

June 4, 2010 Project No. 1584-0902

Superintendent, Contaminated Sites Management Program Transport Canada Technical and Environmental Services 9700 Jasper Avenue Northwest Edmonton, Alberta T5J 4E6

ATTN: Darryl Pederson

Superintendent, Contaminated Sites Management Program

RE: Iqaluit Airport Land Treatment Units (LTUs) As-built inspection results (LTU C & LTU D)

Dear Mr. Pederson,

1.0 INTRODUCTION

Franz Environmental Inc. (Franz) was retained by Transport Canada (TC) to complete an inspection and generate as-built drawings of two LTUs located at the Iqaluit airport, Iqaluit, NU (See Figure 1). The as-built drawings are to be used as part of the requirements for water licence No. 1BR-LTU0608 with the Nunavut Water Board. The on-site inspection was completed on September 14, 2009.

1.1 Project Objectives

The goal of this project is to generate as-built drawings of the two LTUs (Cell C and Cell D) and record of site conditions to assess the performance of the LTUs. The specific objectives of the project are provided below:

- 1. To conduct field measurements of the two LTUs using a 50 m tape and levelling unit;
- 2. Inspect monitoring wells to ensure function;
- 3. To observe berms and cell liners to assess performance (i.e., containment of contaminated soils); and

4. To observe surrounding areas for any sign of leaching, cracking, or other potential geotechnical issues.

1.2 Scope of Work

This letter report provides the details of the LTU observations by Franz personnel including:

- As-built drawings (See Figures 2 & 3);
- 2. Inspection forms for each LTU (Tables 1 & 2);
- 3. Visual geotechnical stability assessment (Tables 3 & 4);
- 4. Raw calculations of soil volumes, berm heights, and floor slope for each LTU (Table 5);
- 5. Photo plates detailing the construction of each LTU (See Appendix A); and
- 6. Cross sections of the two LTUs (Figures 4 & 5)

Any major issues that were noted during the inspection and which should be addressed in a timely fashion are detailed in this letter report.

2.0 RESULTS OF INSPECTIONS

The on-site inspections were conducted on September 14, 2009 by Franz representatives, Ryan Fletcher and Julie Dittburner.

Generally the two LTUs appear to be functioning as designed and as indicated in the supplied KGS Group design specifications. However, some minor alterations to the design specs and items of concern are as follows:

Cell C

- Cell contains soil piled in the down-gradient sump area (Area 1 See Figures 2, 3, and
 4); therefore, inhibiting proper drainage of excess water
- Cell contains only one down-gradient monitoring well, while two were indicated on the design specifications
- Soil depths exceed the specified maximum of 1 m in Area 1 (See Figures 2, 3, and 4)
- Some larger pieces of asphalt and/or concrete exist in the impacted soils

Cell D

- Slope of cell floor was measured at only 0.12% grade (target was 1% grade); however, the sump appeared to be functioning as designed
- Liner on the NE and SE sides is not adequately anchored (keyed) into the berms as indicated in the design specifications
- Cell only contains one down- gradient monitoring well, while two were indicated on the design specifications

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 An average slope grade of 88% was measured for the outside berms (the target was 50% grade)

Generally, the two LTUs appear to be functioning as designed and no evidence of seepage or berm stress was noted (See attached Tables and Figures for details).

3.0 RECOMMENDATIONS

Based on the results of the LTU inspection, FRANZ makes the following recommendations:

- 1. Soil piled in the sump area of LTU Cell C should be removed and spread out across the cell to allow for adequate drainage and achieve desired maximum soil thickness of 1 m
- 2. Additional fill material should be added to the NE and SE berms of LTU Cell D to ensure adequate anchoring of the liners incase of high wind events
- 3. Soil berms in Cell D should be reinforced with additional fill material to obtain the specified 50% grade to ensure structural integrity incase of high precipitation events
- 4. Larger items (concrete and asphalt) should be removed to allow for adequate aeration of the material.

We trust that the above is satisfactory for your purposes at this time. Should you have any questions or concerns, please do not hesitate to call.

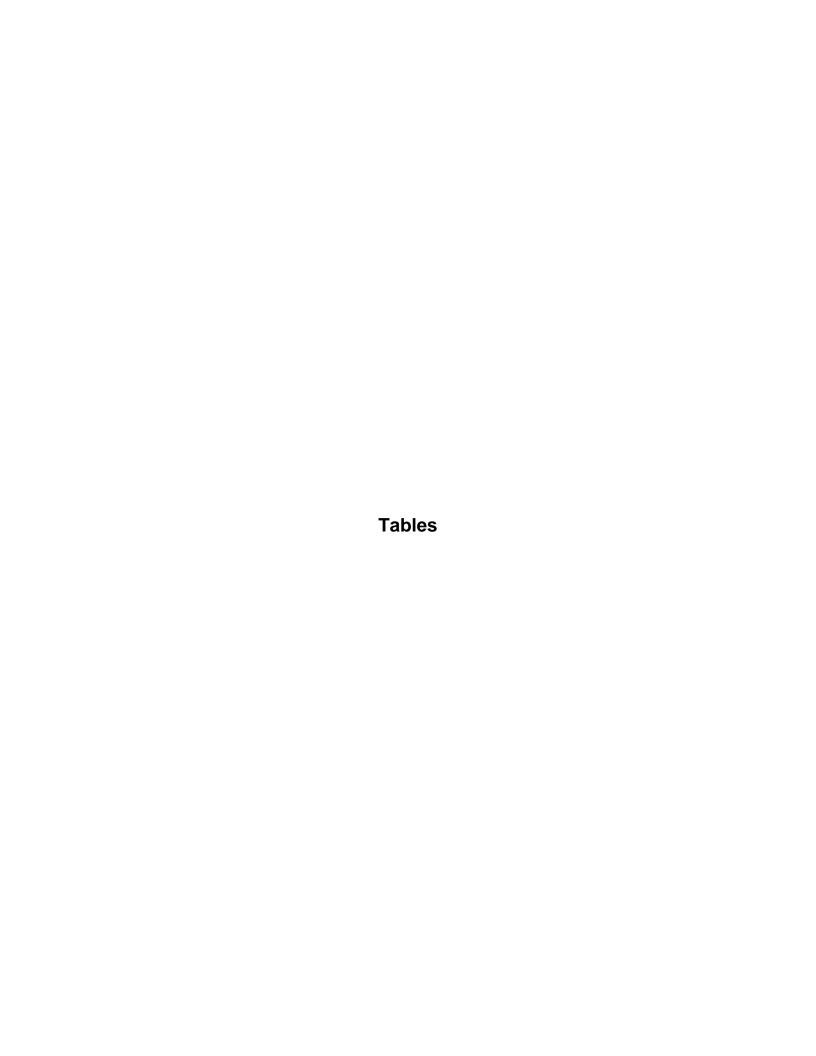
Franz Environmental Inc.

Ryan Fletcher, C.Tech, CEPIT

Environmental Technician

Christian A. Ludwig, M. Eng., P. Eng., PMP Project Principal

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Aspect Design aspects according to specifications Dimensions 130 m x 80 m measured from inside top of crest 92.6 m x 44 m Smaller than planned Slope 1% downwards along centerline lengthwise in direction of groundwater flow 2% downward from edges towards centerline not observable Cell Dike Crest Side slopes = 2h:1v Average of 54% grade Total height = 1.0 m Average height = 1.08 m Width across top = 1.5 m Average width = 2.04 m Constructed of pit run gravel (0.7 m) with 0.3 m sand on top Liner Anchor Top of anchor 0.3 m below top of dike Width of anchor = 1.0 m Unknown – not visible Depth interval of anchor within dike wall = 0.3 to Approximately 0.3 m to 0.8 m (value)	nknown
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Liner Anchor Top of anchor 0.3 m below top of dike Width of anchor = 1.0 m Unknown – not visible	
Width of anchor = 1.0 m Unknown – not visible	
Depth interval of anchor within dike wall = 0.3 to Approximately 0.3 m to 0.8 m (va	
	aries)
0.8 m	
Base 0.15 m "prepared base" on native soil Unknown – however very likely	
Overdelin by Comil UDDE line	- 1 41 1
Overlain by 60mil HDPE line No – 25 mm RPE reinforced point impermeable	olyethylene
Impermeable	
Overlain by geotextile Yes – Non-woven polypropylene	geotextile
(170 EX)	0
Overlain by 0.3 m of sand No	
Drainage At downgradient edge, collection trench 0.3 to No – filled in with soil	
1.0 m deep (?)	
Presence of drainage sump and pump out No	
location	
Contaminated Maximum thickness = 0.75 m Ave. 0.83 m	
Soil	
Slope at 2h:1v away from edges of drainage No	
trench at downgradient end	
Monitoring One upgradient well approx. 12 meters One 4.9 m upgradient good	condition
wells upgradient of cell centerline (frozen) – See Figures	
Two downgradient wells, approx. 12 m	
downgradient from bottom of dike wall, and 25 One 3.9 m downgradient – good	
m in from outside edges of crests (frozen) – See Figures	d condition

	Table 2 – Inspection Form, Cell D								
Aspect	Design aspects according to specifications	Observations							
Dimensions	130 m x 80 m measured from inside top of crest	49.6 m X 47 m							
		Smaller than planned							
Slope	1% downwards along centerline lengthwise in direction of groundwater flow	0.12%. Inadequate							
	2% downward from edges towards centerline	Not observable							
Cell Dike Crest	Side slopes = 2h:1v	Average 88% grade							
	Total height = 1.0 m	Average = 0.818 m							
	Width across top = 1.5 m	Average = 2.18 m							
	Constructed of pit run gravel (0.7 m) with 0.3 m sand on top	No – native fill material (sand – unknown)							
Liner Anchor	Top of anchor 0.3 m below top of dike	No							
	Width of anchor = 1.0 m	No - northeast side only periodically anchored. Other remaining sides good.							
	Depth interval of anchor within dike wall = 0.3 to 0.8 m	Varies - good on two sides, not the NE or SE side							
Base	0.15 m "prepared base" on native soil	Unknown – however very likely							
	Overlain by 60mil HDPE line	No - HDPE 30 mm non-woven liner material							
	Overlain by geotextile	Yes – Non-woven polypropylene geotextile (150 EX)							
	Overlain by 0.3 m of sand								
		No							
Drainage	At downgradient edge, collection trench 0.3 to 1.0 m deep (?)	Yes							
	Presence of drainage sump and pump out location	Yes							
Contaminated Soil	Maximum thickness = 0.75 m	Average = 0.43 m							
5	Slope at 2h:1v away from edges of drainage trench at downgradient end	Yes							
Monitoring wells	One upgradient well approx. 12 meters upgradient of cell centerline	One 3.9 m upgradient – good condition (frozen) – See Figures							
	Two downgradient wells, approx. 12 m downgradient from bottom of dike wall, and 25 m in from outside edges of crests	One 3.2 m downgradient – good condition (frozen) – See Figures							

Table 3: Preliminary Stability Assessment LTU C

Feature	Severity Rating	Extent		
Dike	Acceptable	None		
Settlement	Acceptable	None		
Erosion	Acceptable Occasional			
Frost Action	Acceptable	None		
Staining	Not Observed None			
Vegetation Stress	Not Observed None			
Seepage	Acceptable	None		
Overall LTU Performance	Acceptable			

Performance / Severity Rating	Description						
Acceptable	Noted features are of little consequence. The LTU is performing as designed.						
	Minor deviations in environmental or physical performance may be observed,						
	such as isolated areas of erosion, settlement.						
Marginal	Physical/environmental performance appears to be deteriorating with time.						
	Observations may include an increase in size or number of features of note, such						
	as differential settlement, erosion or cracking. No significant impact on LTU						
	stability to date, but potential for failure is assessed as low or moderate.						
Significant	Significant or potentially significant changes affecting LTU stability, such as						
	significant changes in slope geometry, significant erosion or differential						
	settlement; scarp development. The potential for failure is assessed as imminent.						
Unacceptable	Stability of LTU is compromised to the extent that ability to contain waste						
	materials is compromised. Examples may include:						
	Erosion channels or areas of differential settlement. Linear surround.						
	Liner exposed.Slope failure.						
	· Olopo landro.						
Extent	Description						
Isolated	Singular feature						
Occasional	Features of note occurring at irregular intervals/locations						
Numerous	Many features of note, impacted less than 50% of the surface						
	area of the LTU						
Extensive	Impacting greater than 50% of the surface area of the landfill						

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Table 4: Preliminary Stability Assessment LTU D

Feature	Severity Rating	Extent
Dike	Acceptable	None
Settlement	Acceptable	None
Erosion	Acceptable	Occasional
Frost Action	Acceptable None	
Staining	Not Observed None	
Vegetation Stress	Not Observed None	
Seepage	Acceptable	None
Overall LTU Performance	Accept	table

Performance / Severity Rating	Description						
Acceptable	Noted features are of little consequence. The LTU is performing as designed.						
	Minor deviations in environmental or physical performance may be observed,						
	such as isolated areas of erosion, settlement.						
Marginal	Physical/environmental performance appears to be deteriorating with time.						
	Observations may include an increase in size or number of features of note, such						
	as differential settlement, erosion or cracking. No significant impact on LTU						
	stability to date, but potential for failure is assessed as low or moderate.						
Significant	Significant or potentially significant changes affecting LTU stability, such as						
	significant changes in slope geometry, significant erosion or differential						
	settlement; scarp development. The potential for failure is assessed as imminent.						
Unacceptable	Stability of LTU is compromised to the extent that ability to contain waste						
	materials is compromised. Examples may include:						
	Erosion channels or areas of differential settlement.						
	Liner exposed.Slope failure.						
	Slope failure.						
Extent	Description						
Extent	Description						
Isolated	Singular feature						
Occasional	Features of note occurring at irregular intervals/locations						
Numerous	Many features of note, impacted less than 50% of the surface						
	area of the LTU						
Extensive	Impacting greater than 50% of the surface area of the landfill						

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870

slope

% grade

136.66667

95.138889

92.666667 178.33333

63.571429

38.616071

72.781955

120.58824

136.66667

79.176471

252.12121 54.794521

Cell C	dimensions 92.6 m X 44 m	Slope of floor = 0.85%

Berm Height

side slopes

Station	level 1 (m)	level 2 (m)	difference (height) (m)	top length (m)	bottom length (m) (to toe of slope)	difference (m)	slope (rise/run)	slope % grade
	1 1.7	1 2.56	0.85	1.6	2.8	1.2	0.85/1.2	70.833333
	2 1.7	1 2.58	0.87	2.5	2.6	0.1	0.87/0.1	
	3 1.6	7 2.99	1.32	1.1	3.2	2.1	1.32/2.1	62.857143
	4			1.5	3.2	1.7		
	5 1.5	3 2.86	1.33	1.5	3.7	2.2	1.33/2.2	60.454545
	6 1.0	7 1.82	0.75	2.1	3.5	1.4	0.75/1.4	53.571429
				3.4	5.5	2.1		
	8 1.0	7 2.39	1.32	3.2	5.4	2.2	1.32/2.2	60
	9 1.0	3 1.92	0.89	4.3	6.8	2.5	0.89/2.5	35.6
	10 1.2	8 2.23	0.95	1.1	3.3	2.2	0.95/2.2	43.181818
	11 1.6	8 2.84	1.16	1	3.6	2.6	1.16/2.6	44.615385
	12 1.	5 2.86	1.36	1.2	3.5	2.3	1.36/2.3	59.130435

2.041666667 1.883333333 54.471565 target 1.5 m target was 50% grade

difference (m) slope (rise/run)

0.6 0.82/0.6

0.72 0.685/0.72

1.05 0.973/1.05

0.6 1.07/0.6 1.4 0.89/1.4

2.24 0.895/2.24

1.33 0.968/1.33

0.68 0.82/0.68

0.6 0.82/0.6

0.85 0.673/0.85

0.33 0.832/2.34 0.73 0.4/0.73

Cell D dimensions 49.8 X 47 m

Slope of floor = 0.12%

side slopes

Average's

				difference
Station		level 1 (m)	level 2 (m)	(height) (m)
	1	0.885	1.705	0.82
	2	1	1.685	0.685
	3	0.835	1.808	0.973
	4	1.032	2.102	1.07
	5	1.005	1.895	0.89
	6	0.905	1.77	0.865
	7	0.382	1.35	0.968
	8	0.6	1.42	0.82
	^	4.45	4.07	0.03

Station	level 1 (m)	level 2 (m)	difference (height) (m)	top length (m)	bottom length (m) (to toe of slope)	(
1	0.885	1.705	0.82	1.4	2	ľ
2	1	1.685	0.685	1.35	2.07	ľ
3	0.835	1.808	0.973	1.3	2.35	ľ
4	1.032	2.102	1.07	3.7	4.3	Γ
5	1.005	1.895	0.89	4.5	5.9	Γ
6	0.905	1.77	0.865	4.68	6.92	Γ
7	0.382	1.35	0.968	1.15	2.48	Γ
8	0.6	1.42	0.82	1.63	2.31	Γ
9	1.15	1.97	0.82	1.8	2.4	Γ
10	0.972	1.645	0.673	1.65	2.5	Γ
11	0.77	1.602	0.832	2.01	2.34	Γ
12	0.62	1.02	0.4	1	1.73	Γ

Average's	0.8463333 1.66433333	0.818	2.180833333	3.108333333	0.9275	88.19407	
target 1.5 m							

floor slope

depth of soil in berm

L1 (m)	L2 (m)	distance	% grade	Station	level (m)	Area 1	Area 2	Area 3	
2.11	. ,				1.36				level (m)
				T2	1.29				
average floo	r elevation	(m)	2.485	T3	2.02				
(used for soi	l depth cald	s)		T4	1.98				
				T5	2.01				
				T6	2.3				
				T7	1.75				
				T8	1.36				

		1.16	average depth 2
Soil area 1 = 14	12 square metres	0.4075	average depth 3
Soil area 2 = 2	04 square metres		
Soil area 3 = 15	49 square metres	1313.16	volume area 1
		236.64	volume area 2
		631.2175	volume area 3
		2181.018	Total estimated volume (cubic metres)

floor slope

depth of soil in berm

L1 (m)	L2 (m)	distance	% grade	Station	level (m)
1.712	1.665	37.9	0.124011	T1	1.455
			-	T2	1.509
average floor elevation (m)			1.6885	T3	1.495
(used for soil depth calcs)				T4	1.456
				T5	1.31
				T6	0.908
				T7	0.865
				T8	1.045
				T9	1.26

Soil area =	1700	square	metres

1.255889 avrage level

0.432611 average depth

0.93 average depth 1

735.4389 estimated volume (cubic metres)





References:

(above) Google Earth satellite image, 2008.

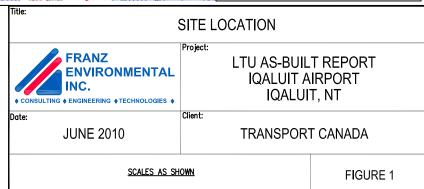
(upper right) "Canada Road Map", MapArt Publishing, 2003.

(lower right, composite) Natural Resources Canada NTS Sheet: 25-N/9 Burton Bay, Nunavut, Edition 3, NAD 83, Series A 713, 2001.

Natural Resources Canada NTS Sheet: 25-N/10 Hill Island, Nunavut, Edition 2, NAD 83, Series A 713, 2001.

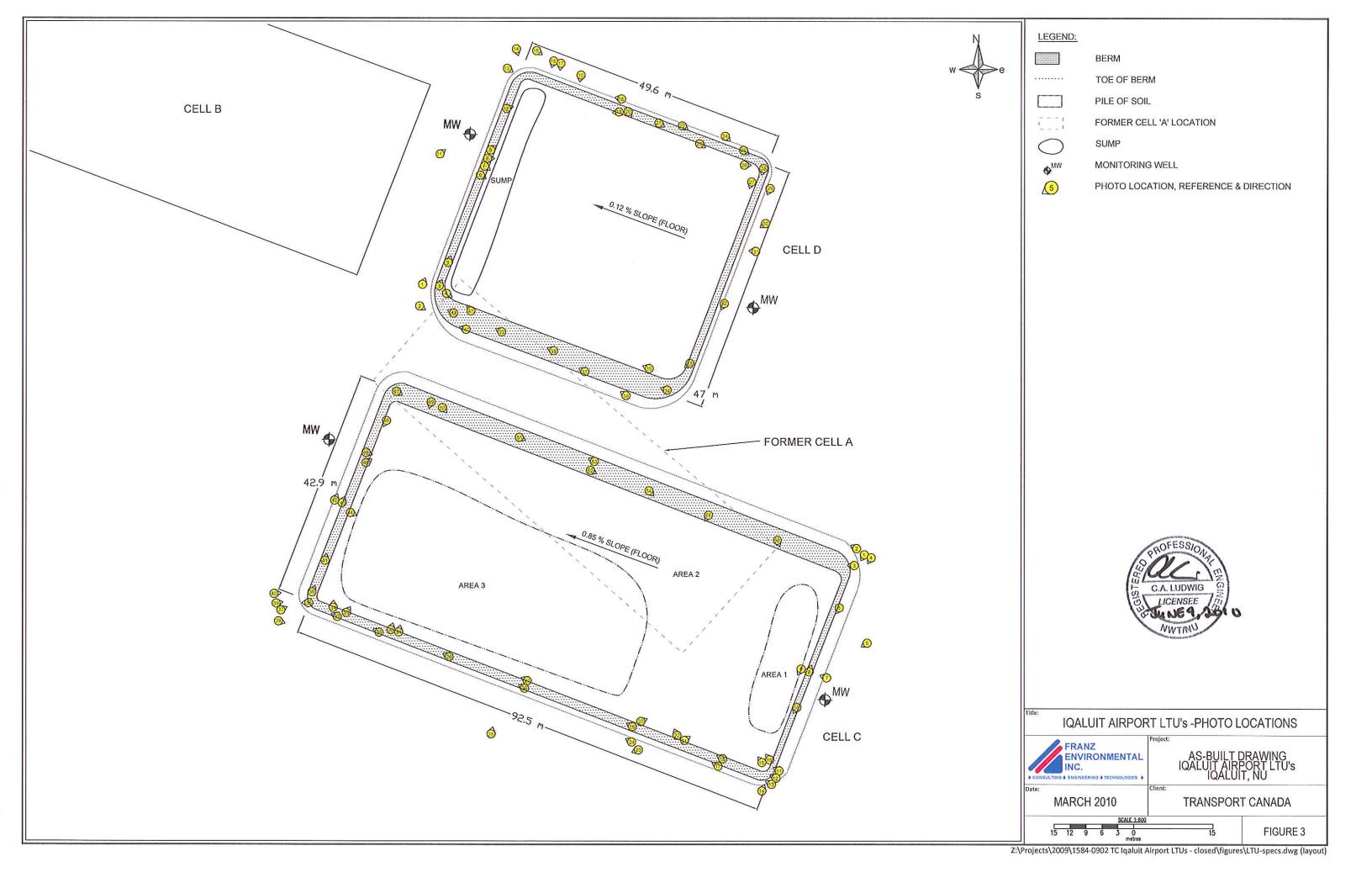
Natural Resources Canada NTS Sheet: 25-N/15 Iqaluit, Nunavut, Edition 2, NAD

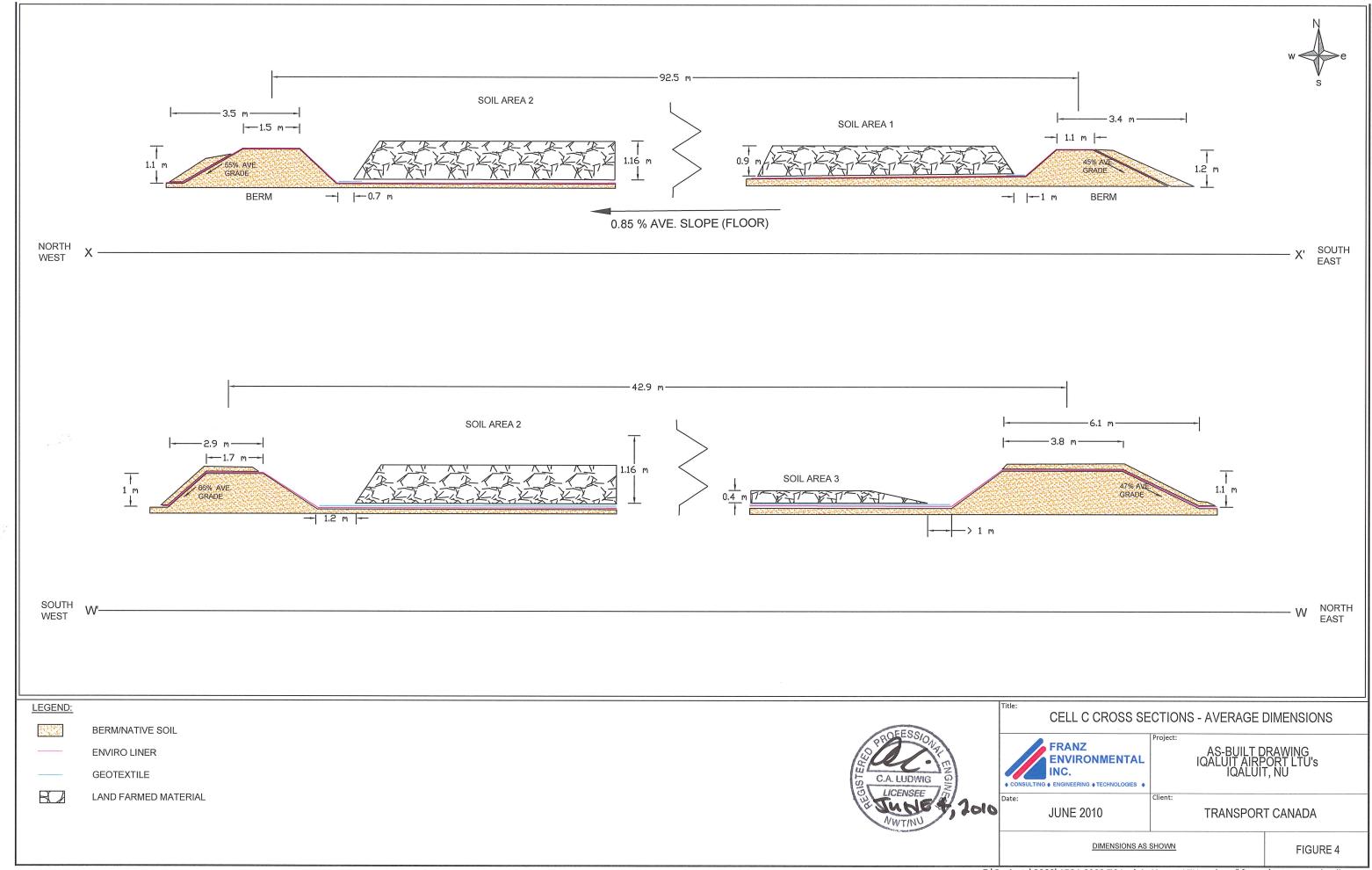
Natural Resources Canada NTS Sheet: 25-N/16 [No Title] Nunavut, Edition 2, NAD 83, Series A 701, 2001.

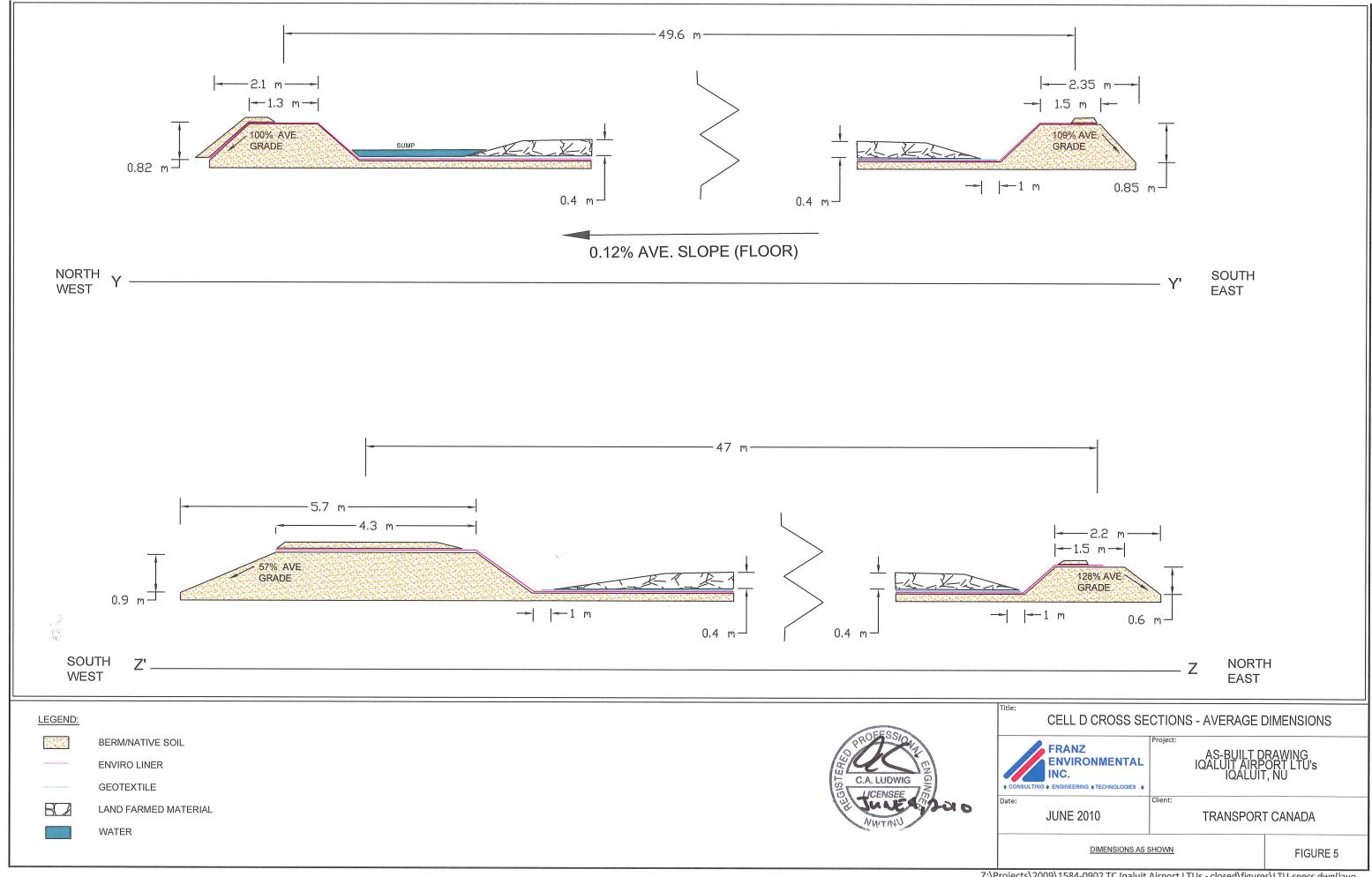


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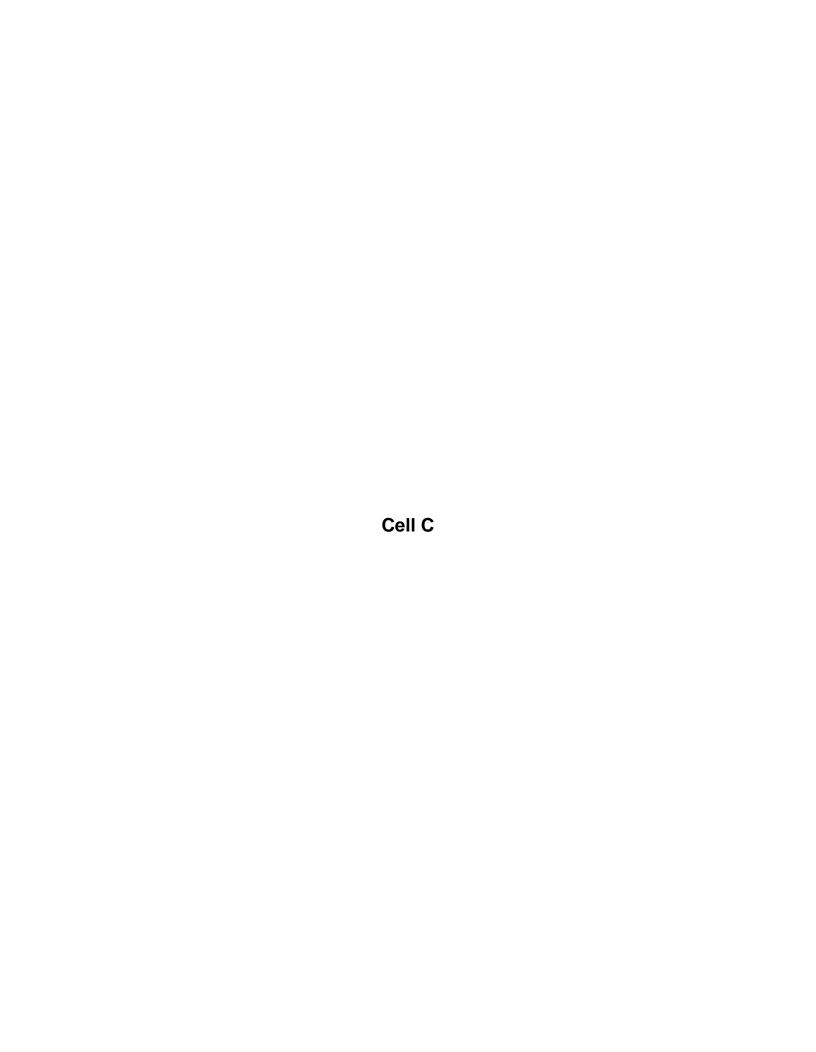














PHOTOGRAPHIC LOG

Iqaluit Airport LTU's

1584-0901

Photo ID: LTUC-1

Date Sept 14, 2009

Direction SW

Description LTU C



Iqaluit Airport LTU's

1584-0901

Photo ID: LTUC-2

Date Sept 14, 2009

Direction NW





Photo ID: LTUC-3

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-4

Date Sept 14, 2009

Direction SW





Photo ID: LTUC-5

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-6

Date Sept 14, 2009

Direction SW

Description LTU C



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Photo ID: LTUC-7

Date Sept 14, 2009

Direction NW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-8

Date Sept 14, 2009

Direction NE

Description LTU C



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Photo ID: LTUC-9

Date Sept 14, 2009

Direction SW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-10

Date Sept 14, 2009

Direction SW





Photo ID: LTUC-11

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-12

Date Sept 14, 2009

Direction WSW





Photo ID: LTUC-13

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-14

Date Sept 14, 2009

Direction NE

Description LTU C



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Photo ID: LTUC-15

Date Sept 14, 2009

Direction NW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-16

Date Sept 14, 2009

Direction NW





Iqaluit Airport LTU's	1584-0901
Photo ID: LTUC-17	
Date Sept 14, 2009	
Direction WSW	
Description LTU C	

Iqaluit Airport LTU's	1584-0901
Photo ID: LTUC-18	
Date Sept 14, 2009	
Direction	
Description LTU C	

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Photo ID: LTUC-19

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-20

Date Sept 14, 2009

Direction NE

Description LTU C



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Photo ID: LTUC-21

Date Sept 14, 2009

Direction NNE

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-22

Date Sept 14, 2009

Direction NW

Description LTU C



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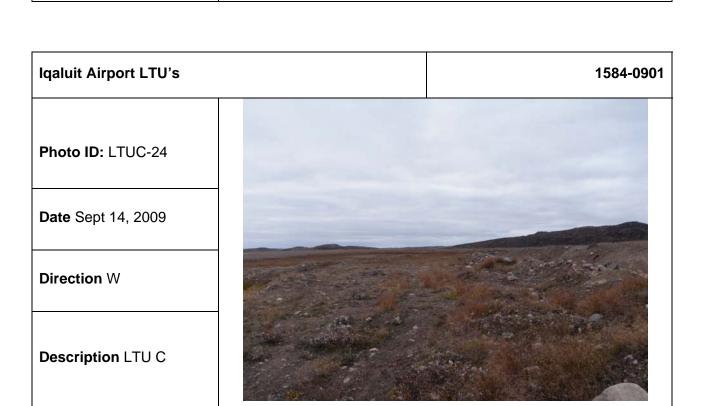


Photo ID: LTUC-23

Date Sept 14, 2009

Direction SW

Description LTU C



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Photo ID: LTUC-25

Date Sept 14, 2009

Direction N

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-26

Date Sept 14, 2009

Direction WSW

Description LTU C



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Photo ID: LTUC-27

Date Sept 14, 2009

Direction NA

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-28

Date Sept 14, 2009

Direction WSW

Description LTU C



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Photo ID: LTUC-29

Date Sept 14, 2009

Direction WSW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-30

Date Sept 14, 2009

Direction NE

Description LTU C



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Photo ID: LTUC-31

Date Sept 14, 2009

Direction NE

Description LTU C



Iqaluit Airport LTU's	1584-0901
Photo ID: LTUC-32	
Date Sept 14, 2009	
Direction WSW	
Description LTU C	

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Photo ID: LTUC-33

Date Sept 14, 2009

Direction N

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-34

Date Sept 14, 2009

Direction NW

Description LTU C



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Photo ID: LTUC-35

Date Sept 14, 2009

Direction W

Description LTU C



Photo ID: LTUC-36

Date Sept 14, 2009

Direction NNE

Description LTU C

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Photo ID: LTUC-37

Date Sept 14, 2009

Direction NE

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-38

Date Sept 14, 2009

Direction SE





Photo ID: LTUC-39

Date Sept 14, 2009

Direction NE

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-40

Date Sept 14, 2009

Direction NE

Description LTU C



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Photo ID: LTUC-41

Date Sept 14, 2009

Direction NNE

Description LTU C



Photo ID: LTUC-42

Date Sept 14, 2009

Direction N/A

Description LTU C

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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUC-43	
Date Sept 14, 2009	
Direction NNE	
Description LTU C	



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Photo ID: LTUC-45

Date Sept 14, 2009

Direction NE

Description LTU C



Photo ID: LTUC-46

Date Sept 14, 2009

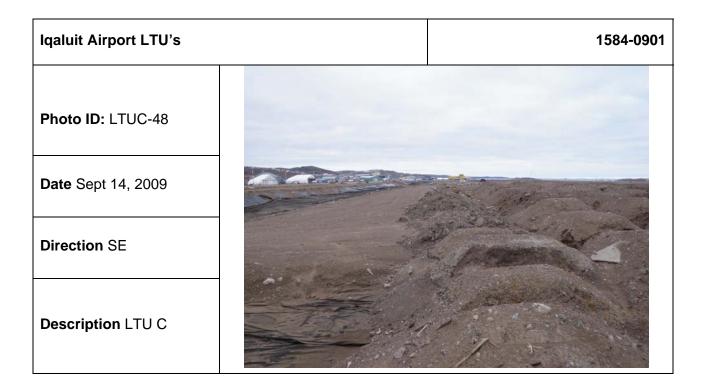
Direction SW

Description LTU C

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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUC-47	
Date Sept 14, 2009	
Direction ESE	
Description LTU C	- 01



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Photo ID: LTUC-49

Date Sept 14, 2009

Direction SW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-50

Date Sept 14, 2009

Direction SE

Description LTU C



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Photo ID: LTUC-51

Date Sept 14, 2009

Direction ESE

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-52

Date Sept 14, 2009

Direction ESE

Description LTU C



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Photo ID: LTUC-53

Date Sept 14, 2009

Direction NW

Description LTU C



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUC-54

Date Sept 14, 2009

Direction SE

Description LTU C





Photo ID: LTUC-55

Date Sept 14, 2009

Direction SW

Description LTU C



Iqaluit Airport LTU's 1584-0901

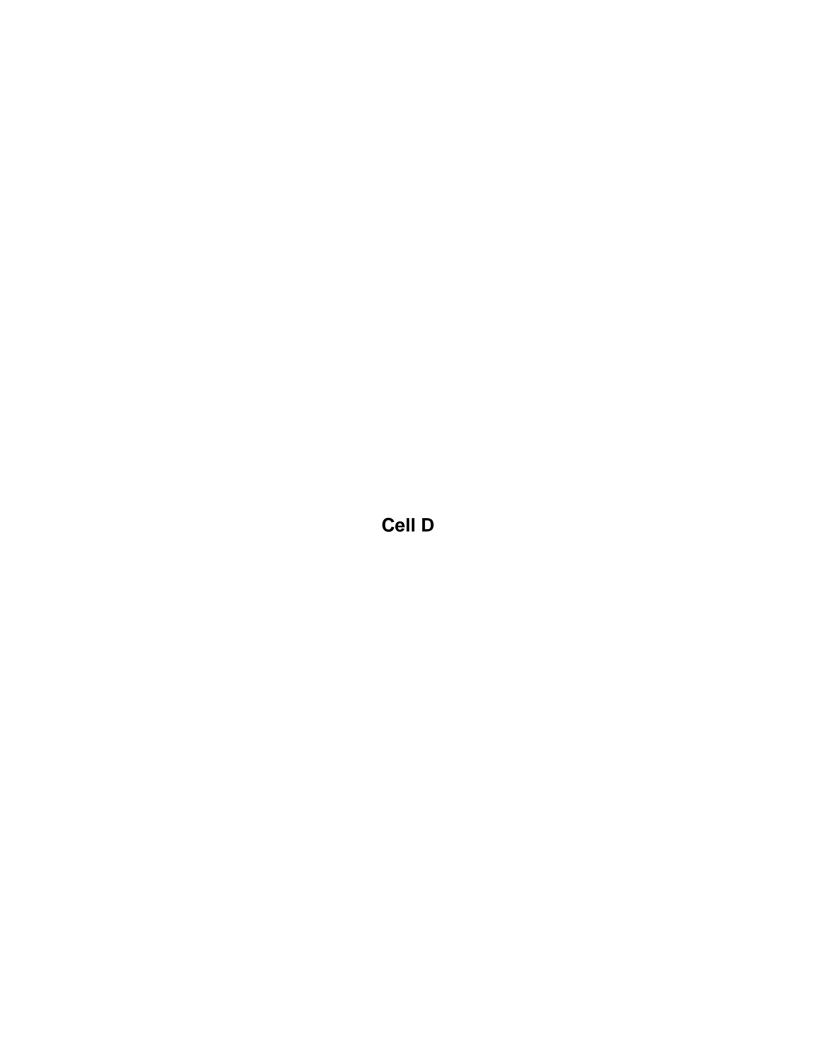
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Date Sept 14, 2009

Direction SE

Description LTU C







PHOTOGRAPHIC LOG

Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-1

Date Sept 14, 2009

Direction NE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-2

Date Sept 14, 2009

Direction SE

Description LTU D





1584-0901

Iqaluit Airport LTU's

Photo ID: LTUD-3

Date Sept 14, 2009

Direction NE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-4

Date Sept 14, 2009

Direction SE

Description LTU D



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Photo ID: LTUD-5

Date Sept 14, 2009

Direction NE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-6

Date Sept 14, 2009

Direction NE

Description LTU D





Photo ID: LTUD-7

Date Sept 14, 2009

Direction ESE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-8

Date Sept 14, 2009

Direction ENE

Description LTU D



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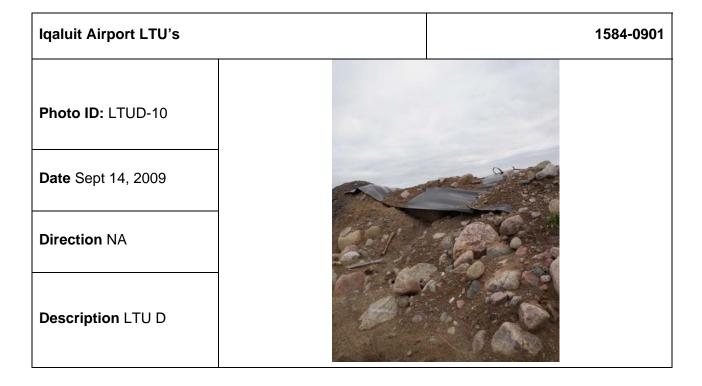
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Date Sept 14, 2009

Direction NE

Description LTU D





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Photo ID: LTUD-11

Date Sept 14, 2009

Direction NE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-12

Date Sept 14, 2009

Direction NE

Description LTU D



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Photo ID: LTUD-13

Date Sept 14, 2009

Direction ESE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-14

Date Sept 14, 2009

Direction SE

Description LTU D



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Photo ID: LTUD-15

Date Sept 14, 2009

Direction NW

Description LTU D



Photo ID: LTUD-16

Date Sept 14, 2009

Direction SW

Description LTU D

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Photo ID: LTUD-17

Date Sept 14, 2009

Direction SW

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-18

Date Sept 14, 2009

Direction NW

Description LTU D



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Photo ID: LTUD-19

Date Sept 14, 2009

Direction NW

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-20

Date Sept 14, 2009

Direction SE

Description LTU D



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Photo ID: LTUD-21

Date Sept 14, 2009

Direction ESE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-22

Date Sept 14, 2009

Direction ESE

Description LTU D



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Photo ID: LTUD-23

Date Sept 14, 2009

Direction SE

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-24

Date Sept 14, 2009

Direction SE

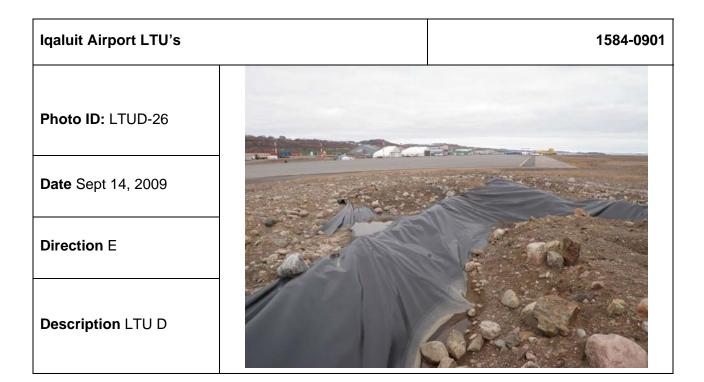
Description LTU D



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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUD-25	
Date Sept 14, 2009	
Direction SE	
Description LTU D	



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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUD-27	
Date Sept 14, 2009	
Direction S	
Description LTU D	

Iqaluit Airport LTU's	1584	-0901
Photo ID: LTUD-28		
Date Sept 14, 2009		
Direction E		
Description LTU D		

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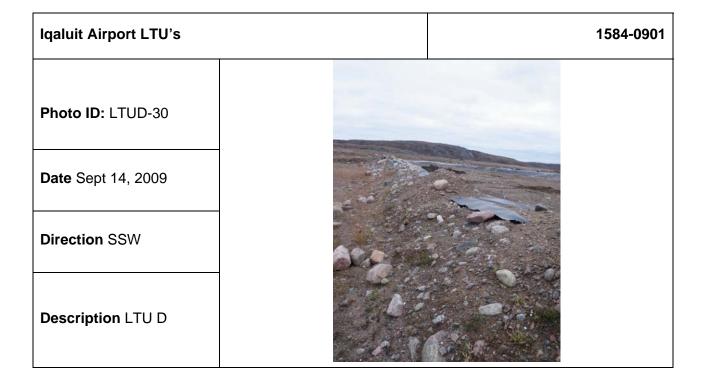
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Date Sept 14, 2009

Direction SSW

Description LTU D





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Photo ID: LTUD-31

Date Sept 14, 2009

Direction W

Description LTU D



Photo ID: LTUD-32

Date Sept 14, 2009

Direction WSW

Description LTU D

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Photo ID: LTUD-33

Date Sept 14, 2009

Direction SW

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-34

Date Sept 14, 2009

Direction NW

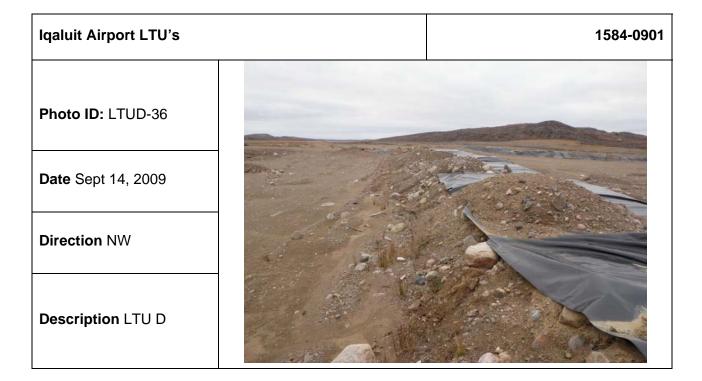
Description LTU D



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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUD-35	
Date Sept 14, 2009	
Direction NW	
Description LTU D	



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Iqaluit Airport LTU's	1584-0901
Photo ID: LTUD-37	
Date Sept 14, 2009	
Direction NW	
Description LTU D	



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Photo ID: LTUD-39

Date Sept 14, 2009

Direction NW

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-40

Date Sept 14, 2009

Direction NW

Description LTU D



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Photo ID: LTUD-41

Date Sept 14, 2009

Direction NW

Description LTU D



Iqaluit Airport LTU's 1584-0901

Photo ID: LTUD-42

Date Sept 14, 2009

Direction N

Description LTU D



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