ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS GRMP
PEACE REGION – (PEACE RIVER DISTRICT)
SPRING 2025

Site Number	Location	Name	Hwy	km
PH043	HWY 986:01 C1 33.357	Daishowa Retaining Wall	986:01	Km 33.4
Legal Description:		**UTM Co-ordinates**		
9-7-85-20 W5		11U E 491412.57	N 6246098.92	

Current Monitoring:	8-June-2025	**Previous Monitoring**	20-May-2024
Instruments Read By:	Mr. Niraj Regmi, G.I.T and Mr. Godfred Etiendem, of Thurber		

Instruments Read During This Site Visit			
Slope Inclinometers (SIs): SI-4 SI-5 SI-6 SI-7 SI-8 SI-9 SI03-6 SI04-1 SI04-3	**Pneumatic Piezometers (PN):** PN03-1 and PN03-2	**Vibrating Wire Piezometers (VW):** N/A	**Standpipe Piezometers (SP):** N/A
Load Cell (LC): N/A	**Strain Gauges:** N/A	**SAAs:**N/A	**Others:**N/A
Readout Equipment Used			
Slope Inclinometers: Two RST Digital Inclinometer probes with 2 ft. wheelbases and RST Pocket PC readouts	**Pneumatic Piezometers:** RST C108 pneumatic piezometer reader	**Vibrating Wire Piezometers:**	**Standpipe Piezometers:**
Load Cell:	**Strain Gauges:**	**SAAs:**	**Others:**
Note:			

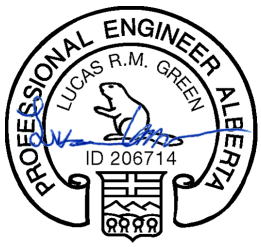
Discussion	
Zones of New Movement:	None
Interpretation of Monitoring Results:	**Pile Wall Site (PH043-1)** Slope inclinometers SI-4, SI-5 and SI-6 are located east of the wall and are considered to be outside the main slide block. All three SI's have shown a relatively consistent movement trend and pattern. SI-4 has two distinct movement zones. Since the spring of 2024 SI-4 has shown a rate of movement of 3.0 mm/yr over 2.6 m to 6.3 m depth, which is consistent with a long term rate of movement of 2.7 mm/yr since 2012. SI-4 also showed a rate of movement of 1.2 mm/yr over 6.3 m to 8.1 m depth, which is consistent with the long-term rate of movement of 1.1 mm/yr at that depth. SI-5 has two movement zones. Since the spring of 2024 Si-5 has shown a rate of movement of -4.5 mm/yr over 0.5 m to 1.7 m depth and 1.9 mm/yr over 1.7 to 4.1 m depth. The upper movement zone may be impacted by surface activities and movements fluctuate by 5 to 8 mm within a year while showing an overall increase in movement by about 2.2 mm/yr since 2014. The lower zone rate of movement is consistent with long-term rate of movement of 1.6 mm/yr. SI-6 showed no discernible movement over 0.1 m to 5.0 m depth which is consistent with a fluctuating movement pattern since about 2017. SI-6 also shows a rate of movement of 9.1 mm/yr over 5.0 m to 6.8 m depth. This rate

	reflects an increasing rate of movement over the past 3 years relative to the long-term rate of movement of 1.1 mm/yr at that depth. Slope inclinometer SI03-6, installed upslope highway, showed no discernible movement over 4.7 m to 6.0 m depth since the spring of 2024 readings which is consistent with an asymptotic movement pattern that has leveled out at about 14 mm of total movement. Only two (SI04-1 and SI04-3) of the three slope inclinometers installed in the pile wall are currently operational. SI04-1 showed a rate of movement of 1.9 mm/yr over 0.1 to 2.6 m since the spring of 2024 which continues a slowing trend relative to the long-term average of 12.6 mm/yr since 2016. SI04-1 also showed a rate of movement of 3.0 mm/yr over the length of the pile which is consistent with the long-term rate of 2.5 mm/yr since 2016. Above 14 m depth the pile is gradually tilting and the pile head has deflected a total of 69.0 mm to date. SI04-3 showed no discernible movement over 0.1 to 1.4 m depth since the spring of 2024 readings, however the pattern of movement is consistent with annual fluctuating readings and an overall rate of movement of 6.0 mm/yr since 2018. SI04-3 also showed a rate of movement of 7.6 mm/yr over the length of the pile which is consistent with the long-term rate of 7.8 mm/yr since 2018. Above 12 m depth the pile is gradually tilting, and the pile head has deflected 118.4 mm to date. Pneumatic piezometer PN03-1 showed a decrease in groundwater level of 0.15 m since the spring of 2024 readings, which represents the lowest groundwater level measured in the instrument since October 2007. Pneumatic piezometer PN03-2 showed a decrease in groundwater level of 0.02 m since the spring of 2024 readings. **Site B (PH043-2)** Slope inclinometers SI-7, SI-8 and SI-9 are located in the highway side slope (Station 33+820), about 300 m north of the pile wall. SI-7 continued to show no discernible movement. SI-8 showed -5.7 mm/yr over 0.3 m to 1.5 m depth since the spring of 2024 however the pattern of movement is consistent with fluctuating readings and an overall rate of movement of 1.1 mm/yr since 2008. readings. SI-8 also showed -2.5 mm/yr and over 1.5 m to 4.0 m depth since the spring of 2024 which represents a slowing rate of movement relative to an overall rate of movement of 0.6 mm/yr since 2008. SI-9 showed a rate of movement of 2.5 mm/yr over 0.3 m to 2.7 m depth since the spring of 2024 readings. This is consistent with the long-term rate of movement of 3.0 mm/yr since 2008
Future Work:	The instruments should be read again in the spring of 2026.
Instrumentation Repairs:	No instrument repairs are required at this time.
Additional Comments:	There was a noticeable increase in movement in SI04-1 during 2017 and 2018 when a landslide movement occurred downslope of the wall during erosion repairs of erosion and construction of a gabion drop structure at the creek level. A driven steel pile wall and grading were carried out to mitigate those movements. The increased rate of movement trend is still observed within the upper 2 m. Some slope flattening was also carried out, consisting of removing some soil from the top of the pile wall near SI04-3.

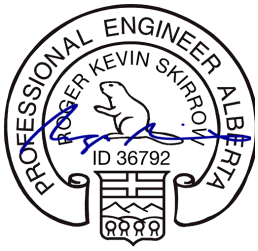
Attachments:	• Table PH043-1-1 Spring 2025 – HWY 986:01, Daishowa East Hill Pile Wall (PH043-1) Slope Inclinometer Instrumentation Reading Summary • Table PH043-1-2 Spring 2025 – HWY 986:01, Daishowa East Hill Pile Wall (PH043-1) Pneumatic Piezometer Instrumentation Reading Summary • Table PH043-2-1 Spring 2025 – HWY 986:01, Daishowa East Hill, Site B (PH043-2) Slope Inclinometer Instrumentation Reading Summary • Statement for Use and Interpretation of Report • APPENDIX A - PH043 SPRING 2025 o Field Inspector's report o Site Plan Showing Approximate Instrument Locations (Drawing No.32121 PH043) o SI Reading Plots o Figure PH043-1 (Piezometric Elevations) o Figure PH043-2 (Piezometric Depths)

We trust this report meets your requirements at present. If you have any questions, please contact the undersigned at your convenience.

Yours very truly,
Thurber Engineering Ltd.
Roger Skirrow, M.Sc., P. Eng.
Senior Geotechnical Engineer



July 12, 2025



2025-07-14

PERMIT TO PRACTICE
THURBER ENGINEERING LTD.
RM SIGNATURE: Don Proudfoot
RM APEGA ID #: 51674
DATE: July 14, 2025
PERMIT NUMBER: P005186
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Lucas Green, P.Eng.
Geotechnical Engineer

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Table PH043-1-1 Spring 2025 – Daishowa East Hill Pile Wall (PH043-1) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 8, 2025

INSTRUMENT #	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AT NOTED DEPTH SINCE INITIAL READING (mm)	MAXIMUM RATE OF MOVEMENT (mm/yr)	CURRENT STATUS	DATE OF PREVIOUS READING	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	CURRENT RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI-4	Jun. 7, 1996	101.5 mm over 2.6 m to 6.3 m depth in 18° Direction	10.0 mm/yr between May and Sept. 1997	Operational	May 20, 2024	3.2	3.0	-1.2
		31.4 mm over 6.3 m to 8.1 m depth in 3° Direction	2.9 mm/yr between May and Sept. 2003			1.2	1.2	0.1
SI-5	Nov. 16, 1994	56.3 mm over 0.5 m to 1.7 m depth in 7° Direction	16.7 mm/yr in May 2003	Operational	May 20, 2024	No discernible movement	N/A	-10.3
		35.7 mm over 1.7 m to 4.1 m depth in 7° Direction	6.8 mm/yr In September 1997			2.0	1.9	0.3
SI-6	Apr. 9, 1996	183.0 mm over 0.1 m to 5.0 m depth in 26° Direction	48.3 mm/yr in May 2005	Operational	May 20, 2024	No discernible movement	N/A	-21.9
		54.5 mm over 5.0 m to 6.8 m depth in 26° Direction	7.9 mm/yr in May 2004			9.5	9.1	10.7

Drawing 32121-PH043 in Appendix A provides a sketch of the approximate location of the monitoring instrumentation for this site.

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Table PH043-1-1 – Continued… Spring 2025 – Daishowa East Hill Pile Wall (PH043-1) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 8, 2025

INSTRUMENT #	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AT NOTED DEPTH SINCE INITIAL READING (mm)	MAXIMUM RATE OF MOVEMENT (mm/yr)	CURRENT STATUS	DATE OF PREVIOUS READING	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	CURRENT RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI03-1	*Sept. 14, 2003*	*Not Known*	*Not Known*	*Sheared off at 11.3 m*	*May 21, 2004*	*N/A*	*N/A*	*N/A*
SI03-2	*Sept. 14, 2003*	*Not Known*	*Not Known*	*Sheared off at 8.2 m*	*May 21, 2004*	*N/A*	*N/A*	*N/A*
SI03-3	*Sept. 16, 2003*	*Not Known*	*Not Known*	*Sheared off at 9.5 m*	*Oct. 9, 2003*	*N/A*	*N/A*	*N/A*
SI03-4	*Sept. 16, 2003*	*Not Known*	*Not Known*	*Sheared off at 7.5 m*	*Oct. 9, 2003*	*N/A*	*N/A*	*N/A*
SI03-5	*Sept. 16, 2003*	*Not Known*	*Not Known*	*Could not be read (partially covered with asphalt)*	*Aug. 12, 2004*	*N/A*	*N/A*	*N/A*
SI03-6	Sept. 16, 2003	14.0 mm over 4.7 m to 6.0 m depth in 346° direction	9.1 mm/yr Oct. 2003	Operational	May 20, 2024	No discernible movement	N/A	-0.2

Drawing 32121-PH043 in Appendix A provides a sketch of the approximate location of the monitoring instrumentation for this site.

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Table PH043-1-1 – Continued… Spring 2025 – Daishowa East Hill Pile Wall (PH043-1) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 8, 2025

INSTRUMENT #	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AT NOTED DEPTH SINCE INITIAL READING (mm)	MAXIMUM RATE OF MOVEMENT (mm/yr)	CURRENT STATUS	DATE OF PREVIOUS READING	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	CURRENT RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI04-1 (In Pile Wall)	Reinitialized on Aug. 12, 2004	145.6 mm over 0.1 m to 2.6 m depth in 353° direction	34.5 mm/yr in September 2019	Operational	May 20, 2024	2.0	1.9	-5.1
		69.0 mm over 1.9 m to 22.1 m depth in 353° direction	20.2 mm/yr in September 2016			3.2	3.0	>-0.1
SI04-2 (In Pile Wall)	*Apr. 19, 2004*	*Not Known*	*Not Known*	*Not Read*	*May 21, 2004*	*N/A*	*N/A*	*N/A*
SI04-3 (In Pile Wall)	Apr. 19, 2004	159.1 mm over 0.1 m to 1.4 m depth in 26° direction	563.1 mm/yr June 2004	Operational	May 20, 2024	No discernible movement	N/A	-16.8
		118.4 mm over 1.4 m to 20.9 m depth in 26° direction	107.7 mm/yr July 2004			38.0	7.6	3.5

Drawing 32121-PH043 in Appendix A provides a sketch of the approximate location of the monitoring instrumentation for this site.

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Table PH043-1-2 Spring 2025 – Daishowa East Hill Pile Wall (PH043-1) Pneumatic Piezometer Instrumentation Reading Summary

Date Monitored: June 8, 2025

INSTRUMENT #	DATE INITIALIZED	TIP DEPTH (m)	GROUND ELEV. (m)	CURRENT STATUS	HIGHEST MEASURED WATER LEVEL (m)	MEASURED PORE PRESSURE (kPa)	CURRENT GROUNDWATER ELEVATION (m)	PREVIOUS GROUNDWATER ELEVATION (m)	CHANGE IN WATER LEVEL SINCE PREVIOUS READING (m)
PN03-1 (27284)	October 21, 2005 (Thurber)	8.0	457.02	Operational	592.99 on June 14, 2018	31.8	452.26	452.41	-0.15
PN03-2 (28177)	October 21, 2005 (Thurber)	7.2	454.21	Operational	586.82 on June 14, 2018	2.9	447.31	447.33	-0.02

Drawing 32121-PH043 in Appendix A provides a sketch of the approximate location of the monitoring instrumentation for this site.

Notes:
PN - Pneumatic Piezometer.

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Table PH043-2-1 Spring 2025 – Daishowa East Hill Site B (PH043-2) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 8, 2025

INSTRUMENT #	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AT NOTED DEPTH SINCE INITIAL READING (mm)	MAXIMUM RATE OF MOVEMENT (mm/yr)	CURRENT STATUS	DATE OF PREVIOUS READING	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	CURRENT RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI-7	Jul. 19, 1996	No discernible movement	N/A	Operational	May 20, 2024	N/A	N/A	N/A
SI-8	Apr. 9, 1996	72.8 mm over 0.3 m to 1.5 m depth in 16° direction	30.2 mm/yr in May 2001	Operational	May 20, 2024	No discernible movement	N/A	-11.1
		18.0 mm over 1.5 m to 4.0 m depth In 16°direction	10.8 mm/yr in September 2011			No discernible movement	N/A	-2.3
SI-9	Apr. 9, 1996	124.8 mm over 0.3 m to 2.7 m depth in 11° direction	26.4 mm/yr In May 2003	Operational	May 20, 2024	5.0	2.5	-2.7

Drawing 32121-PH043 in Appendix A provides a sketch of the approximate location of the monitoring instrumentation for this site.

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STATEMENT FOR USE AND INTERPRETATION OF REPORT

1. STANDARD OF CARE

This Report has been prepared in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances at the same time and in the same or similar locality and in compliance with all applicable laws.

2. COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment, including this Statement For Use and Interpretation of Report, are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT, AS DESCRIBED ABOVE. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TOTHE WHOLE OF THE REPORT.

3. BASIS OF REPORT

The Report has been prepared for the specific site, development, design objectives, and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client for the development, design objectives, and/or purposes described to Thurber by the Client. **NO OTHER PARTY MAY USE OR RELY ON THE REPORT OR ANY PORTION THEREOF FOR OTHER THAN THE CLIENT'S BENEFIT IN CONNECTION WITH THE PURPOSES DESCRIBED IN THE REPORT**. Any use which a third party makes of the Report is the sole responsibility of such third party and is always subject to this Statement for Use and Interpretation of Report. Thurber accepts no liability or responsibility for damages suffered by any third party resulting from use of the Report for purposes outside the reasonable contemplation of Thurber at the time it was prepared or in any manner unintended by Thurber.

5. INTERPRETATION OF THE REPORT

a) **Nature and Exactness of Soil and Contaminant Description:** Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors is inherently judgement-based. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other parties making use of such documents or records with or without our express written consent need to be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other parties. Some conditions are subject to change over time and those making use of the Report need to be aware of this possibility and understand that the Report only presents the interpreted conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client must disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.

b) **Reliance on Provided Information:** The evaluation and conclusions contained in the Report have been prepared based on conditions in evidence at the time of site inspections and based on information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report resulting from misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other parties providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.

c) **Design Services:** The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber is recommended to be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design need to be reported to Thurber immediately so that Thurber can address potential conflicts.

d) **Construction Services:** During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions to confirm and document that the site conditions do not materially differ from those conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

6. INDEPENDENT JUDGEMENTS OF CLIENT

The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or other parties who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes, but is not limited to, decisions made to develop, purchase, or sell land, unless such decisions expressly form part of the stated purpose of the Report as described in Paragraph 3.

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS GRMP (CON0022164)
PEACE REGION (PEACE RIVER DISTRICT)
INSTRUMENTATION MONITORING RESULTS

SPRING 2025

APPENDIX A
DATA PRESENTATION

SITE PH043-1: HWY 986:01, DAISHOWA EAST HILL PILE WALL
SITE PH043-2: HWY 986:01, DAISHOWA EAST HILL SITE B

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS
PEACE REGION (PEACE RIVER DISTRICT)
INSTRUMENTATION MONITORING FIELD SUMMARY (PH043)
SPRING 2025

Location:	Daishowa Retaining Wall (HWY 986:01 C1 33.357)	**Readout:**	RST PN C108 U
File Number:	32121	**Casing:**	SI03-6, SI04-1 a
Probe:	RST SET 5R and 8R	**Temp:**	30
Cable:	RST SET 5R and 8R	**Read by:**	NKR/GE

SLOPE INCLINOMETER (SI) READINGS

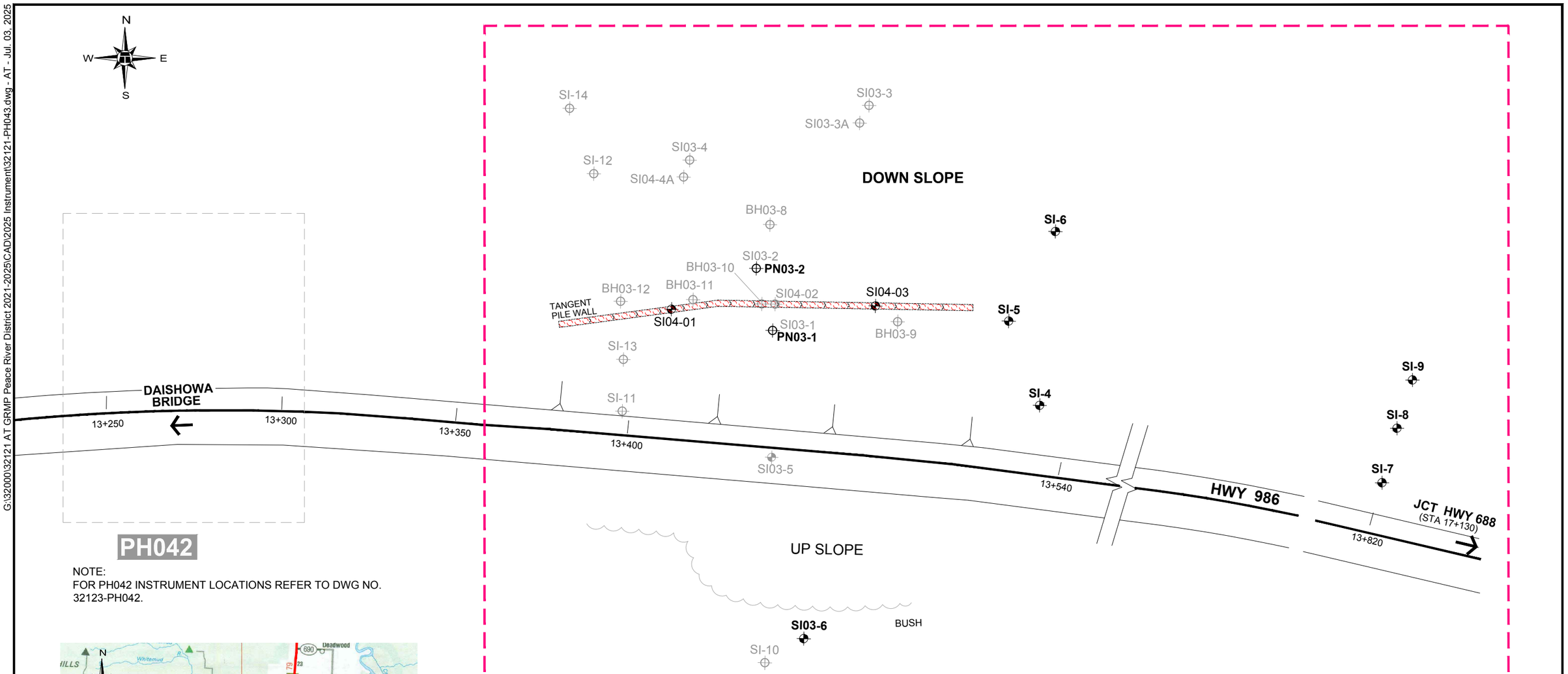
SI#	GPS Location (UTM 11)		Date	Stickup (m)	Depth from top of casing (ft)	Magn. North A+ Groove	Current Bottom Depth Readings				Probe/ Reel #	Size (")	Remarks
	Easting (m)	Northing (m)					A+	A-	B+	B-			
SI-4	491412.57	6246098.92	08-Jun-25	1.02	66 to 2	2	1022	-1015	541	-548	5R/5R	3.34	
SI-5	491402.28	6246115.63	08-Jun-25	0.75	66 to 2	9	272	-265	2494	-2517	5R/5R	3.34	
SI-6	491428.09	6246136.06	08-Jun-25	1.12	56 to 2	5	484	-476	-878	855	5R/5R	3.34	
SI-7	491636.72	6245933.41	08-Jun-25	1.2	56 to 2	3	-22	23	-1757	1759	5R/5R	3.34	
SI-8	491651.19	6245968.66	08-Jun-25	0.89	66 to 2	20	764	-758	11	-26	5R/5R	3.34	
SI-9	491662.61	6245996.46	08-Jun-25	0.91	66 to 2	355	-188	197	-379	358	5R/5R	3.34	
SI03-6	491312.58	6246058.38	08-Jun-25	0.75	52 to 2	10	440	-434	-621	625	8R/8R	2.75	
SI04-1	491309.71	6246169.69	08-Jun-25	1.1	74 to 2	10	-495	508	345	-346	8R/8R	2.75	
SI04-3	491374.51	6246132.38	08-Jun-25	1.08	68 to 2	10	353	-341	29	-32	8R/8R	2.75	*

PNEUMATIC PIEZOMETER READINGS

PN#	GPS Location (UTM 11)		Date	Reading (kPa)	Identification Number
	Easting (m)	Northing (m)			
PN03-1	491340.54	6246138.02	08-Jun-25	31.8	27284
PN03-2	491346.76	6246156.59	08-Jun-25	2.9	28177

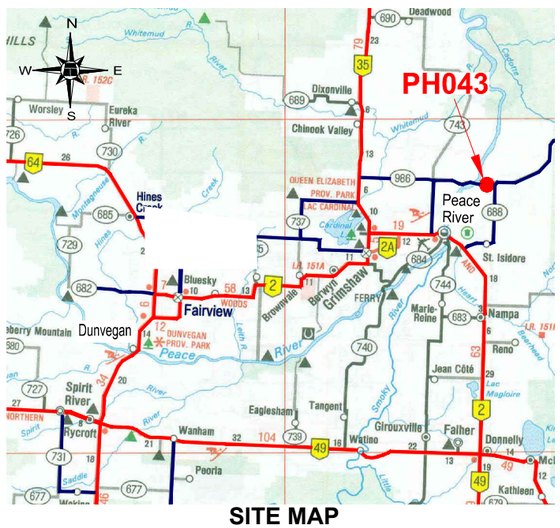
INSPECTOR REPORT

* Bottom of SI04-3 sitting at 69ft



PH042

NOTE:
FOR PH042 INSTRUMENT LOCATIONS REFER TO DWG NO. 32123-PH042.



SITE MAP
NOT TO SCALE

PH043

SITE PLAN
NOT TO SCALE

LEGEND :

- SLOPE INCLINOMETERS *(currently using)*
- SLOPE INCLINOMETERS *(Installed in 2001, not in use)*
- SLOPE INCLINOMETER *(not in use)*
- PN PNEUMATIC PIEZOMETER

NOTES :

1. BASE PLAN COPIED FROM "GAEA ENGINEERING" DRAWING (DATED MAY. 1997)
2. LOCATIONS OF 2003 SLOPE INDICATORS OBTAINED FROM AMEC DRAWING NO. : EG08628.37-002.dwg DATED MARCH 2004.

Alberta Transportation

PEACE REGION (PEACE RIVER DISTRICT)

PH043: HWY 986:01 - DAISHOWA EAST HILL INSTRUMENT LOCATIONS

DWG No. 32121-PH043

DRAWN BY	ML
DESIGNED BY	BWN
APPROVED BY	DWP
SCALE	N.T.S.
DATE	JULY 2025
FILE No.	32121

THURBER

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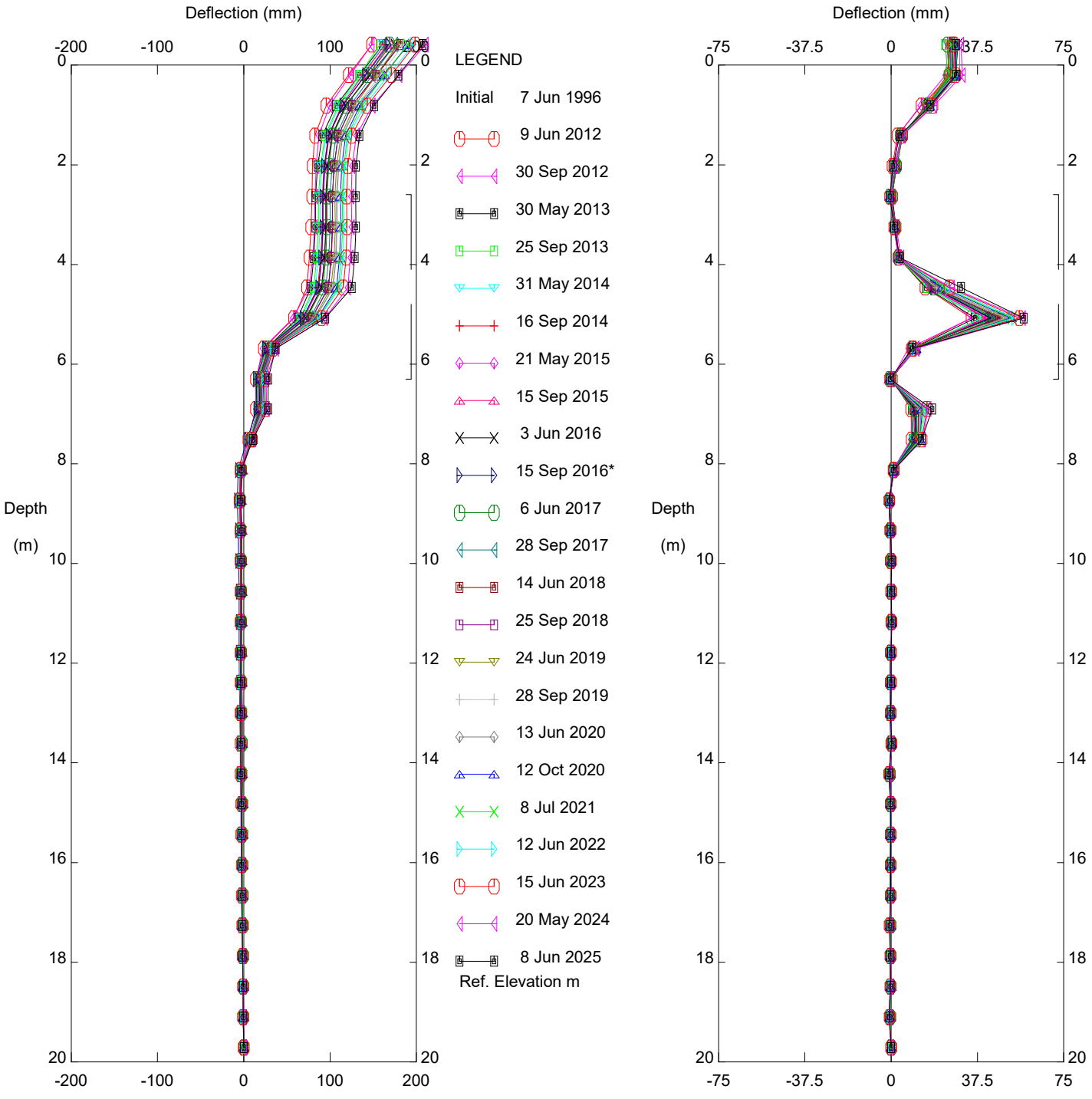

Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI-4

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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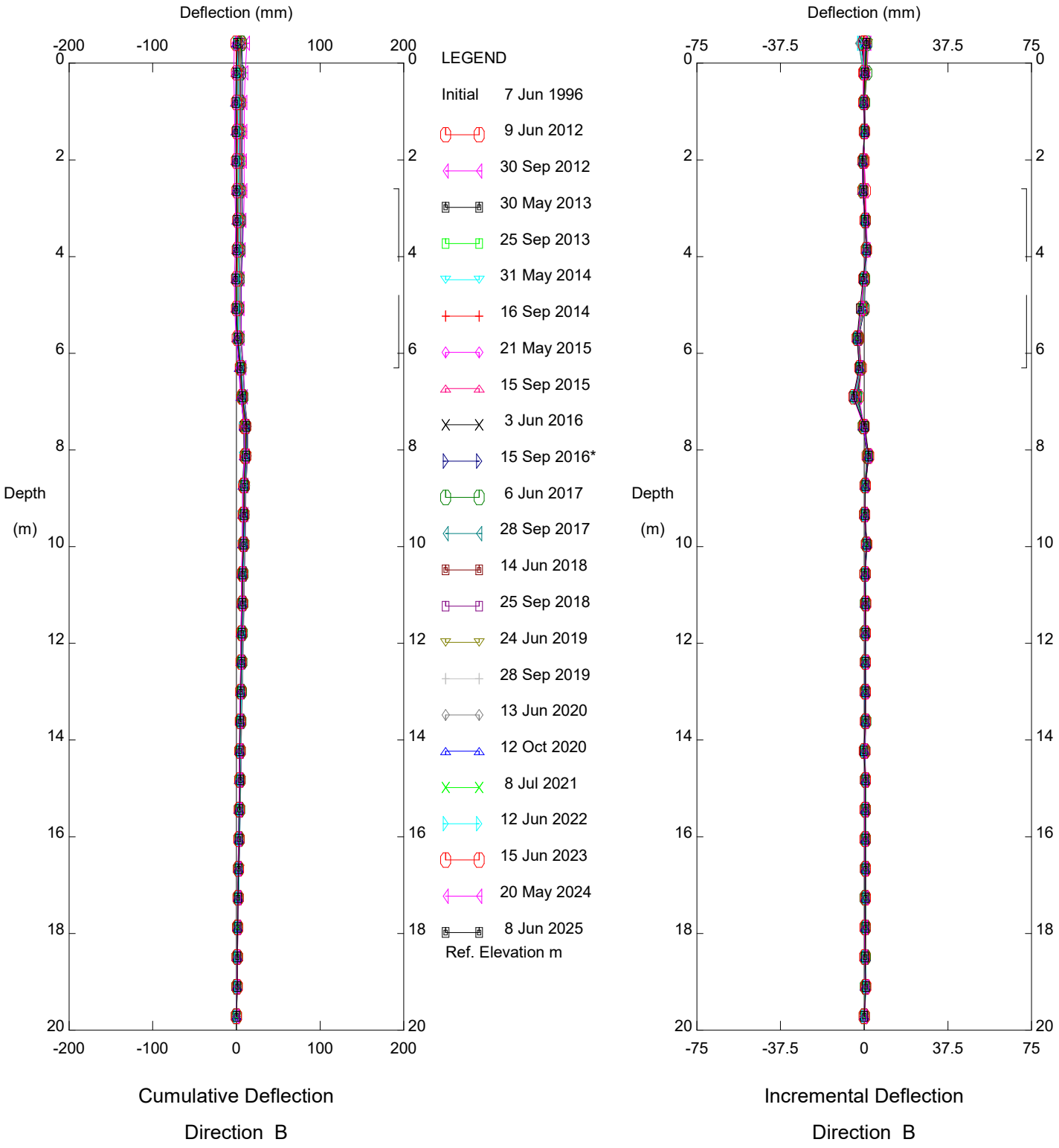
Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI-4

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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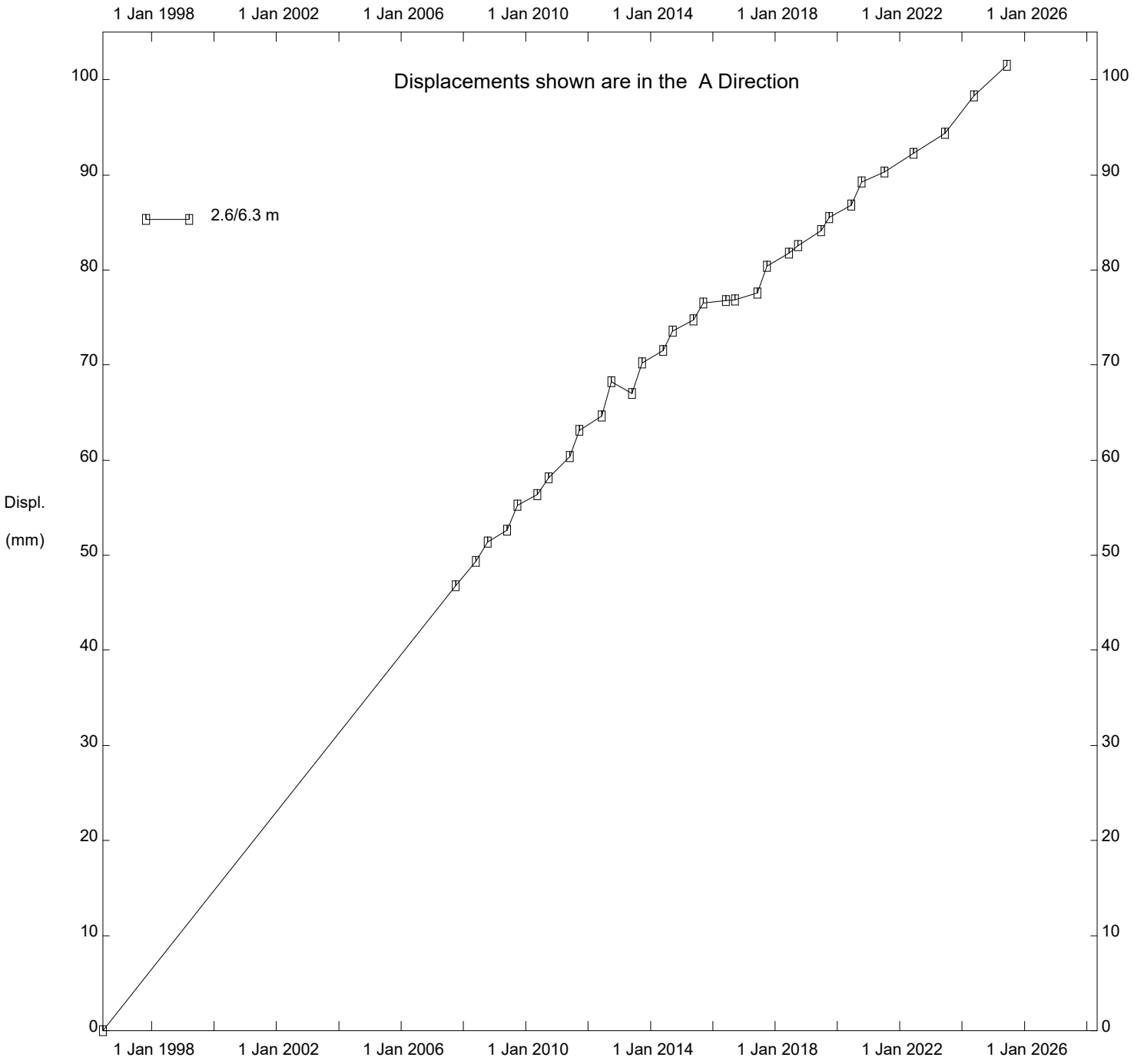
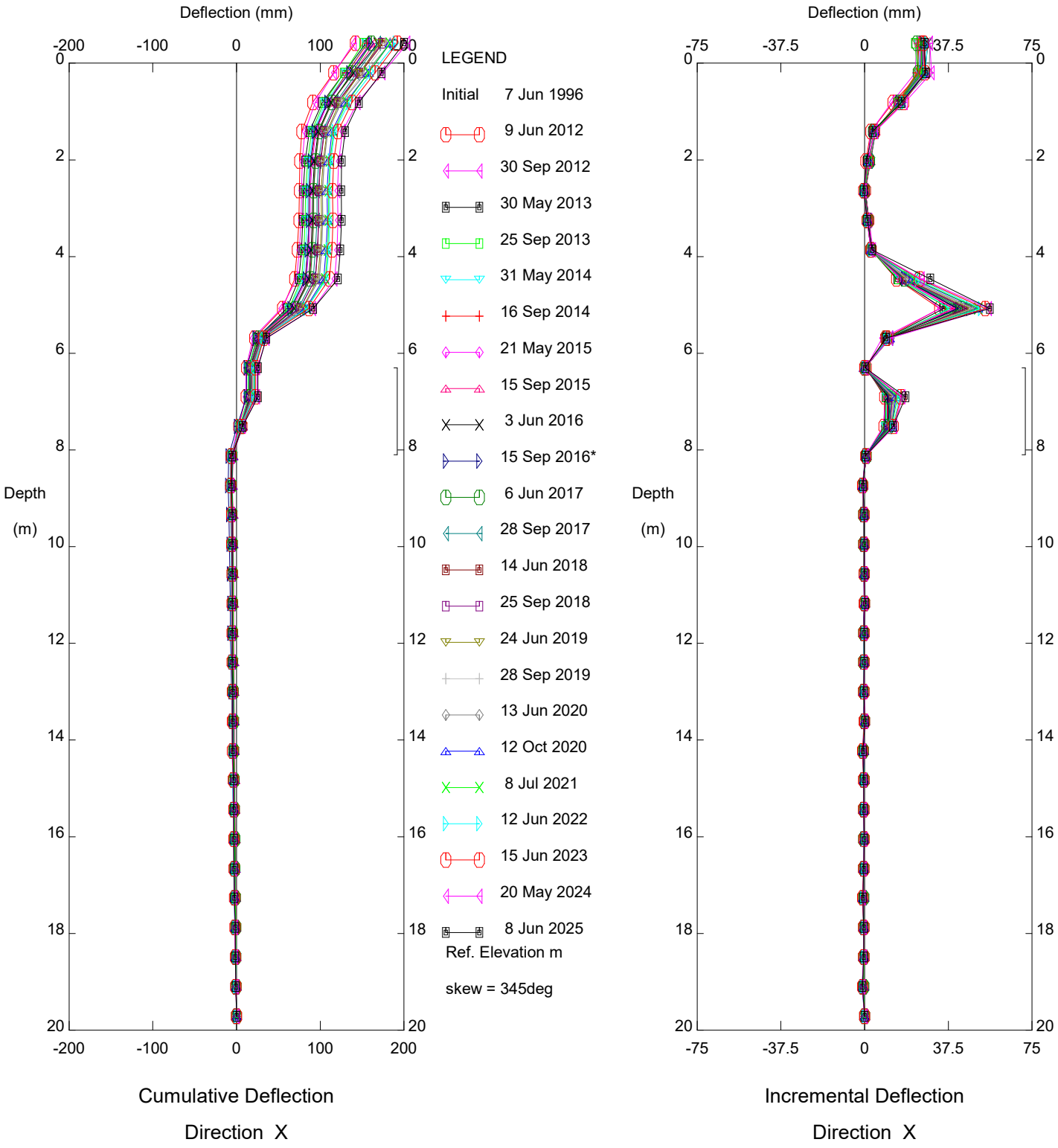
Thurber Engineering Ltd.



HWY 986:01 - STA. 13+540, Inclinometer SI-4

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction X

Incremental Deflection

Direction X

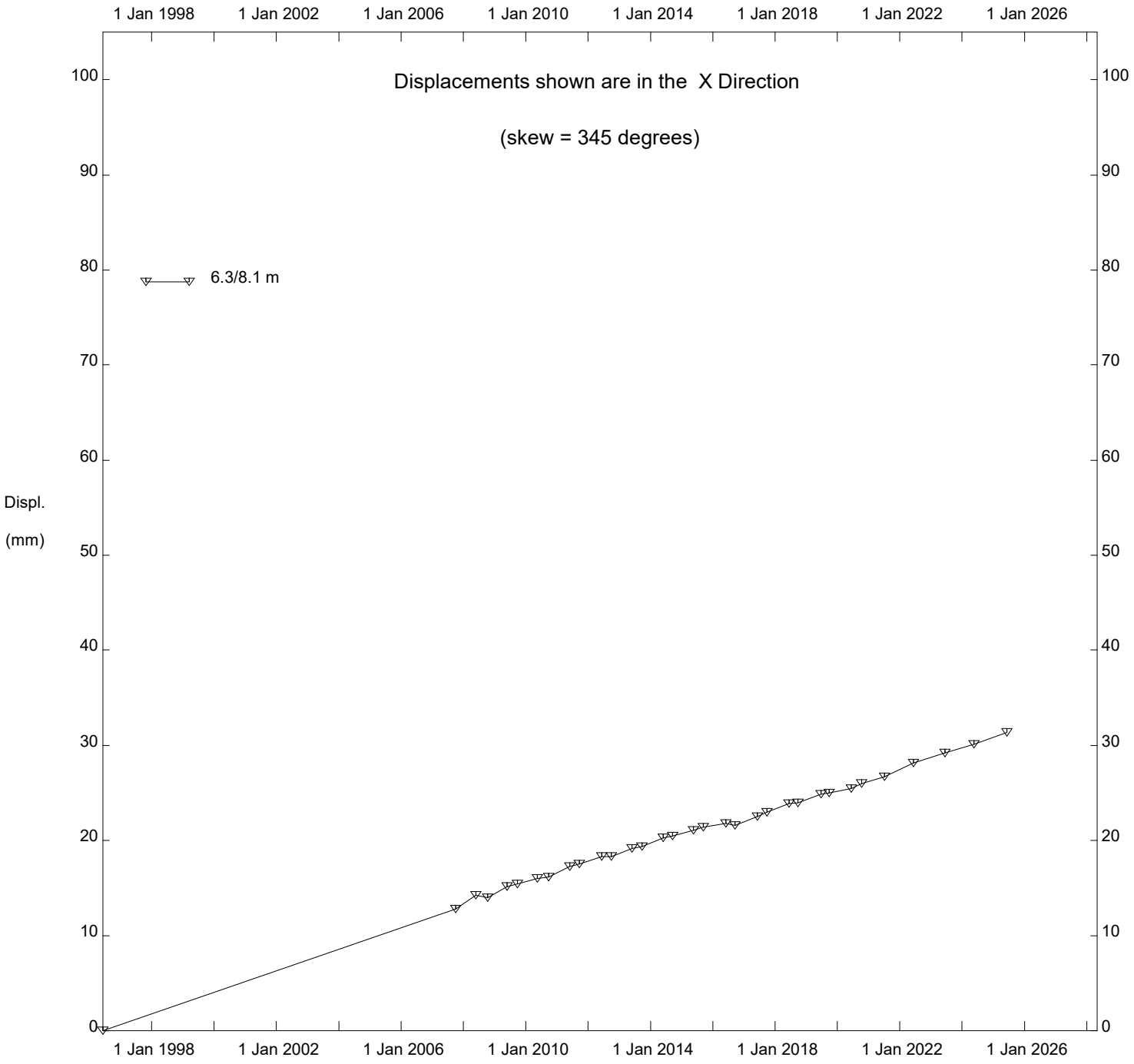
HWY 986:01 - STA. 13+540, Inclinometer SI-4

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

G:\32000\32121 AT GRMP Peace River District 2021-2025\Section C\2025A-Spring\SI Readings\PH043\SH986-04.GTL

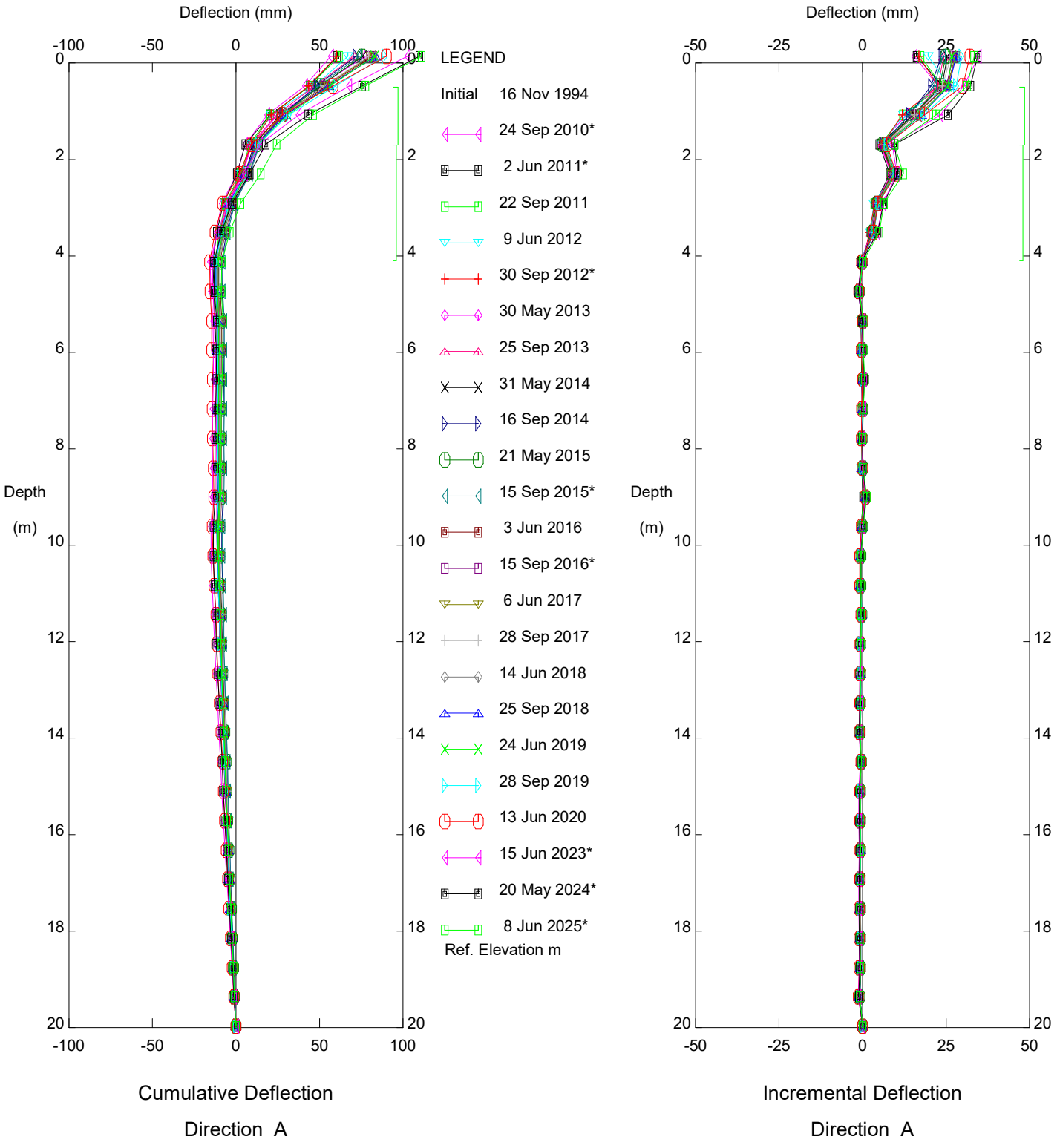
Thurber Engineering Ltd.



HWY 986:01 - STA. 13+540, Inclinometer SI-4

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI-5

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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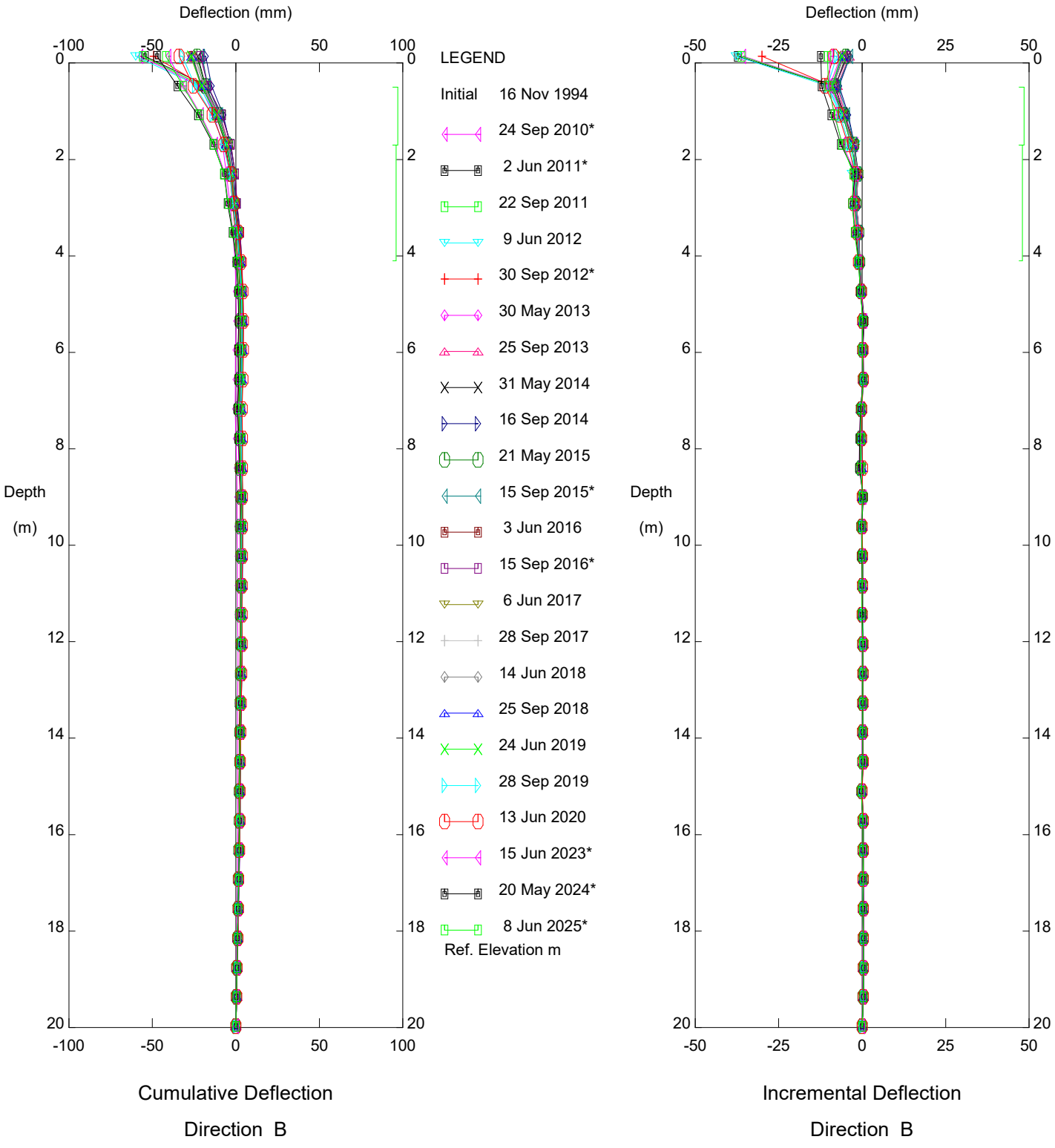

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI-5

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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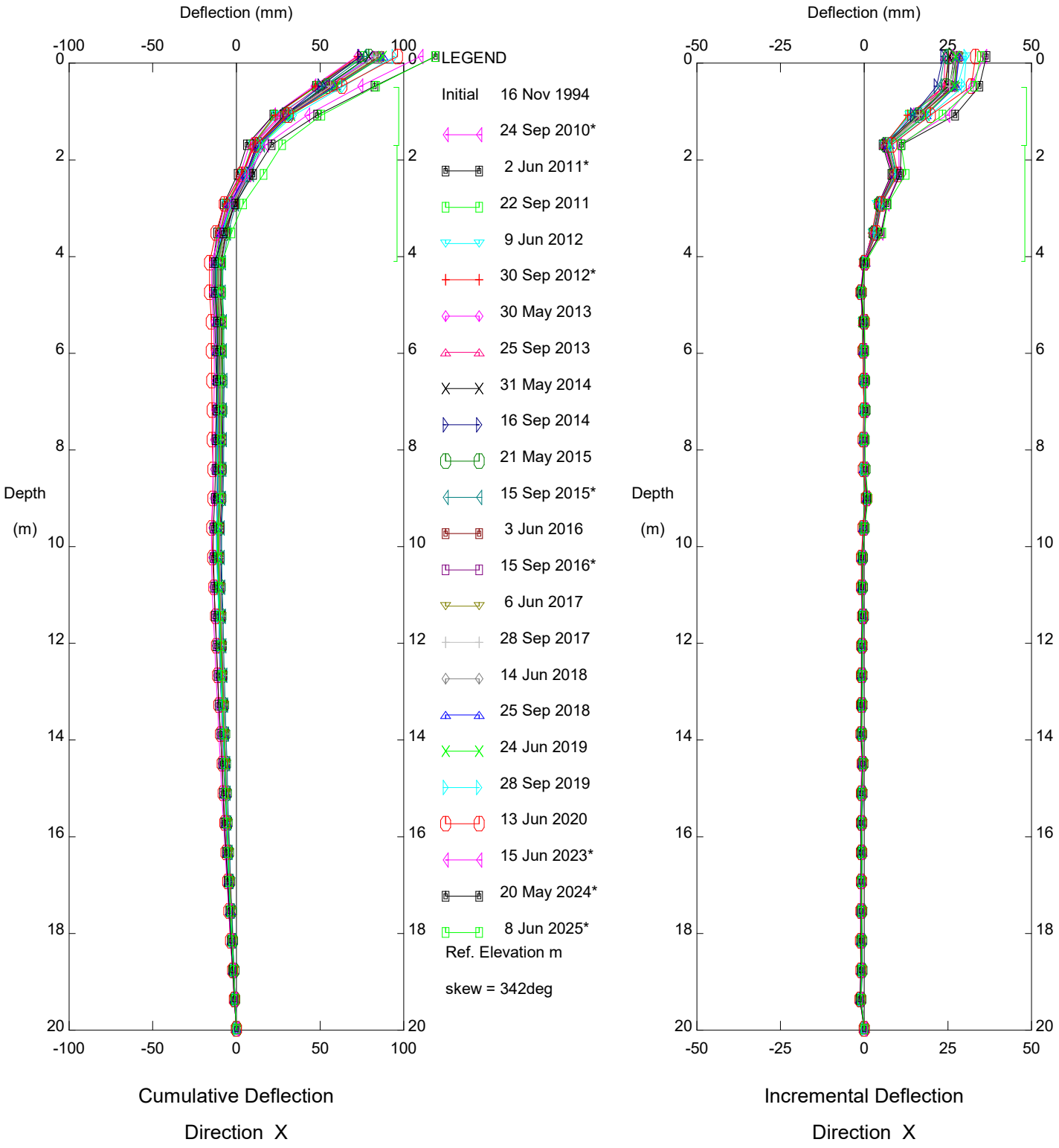
Thurber Engineering Ltd.



Cumulative Deflection

Direction X

Incremental Deflection

Direction X

HWY 986:01 - STA. 13+540, Inclinometer SI-5

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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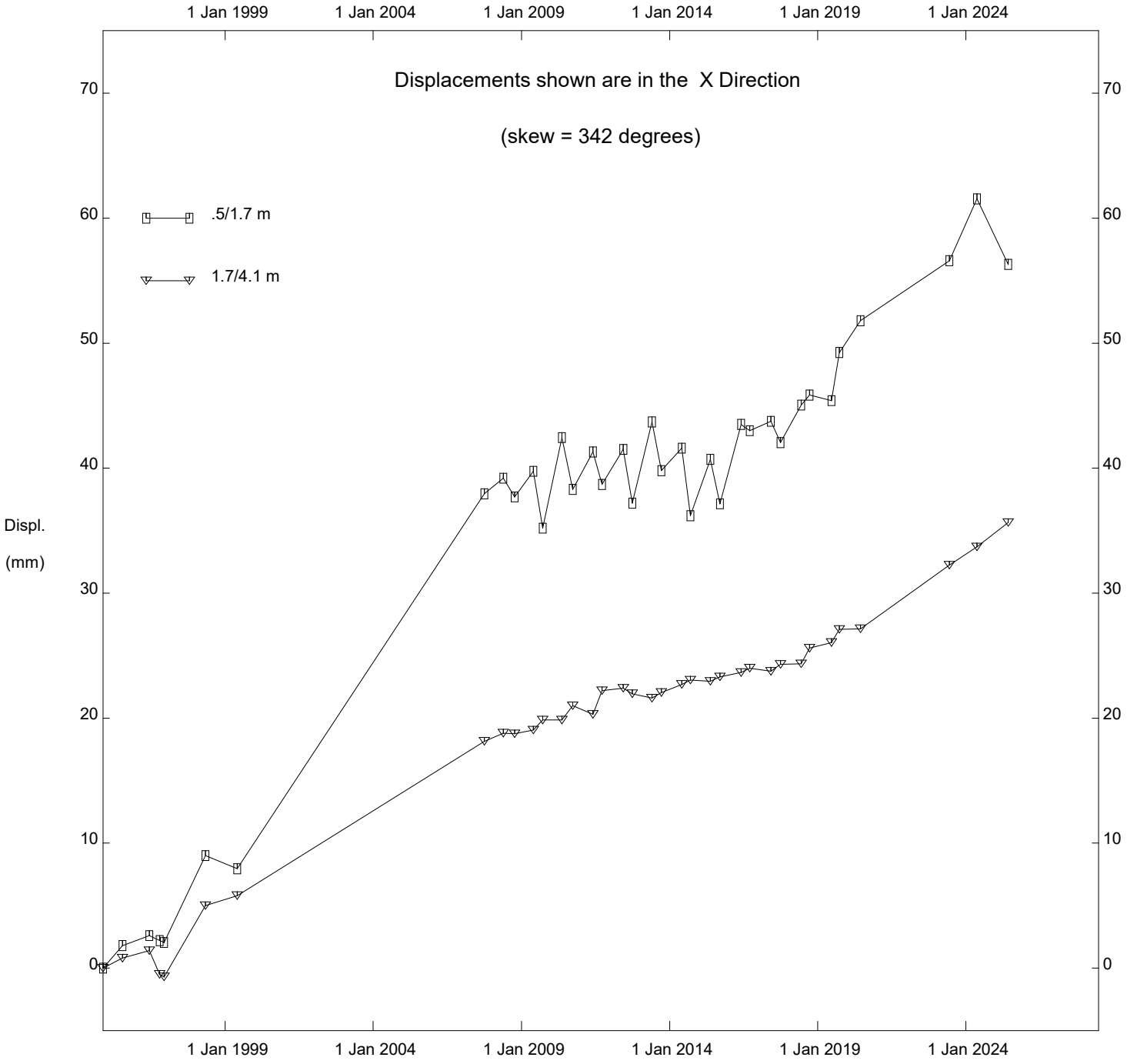
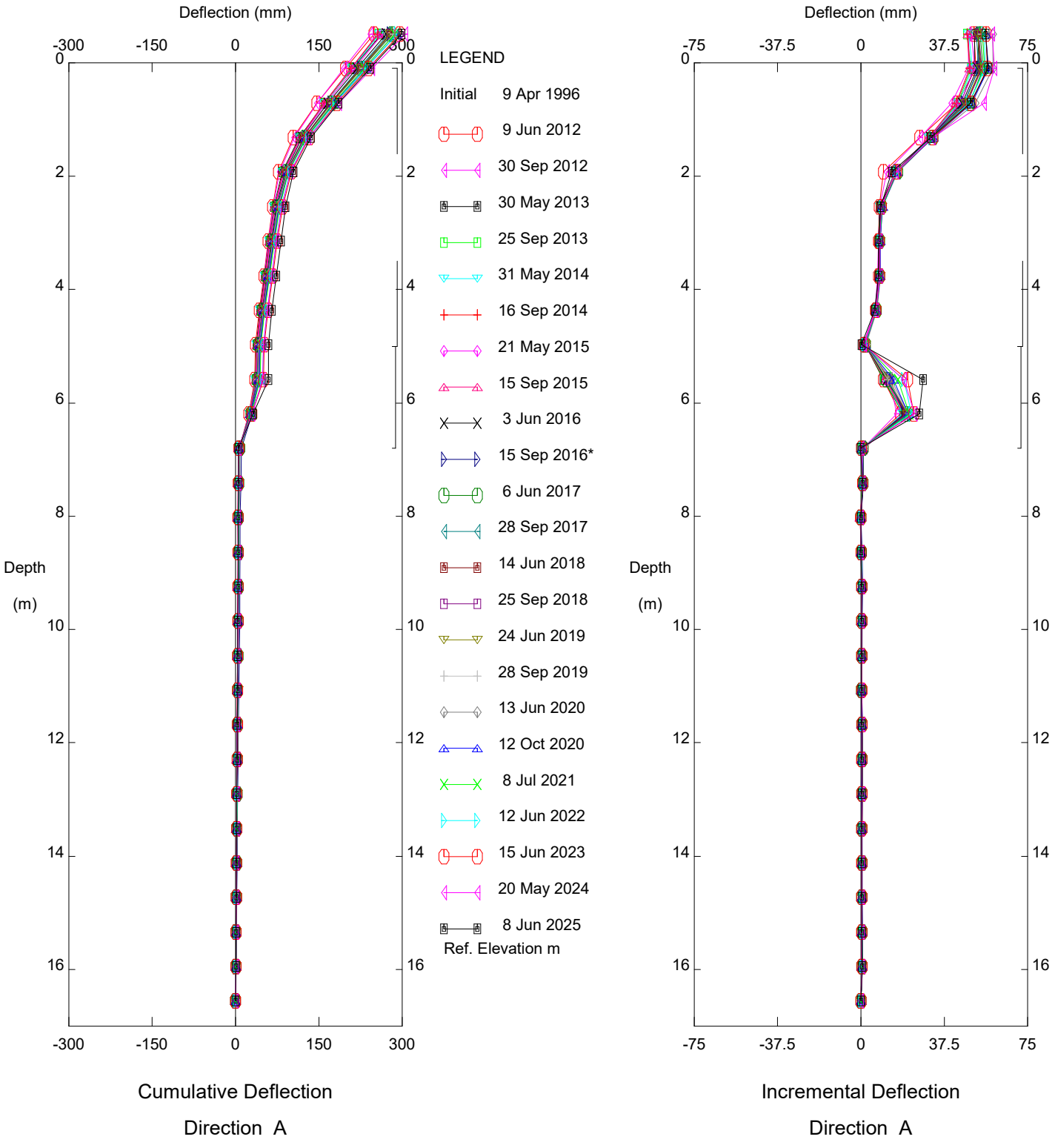


HWY 986:01 - STA. 13+540, Inclinometer SI-5

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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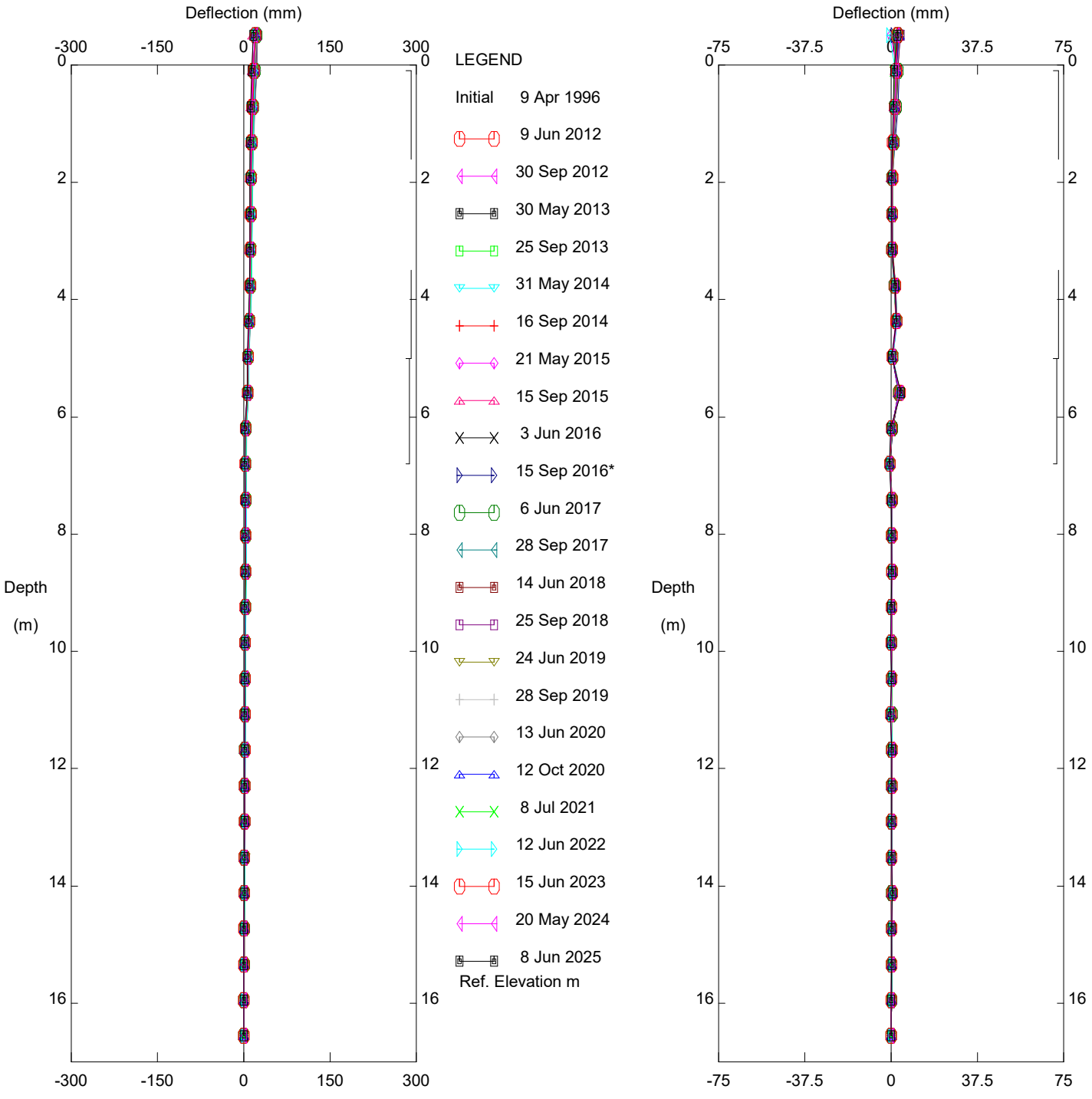
Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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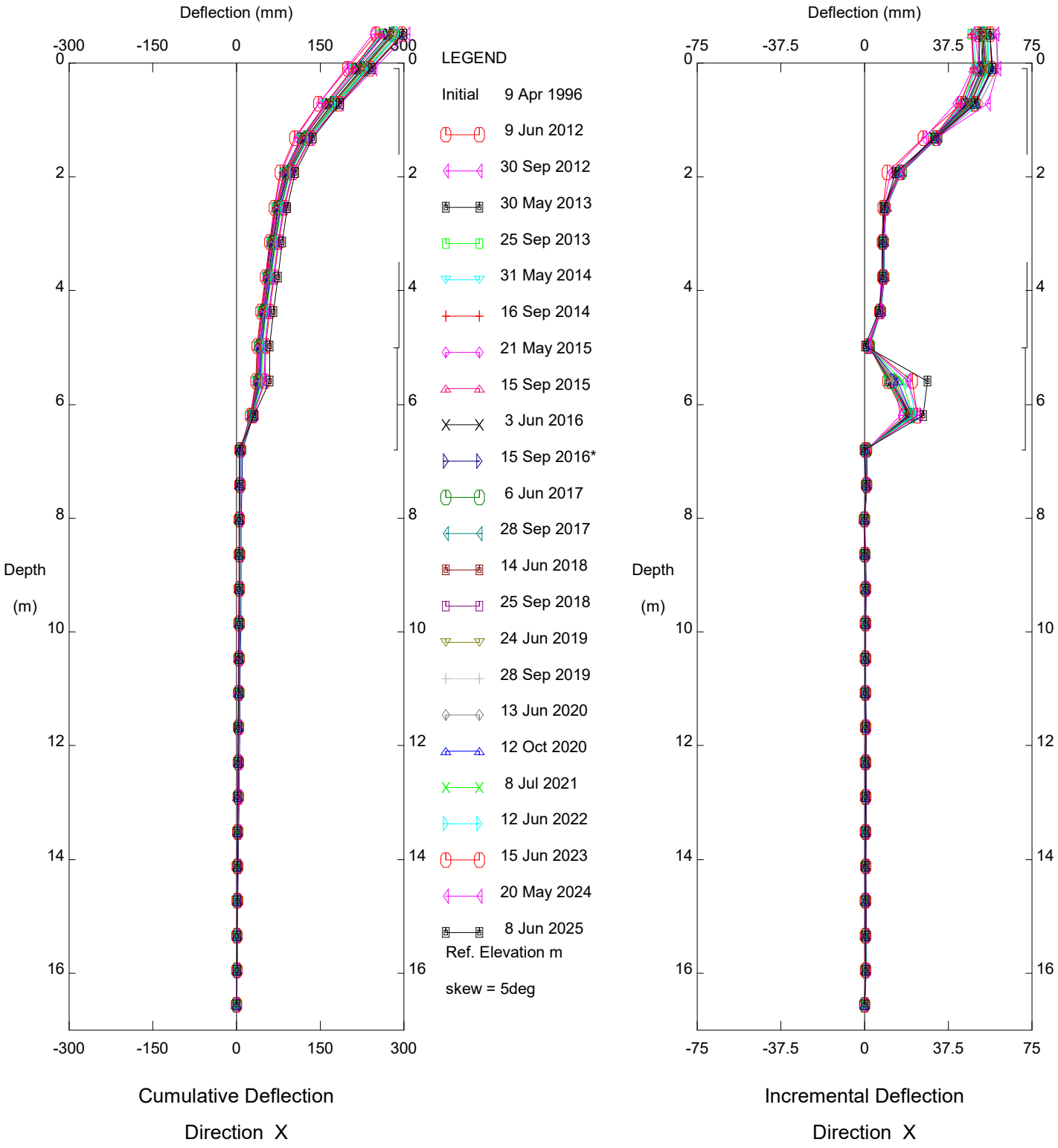
Thurber Engineering Ltd.



Cumulative Deflection

Direction X

Incremental Deflection

Direction X

HWY 986:01 - STA. 13+540, Inclinometer SI-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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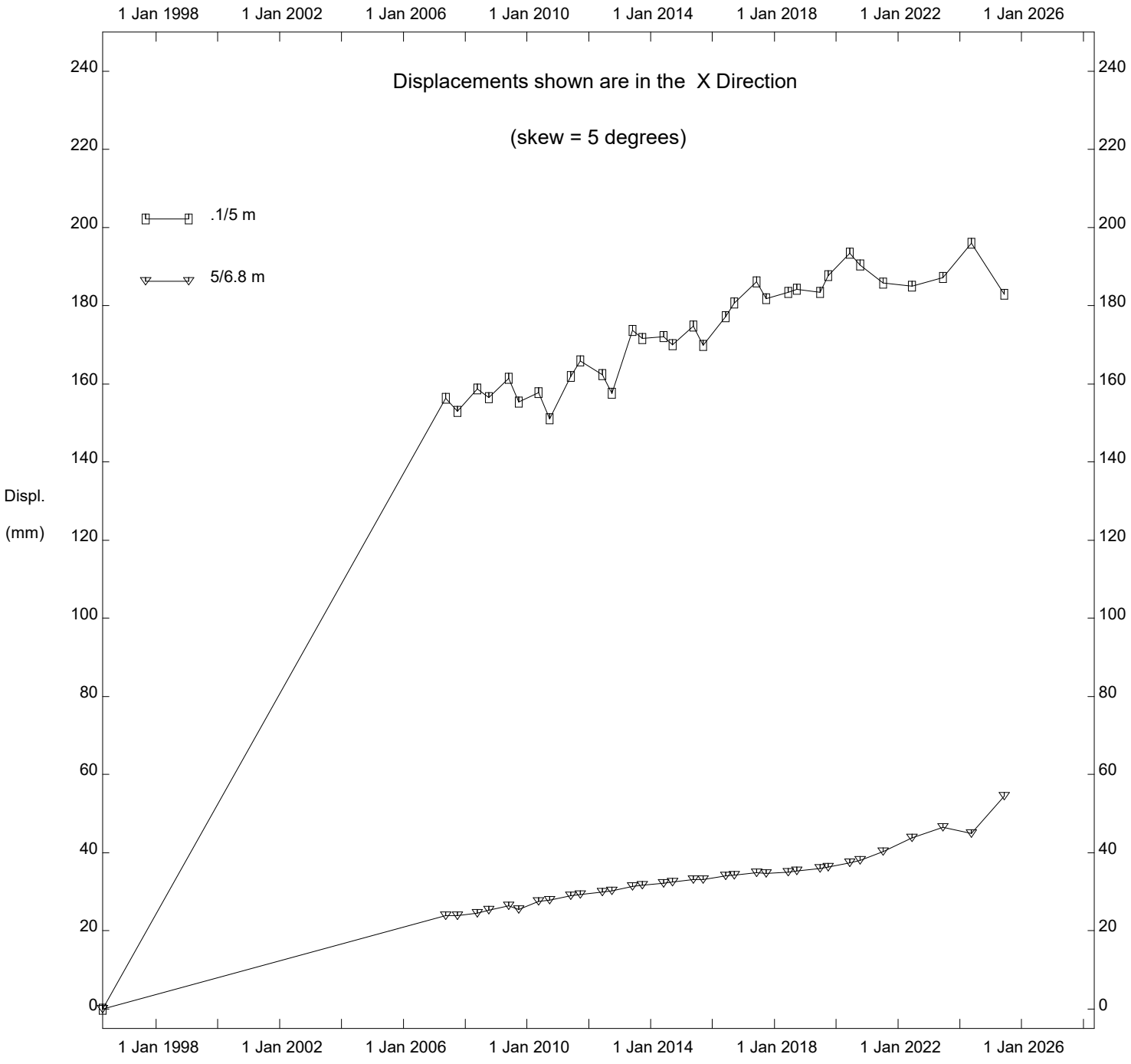
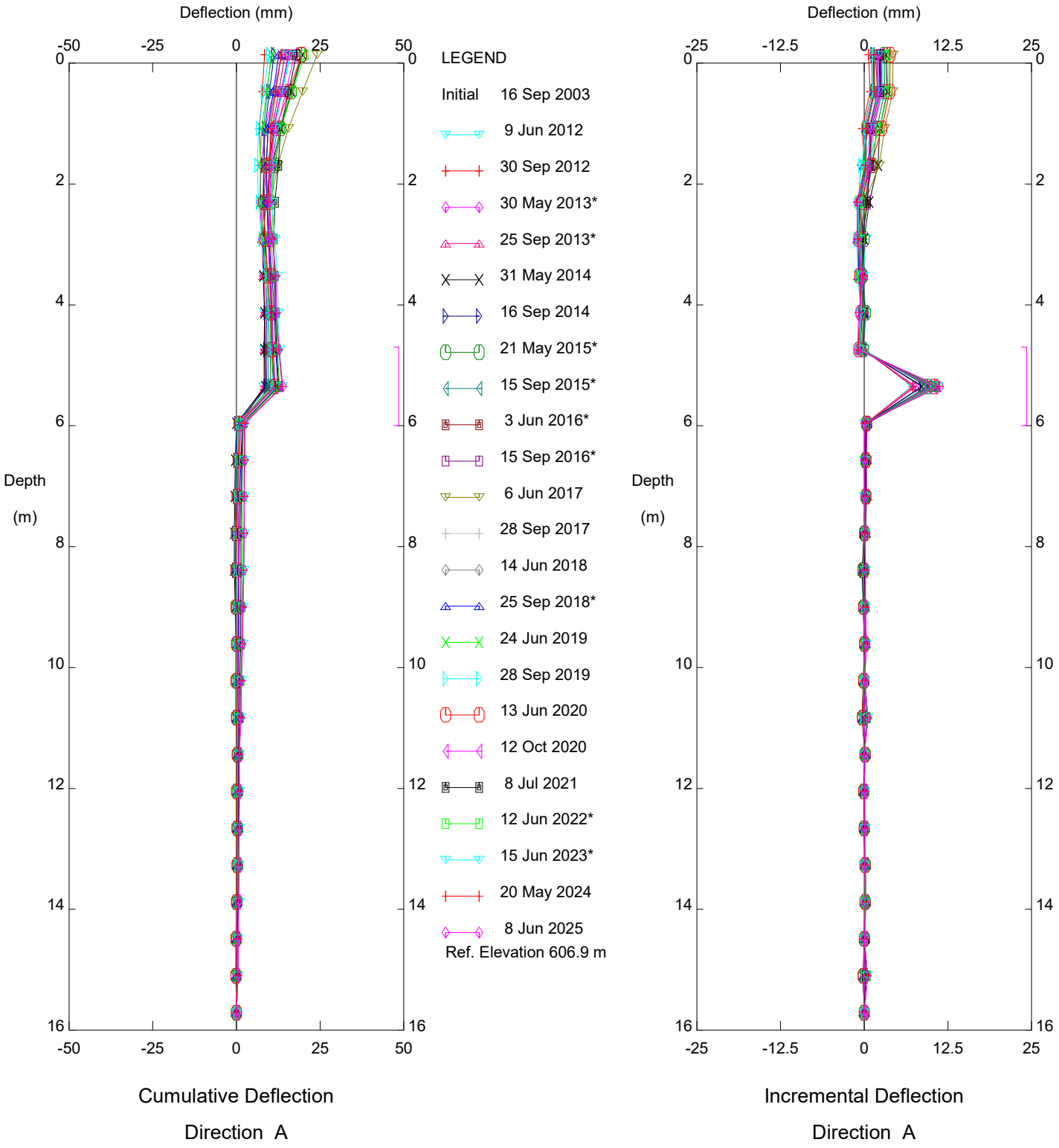
Thurber Engineering Ltd.



HWY 986:01 - STA. 13+540, Inclinometer SI-6

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI03-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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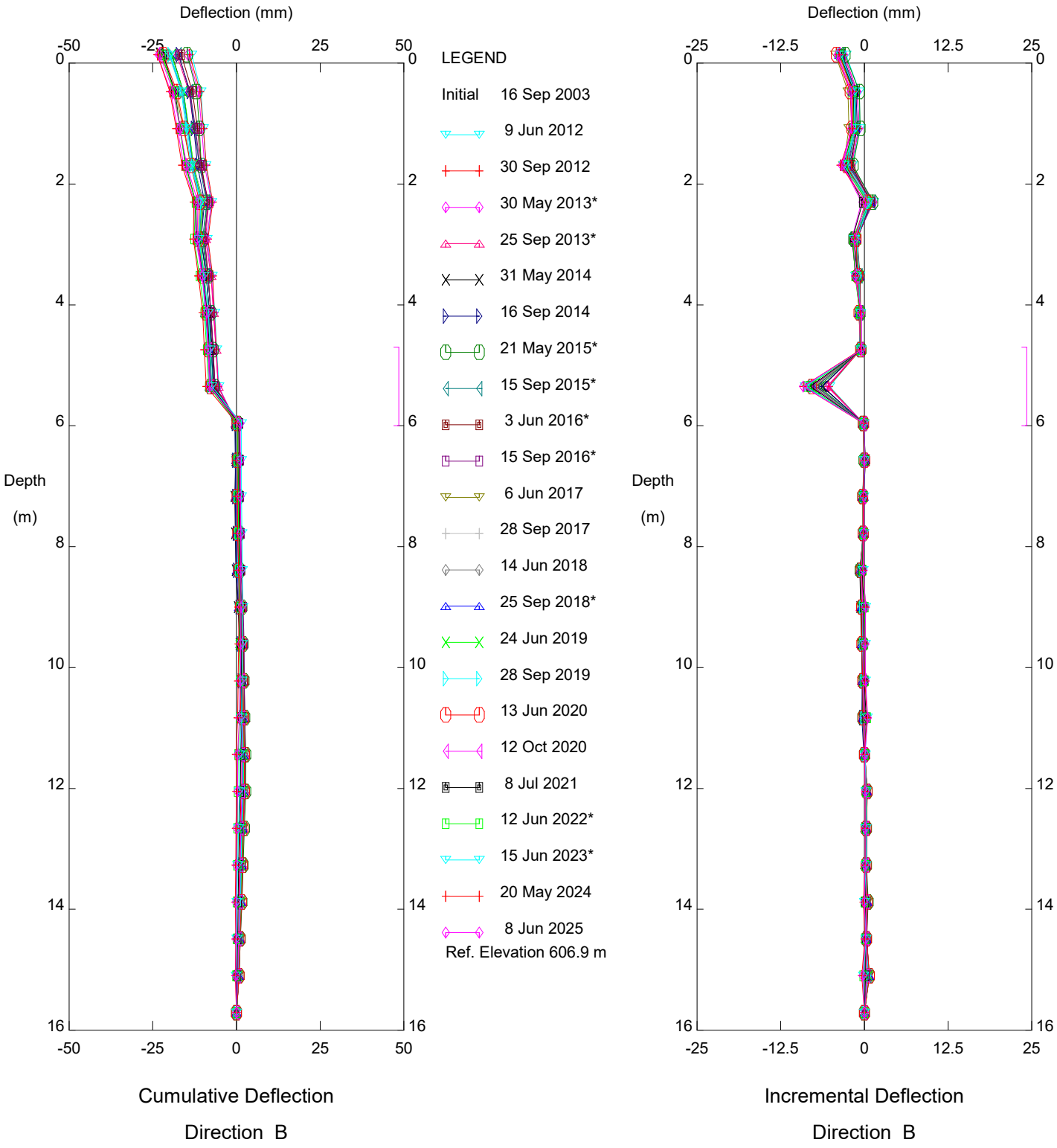

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI03-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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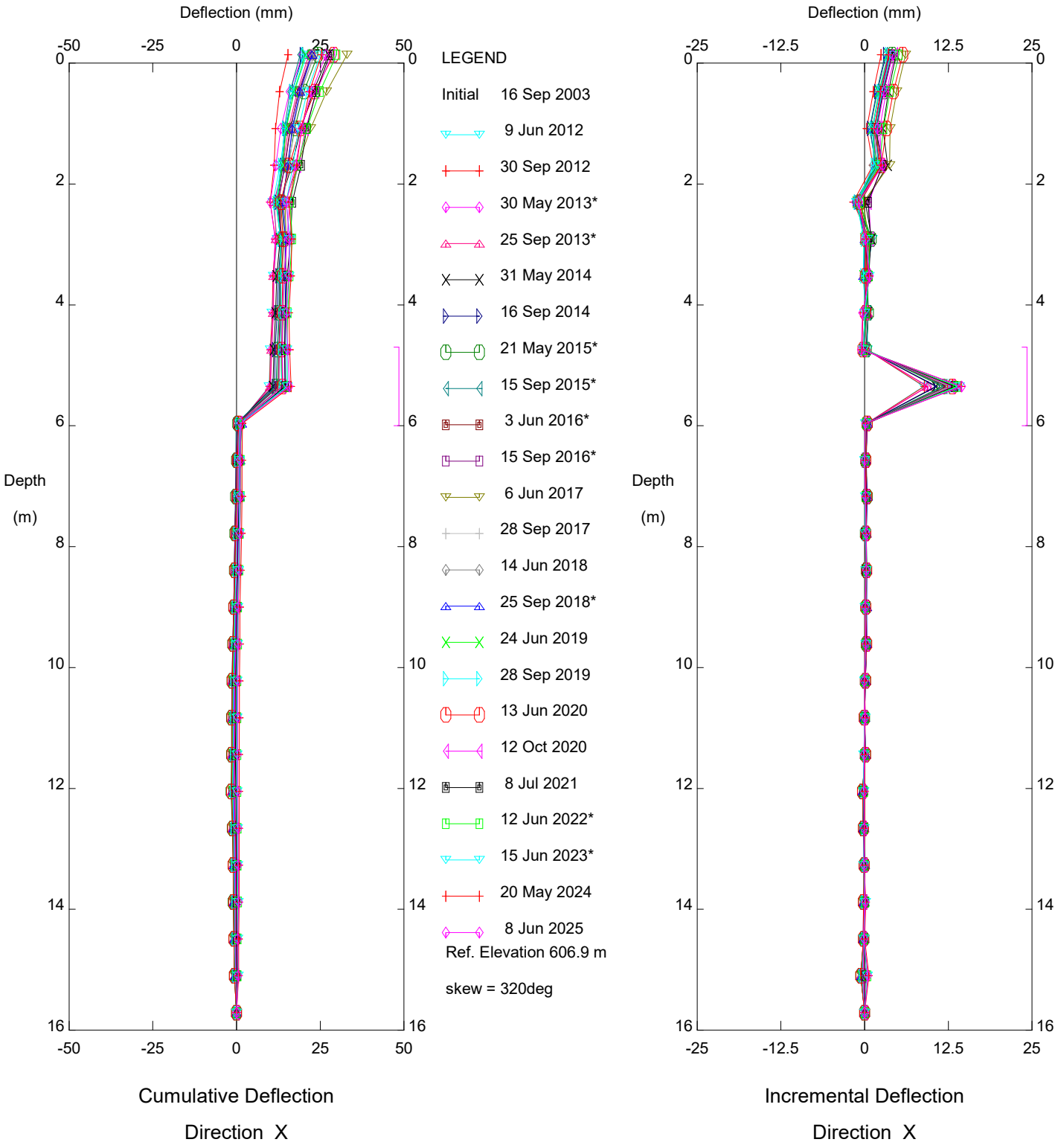

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

HWY 986:01 - STA. 13+540, Inclinometer SI03-6

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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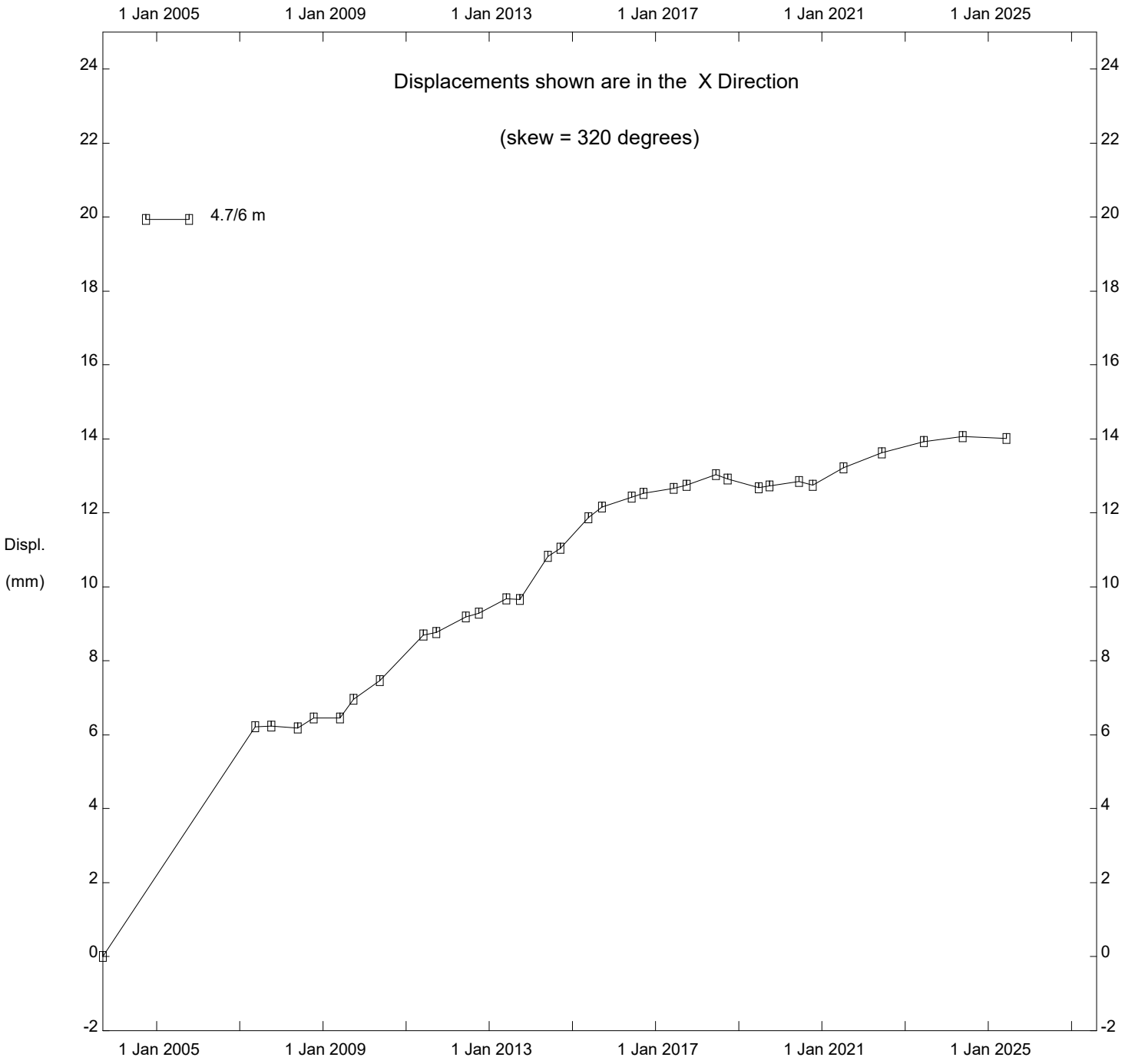
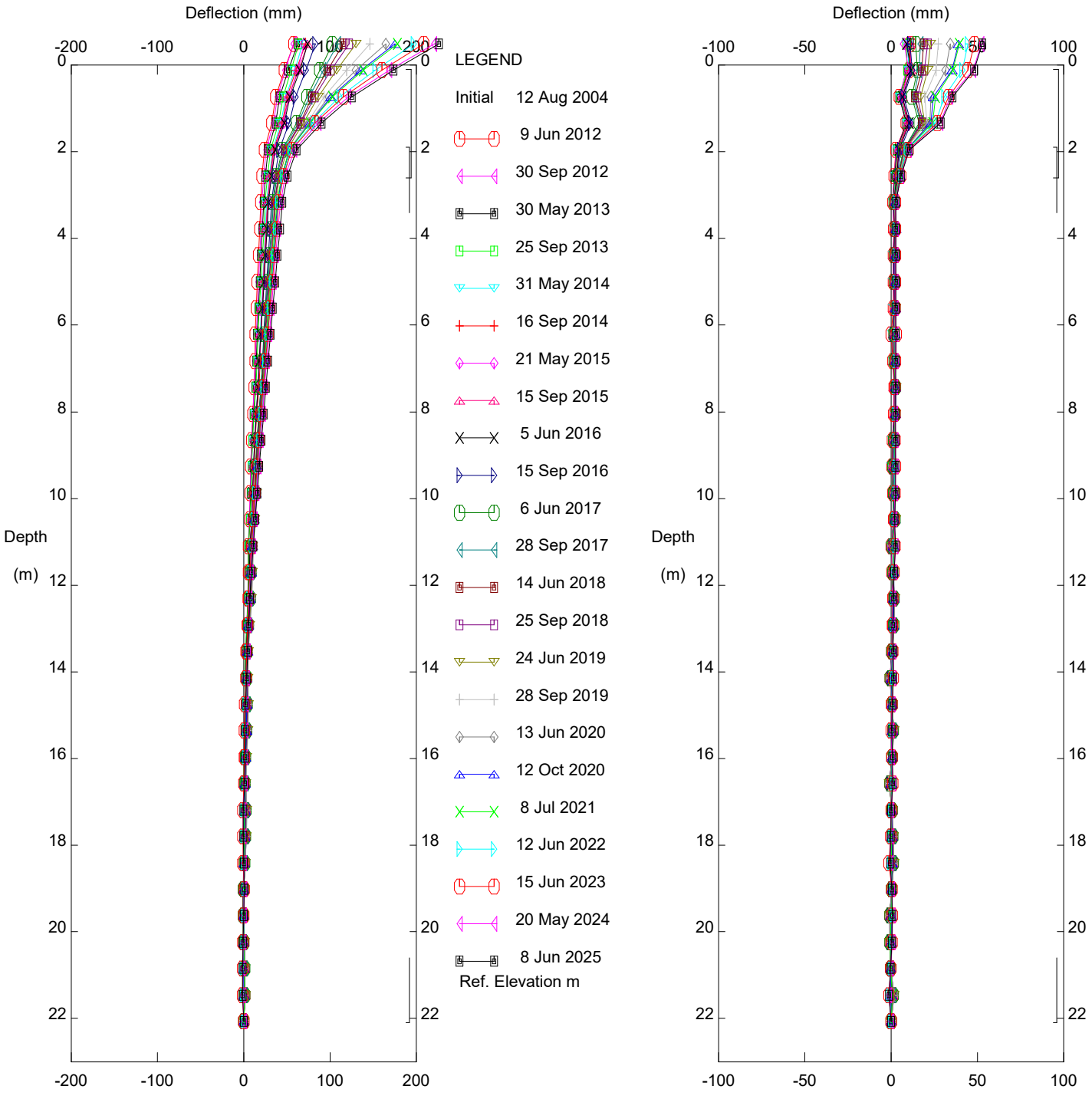
Thurber Engineering Ltd.



HWY 986:01 - STA. 13+540, Inclinometer SI03-6

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI04-1

Alberta Transportation

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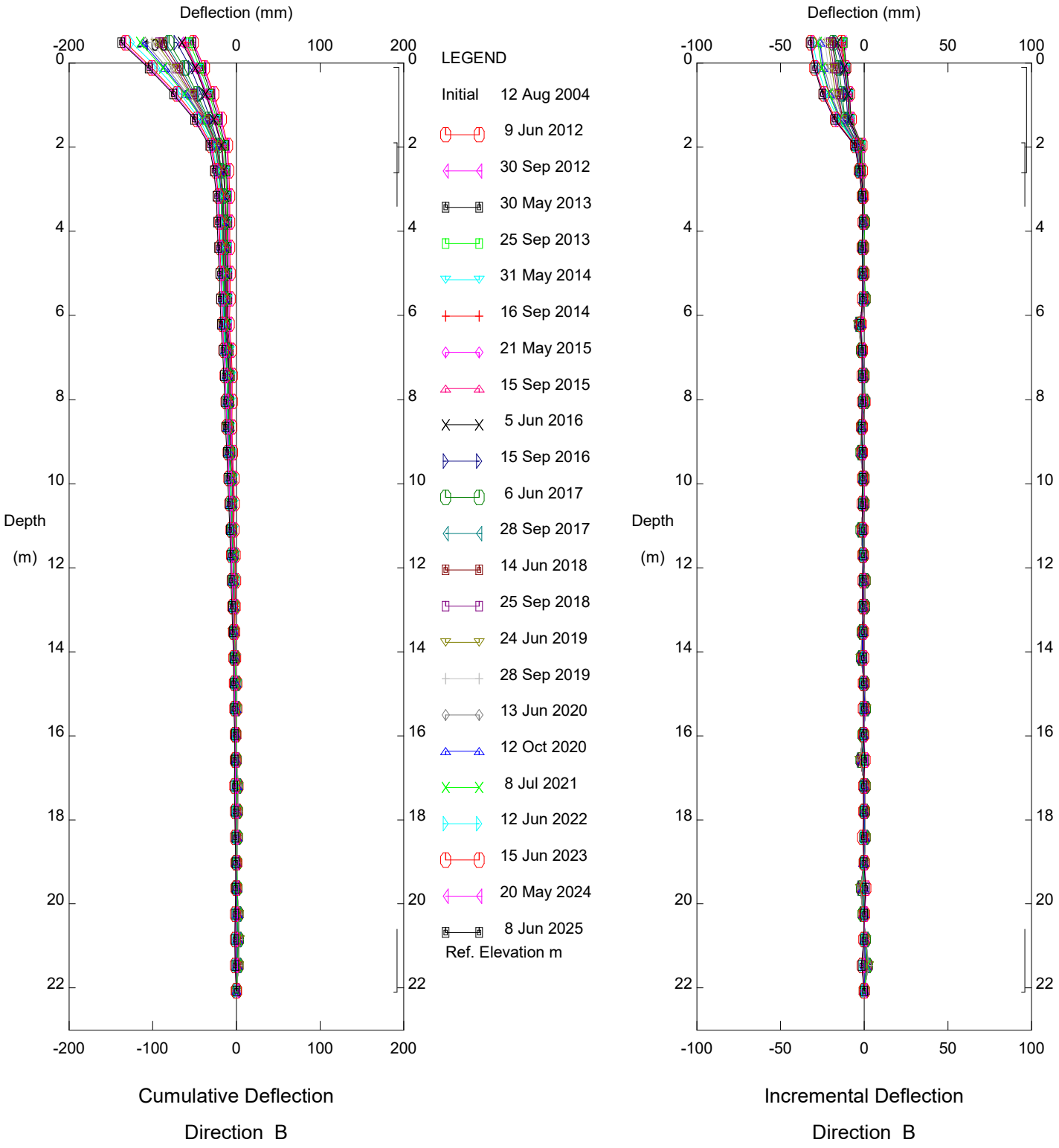

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI04-1

Alberta Transportation

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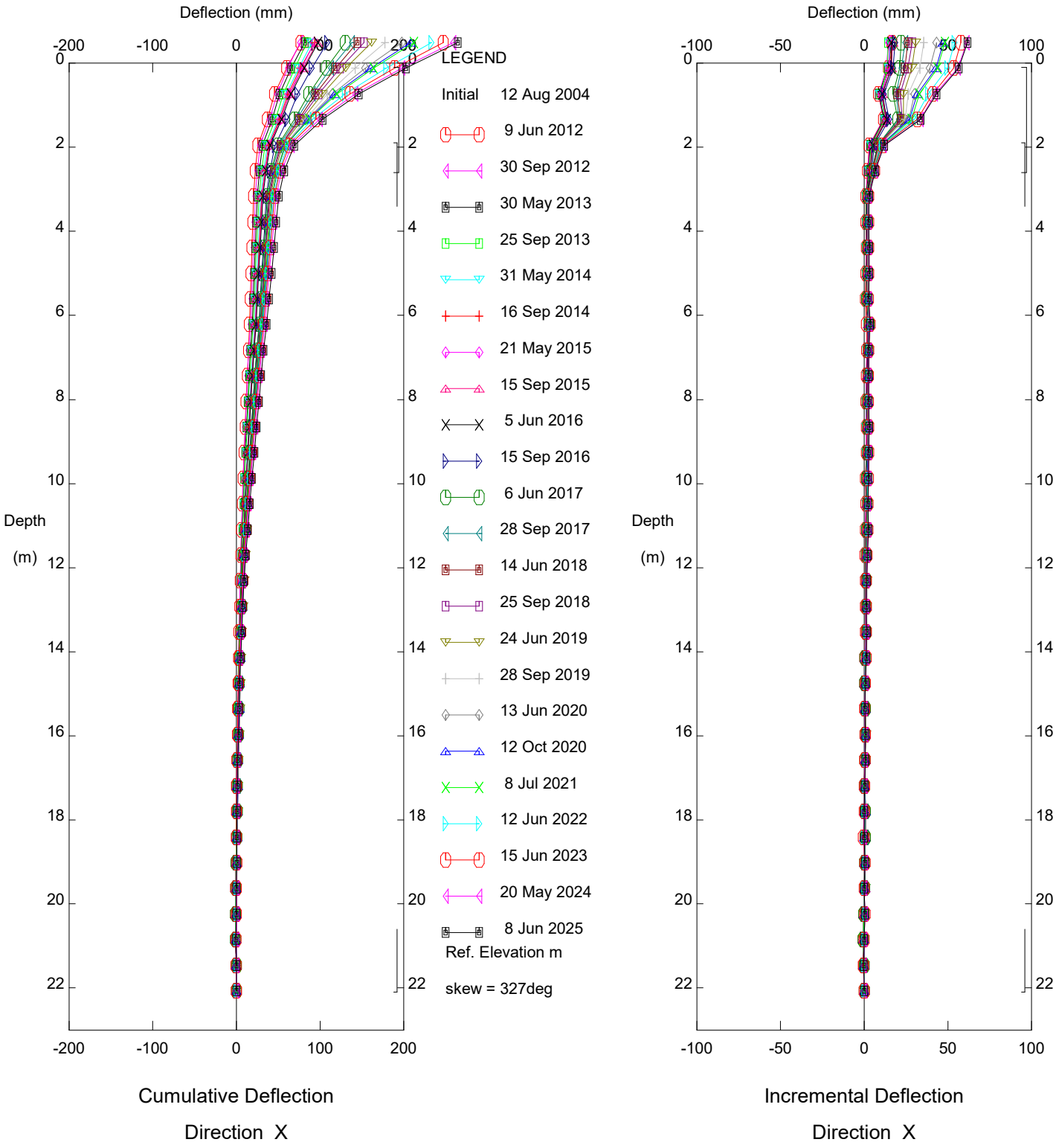

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

HWY 986:01 - STA. 13+540, Inclinometer SI04-1

Alberta Transportation

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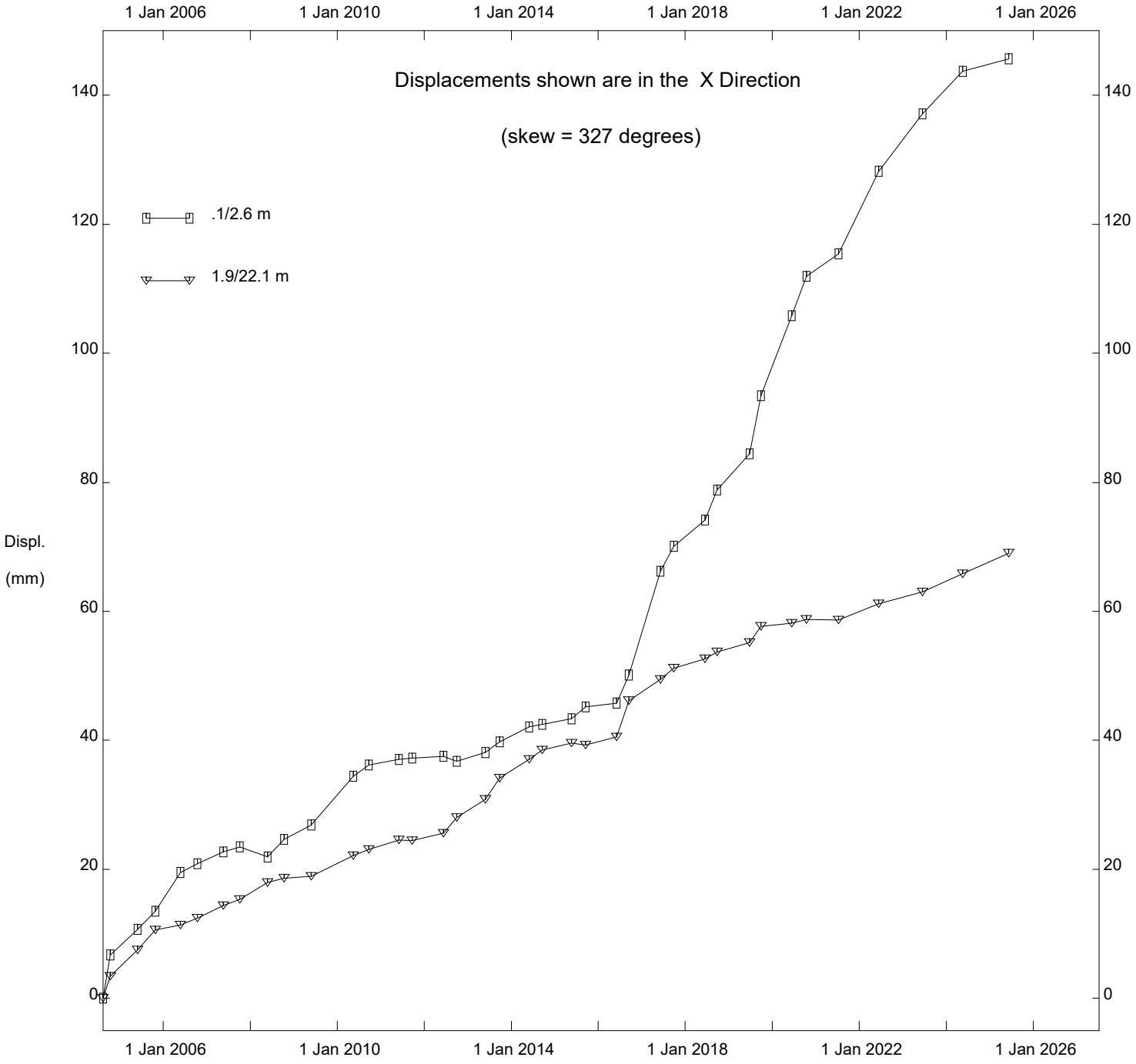
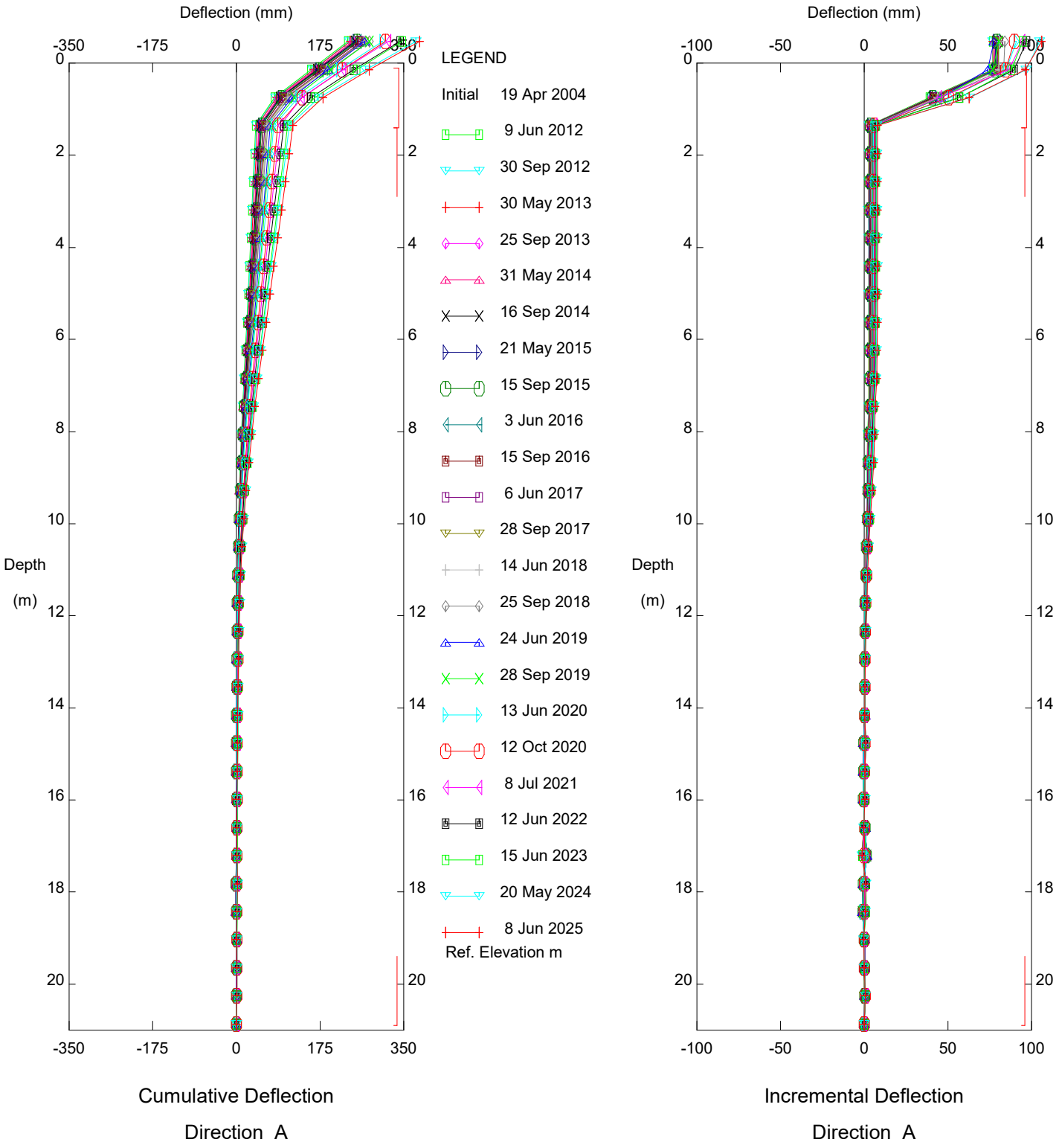


HWY 986:01 - STA. 13+540, Inclinometer SI04-1

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+540, Inclinometer SI04-3

Alberta Transportation

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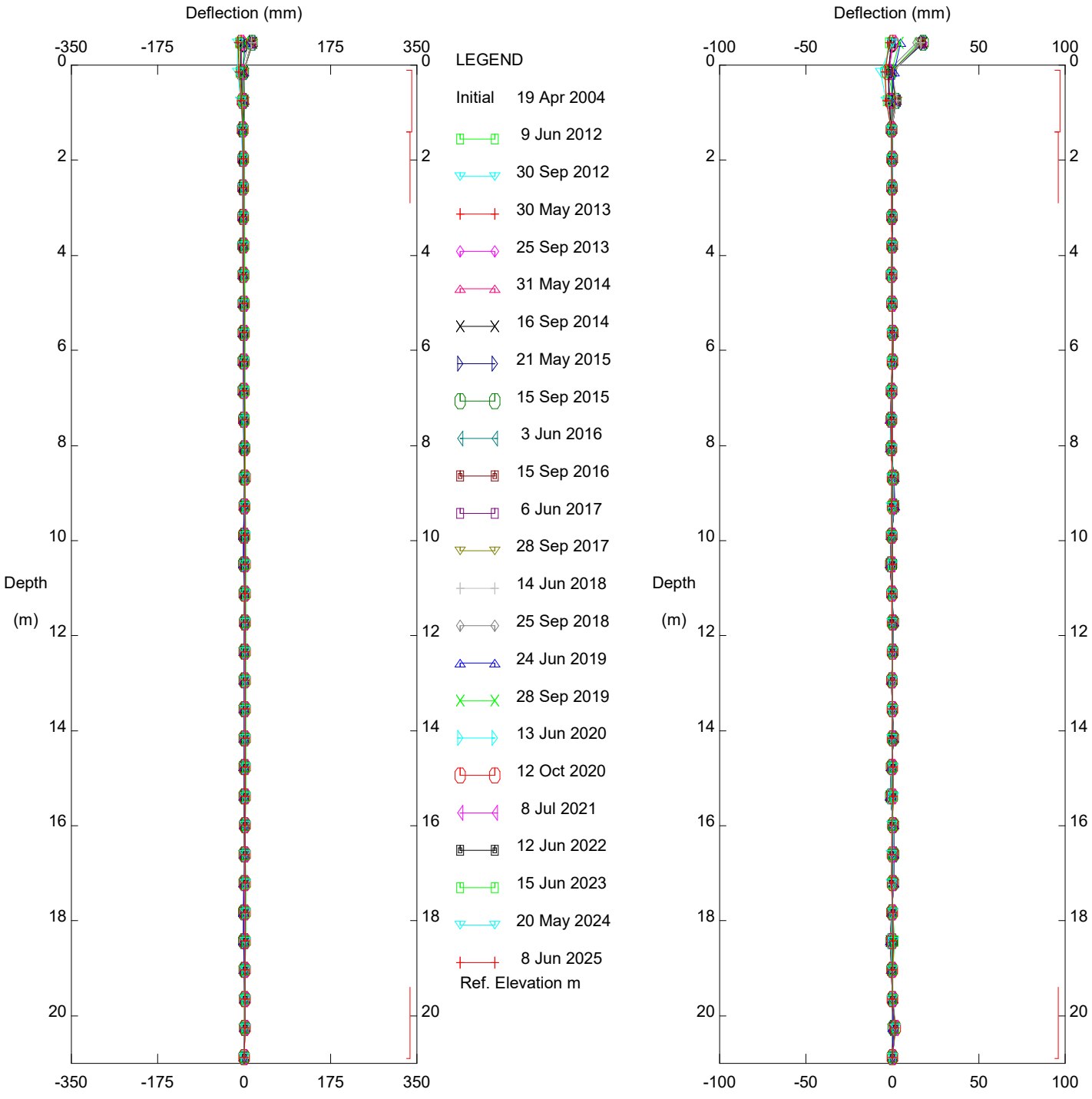

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+540, Inclinometer SI04-3

Alberta Transportation

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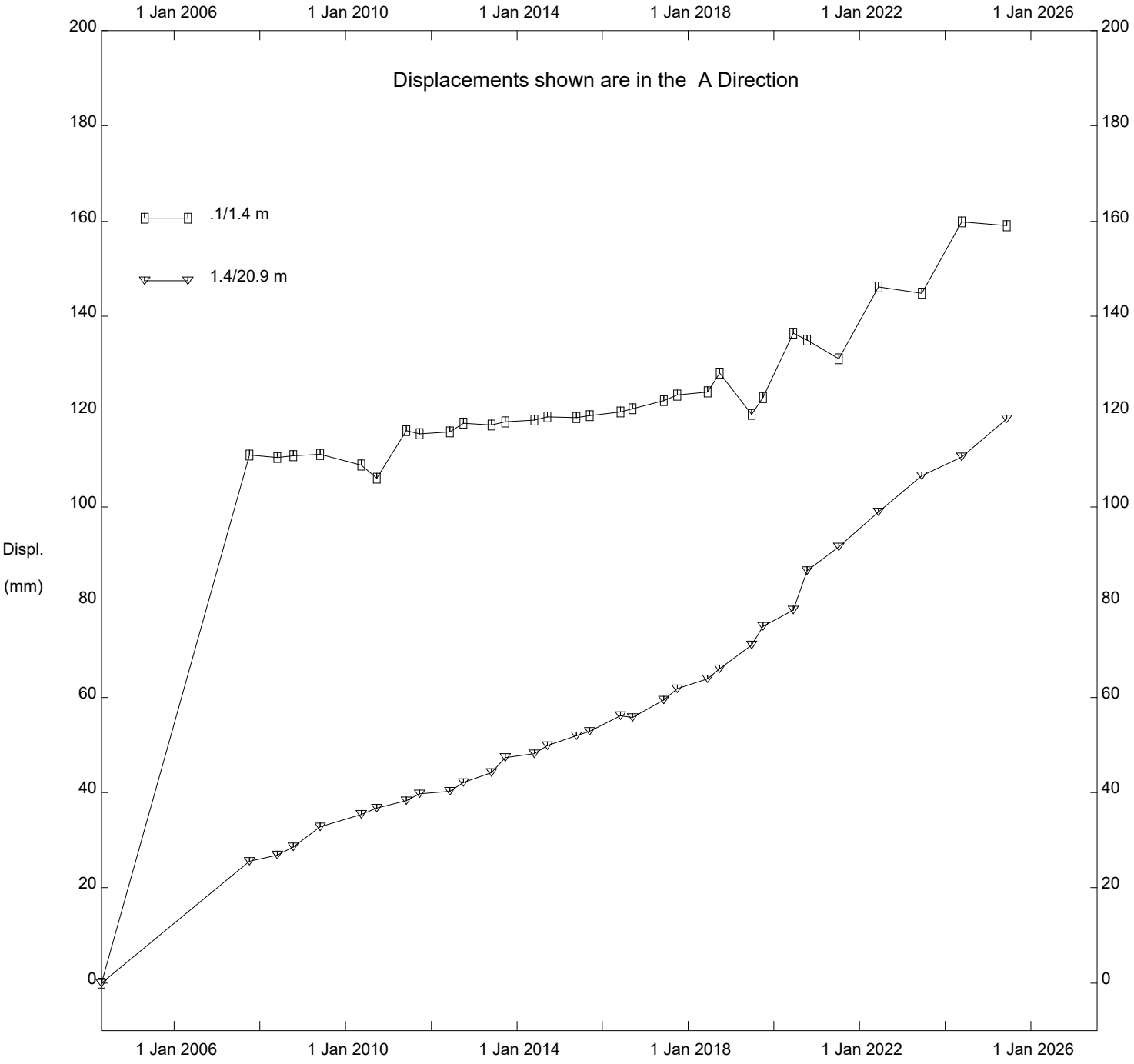
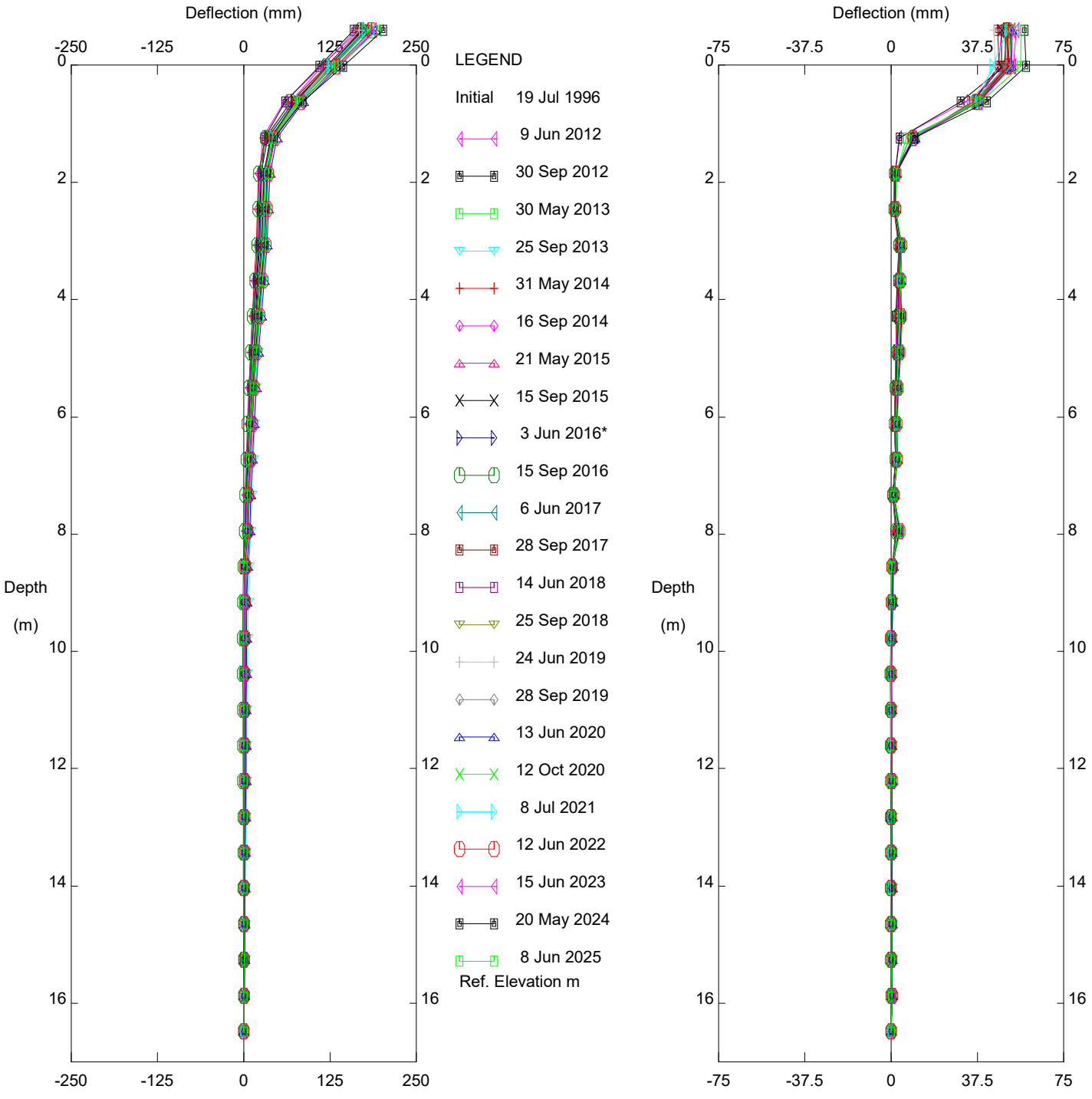


HWY 986:01 - STA. 13+540, Inclinometer SI04-3

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+820, Inclinometer SI-7

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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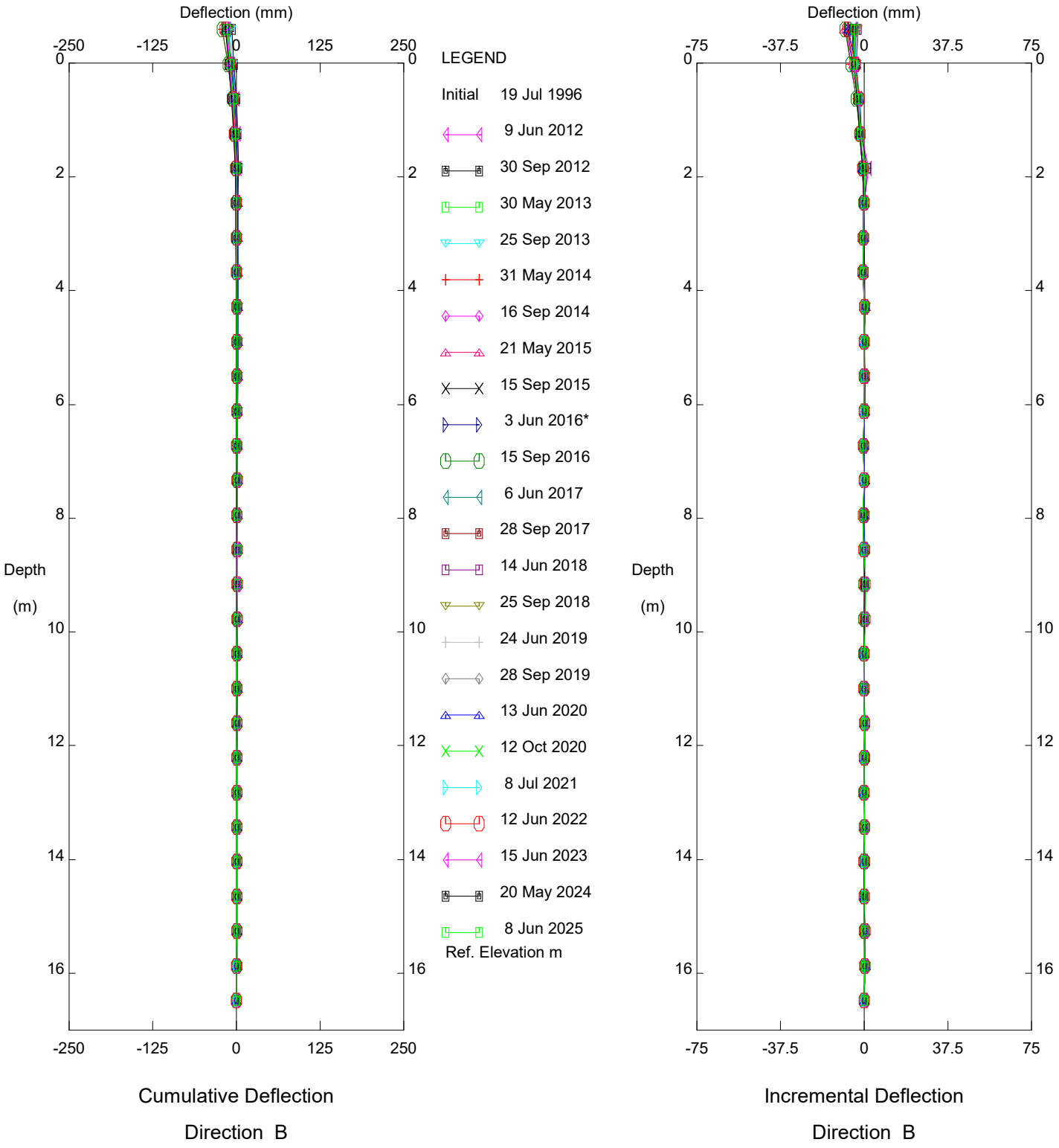

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+820, Inclinometer SI-7

Alberta Transportation

Sets marked * include zero shift and/or rotation corrections.

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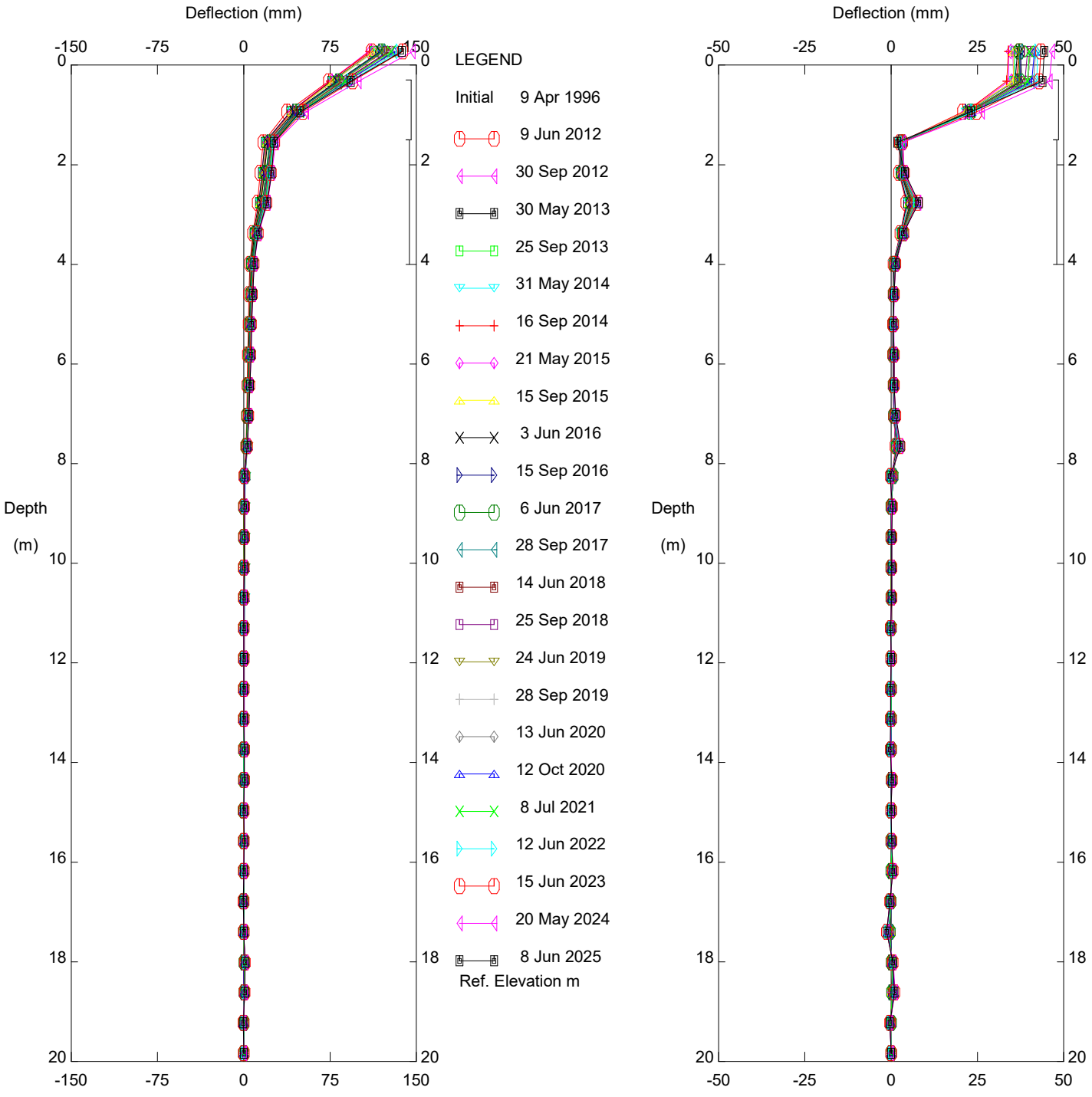


Cumulative Deflection

Direction A

Incremental Deflection

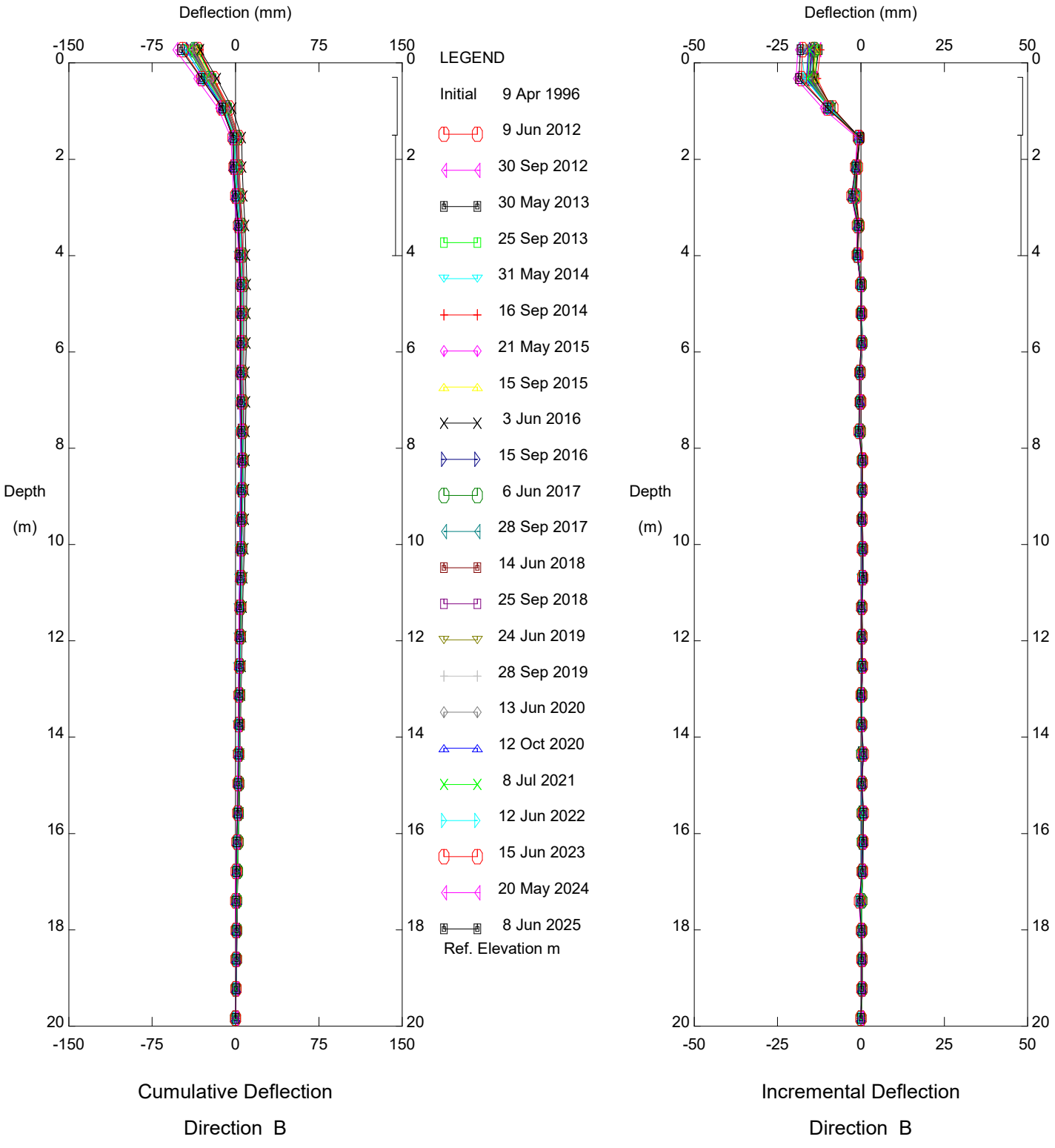
Direction A

HWY 986:01 - STA. 13+820, Inclinometer SI-8

Alberta Transportation

G:\32000\32121 AT GRMP Peace River District 2021-2025\Section C\2025A-Spring\SI Readings\PH043\SH986-08.GTL

Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+820, Inclinometer SI-8

Alberta Transportation

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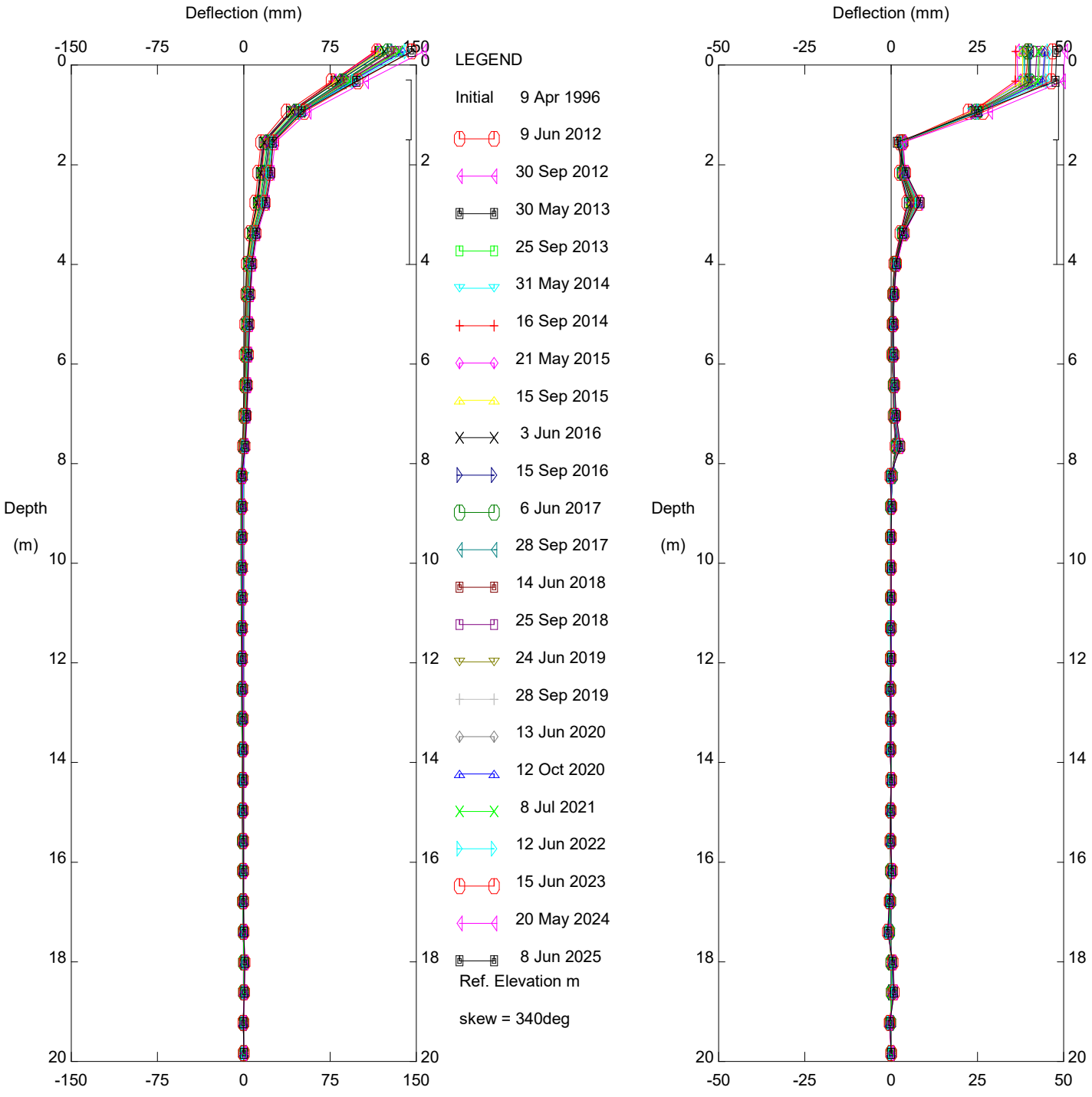

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

HWY 986:01 - STA. 13+820, Inclinometer SI-8

Alberta Transportation

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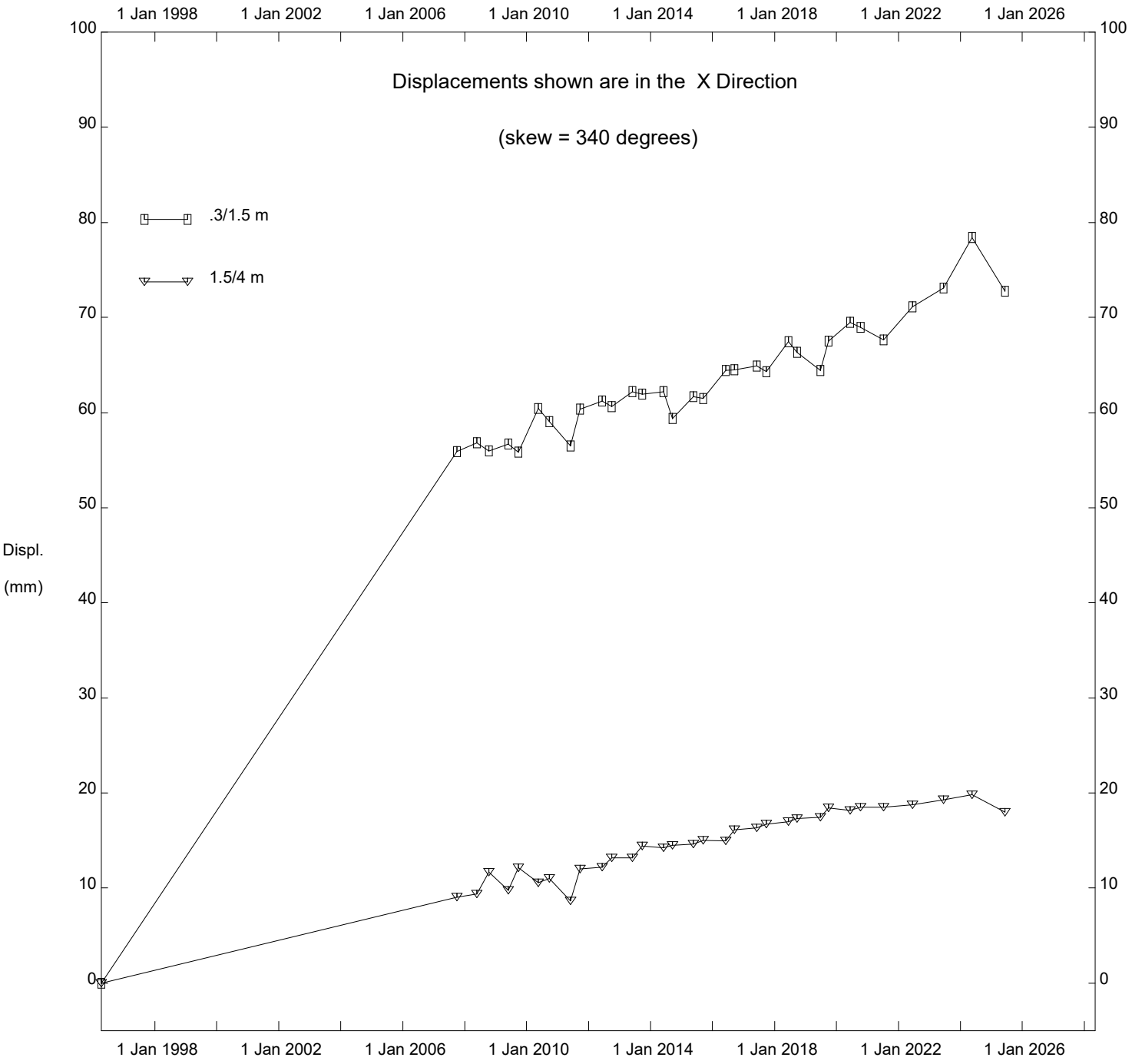
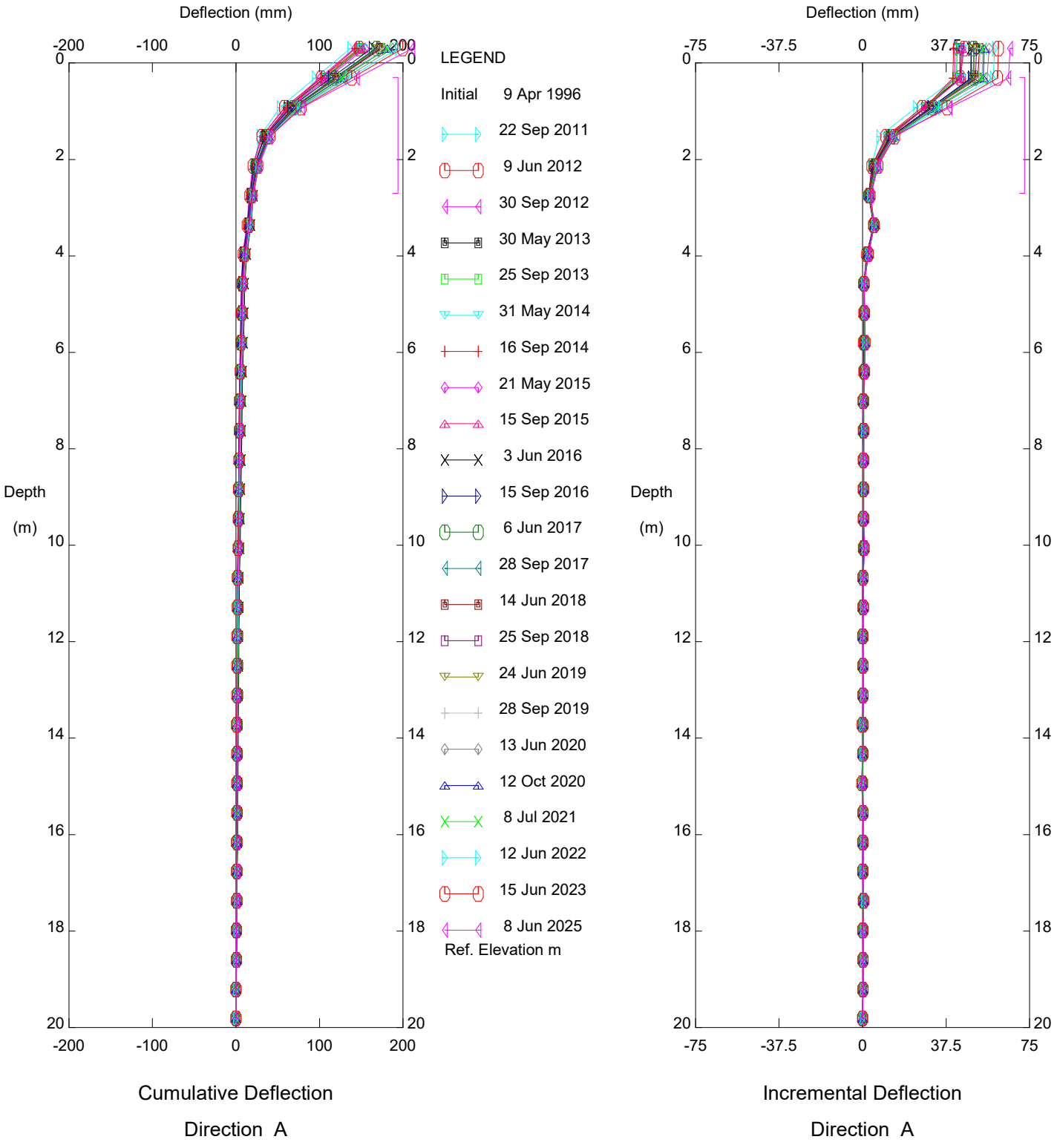


HWY 986:01 - STA. 13+820, Inclinometer SI-8

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

HWY 986:01 - STA. 13+820, Inclinometer SI-9

Alberta Transportation

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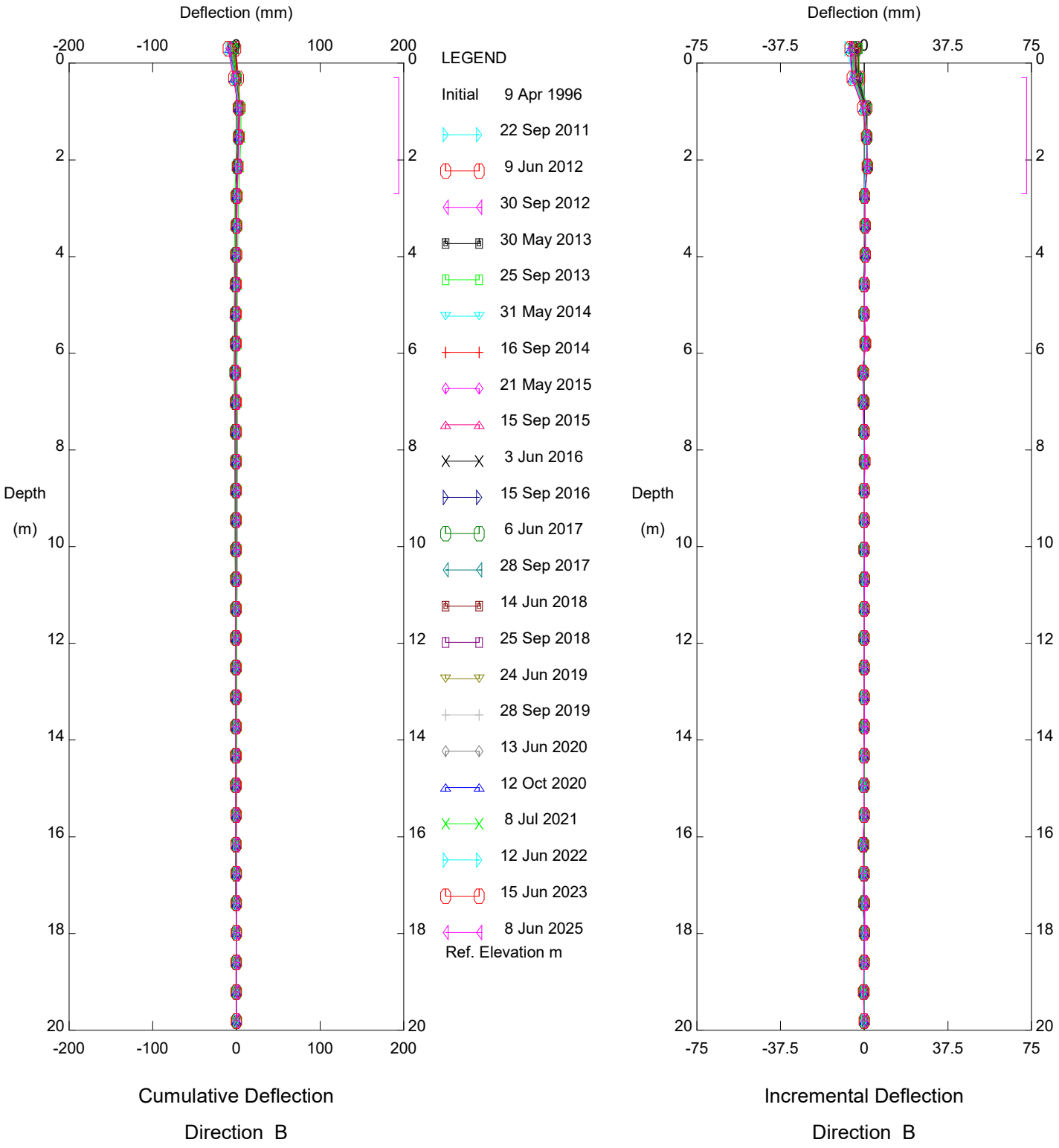

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

HWY 986:01 - STA. 13+820, Inclinometer SI-9

Alberta Transportation

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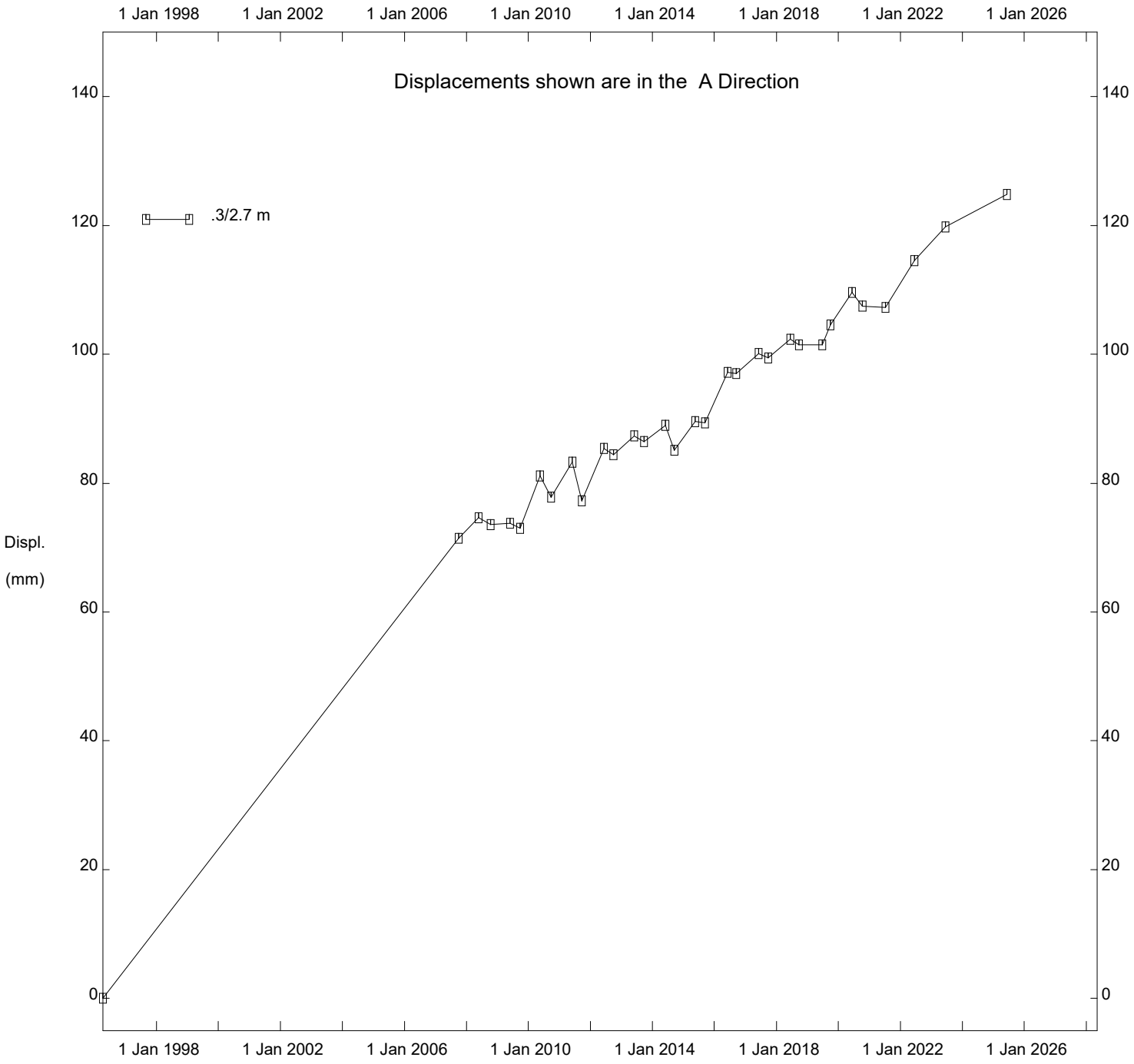

HWY 986:01 - STA. 13+820, Inclinometer SI-9

Alberta Transportation

FIGURE PH043-1
PIEZOMETRIC ELEVATIONS FOR HWY 986:01 DAISHOWA EAST HILL

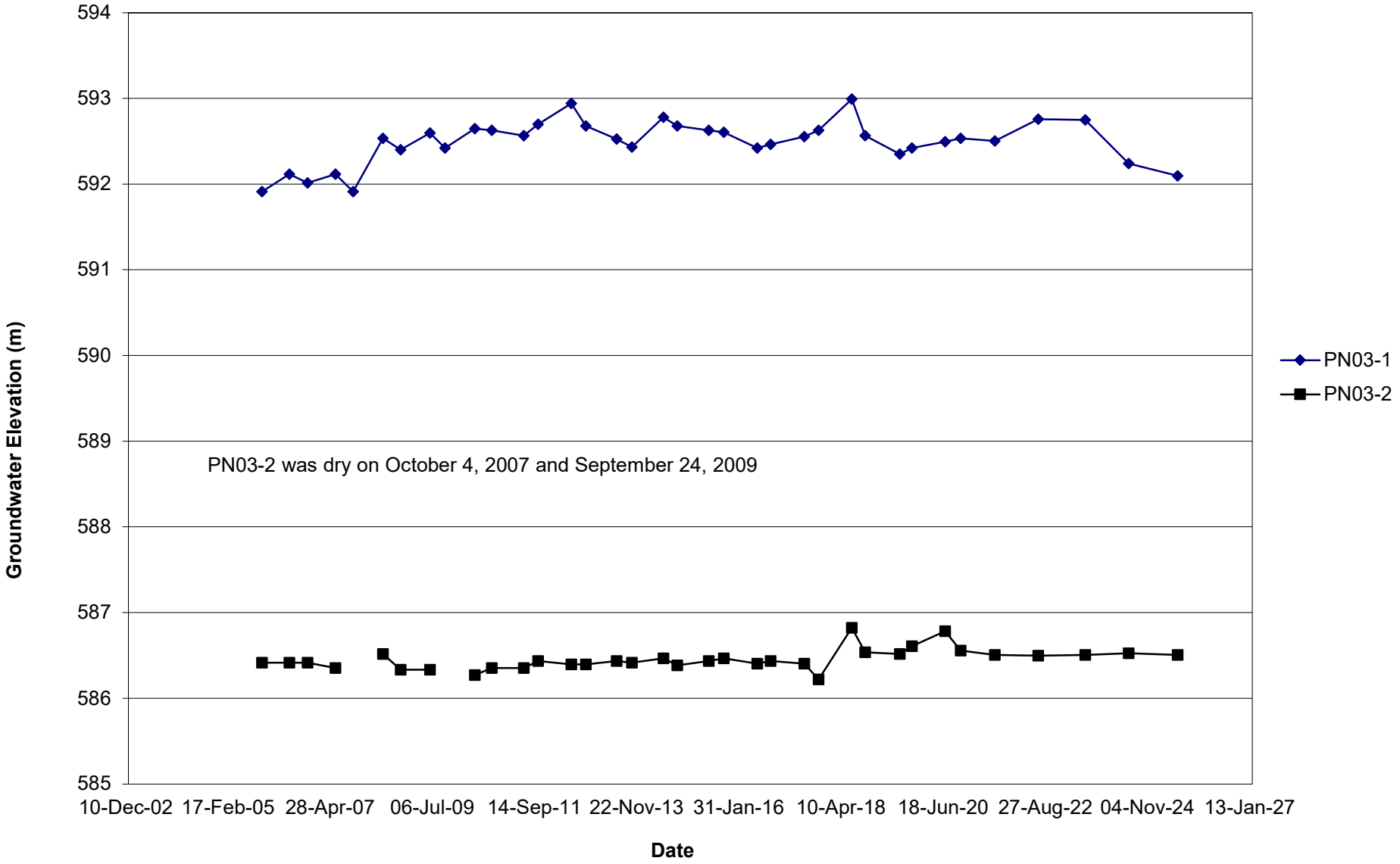

FIGURE PH043-2
PIEZOMETRIC DEPTHS FOR HWY 986:01 DAISHOWA EAST HILL