:08
COPPER	ND		20	UG/L	10	2/13/2019 15:08
IRON	600		100	UG/L	10	2/13/2019 15:08
POTASSIUM	2800		1000	UG/L	10	2/13/2019 15:08
LITHIUM	24		20	UG/L	10	2/13/2019 15:08
MAGNESIUM	21000		100	UG/L	10	2/13/2019 15:08
MANGANESE	8.2		5	UG/L	10	2/13/2019 15:08
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:08
SODIUM	17000		1000	UG/L	10	2/13/2019 15:08
NICKEL	ND		20	UG/L	10	2/13/2019 15:08
LEAD	3.5		2	UG/L	10	2/13/2019 15:08
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:08
SELENIUM	17		10	UG/L	10	2/13/2019 15:08
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:08
URANIUM	30		0.1	UG/L	10	2/13/2019 15:08
VANADIUM	ND		5	UG/L	10	2/13/2019 15:08
ZINC	ND		100	UG/L	10	2/13/2019 15:08
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	20		1	MG/L	5	2/7/2019 15:20
FLUORIDE	ND		0.5	MG/L	5	2/7/2019 15:20
NITRATE AS N	1.5		1	MG/L	5	2/7/2019 15:20
NITRITE AS N	ND		0.5	MG/L	5	2/7/2019 15:20
SULFATE	860		50	MG/L	50	2/7/2019 15:33
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:21
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	7.36		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.0064		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 2/5/2019 12:15

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	2/12/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: 02-KMW-10
 Legal Location:
 Collection Date: 2/5/2019 12:30

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-4
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	270		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:11
ALUMINUM	290		100	UG/L	10	2/13/2019 15:11
ARSENIC	ND		2	UG/L	10	2/13/2019 15:11
BORON	ND		150	UG/L	10	2/13/2019 15:11
BARIUM	24		5	UG/L	10	2/13/2019 15:11
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:11
CALCIUM	340000		1000	UG/L	10	2/13/2019 15:11
CADMIUM	ND		2	UG/L	10	2/13/2019 15:11
COBALT	ND		5	UG/L	10	2/13/2019 15:11
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:11
COPPER	ND		20	UG/L	10	2/13/2019 15:11
IRON	380		100	UG/L	10	2/13/2019 15:11
POTASSIUM	2700		1000	UG/L	10	2/13/2019 15:11
LITHIUM	23		20	UG/L	10	2/13/2019 15:11
MAGNESIUM	21000		100	UG/L	10	2/13/2019 15:11
MANGANESE	5.9		5	UG/L	10	2/13/2019 15:11
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:11
SODIUM	17000		1000	UG/L	10	2/13/2019 15:11
NICKEL	ND		20	UG/L	10	2/13/2019 15:11
LEAD	ND		2	UG/L	10	2/13/2019 15:11
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:11
SELENIUM	17		10	UG/L	10	2/13/2019 15:11
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:11
URANIUM	31		0.1	UG/L	10	2/13/2019 15:11
VANADIUM	ND		5	UG/L	10	2/13/2019 15:11
ZINC	ND		100	UG/L	10	2/13/2019 15:11
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	20		1	MG/L	5	2/7/2019 12:28
FLUORIDE	ND		0.5	MG/L	5	2/7/2019 12:28
NITRATE AS N	1.4		1	MG/L	5	2/7/2019 12:28
NITRITE AS N	ND		0.5	MG/L	5	2/7/2019 12:28
SULFATE	880		50	MG/L	50	2/7/2019 12:40
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:27
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	7.33		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.006		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

Client:	Telesto Solutions Inc	Date:	14-Feb-19
Project:	360100 LRM - Knox Pit	Work Order:	1902056
Sample ID:	02-KMW-10	Lab ID:	1902056-4
Legal Location:		Matrix:	WATER
Collection Date:	2/5/2019 12:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	2/12/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 03KMW-Blank
Legal Location:
Collection Date: 2/5/2019 12:45

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			EPA310.1		Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	ND		5	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	ND		5	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:14
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:14
ARSENIC	ND		2	UG/L	10	2/13/2019 15:14
BORON	ND		150	UG/L	10	2/13/2019 15:14
BARIUM	ND		5	UG/L	10	2/13/2019 15:14
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:14
CALCIUM	ND		1000	UG/L	10	2/13/2019 15:14
CADMIUM	ND		2	UG/L	10	2/13/2019 15:14
COBALT	ND		5	UG/L	10	2/13/2019 15:14
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:14
COPPER	ND		20	UG/L	10	2/13/2019 15:14
IRON	ND		100	UG/L	10	2/13/2019 15:14
POTASSIUM	ND		1000	UG/L	10	2/13/2019 15:14
LITHIUM	ND		20	UG/L	10	2/13/2019 15:14
MAGNESIUM	ND		100	UG/L	10	2/13/2019 15:14
MANGANESE	ND		5	UG/L	10	2/13/2019 15:14
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:14
SODIUM	ND		1000	UG/L	10	2/13/2019 15:14
NICKEL	ND		20	UG/L	10	2/13/2019 15:14
LEAD	ND		2	UG/L	10	2/13/2019 15:14
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:14
SELENIUM	ND		10	UG/L	10	2/13/2019 15:14
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:14
URANIUM	ND		0.1	UG/L	10	2/13/2019 15:14
VANADIUM	ND		5	UG/L	10	2/13/2019 15:14
ZINC	ND		100	UG/L	10	2/13/2019 15:14
Ion Chromatography						
			EPA300.0		Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	ND		0.2	MG/L	1	2/7/2019 12:53
FLUORIDE	ND		0.1	MG/L	1	2/7/2019 12:53
NITRATE AS N	ND		0.2	MG/L	1	2/7/2019 12:53
NITRITE AS N	ND		0.1	MG/L	1	2/7/2019 12:53
SULFATE	ND		1	MG/L	1	2/7/2019 12:53
Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:29
pH						
			EPA150.1		Prep Date: 2/8/2019	PrepBy: AEJ
PH	5.98		0.1	pH	1	2/8/2019
Total Cyanide						
			SW9014		Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.006		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
			EPA160.1		Prep Date: 2/11/2019	PrepBy: AEJ

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 03KMW-Blank
Legal Location:
Collection Date: 2/5/2019 12:45

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	ND		20	MG/L	1	2/12/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-12
 Legal Location:
 Collection Date: 2/5/2019 13:20

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-6
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	170		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:17
ALUMINUM	1000		100	UG/L	10	2/13/2019 15:17
ARSENIC	ND		2	UG/L	10	2/13/2019 15:17
BORON	ND		150	UG/L	10	2/13/2019 15:17
BARIUM	34		5	UG/L	10	2/13/2019 15:17
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:17
CALCIUM	160000		1000	UG/L	10	2/13/2019 15:17
CADMIUM	ND		2	UG/L	10	2/13/2019 15:17
COBALT	ND		5	UG/L	10	2/13/2019 15:17
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:17
COPPER	ND		20	UG/L	10	2/13/2019 15:17
IRON	1200		100	UG/L	10	2/13/2019 15:17
POTASSIUM	1700		1000	UG/L	10	2/13/2019 15:17
LITHIUM	ND		20	UG/L	10	2/13/2019 15:17
MAGNESIUM	12000		100	UG/L	10	2/13/2019 15:17
MANGANESE	19		5	UG/L	10	2/13/2019 15:17
MOLYBDENUM	3.7		2	UG/L	10	2/13/2019 15:17
SODIUM	11000		1000	UG/L	10	2/13/2019 15:17
NICKEL	ND		20	UG/L	10	2/13/2019 15:17
LEAD	ND		2	UG/L	10	2/13/2019 15:17
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:17
SELENIUM	ND		10	UG/L	10	2/13/2019 15:17
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:17
URANIUM	5.3		0.1	UG/L	10	2/13/2019 15:17
VANADIUM	ND		5	UG/L	10	2/13/2019 15:17
ZINC	ND		100	UG/L	10	2/13/2019 15:17
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	15		0.2	MG/L	1	2/7/2019 13:17
FLUORIDE	0.67		0.1	MG/L	1	2/7/2019 13:17
NITRATE AS N	0.41		0.2	MG/L	1	2/7/2019 13:17
NITRITE AS N	ND		0.1	MG/L	1	2/7/2019 13:17
SULFATE	360		10	MG/L	10	2/7/2019 13:29
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:32
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	7.65		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.006		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	14-Feb-19
Project:	360100 LRM - Knox Pit	Work Order:	1902056
Sample ID:	KMW-12	Lab ID:	1902056-6
Legal Location:		Matrix:	WATER
Collection Date:	2/5/2019 13:20	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	650		20	MG/L	1	2/12/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-13
 Legal Location:
 Collection Date: 2/5/2019 14:35

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-7
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	120		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	120		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:20
ALUMINUM	600		100	UG/L	10	2/13/2019 15:20
ARSENIC	ND		2	UG/L	10	2/13/2019 15:20
BORON	ND		150	UG/L	10	2/13/2019 15:20
BARIUM	34		5	UG/L	10	2/13/2019 15:20
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:20
CALCIUM	40000		1000	UG/L	10	2/13/2019 15:20
CADMIUM	ND		2	UG/L	10	2/13/2019 15:20
COBALT	ND		5	UG/L	10	2/13/2019 15:20
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:20
COPPER	ND		20	UG/L	10	2/13/2019 15:20
IRON	870		100	UG/L	10	2/13/2019 15:20
POTASSIUM	1100		1000	UG/L	10	2/13/2019 15:20
LITHIUM	ND		20	UG/L	10	2/13/2019 15:20
MAGNESIUM	5000		100	UG/L	10	2/13/2019 15:20
MANGANESE	14		5	UG/L	10	2/13/2019 15:20
MOLYBDENUM	2.5		2	UG/L	10	2/13/2019 15:20
SODIUM	4900		1000	UG/L	10	2/13/2019 15:20
NICKEL	ND		20	UG/L	10	2/13/2019 15:20
LEAD	ND		2	UG/L	10	2/13/2019 15:20
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:20
SELENIUM	ND		10	UG/L	10	2/13/2019 15:20
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:20
URANIUM	1.3		0.1	UG/L	10	2/13/2019 15:20
VANADIUM	ND		5	UG/L	10	2/13/2019 15:20
ZINC	ND		100	UG/L	10	2/13/2019 15:20
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	3.2		0.2	MG/L	1	2/7/2019 13:41
FLUORIDE	0.33		0.1	MG/L	1	2/7/2019 13:41
NITRATE AS N	ND		0.2	MG/L	1	2/7/2019 13:41
NITRITE AS N	ND		0.1	MG/L	1	2/7/2019 13:41
SULFATE	31		1	MG/L	1	2/7/2019 13:41
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:34
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	8.03		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.006		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

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SAMPLE SUMMARY REPORT

Client:	Telesto Solutions Inc	Date:	14-Feb-19
Project:	360100 LRM - Knox Pit	Work Order:	1902056
Sample ID:	KMW-13	Lab ID:	1902056-7
Legal Location:		Matrix:	WATER
Collection Date:	2/5/2019 14:35	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	170		20	MG/L	1	2/12/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-19
 Legal Location:
 Collection Date: 2/5/2019 15:40

Date: 14-Feb-19
 Work Order: 1902056
 Lab ID: 1902056-8
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 2/8/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	140		20	MG/L	1	2/8/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	2/8/2019
TOTAL ALKALINITY AS CaCO3	140		20	MG/L	1	2/8/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:27
ALUMINUM	1700		100	UG/L	10	2/13/2019 15:27
ARSENIC	ND		2	UG/L	10	2/13/2019 15:27
BORON	ND		150	UG/L	10	2/13/2019 15:27
BARIUM	52		5	UG/L	10	2/13/2019 15:27
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:27
CALCIUM	47000		1000	UG/L	10	2/13/2019 15:27
CADMIUM	ND		2	UG/L	10	2/13/2019 15:27
COBALT	ND		5	UG/L	10	2/13/2019 15:27
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:27
COPPER	ND		20	UG/L	10	2/13/2019 15:27
IRON	2300		100	UG/L	10	2/13/2019 15:27
POTASSIUM	1300		1000	UG/L	10	2/13/2019 15:27
LITHIUM	ND		20	UG/L	10	2/13/2019 15:27
MAGNESIUM	6600		100	UG/L	10	2/13/2019 15:27
MANGANESE	89		5	UG/L	10	2/13/2019 15:27
MOLYBDENUM	2.9		2	UG/L	10	2/13/2019 15:27
SODIUM	6200		1000	UG/L	10	2/13/2019 15:27
NICKEL	ND		20	UG/L	10	2/13/2019 15:27
LEAD	ND		2	UG/L	10	2/13/2019 15:27
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:27
SELENIUM	ND		10	UG/L	10	2/13/2019 15:27
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:27
URANIUM	2.8		0.1	UG/L	10	2/13/2019 15:27
VANADIUM	5.6		5	UG/L	10	2/13/2019 15:27
ZINC	ND		100	UG/L	10	2/13/2019 15:27
Ion Chromatography						
		EPA300.0			Prep Date: 2/7/2019	PrepBy: AEJ
CHLORIDE	4.1		0.2	MG/L	1	2/7/2019 13:54
FLUORIDE	0.33		0.1	MG/L	1	2/7/2019 13:54
NITRATE AS N	ND		0.2	MG/L	1	2/7/2019 13:54
NITRITE AS N	ND		0.1	MG/L	1	2/7/2019 13:54
SULFATE	41		1	MG/L	1	2/7/2019 13:54
Mercury						
		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:36
pH						
		EPA150.1			Prep Date: 2/8/2019	PrepBy: AEJ
PH	8		0.1	pH	1	2/8/2019
Total Cyanide						
		SW9014			Prep Date: 2/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	0.006		0.005	MG/L	1	2/8/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 2/11/2019	PrepBy: AEJ

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 2/5/2019 15:40

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-8
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	2/12/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 2/5/2019 10:30

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:30
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:30
ARSENIC	ND		2	UG/L	10	2/13/2019 15:30
BORON	ND		150	UG/L	10	2/13/2019 15:30
BARIUM	27		5	UG/L	10	2/13/2019 15:30
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:30
CALCIUM	130000		1000	UG/L	10	2/13/2019 15:30
CADMIUM	ND		2	UG/L	10	2/13/2019 15:30
COBALT	ND		5	UG/L	10	2/13/2019 15:30
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:30
COPPER	ND		20	UG/L	10	2/13/2019 15:30
IRON	ND		100	UG/L	10	2/13/2019 15:30
POTASSIUM	1800		1000	UG/L	10	2/13/2019 15:30
LITHIUM	ND		20	UG/L	10	2/13/2019 15:30
MAGNESIUM	30000		100	UG/L	10	2/13/2019 15:30
MANGANESE	7.7		5	UG/L	10	2/13/2019 15:30
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:30
SODIUM	34000		1000	UG/L	10	2/13/2019 15:30
NICKEL	ND		20	UG/L	10	2/13/2019 15:30
LEAD	ND		2	UG/L	10	2/13/2019 15:30
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:30
SELENIUM	ND		10	UG/L	10	2/13/2019 15:30
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:30
URANIUM	4.2		0.1	UG/L	10	2/13/2019 15:30
VANADIUM	ND		5	UG/L	10	2/13/2019 15:30
ZINC	ND		100	UG/L	10	2/13/2019 15:30
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:38

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 2/5/2019 11:30

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:33
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:33
ARSENIC	ND		2	UG/L	10	2/13/2019 15:33
BORON	ND		150	UG/L	10	2/13/2019 15:33
BARIUM	35		5	UG/L	10	2/13/2019 15:33
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:33
CALCIUM	470000		1000	UG/L	10	2/13/2019 15:33
CADMIUM	ND		2	UG/L	10	2/13/2019 15:33
COBALT	ND		5	UG/L	10	2/13/2019 15:33
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:33
COPPER	ND		20	UG/L	10	2/13/2019 15:33
IRON	ND		100	UG/L	10	2/13/2019 15:33
POTASSIUM	5400		1000	UG/L	10	2/13/2019 15:33
LITHIUM	21		20	UG/L	10	2/13/2019 15:33
MAGNESIUM	28000		100	UG/L	10	2/13/2019 15:33
MANGANESE	ND		5	UG/L	10	2/13/2019 15:33
MOLYBDENUM	4.3		2	UG/L	10	2/13/2019 15:33
SODIUM	18000		1000	UG/L	10	2/13/2019 15:33
NICKEL	ND		20	UG/L	10	2/13/2019 15:33
LEAD	ND		2	UG/L	10	2/13/2019 15:33
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:33
SELENIUM	29		10	UG/L	10	2/13/2019 15:33
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:33
URANIUM	36		0.1	UG/L	10	2/13/2019 15:33
VANADIUM	ND		5	UG/L	10	2/13/2019 15:33
ZINC	ND		100	UG/L	10	2/13/2019 15:33
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:40

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 2/5/2019 12:15

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:36
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:36
ARSENIC	ND		2	UG/L	10	2/13/2019 15:36
BORON	ND		150	UG/L	10	2/13/2019 15:36
BARIUM	19		5	UG/L	10	2/13/2019 15:36
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:36
CALCIUM	340000		1000	UG/L	10	2/13/2019 15:36
CADMIUM	ND		2	UG/L	10	2/13/2019 15:36
COBALT	ND		5	UG/L	10	2/13/2019 15:36
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:36
COPPER	ND		20	UG/L	10	2/13/2019 15:36
IRON	ND		100	UG/L	10	2/13/2019 15:36
POTASSIUM	2500		1000	UG/L	10	2/13/2019 15:36
LITHIUM	23		20	UG/L	10	2/13/2019 15:36
MAGNESIUM	21000		100	UG/L	10	2/13/2019 15:36
MANGANESE	ND		5	UG/L	10	2/13/2019 15:36
MOLYBDENUM	2		2	UG/L	10	2/13/2019 15:36
SODIUM	17000		1000	UG/L	10	2/13/2019 15:36
NICKEL	ND		20	UG/L	10	2/13/2019 15:36
LEAD	ND		2	UG/L	10	2/13/2019 15:36
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:36
SELENIUM	17		10	UG/L	10	2/13/2019 15:36
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:36
URANIUM	31		0.1	UG/L	10	2/13/2019 15:36
VANADIUM	ND		5	UG/L	10	2/13/2019 15:36
ZINC	ND		100	UG/L	10	2/13/2019 15:36
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:46

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-10
Legal Location:
Collection Date: 2/5/2019 12:30

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:50
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:50
ARSENIC	ND		2	UG/L	10	2/13/2019 15:50
BORON	ND		150	UG/L	10	2/13/2019 15:50
BARIUM	18		5	UG/L	10	2/13/2019 15:50
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:50
CALCIUM	330000		1000	UG/L	10	2/13/2019 15:50
CADMIUM	ND		2	UG/L	10	2/13/2019 15:50
COBALT	ND		5	UG/L	10	2/13/2019 15:50
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:50
COPPER	ND		20	UG/L	10	2/13/2019 15:50
IRON	ND		100	UG/L	10	2/13/2019 15:50
POTASSIUM	2600		1000	UG/L	10	2/13/2019 15:50
LITHIUM	22		20	UG/L	10	2/13/2019 15:50
MAGNESIUM	20000		100	UG/L	10	2/13/2019 15:50
MANGANESE	ND		5	UG/L	10	2/13/2019 15:50
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:50
SODIUM	17000		1000	UG/L	10	2/13/2019 15:50
NICKEL	ND		20	UG/L	10	2/13/2019 15:50
LEAD	ND		2	UG/L	10	2/13/2019 15:50
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:50
SELENIUM	16		10	UG/L	10	2/13/2019 15:50
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:50
URANIUM	31		0.1	UG/L	10	2/13/2019 15:50
VANADIUM	ND		5	UG/L	10	2/13/2019 15:50
ZINC	ND		100	UG/L	10	2/13/2019 15:50
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:48

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 03-KMW-Blank
Legal Location:
Collection Date: 2/5/2019 12:45

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals		SW6020			Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:53
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:53
ARSENIC	ND		2	UG/L	10	2/13/2019 15:53
BORON	ND		150	UG/L	10	2/13/2019 15:53
BARIUM	ND		5	UG/L	10	2/13/2019 15:53
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:53
CALCIUM	ND		1000	UG/L	10	2/13/2019 15:53
CADMIUM	ND		2	UG/L	10	2/13/2019 15:53
COBALT	ND		5	UG/L	10	2/13/2019 15:53
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:53
COPPER	ND		20	UG/L	10	2/13/2019 15:53
IRON	ND		100	UG/L	10	2/13/2019 15:53
POTASSIUM	ND		1000	UG/L	10	2/13/2019 15:53
LITHIUM	ND		20	UG/L	10	2/13/2019 15:53
MAGNESIUM	ND		100	UG/L	10	2/13/2019 15:53
MANGANESE	ND		5	UG/L	10	2/13/2019 15:53
MOLYBDENUM	ND		2	UG/L	10	2/13/2019 15:53
SODIUM	ND		1000	UG/L	10	2/13/2019 15:53
NICKEL	ND		20	UG/L	10	2/13/2019 15:53
LEAD	ND		2	UG/L	10	2/13/2019 15:53
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:53
SELENIUM	ND		10	UG/L	10	2/13/2019 15:53
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:53
URANIUM	ND		0.1	UG/L	10	2/13/2019 15:53
VANADIUM	ND		5	UG/L	10	2/13/2019 15:53
ZINC	ND		100	UG/L	10	2/13/2019 15:53
Dissolved Mercury		SW7470			Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:50

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 2/5/2019 13:20

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:56
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:56
ARSENIC	ND		2	UG/L	10	2/13/2019 15:56
BORON	ND		150	UG/L	10	2/13/2019 15:56
BARIUM	21		5	UG/L	10	2/13/2019 15:56
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:56
CALCIUM	150000		1000	UG/L	10	2/13/2019 15:56
CADMIUM	ND		2	UG/L	10	2/13/2019 15:56
COBALT	ND		5	UG/L	10	2/13/2019 15:56
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:56
COPPER	ND		20	UG/L	10	2/13/2019 15:56
IRON	ND		100	UG/L	10	2/13/2019 15:56
POTASSIUM	1400		1000	UG/L	10	2/13/2019 15:56
LITHIUM	ND		20	UG/L	10	2/13/2019 15:56
MAGNESIUM	11000		100	UG/L	10	2/13/2019 15:56
MANGANESE	ND		5	UG/L	10	2/13/2019 15:56
MOLYBDENUM	3.5		2	UG/L	10	2/13/2019 15:56
SODIUM	11000		1000	UG/L	10	2/13/2019 15:56
NICKEL	ND		20	UG/L	10	2/13/2019 15:56
LEAD	ND		2	UG/L	10	2/13/2019 15:56
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:56
SELENIUM	ND		10	UG/L	10	2/13/2019 15:56
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:56
URANIUM	5.2		0.1	UG/L	10	2/13/2019 15:56
VANADIUM	ND		5	UG/L	10	2/13/2019 15:56
ZINC	ND		100	UG/L	10	2/13/2019 15:56
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:52

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 2/5/2019 14:35

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 15:59
ALUMINUM	ND		100	UG/L	10	2/13/2019 15:59
ARSENIC	ND		2	UG/L	10	2/13/2019 15:59
BORON	ND		150	UG/L	10	2/13/2019 15:59
BARIUM	30		5	UG/L	10	2/13/2019 15:59
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 15:59
CALCIUM	40000		1000	UG/L	10	2/13/2019 15:59
CADMIUM	ND		2	UG/L	10	2/13/2019 15:59
COBALT	ND		5	UG/L	10	2/13/2019 15:59
CHROMIUM	ND		10	UG/L	10	2/13/2019 15:59
COPPER	ND		20	UG/L	10	2/13/2019 15:59
IRON	ND		100	UG/L	10	2/13/2019 15:59
POTASSIUM	ND		1000	UG/L	10	2/13/2019 15:59
LITHIUM	ND		20	UG/L	10	2/13/2019 15:59
MAGNESIUM	5000		100	UG/L	10	2/13/2019 15:59
MANGANESE	ND		5	UG/L	10	2/13/2019 15:59
MOLYBDENUM	2.6		2	UG/L	10	2/13/2019 15:59
SODIUM	5500		1000	UG/L	10	2/13/2019 15:59
NICKEL	ND		20	UG/L	10	2/13/2019 15:59
LEAD	ND		2	UG/L	10	2/13/2019 15:59
ANTIMONY	ND		1	UG/L	10	2/13/2019 15:59
SELENIUM	ND		10	UG/L	10	2/13/2019 15:59
THALLIUM	ND		0.1	UG/L	10	2/13/2019 15:59
URANIUM	1.2		0.1	UG/L	10	2/13/2019 15:59
VANADIUM	ND		5	UG/L	10	2/13/2019 15:59
ZINC	ND		100	UG/L	10	2/13/2019 15:59
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:54

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 2/5/2019 15:40

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 2/11/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	2/13/2019 16:02
ALUMINUM	ND		100	UG/L	10	2/13/2019 16:02
ARSENIC	ND		2	UG/L	10	2/13/2019 16:02
BORON	ND		150	UG/L	10	2/13/2019 16:02
BARIUM	32		5	UG/L	10	2/13/2019 16:02
BERYLLIUM	ND		0.5	UG/L	10	2/13/2019 16:02
CALCIUM	47000		1000	UG/L	10	2/13/2019 16:02
CADMIUM	ND		2	UG/L	10	2/13/2019 16:02
COBALT	ND		5	UG/L	10	2/13/2019 16:02
CHROMIUM	ND		10	UG/L	10	2/13/2019 16:02
COPPER	ND		20	UG/L	10	2/13/2019 16:02
IRON	ND		100	UG/L	10	2/13/2019 16:02
POTASSIUM	ND		1000	UG/L	10	2/13/2019 16:02
LITHIUM	ND		20	UG/L	10	2/13/2019 16:02
MAGNESIUM	6100		100	UG/L	10	2/13/2019 16:02
MANGANESE	ND		5	UG/L	10	2/13/2019 16:02
MOLYBDENUM	2.5		2	UG/L	10	2/13/2019 16:02
SODIUM	6000		1000	UG/L	10	2/13/2019 16:02
NICKEL	ND		20	UG/L	10	2/13/2019 16:02
LEAD	ND		2	UG/L	10	2/13/2019 16:02
ANTIMONY	ND		1	UG/L	10	2/13/2019 16:02
SELENIUM	ND		10	UG/L	10	2/13/2019 16:02
THALLIUM	ND		0.1	UG/L	10	2/13/2019 16:02
URANIUM	1.9		0.1	UG/L	10	2/13/2019 16:02
VANADIUM	ND		5	UG/L	10	2/13/2019 16:02
ZINC	ND		100	UG/L	10	2/13/2019 16:02
Dissolved Mercury						
			SW7470		Prep Date: 2/13/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	2/14/2019 11:56

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 2/5/2019 15:40

Date: 14-Feb-19
Work Order: 1902056
Lab ID: 1902056-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

ALS -- Fort Collins

Date: 2/14/2019 3:20:

Client: Telesto Solutions Inc
 Work Order: 1902056
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG190213-1-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG190213-1	Units: MG/L				Analysis Date: 2/14/2019 11:09						
Client ID:	Run ID: HG190214-1A1				Prep Date: 2/13/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00108	0.0002	0.001		108	80-120				20		

MB	Sample ID: HG190213-1			Units: MG/L		Analysis Date: 2/14/2019 11:07	
Client ID:	Run ID: HG190214-1A1			Prep Date: 2/13/2019		DF: 1	
Analyte	Result	ReportLimit					
MERCURY	ND	0.0002					

MS	Sample ID: 1902056-1	Units: MG/L				Analysis Date: 2/14/2019 11:15						
Client ID: KMW-02	Run ID: HG190214-1A1				Prep Date: 2/13/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00201	0.0002	0.002	0.0002	100	80-120				20		

MSD	Sample ID: 1902056-1	Units: MG/L				Analysis Date: 2/14/2019 11:17						
Client ID: KMW-02	Run ID: HG190214-1A1				Prep Date: 2/13/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00195	0.0002	0.002	0.0002	98	80-120		0.00201	3	20		

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	1902056-9
1902056-10	1902056-11	1902056-12
1902056-13	1902056-14	1902056-15
1902056-16		

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190211-7-1** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM190211-7		Units: UG/L		Analysis Date: 2/13/2019 14:20					
Client ID:		Run ID: IM190213-10A7		Prep Date: 2/11/2019		DF: 10					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4830	100	5000		97	80-120				20	
ANTIMONY	29.7	1	30		99	80-120				20	
ARSENIC	106	2	100		106	80-120				20	
BARIUM	106	5	100		106	80-120				20	
BERYLLIUM	50	0.5	50		100	80-120				20	
BORON	1040	150	1000		104	80-120				20	
CADMIUM	30.6	2	30		102	80-120				20	
CALCIUM	9940	1000	10000		99	80-120				20	
CHROMIUM	544	10	500		109	80-120				20	
COBALT	106	5	100		107	80-120				20	
COPPER	1040	20	1000		104	80-120				20	
IRON	4840	100	5000		97	80-120				20	
LEAD	50	2	50		100	80-120				20	
LITHIUM	988	20	1000		99	80-120				20	
MAGNESIUM	9990	100	10000		100	80-120				20	
MANGANESE	97.2	5	100		97	80-120				20	
MOLYBDENUM	94	2	100		94	80-120				20	
NICKEL	501	20	500		100	80-120				20	
POTASSIUM	5120	1000	5000		102	80-120				20	
SELENIUM	108	10	100		108	80-120				20	
SILVER	10.8	0.5	10		109	80-120				20	
SODIUM	10400	1000	10000		104	80-120				20	
THALLIUM	1.94	0.1	2		97	80-120				20	
URANIUM	9.97	0.1	10		100	80-120				20	
VANADIUM	98.6	5	100		99	80-120				20	
ZINC	2000	100	2000		100	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190211-7-1** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP190211-7** Units: **UG/L** Analysis Date: **2/13/2019 14:17**
Client ID: Run ID: **IM190213-10A7** Prep Date: **2/11/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	1902056-9
1902056-10	1902056-11	1902056-12
1902056-13	1902056-14	1902056-15
1902056-16		

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK190208-1-2** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK190208-1				Units: MG/L		Analysis Date: 2/8/2019				
Client ID:	Run ID: AK190208-1A1				Prep Date: 2/8/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115				15	

MB	Sample ID: AK190208-1		Units: MG/L		Analysis Date: 2/8/2019	
Client ID:	Run ID: AK190208-1A1		Prep Date: 2/8/2019		DF: 1	
Analyte	Result	ReportLimit				Qual
BICARBONATE AS CaCO3	ND	5				
CARBONATE AS CaCO3	ND	5				
TOTAL ALKALINITY AS CaCO3	ND	5				

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN190207-2-1** Instrument ID **Spec** Method: **SW9014**

LCS	Sample ID: CN190207-1			Units: MG/L			Analysis Date: 2/8/2019				
Client ID:	Run ID: CN190208-1A1			Prep Date: 2/7/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.186	0.005	0.2		93	85-115				30	

MB	Sample ID: CN190207-1			Units: MG/L			Analysis Date: 2/8/2019				
Client ID:	Run ID: CN190208-1A1			Prep Date: 2/7/2019			DF: 1				
Analyte	Result	ReportLimit									Qual
CYANIDE, TOTAL	ND	0.005									

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190207-1-1** Instrument ID: **IC3** Method: **EPA300.0**

LCS	Sample ID: IC190207-1			Units: MG/L			Analysis Date: 2/7/2019 11:52				
Client ID:		Run ID: IC190207-1A1			Prep Date: 2/7/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.13	0.1	5		103	90-110				15	
CHLORIDE	10.2	0.2	10		102	90-110				15	
NITRITE AS N	5.11	0.1	5		102	90-110				15	
NITRATE AS N	10.3	0.2	10		103	90-110				15	
SULFATE	51.5	1	50		103	90-110				15	

LCSD	Sample ID: IC190207-1			Units: MG/L			Analysis Date: 2/7/2019 14:18				
Client ID:	Run ID: IC190207-1A1			Prep Date: 2/7/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.12	0.1	5		102	90-110		5.13	0	15	
CHLORIDE	10.2	0.2	10		102	90-110		10.2	0	15	
NITRITE AS N	5.1	0.1	5		102	90-110		5.11	0	15	
NITRATE AS N	10.2	0.2	10		102	90-110		10.3	0	15	
SULFATE	51	1	50		102	90-110		51.5	1	15	

MB		Sample ID: IC190207-1		Units: MG/L		Analysis Date: 2/7/2019 12:04	
Client ID:		Run ID: IC190207-1A1		Prep Date: 2/7/2019		DF: 1	
Analyte		Result	ReportLimit	Qual			
FLUORIDE		ND	0.1				
CHLORIDE		ND	0.2				
NITRITE AS N		ND	0.1				
NITRATE AS N		ND	0.2				
SULFATE		ND	1				

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **pH190208-1-1** Instrument ID **pH-1** Method: **EPA150.1**

DUP Sample ID: **1902056-1** Units: **pH** Analysis Date: **2/8/2019**

Client ID: **KMW-02** Run ID: **PH190208-1A1** Prep Date: **2/8/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.15	0.1							7.11		

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	

Client: Telesto Solutions Inc
Work Order: 1902056
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD190211-2-1** Instrument ID **Balance** Method: **EPA160.1**

DUP	Sample ID: 1902056-4			Units: MG/L			Analysis Date: 2/12/2019				
Client ID: 02-KMW-10			Run ID: TD190212-1A1			Prep Date: 2/11/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1450	40						1400	2	5	

LCS	Sample ID: TD190211-2			Units: MG/L			Analysis Date: 2/12/2019				
Client ID:	Run ID: TD190212-1A1						Prep Date: 2/11/2019		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	397	20	400		99	85-115				5	

MB	Sample ID: TD190211-2	Units: MG/L	Analysis Date: 2/12/2019
Client ID:	Run ID: TD190212-1A1	Prep Date: 2/11/2019	DF: 1
Analyte	Result	ReportLimit	Qual
TOTAL DISSOLVED SOLIDS	ND	20	

The following samples were analyzed in this batch:

1902056-1	1902056-2	1902056-3
1902056-4	1902056-5	1902056-6
1902056-7	1902056-8	



Wednesday, May 08, 2019

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1904531
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Sixteen water samples were received from Telesto Solutions Inc, on 4/25/2019. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1904531

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020B and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846 and MCAWW and EMSL procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106
Bicarbonate	310.1	1106
Carbonate	310.1	1106
Total cyanide	9014	1110
pH	150.1	1126
TDS	160.1	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

- All laboratory control sample criteria were met with the exception of TDS. Since the recoveries for TDS in the LCS/LCSD were within control limits, with only the RPD exceeding acceptance criteria, no further action was taken.

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1904531

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
02-KMW-19	1904531-1		WATER	25-Apr-19	14:40
P-2	1904531-2		WATER	25-Apr-19	13:10
KMW-19	1904531-3		WATER	25-Apr-19	14:30
KMW-02	1904531-4		WATER	25-Apr-19	15:55
KMW-12	1904531-5		WATER	25-Apr-19	14:05
KMW-10	1904531-6		WATER	25-Apr-19	12:30
KMW-06	1904531-7		WATER	25-Apr-19	16:00
KMW-13	1904531-8		WATER	25-Apr-19	12:15
02-KMW-19	1904531-9		WATER	25-Apr-19	14:40
P-2	1904531-10		WATER	25-Apr-19	13:10
KMW-19	1904531-11		WATER	25-Apr-19	14:30
KMW-02	1904531-12		WATER	25-Apr-19	15:55
KMW-12	1904531-13		WATER	25-Apr-19	14:05
KMW-10	1904531-14		WATER	25-Apr-19	12:30
KMW-06	1904531-15		WATER	25-Apr-19	16:00
KMW-13	1904531-16		WATER	25-Apr-19	12:15



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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1904531

PAGE 1 of 3
DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID	Knox Pit	SAMPLER	Tim Gerken
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS	
COMPANY NAME	Telesto Solutions	PURCHASE ORDER		A	Wetchem
SEND REPORT TO	TIM Gerken	BILL TO COMPANY		B	Metals
ADDRESS	3201 Automation Way	INVOICE ATTN TO		C	Cyanide
CITY / STATE / ZIP	Fort Collins, CO 80525	ADDRESS		D	
PHONE	720-438-5873	CITY / STATE / ZIP		E	
FAX		PHONE		F	
E-MAIL	tgerken@telesto-inc.com	FAX		G	
		E-MAIL		H	
				I	
				J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
3009①	Q2-KMW-19-RAW	W	4/25	2:40	1	None		X										
No ID	Q2-KMW-19-Filtered				1	HNO3			X	⑨								
No ID	Q2-KMW-19-unfiltered				1	HNO3			X									
No Label	Q2-KMW-19-unfiltered				1	NaOH				X								
2554②	P-2-RAW			1:10	1	None		X										
No ID	P-2-Filtered				1	2			X	⑩								
No ID	P-2-unfiltered				1	2			X									
No ID	P-2-unfiltered				1	4				X								
3017③	KMW-19-RAW			2:30	1	None		X										
No ID	KMW-19-Filtered				1	2			X	⑪								
No ID	KMW-19-unfiltered				1	2			X									
No ID	KMW-19-unfiltered				1	4				X								

*Time Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		SIGNATURE		PRINTED NAME		DATE		TIME	
15.3°		Summary (Standard QC)		RELINQUISHED BY		Tim Gerken		4/25		4:45	
5 of 40		LEVEL II (Standard QC)		RECEIVED BY		Nick Jastes		4/25/19		16:45	
		LEVEL III (Std QC + forms)		RELINQUISHED BY							
		LEVEL IV (Std QC + forms + raw)		RECEIVED BY							
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other		RELINQUISHED BY							
				RECEIVED BY							

Form 202r9

ALS Environmental

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1904531

PAGE

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DISPOSAL

☒ BY LAB or ☐ RETURN

PROJECT NAME	SITE ID	DISPOSAL	BY LAB	or	RETURN													
PROJECT No.	EDD FORMAT	PARAMETER/METHOD REQUEST FOR ANALYSIS																
COMPANY NAME	PURCHASE ORDER	A																
SEND REPORT TO	BILL TO COMPANY	B																
ADDRESS	INVOICE ATTN TO	C																
CITY / STATE / ZIP	ADDRESS	D																
PHONE	CITY / STATE / ZIP	E																
FAX	PHONE	F																
E-MAIL	FAX	G																
	E-MAIL	H																
		I																
		J																
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
3119 (4)	KMW-02-RAW	W	4/25	3:55	1	None		X										
No ID	KMW-02-Filtered	↓	↓	↓	1	2			X	(12)								
No ID	KMW-02-unfiltered	↓	↓	↓	1	2			X									
No ID	KMW-02-unfiltered	↓	↓	↓	1	4				X								
2529 (5)	KMW-12-RAW		4/25	2:05	1	None		X										
No ID	KMW-12-Filtered	↓	↓	↓	1	2			X	(13)								
No ID	KMW-12-unfiltered	↓	↓	↓	1	2			X									
No ID	KMW-12-unfiltered	↓	↓	↓	1	4				X								
3005 (6)	KMW-10-RAW		4/24	12:30	1	None		X										
No ID	KMW-10-Filtered	↓	↓	↓	1	2			X	(14)								
No ID	KMW-10-unfiltered	↓	↓	↓	1	2			X									
No ID	KMW-10-unfiltered	↓	↓	↓	1	4				X								

*Time Zone (Circle): EST CST **MST** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		SIGNATURE		PRINTED NAME		DATE		TIME	
6 of 40	15.30		Summary (Standard QC)	RELINQUISHED BY	<i>[Signature]</i>	<i>Tim Barker</i>	<i>4/25</i>	<i>4:45</i>			
			LEVEL II (Standard QC)	RECEIVED BY	<i>[Signature]</i>	<i>Nick Joster</i>	<i>4/25/19</i>	<i>16:45</i>			
			LEVEL III (Std QC + forms)	RELINQUISHED BY							
			LEVEL IV (Std QC + forms + raw)	RECEIVED BY							
				RELINQUISHED BY							
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other		RECEIVED BY							

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1904531

PAGE 3 of 3

DISPOSAL	BY LAB	or	RETURN
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[illegible]

*Time Zone (Circle): EST CST **MST** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

Form 202r9

SIGNATURE

PRINTED NAME _____

DATE _____

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Tim Lecken

Nick Jostes

4/25

4/25/19

4:15

16:45

REPORT LEVEL / QC
REQUIRED

Summary (Standard QC)

LEVEL II
(Standard OC)

LEVEL III (Std
QC + form)

LEVEL IV (Std

4°C 8-Other

PRESERVATION KEY1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO₄ 7-4°C 8-Other

15.3°



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesco

Workorder No: 1904531

Project Manager: JK

Initials: NJ

Date: 4/26/19

1. Are airbills / shipping documents present and/or removable?		<u>DROP OFF</u>	YES	NO
2. Are custody seals on shipping containers intact?		<u>NONE</u>	YES	NO *
3. Are custody seals on sample containers intact?		<u>NONE</u>	YES	NO *
4. Is there a COC (chain-of-custody) present?			<u>YES</u>	NO *
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)			YES	<u>NO *</u>
6. Are short-hold samples present?			YES	<u>NO</u>
7. Are all samples within holding times for the requested analyses?			<u>YES</u>	NO *
8. Were all sample containers received intact? (not broken or leaking)			<u>YES</u>	NO *
9. Is there sufficient sample for the requested analyses?			<u>YES</u>	NO *
10. Are all samples in the proper containers for the requested analyses?			<u>YES</u>	NO *
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)		N/A	<u>YES</u>	NO *
12. Are all aqueous non-preserved samples pH 4-9?		N/A	<u>YES</u>	NO *
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)		<u>N/A</u>	YES	NO
14. Were the samples shipped on ice?			YES	<u>NO</u>
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 <u>#3</u> #4	RAD ONLY	YES	<u>NO</u>
Cooler #: <u>1</u>				
Temperature (°C): <u>15.3</u>				
No. of custody seals on cooler: <u>N/A</u>				
External µR/hr reading: <u>N/A</u>				
Background µR/hr reading: <u>14</u>				
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

* Please provide details here for NO responses to gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

1904531-1-2,3 and -9 sample time on bottle lists 2:35, however the Coc states 2:40

All client bottle ID's vs ALS lab ID's double-checked by: NJ

If applicable, was the client contacted? YES / NO / NA Contact: _____

Date/Time: _____

Project Manager Signature / Date: [Signature] 4-26-19

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: 02-KMW-19
 Legal Location:
 Collection Date: 4/25/2019 14:40

Date: 08-May-19
 Work Order: 1904531
 Lab ID: 1904531-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	130		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	130		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 18:38
ALUMINUM	230		100	UG/L	10	4/29/2019 18:38
ARSENIC	ND		2	UG/L	10	4/29/2019 18:38
BORON	ND		150	UG/L	10	4/29/2019 18:38
BARIUM	34		5	UG/L	10	4/29/2019 18:38
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 18:38
CALCIUM	46000		1000	UG/L	10	4/29/2019 18:38
CADMIUM	ND		2	UG/L	10	4/29/2019 18:38
COBALT	ND		5	UG/L	10	4/29/2019 18:38
CHROMIUM	ND		10	UG/L	10	4/29/2019 18:38
COPPER	ND		20	UG/L	10	4/29/2019 18:38
IRON	280		100	UG/L	10	4/29/2019 18:38
POTASSIUM	1000		1000	UG/L	10	4/29/2019 18:38
LITHIUM	ND		20	UG/L	10	4/29/2019 18:38
MAGNESIUM	5800		100	UG/L	10	4/29/2019 18:38
MANGANESE	11		5	UG/L	10	4/29/2019 18:38
MOLYBDENUM	3.1		2	UG/L	10	4/29/2019 18:38
SODIUM	6100		1000	UG/L	10	4/29/2019 18:38
NICKEL	ND		20	UG/L	10	4/29/2019 18:38
LEAD	ND		2	UG/L	10	4/29/2019 18:38
ANTIMONY	ND		1	UG/L	10	4/29/2019 18:38
SELENIUM	ND		10	UG/L	10	4/29/2019 18:38
THALLIUM	ND		0.1	UG/L	10	4/29/2019 18:38
URANIUM	1.8		0.1	UG/L	10	4/29/2019 18:38
VANADIUM	ND		5	UG/L	10	4/29/2019 18:38
ZINC	ND		100	UG/L	10	4/29/2019 18:38
Ion Chromatography		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	4.2		0.2	MG/L	1	4/26/2019 11:38
FLUORIDE	0.4		0.1	MG/L	1	4/26/2019 11:38
NITRATE AS N	ND		0.2	MG/L	1	4/26/2019 11:38
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 11:38
SULFATE	33		1	MG/L	1	4/26/2019 11:38
Mercury		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:21
pH		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.66		0.1	pH	1	5/1/2019
Total Cyanide		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	02-KMW-19	Lab ID:	1904531-1
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 14:40	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	180		20	MG/L	1	4/30/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-2
 Legal Location:
 Collection Date: 4/25/2019 13:10

Date: 08-May-19
 Work Order: 1904531
 Lab ID: 1904531-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	270		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 18:41
ALUMINUM	ND		100	UG/L	10	4/29/2019 18:41
ARSENIC	ND		2	UG/L	10	4/29/2019 18:41
BORON	ND		150	UG/L	10	4/29/2019 18:41
BARIUM	16		5	UG/L	10	4/29/2019 18:41
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 18:41
CALCIUM	350000		1000	UG/L	10	4/29/2019 18:41
CADMIUM	ND		2	UG/L	10	4/29/2019 18:41
COBALT	ND		5	UG/L	10	4/29/2019 18:41
CHROMIUM	ND		10	UG/L	10	4/29/2019 18:41
COPPER	ND		20	UG/L	10	4/29/2019 18:41
IRON	ND		100	UG/L	10	4/29/2019 18:41
POTASSIUM	2800		1000	UG/L	10	4/29/2019 18:41
LITHIUM	23		20	UG/L	10	4/29/2019 18:41
MAGNESIUM	19000		100	UG/L	10	4/29/2019 18:41
MANGANESE	ND		5	UG/L	10	4/29/2019 18:41
MOLYBDENUM	3.2		2	UG/L	10	4/29/2019 18:41
SODIUM	17000		1000	UG/L	10	4/29/2019 18:41
NICKEL	ND		20	UG/L	10	4/29/2019 18:41
LEAD	ND		2	UG/L	10	4/29/2019 18:41
ANTIMONY	ND		1	UG/L	10	4/29/2019 18:41
SELENIUM	18		10	UG/L	10	4/29/2019 18:41
THALLIUM	ND		0.1	UG/L	10	4/29/2019 18:41
URANIUM	30		0.1	UG/L	10	4/29/2019 18:41
VANADIUM	ND		5	UG/L	10	4/29/2019 18:41
ZINC	ND		100	UG/L	10	4/29/2019 18:41
Ion Chromatography						
		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	17		0.2	MG/L	1	4/26/2019 12:02
FLUORIDE	0.51		0.1	MG/L	1	4/26/2019 12:02
NITRATE AS N	0.66		0.2	MG/L	1	4/26/2019 12:02
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 12:02
SULFATE	760		10	MG/L	10	4/26/2019 12:14
Mercury						
		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:30
pH						
		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.7		0.1	pH	1	5/1/2019
Total Cyanide						
		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	P-2	Lab ID:	1904531-2
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 13:10	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	2700		40	MG/L	1	4/30/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 4/25/2019 14:30

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	140		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	140		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 18:56
ALUMINUM	250		100	UG/L	10	4/29/2019 18:56
ARSENIC	ND		2	UG/L	10	4/29/2019 18:56
BORON	ND		150	UG/L	10	4/29/2019 18:56
BARIUM	34		5	UG/L	10	4/29/2019 18:56
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 18:56
CALCIUM	46000		1000	UG/L	10	4/29/2019 18:56
CADMIUM	ND		2	UG/L	10	4/29/2019 18:56
COBALT	ND		5	UG/L	10	4/29/2019 18:56
CHROMIUM	ND		10	UG/L	10	4/29/2019 18:56
COPPER	ND		20	UG/L	10	4/29/2019 18:56
IRON	300		100	UG/L	10	4/29/2019 18:56
POTASSIUM	ND		1000	UG/L	10	4/29/2019 18:56
LITHIUM	ND		20	UG/L	10	4/29/2019 18:56
MAGNESIUM	5900		100	UG/L	10	4/29/2019 18:56
MANGANESE	11		5	UG/L	10	4/29/2019 18:56
MOLYBDENUM	3.1		2	UG/L	10	4/29/2019 18:56
SODIUM	6200		1000	UG/L	10	4/29/2019 18:56
NICKEL	ND		20	UG/L	10	4/29/2019 18:56
LEAD	ND		2	UG/L	10	4/29/2019 18:56
ANTIMONY	ND		1	UG/L	10	4/29/2019 18:56
SELENIUM	ND		10	UG/L	10	4/29/2019 18:56
THALLIUM	ND		0.1	UG/L	10	4/29/2019 18:56
URANIUM	1.9		0.1	UG/L	10	4/29/2019 18:56
VANADIUM	ND		5	UG/L	10	4/29/2019 18:56
ZINC	ND		100	UG/L	10	4/29/2019 18:56
Ion Chromatography						
		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	4.2		0.2	MG/L	1	4/26/2019 12:27
FLUORIDE	0.4		0.1	MG/L	1	4/26/2019 12:27
NITRATE AS N	ND		0.2	MG/L	1	4/26/2019 12:27
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 12:27
SULFATE	34		1	MG/L	1	4/26/2019 12:27
Mercury						
		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:32
pH						
		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.67		0.1	pH	1	5/1/2019
Total Cyanide						
		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-19	Lab ID:	1904531-3
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 14:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	4/30/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 4/25/2019 15:55

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-4
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	180		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	180		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 18:59
ALUMINUM	ND		100	UG/L	10	4/29/2019 18:59
ARSENIC	ND		2	UG/L	10	4/29/2019 18:59
BORON	ND		150	UG/L	10	4/29/2019 18:59
BARIUM	27		5	UG/L	10	4/29/2019 18:59
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 18:59
CALCIUM	130000		1000	UG/L	10	4/29/2019 18:59
CADMIUM	ND		2	UG/L	10	4/29/2019 18:59
COBALT	ND		5	UG/L	10	4/29/2019 18:59
CHROMIUM	ND		10	UG/L	10	4/29/2019 18:59
COPPER	ND		20	UG/L	10	4/29/2019 18:59
IRON	ND		100	UG/L	10	4/29/2019 18:59
POTASSIUM	1700		1000	UG/L	10	4/29/2019 18:59
LITHIUM	ND		20	UG/L	10	4/29/2019 18:59
MAGNESIUM	28000		100	UG/L	10	4/29/2019 18:59
MANGANESE	6.4		5	UG/L	10	4/29/2019 18:59
MOLYBDENUM	2.1		2	UG/L	10	4/29/2019 18:59
SODIUM	31000		1000	UG/L	10	4/29/2019 18:59
NICKEL	ND		20	UG/L	10	4/29/2019 18:59
LEAD	ND		2	UG/L	10	4/29/2019 18:59
ANTIMONY	ND		1	UG/L	10	4/29/2019 18:59
SELENIUM	ND		10	UG/L	10	4/29/2019 18:59
THALLIUM	ND		0.1	UG/L	10	4/29/2019 18:59
URANIUM	3.9		0.1	UG/L	10	4/29/2019 18:59
VANADIUM	ND		5	UG/L	10	4/29/2019 18:59
ZINC	ND		100	UG/L	10	4/29/2019 18:59
Ion Chromatography						
		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	14		0.2	MG/L	1	4/26/2019 12:39
FLUORIDE	0.43		0.1	MG/L	1	4/26/2019 12:39
NITRATE AS N	0.22		0.2	MG/L	1	4/26/2019 12:39
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 12:39
SULFATE	350		20	MG/L	20	4/26/2019 15:17
Mercury						
		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:38
pH						
		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.32		0.1	pH	1	5/1/2019
Total Cyanide						
		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-02	Lab ID:	1904531-4
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 15:55	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	700		20	MG/L	1	4/30/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: KMW-12
 Legal Location:
 Collection Date: 4/25/2019 14:05

Date: 08-May-19
 Work Order: 1904531
 Lab ID: 1904531-5
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			EPA310.1		Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	170		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:02
ALUMINUM	250		100	UG/L	10	4/29/2019 19:02
ARSENIC	ND		2	UG/L	10	4/29/2019 19:02
BORON	ND		150	UG/L	10	4/29/2019 19:02
BARIUM	25		5	UG/L	10	4/29/2019 19:02
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:02
CALCIUM	160000		1000	UG/L	10	4/29/2019 19:02
CADMIUM	ND		2	UG/L	10	4/29/2019 19:02
COBALT	ND		5	UG/L	10	4/29/2019 19:02
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:02
COPPER	ND		20	UG/L	10	4/29/2019 19:02
IRON	230		100	UG/L	10	4/29/2019 19:02
POTASSIUM	1700		1000	UG/L	10	4/29/2019 19:02
LITHIUM	ND		20	UG/L	10	4/29/2019 19:02
MAGNESIUM	11000		100	UG/L	10	4/29/2019 19:02
MANGANESE	ND		5	UG/L	10	4/29/2019 19:02
MOLYBDENUM	3.8		2	UG/L	10	4/29/2019 19:02
SODIUM	12000		1000	UG/L	10	4/29/2019 19:02
NICKEL	ND		20	UG/L	10	4/29/2019 19:02
LEAD	ND		2	UG/L	10	4/29/2019 19:02
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:02
SELENIUM	ND		10	UG/L	10	4/29/2019 19:02
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:02
URANIUM	5		0.1	UG/L	10	4/29/2019 19:02
VANADIUM	ND		5	UG/L	10	4/29/2019 19:02
ZINC	ND		100	UG/L	10	4/29/2019 19:02
Ion Chromatography						
			EPA300.0		Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	12		0.2	MG/L	1	4/26/2019 12:51
FLUORIDE	0.62		0.1	MG/L	1	4/26/2019 12:51
NITRATE AS N	ND		0.2	MG/L	1	4/26/2019 12:51
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 12:51
SULFATE	300		20	MG/L	20	4/26/2019 15:29
Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:41
pH						
			EPA150.1		Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.47		0.1	pH	1	5/1/2019
Total Cyanide						
			SW9014		Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
			EPA160.1		Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-12	Lab ID:	1904531-5
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 14:05	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	630		20	MG/L	1	4/30/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 4/25/2019 12:30

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	280		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	280		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:05
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:05
ARSENIC	ND		2	UG/L	10	4/29/2019 19:05
BORON	ND		150	UG/L	10	4/29/2019 19:05
BARIUM	18		5	UG/L	10	4/29/2019 19:05
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:05
CALCIUM	370000		1000	UG/L	10	4/29/2019 19:05
CADMIUM	ND		2	UG/L	10	4/29/2019 19:05
COBALT	ND		5	UG/L	10	4/29/2019 19:05
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:05
COPPER	ND		20	UG/L	10	4/29/2019 19:05
IRON	ND		100	UG/L	10	4/29/2019 19:05
POTASSIUM	2900		1000	UG/L	10	4/29/2019 19:05
LITHIUM	23		20	UG/L	10	4/29/2019 19:05
MAGNESIUM	21000		100	UG/L	10	4/29/2019 19:05
MANGANESE	ND		5	UG/L	10	4/29/2019 19:05
MOLYBDENUM	2.3		2	UG/L	10	4/29/2019 19:05
SODIUM	19000		1000	UG/L	10	4/29/2019 19:05
NICKEL	ND		20	UG/L	10	4/29/2019 19:05
LEAD	ND		2	UG/L	10	4/29/2019 19:05
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:05
SELENIUM	25		10	UG/L	10	4/29/2019 19:05
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:05
URANIUM	33		0.1	UG/L	10	4/29/2019 19:05
VANADIUM	ND		5	UG/L	10	4/29/2019 19:05
ZINC	ND		100	UG/L	10	4/29/2019 19:05
Ion Chromatography						
		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	20		0.2	MG/L	1	4/26/2019 13:03
FLUORIDE	0.48		0.1	MG/L	1	4/26/2019 13:03
NITRATE AS N	1.4		0.2	MG/L	1	4/26/2019 13:03
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 13:03
SULFATE	830		10	MG/L	10	4/26/2019 13:15
Mercury						
		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:43
pH						
		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.26		0.1	pH	1	5/1/2019
Total Cyanide						
		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-10	Lab ID:	1904531-6
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 12:30	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	3100		40	MG/L	1	4/30/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 4/25/2019 16:00

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	270		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:08
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:08
ARSENIC	ND		2	UG/L	10	4/29/2019 19:08
BORON	ND		150	UG/L	10	4/29/2019 19:08
BARIUM	30		5	UG/L	10	4/29/2019 19:08
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:08
CALCIUM	470000		1000	UG/L	10	4/29/2019 19:08
CADMIUM	ND		2	UG/L	10	4/29/2019 19:08
COBALT	ND		5	UG/L	10	4/29/2019 19:08
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:08
COPPER	ND		20	UG/L	10	4/29/2019 19:08
IRON	ND		100	UG/L	10	4/29/2019 19:08
POTASSIUM	5100		1000	UG/L	10	4/29/2019 19:08
LITHIUM	ND		20	UG/L	10	4/29/2019 19:08
MAGNESIUM	26000		100	UG/L	10	4/29/2019 19:08
MANGANESE	ND		5	UG/L	10	4/29/2019 19:08
MOLYBDENUM	5.1		2	UG/L	10	4/29/2019 19:08
SODIUM	17000		1000	UG/L	10	4/29/2019 19:08
NICKEL	ND		20	UG/L	10	4/29/2019 19:08
LEAD	ND		2	UG/L	10	4/29/2019 19:08
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:08
SELENIUM	19		10	UG/L	10	4/29/2019 19:08
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:08
URANIUM	35		0.1	UG/L	10	4/29/2019 19:08
VANADIUM	ND		5	UG/L	10	4/29/2019 19:08
ZINC	ND		100	UG/L	10	4/29/2019 19:08
Ion Chromatography						
		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	15		0.2	MG/L	1	4/26/2019 13:52
FLUORIDE	0.49		0.1	MG/L	1	4/26/2019 13:52
NITRATE AS N	1.3		0.2	MG/L	1	4/26/2019 13:52
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 13:52
SULFATE	1100		20	MG/L	20	4/26/2019 15:05
Mercury						
		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:45
pH						
		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.43		0.1	pH	1	5/1/2019
Total Cyanide						
		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids						
		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

ALS -- Fort Collins**SAMPLE SUMMARY REPORT**

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-06	Lab ID:	1904531-7
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 16:00	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	3700		40	MG/L	1	4/30/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 4/25/2019 12:15

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-8
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		EPA310.1			Prep Date: 5/3/2019	PrepBy: AEJ
BICARBONATE AS CaCO3	120		20	MG/L	1	5/3/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	5/3/2019
TOTAL ALKALINITY AS CaCO3	120		20	MG/L	1	5/3/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:11
ALUMINUM	700		100	UG/L	10	4/29/2019 19:11
ARSENIC	ND		2	UG/L	10	4/29/2019 19:11
BORON	ND		150	UG/L	10	4/29/2019 19:11
BARIUM	43		5	UG/L	10	4/29/2019 19:11
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:11
CALCIUM	50000		1000	UG/L	10	4/29/2019 19:11
CADMIUM	ND		2	UG/L	10	4/29/2019 19:11
COBALT	ND		5	UG/L	10	4/29/2019 19:11
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:11
COPPER	ND		20	UG/L	10	4/29/2019 19:11
IRON	820		100	UG/L	10	4/29/2019 19:11
POTASSIUM	1100		1000	UG/L	10	4/29/2019 19:11
LITHIUM	ND		20	UG/L	10	4/29/2019 19:11
MAGNESIUM	5900		100	UG/L	10	4/29/2019 19:11
MANGANESE	11		5	UG/L	10	4/29/2019 19:11
MOLYBDENUM	2.5		2	UG/L	10	4/29/2019 19:11
SODIUM	5100		1000	UG/L	10	4/29/2019 19:11
NICKEL	ND		20	UG/L	10	4/29/2019 19:11
LEAD	ND		2	UG/L	10	4/29/2019 19:11
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:11
SELENIUM	ND		10	UG/L	10	4/29/2019 19:11
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:11
URANIUM	1.7		0.1	UG/L	10	4/29/2019 19:11
VANADIUM	ND		5	UG/L	10	4/29/2019 19:11
ZINC	ND		100	UG/L	10	4/29/2019 19:11
Ion Chromatography		EPA300.0			Prep Date: 4/26/2019	PrepBy: LML
CHLORIDE	4.4		0.2	MG/L	1	4/26/2019 14:16
FLUORIDE	0.29		0.1	MG/L	1	4/26/2019 14:16
NITRATE AS N	ND		0.2	MG/L	1	4/26/2019 14:16
NITRITE AS N	ND		0.1	MG/L	1	4/26/2019 14:16
SULFATE	51		1	MG/L	1	4/26/2019 14:16
Mercury		SW7470			Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:47
pH		EPA150.1			Prep Date: 5/1/2019	PrepBy: AEJ
PH	7.92		0.1	pH	1	5/1/2019
Total Cyanide		SW9014			Prep Date: 5/7/2019	PrepBy: AEJ
CYANIDE, TOTAL	ND		0.005	MG/L	1	5/7/2019
Total Dissolved Solids		EPA160.1			Prep Date: 4/29/2019	PrepBy: KJP

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-13	Lab ID:	1904531-8
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 12:15	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	200		20	MG/L	1	4/30/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: 02-KMW-19
Legal Location:
Collection Date: 4/25/2019 14:40

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:14
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:14
ARSENIC	ND		2	UG/L	10	4/29/2019 19:14
BORON	ND		150	UG/L	10	4/29/2019 19:14
BARIUM	32		5	UG/L	10	4/29/2019 19:14
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:14
CALCIUM	46000		1000	UG/L	10	4/29/2019 19:14
CADMIUM	ND		2	UG/L	10	4/29/2019 19:14
COBALT	ND		5	UG/L	10	4/29/2019 19:14
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:14
COPPER	ND		20	UG/L	10	4/29/2019 19:14
IRON	ND		100	UG/L	10	4/29/2019 19:14
POTASSIUM	ND		1000	UG/L	10	4/29/2019 19:14
LITHIUM	ND		20	UG/L	10	4/29/2019 19:14
MAGNESIUM	5600		100	UG/L	10	4/29/2019 19:14
MANGANESE	ND		5	UG/L	10	4/29/2019 19:14
MOLYBDENUM	3		2	UG/L	10	4/29/2019 19:14
SODIUM	6000		1000	UG/L	10	4/29/2019 19:14
NICKEL	ND		20	UG/L	10	4/29/2019 19:14
LEAD	ND		2	UG/L	10	4/29/2019 19:14
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:14
SELENIUM	ND		10	UG/L	10	4/29/2019 19:14
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:14
URANIUM	1.7		0.1	UG/L	10	4/29/2019 19:14
VANADIUM	ND		5	UG/L	10	4/29/2019 19:14
ZINC	ND		100	UG/L	10	4/29/2019 19:14
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:49

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-2
Legal Location:
Collection Date: 4/25/2019 13:10

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:17
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:17
ARSENIC	ND		2	UG/L	10	4/29/2019 19:17
BORON	ND		150	UG/L	10	4/29/2019 19:17
BARIUM	13		5	UG/L	10	4/29/2019 19:17
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:17
CALCIUM	340000		1000	UG/L	10	4/29/2019 19:17
CADMIUM	ND		2	UG/L	10	4/29/2019 19:17
COBALT	ND		5	UG/L	10	4/29/2019 19:17
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:17
COPPER	ND		20	UG/L	10	4/29/2019 19:17
IRON	ND		100	UG/L	10	4/29/2019 19:17
POTASSIUM	2700		1000	UG/L	10	4/29/2019 19:17
LITHIUM	22		20	UG/L	10	4/29/2019 19:17
MAGNESIUM	18000		100	UG/L	10	4/29/2019 19:17
MANGANESE	ND		5	UG/L	10	4/29/2019 19:17
MOLYBDENUM	3.1		2	UG/L	10	4/29/2019 19:17
SODIUM	16000		1000	UG/L	10	4/29/2019 19:17
NICKEL	ND		20	UG/L	10	4/29/2019 19:17
LEAD	ND		2	UG/L	10	4/29/2019 19:17
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:17
SELENIUM	18		10	UG/L	10	4/29/2019 19:17
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:17
URANIUM	29		0.1	UG/L	10	4/29/2019 19:17
VANADIUM	ND		5	UG/L	10	4/29/2019 19:17
ZINC	ND		100	UG/L	10	4/29/2019 19:17
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:51

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-19
Legal Location:
Collection Date: 4/25/2019 14:30

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:20
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:20
ARSENIC	ND		2	UG/L	10	4/29/2019 19:20
BORON	ND		150	UG/L	10	4/29/2019 19:20
BARIUM	34		5	UG/L	10	4/29/2019 19:20
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:20
CALCIUM	46000		1000	UG/L	10	4/29/2019 19:20
CADMIUM	ND		2	UG/L	10	4/29/2019 19:20
COBALT	ND		5	UG/L	10	4/29/2019 19:20
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:20
COPPER	ND		20	UG/L	10	4/29/2019 19:20
IRON	ND		100	UG/L	10	4/29/2019 19:20
POTASSIUM	ND		1000	UG/L	10	4/29/2019 19:20
LITHIUM	ND		20	UG/L	10	4/29/2019 19:20
MAGNESIUM	5700		100	UG/L	10	4/29/2019 19:20
MANGANESE	ND		5	UG/L	10	4/29/2019 19:20
MOLYBDENUM	3.1		2	UG/L	10	4/29/2019 19:20
SODIUM	6100		1000	UG/L	10	4/29/2019 19:20
NICKEL	ND		20	UG/L	10	4/29/2019 19:20
LEAD	ND		2	UG/L	10	4/29/2019 19:20
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:20
SELENIUM	ND		10	UG/L	10	4/29/2019 19:20
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:20
URANIUM	1.8		0.1	UG/L	10	4/29/2019 19:20
VANADIUM	ND		5	UG/L	10	4/29/2019 19:20
ZINC	ND		100	UG/L	10	4/29/2019 19:20
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:53

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-02
Legal Location:
Collection Date: 4/25/2019 15:55

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:23
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:23
ARSENIC	ND		2	UG/L	10	4/29/2019 19:23
BORON	ND		150	UG/L	10	4/29/2019 19:23
BARIUM	27		5	UG/L	10	4/29/2019 19:23
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:23
CALCIUM	130000		1000	UG/L	10	4/29/2019 19:23
CADMIUM	ND		2	UG/L	10	4/29/2019 19:23
COBALT	ND		5	UG/L	10	4/29/2019 19:23
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:23
COPPER	ND		20	UG/L	10	4/29/2019 19:23
IRON	ND		100	UG/L	10	4/29/2019 19:23
POTASSIUM	1600		1000	UG/L	10	4/29/2019 19:23
LITHIUM	ND		20	UG/L	10	4/29/2019 19:23
MAGNESIUM	28000		100	UG/L	10	4/29/2019 19:23
MANGANESE	5.9		5	UG/L	10	4/29/2019 19:23
MOLYBDENUM	2		2	UG/L	10	4/29/2019 19:23
SODIUM	30000		1000	UG/L	10	4/29/2019 19:23
NICKEL	ND		20	UG/L	10	4/29/2019 19:23
LEAD	ND		2	UG/L	10	4/29/2019 19:23
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:23
SELENIUM	ND		10	UG/L	10	4/29/2019 19:23
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:23
URANIUM	4		0.1	UG/L	10	4/29/2019 19:23
VANADIUM	ND		5	UG/L	10	4/29/2019 19:23
ZINC	ND		100	UG/L	10	4/29/2019 19:23
Dissolved Mercury			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 10:55

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-12
Legal Location:
Collection Date: 4/25/2019 14:05

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:38
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:38
ARSENIC	ND		2	UG/L	10	4/29/2019 19:38
BORON	ND		150	UG/L	10	4/29/2019 19:38
BARIUM	23		5	UG/L	10	4/29/2019 19:38
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:38
CALCIUM	160000		1000	UG/L	10	4/29/2019 19:38
CADMIUM	ND		2	UG/L	10	4/29/2019 19:38
COBALT	ND		5	UG/L	10	4/29/2019 19:38
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:38
COPPER	ND		20	UG/L	10	4/29/2019 19:38
IRON	ND		100	UG/L	10	4/29/2019 19:38
POTASSIUM	1400		1000	UG/L	10	4/29/2019 19:38
LITHIUM	ND		20	UG/L	10	4/29/2019 19:38
MAGNESIUM	11000		100	UG/L	10	4/29/2019 19:38
MANGANESE	ND		5	UG/L	10	4/29/2019 19:38
MOLYBDENUM	4.1		2	UG/L	10	4/29/2019 19:38
SODIUM	12000		1000	UG/L	10	4/29/2019 19:38
NICKEL	ND		20	UG/L	10	4/29/2019 19:38
LEAD	ND		2	UG/L	10	4/29/2019 19:38
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:38
SELENIUM	ND		10	UG/L	10	4/29/2019 19:38
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:38
URANIUM	5.1		0.1	UG/L	10	4/29/2019 19:38
VANADIUM	ND		5	UG/L	10	4/29/2019 19:38
ZINC	ND		100	UG/L	10	4/29/2019 19:38
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 11:02

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-10
Legal Location:
Collection Date: 4/25/2019 12:30

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:41
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:41
ARSENIC	ND		2	UG/L	10	4/29/2019 19:41
BORON	ND		150	UG/L	10	4/29/2019 19:41
BARIUM	18		5	UG/L	10	4/29/2019 19:41
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:41
CALCIUM	370000		1000	UG/L	10	4/29/2019 19:41
CADMIUM	ND		2	UG/L	10	4/29/2019 19:41
COBALT	ND		5	UG/L	10	4/29/2019 19:41
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:41
COPPER	ND		20	UG/L	10	4/29/2019 19:41
IRON	ND		100	UG/L	10	4/29/2019 19:41
POTASSIUM	3000		1000	UG/L	10	4/29/2019 19:41
LITHIUM	23		20	UG/L	10	4/29/2019 19:41
MAGNESIUM	21000		100	UG/L	10	4/29/2019 19:41
MANGANESE	ND		5	UG/L	10	4/29/2019 19:41
MOLYBDENUM	2.8		2	UG/L	10	4/29/2019 19:41
SODIUM	19000		1000	UG/L	10	4/29/2019 19:41
NICKEL	ND		20	UG/L	10	4/29/2019 19:41
LEAD	ND		2	UG/L	10	4/29/2019 19:41
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:41
SELENIUM	24		10	UG/L	10	4/29/2019 19:41
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:41
URANIUM	34		0.1	UG/L	10	4/29/2019 19:41
VANADIUM	ND		5	UG/L	10	4/29/2019 19:41
ZINC	ND		100	UG/L	10	4/29/2019 19:41
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 11:04

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-06
Legal Location:
Collection Date: 4/25/2019 16:00

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:44
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:44
ARSENIC	ND		2	UG/L	10	4/29/2019 19:44
BORON	ND		150	UG/L	10	4/29/2019 19:44
BARIUM	32		5	UG/L	10	4/29/2019 19:44
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:44
CALCIUM	480000		1000	UG/L	10	4/29/2019 19:44
CADMIUM	ND		2	UG/L	10	4/29/2019 19:44
COBALT	ND		5	UG/L	10	4/29/2019 19:44
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:44
COPPER	ND		20	UG/L	10	4/29/2019 19:44
IRON	ND		100	UG/L	10	4/29/2019 19:44
POTASSIUM	5200		1000	UG/L	10	4/29/2019 19:44
LITHIUM	ND		20	UG/L	10	4/29/2019 19:44
MAGNESIUM	27000		100	UG/L	10	4/29/2019 19:44
MANGANESE	ND		5	UG/L	10	4/29/2019 19:44
MOLYBDENUM	5.1		2	UG/L	10	4/29/2019 19:44
SODIUM	18000		1000	UG/L	10	4/29/2019 19:44
NICKEL	ND		20	UG/L	10	4/29/2019 19:44
LEAD	ND		2	UG/L	10	4/29/2019 19:44
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:44
SELENIUM	20		10	UG/L	10	4/29/2019 19:44
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:44
URANIUM	35		0.1	UG/L	10	4/29/2019 19:44
VANADIUM	ND		5	UG/L	10	4/29/2019 19:44
ZINC	ND		100	UG/L	10	4/29/2019 19:44
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 11:06

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: KMW-13
Legal Location:
Collection Date: 4/25/2019 12:15

Date: 08-May-19
Work Order: 1904531
Lab ID: 1904531-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 4/27/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	4/29/2019 19:47
ALUMINUM	ND		100	UG/L	10	4/29/2019 19:47
ARSENIC	ND		2	UG/L	10	4/29/2019 19:47
BORON	ND		150	UG/L	10	4/29/2019 19:47
BARIUM	35		5	UG/L	10	4/29/2019 19:47
BERYLLIUM	ND		0.5	UG/L	10	4/29/2019 19:47
CALCIUM	49000		1000	UG/L	10	4/29/2019 19:47
CADMIUM	ND		2	UG/L	10	4/29/2019 19:47
COBALT	ND		5	UG/L	10	4/29/2019 19:47
CHROMIUM	ND		10	UG/L	10	4/29/2019 19:47
COPPER	ND		20	UG/L	10	4/29/2019 19:47
IRON	ND		100	UG/L	10	4/29/2019 19:47
POTASSIUM	ND		1000	UG/L	10	4/29/2019 19:47
LITHIUM	ND		20	UG/L	10	4/29/2019 19:47
MAGNESIUM	5700		100	UG/L	10	4/29/2019 19:47
MANGANESE	ND		5	UG/L	10	4/29/2019 19:47
MOLYBDENUM	2.5		2	UG/L	10	4/29/2019 19:47
SODIUM	4900		1000	UG/L	10	4/29/2019 19:47
NICKEL	ND		20	UG/L	10	4/29/2019 19:47
LEAD	ND		2	UG/L	10	4/29/2019 19:47
ANTIMONY	ND		1	UG/L	10	4/29/2019 19:47
SELENIUM	ND		10	UG/L	10	4/29/2019 19:47
THALLIUM	ND		0.1	UG/L	10	4/29/2019 19:47
URANIUM	1.7		0.1	UG/L	10	4/29/2019 19:47
VANADIUM	ND		5	UG/L	10	4/29/2019 19:47
ZINC	ND		100	UG/L	10	4/29/2019 19:47
Dissolved Mercury						
			SW7470		Prep Date: 4/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	4/30/2019 11:08

Client:	Telesto Solutions Inc	Date:	08-May-19
Project:	360100 LRM - Knox Pit	Work Order:	1904531
Sample ID:	KMW-13	Lab ID:	1904531-16
Legal Location:		Matrix:	WATER
Collection Date:	4/25/2019 12:15	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

ALS -- Fort Collins

Date: 5/8/2019 10:09:

Client: Telesto Solutions Inc
 Work Order: 1904531
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG190429-2-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG190429-2			Units: MG/L			Analysis Date: 4/30/2019 10:19					
Client ID:	Run ID: HG190430-1A1				Prep Date: 4/29/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	9.860001E-04	0.0002	0.001		99	80-120				20		

MB	Sample ID: HG190429-2			Units: MG/L	Analysis Date: 4/30/2019 10:17		
Client ID:	Run ID: HG190430-1A1			Prep Date: 4/29/2019		DF: 1	
Analyte	Result	ReportLimit	Qual				
MERCURY	ND	0.0002					

MS	Sample ID: 1904531-1			Units: MG/L			Analysis Date: 4/30/2019 10:25					
Client ID: 02-KMW-19	Run ID: HG190430-1A1				Prep Date: 4/29/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00197	0.0002	0.002	0.0002	99	80-120				20		

MSD	Sample ID: 1904531-1			Units: MG/L			Analysis Date: 4/30/2019 10:28					
Client ID: 02-KMW-19	Run ID: HG190430-1A1				Prep Date: 4/29/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00205	0.0002	0.002	0.0002	103	80-120		0.00197	4	20		

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	1904531-9
1904531-10	1904531-11	1904531-12
1904531-13	1904531-14	1904531-15
1904531-16		

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190427-2-1** Instrument ID: **ICPMS2** Method: **SW6020**

LCS Sample ID: **IM190427-2** Units: **UG/L** Analysis Date: **4/29/2019 18:14**

Client ID: Run ID: **IM190429-11A12** Prep Date: **4/27/2019** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4750	100	5000		95	80-120				20	
ANTIMONY	30.3	1	30		101	80-120				20	
ARSENIC	99.3	2	100		99	80-120				20	
BARIUM	105	5	100		105	80-120				20	
BERYLLIUM	48.9	0.5	50		98	80-120				20	
BORON	961	150	1000		96	80-120				20	
CADMIUM	30.2	2	30		101	80-120				20	
CALCIUM	9860	1000	10000		99	80-120				20	
CHROMIUM	514	10	500		103	80-120				20	
COBALT	97.2	5	100		97	80-120				20	
COPPER	1020	20	1000		102	80-120				20	
IRON	4820	100	5000		96	80-120				20	
LEAD	49.9	2	50		100	80-120				20	
LITHIUM	979	20	1000		98	80-120				20	
MAGNESIUM	9500	100	10000		95	80-120				20	
MANGANESE	99	5	100		99	80-120				20	
MOLYBDENUM	106	2	100		106	80-120				20	
NICKEL	480	20	500		96	80-120				20	
POTASSIUM	5020	1000	5000		100	80-120				20	
SELENIUM	108	10	100		108	80-120				20	
SILVER	10.7	0.5	10		107	80-120				20	
SODIUM	9900	1000	10000		99	80-120				20	
THALLIUM	2.13	0.1	2		107	80-120				20	
URANIUM	9.99	0.1	10		100	80-120				20	
VANADIUM	98.8	5	100		99	80-120				20	
ZINC	2000	100	2000		100	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190427-2-1** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP190427-2** Units: **UG/L** Analysis Date: **4/29/2019 18:11**
Client ID: Run ID: **IM190429-11A12** Prep Date: **4/27/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	1904531-9
1904531-10	1904531-11	1904531-12
1904531-13	1904531-14	1904531-15
1904531-16		

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK190503-1-3** Instrument ID **NONE** Method: **EPA310.1**

LCS	Sample ID: AK190503-1			Units: MG/L			Analysis Date: 5/3/2019				
Client ID:	Run ID: AK190503-1A1			Prep Date: 5/3/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	106	5	100		106	85-115				15	

MB	Sample ID: AK190503-1			Units: MG/L			Analysis Date: 5/3/2019				
Client ID:	Run ID: AK190503-1A1			Prep Date: 5/3/2019			DF: 1				
Analyte	Result	ReportLimit									Qual
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									
TOTAL ALKALINITY AS CaCO3	ND	5									

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN190507-2-1** Instrument ID **Spec** Method: **SW9014**

LCS		Sample ID: CN190507-1			Units: MG/L			Analysis Date: 5/7/2019			
Client ID:		Run ID: CN190507-1A1			Prep Date: 5/7/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.175	0.005	0.2		87	85-115				30	

MB		Sample ID: CN190507-1			Units: MG/L			Analysis Date: 5/7/2019			
Client ID:		Run ID: CN190507-1A1			Prep Date: 5/7/2019			DF: 1			
Analyte	Result	ReportLimit									Qual
CYANIDE, TOTAL	ND	0.005									

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190426-1-1** Instrument ID: **IC3** Method: **EPA300.0**

LCS	Sample ID: IC190426-1			Units: MG/L			Analysis Date: 4/26/2019 10:23				
Client ID:		Run ID: IC190426-1A1			Prep Date: 4/26/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.91	0.1	5		98	90-110				15	
CHLORIDE	9.38	0.2	10		94	90-110				15	
NITRITE AS N	5	0.1	5		100	90-110				15	
NITRATE AS N	9.58	0.2	10		96	90-110				15	
SULFATE	49.8	1	50		100	90-110				15	

LCSD	Sample ID: IC190426-1			Units: MG/L			Analysis Date: 4/26/2019 11:12				
Client ID:	Run ID: IC190426-1A1			Prep Date: 4/26/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.9	0.1	5		98	90-110		4.91	0	15	
CHLORIDE	9.23	0.2	10		92	90-110		9.38	2	15	
NITRITE AS N	5	0.1	5		100	90-110		5	0	15	
NITRATE AS N	9.58	0.2	10		96	90-110		9.58	0	15	
SULFATE	49.7	1	50		99	90-110		49.8	0	15	

MB	Sample ID: IC190426-1			Units: MG/L	Analysis Date: 4/26/2019 10:36		
Client ID:		Run ID: IC190426-1A1			Prep Date: 4/26/2019		DF: 1
Analyte		Result	ReportLimit	Qual			
FLUORIDE		ND	0.1				
CHLORIDE		ND	0.2				
NITRITE AS N		ND	0.1				
NITRATE AS N		ND	0.2				
SULFATE		ND	1				

MS		Sample ID: 1904531-1				Units: MG/L		Analysis Date: 4/26/2019 11:50			
Client ID: 02-KMW-19		Run ID: IC190426-1A1				Prep Date: 4/26/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.4	0.1	2	0.4	100	85-115				15	
CHLORIDE	8.89	0.2	5	4.2	93	85-115				15	
NITRITE AS N	1.74	0.1	2	0.1	87	85-115				15	
NITRATE AS N	4.78	0.2	5	0.2	96	85-115				15	
SULFATE	52.1	1	20	33	95	85-115				15	

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	

Client: Telesto Solutions Inc
Work Order: 1904531
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD190429-1-1** Instrument ID **Balance** Method: **EPA160.1**

LCS	Sample ID: TD190429-1			Units: MG/L			Analysis Date: 4/30/2019				
Client ID:		Run ID: TD190430-1A1			Prep Date: 4/29/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	408	20	400		102	85-115				5	

LCSD	Sample ID: TD190429-1			Units: MG/L			Analysis Date: 4/30/2019				
Client ID:	Run ID: TD190430-1A1			Prep Date: 4/29/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	375	20	400		94	85-115		408	8	5	*

MB		Sample ID: TD190429-1			Units: MG/L		Analysis Date: 4/30/2019	
Client ID:		Run ID: TD190430-1A1			Prep Date: 4/29/2019		DF: 1	
Analyte		Result	ReportLimit		Qual			
TOTAL DISSOLVED SOLIDS		ND	20					

The following samples were analyzed in this batch:

1904531-1	1904531-2	1904531-3
1904531-4	1904531-5	1904531-6
1904531-7	1904531-8	



Wednesday, July 31, 2019

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1907382
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Twenty six water samples were received from Telesto Solutions Inc, on 7/18/2019. The samples were scheduled for the following analyses:

Inorganics

Metals

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1907382

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020B and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846, EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
Total cyanide	9014	1110
pH	SM4500-H ⁺ B	1126
TDS	SM2540C	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

The samples were prepared and analyzed within the established hold time for each analysis except the anion analysis in which samples 1907382-1 through -4 were received outside of hold time. Any pH or specific conductance testing performed on field samples by the laboratory is outside of the holding time intended by the method.

All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1907382

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
P-1	1907382-1		WATER	16-Jul-19	10:45
P-2	1907382-2		WATER	16-Jul-19	12:00
P-4	1907382-3		WATER	16-Jul-19	13:20
P-3	1907382-4		WATER	16-Jul-19	14:35
MW-02	1907382-5		WATER	17-Jul-19	12:00
MW-05	1907382-6		WATER	17-Jul-19	13:05
MW-08	1907382-7		WATER	17-Jul-19	14:10
MW-06	1907382-8		WATER	17-Jul-19	14:35
MW-09	1907382-9		WATER	17-Jul-19	15:42
MW-07	1907382-10		WATER	17-Jul-19	16:25
MW-10	1907382-11		WATER	18-Jul-19	10:10
MW-06	1907382-12		WATER	18-Jul-19	11:45
MW-12	1907382-13		WATER	18-Jul-19	13:55
P-1	1907382-14		WATER	16-Jul-19	10:45
P-2	1907382-15		WATER	16-Jul-19	12:00
P-4	1907382-16		WATER	16-Jul-19	13:20
P-3	1907382-17		WATER	16-Jul-19	14:35
MW-02	1907382-18		WATER	17-Jul-19	12:00
MW-05	1907382-19		WATER	17-Jul-19	13:05
MW-08	1907382-20		WATER	17-Jul-19	14:10
MW-06	1907382-21		WATER	17-Jul-19	14:35
MW-09	1907382-22		WATER	17-Jul-19	15:42
MW-07	1907382-23		WATER	17-Jul-19	16:25
MW-10	1907382-24		WATER	18-Jul-19	10:10
MW-06	1907382-25		WATER	18-Jul-19	11:45
MW-12	1907382-26		WATER	18-Jul-19	13:55



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1907382

PROJECT NAME		LBM - Knox Pit		SITE ID				SAMPLER		Tim Gerken + Jesse Mancini		PAGE		1 of		DISPOSAL		BY LAB or RETURN			
PROJECT No.		360100		EDD FORMAT				PARAMETER/METHOD REQUEST FOR ANALYSIS													
COMPANY NAME		Telesto Solution		BILL TO COMPANY				A		Wet chem											
SEND REPORT TO		Tim Gerken		INVOICE ATTN TO				B		metals											
ADDRESS		3801 Automation Way Suite 201		ADDRESS				C		Cyanide											
CITY / STATE / ZIP		Fort Collins, CO 80525		CITY / STATE / ZIP				D													
PHONE		970-484-7704		PHONE				E													
FAX				FAX				F													
E-MAIL		tgerken@telesto-inc.com		E-MAIL				G													
								H													
								I													
								J													
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION			
1	P-1 - Raw	W	7/16/19	10:45	1	None		X													
14	P-1 - Filtered			10:45	1	2			X												
1	P-1 - Unfiltered			10:45	1	2			X												
1	P-1 - Unfiltered			10:45	1	4				X											
2	P-2 - Raw			12:00	1	none		X													
15	P-2 - Filtered			12:00	1	2			X												
2	P-2 - Unfiltered			12:00	1	2			X												
2	P-2 - Unfiltered			12:00	1	4				X											
3	P-4 - Raw			1:20	1	None		X													
16	P-4 - Filtered			1:20	1	2			X												
3	P-4 - Unfiltered	✓	✓	1:20	1	2			X												
3	P-4 - Unfiltered			1:20	1	4				X											

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

5.4°C

REPORT LEVEL / QC REQUIRED
Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

7/18/19

3:00

RECEIVED BY

Erik Evans

Erik Evans

7/18/19

1500

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1907382

PAGE 2 of 2
DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID		SAMPLER	Tim Gerken
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS	
COMPANY NAME		PURCHASE ORDER		A	Wet chem
SEND REPORT TO	Same AS	BILL TO COMPANY		B	Metals
ADDRESS		INVOICE ATTN TO		C	Cyanide
CITY / STATE / ZIP		ADDRESS		D	
PHONE		CITY / STATE / ZIP		E	
FAX		PHONE		F	
E-MAIL		FAX		G	
		E-MAIL		H	
				I	
				J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
4	P-3 - Raw	W	7/16/19	2:35	1	none		X										
⑦	P-3 - Filtered			2:35	1	2			X									
4	P-3 - Unfiltered			2:35	1	2			X									
4	P-3 - Unfiltered		✓	2:35	1	4				X								
5	MW-02 - RAW		7/17/19	12:00	1	None		X										
⑧	MW-02 - Filtered			12:00	1	2			X									
5	MW-02 - Unfiltered			12:00	1	2			X									
5	MW-02 - unfiltered			12:00	1	4				X								
6	MW-05 - RAW			1:05	1	None		X										
⑨	MW-05 - Filtered			1:05	1	2			X									
6	MW-05 - unfiltered			1:05	1	2			X									
6	MW-05 - unfiltered	✓	✓	1:05	1	4				X								

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 2029

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

7/18/19

3:00

RECEIVED BY

Erik Evans

Erik Evans

7/18/19

1500

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY



ALS Environmental

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

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ALS WORKORDER #

1907382

PAGE 3 of
DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID		SAMPLER	Tim Gerken
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS	
		PURCHASE ORDER		A	WetChem
COMPANY NAME		BILL TO COMPANY		B	Metals
SEND REPORT TO	Same As	INVOICE ATTN TO		C	Cyanide
ADDRESS		ADDRESS		D	
CITY / STATE / ZIP		CITY / STATE / ZIP		E	
PHONE		PHONE		F	
FAX		FAX		G	
E-MAIL		E-MAIL		H	
				I	
				J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
7	MW-08-RAW	W	7/17/19	2:10	1	None		X										
20	MW-08-Filtered			2:10	1	2			X									
7	MW-08-unfiltered			2:10	1	2			X									
2	MW-08-unfiltered			2:10	1	4				X								
8	MW-06-RAW			2:35	1	None		X										
21	MW-06-Filtered			2:35	1	2			X									
8	MW-06-unfiltered			2:35	1	2			X									
8	MW-06-unfiltered			2:35	1	4				X								
9	MW-09-RAW			3:42	1	None		X										
22	MW-09-Filtered			3:42	1	2			X									
9	MW-09-unfiltered			3:42	1	2			X									
9	MW-09-unfiltered			3:42	1	4				X								

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

Form 2029

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

	Tim Gerken	7/18/19	3:00
	Eric Evans	7/18/19	1:00

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other



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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1907382

PROJECT NAME		SITE ID		SAMPLER		PAGE		DISPOSAL		BY LAB		or RETURN																									
PROJECT No.		EDD FORMAT		PURCHASE ORDER		PARAMETER/METHOD REQUEST FOR ANALYSIS		A		B		C		D		E		F		G		H		I		J		SEE NOTES SECTION									
LRM-Knox Pit				Tim Gerken		4 of																															
Same as																																					
PAGE 1																																					
LAB ID		FIELD ID		MATRIX		SAMPLE DATE		SAMPLE TIME		# OF BOTTLES		PRESERVATIVE		QC		A		B		C		D		E		F		G		H		I		J		SEE NOTES SECTION	
10		MW-07-RAW		W		7/17/19		4:25		1		None				X																					
23		MW-07-Filtered						4:25		1		2						X																			
10		MW-07-unfiltered						4:25		1		2						X																			
10		MW-07-unfiltered				V		4:25		1		4								X																	
11		MW-10-RAW				7/18/19		10:10		1		None				X																					
24		MW-10-Filtered						10:10		1		2						X																			
11		MW-10-unfiltered						10:10		1		2						X																			
11		MW-10-unfiltered						10:10		1		4								X																	
12		MW-06-RAW								1		None				X																					
25		MW-06-Filtered								1		2						X																			
12		MW-06-unfiltered								1		2						X																			
12		MW-06-unfiltered		V		V				1		4								X																	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		SIGNATURE		PRINTED NAME		DATE		TIME	
8 of 63		Summary (Standard QC)		RELINQUISHED BY		Tim Gerken		7/18/19		3:00	
		LEVEL II (Standard QC)		RECEIVED BY		Erin Evans		7/18/19		1500	
		LEVEL III (Std QC + forms)		RELINQUISHED BY							
		LEVEL IV (Std QC + forms + raw)		RECEIVED BY							

PRESERVATION KEY		Form 202/0	
1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other			

ALS Environmental

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TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

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Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1907382

PAGE	3 of 3
DISPOSAL	BY LAB or RETURN

[illegible]

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES		REPORT LEVEL / QC REQUIRED		SIGNATURE		PRINTED NAME		DATE		TIME						
9 of 63			Summary (Standard QC)		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY   		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY Tim Gerten Erik Evans 		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY 		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY 		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY 		RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY 	
			LEVEL II (Standard QC)													
			LEVEL III (Std QC + forms)													
			LEVEL IV (Std QC + forms + raw)													
			LEVEL V (Std QC + forms + raw)													
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other														



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Teleso

Workorder No: 1907382

Project Manager: JRK

Initials: EE

Date: 7/19/19

1. Are airbills / shipping documents present and/or removable?	☒ DROP OFF	YES	NO
2. Are custody seals on shipping containers intact?	☒ NONE	YES	NO *
3. Are custody seals on sample containers intact?	☒ NONE	YES	NO *
4. Is there a COC (chain-of-custody) present?		☒ YES	NO *
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		☒ YES	NO *
6. Are short-hold samples present?		☒ YES	NO
7. Are all samples within holding times for the requested analyses?		YES	☒ NO *
8. Were all sample containers received intact? (not broken or leaking)		☒ YES	NO *
9. Is there sufficient sample for the requested analyses?		☒ YES	NO *
10. Are all samples in the proper containers for the requested analyses?		☒ YES	NO *
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)	N/A	YES	☒ NO *
12. Are all aqueous non-preserved samples pH 4-9?	N/A	☒ YES	NO *
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)	☒ N/A	YES	NO
14. Were the samples shipped on ice?		☒ YES	NO
15. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	RAD ONLY	☒ YES NO
Cooler #: <u>1</u> <u>2</u>			
Temperature (°C): <u>5.4</u> <u>5.4</u>			
No. of custody seals on cooler: <u>0</u> <u>0</u>			
DOT Survey/ Acceptance Information	External µR/hr reading: <u>N/A</u> <u>N/A</u>		
	Background µR/hr reading: <u>9</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

* Please provide details here for NO responses to gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

11) ... 7382-22 had initial pH ~ 7, .5 ml HNO₃ added; final pH < 2 | lot # 197345
7) ... 7382-1-1, -2-1, -3-1, -4-1 were received out of hold for short hold wet chem tests (48 hour hold time)

All client bottle ID's vs ALS lab ID's double-checked by: EE

If applicable, was the client contacted? YES / NO / ☒ Contact: _____ Date/Time: _____

Project Manager Signature / Date: _____

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-1
 Legal Location:
 Collection Date: 7/16/2019 10:45

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	70		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	70		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 11:39
ALUMINUM	110		100	UG/L	10	7/24/2019 11:39
ARSENIC	ND		2	UG/L	10	7/24/2019 11:39
BORON	ND		150	UG/L	10	7/24/2019 11:39
BARIUM	21		5	UG/L	10	7/24/2019 11:39
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 11:39
CALCIUM	360000		1000	UG/L	10	7/24/2019 11:39
CADMIUM	ND		2	UG/L	10	7/24/2019 11:39
COBALT	ND		5	UG/L	10	7/24/2019 11:39
CHROMIUM	ND		10	UG/L	10	7/24/2019 11:39
COPPER	ND		20	UG/L	10	7/24/2019 11:39
IRON	220		100	UG/L	10	7/24/2019 11:39
POTASSIUM	3200		1000	UG/L	10	7/24/2019 11:39
LITHIUM	26		20	UG/L	10	7/24/2019 11:39
MAGNESIUM	21000		100	UG/L	10	7/24/2019 11:39
MANGANESE	240		5	UG/L	10	7/24/2019 11:39
MOLYBDENUM	4		2	UG/L	10	7/24/2019 11:39
SODIUM	18000		1000	UG/L	10	7/24/2019 11:39
NICKEL	ND		20	UG/L	10	7/24/2019 11:39
LEAD	ND		2	UG/L	10	7/24/2019 11:39
ANTIMONY	ND		1	UG/L	10	7/24/2019 11:39
SELENIUM	12		10	UG/L	10	7/24/2019 11:39
THALLIUM	ND		0.1	UG/L	10	7/24/2019 11:39
URANIUM	28		0.1	UG/L	10	7/24/2019 11:39
VANADIUM	ND		5	UG/L	10	7/24/2019 11:39
ZINC	ND		100	UG/L	10	7/24/2019 11:39
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	16		0.2	MG/L	1	7/19/2019 18:07
FLUORIDE	0.55		0.1	MG/L	1	7/19/2019 18:07
NITRATE AS N	1.4		0.2	MG/L	1	7/19/2019 18:07
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 18:07
SULFATE	760		10	MG/L	10	7/19/2019 18:20
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:07
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.1		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

ALS -- Fort Collins**SAMPLE SUMMARY REPORT**

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-1
Legal Location:
Collection Date: 7/16/2019 10:45

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-2
 Legal Location:
 Collection Date: 7/16/2019 12:00

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-2
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	67		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	67		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 11:42
ALUMINUM	ND		100	UG/L	10	7/24/2019 11:42
ARSENIC	ND		2	UG/L	10	7/24/2019 11:42
BORON	ND		150	UG/L	10	7/24/2019 11:42
BARIUM	18		5	UG/L	10	7/24/2019 11:42
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 11:42
CALCIUM	370000		1000	UG/L	10	7/24/2019 11:42
CADMIUM	ND		2	UG/L	10	7/24/2019 11:42
COBALT	ND		5	UG/L	10	7/24/2019 11:42
CHROMIUM	ND		10	UG/L	10	7/24/2019 11:42
COPPER	ND		20	UG/L	10	7/24/2019 11:42
IRON	ND		100	UG/L	10	7/24/2019 11:42
POTASSIUM	3000		1000	UG/L	10	7/24/2019 11:42
LITHIUM	27		20	UG/L	10	7/24/2019 11:42
MAGNESIUM	21000		100	UG/L	10	7/24/2019 11:42
MANGANESE	ND		5	UG/L	10	7/24/2019 11:42
MOLYBDENUM	4		2	UG/L	10	7/24/2019 11:42
SODIUM	19000		1000	UG/L	10	7/24/2019 11:42
NICKEL	ND		20	UG/L	10	7/24/2019 11:42
LEAD	ND		2	UG/L	10	7/24/2019 11:42
ANTIMONY	ND		1	UG/L	10	7/24/2019 11:42
SELENIUM	17		10	UG/L	10	7/24/2019 11:42
THALLIUM	ND		0.1	UG/L	10	7/24/2019 11:42
URANIUM	28		0.1	UG/L	10	7/24/2019 11:42
VANADIUM	ND		5	UG/L	10	7/24/2019 11:42
ZINC	ND		100	UG/L	10	7/24/2019 11:42
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	23		2	MG/L	10	7/19/2019 19:11
FLUORIDE	0.61		0.1	MG/L	1	7/19/2019 18:32
NITRATE AS N	0.53		0.2	MG/L	1	7/19/2019 18:32
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 18:32
SULFATE	760		10	MG/L	10	7/19/2019 19:11
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:09
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.3		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-2
Legal Location:
Collection Date: 7/16/2019 12:00

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1500		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-4
 Legal Location:
 Collection Date: 7/16/2019 13:20

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-3
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	68		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	68		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 11:57
ALUMINUM	240		100	UG/L	10	7/24/2019 11:57
ARSENIC	ND		2	UG/L	10	7/24/2019 11:57
BORON	ND		150	UG/L	10	7/24/2019 11:57
BARIUM	110		5	UG/L	10	7/24/2019 11:57
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 11:57
CALCIUM	310000		1000	UG/L	10	7/24/2019 11:57
CADMIUM	ND		2	UG/L	10	7/24/2019 11:57
COBALT	ND		5	UG/L	10	7/24/2019 11:57
CHROMIUM	ND		10	UG/L	10	7/24/2019 11:57
COPPER	ND		20	UG/L	10	7/24/2019 11:57
IRON	760		100	UG/L	10	7/24/2019 11:57
POTASSIUM	4600		1000	UG/L	10	7/24/2019 11:57
LITHIUM	ND		20	UG/L	10	7/24/2019 11:57
MAGNESIUM	19000		100	UG/L	10	7/24/2019 11:57
MANGANESE	380		5	UG/L	10	7/24/2019 11:57
MOLYBDENUM	8.6		2	UG/L	10	7/24/2019 11:57
SODIUM	13000		1000	UG/L	10	7/24/2019 11:57
NICKEL	ND		20	UG/L	10	7/24/2019 11:57
LEAD	ND		2	UG/L	10	7/24/2019 11:57
ANTIMONY	ND		1	UG/L	10	7/24/2019 11:57
SELENIUM	14		10	UG/L	10	7/24/2019 11:57
THALLIUM	ND		0.1	UG/L	10	7/24/2019 11:57
URANIUM	21		0.1	UG/L	10	7/24/2019 11:57
VANADIUM	ND		5	UG/L	10	7/24/2019 11:57
ZINC	ND		100	UG/L	10	7/24/2019 11:57
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	13		0.2	MG/L	1	7/19/2019 19:24
FLUORIDE	0.6		0.1	MG/L	1	7/19/2019 19:24
NITRATE AS N	9.8		0.2	MG/L	1	7/19/2019 19:24
NITRITE AS N	0.22		0.1	MG/L	1	7/19/2019 19:24
SULFATE	610		10	MG/L	10	7/19/2019 19:36
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:11
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	8		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	0.007		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-4
Legal Location:
Collection Date: 7/16/2019 13:20

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1200		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-3
 Legal Location:
 Collection Date: 7/16/2019 14:35

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-4
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	67		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	67		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:00
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:00
ARSENIC	ND		2	UG/L	10	7/24/2019 12:00
BORON	ND		150	UG/L	10	7/24/2019 12:00
BARIUM	31		5	UG/L	10	7/24/2019 12:00
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:00
CALCIUM	390000		1000	UG/L	10	7/24/2019 12:00
CADMIUM	ND		2	UG/L	10	7/24/2019 12:00
COBALT	ND		5	UG/L	10	7/24/2019 12:00
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:00
COPPER	ND		20	UG/L	10	7/24/2019 12:00
IRON	130		100	UG/L	10	7/24/2019 12:00
POTASSIUM	3800		1000	UG/L	10	7/24/2019 12:00
LITHIUM	ND		20	UG/L	10	7/24/2019 12:00
MAGNESIUM	20000		100	UG/L	10	7/24/2019 12:00
MANGANESE	ND		5	UG/L	10	7/24/2019 12:00
MOLYBDENUM	6.7		2	UG/L	10	7/24/2019 12:00
SODIUM	15000		1000	UG/L	10	7/24/2019 12:00
NICKEL	ND		20	UG/L	10	7/24/2019 12:00
LEAD	ND		2	UG/L	10	7/24/2019 12:00
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:00
SELENIUM	29		10	UG/L	10	7/24/2019 12:00
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:00
URANIUM	31		0.1	UG/L	10	7/24/2019 12:00
VANADIUM	ND		5	UG/L	10	7/24/2019 12:00
ZINC	ND		100	UG/L	10	7/24/2019 12:00
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	18		0.2	MG/L	1	7/19/2019 19:48
FLUORIDE	0.65		0.1	MG/L	1	7/19/2019 19:48
NITRATE AS N	10		0.2	MG/L	1	7/19/2019 19:48
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 19:48
SULFATE	790		10	MG/L	10	7/19/2019 20:00
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:13
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.4		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-3
Legal Location:
Collection Date: 7/16/2019 14:35

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-4
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1500		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 7/17/2019 12:00

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	40		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	40		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:03
ALUMINUM	320		100	UG/L	10	7/24/2019 12:03
ARSENIC	ND		2	UG/L	10	7/24/2019 12:03
BORON	ND		150	UG/L	10	7/24/2019 12:03
BARIUM	36		5	UG/L	10	7/24/2019 12:03
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:03
CALCIUM	100000		1000	UG/L	10	7/24/2019 12:03
CADMIUM	ND		2	UG/L	10	7/24/2019 12:03
COBALT	ND		5	UG/L	10	7/24/2019 12:03
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:03
COPPER	ND		20	UG/L	10	7/24/2019 12:03
IRON	390		100	UG/L	10	7/24/2019 12:03
POTASSIUM	1600		1000	UG/L	10	7/24/2019 12:03
LITHIUM	ND		20	UG/L	10	7/24/2019 12:03
MAGNESIUM	23000		100	UG/L	10	7/24/2019 12:03
MANGANESE	6.6		5	UG/L	10	7/24/2019 12:03
MOLYBDENUM	2.8		2	UG/L	10	7/24/2019 12:03
SODIUM	24000		1000	UG/L	10	7/24/2019 12:03
NICKEL	ND		20	UG/L	10	7/24/2019 12:03
LEAD	ND		2	UG/L	10	7/24/2019 12:03
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:03
SELENIUM	ND		10	UG/L	10	7/24/2019 12:03
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:03
URANIUM	3.5		0.1	UG/L	10	7/24/2019 12:03
VANADIUM	ND		5	UG/L	10	7/24/2019 12:03
ZINC	ND		100	UG/L	10	7/24/2019 12:03
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	14		0.2	MG/L	1	7/19/2019 20:12
FLUORIDE	0.49		0.1	MG/L	1	7/19/2019 20:12
NITRATE AS N	0.27		0.2	MG/L	1	7/19/2019 20:12
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 20:12
SULFATE	250		10	MG/L	10	7/22/2019 13:13
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:15
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.51		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 7/17/2019 12:00

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	550		20	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-05
Legal Location:
Collection Date: 7/17/2019 13:05

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	47		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	47		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:06
ALUMINUM	980		100	UG/L	10	7/24/2019 12:06
ARSENIC	ND		2	UG/L	10	7/24/2019 12:06
BORON	ND		150	UG/L	10	7/24/2019 12:06
BARIUM	36		5	UG/L	10	7/24/2019 12:06
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:06
CALCIUM	150000		1000	UG/L	10	7/24/2019 12:06
CADMIUM	ND		2	UG/L	10	7/24/2019 12:06
COBALT	ND		5	UG/L	10	7/24/2019 12:06
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:06
COPPER	ND		20	UG/L	10	7/24/2019 12:06
IRON	1500		100	UG/L	10	7/24/2019 12:06
POTASSIUM	2200		1000	UG/L	10	7/24/2019 12:06
LITHIUM	ND		20	UG/L	10	7/24/2019 12:06
MAGNESIUM	12000		100	UG/L	10	7/24/2019 12:06
MANGANESE	23		5	UG/L	10	7/24/2019 12:06
MOLYBDENUM	19		2	UG/L	10	7/24/2019 12:06
SODIUM	20000		1000	UG/L	10	7/24/2019 12:06
NICKEL	ND		20	UG/L	10	7/24/2019 12:06
LEAD	ND		2	UG/L	10	7/24/2019 12:06
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:06
SELENIUM	17		10	UG/L	10	7/24/2019 12:06
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:06
URANIUM	8.2		0.1	UG/L	10	7/24/2019 12:06
VANADIUM	ND		5	UG/L	10	7/24/2019 12:06
ZINC	ND		100	UG/L	10	7/24/2019 12:06
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	15		0.2	MG/L	1	7/19/2019 20:37
FLUORIDE	0.86		0.1	MG/L	1	7/19/2019 20:37
NITRATE AS N	0.39		0.2	MG/L	1	7/19/2019 20:37
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 20:37
SULFATE	270		10	MG/L	10	7/22/2019 13:37
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:18
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.49		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-05
Legal Location:
Collection Date: 7/17/2019 13:05

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	600		20	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-08
Legal Location:
Collection Date: 7/17/2019 14:10

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	74		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	74		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:09
ALUMINUM	310		100	UG/L	10	7/24/2019 12:09
ARSENIC	ND		2	UG/L	10	7/24/2019 12:09
BORON	ND		150	UG/L	10	7/24/2019 12:09
BARIUM	29		5	UG/L	10	7/24/2019 12:09
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:09
CALCIUM	300000		1000	UG/L	10	7/24/2019 12:09
CADMIUM	ND		2	UG/L	10	7/24/2019 12:09
COBALT	ND		5	UG/L	10	7/24/2019 12:09
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:09
COPPER	ND		20	UG/L	10	7/24/2019 12:09
IRON	360		100	UG/L	10	7/24/2019 12:09
POTASSIUM	2700		1000	UG/L	10	7/24/2019 12:09
LITHIUM	ND		20	UG/L	10	7/24/2019 12:09
MAGNESIUM	15000		100	UG/L	10	7/24/2019 12:09
MANGANESE	ND		5	UG/L	10	7/24/2019 12:09
MOLYBDENUM	8.2		2	UG/L	10	7/24/2019 12:09
SODIUM	15000		1000	UG/L	10	7/24/2019 12:09
NICKEL	ND		20	UG/L	10	7/24/2019 12:09
LEAD	ND		2	UG/L	10	7/24/2019 12:09
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:09
SELENIUM	20		10	UG/L	10	7/24/2019 12:09
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:09
URANIUM	25		0.1	UG/L	10	7/24/2019 12:09
VANADIUM	ND		5	UG/L	10	7/24/2019 12:09
ZINC	ND		100	UG/L	10	7/24/2019 12:09
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	21		2	MG/L	10	7/19/2019 21:38
FLUORIDE	0.63		0.1	MG/L	1	7/19/2019 21:01
NITRATE AS N	1.3		0.2	MG/L	1	7/19/2019 21:01
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 21:01
SULFATE	570		10	MG/L	10	7/19/2019 21:38
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:20
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.43		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-08
Legal Location:
Collection Date: 7/17/2019 14:10

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1200		40	MG/L	1	7/23/2019

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-06
 Legal Location:
 Collection Date: 7/17/2019 14:35

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-8
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	65		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	65		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:12
ALUMINUM	100		100	UG/L	10	7/24/2019 12:12
ARSENIC	ND		2	UG/L	10	7/24/2019 12:12
BORON	ND		150	UG/L	10	7/24/2019 12:12
BARIUM	26		5	UG/L	10	7/24/2019 12:12
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:12
CALCIUM	400000		1000	UG/L	10	7/24/2019 12:12
CADMIUM	ND		2	UG/L	10	7/24/2019 12:12
COBALT	ND		5	UG/L	10	7/24/2019 12:12
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:12
COPPER	ND		20	UG/L	10	7/24/2019 12:12
IRON	110		100	UG/L	10	7/24/2019 12:12
POTASSIUM	5000		1000	UG/L	10	7/24/2019 12:12
LITHIUM	ND		20	UG/L	10	7/24/2019 12:12
MAGNESIUM	22000		100	UG/L	10	7/24/2019 12:12
MANGANESE	ND		5	UG/L	10	7/24/2019 12:12
MOLYBDENUM	6.3		2	UG/L	10	7/24/2019 12:12
SODIUM	15000		1000	UG/L	10	7/24/2019 12:12
NICKEL	ND		20	UG/L	10	7/24/2019 12:12
LEAD	ND		2	UG/L	10	7/24/2019 12:12
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:12
SELENIUM	19		10	UG/L	10	7/24/2019 12:12
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:12
URANIUM	31		0.1	UG/L	10	7/24/2019 12:12
VANADIUM	ND		5	UG/L	10	7/24/2019 12:12
ZINC	ND		100	UG/L	10	7/24/2019 12:12
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	22		2	MG/L	10	7/19/2019 22:02
FLUORIDE	0.58		0.1	MG/L	1	7/19/2019 21:50
NITRATE AS N	5.1		0.2	MG/L	1	7/19/2019 21:50
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 21:50
SULFATE	860		10	MG/L	10	7/19/2019 22:02
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:22
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.38		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 7/17/2019 14:35

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-8
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1600		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-09
 Legal Location:
 Collection Date: 7/17/2019 15:42

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-9
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	63		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	63		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:15
ALUMINUM	380		100	UG/L	10	7/24/2019 12:15
ARSENIC	ND		2	UG/L	10	7/24/2019 12:15
BORON	ND		150	UG/L	10	7/24/2019 12:15
BARIUM	14		5	UG/L	10	7/24/2019 12:15
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:15
CALCIUM	250000		1000	UG/L	10	7/24/2019 12:15
CADMIUM	ND		2	UG/L	10	7/24/2019 12:15
COBALT	ND		5	UG/L	10	7/24/2019 12:15
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:15
COPPER	ND		20	UG/L	10	7/24/2019 12:15
IRON	520		100	UG/L	10	7/24/2019 12:15
POTASSIUM	3100		1000	UG/L	10	7/24/2019 12:15
LITHIUM	22		20	UG/L	10	7/24/2019 12:15
MAGNESIUM	15000		100	UG/L	10	7/24/2019 12:15
MANGANESE	9.2		5	UG/L	10	7/24/2019 12:15
MOLYBDENUM	4.1		2	UG/L	10	7/24/2019 12:15
SODIUM	15000		1000	UG/L	10	7/24/2019 12:15
NICKEL	ND		20	UG/L	10	7/24/2019 12:15
LEAD	ND		2	UG/L	10	7/24/2019 12:15
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:15
SELENIUM	12		10	UG/L	10	7/24/2019 12:15
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:15
URANIUM	23		0.1	UG/L	10	7/24/2019 12:15
VANADIUM	ND		5	UG/L	10	7/24/2019 12:15
ZINC	ND		100	UG/L	10	7/24/2019 12:15
Ion Chromatography						
			EPA300.0		Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	10		0.2	MG/L	1	7/19/2019 22:14
FLUORIDE	0.69		0.1	MG/L	1	7/19/2019 22:14
NITRATE AS N	1.6		0.2	MG/L	1	7/19/2019 22:14
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 22:14
SULFATE	500		10	MG/L	10	7/19/2019 22:26
Mercury						
			SW7470		Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:24
pH						
			SM4500-H		Prep Date: 7/19/2019	PrepBy: LMC
PH	7.3		0.1	pH	1	7/19/2019
Total Cyanide						
			SW9014		Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids						
			SM2540C		Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-09
Legal Location:
Collection Date: 7/17/2019 15:42

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1000		20	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 7/17/2019 16:25

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	26		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	26		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:18
ALUMINUM	790		100	UG/L	10	7/24/2019 12:18
ARSENIC	ND		2	UG/L	10	7/24/2019 12:18
BORON	ND		150	UG/L	10	7/24/2019 12:18
BARIUM	44		5	UG/L	10	7/24/2019 12:18
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:18
CALCIUM	34000		1000	UG/L	10	7/24/2019 12:18
CADMIUM	ND		2	UG/L	10	7/24/2019 12:18
COBALT	ND		5	UG/L	10	7/24/2019 12:18
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:18
COPPER	ND		20	UG/L	10	7/24/2019 12:18
IRON	1100		100	UG/L	10	7/24/2019 12:18
POTASSIUM	1100		1000	UG/L	10	7/24/2019 12:18
LITHIUM	ND		20	UG/L	10	7/24/2019 12:18
MAGNESIUM	4500		100	UG/L	10	7/24/2019 12:18
MANGANESE	22		5	UG/L	10	7/24/2019 12:18
MOLYBDENUM	ND		2	UG/L	10	7/24/2019 12:18
SODIUM	5100		1000	UG/L	10	7/24/2019 12:18
NICKEL	ND		20	UG/L	10	7/24/2019 12:18
LEAD	ND		2	UG/L	10	7/24/2019 12:18
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:18
SELENIUM	ND		10	UG/L	10	7/24/2019 12:18
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:18
URANIUM	0.91		0.1	UG/L	10	7/24/2019 12:18
VANADIUM	ND		5	UG/L	10	7/24/2019 12:18
ZINC	ND		100	UG/L	10	7/24/2019 12:18
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	1.8		0.2	MG/L	1	7/19/2019 22:39
FLUORIDE	0.3		0.1	MG/L	1	7/19/2019 22:39
NITRATE AS N	ND		0.2	MG/L	1	7/19/2019 22:39
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 22:39
SULFATE	19		1	MG/L	1	7/19/2019 22:39
Mercury		SW7470			Prep Date: 7/22/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/23/2019 11:26
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.68		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 7/17/2019 16:25

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	120		20	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-10
 Legal Location:
 Collection Date: 7/18/2019 10:10

Date: 31-Jul-19
 Work Order: 1907382
 Lab ID: 1907382-11
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	65		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	65		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:21
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:21
ARSENIC	ND		2	UG/L	10	7/24/2019 12:21
BORON	ND		150	UG/L	10	7/24/2019 12:21
BARIUM	20		5	UG/L	10	7/24/2019 12:21
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:21
CALCIUM	340000		1000	UG/L	10	7/24/2019 12:21
CADMIUM	ND		2	UG/L	10	7/24/2019 12:21
COBALT	ND		5	UG/L	10	7/24/2019 12:21
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:21
COPPER	ND		20	UG/L	10	7/24/2019 12:21
IRON	ND		100	UG/L	10	7/24/2019 12:21
POTASSIUM	3200		1000	UG/L	10	7/24/2019 12:21
LITHIUM	26		20	UG/L	10	7/24/2019 12:21
MAGNESIUM	20000		100	UG/L	10	7/24/2019 12:21
MANGANESE	ND		5	UG/L	10	7/24/2019 12:21
MOLYBDENUM	3.3		2	UG/L	10	7/24/2019 12:21
SODIUM	17000		1000	UG/L	10	7/24/2019 12:21
NICKEL	ND		20	UG/L	10	7/24/2019 12:21
LEAD	ND		2	UG/L	10	7/24/2019 12:21
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:21
SELENIUM	16		10	UG/L	10	7/24/2019 12:21
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:21
URANIUM	31		0.1	UG/L	10	7/24/2019 12:21
VANADIUM	ND		5	UG/L	10	7/24/2019 12:21
ZINC	ND		100	UG/L	10	7/24/2019 12:21
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	17		0.2	MG/L	1	7/19/2019 22:51
FLUORIDE	0.6		0.1	MG/L	1	7/19/2019 22:51
NITRATE AS N	1.7		0.2	MG/L	1	7/19/2019 22:51
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 22:51
SULFATE	720		10	MG/L	10	7/19/2019 23:03
Mercury		SW7470			Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:37
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.46		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-10
Legal Location:
Collection Date: 7/18/2019 10:10

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 7/18/2019 11:45

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	31		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	31		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:24
ALUMINUM	120		100	UG/L	10	7/24/2019 12:24
ARSENIC	ND		2	UG/L	10	7/24/2019 12:24
BORON	ND		150	UG/L	10	7/24/2019 12:24
BARIUM	38		5	UG/L	10	7/24/2019 12:24
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:24
CALCIUM	52000		1000	UG/L	10	7/24/2019 12:24
CADMIUM	ND		2	UG/L	10	7/24/2019 12:24
COBALT	ND		5	UG/L	10	7/24/2019 12:24
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:24
COPPER	ND		20	UG/L	10	7/24/2019 12:24
IRON	130		100	UG/L	10	7/24/2019 12:24
POTASSIUM	1100		1000	UG/L	10	7/24/2019 12:24
LITHIUM	ND		20	UG/L	10	7/24/2019 12:24
MAGNESIUM	6600		100	UG/L	10	7/24/2019 12:24
MANGANESE	ND		5	UG/L	10	7/24/2019 12:24
MOLYBDENUM	2.7		2	UG/L	10	7/24/2019 12:24
SODIUM	5500		1000	UG/L	10	7/24/2019 12:24
NICKEL	ND		20	UG/L	10	7/24/2019 12:24
LEAD	ND		2	UG/L	10	7/24/2019 12:24
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:24
SELENIUM	ND		10	UG/L	10	7/24/2019 12:24
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:24
URANIUM	1.8		0.1	UG/L	10	7/24/2019 12:24
VANADIUM	ND		5	UG/L	10	7/24/2019 12:24
ZINC	ND		100	UG/L	10	7/24/2019 12:24
Ion Chromatography		EPA300.0			Prep Date: 7/19/2019	PrepBy: LML
CHLORIDE	5.2		0.2	MG/L	1	7/19/2019 23:15
FLUORIDE	0.32		0.1	MG/L	1	7/19/2019 23:15
NITRATE AS N	ND		0.2	MG/L	1	7/19/2019 23:15
NITRITE AS N	ND		0.1	MG/L	1	7/19/2019 23:15
SULFATE	57		1	MG/L	1	7/19/2019 23:15
Mercury		SW7470			Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:39
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.82		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 7/18/2019 11:45

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	210		20	MG/L	1	7/23/2019

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 7/18/2019 13:55

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 7/26/2019	PrepBy: LMC
BICARBONATE AS CaCO3	40		5	MG/L	1	7/26/2019
CARBONATE AS CaCO3	ND		5	MG/L	1	7/26/2019
TOTAL ALKALINITY AS CaCO3	40		5	MG/L	1	7/26/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:42
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:42
ARSENIC	ND		2	UG/L	10	7/24/2019 12:42
BORON	ND		150	UG/L	10	7/24/2019 12:42
BARIUM	25		5	UG/L	10	7/24/2019 12:42
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:42
CALCIUM	140000		1000	UG/L	10	7/24/2019 12:42
CADMIUM	ND		2	UG/L	10	7/24/2019 12:42
COBALT	ND		5	UG/L	10	7/24/2019 12:42
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:42
COPPER	ND		20	UG/L	10	7/24/2019 12:42
IRON	130		100	UG/L	10	7/24/2019 12:42
POTASSIUM	1500		1000	UG/L	10	7/24/2019 12:42
LITHIUM	ND		20	UG/L	10	7/24/2019 12:42
MAGNESIUM	11000		100	UG/L	10	7/24/2019 12:42
MANGANESE	ND		5	UG/L	10	7/24/2019 12:42
MOLYBDENUM	4.3		2	UG/L	10	7/24/2019 12:42
SODIUM	13000		1000	UG/L	10	7/24/2019 12:42
NICKEL	ND		20	UG/L	10	7/24/2019 12:42
LEAD	ND		2	UG/L	10	7/24/2019 12:42
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:42
SELENIUM	ND		10	UG/L	10	7/24/2019 12:42
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:42
URANIUM	4.2		0.1	UG/L	10	7/24/2019 12:42
VANADIUM	ND		5	UG/L	10	7/24/2019 12:42
ZINC	ND		100	UG/L	10	7/24/2019 12:42
Ion Chromatography		EPA300.0			Prep Date: 7/22/2019	PrepBy: LML
SULFATE	270		10	MG/L	10	7/22/2019 14:02
Mercury		SW7470			Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:41
pH		SM4500-H			Prep Date: 7/19/2019	PrepBy: LMC
PH	7.59		0.1	pH	1	7/19/2019
Total Cyanide		SW9014			Prep Date: 7/22/2019	PrepBy: DMS
CYANIDE, TOTAL	0.0054		0.005	MG/L	1	7/25/2019
Total Dissolved Solids		SM2540C			Prep Date: 7/22/2019	PrepBy: LMC
TOTAL DISSOLVED SOLIDS	580		20	MG/L	1	7/23/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-1
Legal Location:
Collection Date: 7/16/2019 10:45

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:45
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:45
ARSENIC	ND		2	UG/L	10	7/24/2019 12:45
BORON	ND		150	UG/L	10	7/24/2019 12:45
BARIUM	18		5	UG/L	10	7/24/2019 12:45
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:45
CALCIUM	360000		1000	UG/L	10	7/24/2019 12:45
CADMIUM	ND		2	UG/L	10	7/24/2019 12:45
COBALT	ND		5	UG/L	10	7/24/2019 12:45
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:45
COPPER	ND		20	UG/L	10	7/24/2019 12:45
IRON	120		100	UG/L	10	7/24/2019 12:45
POTASSIUM	3200		1000	UG/L	10	7/24/2019 12:45
LITHIUM	26		20	UG/L	10	7/24/2019 12:45
MAGNESIUM	21000		100	UG/L	10	7/24/2019 12:45
MANGANESE	260		5	UG/L	10	7/24/2019 12:45
MOLYBDENUM	3.7		2	UG/L	10	7/24/2019 12:45
SODIUM	18000		1000	UG/L	10	7/24/2019 12:45
NICKEL	ND		20	UG/L	10	7/24/2019 12:45
LEAD	ND		2	UG/L	10	7/24/2019 12:45
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:45
SELENIUM	12		10	UG/L	10	7/24/2019 12:45
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:45
URANIUM	28		0.1	UG/L	10	7/24/2019 12:45
VANADIUM	ND		5	UG/L	10	7/24/2019 12:45
ZINC	ND		100	UG/L	10	7/24/2019 12:45
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:43

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-2
Legal Location:
Collection Date: 7/16/2019 12:00

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:48
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:48
ARSENIC	ND		2	UG/L	10	7/24/2019 12:48
BORON	ND		150	UG/L	10	7/24/2019 12:48
BARIUM	17		5	UG/L	10	7/24/2019 12:48
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:48
CALCIUM	360000		1000	UG/L	10	7/24/2019 12:48
CADMIUM	ND		2	UG/L	10	7/24/2019 12:48
COBALT	ND		5	UG/L	10	7/24/2019 12:48
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:48
COPPER	ND		20	UG/L	10	7/24/2019 12:48
IRON	ND		100	UG/L	10	7/24/2019 12:48
POTASSIUM	3000		1000	UG/L	10	7/24/2019 12:48
LITHIUM	27		20	UG/L	10	7/24/2019 12:48
MAGNESIUM	21000		100	UG/L	10	7/24/2019 12:48
MANGANESE	ND		5	UG/L	10	7/24/2019 12:48
MOLYBDENUM	4.2		2	UG/L	10	7/24/2019 12:48
SODIUM	19000		1000	UG/L	10	7/24/2019 12:48
NICKEL	ND		20	UG/L	10	7/24/2019 12:48
LEAD	ND		2	UG/L	10	7/24/2019 12:48
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:48
SELENIUM	17		10	UG/L	10	7/24/2019 12:48
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:48
URANIUM	28		0.1	UG/L	10	7/24/2019 12:48
VANADIUM	ND		5	UG/L	10	7/24/2019 12:48
ZINC	ND		100	UG/L	10	7/24/2019 12:48
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:46

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-4
Legal Location:
Collection Date: 7/16/2019 13:20

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:51
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:51
ARSENIC	ND		2	UG/L	10	7/24/2019 12:51
BORON	ND		150	UG/L	10	7/24/2019 12:51
BARIUM	110		5	UG/L	10	7/24/2019 12:51
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:51
CALCIUM	320000		1000	UG/L	10	7/24/2019 12:51
CADMIUM	ND		2	UG/L	10	7/24/2019 12:51
COBALT	ND		5	UG/L	10	7/24/2019 12:51
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:51
COPPER	ND		20	UG/L	10	7/24/2019 12:51
IRON	370		100	UG/L	10	7/24/2019 12:51
POTASSIUM	4500		1000	UG/L	10	7/24/2019 12:51
LITHIUM	ND		20	UG/L	10	7/24/2019 12:51
MAGNESIUM	20000		100	UG/L	10	7/24/2019 12:51
MANGANESE	360		5	UG/L	10	7/24/2019 12:51
MOLYBDENUM	9.1		2	UG/L	10	7/24/2019 12:51
SODIUM	13000		1000	UG/L	10	7/24/2019 12:51
NICKEL	ND		20	UG/L	10	7/24/2019 12:51
LEAD	ND		2	UG/L	10	7/24/2019 12:51
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:51
SELENIUM	15		10	UG/L	10	7/24/2019 12:51
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:51
URANIUM	22		0.1	UG/L	10	7/24/2019 12:51
VANADIUM	ND		5	UG/L	10	7/24/2019 12:51
ZINC	ND		100	UG/L	10	7/24/2019 12:51
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:48

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-3
Legal Location:
Collection Date: 7/16/2019 14:35

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-17
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:54
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:54
ARSENIC	ND		2	UG/L	10	7/24/2019 12:54
BORON	ND		150	UG/L	10	7/24/2019 12:54
BARIUM	35		5	UG/L	10	7/24/2019 12:54
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:54
CALCIUM	380000		1000	UG/L	10	7/24/2019 12:54
CADMIUM	ND		2	UG/L	10	7/24/2019 12:54
COBALT	ND		5	UG/L	10	7/24/2019 12:54
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:54
COPPER	ND		20	UG/L	10	7/24/2019 12:54
IRON	ND		100	UG/L	10	7/24/2019 12:54
POTASSIUM	4000		1000	UG/L	10	7/24/2019 12:54
LITHIUM	ND		20	UG/L	10	7/24/2019 12:54
MAGNESIUM	21000		100	UG/L	10	7/24/2019 12:54
MANGANESE	6.2		5	UG/L	10	7/24/2019 12:54
MOLYBDENUM	6.8		2	UG/L	10	7/24/2019 12:54
SODIUM	15000		1000	UG/L	10	7/24/2019 12:54
NICKEL	ND		20	UG/L	10	7/24/2019 12:54
LEAD	ND		2	UG/L	10	7/24/2019 12:54
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:54
SELENIUM	29		10	UG/L	10	7/24/2019 12:54
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:54
URANIUM	31		0.1	UG/L	10	7/24/2019 12:54
VANADIUM	ND		5	UG/L	10	7/24/2019 12:54
ZINC	ND		100	UG/L	10	7/24/2019 12:54
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:54

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 7/17/2019 12:00

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-18
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 12:57
ALUMINUM	ND		100	UG/L	10	7/24/2019 12:57
ARSENIC	ND		2	UG/L	10	7/24/2019 12:57
BORON	ND		150	UG/L	10	7/24/2019 12:57
BARIUM	30		5	UG/L	10	7/24/2019 12:57
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 12:57
CALCIUM	100000		1000	UG/L	10	7/24/2019 12:57
CADMIUM	ND		2	UG/L	10	7/24/2019 12:57
COBALT	ND		5	UG/L	10	7/24/2019 12:57
CHROMIUM	ND		10	UG/L	10	7/24/2019 12:57
COPPER	ND		20	UG/L	10	7/24/2019 12:57
IRON	ND		100	UG/L	10	7/24/2019 12:57
POTASSIUM	1600		1000	UG/L	10	7/24/2019 12:57
LITHIUM	ND		20	UG/L	10	7/24/2019 12:57
MAGNESIUM	24000		100	UG/L	10	7/24/2019 12:57
MANGANESE	ND		5	UG/L	10	7/24/2019 12:57
MOLYBDENUM	2.9		2	UG/L	10	7/24/2019 12:57
SODIUM	24000		1000	UG/L	10	7/24/2019 12:57
NICKEL	ND		20	UG/L	10	7/24/2019 12:57
LEAD	ND		2	UG/L	10	7/24/2019 12:57
ANTIMONY	ND		1	UG/L	10	7/24/2019 12:57
SELENIUM	ND		10	UG/L	10	7/24/2019 12:57
THALLIUM	ND		0.1	UG/L	10	7/24/2019 12:57
URANIUM	3.4		0.1	UG/L	10	7/24/2019 12:57
VANADIUM	ND		5	UG/L	10	7/24/2019 12:57
ZINC	ND		100	UG/L	10	7/24/2019 12:57
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:56

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-05
Legal Location:
Collection Date: 7/17/2019 13:05

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-19
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:29
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:29
ARSENIC	ND		2	UG/L	10	7/24/2019 13:29
BORON	ND		150	UG/L	10	7/24/2019 13:29
BARIUM	30		5	UG/L	10	7/24/2019 13:29
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:29
CALCIUM	150000		1000	UG/L	10	7/24/2019 13:29
CADMIUM	ND		2	UG/L	10	7/24/2019 13:29
COBALT	ND		5	UG/L	10	7/24/2019 13:29
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:29
COPPER	ND		20	UG/L	10	7/24/2019 13:29
IRON	ND		100	UG/L	10	7/24/2019 13:29
POTASSIUM	1900		1000	UG/L	10	7/24/2019 13:29
LITHIUM	ND		20	UG/L	10	7/24/2019 13:29
MAGNESIUM	11000		100	UG/L	10	7/24/2019 13:29
MANGANESE	ND		5	UG/L	10	7/24/2019 13:29
MOLYBDENUM	19		2	UG/L	10	7/24/2019 13:29
SODIUM	20000		1000	UG/L	10	7/24/2019 13:29
NICKEL	ND		20	UG/L	10	7/24/2019 13:29
LEAD	ND		2	UG/L	10	7/24/2019 13:29
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:29
SELENIUM	16		10	UG/L	10	7/24/2019 13:29
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:29
URANIUM	8.3		0.1	UG/L	10	7/24/2019 13:29
VANADIUM	ND		5	UG/L	10	7/24/2019 13:29
ZINC	ND		100	UG/L	10	7/24/2019 13:29
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 12:59

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-08
Legal Location:
Collection Date: 7/17/2019 14:10

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-20
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:32
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:32
ARSENIC	ND		2	UG/L	10	7/24/2019 13:32
BORON	ND		150	UG/L	10	7/24/2019 13:32
BARIUM	26		5	UG/L	10	7/24/2019 13:32
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:32
CALCIUM	310000		1000	UG/L	10	7/24/2019 13:32
CADMIUM	ND		2	UG/L	10	7/24/2019 13:32
COBALT	ND		5	UG/L	10	7/24/2019 13:32
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:32
COPPER	ND		20	UG/L	10	7/24/2019 13:32
IRON	ND		100	UG/L	10	7/24/2019 13:32
POTASSIUM	2600		1000	UG/L	10	7/24/2019 13:32
LITHIUM	ND		20	UG/L	10	7/24/2019 13:32
MAGNESIUM	15000		100	UG/L	10	7/24/2019 13:32
MANGANESE	ND		5	UG/L	10	7/24/2019 13:32
MOLYBDENUM	8		2	UG/L	10	7/24/2019 13:32
SODIUM	15000		1000	UG/L	10	7/24/2019 13:32
NICKEL	ND		20	UG/L	10	7/24/2019 13:32
LEAD	ND		2	UG/L	10	7/24/2019 13:32
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:32
SELENIUM	19		10	UG/L	10	7/24/2019 13:32
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:32
URANIUM	24		0.1	UG/L	10	7/24/2019 13:32
VANADIUM	ND		5	UG/L	10	7/24/2019 13:32
ZINC	ND		100	UG/L	10	7/24/2019 13:32
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:01

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 7/17/2019 14:35

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-21
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:35
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:35
ARSENIC	ND		2	UG/L	10	7/24/2019 13:35
BORON	ND		150	UG/L	10	7/24/2019 13:35
BARIUM	26		5	UG/L	10	7/24/2019 13:35
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:35
CALCIUM	400000		1000	UG/L	10	7/24/2019 13:35
CADMIUM	ND		2	UG/L	10	7/24/2019 13:35
COBALT	ND		5	UG/L	10	7/24/2019 13:35
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:35
COPPER	ND		20	UG/L	10	7/24/2019 13:35
IRON	ND		100	UG/L	10	7/24/2019 13:35
POTASSIUM	5100		1000	UG/L	10	7/24/2019 13:35
LITHIUM	ND		20	UG/L	10	7/24/2019 13:35
MAGNESIUM	23000		100	UG/L	10	7/24/2019 13:35
MANGANESE	ND		5	UG/L	10	7/24/2019 13:35
MOLYBDENUM	6.7		2	UG/L	10	7/24/2019 13:35
SODIUM	15000		1000	UG/L	10	7/24/2019 13:35
NICKEL	ND		20	UG/L	10	7/24/2019 13:35
LEAD	ND		2	UG/L	10	7/24/2019 13:35
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:35
SELENIUM	17		10	UG/L	10	7/24/2019 13:35
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:35
URANIUM	31		0.1	UG/L	10	7/24/2019 13:35
VANADIUM	ND		5	UG/L	10	7/24/2019 13:35
ZINC	ND		100	UG/L	10	7/24/2019 13:35
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:03

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-09
Legal Location:
Collection Date: 7/17/2019 15:42

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-22
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:38
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:38
ARSENIC	ND		2	UG/L	10	7/24/2019 13:38
BORON	ND		150	UG/L	10	7/24/2019 13:38
BARIUM	11		5	UG/L	10	7/24/2019 13:38
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:38
CALCIUM	260000		1000	UG/L	10	7/24/2019 13:38
CADMIUM	ND		2	UG/L	10	7/24/2019 13:38
COBALT	ND		5	UG/L	10	7/24/2019 13:38
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:38
COPPER	ND		20	UG/L	10	7/24/2019 13:38
IRON	ND		100	UG/L	10	7/24/2019 13:38
POTASSIUM	3000		1000	UG/L	10	7/24/2019 13:38
LITHIUM	22		20	UG/L	10	7/24/2019 13:38
MAGNESIUM	14000		100	UG/L	10	7/24/2019 13:38
MANGANESE	ND		5	UG/L	10	7/24/2019 13:38
MOLYBDENUM	4		2	UG/L	10	7/24/2019 13:38
SODIUM	16000		1000	UG/L	10	7/24/2019 13:38
NICKEL	ND		20	UG/L	10	7/24/2019 13:38
LEAD	ND		2	UG/L	10	7/24/2019 13:38
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:38
SELENIUM	12		10	UG/L	10	7/24/2019 13:38
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:38
URANIUM	23		0.1	UG/L	10	7/24/2019 13:38
VANADIUM	ND		5	UG/L	10	7/24/2019 13:38
ZINC	ND		100	UG/L	10	7/24/2019 13:38
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:05

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 7/17/2019 16:25

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-23
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:41
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:41
ARSENIC	ND		2	UG/L	10	7/24/2019 13:41
BORON	ND		150	UG/L	10	7/24/2019 13:41
BARIUM	34		5	UG/L	10	7/24/2019 13:41
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:41
CALCIUM	33000		1000	UG/L	10	7/24/2019 13:41
CADMIUM	ND		2	UG/L	10	7/24/2019 13:41
COBALT	ND		5	UG/L	10	7/24/2019 13:41
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:41
COPPER	ND		20	UG/L	10	7/24/2019 13:41
IRON	ND		100	UG/L	10	7/24/2019 13:41
POTASSIUM	ND		1000	UG/L	10	7/24/2019 13:41
LITHIUM	ND		20	UG/L	10	7/24/2019 13:41
MAGNESIUM	4200		100	UG/L	10	7/24/2019 13:41
MANGANESE	ND		5	UG/L	10	7/24/2019 13:41
MOLYBDENUM	ND		2	UG/L	10	7/24/2019 13:41
SODIUM	5200		1000	UG/L	10	7/24/2019 13:41
NICKEL	ND		20	UG/L	10	7/24/2019 13:41
LEAD	ND		2	UG/L	10	7/24/2019 13:41
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:41
SELENIUM	ND		10	UG/L	10	7/24/2019 13:41
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:41
URANIUM	0.86		0.1	UG/L	10	7/24/2019 13:41
VANADIUM	ND		5	UG/L	10	7/24/2019 13:41
ZINC	ND		100	UG/L	10	7/24/2019 13:41
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:07

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-10
Legal Location:
Collection Date: 7/18/2019 10:10

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-24
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:44
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:44
ARSENIC	ND		2	UG/L	10	7/24/2019 13:44
BORON	ND		150	UG/L	10	7/24/2019 13:44
BARIUM	18		5	UG/L	10	7/24/2019 13:44
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:44
CALCIUM	340000		1000	UG/L	10	7/24/2019 13:44
CADMIUM	ND		2	UG/L	10	7/24/2019 13:44
COBALT	ND		5	UG/L	10	7/24/2019 13:44
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:44
COPPER	ND		20	UG/L	10	7/24/2019 13:44
IRON	230		100	UG/L	10	7/24/2019 13:44
POTASSIUM	3300		1000	UG/L	10	7/24/2019 13:44
LITHIUM	27		20	UG/L	10	7/24/2019 13:44
MAGNESIUM	21000		100	UG/L	10	7/24/2019 13:44
MANGANESE	ND		5	UG/L	10	7/24/2019 13:44
MOLYBDENUM	3.2		2	UG/L	10	7/24/2019 13:44
SODIUM	17000		1000	UG/L	10	7/24/2019 13:44
NICKEL	ND		20	UG/L	10	7/24/2019 13:44
LEAD	ND		2	UG/L	10	7/24/2019 13:44
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:44
SELENIUM	16		10	UG/L	10	7/24/2019 13:44
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:44
URANIUM	32		0.1	UG/L	10	7/24/2019 13:44
VANADIUM	ND		5	UG/L	10	7/24/2019 13:44
ZINC	ND		100	UG/L	10	7/24/2019 13:44
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:09

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 7/18/2019 11:45

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-25
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 13:47
ALUMINUM	ND		100	UG/L	10	7/24/2019 13:47
ARSENIC	ND		2	UG/L	10	7/24/2019 13:47
BORON	ND		150	UG/L	10	7/24/2019 13:47
BARIUM	38		5	UG/L	10	7/24/2019 13:47
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 13:47
CALCIUM	55000		1000	UG/L	10	7/24/2019 13:47
CADMIUM	ND		2	UG/L	10	7/24/2019 13:47
COBALT	ND		5	UG/L	10	7/24/2019 13:47
CHROMIUM	ND		10	UG/L	10	7/24/2019 13:47
COPPER	ND		20	UG/L	10	7/24/2019 13:47
IRON	ND		100	UG/L	10	7/24/2019 13:47
POTASSIUM	1000		1000	UG/L	10	7/24/2019 13:47
LITHIUM	ND		20	UG/L	10	7/24/2019 13:47
MAGNESIUM	6400		100	UG/L	10	7/24/2019 13:47
MANGANESE	ND		5	UG/L	10	7/24/2019 13:47
MOLYBDENUM	2.6		2	UG/L	10	7/24/2019 13:47
SODIUM	5700		1000	UG/L	10	7/24/2019 13:47
NICKEL	ND		20	UG/L	10	7/24/2019 13:47
LEAD	ND		2	UG/L	10	7/24/2019 13:47
ANTIMONY	ND		1	UG/L	10	7/24/2019 13:47
SELENIUM	ND		10	UG/L	10	7/24/2019 13:47
THALLIUM	ND		0.1	UG/L	10	7/24/2019 13:47
URANIUM	1.8		0.1	UG/L	10	7/24/2019 13:47
VANADIUM	ND		5	UG/L	10	7/24/2019 13:47
ZINC	ND		100	UG/L	10	7/24/2019 13:47
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:11

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 7/18/2019 13:55

Date: 31-Jul-19
Work Order: 1907382
Lab ID: 1907382-26
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 7/20/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	7/24/2019 14:02
ALUMINUM	ND		100	UG/L	10	7/24/2019 14:02
ARSENIC	ND		2	UG/L	10	7/24/2019 14:02
BORON	ND		150	UG/L	10	7/24/2019 14:02
BARIUM	23		5	UG/L	10	7/24/2019 14:02
BERYLLIUM	ND		0.5	UG/L	10	7/24/2019 14:02
CALCIUM	140000		1000	UG/L	10	7/24/2019 14:02
CADMIUM	ND		2	UG/L	10	7/24/2019 14:02
COBALT	ND		5	UG/L	10	7/24/2019 14:02
CHROMIUM	ND		10	UG/L	10	7/24/2019 14:02
COPPER	ND		20	UG/L	10	7/24/2019 14:02
IRON	ND		100	UG/L	10	7/24/2019 14:02
POTASSIUM	1400		1000	UG/L	10	7/24/2019 14:02
LITHIUM	ND		20	UG/L	10	7/24/2019 14:02
MAGNESIUM	11000		100	UG/L	10	7/24/2019 14:02
MANGANESE	ND		5	UG/L	10	7/24/2019 14:02
MOLYBDENUM	4.3		2	UG/L	10	7/24/2019 14:02
SODIUM	13000		1000	UG/L	10	7/24/2019 14:02
NICKEL	ND		20	UG/L	10	7/24/2019 14:02
LEAD	ND		2	UG/L	10	7/24/2019 14:02
ANTIMONY	ND		1	UG/L	10	7/24/2019 14:02
SELENIUM	ND		10	UG/L	10	7/24/2019 14:02
THALLIUM	ND		0.1	UG/L	10	7/24/2019 14:02
URANIUM	4.3		0.1	UG/L	10	7/24/2019 14:02
VANADIUM	ND		5	UG/L	10	7/24/2019 14:02
ZINC	ND		100	UG/L	10	7/24/2019 14:02
Dissolved Mercury						
			SW7470		Prep Date: 7/29/2019	PrepBy: KJM
MERCURY	ND		0.0002	MG/L	1	7/31/2019 13:18

Client:	Telesto Solutions Inc	Date:	31-Jul-19
Project:	360100 LRM - Knox Pit	Work Order:	1907382
Sample ID:	MW-12	Lab ID:	1907382-26
Legal Location:		Matrix:	WATER
Collection Date:	7/18/2019 13:55	Percent Moisture:	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

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Date: 7/31/2019 4:13:

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG190722-2-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG190722-2			Units: MG/L			Analysis Date: 7/23/2019 10:11					
Client ID:	Run ID: HG190723-1A1			Prep Date: 7/22/2019			DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.000992	0.0002	0.001		99	80-120				20		

MB	Sample ID: HG190722-2			Units: MG/L			Analysis Date: 7/23/2019 10:09					
Client ID:	Run ID: HG190723-1A1			Prep Date: 7/22/2019			DF: 1					
Analyte	Result	ReportLimit									Qual	
MERCURY	ND	0.0002										

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10		

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG190729-1-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG190729-1			Units: MG/L			Analysis Date: 7/31/2019 12:35				
Client ID:		Run ID: HG190731-2A1			Prep Date: 7/29/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.00102	0.0002	0.001		102	80-120				20	

MB		Sample ID: HG190729-1			Units: MG/L		Analysis Date: 7/31/2019 12:33	
Client ID:		Run ID: HG190731-2A1			Prep Date: 7/29/2019		DF: 1	
Analyte		Result	ReportLimit					
MERCURY		ND	0.0002					

The following samples were analyzed in this batch:

1907382-11	1907382-12	1907382-13
1907382-14	1907382-15	1907382-16
1907382-17	1907382-18	1907382-19
1907382-20	1907382-21	1907382-22
1907382-23	1907382-24	1907382-25
1907382-26		

Client: Telesto Solutions Inc
 Work Order: 1907382
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190720-1-1** Instrument ID **ICPMS2** Method: **SW6020**

LCS Sample ID: **IM190720-1** Units: **UG/L** Analysis Date: **7/24/2019 11:12**

Client ID: Run ID: **IM190724-10A7** Prep Date: **7/20/2019** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4500	100	5000		90	80-120				20	
ANTIMONY	30	1	30		100	80-120				20	
ARSENIC	104	2	100		104	80-120				20	
BARIUM	93.8	5	100		94	80-120				20	
BERYLLIUM	45.5	0.5	50		91	80-120				20	
BORON	1020	150	1000		102	80-120				20	
CADMIUM	30.6	2	30		102	80-120				20	
CALCIUM	10000	1000	10000		100	80-120				20	
CHROMIUM	497	10	500		99	80-120				20	
COBALT	103	5	100		103	80-120				20	
COPPER	987	20	1000		99	80-120				20	
IRON	4870	100	5000		97	80-120				20	
LEAD	49.3	2	50		99	80-120				20	
LITHIUM	967	20	1000		97	80-120				20	
MAGNESIUM	9760	100	10000		98	80-120				20	
MANGANESE	101	5	100		101	80-120				20	
MOLYBDENUM	99.6	2	100		100	80-120				20	
NICKEL	495	20	500		99	80-120				20	
POTASSIUM	4840	1000	5000		97	80-120				20	
SELENIUM	106	10	100		106	80-120				20	
SILVER	10.1	0.5	10		101	80-120				20	
SODIUM	9490	1000	10000		95	80-120				20	
THALLIUM	1.96	0.1	2		98	80-120				20	
URANIUM	9.83	0.1	10		98	80-120				20	
VANADIUM	97.7	5	100		98	80-120				20	
ZINC	1970	100	2000		99	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190720-1-1** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP190720-1** Units: **UG/L** Analysis Date: **7/24/2019 11:09**
Client ID: Run ID: **IM190724-10A7** Prep Date: **7/20/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12
1907382-13	1907382-14	1907382-15
1907382-16	1907382-17	1907382-18

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190720-2-1** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM190720-2			Units: UG/L		Analysis Date: 7/24/2019 13:23				
Client ID:		Run ID: IM190724-10A7				Prep Date: 7/20/2019			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4410	100	5000		88	80-120				20	
ANTIMONY	29.8	1	30		99	80-120				20	
ARSENIC	102	2	100		102	80-120				20	
BARIUM	92.4	5	100		92	80-120				20	
BERYLLIUM	48.5	0.5	50		97	80-120				20	
BORON	1070	150	1000		107	80-120				20	
CADMIUM	31.1	2	30		104	80-120				20	
CALCIUM	9750	1000	10000		97	80-120				20	
CHROMIUM	494	10	500		99	80-120				20	
COBALT	101	5	100		101	80-120				20	
COPPER	945	20	1000		95	80-120				20	
IRON	4870	100	5000		97	80-120				20	
LEAD	49.6	2	50		99	80-120				20	
LITHIUM	991	20	1000		99	80-120				20	
MAGNESIUM	9540	100	10000		95	80-120				20	
MANGANESE	101	5	100		101	80-120				20	
MOLYBDENUM	101	2	100		101	80-120				20	
NICKEL	490	20	500		98	80-120				20	
POTASSIUM	4830	1000	5000		97	80-120				20	
SELENIUM	106	10	100		106	80-120				20	
SILVER	10.4	0.5	10		104	80-120				20	
SODIUM	9340	1000	10000		93	80-120				20	
THALLIUM	1.93	0.1	2		96	80-120				20	
URANIUM	10.3	0.1	10		103	80-120				20	
VANADIUM	95.9	5	100		96	80-120				20	
ZINC	1980	100	2000		99	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP190720-2-1** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP190720-2** Units: **UG/L** Analysis Date: **7/24/2019 13:20**
Client ID: Run ID: **IM190724-10A7** Prep Date: **7/20/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1907382-19	1907382-20	1907382-21
1907382-22	1907382-23	1907382-24
1907382-25	1907382-26	

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK190726-1-1** Instrument ID **NONE** Method: **SM2320B**

DUP Sample ID: **1907382-5** Units: **MG/L** Analysis Date: **7/26/2019**
Client ID: **MW-02** Run ID: **AK190726-1A1** Prep Date: **7/26/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	38.7	5						40	2	15	
CARBONATE AS CaCO3	ND	5						5		15	
TOTAL ALKALINITY AS CaCO3	38.7	5						40	2	15	

LCS Sample ID: **AK190726-1** Units: **MG/L** Analysis Date: **7/26/2019**
Client ID: Run ID: **AK190726-1A1** Prep Date: **7/26/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	108	5	100		108	85-115				15	

MB Sample ID: **AK190726-1** Units: **MG/L** Analysis Date: **7/26/2019**
Client ID: Run ID: **AK190726-1A1** Prep Date: **7/26/2019** DF: **1**

Analyte	Result	ReportLimit	Qual
BICARBONATE AS CaCO3	ND	5	
CARBONATE AS CaCO3	ND	5	
TOTAL ALKALINITY AS CaCO3	ND	5	

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12
1907382-13		

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN190722-1-1** Instrument ID **Spec** Method: **SW9014**

LCS	Sample ID: CN190722-1			Units: MG/L			Analysis Date: 7/25/2019				
Client ID:	Run ID: CN190725-1A1			Prep Date: 7/22/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.197	0.005	0.2		98	85-115				30	

MB	Sample ID: CN190722-1			Units: MG/L			Analysis Date: 7/25/2019				
Client ID:	Run ID: CN190725-1A1			Prep Date: 7/22/2019			DF: 1				
Analyte	Result	ReportLimit									Qual
CYANIDE, TOTAL	ND	0.005									

MS	Sample ID: 1907382-1			Units: MG/L			Analysis Date: 7/25/2019				
Client ID: P-1	Run ID: CN190725-1A1			Prep Date: 7/22/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.106	0.005	0.1	0.005	106	75-125				30	

MSD	Sample ID: 1907382-1			Units: MG/L			Analysis Date: 7/25/2019				
Client ID: P-1	Run ID: CN190725-1A1			Prep Date: 7/22/2019			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.0995	0.005	0.1	0.005	99	75-125		0.106	7	30	

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12
1907382-13		

Client: Telesto Solutions Inc
 Work Order: 1907382
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190719-2-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC190719-2	Units: MG/L			Analysis Date: 7/19/2019 16:16						
Client ID:	Run ID: IC190719-1A1			Prep Date: 7/19/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.99	0.1	5		100	90-110				15	
CHLORIDE	10	0.2	10		100	90-110				15	
NITRITE AS N	5.01	0.1	5		100	90-110				15	
NITRATE AS N	10	0.2	10		100	90-110				15	
SULFATE	49.8	1	50		100	90-110				15	

LCSD	Sample ID: IC190719-2	Units: MG/L			Analysis Date: 7/19/2019 18:44						
Client ID:	Run ID: IC190719-1A1			Prep Date: 7/19/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	5.03	0.1	5		101	90-110		4.99	1	15	
CHLORIDE	10	0.2	10		100	90-110		10	0	15	
NITRITE AS N	5.12	0.1	5		102	90-110		5.01	2	15	
NITRATE AS N	10	0.2	10		100	90-110		10	0	15	
SULFATE	51.5	1	50		103	90-110		49.8	3	15	

MB	Sample ID: IC190719-2	Units: MG/L		Analysis Date: 7/19/2019 16:29	
Client ID:	Run ID: IC190719-1A1		Prep Date: 7/19/2019		DF: 1
Analyte	Result	ReportLimit	Qual		
FLUORIDE	ND	0.1			
CHLORIDE	ND	0.2			
NITRITE AS N	ND	0.1			
NITRATE AS N	ND	0.2			
SULFATE	ND	1			

MS	Sample ID: 1907382-5	Units: MG/L			Analysis Date: 7/19/2019 20:24						
Client ID: MW-02	Run ID: IC190719-1A1			Prep Date: 7/19/2019				DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.42	0.1	2	0.49	96	85-115				15	
CHLORIDE	18.6	0.2	5	14	91	85-115				15	
NITRITE AS N	1.86	0.1	2	0.1	93	85-115				15	
NITRATE AS N	5.27	0.2	5	0.27	100	85-115				15	

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190719-2-1** Instrument ID **IC3** Method: **EPA300.0**

MS Sample ID: **1907382-6** Units: **MG/L** Analysis Date: **7/19/2019 20:49**

Client ID: **MW-05** Run ID: **IC190719-1A1** Prep Date: **7/19/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.79	0.1	2	0.86	97	85-115				15	
CHLORIDE	19.4	0.2	5	15	91	85-115				15	
NITRITE AS N	1.79	0.1	2	0.1	90	85-115				15	
NITRATE AS N	5.42	0.2	5	0.39	101	85-115				15	

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190719-2-1** Instrument ID **IC3** Method: **EPA300.0**

MS		Sample ID: 1907382-5				Units: MG/L		Analysis Date: 7/22/2019 13:25			
Client ID: MW-02		Run ID: IC190722-1A1				Prep Date: 7/19/2019			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SULFATE	439	10	200	250	93	85-115				15	

MS		Sample ID: 1907382-6				Units: MG/L		Analysis Date: 7/22/2019 13:49			
Client ID: MW-05		Run ID: IC190722-1A1				Prep Date: 7/19/2019			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SULFATE	460	10	200	270	96	85-115				15	

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC190722-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC190722-1			Units: MG/L			Analysis Date: 7/22/2019 12:48				
Client ID:	Run ID: IC190722-1A1						Prep Date: 7/22/2019		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SULFATE	51.1	1	50		102	90-110				15	

LCSD	Sample ID: IC190722-1				Units: MG/L		Analysis Date: 7/22/2019 15:15				
Client ID:	Run ID: IC190722-1A1				Prep Date: 7/22/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
SULFATE	50.7	1	50		101	90-110		51.1	1	15	

MB		Sample ID: IC190722-1			Units: MG/L		Analysis Date: 7/22/2019 13:01	
Client ID:		Run ID: IC190722-1A1			Prep Date: 7/22/2019		DF: 1	
Analyte		Result	ReportLimit		Qual			
SULFATE		ND	1					

The following samples were analyzed in this batch:

1907382-13

Client: Telesto Solutions Inc
Work Order: 1907382
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **pH190719-1-1** Instrument ID **pH-2** Method: **SM4500-H**

DUP		Sample ID: 1907382-4			Units: pH		Analysis Date: 7/19/2019				
Client ID: P-3		Run ID: pH190719-1A1					Prep Date: 7/19/2019			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.4	0.1						7.4			

DUP	Sample ID: 1907382-8			Units: pH			Analysis Date: 7/19/2019				
Client ID: MW-06		Run ID: pH190719-1A1			Prep Date: 7/19/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.39	0.1						7.38			

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12
1907382-13		

Client: Telesto Solutions Inc
 Work Order: 1907382
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD190722-1-1** Instrument ID **Balance** Method: **SM2540C**

DUP	Sample ID: 1907382-11			Units: MG/L			Analysis Date: 7/23/2019				
Client ID: MW-10		Run ID: TD190722-1A1			Prep Date: 7/22/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1400	40						1400	1	5	

DUP	Sample ID: 1907382-1				Units: MG/L		Analysis Date: 7/23/2019				
Client ID: P-1		Run ID: TD190722-1A1				Prep Date: 7/22/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1460	40						1400	3	5	

LCS	Sample ID: TD190722-1				Units: MG/L		Analysis Date: 7/23/2019				
Client ID:	Run ID: TD190722-1A1				Prep Date: 7/22/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	344	20	400		86	85-115				30	

MB	Sample ID: TD190722-1			Units: MG/L		Analysis Date: 7/23/2019	
Client ID:		Run ID: TD190722-1A1			Prep Date: 7/22/2019		DF: 1
Analyte		Result	ReportLimit		Qual		
TOTAL DISSOLVED SOLIDS		ND	20				

The following samples were analyzed in this batch:

1907382-1	1907382-2	1907382-3
1907382-4	1907382-5	1907382-6
1907382-7	1907382-8	1907382-9
1907382-10	1907382-11	1907382-12
1907382-13		



Thursday, October 31, 2019

Tim Gerken
Telesto Solutions Inc
2950 E. Harmony Rd
Fort Collins, CO 80525

Re: ALS Workorder: 1910231
Project Name: LRM - Knox Pit
Project Number: 360100

Dear Mr. Gerken:

Twenty two water samples were received from Telesto Solutions Inc, on 10/9/2019. The samples were scheduled for the following analyses:

Inorganics

Metals

Total Organic Carbon

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Jeff R. Kujawa
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1910231

Metals:

The samples were analyzed following SW-846, 3rd Edition procedures. Analysis by ICPMS followed method 6020B and the current revision of SOP 827. Mercury analysis by CVAA followed method 7470A and the current revision of SOP 812.

Matrix spike recoveries could not be evaluated for the following analyte:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	1910231-2

The concentration of this analyte in the native sample was greater than four times the concentration of matrix spike added during the digestion. When sample concentration is that much greater than the spike added, spike recoveries may not be accurate. The laboratory control sample indicates that the digestion and analysis were in control.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following SW-846, EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
Total cyanide	9014	1110
Nitrate/nitrite as N	353.2 Revision 2.0	1127
pH	SM4500-H ⁺ B	1126
TDS	SM2540C	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

- Matrix spike recoveries could not be evaluated for the following analytes:

<u>Analyte</u>	<u>Sample ID</u>
Sulfate	1910231-21

The sulfate concentration in the native sample was above the analytical range; therefore accurate quantitation of the MS recovery was not possible. The LCS, ICV, and CCV results indicate the procedure was in control for sulfate.



All remaining acceptance criteria were met.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1910231

Client Name: Telesto Solutions Inc

Client Project Name: LRM - Knox Pit

Client Project Number: 360100

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
MW-05	1910231-1		WATER	08-Oct-19	2:32
MW-05	1910231-2		WATER	08-Oct-19	2:32
MW-02	1910231-3		WATER	08-Oct-19	1:50
MW-02	1910231-4		WATER	08-Oct-19	1:50
MW-08	1910231-5		WATER	08-Oct-19	3:25
MW-08	1910231-6		WATER	08-Oct-19	3:25
MW-06	1910231-7		WATER	08-Oct-19	4:24
MW-06	1910231-8		WATER	08-Oct-19	4:24
MW-07	1910231-9		WATER	09-Oct-19	10:05
MW-07	1910231-10		WATER	09-Oct-19	10:05
MW-09	1910231-11		WATER	09-Oct-19	10:55
MW-09	1910231-12		WATER	09-Oct-19	10:55
MW-10	1910231-13		WATER	09-Oct-19	11:55
MW-10	1910231-14		WATER	09-Oct-19	11:55
P-1	1910231-15		WATER	09-Oct-19	12:15
P-1	1910231-16		WATER	09-Oct-19	12:15
P-2	1910231-17		WATER	09-Oct-19	2:05
P-2	1910231-18		WATER	09-Oct-19	2:05
MW-13	1910231-19		WATER	09-Oct-19	2:50
MW-13	1910231-20		WATER	09-Oct-19	2:50
MW-12	1910231-21		WATER	09-Oct-19	3:20
MW-12	1910231-22		WATER	09-Oct-19	3:20

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

1219231

PAGE	1	of	3
DISPOSAL	BY LAB	or	RETURN

[illegible]

*Time Zone (Circle): EST CST MST PST Matr: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

6 of 59	NOTES		REPORT LEVEL / QC REQUIRED	
	17-60			Summary (Standard QC)
				LEVEL II (Standard QC)
				LEVEL III (Std QC + forms)
				LEVEL IV (Std QC + forms + raw
PRESERVATION KEY		1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 8-NaHSO4 7-4°C 8-Other		

Form 202-9	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Tim Gerken	10/9/19	4:23
RECEIVED BY		Tyler Massar	10/2/19	14:23
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

PAGE 2 of 5

PROJECT NAME	LRM-Knox Pit	SITE ID		SAMPLER	Tim Gerken	DISPOSAL	BY LAB or RETURN
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS			
COMPANY NAME	Same AS	PURCHASE ORDER		A	Wetchem		
SEND REPORT TO		BILL TO COMPANY		B	Metals		
ADDRESS		INVOICE ATTN TO		C	Cyanide		
CITY / STATE / ZIP		ADDRESS		D	TOC		
PHONE		CITY / STATE / ZIP		E			
FAX		PHONE		F			
E-MAIL		FAX		G			
		E-MAIL		H			
				I			
				J			

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
5 1	MW-08-unfiltered	✓	10/8/19	3:25	1	2			X									
5 2	MW-08-unfiltered	✓		3:25	1	4				X								
5 3	MW-08-TOC	✓		3:25	1	H ₂ SO ₄					X							
7 4	MW-06-RAW	✓		4:24	1	None		X										
7 5	MW-06-Filtered	✓			1	2			X									
7 6	MW-06-unfiltered	✓			1	2			X									
7 7	MW-06-unfiltered	✓			1	4				X								
7 8	MW-06-TOC	✓			1	H ₂ SO ₄					X							
9 9	MW-07-RAW	✓	10/9/19	10:05	1	None		X										
10 10	MW-07-Filtered	✓	10/9/19	10:05	1	2			X									
9 11	MW-07-unfiltered	✓			1	2			X									
9 12	MW-07-unfiltered	✓			1	4				X								

*Time Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

17600	REPORT LEVEL / QC REQUIRED
	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw)

7 of 59

PRESERVATION KEY 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO₄ 7-4°C 8-Other

Form 2029

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY	Tim Gerken	Tim Gerken	10/9/19	4:23
RECEIVED BY	[Signature]	Tyler Massariola		10:23
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

PAGE 3 of 5

DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID		PARAMETER/METHOD REQUEST FOR ANALYSIS														
PROJECT No.	360100	EDD FORMAT																
COMPANY NAME		PURCHASE ORDER		A	W/Chem													
SEND REPORT TO	Same As	BILL TO COMPANY		B	Metals													
ADDRESS		INVOICE ATTN TO		C	Cyanide													
CITY / STATE / ZIP		ADDRESS		D	TOC													
PHONE		CITY / STATE / ZIP		E														
FAX		PHONE		F														
E-MAIL		FAX		G														
		E-MAIL		H														
				I														
				J														
LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
11.1	MW-07-TOC	W	10/9/19	10:05	1	H ₂ SO ₄					X							
11.2	MW-09-RAW			10:55	1	None		X										
11.3	MW-09-Filtered			10:55	1	2			X									
11.4	MW-09-Unfiltered				1	2			X									
11.5	MW-09-Unfiltered				1	4				X								
11.6	MW-09-TOC				1	H ₂ SO ₄					X							
13.7	MW-10-RAW			11:55	1	None		X										
13.8	MW-10-Filtered				1	2			X									
13.9	MW-10-Unfiltered				1	2			X									
13.10	MW-10-Unfiltered				1	4				X								
13.11	MW-10-TOC				1	H ₂ SO ₄					X							

*Time Zone (Circle): EST CST **MS** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

Form 202r9

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

10/9/19

4:23

RECEIVED BY

Tim Gerken

Tim Gerken

10/10/19

10:23

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

PRESERVATION KEY

1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO₄ 7-4°C 8-Other



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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

PAGE 4 of 5
DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-Knox Pit	SITE ID		SAMPLER	Tim Gerken	PARAMETER/METHOD REQUEST FOR ANALYSIS											
PROJECT No.	360100	EDD FORMAT															
COMPANY NAME		PURCHASE ORDER		A	Wetchem												
SEND REPORT TO	Same As	BILL TO COMPANY		B	Metals												
ADDRESS		INVOICE ATTN TO		C	cyanide												
CITY/STATE/ZIP		ADDRESS		D	TOC												
PHONE		CITY/STATE/ZIP		E													
FAX		PHONE		F													
E-MAIL		FAX		G													
		E-MAIL		H													
				I													
				J													

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
151	P-1 - RAW	W	10/9/19	12:15	1	None		X										
152	P-1 - Filtered				1	2			X									
153	P-1 - unfiltered				1	2			X									
154	P-1 - unfiltered				1	4				X								
155	P-1 - TOC				1	H ₂ SO ₄					X							
176	P-2 - RAW			2:05	1	None		X										
177	P-2 - Filtered				1	2			X									
178	P-2 - unfiltered				1	2			X									
179	P-2 - unfiltered				1	4				X								
1710	P-2 - TOC				1	H ₂ SO ₄					X							
1911	MW-13 - RAW				1	None		X										
2012	MW-13 - Filtered				1	2			X									

*Time Zone (Circle): EST CST MT PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED

Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

Form 202/0

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

Tim Gerken

Tyler Mosser

10/9/19

10/2/19

4:23

16:23

PRESERVATION KEY

1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO₄ 7-4°C 8-Other



ALS Environmental

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Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

PAGE 5 of 5
DISPOSAL BY LAB or RETURN

PROJECT NAME	LRM-KNOX Pit	SITE ID		SAMPLER	Tim Gerken															
PROJECT No.	360100	EDD FORMAT		PARAMETER/METHOD REQUEST FOR ANALYSIS																
COMPANY NAME		PURCHASE ORDER		A	Wetchem															
SEND REPORT TO		BILL TO COMPANY		B	Metals															
ADDRESS	Same As	INVOICE ATTN TO		C	cyanide															
CITY / STATE / ZIP		ADDRESS		D	TOC															
PHONE		CITY / STATE / ZIP		E																
FAX		PHONE		F																
E-MAIL		FAX		G																
		E-MAIL		H																
				I																
				J																
LAB ID	110	FIELD ID		MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
19 1		MW-13-unfiltered	W	10/9/19	2:50	1	2				X									
19 2		MW-13-unfiltered			2:50	1	4					X								
19 3		MW-13-TOC			2:50	1	H ₂ SO ₄						X							
21 4		MW-12-RAW			3:20	1	None		X											
23 5		MW-12-Filtered				1	2			X										
21 6		MW-12-unfiltered				1	2			X										
21 7		MW-12-unfiltered				1	4				X									
21 8		MW-12-TOC				1	H ₂ SO ₄					X								

*Time Zone (Circle): EST CST MS PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

REPORT LEVEL / QC REQUIRED
Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw)

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PRESERVATION KEY 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO₄ 7-4°C 8-Other

Form 20279

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Tim Gerken

Tim Gerken

10/9/19

4:23

RECEIVED BY

Tyler Messer

Tyler Messer

10/2/19

16:23

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Telesto

Workorder No: 1210231

Project Manager: JRK

Initials: TEM Date: 10/10/19

1. Are airbills / shipping documents present and/or removable?		<u>DROP OFF</u>	YES	NO			
2. Are custody seals on shipping containers intact?		<u>NONE</u>	YES	NO *			
3. Are custody seals on sample containers intact?		<u>NONE</u>	YES	NO *			
4. Is there a COC (chain-of-custody) present?		<u>YES</u>		NO *			
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<u>YES</u>		NO *			
6. Are short-hold samples present?		YES	<u>NO</u>				
7. Are all samples within holding times for the requested analyses?		<u>YES</u>		NO *			
8. Were all sample containers received intact? (not broken or leaking)		<u>YES</u>		NO *			
9. Is there sufficient sample for the requested analyses?		<u>YES</u>		NO *			
10. Are all samples in the proper containers for the requested analyses?		<u>YES</u>		NO *			
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)		N/A	<u>YES</u>	NO *			
12. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)		<u>N/A</u>	YES	NO			
13. Were the samples shipped on ice?		<u>YES</u>		NO			
14. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*:	#1	<u>#3</u>	#4	RAD ONLY	YES	<u>NO</u>
Cooler #: <u>1</u>							
Temperature (°C): <u>12.6</u>							
No. of custody seals on cooler: <u>0</u>							
External µR/hr reading: <u>—</u>							
Background µR/hr reading: <u>13</u>							
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO <u>NA</u> (If no, see Form 008.)							

*** Please provide details here for NO responses to gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.**

All client bottle ID's vs ALS lab ID's double-checked by: TEM

If applicable, was the client contacted? YES / NO / ~~NA~~ Contact: _____ Date/Time: _____

Project Manager Signature / Date: LM 10-14-18

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-05
 Legal Location:
 Collection Date: 10/8/2019 02:32

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-1
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	270		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:00
ALUMINUM	190		100	UG/L	10	10/22/2019 14:00
ARSENIC	ND		2	UG/L	10	10/22/2019 14:00
BORON	ND		150	UG/L	10	10/22/2019 14:00
BARIUM	72		5	UG/L	10	10/22/2019 14:00
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:00
CALCIUM	380000		1000	UG/L	10	10/22/2019 14:00
CADMIUM	ND		2	UG/L	10	10/22/2019 14:00
COBALT	ND		5	UG/L	10	10/22/2019 14:00
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:00
COPPER	ND		20	UG/L	10	10/22/2019 14:00
IRON	300		100	UG/L	10	10/22/2019 14:00
POTASSIUM	3100		1000	UG/L	10	10/22/2019 14:00
LITHIUM	32		20	UG/L	10	10/22/2019 14:00
MAGNESIUM	28000		100	UG/L	10	10/22/2019 14:00
MANGANESE	7.9		5	UG/L	10	10/22/2019 14:00
MOLYBDENUM	13		2	UG/L	10	10/22/2019 14:00
SODIUM	43000		1000	UG/L	10	10/22/2019 14:00
NICKEL	ND		20	UG/L	10	10/22/2019 14:00
LEAD	ND		2	UG/L	10	10/22/2019 14:00
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:00
SELENIUM	30		10	UG/L	10	10/22/2019 14:00
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:00
URANIUM	24		0.1	UG/L	10	10/22/2019 14:00
VANADIUM	ND		5	UG/L	10	10/22/2019 14:00
ZINC	ND		100	UG/L	10	10/22/2019 14:00
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	41		1	MG/L	5	10/18/2019 14:04
FLUORIDE	0.65		0.5	MG/L	5	10/18/2019 14:04
SULFATE	990		50	MG/L	50	10/18/2019 14:17
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 08:47
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.81		0.01	MG/L	1	10/25/2019 12:10
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.73		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-05
Legal Location:
Collection Date: 10/8/2019 02:32

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1500		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-05
Legal Location:
Collection Date: 10/8/2019 02:32

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:02
ALUMINUM	ND		100	UG/L	10	10/22/2019 14:02
ARSENIC	ND		2	UG/L	10	10/22/2019 14:02
BORON	ND		150	UG/L	10	10/22/2019 14:02
BARIUM	65		5	UG/L	10	10/22/2019 14:02
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:02
CALCIUM	370000		1000	UG/L	10	10/22/2019 14:02
CADMIUM	ND		2	UG/L	10	10/22/2019 14:02
COBALT	ND		5	UG/L	10	10/22/2019 14:02
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:02
COPPER	ND		20	UG/L	10	10/22/2019 14:02
IRON	120		100	UG/L	10	10/22/2019 14:02
POTASSIUM	3000		1000	UG/L	10	10/22/2019 14:02
LITHIUM	31		20	UG/L	10	10/22/2019 14:02
MAGNESIUM	27000		100	UG/L	10	10/22/2019 14:02
MANGANESE	5.2		5	UG/L	10	10/22/2019 14:02
MOLYBDENUM	12		2	UG/L	10	10/22/2019 14:02
SODIUM	40000		1000	UG/L	10	10/22/2019 14:02
NICKEL	ND		20	UG/L	10	10/22/2019 14:02
LEAD	ND		2	UG/L	10	10/22/2019 14:02
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:02
SELENIUM	29		10	UG/L	10	10/22/2019 14:02
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:02
URANIUM	24		0.1	UG/L	10	10/22/2019 14:02
VANADIUM	ND		5	UG/L	10	10/22/2019 14:02
ZINC	ND		100	UG/L	10	10/22/2019 14:02
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 08:54

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 10/8/2019 01:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	170		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	170		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:20
ALUMINUM	280		100	UG/L	10	10/22/2019 14:20
ARSENIC	ND		2	UG/L	10	10/22/2019 14:20
BORON	ND		150	UG/L	10	10/22/2019 14:20
BARIUM	44		5	UG/L	10	10/22/2019 14:20
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:20
CALCIUM	120000		1000	UG/L	10	10/22/2019 14:20
CADMIUM	ND		2	UG/L	10	10/22/2019 14:20
COBALT	ND		5	UG/L	10	10/22/2019 14:20
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:20
COPPER	ND		20	UG/L	10	10/22/2019 14:20
IRON	330		100	UG/L	10	10/22/2019 14:20
POTASSIUM	1800		1000	UG/L	10	10/22/2019 14:20
LITHIUM	ND		20	UG/L	10	10/22/2019 14:20
MAGNESIUM	25000		100	UG/L	10	10/22/2019 14:20
MANGANESE	6.7		5	UG/L	10	10/22/2019 14:20
MOLYBDENUM	2.4		2	UG/L	10	10/22/2019 14:20
SODIUM	29000		1000	UG/L	10	10/22/2019 14:20
NICKEL	ND		20	UG/L	10	10/22/2019 14:20
LEAD	ND		2	UG/L	10	10/22/2019 14:20
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:20
SELENIUM	ND		10	UG/L	10	10/22/2019 14:20
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:20
URANIUM	3.4		0.1	UG/L	10	10/22/2019 14:20
VANADIUM	ND		5	UG/L	10	10/22/2019 14:20
ZINC	ND		100	UG/L	10	10/22/2019 14:20
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	16		0.2	MG/L	1	10/18/2019 14:30
FLUORIDE	0.45		0.1	MG/L	1	10/18/2019 14:30
SULFATE	320		5	MG/L	5	10/19/2019 05:34
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 08:56
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.34		0.01	MG/L	1	10/25/2019 12:12
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.63		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 10/8/2019 01:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-3
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	580		20	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-02
Legal Location:
Collection Date: 10/8/2019 01:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-4
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:23
ALUMINUM	140		100	UG/L	10	10/22/2019 14:23
ARSENIC	ND		2	UG/L	10	10/22/2019 14:23
BORON	ND		150	UG/L	10	10/22/2019 14:23
BARIUM	39		5	UG/L	10	10/22/2019 14:23
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:23
CALCIUM	120000		1000	UG/L	10	10/22/2019 14:23
CADMIUM	ND		2	UG/L	10	10/22/2019 14:23
COBALT	ND		5	UG/L	10	10/22/2019 14:23
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:23
COPPER	ND		20	UG/L	10	10/22/2019 14:23
IRON	150		100	UG/L	10	10/22/2019 14:23
POTASSIUM	1700		1000	UG/L	10	10/22/2019 14:23
LITHIUM	ND		20	UG/L	10	10/22/2019 14:23
MAGNESIUM	25000		100	UG/L	10	10/22/2019 14:23
MANGANESE	ND		5	UG/L	10	10/22/2019 14:23
MOLYBDENUM	2.4		2	UG/L	10	10/22/2019 14:23
SODIUM	29000		1000	UG/L	10	10/22/2019 14:23
NICKEL	ND		20	UG/L	10	10/22/2019 14:23
LEAD	ND		2	UG/L	10	10/22/2019 14:23
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:23
SELENIUM	ND		10	UG/L	10	10/22/2019 14:23
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:23
URANIUM	3.3		0.1	UG/L	10	10/22/2019 14:23
VANADIUM	ND		5	UG/L	10	10/22/2019 14:23
ZINC	ND		100	UG/L	10	10/22/2019 14:23
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 08:58

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-08
 Legal Location:
 Collection Date: 10/8/2019 03:25

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-5
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	340		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	340		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:38
ALUMINUM	160		100	UG/L	10	10/22/2019 14:38
ARSENIC	ND		2	UG/L	10	10/22/2019 14:38
BORON	ND		150	UG/L	10	10/22/2019 14:38
BARIUM	33		5	UG/L	10	10/22/2019 14:38
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:38
CALCIUM	240000		1000	UG/L	10	10/22/2019 14:38
CADMIUM	ND		2	UG/L	10	10/22/2019 14:38
COBALT	ND		5	UG/L	10	10/22/2019 14:38
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:38
COPPER	ND		20	UG/L	10	10/22/2019 14:38
IRON	220		100	UG/L	10	10/22/2019 14:38
POTASSIUM	2800		1000	UG/L	10	10/22/2019 14:38
LITHIUM	21		20	UG/L	10	10/22/2019 14:38
MAGNESIUM	12000		100	UG/L	10	10/22/2019 14:38
MANGANESE	ND		5	UG/L	10	10/22/2019 14:38
MOLYBDENUM	8.5		2	UG/L	10	10/22/2019 14:38
SODIUM	15000		1000	UG/L	10	10/22/2019 14:38
NICKEL	ND		20	UG/L	10	10/22/2019 14:38
LEAD	ND		2	UG/L	10	10/22/2019 14:38
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:38
SELENIUM	ND		10	UG/L	10	10/22/2019 14:38
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:38
URANIUM	21		0.1	UG/L	10	10/22/2019 14:38
VANADIUM	ND		5	UG/L	10	10/22/2019 14:38
ZINC	ND		100	UG/L	10	10/22/2019 14:38
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	9.8		0.2	MG/L	1	10/18/2019 14:43
FLUORIDE	0.57		0.1	MG/L	1	10/18/2019 14:43
SULFATE	430		10	MG/L	10	10/18/2019 14:57
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:00
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	1.1		0.01	MG/L	1	10/25/2019 12:13
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.57		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-08
Legal Location:
Collection Date: 10/8/2019 03:25

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-5
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	870		20	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-08
Legal Location:
Collection Date: 10/8/2019 03:25

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-6
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:41
ALUMINUM	ND		100	UG/L	10	10/22/2019 14:41
ARSENIC	ND		2	UG/L	10	10/22/2019 14:41
BORON	ND		150	UG/L	10	10/22/2019 14:41
BARIUM	31		5	UG/L	10	10/22/2019 14:41
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:41
CALCIUM	250000		1000	UG/L	10	10/22/2019 14:41
CADMIUM	ND		2	UG/L	10	10/22/2019 14:41
COBALT	ND		5	UG/L	10	10/22/2019 14:41
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:41
COPPER	ND		20	UG/L	10	10/22/2019 14:41
IRON	ND		100	UG/L	10	10/22/2019 14:41
POTASSIUM	2800		1000	UG/L	10	10/22/2019 14:41
LITHIUM	21		20	UG/L	10	10/22/2019 14:41
MAGNESIUM	11000		100	UG/L	10	10/22/2019 14:41
MANGANESE	ND		5	UG/L	10	10/22/2019 14:41
MOLYBDENUM	8.8		2	UG/L	10	10/22/2019 14:41
SODIUM	15000		1000	UG/L	10	10/22/2019 14:41
NICKEL	ND		20	UG/L	10	10/22/2019 14:41
LEAD	ND		2	UG/L	10	10/22/2019 14:41
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:41
SELENIUM	ND		10	UG/L	10	10/22/2019 14:41
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:41
URANIUM	21		0.1	UG/L	10	10/22/2019 14:41
VANADIUM	ND		5	UG/L	10	10/22/2019 14:41
ZINC	ND		100	UG/L	10	10/22/2019 14:41
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:02

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-06
 Legal Location:
 Collection Date: 10/8/2019 04:24

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-7
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	310		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	310		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:44
ALUMINUM	290		100	UG/L	10	10/22/2019 14:44
ARSENIC	ND		2	UG/L	10	10/22/2019 14:44
BORON	ND		150	UG/L	10	10/22/2019 14:44
BARIUM	38		5	UG/L	10	10/22/2019 14:44
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:44
CALCIUM	430000		1000	UG/L	10	10/22/2019 14:44
CADMIUM	ND		2	UG/L	10	10/22/2019 14:44
COBALT	ND		5	UG/L	10	10/22/2019 14:44
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:44
COPPER	ND		20	UG/L	10	10/22/2019 14:44
IRON	320		100	UG/L	10	10/22/2019 14:44
POTASSIUM	6100		1000	UG/L	10	10/22/2019 14:44
LITHIUM	23		20	UG/L	10	10/22/2019 14:44
MAGNESIUM	22000		100	UG/L	10	10/22/2019 14:44
MANGANESE	ND		5	UG/L	10	10/22/2019 14:44
MOLYBDENUM	6.2		2	UG/L	10	10/22/2019 14:44
SODIUM	17000		1000	UG/L	10	10/22/2019 14:44
NICKEL	ND		20	UG/L	10	10/22/2019 14:44
LEAD	ND		2	UG/L	10	10/22/2019 14:44
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:44
SELENIUM	23		10	UG/L	10	10/22/2019 14:44
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:44
URANIUM	35		0.1	UG/L	10	10/22/2019 14:44
VANADIUM	ND		5	UG/L	10	10/22/2019 14:44
ZINC	ND		100	UG/L	10	10/22/2019 14:44
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	18		1	MG/L	5	10/18/2019 15:10
FLUORIDE	ND		0.5	MG/L	5	10/18/2019 15:10
SULFATE	980		50	MG/L	50	10/18/2019 15:51
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:04
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	7.2		0.5	MG/L	50	10/25/2019 12:14
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.48		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 10/8/2019 04:24

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-7
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1400		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-06
Legal Location:
Collection Date: 10/8/2019 04:24

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-8
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:47
ALUMINUM	ND		100	UG/L	10	10/22/2019 14:47
ARSENIC	ND		2	UG/L	10	10/22/2019 14:47
BORON	ND		150	UG/L	10	10/22/2019 14:47
BARIUM	32		5	UG/L	10	10/22/2019 14:47
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:47
CALCIUM	410000		1000	UG/L	10	10/22/2019 14:47
CADMIUM	ND		2	UG/L	10	10/22/2019 14:47
COBALT	ND		5	UG/L	10	10/22/2019 14:47
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:47
COPPER	ND		20	UG/L	10	10/22/2019 14:47
IRON	ND		100	UG/L	10	10/22/2019 14:47
POTASSIUM	5800		1000	UG/L	10	10/22/2019 14:47
LITHIUM	22		20	UG/L	10	10/22/2019 14:47
MAGNESIUM	21000		100	UG/L	10	10/22/2019 14:47
MANGANESE	ND		5	UG/L	10	10/22/2019 14:47
MOLYBDENUM	6		2	UG/L	10	10/22/2019 14:47
SODIUM	17000		1000	UG/L	10	10/22/2019 14:47
NICKEL	ND		20	UG/L	10	10/22/2019 14:47
LEAD	ND		2	UG/L	10	10/22/2019 14:47
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:47
SELENIUM	22		10	UG/L	10	10/22/2019 14:47
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:47
URANIUM	34		0.1	UG/L	10	10/22/2019 14:47
VANADIUM	ND		5	UG/L	10	10/22/2019 14:47
ZINC	ND		100	UG/L	10	10/22/2019 14:47
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:11

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 10/9/2019 10:05

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	120		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	120		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:50
ALUMINUM	210		100	UG/L	10	10/22/2019 14:50
ARSENIC	ND		2	UG/L	10	10/22/2019 14:50
BORON	ND		150	UG/L	10	10/22/2019 14:50
BARIUM	57		5	UG/L	10	10/22/2019 14:50
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:50
CALCIUM	46000		1000	UG/L	10	10/22/2019 14:50
CADMIUM	ND		2	UG/L	10	10/22/2019 14:50
COBALT	ND		5	UG/L	10	10/22/2019 14:50
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:50
COPPER	ND		20	UG/L	10	10/22/2019 14:50
IRON	260		100	UG/L	10	10/22/2019 14:50
POTASSIUM	1100		1000	UG/L	10	10/22/2019 14:50
LITHIUM	ND		20	UG/L	10	10/22/2019 14:50
MAGNESIUM	5600		100	UG/L	10	10/22/2019 14:50
MANGANESE	5.5		5	UG/L	10	10/22/2019 14:50
MOLYBDENUM	ND		2	UG/L	10	10/22/2019 14:50
SODIUM	5000		1000	UG/L	10	10/22/2019 14:50
NICKEL	ND		20	UG/L	10	10/22/2019 14:50
LEAD	ND		2	UG/L	10	10/22/2019 14:50
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:50
SELENIUM	ND		10	UG/L	10	10/22/2019 14:50
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:50
URANIUM	1.3		0.1	UG/L	10	10/22/2019 14:50
VANADIUM	ND		5	UG/L	10	10/22/2019 14:50
ZINC	ND		100	UG/L	10	10/22/2019 14:50
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	3.6		0.2	MG/L	1	10/18/2019 16:04
FLUORIDE	0.28		0.1	MG/L	1	10/18/2019 16:04
SULFATE	41		1	MG/L	1	10/18/2019 16:04
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:13
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.34		0.01	MG/L	1	10/25/2019 12:15
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	8.13		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 10/9/2019 10:05

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-9
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	180		20	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-07
Legal Location:
Collection Date: 10/9/2019 10:05

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-10
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:53
ALUMINUM	160		100	UG/L	10	10/22/2019 14:53
ARSENIC	ND		2	UG/L	10	10/22/2019 14:53
BORON	ND		150	UG/L	10	10/22/2019 14:53
BARIUM	58		5	UG/L	10	10/22/2019 14:53
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:53
CALCIUM	48000		1000	UG/L	10	10/22/2019 14:53
CADMIUM	ND		2	UG/L	10	10/22/2019 14:53
COBALT	ND		5	UG/L	10	10/22/2019 14:53
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:53
COPPER	ND		20	UG/L	10	10/22/2019 14:53
IRON	170		100	UG/L	10	10/22/2019 14:53
POTASSIUM	1200		1000	UG/L	10	10/22/2019 14:53
LITHIUM	ND		20	UG/L	10	10/22/2019 14:53
MAGNESIUM	5500		100	UG/L	10	10/22/2019 14:53
MANGANESE	11		5	UG/L	10	10/22/2019 14:53
MOLYBDENUM	ND		2	UG/L	10	10/22/2019 14:53
SODIUM	5000		1000	UG/L	10	10/22/2019 14:53
NICKEL	ND		20	UG/L	10	10/22/2019 14:53
LEAD	ND		2	UG/L	10	10/22/2019 14:53
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:53
SELENIUM	ND		10	UG/L	10	10/22/2019 14:53
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:53
URANIUM	1.3		0.1	UG/L	10	10/22/2019 14:53
VANADIUM	ND		5	UG/L	10	10/22/2019 14:53
ZINC	ND		100	UG/L	10	10/22/2019 14:53
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:15

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-09
 Legal Location:
 Collection Date: 10/9/2019 10:55

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-11
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	270		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:56
ALUMINUM	110		100	UG/L	10	10/22/2019 14:56
ARSENIC	ND		2	UG/L	10	10/22/2019 14:56
BORON	ND		150	UG/L	10	10/22/2019 14:56
BARIUM	16		5	UG/L	10	10/22/2019 14:56
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:56
CALCIUM	260000		1000	UG/L	10	10/22/2019 14:56
CADMIUM	ND		2	UG/L	10	10/22/2019 14:56
COBALT	ND		5	UG/L	10	10/22/2019 14:56
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:56
COPPER	ND		20	UG/L	10	10/22/2019 14:56
IRON	160		100	UG/L	10	10/22/2019 14:56
POTASSIUM	3400		1000	UG/L	10	10/22/2019 14:56
LITHIUM	25		20	UG/L	10	10/22/2019 14:56
MAGNESIUM	15000		100	UG/L	10	10/22/2019 14:56
MANGANESE	ND		5	UG/L	10	10/22/2019 14:56
MOLYBDENUM	4.3		2	UG/L	10	10/22/2019 14:56
SODIUM	19000		1000	UG/L	10	10/22/2019 14:56
NICKEL	ND		20	UG/L	10	10/22/2019 14:56
LEAD	ND		2	UG/L	10	10/22/2019 14:56
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:56
SELENIUM	ND		10	UG/L	10	10/22/2019 14:56
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:56
URANIUM	23		0.1	UG/L	10	10/22/2019 14:56
VANADIUM	ND		5	UG/L	10	10/22/2019 14:56
ZINC	ND		100	UG/L	10	10/22/2019 14:56
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	12		0.2	MG/L	1	10/18/2019 16:17
FLUORIDE	0.65		0.1	MG/L	1	10/18/2019 16:17
SULFATE	2800		50	MG/L	50	10/18/2019 16:30
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:17
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	1.2		0.5	MG/L	50	10/25/2019 12:16
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.78		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

ALS -- Fort Collins**SAMPLE SUMMARY REPORT**

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-09
Legal Location:
Collection Date: 10/9/2019 10:55

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-11
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	990		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-09
Legal Location:
Collection Date: 10/9/2019 10:55

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-12
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 14:59
ALUMINUM	ND		100	UG/L	10	10/22/2019 14:59
ARSENIC	ND		2	UG/L	10	10/22/2019 14:59
BORON	ND		150	UG/L	10	10/22/2019 14:59
BARIUM	15		5	UG/L	10	10/22/2019 14:59
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 14:59
CALCIUM	260000		1000	UG/L	10	10/22/2019 14:59
CADMIUM	ND		2	UG/L	10	10/22/2019 14:59
COBALT	ND		5	UG/L	10	10/22/2019 14:59
CHROMIUM	ND		10	UG/L	10	10/22/2019 14:59
COPPER	ND		20	UG/L	10	10/22/2019 14:59
IRON	100		100	UG/L	10	10/22/2019 14:59
POTASSIUM	3400		1000	UG/L	10	10/22/2019 14:59
LITHIUM	25		20	UG/L	10	10/22/2019 14:59
MAGNESIUM	15000		100	UG/L	10	10/22/2019 14:59
MANGANESE	ND		5	UG/L	10	10/22/2019 14:59
MOLYBDENUM	4		2	UG/L	10	10/22/2019 14:59
SODIUM	18000		1000	UG/L	10	10/22/2019 14:59
NICKEL	ND		20	UG/L	10	10/22/2019 14:59
LEAD	ND		2	UG/L	10	10/22/2019 14:59
ANTIMONY	ND		1	UG/L	10	10/22/2019 14:59
SELENIUM	10		10	UG/L	10	10/22/2019 14:59
THALLIUM	ND		0.1	UG/L	10	10/22/2019 14:59
URANIUM	22		0.1	UG/L	10	10/22/2019 14:59
VANADIUM	ND		5	UG/L	10	10/22/2019 14:59
ZINC	ND		100	UG/L	10	10/22/2019 14:59
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:19

ALS -- Fort Collins

SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-10
 Legal Location:
 Collection Date: 10/9/2019 11:55

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-13
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	260		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:02
ALUMINUM	ND		100	UG/L	10	10/22/2019 15:02
ARSENIC	ND		2	UG/L	10	10/22/2019 15:02
BORON	ND		150	UG/L	10	10/22/2019 15:02
BARIUM	19		5	UG/L	10	10/22/2019 15:02
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:02
CALCIUM	310000		1000	UG/L	10	10/22/2019 15:02
CADMIUM	ND		2	UG/L	10	10/22/2019 15:02
COBALT	ND		5	UG/L	10	10/22/2019 15:02
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:02
COPPER	ND		20	UG/L	10	10/22/2019 15:02
IRON	130		100	UG/L	10	10/22/2019 15:02
POTASSIUM	3200		1000	UG/L	10	10/22/2019 15:02
LITHIUM	27		20	UG/L	10	10/22/2019 15:02
MAGNESIUM	18000		100	UG/L	10	10/22/2019 15:02
MANGANESE	ND		5	UG/L	10	10/22/2019 15:02
MOLYBDENUM	3.3		2	UG/L	10	10/22/2019 15:02
SODIUM	17000		1000	UG/L	10	10/22/2019 15:02
NICKEL	ND		20	UG/L	10	10/22/2019 15:02
LEAD	ND		2	UG/L	10	10/22/2019 15:02
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:02
SELENIUM	13		10	UG/L	10	10/22/2019 15:02
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:02
URANIUM	27		0.1	UG/L	10	10/22/2019 15:02
VANADIUM	ND		5	UG/L	10	10/22/2019 15:02
ZINC	ND		100	UG/L	10	10/22/2019 15:02
Ion Chromatography						
			EPA300.0		Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	17		0.2	MG/L	1	10/18/2019 16:44
FLUORIDE	0.56		0.1	MG/L	1	10/18/2019 16:44
SULFATE	730		10	MG/L	10	10/18/2019 16:57
Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:22
Nitrate/Nitrite as N						
			EPA353.2		Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.92		0.01	MG/L	1	10/25/2019 12:16
pH						
			SM4500-H		Prep Date: 10/16/2019	PrepBy: LMC
PH	7.74		0.1	pH	1	10/18/2019
Total Cyanide						
			SW9014		Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids						
			SM2540C		Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-10
Legal Location:
Collection Date: 10/9/2019 11:55

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-13
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1100		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-10
Legal Location:
Collection Date: 10/9/2019 11:55

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-14
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:05
ALUMINUM	ND		100	UG/L	10	10/22/2019 15:05
ARSENIC	ND		2	UG/L	10	10/22/2019 15:05
BORON	ND		150	UG/L	10	10/22/2019 15:05
BARIUM	20		5	UG/L	10	10/22/2019 15:05
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:05
CALCIUM	310000		1000	UG/L	10	10/22/2019 15:05
CADMIUM	ND		2	UG/L	10	10/22/2019 15:05
COBALT	ND		5	UG/L	10	10/22/2019 15:05
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:05
COPPER	ND		20	UG/L	10	10/22/2019 15:05
IRON	ND		100	UG/L	10	10/22/2019 15:05
POTASSIUM	3200		1000	UG/L	10	10/22/2019 15:05
LITHIUM	27		20	UG/L	10	10/22/2019 15:05
MAGNESIUM	18000		100	UG/L	10	10/22/2019 15:05
MANGANESE	ND		5	UG/L	10	10/22/2019 15:05
MOLYBDENUM	3.3		2	UG/L	10	10/22/2019 15:05
SODIUM	17000		1000	UG/L	10	10/22/2019 15:05
NICKEL	ND		20	UG/L	10	10/22/2019 15:05
LEAD	ND		2	UG/L	10	10/22/2019 15:05
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:05
SELENIUM	13		10	UG/L	10	10/22/2019 15:05
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:05
URANIUM	27		0.1	UG/L	10	10/22/2019 15:05
VANADIUM	ND		5	UG/L	10	10/22/2019 15:05
ZINC	ND		100	UG/L	10	10/22/2019 15:05
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:24

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-1
 Legal Location:
 Collection Date: 10/9/2019 12:15

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-15
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	270		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	270		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:20
ALUMINUM	ND		100	UG/L	10	10/22/2019 15:20
ARSENIC	ND		2	UG/L	10	10/22/2019 15:20
BORON	ND		150	UG/L	10	10/22/2019 15:20
BARIUM	22		5	UG/L	10	10/22/2019 15:20
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:20
CALCIUM	300000		1000	UG/L	10	10/22/2019 15:20
CADMIUM	ND		2	UG/L	10	10/22/2019 15:20
COBALT	ND		5	UG/L	10	10/22/2019 15:20
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:20
COPPER	ND		20	UG/L	10	10/22/2019 15:20
IRON	150		100	UG/L	10	10/22/2019 15:20
POTASSIUM	3100		1000	UG/L	10	10/22/2019 15:20
LITHIUM	26		20	UG/L	10	10/22/2019 15:20
MAGNESIUM	17000		100	UG/L	10	10/22/2019 15:20
MANGANESE	140		5	UG/L	10	10/22/2019 15:20
MOLYBDENUM	3.9		2	UG/L	10	10/22/2019 15:20
SODIUM	17000		1000	UG/L	10	10/22/2019 15:20
NICKEL	ND		20	UG/L	10	10/22/2019 15:20
LEAD	ND		2	UG/L	10	10/22/2019 15:20
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:20
SELENIUM	12		10	UG/L	10	10/22/2019 15:20
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:20
URANIUM	24		0.1	UG/L	10	10/22/2019 15:20
VANADIUM	ND		5	UG/L	10	10/22/2019 15:20
ZINC	ND		100	UG/L	10	10/22/2019 15:20
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	17		0.2	MG/L	1	10/18/2019 17:10
FLUORIDE	0.54		0.1	MG/L	1	10/18/2019 17:10
SULFATE	700		10	MG/L	10	10/18/2019 17:23
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:26
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.67		0.01	MG/L	1	10/25/2019 12:32
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	8.09		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-1
Legal Location:
Collection Date: 10/9/2019 12:15

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-15
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1200		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-1
Legal Location:
Collection Date: 10/9/2019 12:15

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-16
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:23
ALUMINUM	220		100	UG/L	10	10/22/2019 15:23
ARSENIC	ND		2	UG/L	10	10/22/2019 15:23
BORON	ND		150	UG/L	10	10/22/2019 15:23
BARIUM	22		5	UG/L	10	10/22/2019 15:23
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:23
CALCIUM	300000		1000	UG/L	10	10/22/2019 15:23
CADMIUM	ND		2	UG/L	10	10/22/2019 15:23
COBALT	ND		5	UG/L	10	10/22/2019 15:23
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:23
COPPER	ND		20	UG/L	10	10/22/2019 15:23
IRON	170		100	UG/L	10	10/22/2019 15:23
POTASSIUM	3100		1000	UG/L	10	10/22/2019 15:23
LITHIUM	26		20	UG/L	10	10/22/2019 15:23
MAGNESIUM	17000		100	UG/L	10	10/22/2019 15:23
MANGANESE	140		5	UG/L	10	10/22/2019 15:23
MOLYBDENUM	3.9		2	UG/L	10	10/22/2019 15:23
SODIUM	17000		1000	UG/L	10	10/22/2019 15:23
NICKEL	ND		20	UG/L	10	10/22/2019 15:23
LEAD	ND		2	UG/L	10	10/22/2019 15:23
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:23
SELENIUM	13		10	UG/L	10	10/22/2019 15:23
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:23
URANIUM	24		0.1	UG/L	10	10/22/2019 15:23
VANADIUM	ND		5	UG/L	10	10/22/2019 15:23
ZINC	ND		100	UG/L	10	10/22/2019 15:23
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:28

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: P-2
 Legal Location:
 Collection Date: 10/9/2019 02:05

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-17
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	260		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	260		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:26
ALUMINUM	300		100	UG/L	10	10/22/2019 15:26
ARSENIC	ND		2	UG/L	10	10/22/2019 15:26
BORON	ND		150	UG/L	10	10/22/2019 15:26
BARIIUM	26		5	UG/L	10	10/22/2019 15:26
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:26
CALCIUM	320000		1000	UG/L	10	10/22/2019 15:26
CADMIUM	ND		2	UG/L	10	10/22/2019 15:26
COBALT	ND		5	UG/L	10	10/22/2019 15:26
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:26
COPPER	ND		20	UG/L	10	10/22/2019 15:26
IRON	420		100	UG/L	10	10/22/2019 15:26
POTASSIUM	3000		1000	UG/L	10	10/22/2019 15:26
LITHIUM	27		20	UG/L	10	10/22/2019 15:26
MAGNESIUM	18000		100	UG/L	10	10/22/2019 15:26
MANGANESE	7.5		5	UG/L	10	10/22/2019 15:26
MOLYBDENUM	3.9		2	UG/L	10	10/22/2019 15:26
SODIUM	18000		1000	UG/L	10	10/22/2019 15:26
NICKEL	ND		20	UG/L	10	10/22/2019 15:26
LEAD	ND		2	UG/L	10	10/22/2019 15:26
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:26
SELENIUM	14		10	UG/L	10	10/22/2019 15:26
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:26
URANIUM	26		0.1	UG/L	10	10/22/2019 15:26
VANADIUM	ND		5	UG/L	10	10/22/2019 15:26
ZINC	ND		100	UG/L	10	10/22/2019 15:26
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	23		2	MG/L	10	10/18/2019 17:49
FLUORIDE	0.56		0.1	MG/L	1	10/18/2019 17:36
SULFATE	760		10	MG/L	10	10/18/2019 17:49
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:30
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.61		0.01	MG/L	1	10/25/2019 12:18
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.87		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-2
Legal Location:
Collection Date: 10/9/2019 02:05

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-17
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	1200		40	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: P-2
Legal Location:
Collection Date: 10/9/2019 02:05

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-18
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:29
ALUMINUM	380		100	UG/L	10	10/22/2019 15:29
ARSENIC	ND		2	UG/L	10	10/22/2019 15:29
BORON	ND		150	UG/L	10	10/22/2019 15:29
BARIUM	30		5	UG/L	10	10/22/2019 15:29
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:29
CALCIUM	330000		1000	UG/L	10	10/22/2019 15:29
CADMIUM	ND		2	UG/L	10	10/22/2019 15:29
COBALT	ND		5	UG/L	10	10/22/2019 15:29
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:29
COPPER	ND		20	UG/L	10	10/22/2019 15:29
IRON	480		100	UG/L	10	10/22/2019 15:29
POTASSIUM	3100		1000	UG/L	10	10/22/2019 15:29
LITHIUM	28		20	UG/L	10	10/22/2019 15:29
MAGNESIUM	18000		100	UG/L	10	10/22/2019 15:29
MANGANESE	9.9		5	UG/L	10	10/22/2019 15:29
MOLYBDENUM	4		2	UG/L	10	10/22/2019 15:29
SODIUM	18000		1000	UG/L	10	10/22/2019 15:29
NICKEL	ND		20	UG/L	10	10/22/2019 15:29
LEAD	ND		2	UG/L	10	10/22/2019 15:29
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:29
SELENIUM	14		10	UG/L	10	10/22/2019 15:29
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:29
URANIUM	27		0.1	UG/L	10	10/22/2019 15:29
VANADIUM	ND		5	UG/L	10	10/22/2019 15:29
ZINC	ND		100	UG/L	10	10/22/2019 15:29
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:37

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-13
Legal Location:
Collection Date: 10/9/2019 02:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-19
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	110		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	110		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals						
		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:32
ALUMINUM	570		100	UG/L	10	10/22/2019 15:32
ARSENIC	ND		2	UG/L	10	10/22/2019 15:32
BORON	ND		150	UG/L	10	10/22/2019 15:32
BARIUM	36		5	UG/L	10	10/22/2019 15:32
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:32
CALCIUM	40000		1000	UG/L	10	10/22/2019 15:32
CADMIUM	ND		2	UG/L	10	10/22/2019 15:32
COBALT	ND		5	UG/L	10	10/22/2019 15:32
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:32
COPPER	ND		20	UG/L	10	10/22/2019 15:32
IRON	770		100	UG/L	10	10/22/2019 15:32
POTASSIUM	1200		1000	UG/L	10	10/22/2019 15:32
LITHIUM	ND		20	UG/L	10	10/22/2019 15:32
MAGNESIUM	4700		100	UG/L	10	10/22/2019 15:32
MANGANESE	15		5	UG/L	10	10/22/2019 15:32
MOLYBDENUM	3.2		2	UG/L	10	10/22/2019 15:32
SODIUM	5200		1000	UG/L	10	10/22/2019 15:32
NICKEL	ND		20	UG/L	10	10/22/2019 15:32
LEAD	ND		2	UG/L	10	10/22/2019 15:32
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:32
SELENIUM	ND		10	UG/L	10	10/22/2019 15:32
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:32
URANIUM	1.2		0.1	UG/L	10	10/22/2019 15:32
VANADIUM	ND		5	UG/L	10	10/22/2019 15:32
ZINC	ND		100	UG/L	10	10/22/2019 15:32
Ion Chromatography						
		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	2.5		0.2	MG/L	1	10/18/2019 18:32
FLUORIDE	0.33		0.1	MG/L	1	10/18/2019 18:32
SULFATE	29		1	MG/L	1	10/18/2019 18:32
Mercury						
		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:39
Nitrate/Nitrite as N						
		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.33		0.01	MG/L	1	10/25/2019 12:33
pH						
		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	8.26		0.1	pH	1	10/18/2019
Total Cyanide						
		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids						
		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-13
Legal Location:
Collection Date: 10/9/2019 02:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-19
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	160		20	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-13
Legal Location:
Collection Date: 10/9/2019 02:50

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-20
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 15:35
ALUMINUM	330		100	UG/L	10	10/22/2019 15:35
ARSENIC	ND		2	UG/L	10	10/22/2019 15:35
BORON	ND		150	UG/L	10	10/22/2019 15:35
BARIUM	33		5	UG/L	10	10/22/2019 15:35
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 15:35
CALCIUM	40000		1000	UG/L	10	10/22/2019 15:35
CADMIUM	ND		2	UG/L	10	10/22/2019 15:35
COBALT	ND		5	UG/L	10	10/22/2019 15:35
CHROMIUM	ND		10	UG/L	10	10/22/2019 15:35
COPPER	ND		20	UG/L	10	10/22/2019 15:35
IRON	470		100	UG/L	10	10/22/2019 15:35
POTASSIUM	1100		1000	UG/L	10	10/22/2019 15:35
LITHIUM	ND		20	UG/L	10	10/22/2019 15:35
MAGNESIUM	4700		100	UG/L	10	10/22/2019 15:35
MANGANESE	9.4		5	UG/L	10	10/22/2019 15:35
MOLYBDENUM	3.2		2	UG/L	10	10/22/2019 15:35
SODIUM	5200		1000	UG/L	10	10/22/2019 15:35
NICKEL	ND		20	UG/L	10	10/22/2019 15:35
LEAD	ND		2	UG/L	10	10/22/2019 15:35
ANTIMONY	ND		1	UG/L	10	10/22/2019 15:35
SELENIUM	ND		10	UG/L	10	10/22/2019 15:35
THALLIUM	ND		0.1	UG/L	10	10/22/2019 15:35
URANIUM	1.1		0.1	UG/L	10	10/22/2019 15:35
VANADIUM	ND		5	UG/L	10	10/22/2019 15:35
ZINC	ND		100	UG/L	10	10/22/2019 15:35
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:41

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SAMPLE SUMMARY REPORT

Client: Telesto Solutions Inc
 Project: 360100 LRM - Knox Pit
 Sample ID: MW-12
 Legal Location:
 Collection Date: 10/9/2019 03:20

Date: 31-Oct-19
 Work Order: 1910231
 Lab ID: 1910231-21
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate		SM2320B			Prep Date: 10/18/2019	PrepBy: KJS
BICARBONATE AS CaCO3	160		20	MG/L	1	10/18/2019
CARBONATE AS CaCO3	ND		20	MG/L	1	10/18/2019
TOTAL ALKALINITY AS CaCO3	160		20	MG/L	1	10/18/2019
Total Recoverable ICPMS Metals		SW6020			Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 16:13
ALUMINUM	200		100	UG/L	10	10/22/2019 16:13
ARSENIC	ND		2	UG/L	10	10/22/2019 16:13
BORON	ND		150	UG/L	10	10/22/2019 16:13
BARIUM	30		5	UG/L	10	10/22/2019 16:13
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 16:13
CALCIUM	140000		1000	UG/L	10	10/22/2019 16:13
CADMIUM	ND		2	UG/L	10	10/22/2019 16:13
COBALT	ND		5	UG/L	10	10/22/2019 16:13
CHROMIUM	ND		10	UG/L	10	10/22/2019 16:13
COPPER	ND		20	UG/L	10	10/22/2019 16:13
IRON	190		100	UG/L	10	10/22/2019 16:13
POTASSIUM	1700		1000	UG/L	10	10/22/2019 16:13
LITHIUM	ND		20	UG/L	10	10/22/2019 16:13
MAGNESIUM	9600		100	UG/L	10	10/22/2019 16:13
MANGANESE	6.2		5	UG/L	10	10/22/2019 16:13
MOLYBDENUM	4.7		2	UG/L	10	10/22/2019 16:13
SODIUM	13000		1000	UG/L	10	10/22/2019 16:13
NICKEL	ND		20	UG/L	10	10/22/2019 16:13
LEAD	ND		2	UG/L	10	10/22/2019 16:13
ANTIMONY	ND		1	UG/L	10	10/22/2019 16:13
SELENIUM	ND		10	UG/L	10	10/22/2019 16:13
THALLIUM	ND		0.1	UG/L	10	10/22/2019 16:13
URANIUM	3.7		0.1	UG/L	10	10/22/2019 16:13
VANADIUM	ND		5	UG/L	10	10/22/2019 16:13
ZINC	ND		100	UG/L	10	10/22/2019 16:13
Ion Chromatography		EPA300.0			Prep Date: 10/16/2019	PrepBy: NJJ
CHLORIDE	11		0.2	MG/L	1	10/18/2019 18:45
FLUORIDE	0.69		0.1	MG/L	1	10/18/2019 18:45
SULFATE	270		5	MG/L	5	10/22/2019 14:56
Mercury		SW7470			Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:54
Nitrate/Nitrite as N		EPA353.2			Prep Date: 10/25/2019	PrepBy: NCC
NITRATE/NITRITE AS N	0.54		0.01	MG/L	1	10/25/2019 12:21
pH		SM4500-H			Prep Date: 10/16/2019	PrepBy: LMC
PH	7.86		0.1	pH	1	10/18/2019
Total Cyanide		SW9014			Prep Date: 10/21/2019	PrepBy: DMS
CYANIDE, TOTAL	ND		0.005	MG/L	1	10/30/2019
Total Dissolved Solids		SM2540C			Prep Date: 10/15/2019	PrepBy: LMC

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 10/9/2019 03:20

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-21
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TOTAL DISSOLVED SOLIDS	500		20	MG/L	1	10/16/2019

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 10/9/2019 03:20

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-22
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dissolved ICPMS Metals						
			SW6020		Prep Date: 10/17/2019	PrepBy: JML
SILVER	ND		0.5	UG/L	10	10/22/2019 16:16
ALUMINUM	ND		100	UG/L	10	10/22/2019 16:16
ARSENIC	ND		2	UG/L	10	10/22/2019 16:16
BORON	ND		150	UG/L	10	10/22/2019 16:16
BARIUM	27		5	UG/L	10	10/22/2019 16:16
BERYLLIUM	ND		0.5	UG/L	10	10/22/2019 16:16
CALCIUM	140000		1000	UG/L	10	10/22/2019 16:16
CADMIUM	ND		2	UG/L	10	10/22/2019 16:16
COBALT	ND		5	UG/L	10	10/22/2019 16:16
CHROMIUM	ND		10	UG/L	10	10/22/2019 16:16
COPPER	ND		20	UG/L	10	10/22/2019 16:16
IRON	100		100	UG/L	10	10/22/2019 16:16
POTASSIUM	1600		1000	UG/L	10	10/22/2019 16:16
LITHIUM	ND		20	UG/L	10	10/22/2019 16:16
MAGNESIUM	9700		100	UG/L	10	10/22/2019 16:16
MANGANESE	ND		5	UG/L	10	10/22/2019 16:16
MOLYBDENUM	4.6		2	UG/L	10	10/22/2019 16:16
SODIUM	13000		1000	UG/L	10	10/22/2019 16:16
NICKEL	ND		20	UG/L	10	10/22/2019 16:16
LEAD	ND		2	UG/L	10	10/22/2019 16:16
ANTIMONY	ND		1	UG/L	10	10/22/2019 16:16
SELENIUM	ND		10	UG/L	10	10/22/2019 16:16
THALLIUM	ND		0.1	UG/L	10	10/22/2019 16:16
URANIUM	3.7		0.1	UG/L	10	10/22/2019 16:16
VANADIUM	ND		5	UG/L	10	10/22/2019 16:16
ZINC	ND		100	UG/L	10	10/22/2019 16:16
Dissolved Mercury						
			SW7470		Prep Date: 10/16/2019	PrepBy: AFS
MERCURY	ND		0.0002	MG/L	1	10/17/2019 09:56

Client: Telesto Solutions Inc
Project: 360100 LRM - Knox Pit
Sample ID: MW-12
Legal Location:
Collection Date: 10/9/2019 03:20

Date: 31-Oct-19
Work Order: 1910231
Lab ID: 1910231-22
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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Explanation of Qualifiers

Radiochemistry:

- "Report Limit" is the MDC
 U or ND - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
 Y2 - Chemical Yield outside default limits.
 W - DER is greater than Warning Limit of 1.42
 * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
 # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
 G - Sample density differs by more than 15% of LCS density.
 D - DER is greater than Control Limit
 M - Requested MDC not met.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS, Matrix Spike Recovery within control limits.
 N - Matrix Spike Recovery outside control limits
 NC - Not Calculated for duplicate results less than 5 times MDC
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.
 S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.
 G - A pattern resembling gasoline was detected in this sample.
 D - A pattern resembling diesel was detected in this sample.
 M - A pattern resembling motor oil was detected in this sample.
 C - A pattern resembling crude oil was detected in this sample.
 4 - A pattern resembling JP-4 was detected in this sample.
 5 - A pattern resembling JP-5 was detected in this sample.
 H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
 L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
 Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
 - gasoline
 - JP-8
 - diesel
 - mineral spirits
 - motor oil
 - Stoddard solvent
 - bunker C

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Date: 10/31/2019 2:36

Client: Telesto Solutions Inc

QC BATCH REPORT

Work Order: 1910231

Project: 360100 LRM - Knox Pit

Batch ID: HG191016-2-1

Instrument ID CETAC7500

Method: SW7470

LCS	Sample ID: HG191016-2			Units: MG/L			Analysis Date: 10/17/2019 08:45					
Client ID:	Run ID: HG191017-1A3				Prep Date: 10/16/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.000957	0.0002	0.001		96	80-120				20		

MB	Sample ID: HG191016-2			Units: MG/L	Analysis Date: 10/17/2019 08:39	
Client ID:	Run ID: HG191017-1A3				Prep Date: 10/16/2019	DF: 1
Analyte	Result	ReportLimit				
MERCURY	ND	0.0002				

MS	Sample ID: 1910231-1			Units: MG/L			Analysis Date: 10/17/2019 08:49					
Client ID: MW-05	Run ID: HG191017-1A3				Prep Date: 10/16/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00192	0.0002	0.002	0.0002	96	80-120				20		

MSD	Sample ID: 1910231-1			Units: MG/L			Analysis Date: 10/17/2019 08:52					
Client ID: MW-05	Run ID: HG191017-1A3				Prep Date: 10/16/2019		DF: 1					
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual	
MERCURY	0.00195	0.0002	0.002	0.0002	97	80-120		0.00192		20		

The following samples were analyzed in this batch:

1910231-1	1910231-2	1910231-3
1910231-4	1910231-5	1910231-6
1910231-7	1910231-8	1910231-9
1910231-10	1910231-11	1910231-12
1910231-13	1910231-14	1910231-15
1910231-16	1910231-17	1910231-18
1910231-19	1910231-20	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **HG191016-3-1** Instrument ID **CETAC7500** Method: **SW7470**

LCS	Sample ID: HG191016-3			Units: MG/L			Analysis Date: 10/17/2019 09:45				
Client ID:	Run ID: HG191017-1A3						Prep Date: 10/16/2019		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
MERCURY	0.000935	0.0002	0.001		94	80-120				20	

MB		Sample ID: HG191016-3			Units: MG/L		Analysis Date: 10/17/2019 09:43		
Client ID:		Run ID: HG191017-1A3			Prep Date: 10/16/2019		DF: 1		
Analyte		Result	ReportLimit						
MERCURY		ND	0.0002						

The following samples were analyzed in this batch:

1910231-21	1910231-22
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Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-2-1** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM191017-2			Units: UG/L		Analysis Date: 10/22/2019 13:54				
Client ID:		Run ID: IM191022-10A7				Prep Date: 10/17/2019			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4470	100	5000		89	80-120				20	
ANTIMONY	27.8	1	30		93	80-120				20	
ARSENIC	95.3	2	100		95	80-120				20	
BARIUM	94.7	5	100		95	80-120				20	
BERYLLIUM	46.7	0.5	50		93	80-120				20	
BORON	899	150	1000		90	80-120				20	
CADMIUM	30.2	2	30		101	80-120				20	
CALCIUM	9980	1000	10000		100	80-120				20	
CHROMIUM	479	10	500		96	80-120				20	
COBALT	96	5	100		96	80-120				20	
COPPER	976	20	1000		98	80-120				20	
IRON	4770	100	5000		95	80-120				20	
LEAD	50.3	2	50		101	80-120				20	
LITHIUM	987	20	1000		99	80-120				20	
MAGNESIUM	9130	100	10000		91	80-120				20	
MANGANESE	98	5	100		98	80-120				20	
MOLYBDENUM	95	2	100		95	80-120				20	
NICKEL	499	20	500		100	80-120				20	
POTASSIUM	4720	1000	5000		94	80-120				20	
SELENIUM	105	10	100		105	80-120				20	
SILVER	9.96	0.5	10		100	80-120				20	
SODIUM	9360	1000	10000		94	80-120				20	
THALLIUM	1.93	0.1	2		96	80-120				20	
URANIUM	9.42	0.1	10		94	80-120				20	
VANADIUM	92.8	5	100		93	80-120				20	
ZINC	1830	100	2000		92	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-2-1** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP191017-2** Units: **UG/L** Analysis Date: **10/22/2019 13:51**
Client ID: Run ID: **IM191022-10A7** Prep Date: **10/17/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-2-1** Instrument ID: **ICPMS2** Method: **SW6020**

MS Sample ID: **1910231-2** Units: **UG/L** Analysis Date: **10/22/2019 14:08**
 Client ID: **MW-05** Run ID: **IM191022-10A7** Prep Date: **10/17/2019** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4420	100	5000	100	88	75-125				20	
ANTIMONY	28.5	1	30	1	95	75-125				20	
ARSENIC	95.9	2	100	2	96	75-125				20	
BARIUM	165	5	100	65	100	75-125				20	
BERYLLIUM	47	0.5	50	0.5	94	75-125				20	
BORON	993	150	1000	150	99	75-125				20	
CADMIUM	29.7	2	30	2	99	75-125				20	
CALCIUM	380000	1000	10000	370000	86	75-125				20	
CHROMIUM	474	10	500	10	95	75-125				20	
COBALT	93.5	5	100	5	94	75-125				20	
COPPER	950	20	1000	20	95	75-125				20	
IRON	4690	100	5000	120	91	75-125				20	
LEAD	50	2	50	2	100	75-125				20	
LITHIUM	1030	20	1000	31	100	75-125				20	
MAGNESIUM	36400	100	10000	27000	90	75-125				20	
MANGANESE	100	5	100	5.2	95	75-125				20	
MOLYBDENUM	108	2	100	12	96	75-125				20	
NICKEL	484	20	500	20	97	75-125				20	
POTASSIUM	7690	1000	5000	3000	94	75-125				20	
SELENIUM	128	10	100	29	99	75-125				20	
SILVER	10.1	0.5	10	0.5	101	75-125				20	
SODIUM	50500	1000	10000	40000	101	75-125				20	
THALLIUM	1.99	0.1	2	0.1	100	75-125				20	
URANIUM	34.4	0.1	10	24	107	75-125				20	
VANADIUM	92.6	5	100	5	93	75-125				20	
ZINC	1770	100	2000	100	89	75-125				20	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-2-1** Instrument ID **ICPMS2** Method: **SW6020**

MSD Sample ID: **1910231-2** Units: **UG/L** Analysis Date: **10/22/2019 14:11**

Client ID: **MW-05** Run ID: **IM191022-10A7** Prep Date: **10/17/2019** DF: **10**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4540	100	5000	100	91	75-125		4420		20	
ANTIMONY	28.7	1	30	1	96	75-125		28.5		20	
ARSENIC	94.8	2	100	2	95	75-125		95.9		20	
BARIUM	165	5	100	65	99.3	75-125		165		20	
BERYLLIUM	47.1	0.5	50	0.5	94	75-125		47		20	
BORON	998	150	1000	150	100	75-125		993		20	
CADMIUM	30	2	30	2	100	75-125		29.7		20	
CALCIUM	388000	1000	10000	370000	171.4	75-125		380000		20	
CHROMIUM	489	10	500	10	98	75-125		474		20	
COBALT	94.9	5	100	5	95	75-125		93.5		20	
COPPER	956	20	1000	20	96	75-125		950		20	
IRON	4690	100	5000	120	91.3	75-125		4690		20	
LEAD	51.1	2	50	2	102	75-125		50		20	
LITHIUM	1030	20	1000	31	99.5	75-125		1030		20	
MAGNESIUM	36900	100	10000	27000	95	75-125		36400		20	
MANGANESE	103	5	100	5.2	97.5	75-125		100		20	
MOLYBDENUM	112	2	100	12	100	75-125		108		20	
NICKEL	490	20	500	20	98	75-125		484		20	
POTASSIUM	7840	1000	5000	3000	97.2	75-125		7690		20	
SELENIUM	129	10	100	29	100.6	75-125		128		20	
SILVER	10	0.5	10	0.5	100	75-125		10.1		20	
SODIUM	51100	1000	10000	40000	106.3	75-125		50500		20	
THALLIUM	2.02	0.1	2	0.1	101	75-125		1.99		20	
URANIUM	34.3	0.1	10	24	107	75-125		34.4		20	
VANADIUM	95.8	5	100	5	96	75-125		92.6		20	
ZINC	1770	100	2000	100	88	75-125		1770		20	

The following samples were analyzed in this batch:

1910231-1	1910231-2	1910231-3
1910231-4	1910231-5	1910231-6
1910231-7	1910231-8	1910231-9
1910231-10	1910231-11	1910231-12
1910231-13	1910231-14	1910231-15
1910231-16	1910231-17	1910231-18
1910231-19	1910231-20	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-3-5** Instrument ID: **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM191017-3			Units: UG/L		Analysis Date: 10/22/2019 15:55				
Client ID:		Run ID: IM191022-10A7				Prep Date: 10/17/2019			DF: 10		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
ALUMINUM	4380	100	5000		88	80-120				20	
ANTIMONY	27.6	1	30		92	80-120				20	
ARSENIC	92.3	2	100		92	80-120				20	
BARIUM	94.4	5	100		94	80-120				20	
BERYLLIUM	47.4	0.5	50		95	80-120				20	
BORON	929	150	1000		93	80-120				20	
CADMIUM	29.7	2	30		99	80-120				20	
CALCIUM	9710	1000	10000		97	80-120				20	
CHROMIUM	470	10	500		94	80-120				20	
COBALT	92.6	5	100		93	80-120				20	
COPPER	942	20	1000		94	80-120				20	
IRON	4870	100	5000		97	80-120				20	
LEAD	51.6	2	50		103	80-120				20	
LITHIUM	998	20	1000		100	80-120				20	
MAGNESIUM	8980	100	10000		90	80-120				20	
MANGANESE	98.5	5	100		99	80-120				20	
MOLYBDENUM	95.5	2	100		96	80-120				20	
NICKEL	478	20	500		96	80-120				20	
POTASSIUM	4620	1000	5000		92	80-120				20	
SELENIUM	101	10	100		101	80-120				20	
SILVER	9.95	0.5	10		99	80-120				20	
SODIUM	9010	1000	10000		90	80-120				20	
THALLIUM	1.97	0.1	2		99	80-120				20	
URANIUM	9.72	0.1	10		97	80-120				20	
VANADIUM	90.8	5	100		91	80-120				20	
ZINC	1760	100	2000		88	80-120				20	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IP191017-3-5** Instrument ID **ICPMS2** Method: **SW6020**

MB Sample ID: **IP191017-3** Units: **UG/L** Analysis Date: **10/22/2019 15:52**
Client ID: Run ID: **IM191022-10A7** Prep Date: **10/17/2019** DF: **10**

Analyte	Result	ReportLimit	Qual
ALUMINUM	ND	100	
ANTIMONY	ND	1	
ARSENIC	ND	2	
BARIUM	ND	5	
BERYLLIUM	ND	0.5	
BORON	ND	150	
CADMIUM	ND	2	
CALCIUM	ND	1000	
CHROMIUM	ND	10	
COBALT	ND	5	
COPPER	ND	20	
IRON	ND	100	
LEAD	ND	2	
LITHIUM	ND	20	
MAGNESIUM	ND	100	
MANGANESE	ND	5	
MOLYBDENUM	ND	2	
NICKEL	ND	20	
POTASSIUM	ND	1000	
SELENIUM	ND	10	
SILVER	ND	0.5	
SODIUM	ND	1000	
THALLIUM	ND	0.1	
URANIUM	ND	0.1	
VANADIUM	ND	5	
ZINC	ND	100	

The following samples were analyzed in this batch:

1910231-21 1910231-22

Client: Telesto Solutions Inc
 Work Order: 1910231
 Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **AK191018-2-1** Instrument ID **NONE** Method: **SM2320B**

DUP	Sample ID: 1910231-1				Units: MG/L		Analysis Date: 10/18/2019				
Client ID: MW-05		Run ID: AK191018-1a1				Prep Date: 10/18/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BICARBONATE AS CaCO3	274	20						270	0	15	
CARBONATE AS CaCO3	ND	20						20		15	
TOTAL ALKALINITY AS CaCO3	274	20						270	0	15	

LCS	Sample ID: AK191018-2				Units: MG/L		Analysis Date: 10/18/2019				
Client ID:	Run ID: AK191018-1a1				Prep Date: 10/18/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	105	5	100		105	85-115				15	

MB	Sample ID: AK191018-2	Units: MG/L	Analysis Date: 10/18/2019
Client ID:	Run ID: AK191018-1a1	Prep Date: 10/18/2019	DF: 1
Analyte	Result	ReportLimit	Qual
BICARBONATE AS CaCO3	ND	5	
CARBONATE AS CaCO3	ND	5	
TOTAL ALKALINITY AS CaCO3	ND	5	

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **CN191021-1-1** Instrument ID **Spec** Method: **SW9014**

LCS	Sample ID: CN191021-1			Units: MG/L			Analysis Date: 10/30/2019				
Client ID:	Run ID: CN191030-1A1						Prep Date: 10/21/2019		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.215	0.005	0.2		107	85-115				30	

MB	Sample ID: CN191021-1			Units: MG/L	Analysis Date: 10/30/2019	
Client ID:	Run ID: CN191030-1A1			Prep Date: 10/21/2019	DF: 1	
Analyte	Result	ReportLimit	Qual			
CYANIDE, TOTAL	ND	0.005				

MS	Sample ID: 1910231-1			Units: MG/L			Analysis Date: 10/30/2019				
Client ID: MW-05		Run ID: CN191030-1A1			Prep Date: 10/21/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.116	0.005	0.1	0.005	116	75-125				30	

MSD	Sample ID: 1910231-1			Units: MG/L			Analysis Date: 10/30/2019				
Client ID: MW-05		Run ID: CN191030-1A1			Prep Date: 10/21/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CYANIDE, TOTAL	0.113	0.005	0.1	0.005	113	75-125		0.116	3	30	

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **IC191016-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC191016-1			Units: MG/L			Analysis Date: 10/18/2019 12:45				
Client ID:		Run ID: IC191018-1A1			Prep Date: 10/16/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.86	0.1	5		97	90-110				15	
CHLORIDE	9.79	0.2	10		98	90-110				15	
SULFATE	48.9	1	50		98	90-110				15	

LCSD	Sample ID: IC191016-1				Units: MG/L		Analysis Date: 10/18/2019 15:23				
Client ID:		Run ID: IC191018-1A1				Prep Date: 10/16/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.76	0.1	5		95	90-110		4.86	2	15	
CHLORIDE	9.82	0.2	10		98	90-110		9.79	0	15	
SULFATE	49.4	1	50		99	90-110		48.9	1	15	

MB	Sample ID: IC191016-1			Units: MG/L	Analysis Date: 10/18/2019 12:58		
Client ID:		Run ID: IC191018-1A1			Prep Date: 10/16/2019		DF: 1
Analyte		Result	ReportLimit		Qual		
FLUORIDE		ND	0.1				
CHLORIDE		ND	0.2				
SULFATE		ND	1				

MS		Sample ID: 1910231-21				Units: MG/L		Analysis Date: 10/18/2019 18:58			
Client ID: MW-12		Run ID: IC191018-1A1				Prep Date: 10/16/2019		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	2.48	0.1	2	0.69	89	85-115				15	
CHLORIDE	15.8	0.2	5	11	95	85-115				15	

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **NN191025-3-1** Instrument ID: **Lachat** Method: **EPA353.2**

LCS	Sample ID: NN191025-3				Units: MG/L			Analysis Date: 10/25/2019 11:23			
Client ID:	Run ID: NN191025-1A1				Prep Date: 10/25/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NITRATE/NITRITE AS N	0.47	0.01	0.5		94	90-110				20	

LCSD	Sample ID: NN191025-3				Units: MG/L			Analysis Date: 10/25/2019 11:25			
Client ID:	Run ID: NN191025-1A1				Prep Date: 10/25/2019			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NITRATE/NITRITE AS N	0.471	0.01	0.5		94	90-110		0.47	0	20	

MB	Sample ID: NN191025-3				Units: MG/L		Analysis Date: 10/25/2019 11:21			
Client ID:		Run ID: NN191025-1A1				Prep Date: 10/25/2019		DF: 1		
Analyte		Result	ReportLimit						Qual	
NITRATE/NITRITE AS N		ND	0.01							

MS	Sample ID: 1910231-7				Units: MG/L			Analysis Date: 10/25/2019 12:14			
Client ID: MW-06		Run ID: NN191025-1A1				Prep Date: 10/25/2019			DF: 50		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NITRATE/NITRITE AS N	32.2	0.5	25	7.2	100	90-110				20	

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **pH191016-1-1** Instrument ID **pH-2** Method: **SM4500-H**

DUP Sample ID: **1910231-21** Units: **pH** Analysis Date: **10/18/2019**

Client ID: **MW-12** Run ID: **pH191016-1A1** Prep Date: **10/16/2019** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
PH	7.82	0.1							7.86		

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	

Client: Telesto Solutions Inc
Work Order: 1910231
Project: 360100 LRM - Knox Pit

QC BATCH REPORT

Batch ID: **TD191015-1-1** Instrument ID **Balance** Method: **SM2540C**

DUP	Sample ID: 1910231-1		Units: MG/L				Analysis Date: 10/16/2019				
Client ID: MW-05		Run ID: TD191016-1A1				Prep Date: 10/15/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	1550	40						1500	2	30	

LCS	Sample ID: TD191015-1		Units: MG/L				Analysis Date: 10/16/2019				
Client ID:		Run ID: TD191016-1A1				Prep Date: 10/15/2019			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	375	20	400		94	85-115				30	

MB	Sample ID: TD191015-1		Units: MG/L				Analysis Date: 10/16/2019				
Client ID:		Run ID: TD191016-1A1				Prep Date: 10/15/2019			DF: 1		
Analyte	Result	ReportLimit									Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

1910231-1	1910231-3	1910231-5
1910231-7	1910231-9	1910231-11
1910231-13	1910231-15	1910231-17
1910231-19	1910231-21	



25-Oct-2019

Jeff Kujawa
ALS Environmental
225 Commerce Dr
Ft. Collins, CO 80524

Re: **1910231**

Work Order: **19101170**

Dear Jeff,

ALS Environmental received 11 samples on 15-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink that reads "Ehrland Bosworth".

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: ALS Environmental
Project: 1910231
Work Order: 19101170

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19101170-01	MW-05	Water		10/8/2019 14:32	10/15/2019 09:00	☐
19101170-02	MW-02	Water		10/8/2019 13:50	10/15/2019 09:00	☐
19101170-03	MW-08	Water		10/8/2019 15:25	10/15/2019 09:00	☐
19101170-04	MW-06	Water		10/8/2019 16:24	10/15/2019 09:00	☐
19101170-05	MW-07	Water		10/9/2019 10:05	10/15/2019 09:00	☐
19101170-06	MW-09	Water		10/9/2019 10:55	10/15/2019 09:00	☐
19101170-07	MW-10	Water		10/9/2019 11:55	10/15/2019 09:00	☐
19101170-08	P-1	Water		10/9/2019 12:15	10/15/2019 09:00	☐
19101170-09	P-2	Water		10/9/2019 14:05	10/15/2019 09:00	☐
19101170-10	MW-13	Water		10/9/2019 14:50	10/15/2019 09:00	☐
19101170-11	MW-12	Water		10/9/2019 15:20	10/15/2019 09:00	☐

Client: ALS Environmental

Project: 1910231

WorkOrder: 19101170

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: 25-Oct-19

CLIENT: ALS Environmental
Project: 1910231

Work Order: 19101170

Lab ID: 19101170-01A
Client Sample ID: MW-05

Collection Date: 10/8/2019 2:32:00 PM
Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	5.3	0.50	0.14		mg/L	1	10/19/2019 10:12 AM

Lab ID: 19101170-02A
Client Sample ID: MW-02

Collection Date: 10/8/2019 1:50:00 PM
Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	1.9	0.50	0.14		mg/L	1	10/23/2019 08:23 AM

Lab ID: 19101170-03A
Client Sample ID: MW-08

Collection Date: 10/8/2019 3:25:00 PM
Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	5.9	0.50	0.14		mg/L	1	10/19/2019 10:12 AM

Lab ID: 19101170-04A
Client Sample ID: MW-06

Collection Date: 10/8/2019 4:24:00 PM
Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	7.2	0.50	0.14		mg/L	1	10/19/2019 10:12 AM

Lab ID: 19101170-05A
Client Sample ID: MW-07

Collection Date: 10/9/2019 10:05:00 AM
Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	2.2	0.50	0.14		mg/L	1	10/23/2019 08:23 AM

Qualifiers: U - Analyzed for but Not Detected
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
P - Dual Column results RPD > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

ALS Group USA, Corp

Date: 25-Oct-19

CLIENT: ALS Environmental
Project: 1910231

Work Order: 19101170

Lab ID: 19101170-06A

Collection Date: 10/9/2019 10:55:00 AM

Client Sample ID: MW-09

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	5.2	0.50	0.14		mg/L	1	10/19/2019 10:12 AM

Lab ID: 19101170-07A

Collection Date: 10/9/2019 11:55:00 AM

Client Sample ID: MW-10

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	4.3	1.0	0.28		mg/L	2	10/23/2019 08:23 AM

Lab ID: 19101170-08A

Collection Date: 10/9/2019 12:15:00 PM

Client Sample ID: P-1

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	3.7	0.50	0.14		mg/L	1	10/23/2019 08:23 AM

Lab ID: 19101170-09A

Collection Date: 10/9/2019 2:05:00 PM

Client Sample ID: P-2

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	3.4	0.50	0.14		mg/L	1	10/24/2019 12:28 PM

Lab ID: 19101170-10A

Collection Date: 10/9/2019 2:50:00 PM

Client Sample ID: MW-13

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	2.0	0.50	0.14		mg/L	1	10/24/2019 12:28 PM

Qualifiers: U - Analyzed for but Not Detected
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
P - Dual Column results RPD > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

ALS Group USA, Corp

Date: 25-Oct-19

CLIENT: ALS Environmental
Project: 1910231

Work Order: 19101170

Lab ID: 19101170-11A

Collection Date: 10/9/2019 3:20:00 PM

Client Sample ID: MW-12

Matrix: WATER

Analyses	Result	Report Limit	MDL	Qual	Units	Dilution Factor	Date Analyzed
ORGANIC CARBON, TOTAL		E415.1					Analyst: JZB
Organic Carbon, Total	1.3	0.50	0.14		mg/L	1	10/24/2019 12:28 PM

Qualifiers: U - Analyzed for but Not Detected
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
P - Dual Column results RPD > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

Client: ALS Environmental
Work Order: 19101170
Project: 1910231

QC BATCH REPORT

Batch ID: **R273390A** Instrument ID **TOC3** Method: **E415.1**

MBLK		Sample ID: MB-R273390-R273390A				Units: mg/L		Analysis Date: 10/19/2019 10:12 A			
Client ID:		Run ID: TOC3_191019A				SeqNo: 6000828		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	U	0.14	0.50								

LCS		Sample ID: LCS-R273390-R273390A				Units: mg/L		Analysis Date: 10/19/2019 10:12 A			
Client ID:		Run ID: TOC3_191019A				SeqNo: 6000829		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	4.639	0.14	0.50	5	0	92.8	80-120	0			

MS		Sample ID: 19101170-11AMS				Units: mg/L		Analysis Date: 10/19/2019 10:12 A			
Client ID: MW-12		Run ID: TOC3_191019A				SeqNo: 6000841		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	6.818	0.14	0.50	5	2.416	88	70-130	0			

MSD		Sample ID: 19101170-11AMSD				Units: mg/L		Analysis Date: 10/19/2019 10:12 A			
Client ID: MW-12		Run ID: TOC3_191019A				SeqNo: 6000842		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	6.931	0.14	0.50	5	2.416	90.3	70-130	6.818	1.64	20	

The following samples were analyzed in this batch:

19101170-01A	19101170-02A	19101170-03A
19101170-04A	19101170-05A	19101170-06A
19101170-07A	19101170-08A	19101170-09A
19101170-10A	19101170-11A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental

Work Order: 19101170

Project: 1910231

QC BATCH REPORT

Batch ID: **R273666A** Instrument ID **TOC3** Method: **E415.1**

MBLK		Sample ID: MB-R273666-R273666A				Units: mg/L		Analysis Date: 10/23/2019 08:23 A			
Client ID:		Run ID: TOC3_191023A				SeqNo: 6008177		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	U	0.14	0.50								

LCS		Sample ID: LCS-R273666-R273666A				Units: mg/L		Analysis Date: 10/23/2019 08:23 A			
Client ID:		Run ID: TOC3_191023A				SeqNo: 6008178		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	5.356	0.14	0.50	5	0	107	80-120	0			

MS		Sample ID: 19101206-07D MS				Units: mg/L		Analysis Date: 10/23/2019 08:23 A			
Client ID:		Run ID: TOC3_191023A				SeqNo: 6008184		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	7.66	0.14	0.50	5	2.849	96.2	70-130	0			

MSD		Sample ID: 19101206-07D MSD				Units: mg/L		Analysis Date: 10/23/2019 08:23 A			
Client ID:		Run ID: TOC3_191023A				SeqNo: 6008185		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	7.748	0.14	0.50	5	2.849	98	70-130	7.66	1.14	20	

The following samples were analyzed in this batch:

19101170-02A	19101170-05A	19101170-07A
19101170-08A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: ALS Environmental

Work Order: 19101170

Project: 1910231

QC BATCH REPORT

Batch ID: **R273793A** Instrument ID **TOC3** Method: **E415.1**

MBLK		Sample ID: MB-R273793-R273793A				Units: mg/L		Analysis Date: 10/24/2019 12:28 P			
Client ID:		Run ID: TOC3_191024A				SeqNo: 6012158		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	U	0.14	0.50								

LCS		Sample ID: LCS-R273793-R273793A				Units: mg/L		Analysis Date: 10/24/2019 12:28 P			
Client ID:		Run ID: TOC3_191024A				SeqNo: 6012159		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	5.364	0.14	0.50	5	0	107	80-120	0			

MS		Sample ID: 19101170-11AMS				Units: mg/L		Analysis Date: 10/24/2019 12:28 P			
Client ID: MW-12		Run ID: TOC3_191024A				SeqNo: 6012163		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	6.382	0.14	0.50	5	1.273	102	70-130	0			

MSD		Sample ID: 19101170-11AMSD				Units: mg/L		Analysis Date: 10/24/2019 12:28 P			
Client ID: MW-12		Run ID: TOC3_191024A				SeqNo: 6012164		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	6.625	0.14	0.50	5	1.273	107	70-130	6.382	3.74	20	

The following samples were analyzed in this batch:

19101170-09A	19101170-10A	19101170-11A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524

TF: (800) 443-1511 w PH: (970) 490-1511 w FX: (970) 490-1522

Chain-of-Custody

LAB ID	19101170
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

PROJECT NAME	LRM - Knox Pit	E-MAIL	Jeff.Kujawa@ALSGlobal.Com	DATE	10/14/2019																	
PROJECT No.	360100	PHONE	970-490-1511	TURNAROUND	Standard																	
REPORT TO	Jeff Kujawa	FAX	970-490-1522																			
COMPANY	ALS Laboratory Group																					
ADDRESS	225 Commerce Drive, Fort Collins, Colorado 80524																					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Btls	QC	TOC															
	MW-05	WATER	10/08/2019	14:32	1		X															
	MW-02	WATER	10/08/2019	13:50	1		X															
	MW-08	WATER	10/08/2019	15:25	1		X															
	MW-06	WATER	10/08/2019	16:24	1		X															
	MW-07	WATER	10/09/2019	10:05	1		X															
	MW-09	WATER	10/09/2019	10:55	1		X															
	MW-10	WATER	10/09/2019	11:55	1		X															
	P-1	WATER	10/09/2019	12:15	1		X															
	P-2	WATER	10/09/2019	14:05	1		X															
	MW-13	WATER	10/09/2019	14:50	1		X															
	MW-12	WATER	10/09/2019	15:20	1		X															
COMMENTS																						
2.0°C SRZ PH18																						
EB																						
Relinquished By	SIGNATURE				DATE		TIME		COMPANY													
Received By	Erik Evans		10/14/19		1555		ALS CO															
Relinquished By	Matt Casyford		10/15/19		9:00		ALS															
Received By																						

Sample Receipt Checklist

Client Name: ALS - FORT COLLINS

Date/Time Received: 15-Oct-19 09:00

Work Order: 19101170

Received by: MJG

Checklist completed by Matthew Gaylord
eSignature

15-Oct-19
Date

Reviewed by: Ehland Bramworth
eSignature

15-Oct-19
Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.0/2.0C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>10/15/2019 12:58:27 PM</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☒	N/A ☐
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: