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Draft Final 2022 Residential Metals Abatement Program (RMAP) Park Soil Sampling Field Sampling Plan (FSP) Submittal #4 [Covering Tot Lot, Clark Park, Huron Tennis Courts, Father Sheehan Park, Community Garden, and Lexington Gardens]

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June 14, 2022

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RE: Draft Final RMAP Park Soil Sampling Field Sampling Plan (FSP) Submittal #4 [Covering Tot Lot, Clark Park, Huron Tennis Courts, Father Sheehan Park, Community Garden, and Lexington Gardens]

Agency Representatives:

I am writing to you on behalf of Atlantic Richfield Company to submit the Draft Final Residential Metals Abatement Program (RMAP) Park Soil Sampling Field Sampling Plan Submittal #4, which addresses soil sampling at Tot Lot, Clark Park, Huron Tennis Courts, Father Sheehan Park, Community Garden, and the Lexington Gardens under the RMAP program. The report, tables, and figures may be downloaded at the following link:

https://pioneertechnicalservices.sharepoint.com/:f:/s/submitted/Er0IJ0ZDZlhBo2Ks9YgKeF4Bgo96KH3_Pm0TgbNREtqtrw.

If you have any questions or comments, please call me at (907) 355-3914.

Sincerely,



Mike Mc Anulty
Liability Manager
Remediation Management Services Company
An affiliate of **Atlantic Richfield Company**

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**SILVER BOW CREEK/BUTTE AREA NPL SITE
BUTTE PRIORITY SOILS OPERABLE UNIT**

Draft Final

*2022 Residential Metals Abatement Program (RMAP)
Park Soil Sampling Field Sampling Plan (FSP)*

Submittal #4

*[Covering Tot Lot, Clark Park, Huron Tennis Courts,
Father Sheehan Park, Community Garden, and
Lexington Gardens]*

Butte-Silver Bow County

and

Atlantic Richfield Company

June 14, 2022

**SILVER BOW CREEK/BUTTE AREA NPL SITE
BUTTE PRIORITY SOILS OPERABLE UNIT**

Draft Final

***2022 Residential Metals Abatement Program (RMAP)
Park Soil Sampling Field Sampling Plan (FSP)
Submittal #4
[Covering Tot Lot, Clark Park, Huron Tennis Courts,
Father Sheehan Park, Community Garden, and
Lexington Gardens]***

Prepared for:

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Atlantic Richfield Company
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June 14, 2022

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- Table 2 2022 RMAP Park Soil Sampling Quantity Summary (FSP Submittal #4)

LIST OF ATTACHMENTS

Attachment A Final 2022 Residential Metals Abatement Program (RMAP) Quality Assurance Project Plan (QAPP) (Non-Residential Parcels)

DOCUMENT MODIFICATION SUMMARY

Modification	Author	Version	Description	Date
0	Jesse Schwarzrock	Draft Final	Issued for Agency Review	06/14/22

1.0 INTRODUCTION

This Field Sampling Plan (FSP) was developed to outline a portion of the 2022 Residential Metals Abatement Program (RMAP) park/play area soil sampling plan for Butte, Montana, area parks. Soil sampling procedures, data quality objectives, standard operating procedures, sampling analytical methods, sampling equipment, quality control (QC) samples, and data validation and assessment will be according to the *Final Residential Metals Abatement Program (RMAP) Quality Assurance Project Plan (QAPP) (Non-Residential Parcels)* (Butte-Silver Bow County and Atlantic Richfield Company, 2022) (referred to herein as QAPP), provided in Attachment A.

2.0 PARK SOIL SAMPLING SCOPE

The scope of work covered by this FSP includes the following parks:

- Tot Lot.
- Clark Park.
- Huron Tennis Courts.
- Father Sheehan Park.
- Community Garden.
- Lexington Gardens.

The attached figure set (Figure 1 through Figure 6) depicts the areas to be sampled and shows the individual sampling polygons and associated areas. Table 1 lists the park properties (along with Resident ID's, geocodes, and ownership information), and Table 2 shows the anticipated sampling quantities for the parks covered by this FSP.

3.0 PARK SOIL SAMPLING SCHEDULE

Sampling schedules will be finalized through ongoing conversations with appropriate representatives. Pending Agency approvals, sampling efforts will begin in June 2022. The appropriate utility locating service (i.e., One Call Utility Locate Services) will be contacted and informed of sampling activities 48 hours prior to commencing soil sampling activities.

4.0 FIELD SAMPLING PLAN

4.1 Soil Sampling Procedures

Soil sampling procedures will be completed as stated in Section 3.2 (for composite sampling) and Section 3.3 (for incremental sampling) of the QAPP (Attachment A).

4.1.1 Soil Sampling Density, Location, and Compositing

Soil sampling density, location, and compositing decisions will be made according to the information provided in Section 3.2.1 (for composite sampling) and Section 3.3.1 (for incremental sampling) of the QAPP (Attachment A).

4.1.2 Soil Sampling Depths

Sampling depths will be selected as stated in Section 3.2.2 (for composite sampling) and Section 3.3.2 (for incremental sampling) of the QAPP (Attachment A).

4.1.3 Equipment Decontamination

Reusable sampling equipment will be decontaminated as described in Section 3.2.4 (for composite sampling) and Section 3.3.4 (for incremental sampling) of the QAPP (Attachment A).

4.2 Sampling Polygon Delineation

The reasoning behind the delineation of sampling polygons is documented below. This information was collected from Butte-Silver Bow representatives as well as site visits. Field sampling crews will have the flexibility to make minor modifications to these polygons in the field as needed (e.g., if crews discover a garden area that was not previously delineated, they will have the ability to add it to the plan and sample accordingly) in consultation with the Agencies' field representative.

4.2.1 Tot Lot

- Land Use Category #1 (playgrounds) – Tot Lot has one playground area. It will be sampled per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #2 (high access areas/barren sports areas) – This land use category is not applicable at this park.
- Land Use Category #3 (grass areas/turf covered sports fields) – The entire park is an established/maintained lawn area. Due to its consistent land use and well-maintained nature, this area has been designated as a grass sampling area. Because the area is less than ¼ acre (10,890 square feet), it will be sampled per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #4 (low access areas/low maintenance areas) – This land use category is not applicable at this park.
- Land Use Category #5 (garden areas) – This land use category is not applicable at this park.

4.2.2 Clark Park

- Land Use Category #1 (playgrounds) – Clark Park has sixteen separate playground areas. Each will be sampled separately per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).

- Land Use Category #2 (high access areas/barren sports areas) – There is a large aggregate covered area in the northeast portion of Clark Park that is flooded in the winter season for use as a skating rink. Due to its aggregate cover, the entire area has been designated a high access area. Based on its area, it will be sampled as nine separate high access sampling polygons per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #3 (grass areas/turf covered sports fields) – Large portions of Clark Park consist of established/maintained lawn areas. Due to their consistent land use and well-maintained nature, these areas have been designated as grass sampling areas that will be sampled per the Incremental Sampling Methodology (ISM) logic detailed in Section 3.3 of the QAPP (Attachment A). Based on their total area, these grass sampling areas will be broken down into three separate ISM decision units.
- Land Use Category #4 (low access areas/low maintenance areas) – This land use category is not applicable at this park.
- Land Use Category #5 (garden areas) – Clark Park has eight separate garden areas. Each will be sampled separately per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).

4.2.3 Huron Tennis Courts

- Land Use Category #1 (playgrounds) – This land use category is not applicable at this park.
- Land Use Category #2 (high access areas/barren sports areas) – This land use category is not applicable at this park.
- Land Use Category #3 (grass areas/turf covered sports fields) – There is a small strip of grass outside of the Huron Tennis Courts fenced perimeter adjacent to West Elementary School. Due to its consistent land use and well-maintained nature, this area has been designated as a grass sampling area. Because the area is less than ¼ acre (10,890 square feet), it will be sampled per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #4 (low access areas/low maintenance areas) – This land use category is not applicable at this park.
- Land Use Category #5 (garden areas) – This land use category is not applicable at this park.

4.2.4 Father Sheehan Park

- Land Use Category #1 (playgrounds) – Father Sheehan Park has one playground area. It will be sampled per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).

- Land Use Category #2 (high access areas/barren sports areas) – Father Sheehan Park contains six youth baseball fields along with a bullpen warm up area. All of the baseball infields as well as the bullpen warm up area are aggregate covered. Due to these aggregate covers as well as their current land use, all of these areas have been designated high access areas. Based on the area of each location, these high access areas will be sampled as 14 separate high access sampling polygons per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #3 (grass areas/turf covered sports fields) – Large portions of Father Sheehan Park consist of established/maintained lawn areas. Due to their consistent land use and well-maintained nature, these areas have been designated as grass sampling areas that will be sampled per the ISM logic detailed in Section 3.3 of the QAPP (Attachment A). Based on their total area, these grass sampling areas will be broken down into three separate ISM decision units.
- Land Use Category #4 (low access areas/low maintenance areas) – This land use category is not applicable at this park.
- Land Use Category #5 (garden areas) – This land use category is not applicable at this park.

4.2.5 Community Garden

- Land Use Category #1 (playgrounds) – This land use category is not applicable at this park.
- Land Use Category #2 (high access areas/barren sports areas) – Outside of the elevated garden boxes, the three city lots that comprise the Community Garden area largely consists of sparse vegetation and bare soil. Due to its lack of vegetative cover, the entire area (outside of the elevated garden boxes) has been designated a high access area. Based on its area, it will be sampled as one high access sampling polygon per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #3 (grass areas/turf covered sports fields) – This land use category is not applicable at this park.
- Land Use Category #4 (low access areas/low maintenance areas) – This land use category is not applicable at this park.
- Land Use Category #5 (garden areas) – There are 29 elevated garden boxes present at the Community Garden location. Each will be sampled separately per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).

4.2.6 Lexington Gardens

- Land Use Category #1 (playgrounds) – This land use category is not applicable at this park.
- Land Use Category #2 (high access areas/barren sports areas) – There are two separate aggregate covered areas within the Lexington Gardens site. The first is the area surrounding the historic stamp mill in the northwest portion of the site. The second is an L shaped area consisting of a parking area and utility corridor adjacent to North Ohio Street. Due to the aggregate covers present, these areas have been designated high access areas. Each will be sampled separately per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #3 (grass areas/turf covered sports fields) – A portion of the Lexington Gardens site along East Broadway Street consists of an established/maintained lawn area. Due to its consistent land use and well-maintained nature, this area has been designated as a grass sampling area that will be sampled per the ISM logic detailed in Section 3.3 of the QAPP (Attachment A). Based on its total area, this grass sampling area will consist of one ISM decision unit.
- Land Use Category #4 (low access areas/low maintenance areas) – There is an aggregate capped slope area in the middle of the Lexington Gardens site between the parking lot (on the upper bench) and the grass covered area (on the lower bench) along East Broadway Street. Based on the existing slope of this aggregate capped area as well as the current land use, this area has been designated as a low access sampling area and will be sampled per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).
- Land Use Category #5 (garden areas) – The northwest corner of the Lexington Gardens site as well as the boulevards areas along East Granite Street and North Arizona Street consist of landscaped garden areas. Based on the area of each location, these garden areas will be sampled as six separate garden sampling polygons per the composite sampling methodology detailed in Section 3.2 of the QAPP (Attachment A).

4.3 Deviations

This section addresses any deviations to the Agencies-approved QAPP (Attachment A) pertaining to 2022 Butte Priority Soils Operable Unit RMAP park soil sampling in or near Butte. Deviations include the following:

- No known deviations at this time.
- Any future deviations will be discussed with the Agencies' field representative, documented in the field, and addressed through forthcoming Data Summary Reports.

5.0 LABORATORY METHODS

5.1 Soil Metals Analyses Methods

Soil metals analyses will be conducted as stated in Section 3.6 of the QAPP (Attachment A).

6.0 QUALITY CONTROL

6.1 Field Quality Control Samples

Field QC will be conducted as stated in Sections 3.7 and 3.7.1 of the QAPP (Attachment A).

7.0 REFERENCES

Butte-Silver Bow County and Atlantic Richfield Company, 2022. Silver Bow Creek/Butte Area NPL Site Butte Priority Soils Operable Unit. Final Residential Metals Abatement Program (RMAP) Quality Assurance Project Plan (QAPP). May 2022.

FIGURES



LEGEND		
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)	 ISM INCREMENT BOUNDARY
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)	 ISM SAMPLING POLYGON BOUNDARY
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)	 SAMPLING POLYGON BOUNDARY
■	LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)	 SAMPLING PERIMETER BOUNDARY
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)	
■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)	
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)	
■	OPPORTUNISTIC COMPOSITE SAMPLING	
■	NON-SAMPLING AREAS	

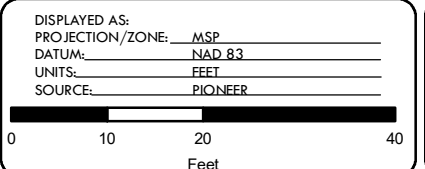
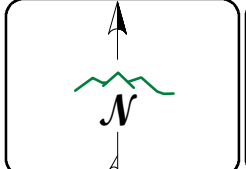
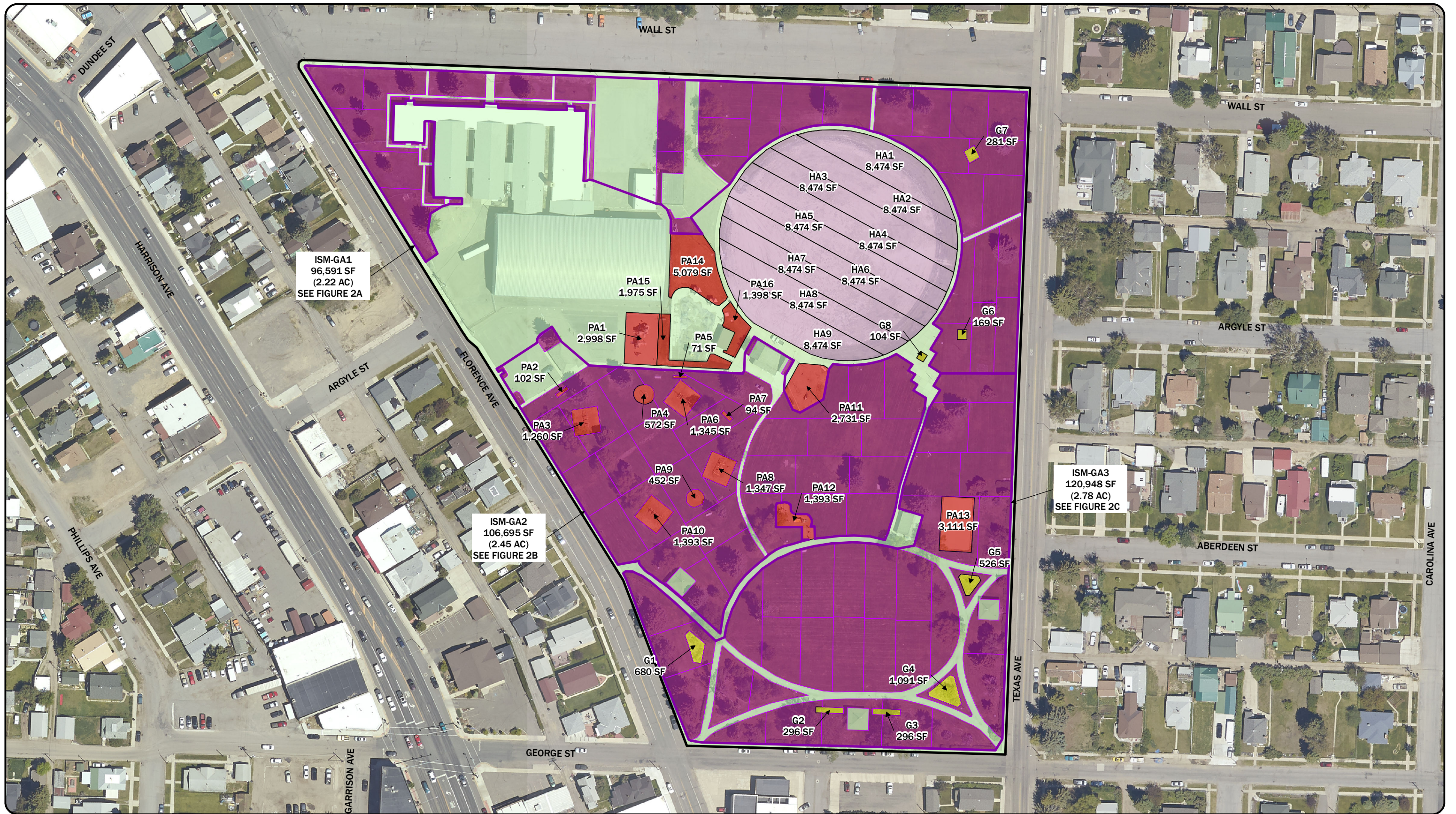


FIGURE 1

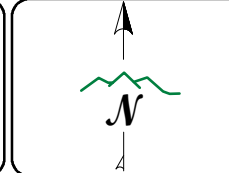
PIONEER
TECHNICAL SERVICES, INC.

**TOT LOT
(GOLD/EMMETT)
FIELD SAMPLING PLAN**

DATE: 5/12/2022



LEGEND			
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)	 	ISM INCREMENT BOUNDARY
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)	 	ISM SAMPLING POLYGON BOUNDARY
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)	 	SAMPLING POLYGON BOUNDARY
■	LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)	 	SAMPLING PERIMETER BOUNDARY
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)		
■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)		
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)		
■	OPPORTUNISTIC COMPOSITE SAMPLING		
■	NON-SAMPLING AREAS		



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FIGURE 2

TECHNICAL SERVICES, INC.

CLARK PARK

FIELD SAMPLING PLAN

DATE: 5/25/2022



LEGEND	
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
■	OPPORTUNISTIC COMPOSITE SAMPLING
■	NON-SAMPLING AREAS
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 	ISM SAMPLING POLYGON BOUNDARY
 	SAMPLING POLYGON BOUNDARY
 	SAMPLING PERIMETER BOUNDARY

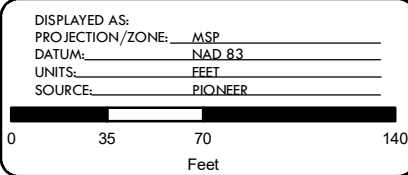
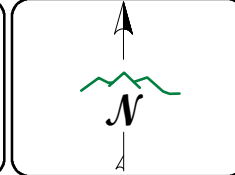


FIGURE 2A

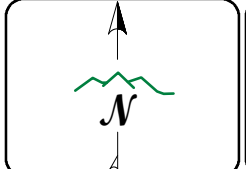
TECHNICAL SERVICES, INC.

CLARK PARK
FIELD SAMPLING PLAN
(ISM-GA1)

DATE: 6/1/2022



LEGEND	
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■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)
■	LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
■	OPPORTUNISTIC COMPOSITE SAMPLING
■	NON-SAMPLING AREAS
□	ISM INCREMENT BOUNDARY
□	ISM SAMPLING POLYGON BOUNDARY
□	SAMPLING POLYGON BOUNDARY
□	SAMPLING PERIMETER BOUNDARY



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	DATUM: NAD 83
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	SOURCE: PIONEER

FIGURE 2B



TECHNICAL SERVICES, INC.

CLARK PARK

FIELD SAMPLING PLAN

(ISM-GA2)

DATE: 5/25/2022



LEGEND			
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)	■	LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)	■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)	■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
		■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
		■	OPPORTUNISTIC COMPOSITE SAMPLING
		■	NON-SAMPLING AREAS
		 	ISM INCREMENT BOUNDARY
		 	ISM SAMPLING POLYGON BOUNDARY
		 	SAMPLING POLYGON BOUNDARY
		 	SAMPLING PERIMETER BOUNDARY

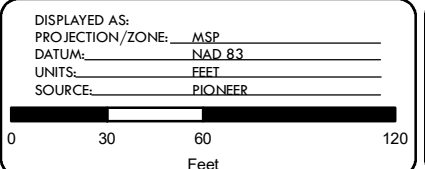
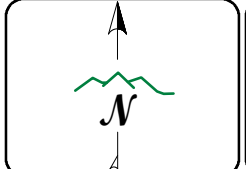
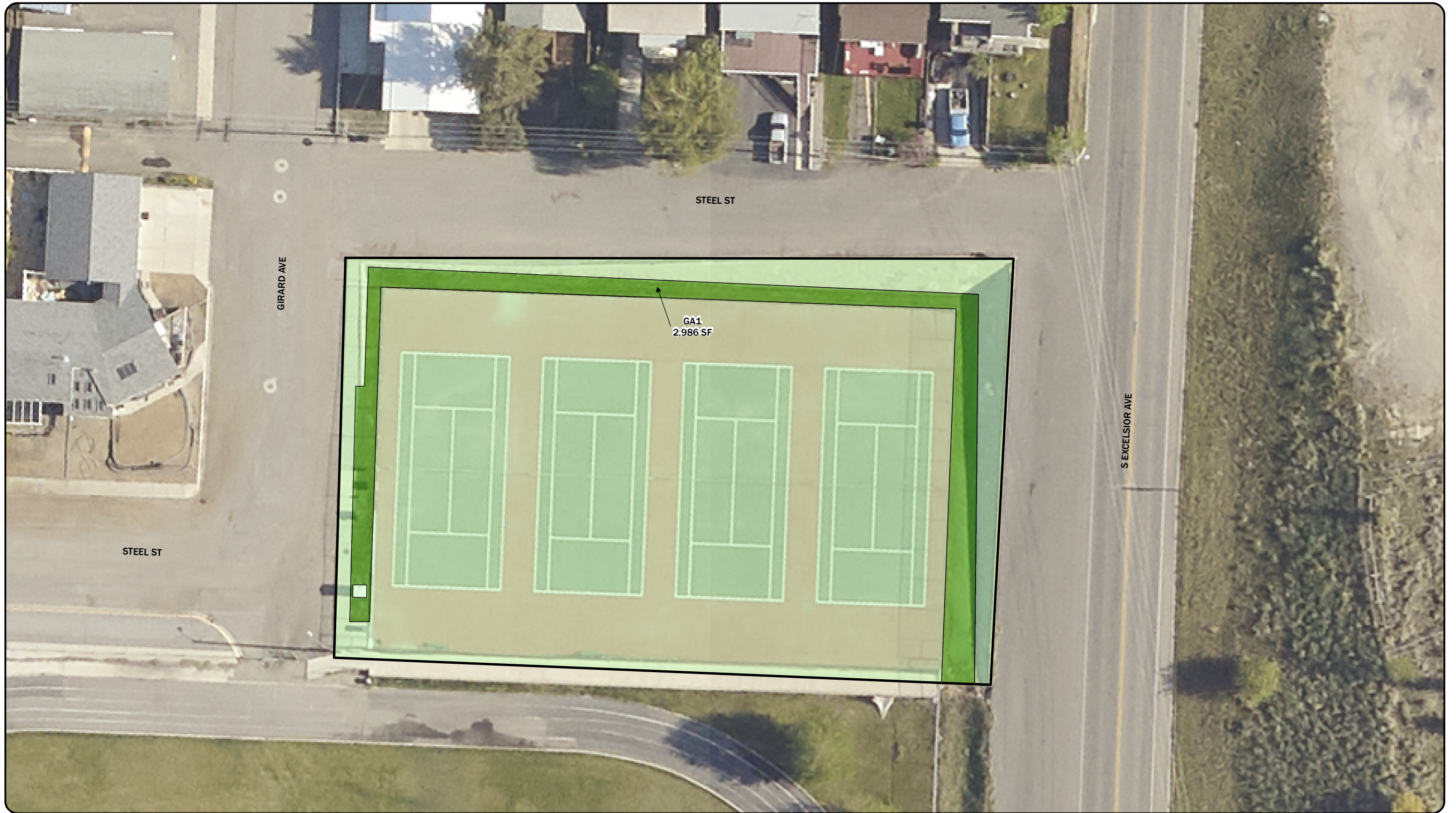


FIGURE 2C

TECHNICAL SERVICES, INC.

**CLARK PARK
FIELD SAMPLING PLAN
(ISM-GA3)**

DATE: 5/25/2022



LEGEND		
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)	 ISM INCREMENT BOUNDARY
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)	 ISM SAMPLING POLYGON BOUNDARY
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)	 SAMPLING POLYGON BOUNDARY
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)	 SAMPLING PERIMETER BOUNDARY
■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)	
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)	
■	OPPORTUNISTIC COMPOSITE SAMPLING	
■	NON-SAMPLING AREAS	

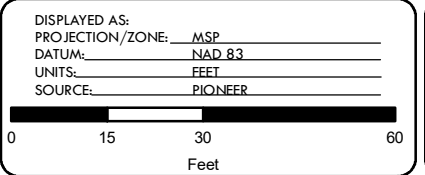
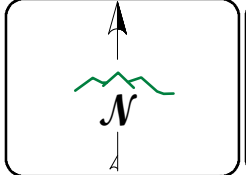


FIGURE 3

PIONEER
TECHNICAL SERVICES, INC.

HURON TENNIS COURTS
FIELD SAMPLING PLAN

DATE: 5/12/2022

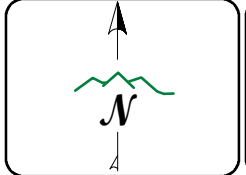


LEGEND

- LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)
- LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
- LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)

- LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)
- LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
- LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
- LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
- OPPORTUNISTIC COMPOSITE SAMPLING
- NON-SAMPLING AREAS

- ISM INCREMENT BOUNDARY
- ISM SAMPLING POLYGON BOUNDARY
- SAMPLING POLYGON BOUNDARY
- SAMPLING PERIMETER BOUNDARY



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 PROJECTION/ZONE: MSP
 DATUM: NAD 83
 UNITS: FEET
 SOURCE: PIONEER

FIGURE 4

PIONEER
TECHNICAL SERVICES, INC.

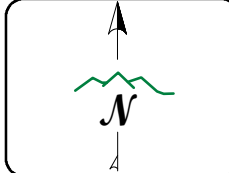
FATHER SHEEHAN PARK
FIELD SAMPLING PLAN

DATE: 6/1/2022



LEGEND

- | | | |
|---|---|--|
| LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS) | LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS) | ISM INCREMENT BOUNDARY |
| LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS) | LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS) | ISM SAMPLING POLYGON BOUNDARY |
| LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS) | OPPORTUNISTIC COMPOSITE SAMPLING | SAMPLING POLYGON BOUNDARY |
| LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS) | NON-SAMPLING AREAS | SAMPLING PERIMETER BOUNDARY |



DISPLAYED AS:
 PROJECTION/ZONE: MSP
 DATUM: NAD 83
 UNITS: FEET
 SOURCE: PIONEER

FIGURE 4A

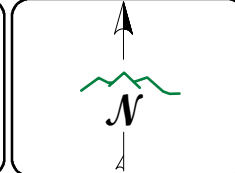
FATHER SHEEHAN PARK
FIELD SAMPLING PLAN
 (ISM-GA1)

DATE: 6/1/2022



LEGEND

- | | | |
|---|---|--|
| ■ LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS) | ■ LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS) | □ ISM INCREMENT BOUNDARY |
| ■ LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS) | ■ LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS) | □ ISM SAMPLING POLYGON BOUNDARY |
| ■ LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS) | ■ LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS) | □ SAMPLING POLYGON BOUNDARY |
| ■ OPPORTUNISTIC COMPOSITE SAMPLING | ■ NON-SAMPLING AREAS | □ SAMPLING PERIMETER BOUNDARY |



DISPLAYED AS:
 PROJECTION/ZONE: MSP
 DATUM: NAD 83
 UNITS: FEET
 SOURCE: PIONEER

FIGURE 4B

FATHER SHEEHAN PARK
FIELD SAMPLING PLAN
 (ISM-GA2)

DATE: 6/1/2022



LEGEND	
■	LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)
■	LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
■	LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)
■	LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
■	LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
■	LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
■	OPPORTUNISTIC COMPOSITE SAMPLING
■	NON-SAMPLING AREAS
 	ISM INCREMENT BOUNDARY
 	ISM SAMPLING POLYGON BOUNDARY
 	SAMPLING POLYGON BOUNDARY
 	SAMPLING PERIMETER BOUNDARY

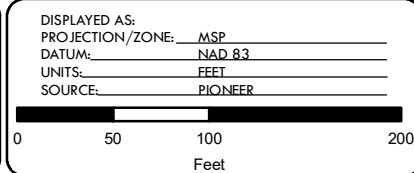
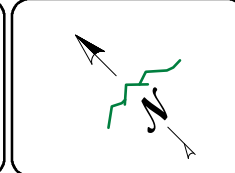


FIGURE 4C

PIONEER
TECHNICAL SERVICES, INC.

FATHER SHEEHAN PARK
FIELD SAMPLING PLAN
(ISM-GA3)

DATE: 6/1/2022



- LEGEND**
- LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)
 - LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
 - LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)

- LAND USE #3 ISM SAMPLING (MAINTAINED GRASS AREAS)
- LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
- LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
- LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
- OPPORTUNISTIC COMPOSITE SAMPLING
- NON-SAMPLING AREAS

- ISM INCREMENT BOUNDARY
- ISM SAMPLING POLYGON BOUNDARY
- SAMPLING POLYGON BOUNDARY
- SAMPLING PERIMETER BOUNDARY

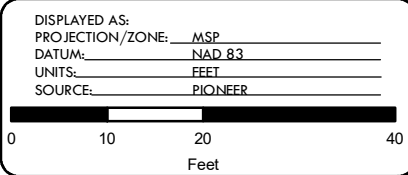
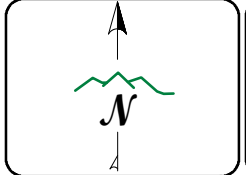


FIGURE 5

PIONEER
TECHNICAL SERVICES, INC.

**COMMUNITY GARDEN
FIELD SAMPLING PLAN**

DATE: 5/24/2022

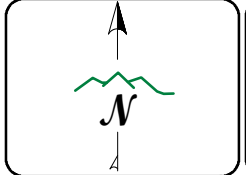


LEGEND

- LAND USE #1 COMPOSITE SAMPLING (PLAYGROUND AREAS)
- LAND USE #2 COMPOSITE SAMPLING (HIGHLY ACCESSIBLE AREAS/BARREN SPORTS FIELDS)
- LAND USE #3 COMPOSITE SAMPLING (MAINTAINED GRASS AREAS)
- LAND USE #4 COMPOSITE SAMPLING (LOW ACCESS AREAS)
- LAND USE #4 ISM SAMPLING (LOW ACCESS AREAS)
- LAND USE #5 COMPOSITE SAMPLING (GARDEN AREAS)
- OPPORTUNISTIC COMPOSITE SAMPLING
- NON-SAMPLING AREAS
- ISM INCREMENT BOUNDARY
- ISM SAMPLING POLYGON BOUNDARY
- SAMPLING POLYGON BOUNDARY
- SAMPLING PERIMETER BOUNDARY

ISM-GA1 14,940 SF (0.34 AC)
 INC. #16 459 SF
 INC. #17 459 SF
 INC. #18 459 SF
 INC. #19 459 SF
 INC. #20 459 SF
 INC. #21 459 SF
 INC. #22 459 SF
 INC. #23 459 SF
 INC. #24 459 SF
 INC. #25 459 SF
 INC. #26 459 SF
 INC. #27 459 SF
 INC. #28 459 SF
 INC. #29 459 SF
 INC. #30 459 SF

INC. #1 537 SF
 INC. #2 537 SF
 INC. #3 537 SF
 INC. #4 537 SF
 INC. #5 537 SF
 INC. #6 537 SF
 INC. #7 537 SF
 INC. #8 537 SF
 INC. #9 537 SF
 INC. #10 537 SF
 INC. #11 537 SF
 INC. #12 537 SF
 INC. #13 537 SF
 INC. #14 537 SF
 INC. #15 537 SF



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 PROJECTION/ZONE: MSP
 DATUM: NAD 83
 UNITS: FEET
 SOURCE: PIONEER
 0 25 50 100
 Feet

FIGURE 6

LEXINGTON GARDEN
FIELD SAMPLING PLAN

DATE: 6/6/2022

TABLES

**TABLE 1: 2022 RMAP PARK SOIL SAMPLING PROPERTY LIST
(FSP Submittal #4)**

Count	Res-ID	Geocode	Name	Owner
1	P-0019	01119714422350000	Tot Lot	BSB
2	P-0020	01119819114010000	Clark Park	BSB
3	P-0021	0111971429906MINE	Huron Tennis Courts	BSB
4	P-0022	01119829202016500	Father Sheehan Park	BSB
5	P-0023	01119713217070000 01119713217086500 01119713217090000	Community Garden	BSB
6	P-0036	01119713123010000 01119713123130000 01119713123010000 01119713123130000 01119713123140000	Lexington Gardens	BSB

**TABLE 2: 2022 RMAP PARK
SOIL SAMPLING QUANTITY SUMMARY
(FSP Submittal #4)**

Figure #	Res-ID	School/Park	Owner	Total Area (SF)	Polygon ID	Type Sampling (Composite or ISM)	Polygon Areas (SF)	Non Sampling Areas (SF)	Land Use #1 Playgrounds (SF)	Land Use #2 High Access (SF)	Land Use #3 Grass Areas (SF)	Land Use #4 Low Access (SF)	Land Use #5 Gardens (SF)	Opportunistic Sample Areas (SF)	# of Subsample Locations/ Increments	# of Samples	0-2"	2-6"	6-12"	2-12" (ISM Only)	12-18"	18-24"	Notes			
5	P-0023	Community Garden	BSB	8,599	G10	Composite	72						72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-			
					G11	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G12	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G13	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G14	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G15	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G16	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G17	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G18	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G19	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G20	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G21	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G22	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G23	Composite	86									86		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G24	Composite	86									86		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G25	Composite	86									86		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G26	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G27	Composite	72									72		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G28	Composite	67									67		2	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G29	Composite	27									27		1	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
Non Sampling Areas					-		101	101						-	-	-	-	-	-	-	-	-	-			
6	P-0036	Lexington Gardens	BSB	99,338	HA1	Composite	2,953			2,953					5	3	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	-	-	-			
					HA2	Composite	2,828			2,828							5	3	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	-	-	-	
					LA1	Composite	3,715									3,715		3	3	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	-	-	-
					LA2	Composite	5,100									5,100		3	3	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	-	-	-
					G1	Composite	2,813									2,813		5	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G2	Composite	2,095									2,095		4	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G3	Composite	2,542									2,542		5	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G4	Composite	2,924									2,924		5	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G5	Composite	2,501									2,501		5	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					G6	Composite	2,193									2,193		4	5	As/Pb/Hg	As/Pb/Hg	As/Pb/Hg	-	As/Pb/Hg	As/Pb/Hg	-
					GA1 (Replicate #1)	ISM												30	2	As/Pb/Hg	-	-	As/Pb/Hg	-	-	-
					GA1 (Replicate #2)	ISM	14,940								14,940			30	2	As/Pb/Hg	-	-	As/Pb/Hg	-	-	-
					GA1 (Replicate #3)	ISM												30	2	As/Pb/Hg	-	-	As/Pb/Hg	-	-	-
					Non Sampling Areas					-		54,734	54,734						-	-	-	-	-	-	-	-
Totals (SF):				1,702,359			1,702,359	591,156	35,063	171,066	875,938	8,815	20,321	0	1,208	401										
Totals (AC):				39.08			39.08	13.57	0.80	3.93	20.11	0.20	0.47	0.00												

ATTACHMENT A
FINAL 2022 RMAP QAPP
(NON-RESIDENTIAL PARCELS)

The Agencies are currently reviewing the Draft Final 2022 RMAP QAPP (Non-Residential Parcels) dated 6-13-22. The final approved version of the QAPP will be inserted into this FSP once both documents have obtained Agency approval.