

App E-
Sub-Area 5.3- COC Forms

Page: _____ of _____ Project #: GEL Quote #: COC Number (1): PO Number:		GEL Chain of Custody and Analytical Request **See www.gel.com for GEL's Sample Acceptance SOP** GEL Work Order Number:				GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178										
Client Name:		Phone #:		Sample Analysis Requested (5) (Fill in the number of containers for each test)												
Project/Site Name:		Fax #:		Should this sample be considered	<div style="display: flex; justify-content: space-between;"> --- Preservative Type (6) </div> <div style="text-align: center; margin-top: 20px;"> Comments Note: extra sample is required for sample specific QC </div>											
Address:																
Collected by:		Send Results To:		TSC A Regulated												
Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hh:mm)	QC Code (3)										Field Filtered (Y)	Sample Matrix (6)	Radiocative	her of
* For composites - indicate start and stop date/time																
S.2.B.R.8.1	12/11/15															
S.2.B.R.8.2	12/11/15															
S.3.A.R.2.1	12/11/15															
S.3.A.R.2.2	12/11/15															
S.3.A.R.3.1	12/11/15															
S.3.A.R.3.2	12/11/15															
S.3.A.R.4.1	12/11/15															
S.3.A.R.4.2	12/11/15															
S.3.A.R.4.5	12/11/15															
TAT Requested: Normal:		Rush:		Specify: (Subject to Surcharge)		Fax Results: Yes / No		Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4								
Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards								Sample Collection Time Zone Eastern Pacific Central Other _____ Mountain								
Chain of Custody Signatures						Sample Shipping and Delivery Details										
Relinquished By (Signed) Date Time			Received by (signed) Date Time			GEL PM:										
1			1			Method of Shipment:			Date Shipped							
2			2			Airbill #:										
3			3			Airbill #:										
1.) Chain of Custody Number - Client Determined 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FB = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered 4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = N/A 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1) 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Saline Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added - leave field blank										For Lab Receiving Use Only Custody Seal Intact? YES NO Cooler Temp C						
WHITE = LABORATORY						YELLOW = FILE			PINK = CLIENT							

Page: _____ of _____ Project #: _____ GEL Quote #: _____ COC Number (1): _____ PO Number: _____		GEL Chain of Custody and Analytical Request **See www.gel.com for GEL's Sample Acceptance SOP**		GEL Laboratories, LLC 2040 Savage Road Charleston, SC 29407 Phone: (843) 556-8171 Fax: (843) 766-1178														
Client Name: _____		Phone #: _____		Sample Analysis Requested (2) (Fill in the number of containers for each test)														
Project/Site Name: _____		Fax #: _____		Should this sample be considered: _____ -- Preservative Type (6) _____ Comments: Note: extra sample is required for sample specific QC														
Address: _____		Send Results To: _____																
Collected by: _____		_____																
_____		_____																
Sample ID <small>* For composites - indicate start and stop date/time</small>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hh:mm)	QC (Code m)	Field Filtered (y)	Sample Matrix (t)	Radiocell (y)	TSC A Regulated (per yr)											
S.3.A.R.1.1	12/15/15																	
S.3.A.R.1.2	12/15/15																	
S.3.A.R.1.3	12/15/15																	
S.3.A.R.1.4	12/15/15																	
S.3.A.R.1.5	12/15/15																	
S.3.A.R.1.6	12/15/15																	
S.3.A.R.1.7	12/15/15																	
TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to S+ charge)		Fax Results: Yes / No		Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4														
Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards												Sample Collection Time Zone Eastern Pacific Central Other _____ Mountain						
Chain of Custody Signatures						Sample Shipping and Delivery Details												
Relinquished By (Signed)		Date		Time		Received by (signed)		Date		Time		GEL PM: _____						
1						1						Method of Shipment: _____ Date Shipped: _____						
2						2						Airbill #: _____						
3						3						Airbill #: _____						
1) Chain of Custody Number - Client Determined 2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, IG = Grab, C = Composite 3) Field Filtered - For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered 4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Miscellaneous Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = N/A 5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 8010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1) 6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank												For Lab Receiving Use Only: Custody Seal Intact? YES NO Cooler Temp. C.						
WHITE = LABORATORY				YELLOW = FILE				PINK = CLIENT										

**App E –
Sub-Area 5.3 - Field Survey Checklists**

The MJW Companies

GPS Field Survey Checklist

The following field survey checklist is used once the survey team has walked to the location that they will begin a GPS survey. This checklist is intended to verify none of the cables or settings changed or cables came loose between the initial setup location and the field survey location. Complete step 9 once the current walkover segment is complete

1. LB Verify the Ludlum Meter is in Rate mode
2. LB Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
3. LB Set Menu 1 to "Status" and Menu 2 to "Receiver"
4. LB Verify that Antenna states "External"
5. LB Set Menu 1 to "Data"
6. LB Name a file to start the current survey and start the data logger

Filename: 12 15 15 5 - 2 b

7. LB Set Menu 1 to "Status" and Menu 2 to "Sensor" 12 15 15 5 3 a 12 15 15 5 4 a
8. LB Verify that the sensor field is reading the same as the display on the Ludlum
9. LB When finished, set Menu 1 to "Data" and close the current file.

Name: Juliett. Ba

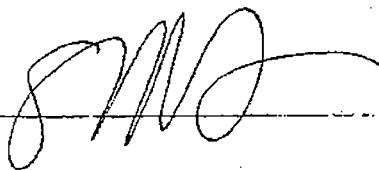
Date: 12/15/15

The MJW Companies

GPS Initial Setup Checklist

1. ☒ Complete source check of Ludlum Meter
2. ☒ Power off Ludlum Meter
3. ☒ Verify Trimble is shutdown (not in suspend mode)
4. ☒ Connect the Serial Interface Adapter (SIA) to the Trimble Unit
5. ☒ Connect the Serial cable to the Ludlum Meter
6. ☒ Connect the Serial cable to the Trimble SIA
7. ☒ Connect external GPS antenna cable to the Trimble
8. ☒ Power on Ludlum Meter to Rate mode
9. ☒ Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
10. ☒ Power on the Trimble and wait for it to completely boot
11. ☒ Launch TerraSync and wait for it to load and acquire satellites
12. ☒ Set Menu 1 to "Status" and Menu 2 to "Receiver"
13. ☒ Verify that Antenna states "External"
14. ☒ Set Menu 1 to "Data"
15. ☒ Name a test file and start the data logger
16. ☒ Set Menu 1 to "Status" and Menu 2 to "Sensor"
17. ☒ Verify that the sensor field is reading the same as the display on the Ludlum
18. ☒ Set Menu 1 to "Data" and close the current file.

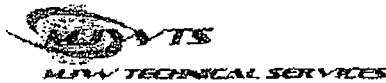
Name: _____



Date: _____

12.15.15
8:21am

App E –
Sub-Area 5.3 - Sample Data Sheets



SAMPLE LOCATION DATA SHEET

Date: 12/15/15 Project: MSERDA Name: J. Brown

Weather: Windy, rainy, upper 40's

1. Sample Area (SA):

SA Designation: S.3.A Description: Wooded lot
 SA Origin Location: _____ Coord. System: _____
 SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.3.A.R.1 Matrix: Soil
 Location Coord: 42°31'2.15" N 78°58'32.35" W

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) _____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) ☒ (NO)

Sample Location Description: flat ground next to path, some trees, dead leaves (cleared)

Canopy Type: Partially open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): dry

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
	8891	8735	6	5	Bicron Micro Rem #1487 cal due 6/18/16 Bicron 2241.2 #206098 with probe 44-10 PR112642 cal due 9/1/16
	8947	8493			

4. Sample Information:

Sample Area ID: S.3.A.R.1.1-6

Description by Depth:

Depth Interval (cm)	Soil Type (Org; clay; sand, etc.)	Soil Color	Sample ID	Sampling Description (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-5	topsoil	dk. brown	S.3.A.R.1.1	few roots
15-30	topsoil	brown	S.3.A.R.1.2	some roots
30-60	topsoil	lt. brown	S.3.A.R.1.3	some roots
60-100	topsoil/sand	lt. brown	S.3.A.R.1.4	heavy roots / rocks
0-15	topsoil	dk. brown	S.3.A.R.1.5	few roots
60-100	topsoil/sand	lt. brown	S.3.A.R.1.6	heavy roots / rocks

Sample Recorded on Laboratory COC form and Container Labeled: ☒ (Y) ☐ (N)

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NUSERDA Name: J. Brown

Weather: Sunny, low 60's!

1. Sample Area (SA):

SA Designation: S.3.A Description: Wooded lot
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.3.A.R.2 Matrix: Soil

Location Coord: 42° 31' 1.73" N 78° 58' 32.13" W

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) _____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat ground, some trees, dead leaves (cleared)

Canopy Type: partially open Land Use: hiking etc. Soil Moisture (Wet, dry, etc.): slightly damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7330	6888	5	4	Bicron Micro Rem #1487 cal due 6/12/16 Tudlem 2241-2 #201098 with probe 44-10 # 02112647 cal due 9/1/16
1	7528	6790			

4. Sample Information:

Sample Area ID: S.3.A.R.2.1-2

Description by Depth:

Depth Interval (cm)	Soil Type (Org; clay; sand, etc.)	Soil Color	Sample ID	Sampling Description (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dark brown	S.3.A.R.2.1	
15-30	topsoil, loam	dark brown	S.3.A.R.2.2	few roots

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)



MOUNTAIN TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NYSE.R.D.A Name: J. BrownWeather: Sunny, low 60's

1. Sample Area (SA):

SA Designation: S.3.A Description: Wooded lot
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.3.A.R.3 Matrix: SoilLocation Coord: 42°31'1.79" N 78°58'32.82" W

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) _____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) (NO)Sample Location Description: flat ground, some trees, dead locusts (cleared)Canopy Type: partially open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): slightly damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	8129	7433	6	5	Bicron Micro-Ram # 1487 cal/dose 6/1/16
1	8098	7446			Ludlum 2241-2# 206098
					with probe 44-10# PR112042 cal/dose 9/1/16

4. Sample Information:

Sample Area ID: S.3.A.R.3.1-2

Description by Depth:

Depth Interval (cm)	Soil Type (Org; clay; sand, etc.)	Soil Color	Sample ID	Sampling Description (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dark brown	S.3.A.R.3.1	
15-30	topsoil	dark brown	S.3.A.R.3.2	few roots

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

10/20/15

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NYSEK DA Name: J. Brown

Weather: Sunny, low clouds

1. Sample Area (SA):

SA Designation: S.3.A Description: Wooded lot
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.3.A.R.4 Matrix: Soil

Location Coord: 42° 31' 1.89" N 78° 58' 32.46" W

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) _____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) ☒ (NO)

Sample Location Description: flat ground, some trees, dead leaves (cleared)

Canopy Type: partial open Land Use: hiking, etc. Soil Moisture (Wet, dry, etc.): slightly damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7612	7098	5	5	Bicron Microbeam #1487 cal due 6/15/16
1	7773	7109			Ludlum 2241-2 nd 206098
					with probe 44-16 th 112642 cal due 9/1/16

4. Sample Information:

Sample Area ID: S.3.A.R.4.1-2

Description by Depth:

Depth Interval (cm)	Soil Type (Org; clay; sand, etc.)	Soil Color	Sample ID	Sampling Description (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dark brown	S.3.A.R.4.1	some roots
15-30	topsoil	dark brown	S.3.A.R.4.2	heavy roots

Sample Recorded on Laboratory COC form and Container Labeled: ☒ (Y) ☐ (N)

App E-
Sub-Area 5.3- Static Survey Tables

AREA 5.3A

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12-15-15	5.3A	R	1	1		X				42°31'2.15"N	78°58'32.35"W
12-15-15	5.3A	R	1	2			X				
12-15-15	5.3A	R	1	3				X			
12-15-15	5.3A	R	1	4					X		
12-15-15	5.3A	R	1	5		X					
12-15-15	5.3A	R	1	6					X		
12-11-15	5.3A	R	2	1		X				42°31'1.73"N	78°58'32.13"W
12-11-15	5.3A	R	2	2			X				
12-11-15	5.3A	R	3	1		X				42°31'1.79"N	78°58'32.82"W
12-11-15	5.3A	R	3	2			X				
12-11-15	5.3A	R	4	1		X				42°31'1.89"N	78°58'32.46"W
12-11-15	5.3A	R	4	2			X				
12-11-15											

AREA 5.3A

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12/15/15	5.3A	R	1	1		X				42°31'2.15"N	78°58'32.35"W
12/15/15	5.3A	R	1	2			X				
12/15/15	5.3A	R	1	3				X			
12/15/15	5.3A	R	1	4					X		
12/15/15	5.3A	R	1	5		X					
12/15/15	5.3A	R	1	6					X		
12/11/15	5.3A	R	2	1		X				42°31'1.73"N	78°58'32.13"W
12/11/15	5.3A	R	2	2			X				
12/11/15	5.3A	R	3	1		X				42°31'1.79"N	78°58'32.82"W
12/11/15	5.3A	R	3	2			X				
12/11/15	5.3A	R	4	1		X				42°31'1.89"N	78°58'32.46"W
12/11/15	5.3A	R	4	2			X				