Bajwa, Mehak

From: Chris Visser <chris.visser@wasteconnections.com>
Sent: November 4, 2024 9:32 AM
To: Bajwa, Mehak
Cc: Laurel Hoffarth; Barry Blue; Mackin, Amna; Alves, Alexandre; Dey, Asit; Derek Dreger (WSP) ; Cowan, Amanda; Angela Fidler-Kliewer (Trek); Payment, Brandie; Scurrah, Fiona
Subject: Prairie Green IWMF: Search Facility Pad Construction Mob 2 Part B CQA Results
Attachments: 2024-11-04 TREK Interim CQA LTR - Mob 2 Part B.pdf; 2024-11-04 Titan HDPE Panel Placement Log (1).pdf; 2024-11-04 Titan HDPE Panel Placement Log (2).pdf; 2024-10-31 Titan Certificate of Completion.pdf

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ATTENTION: ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Good morning Mehak,

Please find attached the test results and construction quality assurance certification for the Mob 2 - Part B of the Search Facility Pad construction at the Prairie Green Landfill.

If you should have any questions, please do to not hesitate to contact us.

Regards,

Chris Visser, P.Eng.
Canadian Region Engineering Manager

C: 647-539-5923 | F: 905-532-7576
Waste Connections of Canada | Unit 600 | 6220 Hwy 7 | Woodbridge | ON | L4H 4G3
Website | Linkedin | Instagram

EXCELLENCE
with Humility

November 4, 2024 Our File No. 1000-043-27

Derek Dreger, P.Eng., PMP, FEC
WSP Canada Inc.
1600 Buffalo Place,
Winnipeg, MB
R3T 6B8

RE: CQA Summary Letter for IWMF Search Facility Pad Construction – Mob 2/Part B

This letter summarizes the Quality Assurance (QA) inspections and testing services associated with CQA Geosynthetic installing of the Search Facility Pad – Mob 2/Part B. The area constructed is the final portion of about 1.4 Ha of a total of 2.7 HA of the pad and comprises the remainder of the West and East perimeter berms, South area of Mob 1 and the South Pond. The IWMF Search Facility Pad Construction Geosynthetic installation is complete.

Deployment of the HDPE liner over the sand layer and clay subgrade consisted of panels P30 to P100, respectively. The arrangement and designation of the various panels for the HDPE liner are presented on Drawing 1 attached.

The seams were welded using a double hot wedge fusion welder. Some seams required repairs based on field test results and the reconstructed seams were made using a hand-held extrusion welding apparatus. Fusion and extrusion seams were subjected to non-destructive and destructive testing. All non-destructive testing completed on both fusion and extrusion seaming comply with project specifications. Destructive test samples of panel fusion welded seams were taken at an average of approximately one for every 209 m of fusion seam length.

A total of 13 fusion destructive tests (DSF designation) and one extrusion test (DSX designation) were conducted of the HDPE liner. Two fusion destructive tests failed, and the failed tests were traced along the fusion seam activity log to obtain one passing destructive before and after the failed destructive. The failed sections of seam were subsequently extrusion welded and non-destructively tested with the vacuum box. All extrusion destructive and non-destructive tests completed comply with project specifications.

The information and findings of this report were based on the tests, measurements, and observations made by TREK during construction and are only applicable to those elements. Based on the results of the field monitoring, observations, inspections and testing, the IWMF Search Facility Pad – Mob 1 was constructed in accordance with the project specifications and to current accepted industry standards.

Sincerely,

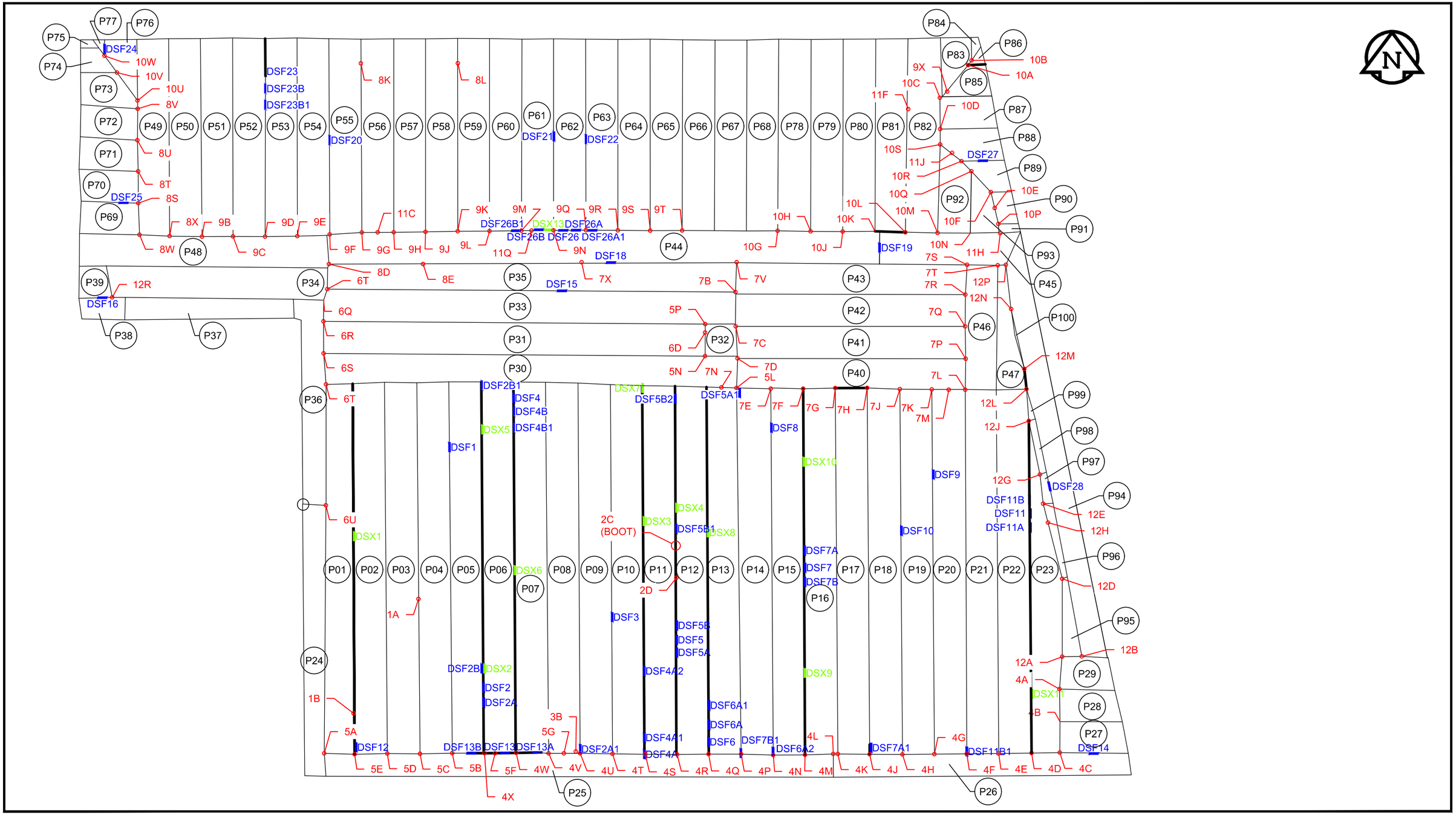
TREK Geotechnical Inc.
Per:

[redacted]

Angela Fidler-Kliewer, C.Tech.
Manager of Lab and Field Services

[redacted]

Nelson John Ferreira, Ph.D., P. Eng.
Geotechnical Engineer, Principal



0 10 20 30 m
SCALE = 1 : 750 (279 mm x 432 mm)

4C UNIQUE DEFECT IDENTIFICATION NUMBER
DSF12 / 6U FUSION DESTRUCTIVE LOCATION AND DESIGNATION
DSX1 EXTRUSION DESTRUCTIVE DESIGNATION
FUSION SEAM
EXTRUSION SEAM RECONSTRUCTION
P01 PANEL DESIGNATION NUMBER

NOTES:
1. PANEL LOCATIONS ARE BASED ON SURVEY COMPLETED BY TREK GEOTECHNICAL.
2. THE DRAWING IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING LETTER.

Figure 01
Geomembrane Panel Layout
MOB 2 - Part B

Z:\Projects\1000 Soils Lab\1000 Lab Projects\1000-043 WSP\1000-043-27 Prairie Green Landfill Search Facility Pad Construction\CAD\Fig 01 2024-10-31 PGL Search Facility Pad 0_C 1000-043-27.dwg, 2024-11-04 8:56:38 AM

PANEL PLACEMENT LOG

Project Name: Prairie Green **Product Type:**

DATE	PANEL NUMBER	ROLL NUMBER	LENGTH	WIDTH	COMMENTS	
DD/MM/YY			FEET / METERS ✔			
27/10/24	73	8648	13.90	6.80	NW Crn	94.52
	74		9.30		"	0.00
	75		2.80	3.00	"	8.40
	76	8554	7.30	6.80	"	49.64
	77		14.10			0.00
28/10/24	78	8559	42.00	6.80	slope/ flr	285.60
	79	8555				0.00
	80					0.00
	81					0.00
	82	8652	42.00	6.80	slope/ flr	285.60
	83		14.40		NE Crn	0.00
	84		6.80			0.00
	85		14.00			0.00
	86		4.90			0.00
	87		14.00		E slope- pond	0.00
	88		14.00			0.00
	89		11.20			0.00
	90		6.00	6.80		40.80
	91		6.00	2.00		12.00
	92	8560	13.80	6.80		93.84
	93		19.30	6.80	E slope- pond	131.24
30/10/24	94	122272	90.00	6.80	E slope	612.00
	95		17.30	4.00	Flr.	69.20
	96		16.50	2.00	"	33.00
	97		6.50	2.00		13.00
	98		11.60	1.60		18.56
	99		9.00	1.60		14.40
	100		13.00	1.00	Flr.	13.00
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						0.00
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REFRESH 1,774.80

PANEL PLACEMENT LOG

Project Name: Prairie Green **Product Type:**

DATE	PANEL NUMBER	ROLL NUMBER	LENGTH	WIDTH	COMMENTS	
DD/MM/YY			FEET / METERS ✔			
						0.00
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REFRESH 0.00

PANEL PLACEMENT LOG

Project Name: Prairie Green **Product Type:**

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DD/MM/YY			☐ FEET / METERS ☑			
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	74		9.30		"	0.00
	75		2.80	3.00	"	8.40
	76	8554	7.30	6.80	"	49.64
	77		14.10			0.00
28/10/24	78	8559	42.00	6.80	slope/ flr	285.6
	79	8555				0.00
	80					0.00
	81					0.00
	82	8652	42.00	6.80	slope/ flr	285.6
	83		14.40		NE Crn	0.00
	84		6.80			0.00
	85		14.00			0.00
	86		4.90			0.00
	87		14.00		E slope- pond	0.00
	88		14.00			0.00
	89		11.20			0.00
	90		6.00	6.80		40.80
	91		6.00	2.00		12.00
	92	8560	13.80	6.80		93.84
	93		19.30	6.80	E slope- pond	131.2
30/10/24	94	122272	90.00	6.80	E slope	612.0
	95		17.30	4.00	Flr.	69.20
	96		16.50	2.00	"	33.00
	97		6.50	2.00		13.00
	98		11.60	1.60		18.56
	99		9.00	1.60		14.40
	100		13.00	1.00	Flr.	13.00
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PANEL PLACEMENT LOG

Project Name: Prairie Green **Product Type:**

DATE	PANEL NUMBER	ROLL NUMBER	LENGTH	WIDTH	COMMENTS	
DD/MM/YY			FEET / METERS	✔		
						0.00
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REFRESH 0.00

TITAN
Environmental Containment

CERTIFICATE OF COMPLETION

PROJECT:	Prairie Green	**LOCATION:**	Landfill
PROJECT #:	L 240034	**CONTRACTOR:**	EarthMax
OWNER:		**QA/QC:**	J Paulson / Trek
ENGINEER:	WSP	**DATE:**	31/10/24

This document certifies that on Oct. 31/24 **, the project superintendant,** R Neubauer **,for TITAN ENVIRONMENTAL CONTAINMENT has inspected the surface of the Liner and has found that it meets the installation of the geomembrane and geosynthetics as per engineer specifications.**

Area Being Accepted: All seaming of liner has passed all testing (air/ vacuum) and meet or exceed specifications.

All Qc/Qa meet or exceed Titan's standards and have been completed.

[redacted]

TITAN REPRESENTITIVE

[redacted]

GENERAL CONTRACTOR, OWNER REPRESENTITIVE

Oct 31/24

DATE

Oct 31/24

DATE

BUTT SEAM LOG

Project Name: Prairie Green **Product Type:**

NOTE: ALL AIR TESTING MUST MAINTAIN A CONSISTENT READING FOR A MINIMUM OF 5 MINUTES.

	BUTT SEAM LOG								AIR TEST INFORMATION				
BUTT SEAM LETTER	BUTT SEAM		WELD DATE	TIME OF DAY		TECHNICIAN	WEDGE #	SEAM LENGTH	TEST DATE	START PSI	FINISH PSI	TEST RESULTS	QC TECHNICIAN
	Seam Starts Between Panels	Finishes Between Panels	DD/MM/YY	AM	PM			☐ FEET/METER ☑	DD/MM/YY				
F	21/40		24/10/24		5:35	DG	39	46.8	25/10/24	55	54	ATP	JP
	20/40									52	51		
	19/40									48	46		
	18/40									50	47		
	17/40									cap			
	16/40									51	48		
	15/40									53	50		
	14/40									56	53		
		22/47								44	43		
G	40/46		25/10/24	11:12		CN	15	26.9	25/10/24	53	51		
	41/46									57	56		
	42/46									57	57		
		43/46								52	52		
H	43/45		25/10/24	11:38		BB	39	21.6	25/10/24	58	55	ATP	JP
	45/46									60	58		
		45/47											
I	35/44		25/10/24	11:58		BB	39	208		48	46	ATP	JP
		43/44								60	58		

BUTT SEAM LOG

Project Name: Prairie Green **Product Type:**

NOTE: ALL AIR TESTING MUST MAINTAIN A CONSISTENT READING FOR A MINIMUM OF 5 MINUTES.

	BUTT SEAM LOG								AIR TEST INFORMATION				
BUTT SEAM LETTER	BUTT SEAM		WELD DATE	TIME OF DAY		TECHNICIAN	WEDGE #	SEAM LENGTH	TEST DATE	START PSI	FINISH PSI	TEST RESULTS	QC TECHNICIAN
	Seam Starts Between Panels	Finishes Between Panels	DD/MM/YY	AM	PM			☐ FEET/METER ☑	DD/MM/YY				
F	21/40		24/10/24		5:35	DG	39	46.8	25/10/24	55	54	ATP	JP
	20/40									52	51		
	19/40									48	46		
	18/40									50	47		
	17/40									cap			
	16/40									51	48		
	15/40									53	50		
	14/40									56	53		
		22/47								44	43		
G	40/46		25/10/24	11:12		CN	15	26.9	25/10/24	53	51		
	41/46									57	56		
	42/46									57	57		
		43/46								52	52		
H	43/45		25/10/24	11:38		BB	39	21.6	25/10/24	58	55	ATP	JP
	45/46									60	58		
		45/47											
I	35/44		25/10/24	11:58		BB	39	208		48	46	ATP	JP
		43/44								60	58		

WEDGE SEAM LOG

Project Name: Prairie Green **Product Type:**

NOTE: ALL AIR TESTING MUST MAINTAIN A CONSISTENT READING FOR A MINIMUM OF 5 MINUTES.

SEAM LOG							AIR TEST INFORMATION				
BETWEEN PANELS	WELD DATE	TIME OF DAY		TECHNICIAN	WEDGE #	SEAM LENGTH	TEST DATE	START PSI	FINISH PSI	TEST RESULTS	QC TECHNICIAN
	DD/MM/YY	AM	PM			☐ FT/M ☑	DD/MM/YY				
76/77	27/10/24		5:35	DG	39	7.3	29/10/24	55	54	ATP	JP
68/78	28/10/24					42		52	51	ATP	JP
78/79								48	46	ATP	JP
79/80								50	47	ATP	JP
80/81								cap		ATP	JP
81/82						42		51	48	ATP	JP
83/84						14.4		53	50	ATP	JP
85/86						6.8		56	53	ATP	JP
86/87						14		44	43	ATP	JP
87/88		11:12		CN	15	4.9		53	51	ATP	JP
88/89						14		57	56	ATP	JP
89/90						6		57	57	ATP	JP
90/91						6		52	52	ATP	JP
92/93		11:38		BB	39	13.8		58	55	ATP	JP
82/92						19.3		60	58	ATP	JP
91/94						6.8	31/10/24			ATP	JP
98/99		11:58		BB	39	2		48	46	ATP	JP
97/98						1.6		60	58	ATP	JP
96/97						2				ATP	JP
95/96						1				ATP	JP
29/94/95						10				ATP	JP